

THE COMET HANDBOOK FOR 2025

彗星年表 2025

彗星年表編集委員会発行
Published by the Editorial Committee
for the Comet Handbook

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Comet 29P/Schwassmann-Wachmann

Epoch = 2025 July 24.0 TT
 T = 2019 Apr. 30.93382 TT
 Peri. = 52.03176
 Node = 312.40318 2000.0
 Incl. = 9.35570
 q = 5.7948985 AU

e = 0.0432471
 a = 6.0568392 AU
 n = 0.06612033
 P = 14.91 years

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|----|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 10 10.27 | +08 51.4 | 5.540 | 6.254 | -0.24 +0.3 | . | 133.1 |
| Jan. 15 | 10 07.48 | +08 56.8 | 5.434 | 6.256 | -0.33 +0.8 | . | 144.0 |
| Jan. 25 | 10 03.89 | +09 06.8 | 5.352 | 6.258 | -0.40 +1.2 | . | 155.0 |
| Feb. 4 | 09 59.70 | +09 20.7 | 5.299 | 6.260 | -0.44 +1.5 | . | 166.1 |
| Feb. 14 | 09 55.17 | +09 36.9 | 5.276 | 6.262 | -0.46 +1.7 | . | 176.3 |
| Feb. 24 | 09 50.59 | +09 54.2 | 5.285 | 6.264 | -0.45 +1.7 | . | 170.7 |
| Mar. 6 | 09 46.25 | +10 11.1 | 5.325 | 6.265 | -0.41 +1.6 | . | 159.8 |
| Mar. 16 | 09 42.43 | +10 26.2 | 5.394 | 6.267 | -0.34 +1.4 | . | 148.9 |
| Mar. 26 | 09 39.35 | +10 38.3 | 5.489 | 6.269 | -0.26 +1.0 | . | 138.3 |
| Apr. 5 | 09 37.18 | +10 46.7 | 5.607 | 6.270 | -0.16 +0.6 | . | 127.8 |
| Apr. 15 | 09 36.00 | +10 50.8 | 5.742 | 6.272 | -0.06 +0.2 | . | 117.8 |
| Apr. 25 | 09 35.86 | +10 50.3 | 5.890 | 6.274 | +0.04 -0.3 | . | 108.0 |
| May 5 | 09 36.74 | +10 45.0 | 6.046 | 6.275 | +0.14 -0.8 | . | 98.5 |
| May 15 | 09 38.60 | +10 34.9 | 6.207 | 6.277 | +0.24 -1.3 | . | 89.4 |
| May 25 | 09 41.35 | +10 20.3 | 6.366 | 6.279 | +0.32 -1.7 | . | 80.5 |
| June 4 | 09 44.92 | +10 01.2 | 6.522 | 6.280 | +0.40 -2.1 | . | 71.8 |
| June 14 | 09 49.20 | +09 37.9 | 6.670 | 6.282 | +0.46 -2.5 | . | 63.4 |
| June 24 | 09 54.11 | +09 10.7 | 6.808 | 6.283 | +0.52 -2.9 | . | 55.2 |
| July 4 | 09 59.54 | +08 39.9 | 6.932 | 6.285 | +0.57 -3.3 | . | 47.1 |
| July 14 | 10 05.40 | +08 05.8 | 7.041 | 6.286 | +0.61 -3.6 | . | 39.2 |
| July 24 | 10 11.61 | +07 28.7 | 7.133 | 6.287 | +0.64 -3.9 | . | 31.3 |
| Aug. 3 | 10 18.09 | +06 49.0 | 7.206 | 6.289 | +0.66 -4.1 | . | 23.6 |
| Aug. 13 | 10 24.75 | +06 07.0 | 7.258 | 6.290 | +0.67 -4.3 | . | 15.9 |
| Aug. 23 | 10 31.53 | +05 23.0 | 7.290 | 6.291 | +0.68 -4.5 | . | 8.6 |
| Sept. 2 | 10 38.34 | +04 37.6 | 7.299 | 6.293 | +0.68 -4.6 | . | 3.7 |
| Sept. 12 | 10 45.12 | +03 51.2 | 7.287 | 6.294 | +0.67 -4.7 | . | 8.7 |
| Sept. 22 | 10 51.79 | +03 04.1 | 7.253 | 6.295 | +0.66 -4.7 | . | 16.2 |
| Oct. 2 | 10 58.27 | +02 16.8 | 7.197 | 6.296 | +0.64 -4.7 | . | 24.1 |
| Oct. 12 | 11 04.50 | +01 30.0 | 7.120 | 6.298 | +0.60 -4.6 | . | 32.2 |
| Oct. 22 | 11 10.38 | +00 44.1 | 7.024 | 6.299 | +0.57 -4.5 | . | 40.4 |
| Nov. 1 | 11 15.83 | +00 00.3 | 6.910 | 6.300 | +0.52 -4.3 | . | 48.8 |
| Nov. 11 | 11 20.76 | +00 42.5 | 6.780 | 6.301 | +0.46 -4.1 | . | 57.3 |
| Nov. 21 | 11 25.08 | -01 22.0 | 6.637 | 6.302 | +0.39 -3.8 | . | 66.1 |
| Dec. 1 | 11 28.68 | -01 57.9 | 6.483 | 6.303 | +0.32 -3.4 | . | 75.2 |
| Dec. 11 | 11 31.49 | -02 29.6 | 6.323 | 6.304 | +0.23 -2.9 | . | 84.4 |
| Dec. 21 | 11 33.41 | -02 56.5 | 6.161 | 6.305 | +0.14 -2.4 | . | 93.9 |
| Dec. 31 | 11 34.37 | -03 17.8 | 6.000 | 6.306 | +0.04 -1.8 | . | 103.7 |
| Jan. 10 | 11 34.33 | -03 33.0 | 5.846 | 6.307 | -0.06 -1.2 | . | 113.7 |
| Jan. 20 | 11 33.28 | -03 41.6 | 5.704 | 6.307 | -0.16 -0.5 | . | 124.0 |
| Jan. 30 | 11 31.26 | -03 43.5 | 5.579 | 6.308 | -0.25 +0.2 | . | 134.5 |
| Feb. 9 | 11 28.37 | -03 38.7 | 5.474 | 6.309 | -0.33 +0.8 | . | 145.2 |
| Feb. 19 | 11 24.77 | -03 27.7 | 5.395 | 6.310 | -0.39 +1.4 | . | 155.8 |
| Mar. 1 | 11 20.66 | -03 11.5 | 5.345 | 6.311 | -0.43 +1.9 | . | 166.1 |
| Mar. 11 | 11 16.31 | -02 51.4 | 5.324 | 6.311 | -0.44 +2.2 | . | 173.0 |
| Mar. 21 | 11 11.99 | -02 28.8 | 5.335 | 6.312 | -0.42 +2.3 | . | 167.7 |
| Mar. 31 | 11 07.99 | -02 05.7 | 5.376 | 6.313 | -0.37 +2.3 | . | 157.8 |

Comet C/2017 K2 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2022 Dec. 18.48736 TT
 Peri. = 236.16939
 Node = 88.22205 2000.0
 Incl. = 87.64167
 q = 1.7999113 AU
 e = 0.9988971

$$m1 = 4.6 + 5 \log(\Delta) + 7.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|--------|--------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 05 41.90 | +21 23.6 | 6.729 | 7.666 | -0.59 | +2.0 | 15.4 | 161.1 |
| Jan. 15 | 05 36.30 | +21 43.4 | 6.877 | 7.743 | -0.52 | +1.9 | 15.5 | 149.7 |
| Jan. 25 | 05 31.46 | +22 02.4 | 7.055 | 7.819 | -0.44 | +1.9 | 15.5 | 138.5 |
| Feb. 4 | 05 27.54 | +22 20.7 | 7.257 | 7.895 | -0.34 | +1.8 | 15.6 | 127.4 |
| Feb. 14 | 05 24.63 | +22 38.4 | 7.479 | 7.971 | -0.23 | +1.7 | 15.7 | 116.7 |
| Feb. 24 | 05 22.75 | +22 55.7 | 7.715 | 8.046 | -0.13 | +1.7 | 15.8 | 106.2 |
| Mar. 6 | 05 21.87 | +23 12.8 | 7.959 | 8.122 | -0.03 | +1.7 | 15.9 | 95.9 |
| Mar. 16 | 05 21.95 | +23 29.6 | 8.206 | 8.197 | +0.06 | +1.7 | 16.0 | 86.0 |
| Mar. 26 | 05 22.91 | +23 46.2 | 8.451 | 8.272 | +0.14 | +1.7 | 16.1 | 76.3 |
| Apr. 5 | 05 24.64 | +24 02.7 | 8.689 | 8.346 | +0.21 | +1.6 | 16.2 | 66.8 |
| Apr. 15 | 05 27.06 | +24 18.9 | 8.916 | 8.421 | +0.27 | +1.6 | 16.3 | 57.6 |
| Apr. 25 | 05 30.04 | +24 34.7 | 9.128 | 8.495 | +0.33 | +1.6 | 16.4 | 48.5 |
| May 5 | 05 33.50 | +24 50.2 | 9.321 | 8.568 | +0.37 | +1.5 | 16.4 | 39.6 |
| May 15 | 05 37.33 | +25 05.3 | 9.494 | 8.642 | +0.40 | +1.5 | 16.5 | 30.8 |
| May 25 | 05 41.44 | +25 20.0 | 9.645 | 8.716 | +0.42 | +1.4 | 16.6 | 22.2 |
| June 4 | 05 45.72 | +25 34.3 | 9.771 | 8.789 | +0.43 | +1.4 | 16.6 | 13.7 |
| June 14 | 05 50.09 | +25 48.2 | 9.872 | 8.862 | +0.44 | +1.4 | 16.7 | 5.5 |
| June 24 | 05 54.47 | +26 01.8 | 9.947 | 8.934 | +0.43 | +1.3 | 16.7 | 4.5 |
| July 4 | 05 58.76 | +26 15.1 | 9.997 | 9.007 | +0.42 | +1.3 | 16.8 | 12.5 |
| July 14 | 06 02.88 | +26 28.4 | 10.020 | 9.079 | +0.40 | +1.3 | 16.8 | 21.0 |
| July 24 | 06 06.75 | +26 41.8 | 10.020 | 9.151 | +0.37 | +1.3 | 16.8 | 29.7 |
| Aug. 3 | 06 10.28 | +26 55.3 | 9.996 | 9.223 | +0.33 | +1.4 | 16.8 | 38.4 |
| Aug. 13 | 06 13.39 | +27 09.3 | 9.952 | 9.295 | +0.28 | +1.4 | 16.9 | 47.3 |
| Aug. 23 | 06 16.00 | +27 23.8 | 9.889 | 9.366 | +0.23 | +1.5 | 16.9 | 56.3 |
| Sept. 2 | 06 18.03 | +27 38.9 | 9.811 | 9.437 | +0.17 | +1.6 | 16.9 | 65.5 |
| Sept. 12 | 06 19.40 | +27 54.9 | 9.721 | 9.508 | +0.10 | +1.6 | 16.9 | 74.9 |
| Sept. 22 | 06 20.05 | +28 11.7 | 9.623 | 9.579 | +0.02 | +1.7 | 16.9 | 84.5 |
| Oct. 2 | 06 19.91 | +28 29.3 | 9.523 | 9.650 | -0.06 | +1.8 | 16.9 | 94.3 |
| Oct. 12 | 06 18.96 | +28 47.5 | 9.425 | 9.720 | -0.14 | +1.9 | 16.9 | 104.3 |
| Oct. 22 | 06 17.18 | +29 06.2 | 9.334 | 9.790 | -0.22 | +1.9 | 16.9 | 114.6 |
| Nov. 1 | 06 14.58 | +29 24.9 | 9.257 | 9.860 | -0.30 | +1.9 | 16.9 | 125.0 |
| Nov. 11 | 06 11.23 | +29 43.1 | 9.198 | 9.930 | -0.37 | +1.8 | 16.9 | 135.7 |
| Nov. 21 | 06 07.22 | +30 00.5 | 9.162 | 10.000 | -0.43 | +1.7 | 16.9 | 146.4 |
| Dec. 1 | 06 02.69 | +30 16.4 | 9.154 | 10.069 | -0.48 | +1.5 | 16.9 | 157.1 |
| Dec. 11 | 05 57.82 | +30 30.4 | 9.176 | 10.139 | -0.50 | +1.3 | 17.0 | 167.2 |
| Dec. 21 | 05 52.80 | +30 42.2 | 9.231 | 10.208 | -0.50 | +1.1 | 17.0 | 172.7 |
| Dec. 31 | 05 47.85 | +30 51.6 | 9.319 | 10.277 | -0.48 | +0.8 | 17.0 | 166.1 |
| Jan. 10 | 05 43.18 | +30 58.9 | 9.440 | 10.345 | -0.45 | +0.6 | 17.1 | 155.8 |
| Jan. 20 | 05 38.96 | +31 04.2 | 9.591 | 10.414 | -0.39 | +0.4 | 17.1 | 145.1 |
| Jan. 30 | 05 35.35 | +31 07.9 | 9.769 | 10.482 | -0.32 | +0.3 | 17.2 | 134.4 |
| Feb. 9 | 05 32.46 | +31 10.5 | 9.969 | 10.550 | -0.25 | +0.2 | 17.3 | 123.8 |
| Feb. 19 | 05 30.34 | +31 12.4 | 10.187 | 10.618 | -0.17 | +0.2 | 17.3 | 113.4 |
| Mar. 1 | 05 29.02 | +31 14.0 | 10.417 | 10.686 | -0.09 | +0.2 | 17.4 | 103.1 |
| Mar. 11 | 05 28.50 | +31 15.8 | 10.654 | 10.754 | -0.01 | +0.2 | 17.5 | 93.1 |
| Mar. 21 | 05 28.74 | +31 17.9 | 10.892 | 10.821 | +0.06 | +0.2 | 17.5 | 83.3 |
| Mar. 31 | 05 29.67 | +31 20.6 | 11.126 | 10.888 | +0.13 | +0.3 | 17.6 | 73.7 |

Comet C/2019 U5 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2023 Mar. 29.42913 TT
 Peri. = 181.44870
 Node = 2.61161 2000.0
 Incl. = 113.51264
 q = 3.6242754 AU
 e = 1.0001494

$$m1 = 6.0 + 5 \log(\Delta) + 7.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 06 23.57 | -51 12.6 | 6.221 | 6.555 | -1.42 | +2.1 | 16.1 | 105.6 |
| Jan. 15 | 06 09.86 | -50 42.2 | 6.295 | 6.619 | -1.30 | +4.2 | 16.2 | 105.0 |
| Jan. 25 | 05 57.53 | -49 52.6 | 6.385 | 6.682 | -1.14 | +5.9 | 16.2 | 103.4 |
| Feb. 4 | 05 46.97 | -48 47.8 | 6.491 | 6.746 | -0.95 | +7.2 | 16.3 | 100.9 |
| Feb. 14 | 05 38.39 | -47 32.2 | 6.608 | 6.810 | -0.75 | +8.0 | 16.3 | 97.6 |
| Feb. 24 | 05 31.81 | -46 10.0 | 6.736 | 6.874 | -0.55 | +8.4 | 16.4 | 93.8 |
| Mar. 6 | 05 27.14 | -44 45.3 | 6.872 | 6.937 | -0.37 | +8.5 | 16.5 | 89.7 |
| Mar. 16 | 05 24.19 | -43 21.5 | 7.011 | 7.001 | -0.21 | +8.2 | 16.6 | 85.3 |
| Mar. 26 | 05 22.76 | -42 01.2 | 7.152 | 7.065 | -0.07 | +7.7 | 16.6 | 81.0 |
| Apr. 5 | 05 22.64 | -40 46.6 | 7.292 | 7.129 | +0.05 | +7.1 | 16.7 | 76.7 |
| Apr. 15 | 05 23.60 | -39 39.4 | 7.427 | 7.193 | +0.15 | +6.3 | 16.8 | 72.7 |
| Apr. 25 | 05 25.44 | -38 40.6 | 7.556 | 7.257 | +0.23 | +5.4 | 16.8 | 69.0 |
| May 5 | 05 27.99 | -37 51.0 | 7.676 | 7.321 | +0.29 | +4.4 | 16.9 | 65.8 |
| May 15 | 05 31.08 | -37 11.3 | 7.785 | 7.384 | +0.33 | +3.4 | 17.0 | 63.2 |
| May 25 | 05 34.55 | -36 41.6 | 7.883 | 7.448 | +0.36 | +2.4 | 17.0 | 61.2 |
| June 4 | 05 38.26 | -36 22.2 | 7.968 | 7.512 | +0.38 | +1.4 | 17.1 | 60.0 |
| June 14 | 05 42.08 | -36 13.0 | 8.040 | 7.576 | +0.38 | +0.4 | 17.1 | 59.5 |
| June 24 | 05 45.89 | -36 13.9 | 8.098 | 7.640 | +0.38 | -0.6 | 17.2 | 59.9 |
| July 4 | 05 49.57 | -36 24.8 | 8.143 | 7.704 | +0.35 | -1.6 | 17.2 | 61.1 |
| July 14 | 05 52.98 | -36 45.2 | 8.175 | 7.767 | +0.32 | -2.5 | 17.2 | 63.0 |
| July 24 | 05 56.02 | -37 14.7 | 8.195 | 7.831 | +0.28 | -3.4 | 17.3 | 65.6 |
| Aug. 3 | 05 58.56 | -37 52.8 | 8.205 | 7.895 | +0.22 | -4.2 | 17.3 | 68.8 |
| Aug. 13 | 06 00.47 | -38 38.6 | 8.205 | 7.959 | +0.15 | -5.0 | 17.3 | 72.5 |
| Aug. 23 | 06 01.63 | -39 31.2 | 8.198 | 8.022 | +0.07 | -5.6 | 17.4 | 76.5 |
| Sept. 2 | 06 01.91 | -40 29.4 | 8.186 | 8.086 | -0.03 | -6.1 | 17.4 | 80.8 |
| Sept. 12 | 06 01.19 | -41 31.6 | 8.171 | 8.149 | -0.13 | -6.4 | 17.4 | 85.2 |
| Sept. 22 | 05 59.36 | -42 36.1 | 8.157 | 8.213 | -0.25 | -6.5 | 17.4 | 89.7 |
| Oct. 2 | 05 56.31 | -43 40.8 | 8.145 | 8.276 | -0.37 | -6.4 | 17.4 | 94.0 |
| Oct. 12 | 05 52.00 | -44 43.4 | 8.139 | 8.340 | -0.50 | -6.0 | 17.5 | 98.2 |
| Oct. 22 | 05 46.42 | -45 41.2 | 8.141 | 8.403 | -0.63 | -5.4 | 17.5 | 101.9 |
| Nov. 1 | 05 39.63 | -46 31.5 | 8.154 | 8.466 | -0.74 | -4.5 | 17.5 | 105.0 |
| Nov. 11 | 05 31.79 | -47 11.9 | 8.180 | 8.529 | -0.83 | -3.4 | 17.5 | 107.5 |
| Nov. 21 | 05 23.12 | -47 40.2 | 8.220 | 8.593 | -0.90 | -2.1 | 17.6 | 109.0 |
| Dec. 1 | 05 13.95 | -47 54.7 | 8.275 | 8.656 | -0.93 | -0.7 | 17.6 | 109.6 |
| Dec. 11 | 05 04.65 | -47 54.8 | 8.347 | 8.719 | -0.92 | +0.8 | 17.7 | 109.1 |
| Dec. 21 | 04 55.59 | -47 40.4 | 8.434 | 8.782 | -0.88 | +2.2 | 17.7 | 107.6 |
| Dec. 31 | 04 47.14 | -47 12.5 | 8.535 | 8.845 | -0.80 | +3.5 | 17.8 | 105.2 |
| Jan. 10 | 04 39.59 | -46 32.9 | 8.650 | 8.907 | -0.70 | +4.5 | 17.8 | 102.0 |
| Jan. 20 | 04 33.13 | -45 43.6 | 8.777 | 8.970 | -0.58 | +5.4 | 17.9 | 98.2 |
| Jan. 30 | 04 27.90 | -44 47.1 | 8.912 | 9.033 | -0.45 | +5.9 | 17.9 | 93.9 |
| Feb. 9 | 04 23.91 | -43 45.9 | 9.054 | 9.095 | -0.33 | +6.3 | 18.0 | 89.3 |
| Feb. 19 | 04 21.14 | -42 42.3 | 9.198 | 9.158 | -0.21 | +6.4 | 18.0 | 84.6 |
| Mar. 1 | 04 19.52 | -41 38.6 | 9.344 | 9.220 | -0.10 | +6.3 | 18.1 | 79.8 |
| Mar. 11 | 04 18.93 | -40 36.4 | 9.486 | 9.283 | -0.01 | +6.1 | 18.1 | 75.2 |
| Mar. 21 | 04 19.27 | -39 37.4 | 9.624 | 9.345 | +0.08 | +5.7 | 18.2 | 70.9 |
| Mar. 31 | 04 20.40 | -38 42.8 | 9.754 | 9.407 | +0.15 | +5.2 | 18.2 | 66.9 |

Comet C/2020 K1 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2023 May 8.73045 TT
 Peri. = 213.97015
 Node = 94.36669 2000.0
 Incl. = 89.67108
 q = 3.0741026 AU
 e = 0.9987059

$$m1 = 5.4 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 05 59.85 | -39 22.9 | 5.762 | 6.259 | -0.83 | +7.0 | 17.2 | 116.2 |
| Jan. 15 | 05 52.02 | -38 06.3 | 5.851 | 6.328 | -0.72 | +8.4 | 17.2 | 114.9 |
| Jan. 25 | 05 45.38 | -36 36.8 | 5.959 | 6.397 | -0.59 | +9.5 | 17.3 | 112.3 |
| Feb. 4 | 05 40.11 | -34 57.7 | 6.085 | 6.467 | -0.45 | +10.3 | 17.4 | 108.5 |
| Feb. 14 | 05 36.28 | -33 13.0 | 6.228 | 6.536 | -0.30 | +10.7 | 17.5 | 103.9 |
| Feb. 24 | 05 33.89 | -31 25.8 | 6.383 | 6.605 | -0.16 | +10.7 | 17.6 | 98.7 |
| Mar. 6 | 05 32.84 | -29 39.3 | 6.549 | 6.674 | -0.03 | +10.5 | 17.7 | 92.9 |
| Mar. 16 | 05 33.01 | -27 55.9 | 6.722 | 6.743 | +0.08 | +10.1 | 17.8 | 87.0 |
| Mar. 26 | 05 34.28 | -26 17.6 | 6.899 | 6.812 | +0.18 | +9.5 | 17.9 | 80.9 |
| Apr. 5 | 05 36.48 | -24 45.8 | 7.076 | 6.881 | +0.27 | +8.8 | 18.0 | 74.8 |
| Apr. 15 | 05 39.47 | -23 21.6 | 7.249 | 6.950 | +0.34 | +8.0 | 18.1 | 68.8 |
| Apr. 25 | 05 43.12 | -22 05.6 | 7.417 | 7.019 | +0.40 | +7.1 | 18.2 | 63.0 |
| May 5 | 05 47.29 | -20 58.2 | 7.577 | 7.087 | +0.44 | +6.3 | 18.3 | 57.6 |
| May 15 | 05 51.85 | -19 59.5 | 7.725 | 7.156 | +0.47 | +5.4 | 18.4 | 52.6 |
| May 25 | 05 56.70 | -19 09.6 | 7.859 | 7.225 | +0.50 | +4.5 | 18.5 | 48.2 |
| June 4 | 06 01.72 | -18 28.4 | 7.979 | 7.293 | +0.51 | +3.7 | 18.5 | 44.7 |
| June 14 | 06 06.83 | -17 55.5 | 8.082 | 7.362 | +0.51 | +2.8 | 18.6 | 42.2 |
| June 24 | 06 11.91 | -17 30.8 | 8.168 | 7.430 | +0.50 | +2.0 | 18.7 | 40.9 |
| July 4 | 06 16.89 | -17 13.9 | 8.235 | 7.498 | +0.49 | +1.3 | 18.7 | 41.0 |
| July 14 | 06 21.66 | -17 04.3 | 8.284 | 7.566 | +0.46 | +0.6 | 18.8 | 42.5 |
| July 24 | 06 26.16 | -17 01.7 | 8.314 | 7.634 | +0.43 | -0.1 | 18.8 | 45.3 |
| Aug. 3 | 06 30.29 | -17 05.5 | 8.327 | 7.702 | +0.39 | -0.7 | 18.9 | 49.2 |
| Aug. 13 | 06 33.95 | -17 15.1 | 8.322 | 7.770 | +0.34 | -1.3 | 18.9 | 54.0 |
| Aug. 23 | 06 37.08 | -17 29.9 | 8.302 | 7.838 | +0.28 | -1.7 | 18.9 | 59.5 |
| Sept. 2 | 06 39.59 | -17 49.0 | 8.268 | 7.905 | +0.21 | -2.1 | 19.0 | 65.6 |
| Sept. 12 | 06 41.39 | -18 11.6 | 8.223 | 7.973 | +0.14 | -2.4 | 19.0 | 72.2 |
| Sept. 22 | 06 42.43 | -18 36.6 | 8.169 | 8.040 | +0.06 | -2.6 | 19.0 | 79.1 |
| Oct. 2 | 06 42.62 | -19 02.9 | 8.109 | 8.107 | -0.03 | -2.6 | 19.0 | 86.4 |
| Oct. 12 | 06 41.93 | -19 29.0 | 8.048 | 8.175 | -0.12 | -2.5 | 19.1 | 93.8 |
| Oct. 22 | 06 40.34 | -19 53.5 | 7.989 | 8.242 | -0.21 | -2.3 | 19.1 | 101.3 |
| Nov. 1 | 06 37.85 | -20 14.7 | 7.936 | 8.309 | -0.30 | -1.9 | 19.1 | 108.8 |
| Nov. 11 | 06 34.53 | -20 31.0 | 7.894 | 8.376 | -0.38 | -1.3 | 19.1 | 116.0 |
| Nov. 21 | 06 30.45 | -20 40.8 | 7.866 | 8.442 | -0.44 | -0.6 | 19.1 | 122.8 |
| Dec. 1 | 06 25.76 | -20 42.8 | 7.857 | 8.509 | -0.50 | +0.3 | 19.2 | 128.7 |
| Dec. 11 | 06 20.66 | -20 35.8 | 7.870 | 8.575 | -0.53 | +1.2 | 19.2 | 133.3 |
| Dec. 21 | 06 15.33 | -20 19.5 | 7.907 | 8.642 | -0.54 | +2.2 | 19.3 | 136.0 |
| Dec. 31 | 06 10.03 | -19 53.6 | 7.970 | 8.708 | -0.52 | +3.1 | 19.3 | 136.4 |
| Jan. 10 | 06 04.97 | -19 18.8 | 8.058 | 8.774 | -0.48 | +3.9 | 19.4 | 134.4 |
| Jan. 20 | 06 00.35 | -18 36.2 | 8.172 | 8.840 | -0.43 | +4.6 | 19.4 | 130.3 |
| Jan. 30 | 05 56.34 | -17 47.2 | 8.309 | 8.906 | -0.36 | +5.2 | 19.5 | 124.7 |
| Feb. 9 | 05 53.08 | -16 53.4 | 8.467 | 8.972 | -0.28 | +5.6 | 19.6 | 118.0 |
| Feb. 19 | 05 50.62 | -15 56.6 | 8.642 | 9.038 | -0.20 | +5.8 | 19.6 | 110.6 |
| Mar. 1 | 05 49.00 | -14 58.5 | 8.831 | 9.103 | -0.12 | +5.8 | 19.7 | 102.9 |
| Mar. 11 | 05 48.21 | -14 00.5 | 9.028 | 9.169 | -0.03 | +5.7 | 19.8 | 95.0 |
| Mar. 21 | 05 48.22 | -13 04.0 | 9.231 | 9.234 | +0.04 | +5.5 | 19.9 | 87.1 |
| Mar. 31 | 05 48.97 | -12 10.1 | 9.434 | 9.299 | +0.11 | +5.2 | 20.0 | 79.3 |

Comet C/2021 A9 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2023 Dec. 2.61460 TT
 Peri. = 211.51770
 Node = 314.83385 2000.0
 Incl. = 158.01306
 q = 7.7606171 AU
 e = 1.0010167

$$m1 = 0.7 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 05 11.36 | +02 32.6 | 7.304 | 8.140 | -0.74 | -0.4 | 18.7 | 146.3 |
| Jan. 15 | 05 04.30 | +02 30.9 | 7.419 | 8.159 | -0.66 | +0.1 | 18.7 | 136.3 |
| Jan. 25 | 04 58.04 | +02 33.7 | 7.562 | 8.178 | -0.58 | +0.5 | 18.8 | 125.9 |
| Feb. 4 | 04 52.71 | +02 40.3 | 7.727 | 8.197 | -0.48 | +0.8 | 18.8 | 115.3 |
| Feb. 14 | 04 48.37 | +02 50.0 | 7.908 | 8.217 | -0.38 | +1.1 | 18.9 | 104.9 |
| Feb. 24 | 04 45.03 | +03 02.0 | 8.099 | 8.237 | -0.28 | +1.3 | 19.0 | 94.6 |
| Mar. 6 | 04 42.67 | +03 15.4 | 8.293 | 8.258 | -0.18 | +1.4 | 19.0 | 84.6 |
| Mar. 16 | 04 41.22 | +03 29.5 | 8.484 | 8.279 | -0.10 | +1.4 | 19.1 | 74.8 |
| Mar. 26 | 04 40.59 | +03 43.5 | 8.668 | 8.300 | -0.02 | +1.4 | 19.2 | 65.3 |
| Apr. 5 | 04 40.68 | +03 56.9 | 8.839 | 8.322 | +0.05 | +1.3 | 19.2 | 56.1 |
| Apr. 15 | 04 41.39 | +04 09.0 | 8.993 | 8.344 | +0.10 | +1.1 | 19.3 | 47.2 |
| Apr. 25 | 04 42.61 | +04 19.5 | 9.128 | 8.367 | +0.15 | +0.9 | 19.3 | 38.7 |
| May 5 | 04 44.24 | +04 27.8 | 9.239 | 8.389 | +0.18 | +0.7 | 19.4 | 30.9 |
| May 15 | 04 46.17 | +04 33.7 | 9.326 | 8.413 | +0.21 | +0.4 | 19.4 | 24.0 |
| May 25 | 04 48.30 | +04 36.9 | 9.386 | 8.436 | +0.22 | +0.2 | 19.5 | 19.1 |
| June 4 | 04 50.52 | +04 37.0 | 9.420 | 8.460 | +0.22 | -0.2 | 19.5 | 17.8 |
| June 14 | 04 52.74 | +04 33.9 | 9.427 | 8.484 | +0.22 | -0.5 | 19.5 | 20.6 |
| June 24 | 04 54.87 | +04 27.4 | 9.408 | 8.509 | +0.20 | -0.8 | 19.5 | 26.3 |
| July 4 | 04 56.80 | +04 17.4 | 9.363 | 8.534 | +0.18 | -1.2 | 19.5 | 33.5 |
| July 14 | 04 58.43 | +04 03.9 | 9.295 | 8.559 | +0.14 | -1.6 | 19.5 | 41.4 |
| July 24 | 04 59.69 | +03 46.7 | 9.206 | 8.585 | +0.10 | -1.9 | 19.5 | 49.7 |
| Aug. 3 | 05 00.46 | +03 25.9 | 9.098 | 8.610 | +0.05 | -2.3 | 19.5 | 58.4 |
| Aug. 13 | 05 00.66 | +03 01.6 | 8.975 | 8.637 | -0.01 | -2.6 | 19.5 | 67.4 |
| Aug. 23 | 05 00.20 | +02 33.9 | 8.842 | 8.663 | -0.09 | -2.9 | 19.5 | 76.6 |
| Sept. 2 | 04 59.00 | +02 03.2 | 8.702 | 8.690 | -0.16 | -3.2 | 19.5 | 86.0 |
| Sept. 12 | 04 57.00 | +01 30.0 | 8.561 | 8.717 | -0.25 | -3.5 | 19.5 | 95.6 |
| Sept. 22 | 04 54.15 | +00 54.6 | 8.424 | 8.745 | -0.33 | -3.6 | 19.5 | 105.4 |
| Oct. 2 | 04 50.42 | +00 18.0 | 8.297 | 8.772 | -0.42 | -3.7 | 19.4 | 115.4 |
| Oct. 12 | 04 45.85 | +00 18.9 | 8.186 | 8.801 | -0.50 | -3.7 | 19.4 | 125.3 |
| Oct. 22 | 04 40.49 | +00 55.1 | 8.097 | 8.829 | -0.58 | -3.5 | 19.4 | 135.0 |
| Nov. 1 | 04 34.45 | -01 29.4 | 8.034 | 8.858 | -0.64 | -3.3 | 19.4 | 144.1 |
| Nov. 11 | 04 27.89 | -02 00.6 | 8.002 | 8.886 | -0.68 | -2.9 | 19.4 | 151.7 |
| Nov. 21 | 04 21.01 | -02 27.5 | 8.004 | 8.916 | -0.70 | -2.4 | 19.5 | 156.0 |
| Dec. 1 | 04 14.03 | -02 49.3 | 8.040 | 8.945 | -0.69 | -1.9 | 19.5 | 155.2 |
| Dec. 11 | 04 07.19 | -03 05.4 | 8.112 | 8.975 | -0.67 | -1.3 | 19.5 | 149.6 |
| Dec. 21 | 04 00.71 | -03 15.3 | 8.216 | 9.005 | -0.62 | -0.7 | 19.6 | 141.3 |
| Dec. 31 | 03 54.78 | -03 19.3 | 8.350 | 9.035 | -0.56 | -0.1 | 19.6 | 131.8 |
| Jan. 10 | 03 49.55 | -03 17.7 | 8.508 | 9.066 | -0.48 | +0.4 | 19.7 | 121.9 |
| Jan. 20 | 03 45.13 | -03 11.2 | 8.686 | 9.097 | -0.40 | +0.9 | 19.8 | 111.7 |
| Jan. 30 | 03 41.56 | -03 00.6 | 8.878 | 9.128 | -0.31 | +1.3 | 19.8 | 101.6 |
| Feb. 9 | 03 38.86 | -02 46.7 | 9.077 | 9.159 | -0.22 | +1.5 | 19.9 | 91.6 |
| Feb. 19 | 03 37.01 | -02 30.6 | 9.278 | 9.190 | -0.14 | +1.7 | 20.0 | 81.8 |
| Mar. 1 | 03 35.94 | -02 13.0 | 9.475 | 9.222 | -0.07 | +1.8 | 20.1 | 72.3 |
| Mar. 11 | 03 35.58 | -01 54.7 | 9.663 | 9.254 | 0.00 | +1.8 | 20.1 | 63.0 |
| Mar. 21 | 03 35.86 | -01 36.6 | 9.837 | 9.287 | +0.06 | +1.8 | 20.2 | 54.0 |
| Mar. 31 | 03 36.68 | -01 19.3 | 9.994 | 9.319 | +0.11 | +1.7 | 20.2 | 45.3 |

Comet C/2021 S3 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2024 Feb. 14.66743 TT
 Peri. = 6.83505
 Node = 215.60588 2000.0
 Incl. = 58.54076
 q = 1.3196993 AU
 e = 0.9999936

$$m1 = 7.5 + 5 \log(\Delta) + 7.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 21 24.96 | +31 12.9 | 4.615 | 4.271 | +1.24 | -2.0 | 15.5 | 63.7 |
| Jan. 15 | 21 37.31 | +30 59.2 | 4.800 | 4.368 | +1.22 | -0.7 | 15.7 | 58.5 |
| Jan. 25 | 21 49.43 | +30 57.6 | 4.979 | 4.465 | +1.20 | +0.5 | 15.9 | 53.6 |
| Feb. 4 | 22 01.26 | +31 06.9 | 5.147 | 4.562 | +1.16 | +1.5 | 16.0 | 49.0 |
| Feb. 14 | 22 12.74 | +31 26.0 | 5.304 | 4.657 | +1.13 | +2.4 | 16.1 | 44.9 |
| Feb. 24 | 22 23.82 | +31 53.6 | 5.448 | 4.752 | +1.08 | +3.2 | 16.3 | 41.5 |
| Mar. 6 | 22 34.45 | +32 28.7 | 5.578 | 4.847 | +1.04 | +3.9 | 16.4 | 39.0 |
| Mar. 16 | 22 44.58 | +33 10.3 | 5.691 | 4.941 | +0.98 | +4.5 | 16.5 | 37.6 |
| Mar. 26 | 22 54.15 | +33 57.2 | 5.788 | 5.034 | +0.92 | +5.0 | 16.6 | 37.6 |
| Apr. 5 | 23 03.11 | +34 48.6 | 5.868 | 5.127 | +0.86 | +5.4 | 16.7 | 38.8 |
| Apr. 15 | 23 11.38 | +35 43.6 | 5.931 | 5.219 | +0.79 | +5.7 | 16.7 | 41.3 |
| Apr. 25 | 23 18.91 | +36 41.2 | 5.977 | 5.311 | +0.71 | +5.9 | 16.8 | 44.8 |
| May 5 | 23 25.61 | +37 40.7 | 6.007 | 5.402 | +0.62 | +6.0 | 16.9 | 49.2 |
| May 15 | 23 31.39 | +38 40.9 | 6.021 | 5.493 | +0.53 | +6.0 | 16.9 | 54.3 |
| May 25 | 23 36.18 | +39 41.0 | 6.022 | 5.583 | +0.42 | +6.0 | 17.0 | 59.9 |
| June 4 | 23 39.88 | +40 39.9 | 6.010 | 5.673 | +0.31 | +5.8 | 17.0 | 66.0 |
| June 14 | 23 42.38 | +41 36.3 | 5.988 | 5.762 | +0.18 | +5.4 | 17.1 | 72.4 |
| June 24 | 23 43.63 | +42 28.8 | 5.958 | 5.851 | +0.05 | +5.0 | 17.1 | 79.1 |
| July 4 | 23 43.53 | +43 15.8 | 5.923 | 5.939 | -0.08 | +4.3 | 17.2 | 86.0 |
| July 14 | 23 42.09 | +43 55.5 | 5.886 | 6.027 | -0.22 | +3.5 | 17.2 | 93.1 |
| July 24 | 23 39.32 | +44 26.2 | 5.851 | 6.115 | -0.35 | +2.5 | 17.2 | 100.3 |
| Aug. 3 | 23 35.30 | +44 45.8 | 5.821 | 6.201 | -0.46 | +1.3 | 17.3 | 107.4 |
| Aug. 13 | 23 30.24 | +44 52.6 | 5.801 | 6.288 | -0.56 | -0.1 | 17.3 | 114.4 |
| Aug. 23 | 23 24.37 | +44 45.4 | 5.793 | 6.374 | -0.62 | -1.5 | 17.3 | 121.1 |
| Sept. 2 | 23 18.05 | +44 23.5 | 5.802 | 6.460 | -0.64 | -3.0 | 17.4 | 127.0 |
| Sept. 12 | 23 11.64 | +43 47.0 | 5.830 | 6.545 | -0.63 | -4.4 | 17.4 | 131.9 |
| Sept. 22 | 23 05.51 | +42 57.0 | 5.880 | 6.629 | -0.58 | -5.7 | 17.5 | 135.2 |
| Oct. 2 | 23 00.03 | +41 55.7 | 5.954 | 6.714 | -0.50 | -6.6 | 17.6 | 136.4 |
| Oct. 12 | 22 55.45 | +40 45.9 | 6.052 | 6.798 | -0.40 | -7.3 | 17.7 | 135.3 |
| Oct. 22 | 22 51.97 | +39 30.7 | 6.174 | 6.881 | -0.28 | -7.7 | 17.7 | 132.1 |
| Nov. 1 | 22 49.68 | +38 13.5 | 6.320 | 6.964 | -0.16 | -7.7 | 17.8 | 127.2 |
| Nov. 11 | 22 48.61 | +36 57.4 | 6.486 | 7.047 | -0.04 | -7.4 | 17.9 | 121.0 |
| Nov. 21 | 22 48.71 | +35 44.9 | 6.670 | 7.130 | +0.07 | -6.9 | 18.0 | 114.0 |
| Dec. 1 | 22 49.92 | +34 38.5 | 6.869 | 7.212 | +0.18 | -6.3 | 18.1 | 106.5 |
| Dec. 11 | 22 52.11 | +33 39.5 | 7.079 | 7.293 | +0.27 | -5.4 | 18.2 | 98.7 |
| Dec. 21 | 22 55.18 | +32 48.9 | 7.295 | 7.375 | +0.35 | -4.6 | 18.3 | 90.8 |
| Dec. 31 | 22 58.99 | +32 07.4 | 7.513 | 7.456 | +0.42 | -3.6 | 18.4 | 82.9 |
| Jan. 10 | 23 03.41 | +31 35.1 | 7.730 | 7.536 | +0.47 | -2.7 | 18.5 | 75.1 |
| Jan. 20 | 23 08.34 | +31 11.8 | 7.941 | 7.617 | +0.52 | -1.8 | 18.6 | 67.4 |
| Jan. 30 | 23 13.65 | +30 57.1 | 8.143 | 7.697 | +0.55 | -1.0 | 18.7 | 59.9 |
| Feb. 9 | 23 19.24 | +30 50.5 | 8.333 | 7.776 | +0.57 | -0.2 | 18.8 | 52.8 |
| Feb. 19 | 23 25.01 | +30 51.4 | 8.508 | 7.856 | +0.58 | +0.5 | 18.9 | 46.2 |
| Mar. 1 | 23 30.86 | +30 59.0 | 8.665 | 7.935 | +0.59 | +1.1 | 18.9 | 40.2 |
| Mar. 11 | 23 36.72 | +31 12.5 | 8.804 | 8.013 | +0.58 | +1.7 | 19.0 | 35.3 |
| Mar. 21 | 23 42.49 | +31 31.3 | 8.921 | 8.092 | +0.57 | +2.1 | 19.1 | 31.8 |
| Mar. 31 | 23 48.10 | +31 54.7 | 9.018 | 8.170 | +0.55 | +2.6 | 19.1 | 30.2 |

Comet C/2022 L2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Mar. 12.16458 TT
 Peri. = 199.91978
 Node = 39.24675 2000.0
 Incl. = 129.31205
 q = 2.6933441 AU
 e = 1.0006225

$$m1 = 9.5 + 5 \log(\Delta) + 7.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 08 06.49 | -43 30.6 | 3.557 | 4.034 | -2.36 | +1.6 | 16.8 | 112.3 |
| Jan. 15 | 07 43.02 | -42 54.9 | 3.578 | 4.104 | -2.31 | +6.0 | 16.9 | 115.9 |
| Jan. 25 | 07 20.75 | -41 37.3 | 3.630 | 4.175 | -2.11 | +9.8 | 17.0 | 117.3 |
| Feb. 4 | 07 01.00 | -39 44.9 | 3.715 | 4.246 | -1.80 | +12.8 | 17.1 | 116.4 |
| Feb. 14 | 06 44.53 | -37 28.3 | 3.831 | 4.318 | -1.45 | +14.5 | 17.2 | 113.3 |
| Feb. 24 | 06 31.57 | -34 58.8 | 3.973 | 4.390 | -1.11 | +15.3 | 17.3 | 108.6 |
| Mar. 6 | 06 21.95 | -32 26.0 | 4.138 | 4.462 | -0.79 | +15.1 | 17.5 | 102.7 |
| Mar. 16 | 06 15.29 | -29 57.5 | 4.320 | 4.535 | -0.52 | +14.4 | 17.6 | 96.1 |
| Mar. 26 | 06 11.15 | -27 38.3 | 4.513 | 4.608 | -0.29 | +13.3 | 17.7 | 89.2 |
| Apr. 5 | 06 09.08 | -25 31.4 | 4.711 | 4.681 | -0.11 | +11.9 | 17.9 | 82.2 |
| Apr. 15 | 06 08.70 | -23 38.4 | 4.910 | 4.754 | +0.04 | +10.5 | 18.0 | 75.2 |
| Apr. 25 | 06 09.64 | -21 59.9 | 5.105 | 4.828 | +0.16 | +9.1 | 18.2 | 68.5 |
| May 5 | 06 11.63 | -20 35.8 | 5.292 | 4.902 | +0.25 | +7.6 | 18.3 | 62.1 |
| May 15 | 06 14.41 | -19 25.7 | 5.467 | 4.975 | +0.31 | +6.3 | 18.4 | 56.1 |
| May 25 | 06 17.77 | -18 29.1 | 5.628 | 5.049 | +0.36 | +5.0 | 18.5 | 50.8 |
| June 4 | 06 21.53 | -17 45.1 | 5.772 | 5.123 | +0.39 | +3.7 | 18.6 | 46.3 |
| June 14 | 06 25.51 | -17 13.3 | 5.897 | 5.197 | +0.40 | +2.6 | 18.7 | 42.8 |
| June 24 | 06 29.57 | -16 52.7 | 6.002 | 5.271 | +0.41 | +1.5 | 18.8 | 40.6 |
| July 4 | 06 33.59 | -16 42.9 | 6.086 | 5.346 | +0.39 | +0.4 | 18.9 | 39.9 |
| July 14 | 06 37.42 | -16 43.1 | 6.149 | 5.420 | +0.37 | -0.5 | 18.9 | 40.8 |
| July 24 | 06 40.95 | -16 52.7 | 6.190 | 5.494 | +0.33 | -1.5 | 19.0 | 43.2 |
| Aug. 3 | 06 44.05 | -17 11.2 | 6.211 | 5.568 | +0.28 | -2.3 | 19.1 | 46.9 |
| Aug. 13 | 06 46.59 | -17 37.7 | 6.213 | 5.642 | +0.22 | -3.1 | 19.1 | 51.7 |
| Aug. 23 | 06 48.45 | -18 11.6 | 6.197 | 5.716 | +0.14 | -3.8 | 19.1 | 57.4 |
| Sept. 2 | 06 49.49 | -18 51.9 | 6.166 | 5.790 | +0.05 | -4.3 | 19.2 | 63.7 |
| Sept. 12 | 06 49.58 | -19 37.5 | 6.121 | 5.864 | -0.05 | -4.8 | 19.2 | 70.6 |
| Sept. 22 | 06 48.60 | -20 27.1 | 6.068 | 5.938 | -0.16 | -5.1 | 19.2 | 77.8 |
| Oct. 2 | 06 46.43 | -21 19.0 | 6.009 | 6.012 | -0.29 | -5.2 | 19.2 | 85.4 |
| Oct. 12 | 06 42.97 | -22 11.2 | 5.949 | 6.086 | -0.42 | -5.1 | 19.3 | 93.1 |
| Oct. 22 | 06 38.17 | -23 01.3 | 5.893 | 6.159 | -0.55 | -4.8 | 19.3 | 100.9 |
| Nov. 1 | 06 32.03 | -23 46.5 | 5.846 | 6.233 | -0.68 | -4.1 | 19.3 | 108.5 |
| Nov. 11 | 06 24.64 | -24 24.0 | 5.813 | 6.306 | -0.80 | -3.2 | 19.3 | 115.7 |
| Nov. 21 | 06 16.17 | -24 50.9 | 5.798 | 6.379 | -0.90 | -2.0 | 19.4 | 122.2 |
| Dec. 1 | 06 06.89 | -25 04.8 | 5.806 | 6.453 | -0.96 | -0.6 | 19.4 | 127.4 |
| Dec. 11 | 05 57.14 | -25 04.0 | 5.841 | 6.526 | -0.98 | +0.9 | 19.4 | 130.7 |
| Dec. 21 | 05 47.34 | -24 47.9 | 5.903 | 6.599 | -0.97 | +2.5 | 19.5 | 131.7 |
| Dec. 31 | 05 37.90 | -24 16.9 | 5.994 | 6.671 | -0.91 | +3.9 | 19.6 | 130.3 |
| Jan. 10 | 05 29.17 | -23 32.6 | 6.112 | 6.744 | -0.82 | +5.1 | 19.6 | 126.6 |
| Jan. 20 | 05 21.45 | -22 37.4 | 6.256 | 6.817 | -0.71 | +6.0 | 19.7 | 121.1 |
| Jan. 30 | 05 14.93 | -21 34.0 | 6.422 | 6.889 | -0.58 | +6.7 | 19.8 | 114.5 |
| Feb. 9 | 05 09.71 | -20 25.6 | 6.606 | 6.961 | -0.45 | +7.0 | 19.9 | 107.2 |
| Feb. 19 | 05 05.80 | -19 14.6 | 6.803 | 7.034 | -0.32 | +7.1 | 20.0 | 99.5 |
| Mar. 1 | 05 03.15 | -18 03.6 | 7.009 | 7.106 | -0.20 | +7.0 | 20.1 | 91.6 |
| Mar. 11 | 05 01.67 | -16 54.4 | 7.219 | 7.178 | -0.09 | +6.8 | 20.2 | 83.7 |
| Mar. 21 | 05 01.24 | -15 48.5 | 7.428 | 7.249 | +0.01 | +6.4 | 20.3 | 75.9 |
| Mar. 31 | 05 01.73 | -14 47.1 | 7.631 | 7.321 | +0.09 | +5.9 | 20.4 | 68.3 |

Comet 130P/McNaught-Hughes

Epoch = 2025 July 24.0 TT
 T = 2024 Apr. 15.41101 TT
 Peri. = 246.37492 e = 0.4612724
 Node = 70.17570 2000.0 a = 3.3895807 AU
 Incl. = 6.05723 n = 0.15793744
 q = 1.8260607 AU P = 6.24 years

$$m1 = 9.0 + 5 \log(\Delta) + 15.0 \log(r(t-30))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' .0 | | | m | ' | | ° |
| Jan. 5 | 01 56.16 | +09 17.0 | 2.317 | 2.752 | +0.56 | +5.6 | 17.1 | 105.7 |
| Jan. 15 | 02 02.54 | +10 15.4 | 2.499 | 2.800 | +0.73 | +6.1 | 17.3 | 97.3 |
| Jan. 25 | 02 10.44 | +11 18.1 | 2.684 | 2.848 | +0.86 | +6.4 | 17.6 | 89.4 |
| Feb. 4 | 02 19.62 | +12 23.6 | 2.869 | 2.896 | +0.98 | +6.6 | 17.9 | 81.7 |
| Feb. 14 | 02 29.88 | +13 30.4 | 3.054 | 2.944 | +1.08 | +6.7 | 18.1 | 74.3 |
| Feb. 24 | 02 41.01 | +14 37.3 | 3.234 | 2.991 | +1.16 | +6.7 | 18.4 | 67.1 |
| Mar. 6 | 02 52.88 | +15 43.3 | 3.408 | 3.038 | +1.22 | +6.5 | 18.6 | 60.1 |
| Mar. 16 | 03 05.34 | +16 47.3 | 3.574 | 3.085 | +1.27 | +6.3 | 18.8 | 53.3 |
| Mar. 26 | 03 18.29 | +17 48.7 | 3.731 | 3.131 | +1.32 | +6.0 | 19.0 | 46.6 |
| Apr. 5 | 03 31.63 | +18 46.9 | 3.876 | 3.177 | +1.35 | +5.6 | 19.2 | 40.1 |
| Apr. 15 | 03 45.27 | +19 41.1 | 4.010 | 3.222 | +1.38 | +5.2 | 19.4 | 33.6 |
| Apr. 25 | 03 59.11 | +20 31.1 | 4.129 | 3.267 | +1.39 | +4.8 | 19.5 | 27.2 |
| May 5 | 04 13.11 | +21 16.5 | 4.235 | 3.311 | +1.40 | +4.3 | 19.7 | 20.8 |
| May 15 | 04 27.16 | +21 57.0 | 4.324 | 3.355 | +1.41 | +3.8 | 19.8 | 14.5 |
| May 25 | 04 41.20 | +22 32.6 | 4.398 | 3.398 | +1.40 | +3.3 | 19.9 | 8.2 |
| June 4 | 04 55.16 | +23 03.2 | 4.455 | 3.441 | +1.39 | +2.8 | 20.0 | 1.9 |
| June 14 | 05 08.97 | +23 28.9 | 4.495 | 3.483 | +1.37 | +2.3 | 20.1 | 4.6 |
| June 24 | 05 22.54 | +23 49.8 | 4.517 | 3.525 | +1.34 | +1.8 | 20.2 | 11.0 |
| July 4 | 05 35.79 | +24 06.3 | 4.522 | 3.566 | +1.30 | +1.4 | 20.3 | 17.5 |
| July 14 | 05 48.65 | +24 18.6 | 4.510 | 3.606 | +1.26 | +1.0 | 20.4 | 24.1 |
| July 24 | 06 01.02 | +24 27.3 | 4.481 | 3.646 | +1.21 | +0.7 | 20.5 | 30.8 |
| Aug. 3 | 06 12.81 | +24 32.8 | 4.436 | 3.685 | +1.14 | +0.4 | 20.5 | 37.7 |
| Aug. 13 | 06 23.90 | +24 35.8 | 4.375 | 3.724 | +1.07 | +0.2 | 20.6 | 44.7 |
| Aug. 23 | 06 34.20 | +24 37.0 | 4.299 | 3.762 | +0.98 | +0.1 | 20.6 | 52.0 |
| Sept. 2 | 06 43.57 | +24 37.3 | 4.210 | 3.799 | +0.88 | 0.0 | 20.6 | 59.6 |
| Sept. 12 | 06 51.87 | +24 37.5 | 4.109 | 3.836 | +0.77 | 0.0 | 20.6 | 67.4 |
| Sept. 22 | 06 58.96 | +24 38.4 | 3.999 | 3.872 | +0.64 | +0.2 | 20.6 | 75.5 |
| Oct. 2 | 07 04.65 | +24 41.0 | 3.883 | 3.908 | +0.49 | +0.4 | 20.6 | 84.0 |
| Oct. 12 | 07 08.80 | +24 46.2 | 3.763 | 3.943 | +0.32 | +0.7 | 20.6 | 93.0 |
| Oct. 22 | 07 11.22 | +24 54.6 | 3.644 | 3.977 | +0.14 | +1.0 | 20.6 | 102.4 |
| Nov. 1 | 07 11.76 | +25 06.7 | 3.529 | 4.011 | -0.05 | +1.4 | 20.6 | 112.2 |
| Nov. 11 | 07 10.33 | +25 22.2 | 3.424 | 4.044 | -0.25 | +1.7 | 20.6 | 122.6 |
| Nov. 21 | 07 06.91 | +25 40.8 | 3.334 | 4.077 | -0.45 | +2.0 | 20.6 | 133.4 |
| Dec. 1 | 07 01.61 | +26 01.3 | 3.264 | 4.108 | -0.62 | +2.1 | 20.6 | 144.7 |
| Dec. 11 | 06 54.72 | +26 21.9 | 3.219 | 4.140 | -0.76 | +2.0 | 20.6 | 156.3 |
| Dec. 21 | 06 46.70 | +26 40.9 | 3.203 | 4.170 | -0.84 | +1.7 | 20.7 | 168.0 |
| Dec. 31 | 06 38.14 | +26 56.5 | 3.219 | 4.200 | -0.86 | +1.3 | 20.7 | 176.2 |
| Jan. 10 | 06 29.74 | +27 07.9 | 3.267 | 4.230 | -0.81 | +0.9 | 20.8 | 166.7 |
| Jan. 20 | 06 22.13 | +27 14.7 | 3.346 | 4.259 | -0.69 | +0.5 | 20.9 | 155.1 |
| Jan. 30 | 06 15.87 | +27 17.6 | 3.454 | 4.287 | -0.54 | +0.1 | 21.0 | 143.6 |
| Feb. 9 | 06 11.29 | +27 17.5 | 3.586 | 4.315 | -0.36 | -0.1 | 21.2 | 132.5 |
| Feb. 19 | 06 08.57 | +27 15.4 | 3.738 | 4.342 | -0.17 | -0.3 | 21.3 | 121.8 |
| Mar. 1 | 06 07.75 | +27 12.1 | 3.904 | 4.368 | +0.02 | -0.4 | 21.4 | 111.6 |
| Mar. 11 | 06 08.75 | +27 08.1 | 4.081 | 4.394 | +0.19 | -0.4 | 21.6 | 101.9 |
| Mar. 21 | 06 11.40 | +27 03.7 | 4.262 | 4.419 | +0.35 | -0.5 | 21.7 | 92.5 |
| Mar. 31 | 06 15.54 | +26 58.8 | 4.443 | 4.443 | +0.49 | -0.5 | 21.8 | 83.6 |

Comet C/2024 A2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Apr. 28.79255 TT
 Peri. = 295.49061
 Node = 78.16459 2000.0
 Incl. = 119.11394
 q = 1.8793554 AU
 e = 0.9417173

H = 13.0 , G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | V | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 02 56.60 | +40 56.8 | 2.737 | 3.406 | -1.58 | -3.5 | 18.6 | 125.7 |
| Jan. 15 | 02 43.21 | +40 22.5 | 2.972 | 3.490 | -1.07 | -3.2 | 18.9 | 114.1 |
| Jan. 25 | 02 34.50 | +39 53.6 | 3.221 | 3.575 | -0.65 | -2.4 | 19.2 | 103.1 |
| Feb. 4 | 02 29.55 | +39 34.5 | 3.477 | 3.660 | -0.32 | -1.3 | 19.4 | 92.8 |
| Feb. 14 | 02 27.55 | +39 26.5 | 3.733 | 3.745 | -0.07 | -0.2 | 19.6 | 83.1 |
| Feb. 24 | 02 27.82 | +39 29.5 | 3.983 | 3.829 | +0.13 | +0.9 | 19.7 | 74.0 |
| Mar. 6 | 02 29.85 | +39 42.8 | 4.223 | 3.914 | +0.28 | +1.9 | 19.9 | 65.3 |
| Mar. 16 | 02 33.21 | +40 05.3 | 4.449 | 3.998 | +0.40 | +2.7 | 20.0 | 57.2 |
| Mar. 26 | 02 37.59 | +40 36.1 | 4.658 | 4.083 | +0.48 | +3.5 | 20.1 | 49.6 |
| Apr. 5 | 02 42.72 | +41 14.1 | 4.848 | 4.167 | +0.55 | +4.2 | 20.1 | 42.6 |
| Apr. 15 | 02 48.39 | +41 58.7 | 5.017 | 4.251 | +0.59 | +4.8 | 20.2 | 36.4 |
| Apr. 25 | 02 54.40 | +42 49.0 | 5.163 | 4.335 | +0.61 | +5.3 | 20.3 | 31.3 |
| May 5 | 03 00.61 | +43 44.7 | 5.286 | 4.418 | +0.62 | +5.8 | 20.3 | 27.7 |
| May 15 | 03 06.84 | +44 45.3 | 5.385 | 4.501 | +0.62 | +6.3 | 20.4 | 26.3 |
| May 25 | 03 12.96 | +45 50.5 | 5.461 | 4.584 | +0.60 | +6.8 | 20.5 | 27.3 |
| June 4 | 03 18.81 | +47 00.3 | 5.513 | 4.667 | +0.56 | +7.2 | 20.5 | 30.4 |
| June 14 | 03 24.22 | +48 14.4 | 5.544 | 4.749 | +0.51 | +7.6 | 20.6 | 35.1 |
| June 24 | 03 29.00 | +49 32.8 | 5.554 | 4.831 | +0.44 | +8.1 | 20.7 | 40.9 |
| July 4 | 03 32.96 | +50 55.5 | 5.544 | 4.913 | +0.34 | +8.5 | 20.8 | 47.4 |
| July 14 | 03 35.83 | +52 22.0 | 5.518 | 4.994 | +0.22 | +8.9 | 20.8 | 54.3 |
| July 24 | 03 37.33 | +53 52.1 | 5.478 | 5.075 | +0.06 | +9.2 | 20.9 | 61.7 |
| Aug. 3 | 03 37.12 | +55 25.0 | 5.428 | 5.156 | -0.13 | +9.4 | 20.9 | 69.3 |
| Aug. 13 | 03 34.81 | +56 59.4 | 5.370 | 5.237 | -0.36 | +9.4 | 20.9 | 77.1 |
| Aug. 23 | 03 29.95 | +58 33.2 | 5.309 | 5.317 | -0.64 | +9.2 | 20.9 | 85.0 |
| Sept. 2 | 03 22.10 | +60 03.3 | 5.249 | 5.397 | -0.97 | +8.7 | 20.9 | 93.0 |
| Sept. 12 | 03 10.88 | +61 25.7 | 5.196 | 5.476 | -1.32 | +7.6 | 20.9 | 100.9 |
| Sept. 22 | 02 56.13 | +62 35.3 | 5.153 | 5.555 | -1.67 | +6.0 | 20.9 | 108.6 |
| Oct. 2 | 02 38.07 | +63 26.1 | 5.127 | 5.634 | -1.96 | +3.8 | 20.9 | 115.7 |
| Oct. 12 | 02 17.51 | +63 52.9 | 5.120 | 5.713 | -2.15 | +1.2 | 20.9 | 122.1 |
| Oct. 22 | 01 55.78 | +63 52.4 | 5.136 | 5.791 | -2.17 | -1.6 | 20.9 | 127.0 |
| Nov. 1 | 01 34.53 | +63 24.2 | 5.179 | 5.869 | -2.04 | -4.2 | 21.0 | 130.1 |
| Nov. 11 | 01 15.29 | +62 31.7 | 5.249 | 5.946 | -1.77 | -6.4 | 21.0 | 131.0 |
| Nov. 21 | 00 59.06 | +61 20.5 | 5.347 | 6.023 | -1.44 | -7.9 | 21.1 | 129.4 |
| Dec. 1 | 00 46.29 | +59 57.9 | 5.471 | 6.100 | -1.09 | -8.6 | 21.2 | 125.8 |
| Dec. 11 | 00 36.93 | +58 31.0 | 5.618 | 6.177 | -0.76 | -8.7 | 21.3 | 120.5 |
| Dec. 21 | 00 30.67 | +57 05.4 | 5.785 | 6.253 | -0.47 | -8.3 | 21.4 | 114.2 |
| Dec. 31 | 00 27.09 | +55 45.9 | 5.968 | 6.329 | -0.23 | -7.5 | 21.5 | 107.2 |
| Jan. 10 | 00 25.73 | +54 35.6 | 6.162 | 6.404 | -0.03 | -6.5 | 21.6 | 99.8 |
| Jan. 20 | 00 26.17 | +53 36.3 | 6.364 | 6.480 | +0.13 | -5.3 | 21.7 | 92.4 |
| Jan. 30 | 00 28.06 | +52 48.9 | 6.567 | 6.554 | +0.26 | -4.1 | 21.8 | 85.0 |
| Feb. 9 | 00 31.08 | +52 13.8 | 6.768 | 6.629 | +0.35 | -2.9 | 21.8 | 77.7 |
| Feb. 19 | 00 34.98 | +51 50.6 | 6.964 | 6.704 | +0.43 | -1.7 | 21.9 | 70.8 |
| Mar. 1 | 00 39.54 | +51 38.8 | 7.149 | 6.778 | +0.48 | -0.6 | 22.0 | 64.2 |
| Mar. 11 | 00 44.55 | +51 37.7 | 7.323 | 6.851 | +0.52 | +0.4 | 22.0 | 58.2 |
| Mar. 21 | 00 49.88 | +51 46.4 | 7.481 | 6.925 | +0.54 | +1.4 | . | 52.8 |
| Mar. 31 | 00 55.36 | +52 04.2 | 7.623 | 6.998 | +0.55 | +2.2 | . | 48.3 |

Comet 50P/Arend

Epoch = 2025 July 24.0 TT
 T = 2024 May 12.61515 TT
 Peri. = 49.30969 e = 0.5296768
 Node = 355.14439 2000.0 a = 4.0863572 AU
 Incl. = 19.10088 n = 0.11931625
 q = 1.9219086 AU P = 8.26 years

$$m1 = 12.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 10 08.13 | +32 55.0 | 1.953 | 2.764 | -0.67 +3.2 | 18.1 | 138.2 |
| Jan. 15 | 10 00.20 | +33 24.9 | 1.934 | 2.817 | -0.93 +2.6 | 18.1 | 148.1 |
| Jan. 25 | 09 50.01 | +33 46.0 | 1.939 | 2.870 | -1.11 +1.4 | 18.2 | 156.7 |
| Feb. 4 | 09 38.62 | +33 51.8 | 1.972 | 2.923 | -1.16 -0.4 | 18.3 | 161.3 |
| Feb. 14 | 09 27.31 | +33 38.9 | 2.034 | 2.976 | -1.08 -2.4 | 18.5 | 158.8 |
| Feb. 24 | 09 17.25 | +33 07.1 | 2.124 | 3.030 | -0.90 -4.1 | 18.6 | 151.3 |
| Mar. 6 | 09 09.31 | +32 19.3 | 2.240 | 3.083 | -0.66 -5.5 | 18.8 | 142.0 |
| Mar. 16 | 09 03.95 | +31 19.4 | 2.378 | 3.135 | -0.39 -6.5 | 19.0 | 132.4 |
| Mar. 26 | 09 01.24 | +30 11.4 | 2.535 | 3.188 | -0.13 -7.1 | 19.3 | 122.9 |
| Apr. 5 | 09 01.03 | +28 58.5 | 2.706 | 3.240 | +0.11 -7.5 | 19.5 | 113.7 |
| Apr. 15 | 09 03.04 | +27 42.9 | 2.888 | 3.293 | +0.31 -7.7 | 19.7 | 105.0 |
| Apr. 25 | 09 06.91 | +26 25.7 | 3.076 | 3.345 | +0.48 -7.8 | 19.9 | 96.6 |
| May 5 | 09 12.34 | +25 07.7 | 3.268 | 3.396 | +0.62 -7.8 | 20.1 | 88.6 |
| May 15 | 09 19.01 | +23 49.2 | 3.461 | 3.447 | +0.73 -7.9 | 20.3 | 80.8 |
| May 25 | 09 26.68 | +22 30.3 | 3.651 | 3.498 | +0.81 -7.9 | 20.5 | 73.3 |
| June 4 | 09 35.12 | +21 10.9 | 3.837 | 3.549 | +0.88 -8.0 | 20.6 | 66.1 |
| June 14 | 09 44.15 | +19 51.1 | 4.015 | 3.599 | +0.93 -8.0 | 20.8 | 59.0 |
| June 24 | 09 53.63 | +18 30.8 | 4.185 | 3.648 | +0.97 -8.1 | 20.9 | 52.0 |
| July 4 | 10 03.43 | +17 10.1 | 4.344 | 3.698 | +0.99 -8.1 | 21.1 | 45.2 |
| July 14 | 10 13.44 | +15 49.1 | 4.490 | 3.746 | +1.01 -8.1 | 21.2 | 38.4 |
| July 24 | 10 23.59 | +14 27.9 | 4.622 | 3.795 | +1.02 -8.1 | 21.3 | 31.6 |
| Aug. 3 | 10 33.79 | +13 06.7 | 4.739 | 3.843 | +1.02 -8.1 | 21.4 | 24.9 |
| Aug. 13 | 10 43.99 | +11 45.7 | 4.840 | 3.890 | +1.02 -8.1 | 21.5 | 18.2 |
| Aug. 23 | 10 54.11 | +10 25.1 | 4.923 | 3.937 | +1.01 -8.0 | 21.6 | 11.5 |
| Sept. 2 | 11 04.12 | +09 05.3 | 4.987 | 3.983 | +0.99 -7.9 | 21.7 | 5.1 |
| Sept. 12 | 11 13.94 | +07 46.6 | 5.033 | 4.029 | +0.97 -7.8 | 21.8 | 3.8 |
| Sept. 22 | 11 23.54 | +06 29.4 | 5.059 | 4.075 | +0.94 -7.6 | 21.8 | 10.1 |
| Oct. 2 | 11 32.83 | +05 14.1 | 5.066 | 4.120 | +0.91 -7.4 | 21.9 | 17.1 |
| Oct. 12 | 11 41.77 | +04 01.1 | 5.052 | 4.164 | +0.87 -7.2 | 21.9 | 24.4 |
| Oct. 22 | 11 50.27 | +02 51.0 | 5.020 | 4.208 | +0.82 -6.8 | 21.9 | 31.9 |
| Nov. 1 | 11 58.25 | +01 44.1 | 4.969 | 4.251 | +0.77 -6.5 | 22.0 | 39.6 |
| Nov. 11 | 12 05.61 | +00 41.2 | 4.901 | 4.294 | +0.70 -6.1 | 22.0 | 47.5 |
| Nov. 21 | 12 12.26 | +00 17.4 | 4.817 | 4.337 | +0.62 -5.6 | 22.0 | 55.6 |
| Dec. 1 | 12 18.07 | -01 10.8 | 4.719 | 4.379 | +0.53 -5.0 | 22.0 | 64.1 |
| Dec. 11 | 12 22.91 | -01 58.4 | 4.610 | 4.420 | +0.43 -4.4 | 22.0 | 72.8 |
| Dec. 21 | 12 26.66 | -02 39.7 | 4.493 | 4.461 | +0.31 -3.7 | 22.0 | 81.8 |
| Dec. 31 | 12 29.17 | -03 13.9 | 4.372 | 4.502 | +0.18 -3.0 | 21.9 | 91.2 |
| Jan. 10 | 12 30.33 | -03 40.4 | 4.251 | 4.541 | +0.04 -2.2 | 21.9 | 101.0 |
| Jan. 20 | 12 30.05 | -03 58.7 | 4.134 | 4.581 | -0.11 -1.4 | 21.9 | 111.1 |
| Jan. 30 | 12 28.27 | -04 08.5 | 4.027 | 4.620 | -0.26 -0.5 | 21.9 | 121.6 |
| Feb. 9 | 12 25.04 | -04 09.6 | 3.935 | 4.658 | -0.40 +0.3 | 21.9 | 132.5 |
| Feb. 19 | 12 20.47 | -04 02.5 | 3.863 | 4.696 | -0.52 +1.1 | 21.9 | 143.6 |
| Mar. 1 | 12 14.79 | -03 48.1 | 3.817 | 4.733 | -0.62 +1.8 | 21.9 | 155.1 |
| Mar. 11 | 12 08.36 | -03 28.1 | 3.799 | 4.770 | -0.67 +2.2 | 21.9 | 166.6 |
| Mar. 21 | 12 01.57 | -03 04.4 | 3.812 | 4.807 | -0.68 +2.5 | 21.9 | 176.9 |
| Mar. 31 | 11 54.87 | -02 39.5 | 3.857 | 4.843 | -0.65 +2.5 | 22.0 | 169.5 |

Comet 472P/NEAT-LINEAR

Epoch = 2025 July 24.0 TT
 T = 2024 July 14.04464 TT
 Peri. = 218.83130 e = 0.5644347
 Node = 205.83929 2000.0 a = 7.7765485 AU
 Incl. = 10.82451 n = 0.04544894
 q = 3.3871947 AU P = 21.69 years

$$m1 = -5.5 + 5 \log(\Delta) + 35.0 \log(r(t-115))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 06 19.27 | +09 18.1 | 2.647 | 3.599 | -0.54 | +0.4 | 15.3 | 163.0 |
| Jan. 15 | 06 14.29 | +09 26.2 | 2.708 | 3.623 | -0.44 | +1.2 | 15.4 | 154.9 |
| Jan. 25 | 06 10.46 | +09 41.5 | 2.795 | 3.647 | -0.30 | +1.9 | 15.5 | 145.2 |
| Feb. 4 | 06 08.17 | +10 02.5 | 2.906 | 3.673 | -0.13 | +2.3 | 15.6 | 135.4 |
| Feb. 14 | 06 07.63 | +10 27.1 | 3.036 | 3.700 | +0.04 | +2.6 | 15.8 | 125.7 |
| Feb. 24 | 06 08.88 | +10 53.5 | 3.182 | 3.727 | +0.22 | +2.7 | 15.9 | 116.3 |
| Mar. 6 | 06 11.87 | +11 20.1 | 3.340 | 3.756 | +0.39 | +2.6 | 16.1 | 107.3 |
| Mar. 16 | 06 16.47 | +11 45.2 | 3.506 | 3.785 | +0.54 | +2.4 | 16.3 | 98.6 |
| Mar. 26 | 06 22.50 | +12 07.7 | 3.676 | 3.815 | +0.68 | +2.1 | 16.5 | 90.4 |
| Apr. 5 | 06 29.78 | +12 26.7 | 3.848 | 3.846 | +0.79 | +1.7 | 16.7 | 82.4 |
| Apr. 15 | 06 38.14 | +12 41.3 | 4.018 | 3.878 | +0.89 | +1.2 | 16.8 | 74.8 |
| Apr. 25 | 06 47.39 | +12 51.1 | 4.185 | 3.911 | +0.97 | +0.7 | 17.0 | 67.4 |
| May 5 | 06 57.37 | +12 55.5 | 4.345 | 3.944 | +1.03 | +0.1 | 17.2 | 60.3 |
| May 15 | 07 07.92 | +12 54.4 | 4.498 | 3.977 | +1.08 | -0.4 | 17.4 | 53.3 |
| May 25 | 07 18.92 | +12 47.8 | 4.641 | 4.012 | +1.12 | -1.0 | 17.6 | 46.5 |
| June 4 | 07 30.24 | +12 35.5 | 4.773 | 4.047 | +1.15 | -1.5 | 17.7 | 39.9 |
| June 14 | 07 41.78 | +12 17.7 | 4.892 | 4.082 | +1.16 | -2.1 | 17.9 | 33.4 |
| June 24 | 07 53.43 | +11 54.7 | 4.998 | 4.118 | +1.17 | -2.6 | 18.1 | 27.0 |
| July 4 | 08 05.12 | +11 26.6 | 5.089 | 4.155 | +1.17 | -3.1 | 18.2 | 20.9 |
| July 14 | 08 16.75 | +10 53.8 | 5.165 | 4.192 | +1.16 | -3.5 | 18.4 | 15.1 |
| July 24 | 08 28.26 | +10 16.8 | 5.225 | 4.230 | +1.14 | -3.9 | 18.5 | 10.3 |
| Aug. 3 | 08 39.57 | +09 35.9 | 5.268 | 4.267 | +1.12 | -4.3 | 18.6 | 8.5 |
| Aug. 13 | 08 50.63 | +08 51.6 | 5.294 | 4.306 | +1.09 | -4.6 | 18.8 | 11.4 |
| Aug. 23 | 09 01.36 | +08 04.5 | 5.304 | 4.344 | +1.05 | -4.8 | 18.9 | 16.7 |
| Sept. 2 | 09 11.69 | +07 15.2 | 5.295 | 4.383 | +1.01 | -5.0 | 19.0 | 22.9 |
| Sept. 12 | 09 21.57 | +06 24.3 | 5.270 | 4.423 | +0.96 | -5.1 | 19.2 | 29.6 |
| Sept. 22 | 09 30.91 | +05 32.5 | 5.229 | 4.462 | +0.90 | -5.2 | 19.3 | 36.6 |
| Oct. 2 | 09 39.65 | +04 40.6 | 5.171 | 4.502 | +0.84 | -5.2 | 19.4 | 43.8 |
| Oct. 12 | 09 47.68 | +03 49.3 | 5.099 | 4.543 | +0.76 | -5.1 | 19.5 | 51.3 |
| Oct. 22 | 09 54.93 | +02 59.5 | 5.014 | 4.583 | +0.68 | -4.9 | 19.6 | 59.1 |
| Nov. 1 | 10 01.30 | +02 12.2 | 4.917 | 4.624 | +0.58 | -4.6 | 19.7 | 67.2 |
| Nov. 11 | 10 06.67 | +01 28.4 | 4.812 | 4.664 | +0.48 | -4.2 | 19.8 | 75.5 |
| Nov. 21 | 10 10.95 | +00 49.1 | 4.701 | 4.705 | +0.36 | -3.6 | 19.8 | 84.3 |
| Dec. 1 | 10 14.04 | +00 15.6 | 4.587 | 4.747 | +0.24 | -3.0 | 19.9 | 93.3 |
| Dec. 11 | 10 15.86 | +00 11.1 | 4.474 | 4.788 | +0.11 | -2.3 | 20.0 | 102.7 |
| Dec. 21 | 10 16.36 | +00 29.8 | 4.368 | 4.829 | -0.02 | -1.4 | 20.1 | 112.4 |
| Dec. 31 | 10 15.53 | +00 39.7 | 4.271 | 4.871 | -0.15 | -0.5 | 20.2 | 122.5 |
| Jan. 10 | 10 13.43 | +00 40.1 | 4.191 | 4.913 | -0.27 | +0.5 | 20.3 | 132.9 |
| Jan. 20 | 10 10.21 | +00 30.8 | 4.130 | 4.955 | -0.38 | +1.4 | 20.4 | 143.4 |
| Jan. 30 | 10 06.10 | +00 12.3 | 4.094 | 4.997 | -0.45 | +2.3 | 20.5 | 153.8 |
| Feb. 9 | 10 01.42 | +00 14.2 | 4.085 | 5.039 | -0.49 | +3.0 | 20.6 | 163.3 |
| Feb. 19 | 09 56.52 | +00 47.0 | 4.107 | 5.081 | -0.49 | +3.5 | 20.8 | 168.9 |
| Mar. 1 | 09 51.79 | +01 23.8 | 4.159 | 5.123 | -0.45 | +3.8 | 20.9 | 165.0 |
| Mar. 11 | 09 47.58 | +02 02.0 | 4.242 | 5.165 | -0.38 | +3.8 | 21.1 | 156.0 |
| Mar. 21 | 09 44.19 | +02 39.5 | 4.352 | 5.207 | -0.29 | +3.6 | 21.3 | 145.9 |
| Mar. 31 | 09 41.82 | +03 14.0 | 4.487 | 5.249 | -0.17 | +3.2 | 21.5 | 135.8 |

Comet 492P/LINEAR

Epoch = 2025 July 24.0 TT
 T = 2024 July 20.43911 TT
 Peri. = 40.98146 e = 0.6906022
 Node = 11.30523 2000.0 a = 5.7594088 AU
 Incl. = 11.40120 n = 0.07130783
 q = 1.7819484 AU P = 13.82 years

$$m1 = 13.3 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 09 39.87 | +31 14.2 | 1.610 | 2.475 | -0.69 +3.9 | 18.3 | 144.2 |
| Jan. 15 | 09 31.80 | +31 50.3 | 1.618 | 2.541 | -0.93 +3.1 | 18.4 | 154.3 |
| Jan. 25 | 09 21.91 | +32 15.2 | 1.652 | 2.607 | -1.04 +1.6 | 18.6 | 162.2 |
| Feb. 4 | 09 11.50 | +32 23.3 | 1.713 | 2.674 | -1.01 -0.2 | 18.7 | 163.9 |
| Feb. 14 | 09 01.95 | +32 12.7 | 1.801 | 2.741 | -0.86 -2.1 | 19.0 | 158.0 |
| Feb. 24 | 08 54.28 | +31 44.7 | 1.915 | 2.809 | -0.64 -3.6 | 19.2 | 148.9 |
| Mar. 6 | 08 49.11 | +31 03.0 | 2.053 | 2.878 | -0.37 -4.8 | 19.5 | 139.2 |
| Mar. 16 | 08 46.64 | +30 11.2 | 2.210 | 2.946 | -0.10 -5.6 | 19.7 | 129.6 |
| Mar. 26 | 08 46.74 | +29 12.8 | 2.384 | 3.014 | +0.14 -6.1 | 20.0 | 120.4 |
| Apr. 5 | 08 49.14 | +28 10.1 | 2.571 | 3.083 | +0.35 -6.4 | 20.2 | 111.6 |
| Apr. 15 | 08 53.49 | +27 04.6 | 2.767 | 3.151 | +0.53 -6.7 | 20.5 | 103.2 |
| Apr. 25 | 08 59.42 | +25 57.3 | 2.969 | 3.219 | +0.67 -6.8 | 20.7 | 95.1 |
| May 5 | 09 06.65 | +24 48.4 | 3.175 | 3.287 | +0.78 -7.0 | 21.0 | 87.4 |
| May 15 | 09 14.87 | +23 38.3 | 3.380 | 3.355 | +0.87 -7.1 | 21.2 | 80.0 |
| May 25 | 09 23.86 | +22 27.1 | 3.584 | 3.423 | +0.93 -7.2 | 21.4 | 72.7 |
| June 4 | 09 33.43 | +21 14.8 | 3.783 | 3.490 | +0.98 -7.3 | 21.6 | 65.7 |
| June 14 | 09 43.43 | +20 01.7 | 3.976 | 3.557 | +1.02 -7.4 | 21.8 | 58.8 |
| June 24 | 09 53.71 | +18 47.8 | 4.160 | 3.623 | +1.04 -7.4 | 22.0 | 52.0 |
| July 4 | 10 04.19 | +17 33.2 | 4.334 | 3.690 | +1.05 -7.5 | . | 45.2 |
| July 14 | 10 14.77 | +16 18.3 | 4.497 | 3.755 | +1.06 -7.5 | . | 38.5 |
| July 24 | 10 25.38 | +15 03.3 | 4.645 | 3.821 | +1.06 -7.5 | . | 31.9 |
| Aug. 3 | 10 35.96 | +13 48.3 | 4.779 | 3.886 | +1.05 -7.5 | . | 25.3 |
| Aug. 13 | 10 46.44 | +12 33.8 | 4.897 | 3.950 | +1.04 -7.4 | . | 18.6 |
| Aug. 23 | 10 56.80 | +11 20.2 | 4.998 | 4.014 | +1.03 -7.3 | . | 12.1 |
| Sept. 2 | 11 06.96 | +10 07.7 | 5.080 | 4.078 | +1.00 -7.2 | . | 6.0 |
| Sept. 12 | 11 16.89 | +08 56.8 | 5.143 | 4.141 | +0.98 -7.0 | . | 4.7 |
| Sept. 22 | 11 26.54 | +07 48.0 | 5.187 | 4.204 | +0.95 -6.8 | . | 10.4 |
| Oct. 2 | 11 35.85 | +06 41.7 | 5.211 | 4.266 | +0.91 -6.5 | . | 17.3 |
| Oct. 12 | 11 44.75 | +05 38.5 | 5.215 | 4.327 | +0.87 -6.1 | . | 24.6 |
| Oct. 22 | 11 53.18 | +04 38.8 | 5.200 | 4.389 | +0.81 -5.7 | . | 32.1 |
| Nov. 1 | 12 01.06 | +03 43.3 | 5.166 | 4.449 | +0.75 -5.3 | . | 39.8 |
| Nov. 11 | 12 08.31 | +02 52.6 | 5.114 | 4.510 | +0.69 -4.8 | . | 47.8 |
| Nov. 21 | 12 14.81 | +02 07.2 | 5.047 | 4.569 | +0.61 -4.2 | . | 56.1 |
| Dec. 1 | 12 20.47 | +01 27.9 | 4.965 | 4.629 | +0.52 -3.6 | . | 64.6 |
| Dec. 11 | 12 25.18 | +00 55.2 | 4.872 | 4.688 | +0.41 -2.9 | . | 73.4 |
| Dec. 21 | 12 28.81 | +00 29.7 | 4.771 | 4.746 | +0.30 -2.1 | . | 82.6 |
| Dec. 31 | 12 31.24 | +00 12.0 | 4.666 | 4.804 | +0.17 -1.3 | . | 92.1 |
| Jan. 10 | 12 32.40 | +00 02.4 | 4.562 | 4.861 | +0.04 -0.5 | . | 101.9 |
| Jan. 20 | 12 32.20 | +00 01.1 | 4.462 | 4.918 | -0.10 +0.3 | . | 112.1 |
| Jan. 30 | 12 30.63 | +00 08.0 | 4.373 | 4.974 | -0.23 +1.1 | . | 122.7 |
| Feb. 9 | 12 27.75 | +00 22.5 | 4.299 | 5.030 | -0.36 +1.8 | . | 133.6 |
| Feb. 19 | 12 23.67 | +00 43.5 | 4.247 | 5.086 | -0.47 +2.4 | . | 144.7 |
| Mar. 1 | 12 18.62 | +01 09.6 | 4.220 | 5.141 | -0.55 +2.8 | . | 156.1 |
| Mar. 11 | 12 12.91 | +01 38.6 | 4.222 | 5.195 | -0.59 +3.0 | . | 167.4 |
| Mar. 21 | 12 06.91 | +02 08.3 | 4.254 | 5.250 | -0.60 +2.9 | . | 177.3 |
| Mar. 31 | 12 00.98 | +02 36.3 | 4.319 | 5.303 | -0.57 +2.6 | . | 169.0 |

Comet 30P/Reinmuth

Epoch = 2025 July 24.0 TT
 T = 2024 Aug. 17.24049 TT
 Peri. = 9.51851 e = 0.5144093
 Node = 117.23228 2000.0 a = 3.7355067 AU
 Incl. = 8.05329 n = 0.13651482
 q = 1.8139273 AU P = 7.22 years

$$m1 = 10.5 + 5 \log(\Delta) + 15.0 \log(r(t-20))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 14 12.91 | -05 39.7 | 2.299 | 2.199 | +1.50 | -4.7 | 17.2 | 71.7 |
| Jan. 15 | 14 27.23 | -06 20.1 | 2.230 | 2.247 | +1.34 | -3.3 | 17.2 | 78.3 |
| Jan. 25 | 14 39.80 | -06 46.7 | 2.156 | 2.295 | +1.15 | -1.9 | 17.3 | 85.3 |
| Feb. 4 | 14 50.33 | -06 59.3 | 2.081 | 2.345 | +0.93 | -0.5 | 17.4 | 92.8 |
| Feb. 14 | 14 58.55 | -06 58.2 | 2.006 | 2.396 | +0.69 | +0.8 | 17.4 | 100.8 |
| Feb. 24 | 15 04.22 | -06 44.1 | 1.934 | 2.448 | +0.42 | +2.1 | 17.5 | 109.4 |
| Mar. 6 | 15 07.09 | -06 18.0 | 1.868 | 2.500 | +0.13 | +3.2 | 17.5 | 118.6 |
| Mar. 16 | 15 07.06 | -05 41.9 | 1.812 | 2.552 | -0.16 | +4.1 | 17.6 | 128.4 |
| Mar. 26 | 15 04.20 | -04 58.6 | 1.771 | 2.605 | -0.43 | +4.6 | 17.7 | 138.7 |
| Apr. 5 | 14 58.81 | -04 12.0 | 1.749 | 2.658 | -0.66 | +4.7 | 17.8 | 149.3 |
| Apr. 15 | 14 51.51 | -03 27.0 | 1.750 | 2.712 | -0.80 | +4.2 | 18.0 | 159.4 |
| Apr. 25 | 14 43.13 | -02 48.4 | 1.776 | 2.765 | -0.86 | +3.3 | 18.1 | 166.8 |
| May 5 | 14 34.62 | -02 20.5 | 1.830 | 2.819 | -0.82 | +2.1 | 18.3 | 165.8 |
| May 15 | 14 26.91 | -02 06.4 | 1.911 | 2.872 | -0.70 | +0.6 | 18.5 | 157.8 |
| May 25 | 14 20.67 | -02 07.0 | 2.016 | 2.925 | -0.52 | -0.9 | 18.8 | 148.1 |
| June 4 | 14 16.34 | -02 21.9 | 2.144 | 2.978 | -0.32 | -2.2 | 19.0 | 138.2 |
| June 14 | 14 14.10 | -02 49.6 | 2.290 | 3.030 | -0.11 | -3.4 | 19.3 | 128.7 |
| June 24 | 14 13.91 | -03 27.7 | 2.451 | 3.083 | +0.09 | -4.3 | 19.6 | 119.6 |
| July 4 | 14 15.65 | -04 14.3 | 2.625 | 3.135 | +0.27 | -5.0 | 19.8 | 110.9 |
| July 14 | 14 19.12 | -05 07.3 | 2.806 | 3.186 | +0.43 | -5.6 | 20.1 | 102.6 |
| July 24 | 14 24.10 | -06 04.8 | 2.992 | 3.238 | +0.57 | -5.9 | 20.3 | 94.7 |
| Aug. 3 | 14 30.41 | -07 05.4 | 3.181 | 3.288 | +0.70 | -6.2 | 20.6 | 87.0 |
| Aug. 13 | 14 37.85 | -08 07.6 | 3.370 | 3.339 | +0.80 | -6.3 | 20.8 | 79.6 |
| Aug. 23 | 14 46.26 | -09 10.4 | 3.556 | 3.389 | +0.89 | -6.3 | 21.0 | 72.3 |
| Sept. 2 | 14 55.50 | -10 12.7 | 3.737 | 3.438 | +0.96 | -6.2 | 21.2 | 65.2 |
| Sept. 12 | 15 05.45 | -11 13.8 | 3.911 | 3.487 | +1.03 | -6.0 | 21.4 | 58.2 |
| Sept. 22 | 15 15.98 | -12 12.9 | 4.077 | 3.535 | +1.08 | -5.8 | 21.6 | 51.2 |
| Oct. 2 | 15 27.02 | -13 09.3 | 4.231 | 3.583 | +1.13 | -5.5 | 21.8 | 44.3 |
| Oct. 12 | 15 38.45 | -14 02.6 | 4.372 | 3.630 | +1.16 | -5.1 | 21.9 | 37.4 |
| Oct. 22 | 15 50.21 | -14 52.1 | 4.500 | 3.677 | +1.19 | -4.7 | . | 30.5 |
| Nov. 1 | 16 02.21 | -15 37.6 | 4.611 | 3.723 | +1.21 | -4.3 | . | 23.7 |
| Nov. 11 | 16 14.36 | -16 18.6 | 4.706 | 3.769 | +1.22 | -3.8 | . | 16.8 |
| Nov. 21 | 16 26.58 | -16 54.9 | 4.782 | 3.814 | +1.22 | -3.4 | . | 10.2 |
| Dec. 1 | 16 38.78 | -17 26.4 | 4.840 | 3.859 | +1.22 | -2.9 | . | 5.0 |
| Dec. 11 | 16 50.86 | -17 53.0 | 4.878 | 3.903 | +1.20 | -2.4 | . | 7.0 |
| Dec. 21 | 17 02.75 | -18 14.6 | 4.896 | 3.946 | +1.17 | -1.9 | . | 13.4 |
| Dec. 31 | 17 14.32 | -18 31.4 | 4.895 | 3.989 | +1.14 | -1.4 | . | 20.5 |
| Jan. 10 | 17 25.48 | -18 43.6 | 4.874 | 4.031 | +1.09 | -1.0 | . | 27.9 |
| Jan. 20 | 17 36.11 | -18 51.6 | 4.834 | 4.073 | +1.03 | -0.6 | . | 35.5 |
| Jan. 30 | 17 46.10 | -18 55.6 | 4.776 | 4.114 | +0.96 | -0.2 | . | 43.2 |
| Feb. 9 | 17 55.31 | -18 56.3 | 4.702 | 4.154 | +0.88 | +0.1 | . | 51.1 |
| Feb. 19 | 18 03.64 | -18 54.1 | 4.613 | 4.194 | +0.78 | +0.3 | . | 59.2 |
| Mar. 1 | 18 10.93 | -18 49.9 | 4.512 | 4.233 | +0.67 | +0.5 | . | 67.5 |
| Mar. 11 | 18 17.06 | -18 44.2 | 4.401 | 4.272 | +0.54 | +0.6 | . | 76.1 |
| Mar. 21 | 18 21.89 | -18 37.7 | 4.284 | 4.310 | +0.41 | +0.7 | . | 84.8 |
| Mar. 31 | 18 25.28 | -18 31.3 | 4.164 | 4.348 | +0.26 | +0.6 | . | 93.9 |

Comet C/2021 G2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Sept. 9.13420 TT
 Peri. = 343.26633
 Node = 221.09431 2000.0
 Incl. = 48.46633
 q = 4.9822377 AU
 e = 1.0007699

$$m1 = 3.4 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 15 04.16 | -18 50.3 | 5.554 | 5.064 | +0.79 | +1.8 | 14.2 | 55.6 |
| Jan. 15 | 15 11.66 | -18 29.9 | 5.429 | 5.078 | +0.71 | +2.4 | 14.1 | 64.2 |
| Jan. 25 | 15 18.31 | -18 02.9 | 5.294 | 5.094 | +0.61 | +3.1 | 14.1 | 73.0 |
| Feb. 4 | 15 23.96 | -17 28.7 | 5.154 | 5.110 | +0.51 | +3.8 | 14.0 | 82.0 |
| Feb. 14 | 15 28.51 | -16 46.8 | 5.011 | 5.128 | +0.39 | +4.6 | 14.0 | 91.2 |
| Feb. 24 | 15 31.87 | -15 57.1 | 4.870 | 5.147 | +0.27 | +5.4 | 14.0 | 100.7 |
| Mar. 6 | 15 33.95 | -14 59.4 | 4.735 | 5.166 | +0.14 | +6.2 | 13.9 | 110.4 |
| Mar. 16 | 15 34.73 | -13 54.0 | 4.612 | 5.187 | +0.01 | +6.9 | 13.9 | 120.4 |
| Mar. 26 | 15 34.24 | -12 41.7 | 4.504 | 5.209 | -0.12 | +7.6 | 13.8 | 130.6 |
| Apr. 5 | 15 32.55 | -11 23.7 | 4.417 | 5.232 | -0.23 | +8.1 | 13.8 | 140.9 |
| Apr. 15 | 15 29.85 | -10 01.8 | 4.355 | 5.255 | -0.32 | +8.3 | 13.8 | 151.1 |
| Apr. 25 | 15 26.34 | -08 38.2 | 4.320 | 5.280 | -0.38 | +8.3 | 13.8 | 160.7 |
| May 5 | 15 22.33 | -07 15.7 | 4.316 | 5.306 | -0.42 | +8.1 | 13.8 | 167.7 |
| May 15 | 15 18.15 | -05 57.1 | 4.342 | 5.332 | -0.41 | +7.5 | 13.9 | 167.0 |
| May 25 | 15 14.12 | -04 44.9 | 4.400 | 5.360 | -0.38 | +6.8 | 13.9 | 159.4 |
| June 4 | 15 10.54 | -03 41.0 | 4.486 | 5.388 | -0.32 | +5.9 | 14.0 | 150.0 |
| June 14 | 15 07.67 | -02 46.8 | 4.598 | 5.417 | -0.24 | +4.9 | 14.1 | 140.2 |
| June 24 | 15 05.68 | -02 02.7 | 4.732 | 5.447 | -0.15 | +3.8 | 14.1 | 130.5 |
| July 4 | 15 04.69 | -01 28.8 | 4.885 | 5.478 | -0.04 | +2.9 | 14.2 | 120.9 |
| July 14 | 15 04.76 | -01 04.3 | 5.052 | 5.510 | +0.07 | +2.0 | 14.3 | 111.7 |
| July 24 | 15 05.88 | +00 48.1 | 5.229 | 5.542 | +0.17 | +1.2 | 14.4 | 102.7 |
| Aug. 3 | 15 08.04 | +00 39.2 | 5.412 | 5.575 | +0.27 | +0.6 | 14.5 | 94.0 |
| Aug. 13 | 15 11.16 | +00 36.0 | 5.597 | 5.609 | +0.36 | 0.0 | 14.6 | 85.5 |
| Aug. 23 | 15 15.18 | +00 37.4 | 5.779 | 5.644 | +0.45 | -0.3 | 14.7 | 77.3 |
| Sept. 2 | 15 20.01 | +00 42.1 | 5.957 | 5.679 | +0.52 | -0.6 | 14.8 | 69.3 |
| Sept. 12 | 15 25.56 | +00 48.8 | 6.126 | 5.716 | +0.59 | -0.7 | 14.9 | 61.5 |
| Sept. 22 | 15 31.75 | +00 56.5 | 6.285 | 5.752 | +0.65 | -0.8 | 15.0 | 54.0 |
| Oct. 2 | 15 38.48 | -01 04.0 | 6.431 | 5.790 | +0.70 | -0.7 | 15.1 | 46.6 |
| Oct. 12 | 15 45.67 | -01 10.3 | 6.562 | 5.828 | +0.74 | -0.5 | 15.1 | 39.6 |
| Oct. 22 | 15 53.24 | -01 14.8 | 6.676 | 5.867 | +0.77 | -0.3 | 15.2 | 33.1 |
| Nov. 1 | 16 01.10 | -01 16.3 | 6.771 | 5.906 | +0.80 | 0.0 | 15.3 | 27.2 |
| Nov. 11 | 16 09.15 | -01 14.4 | 6.847 | 5.946 | +0.81 | +0.4 | 15.3 | 22.7 |
| Nov. 21 | 16 17.31 | -01 08.3 | 6.903 | 5.986 | +0.82 | +0.9 | 15.4 | 20.3 |
| Dec. 1 | 16 25.50 | +00 57.3 | 6.939 | 6.027 | +0.82 | +1.4 | 15.4 | 20.8 |
| Dec. 11 | 16 33.61 | +00 41.1 | 6.954 | 6.069 | +0.80 | +1.9 | 15.4 | 24.1 |
| Dec. 21 | 16 41.56 | +00 19.1 | 6.950 | 6.111 | +0.78 | +2.5 | 15.5 | 29.3 |
| Dec. 31 | 16 49.25 | +00 08.8 | 6.927 | 6.153 | +0.75 | +3.1 | 15.5 | 35.6 |
| Jan. 10 | 16 56.58 | +00 43.1 | 6.886 | 6.197 | +0.71 | +3.8 | 15.5 | 42.5 |
| Jan. 20 | 17 03.45 | +01 23.6 | 6.829 | 6.240 | +0.66 | +4.4 | 15.5 | 49.9 |
| Jan. 30 | 17 09.76 | +02 10.4 | 6.759 | 6.284 | +0.60 | +5.0 | 15.5 | 57.5 |
| Feb. 9 | 17 15.40 | +03 03.3 | 6.677 | 6.328 | +0.53 | +5.6 | 15.5 | 65.3 |
| Feb. 19 | 17 20.30 | +04 01.9 | 6.587 | 6.373 | +0.44 | +6.1 | 15.5 | 73.3 |
| Mar. 1 | 17 24.35 | +05 05.5 | 6.493 | 6.418 | +0.36 | +6.6 | 15.5 | 81.3 |
| Mar. 11 | 17 27.48 | +06 13.4 | 6.397 | 6.464 | +0.26 | +7.0 | 15.5 | 89.4 |
| Mar. 21 | 17 29.63 | +07 24.4 | 6.304 | 6.510 | +0.16 | +7.2 | 15.5 | 97.5 |
| Mar. 31 | 17 30.76 | +08 37.1 | 6.217 | 6.557 | +0.06 | +7.3 | 15.5 | 105.6 |

Comet C/2022 E2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Sept. 14.14605 TT
 Peri. = 41.75065
 Node = 125.39739 2000.0
 Incl. = 137.14103
 q = 3.6665536 AU
 e = 1.0003374

$$m1 = 2.5 + 5 \log(\Delta) + 12.5 \log(r(t+100)) \text{ (vis.)}$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 02 05.70 | +61 59.1 | 3.252 | 3.803 | -2.39 | -18.2 | 12.8 | 117.2 |
| Jan. 15 | 01 46.16 | +58 59.9 | 3.408 | 3.828 | -1.48 | -17.3 | 12.9 | 108.0 |
| Jan. 25 | 01 34.40 | +56 15.9 | 3.584 | 3.854 | -0.85 | -15.2 | 13.1 | 98.5 |
| Feb. 4 | 01 27.94 | +53 55.3 | 3.772 | 3.883 | -0.42 | -12.6 | 13.2 | 89.0 |
| Feb. 14 | 01 25.11 | +52 00.5 | 3.963 | 3.913 | -0.13 | -10.1 | 13.4 | 79.9 |
| Feb. 24 | 01 24.75 | +50 30.6 | 4.150 | 3.944 | +0.07 | -7.7 | 13.6 | 71.2 |
| Mar. 6 | 01 26.10 | +49 23.7 | 4.328 | 3.978 | +0.21 | -5.5 | 13.7 | 63.0 |
| Mar. 16 | 01 28.60 | +48 37.2 | 4.492 | 4.012 | +0.30 | -3.6 | 13.8 | 55.5 |
| Mar. 26 | 01 31.84 | +48 08.6 | 4.638 | 4.049 | +0.35 | -2.0 | 14.0 | 48.7 |
| Apr. 5 | 01 35.52 | +47 55.6 | 4.763 | 4.087 | +0.38 | -0.5 | 14.1 | 42.8 |
| Apr. 15 | 01 39.36 | +47 56.4 | 4.866 | 4.126 | +0.38 | +0.8 | 14.2 | 38.3 |
| Apr. 25 | 01 43.13 | +48 09.0 | 4.944 | 4.167 | +0.37 | +1.9 | 14.3 | 35.5 |
| May 5 | 01 46.63 | +48 32.3 | 4.998 | 4.209 | +0.33 | +2.9 | 14.4 | 34.7 |
| May 15 | 01 49.62 | +49 04.7 | 5.027 | 4.252 | +0.26 | +3.7 | 14.5 | 36.0 |
| May 25 | 01 51.89 | +49 45.3 | 5.032 | 4.296 | +0.18 | +4.5 | 14.5 | 39.3 |
| June 4 | 01 53.18 | +50 33.0 | 5.014 | 4.342 | +0.06 | +5.1 | 14.6 | 44.0 |
| June 14 | 01 53.19 | +51 26.6 | 4.975 | 4.388 | -0.08 | +5.6 | 14.6 | 49.8 |
| June 24 | 01 51.60 | +52 24.7 | 4.917 | 4.436 | -0.26 | +6.0 | 14.7 | 56.4 |
| July 4 | 01 48.03 | +53 25.5 | 4.844 | 4.484 | -0.48 | +6.1 | 14.7 | 63.5 |
| July 14 | 01 42.06 | +54 26.5 | 4.759 | 4.534 | -0.74 | +6.0 | 14.7 | 71.2 |
| July 24 | 01 33.30 | +55 24.2 | 4.666 | 4.584 | -1.04 | +5.4 | 14.7 | 79.1 |
| Aug. 3 | 01 21.39 | +56 14.0 | 4.571 | 4.636 | -1.37 | +4.3 | 14.7 | 87.3 |
| Aug. 13 | 01 06.17 | +56 49.8 | 4.479 | 4.688 | -1.70 | +2.5 | 14.8 | 95.6 |
| Aug. 23 | 00 47.84 | +57 04.6 | 4.396 | 4.741 | -1.98 | +0.1 | 14.8 | 103.9 |
| Sept. 2 | 00 27.10 | +56 51.6 | 4.328 | 4.794 | -2.16 | -3.1 | 14.8 | 111.8 |
| Sept. 12 | 00 05.17 | +56 05.2 | 4.281 | 4.848 | -2.20 | -6.6 | 14.8 | 118.9 |
| Sept. 22 | 23 43.55 | +54 43.7 | 4.261 | 4.903 | -2.09 | -10.0 | 14.9 | 124.8 |
| Oct. 2 | 23 23.70 | +52 49.5 | 4.272 | 4.959 | -1.84 | -13.0 | 14.9 | 128.6 |
| Oct. 12 | 23 06.63 | +50 29.2 | 4.316 | 5.015 | -1.53 | -15.1 | 15.0 | 129.9 |
| Oct. 22 | 22 52.83 | +47 51.9 | 4.393 | 5.071 | -1.19 | -16.3 | 15.1 | 128.3 |
| Nov. 1 | 22 42.35 | +45 07.4 | 4.504 | 5.128 | -0.87 | -16.5 | 15.2 | 124.2 |
| Nov. 11 | 22 34.93 | +42 24.6 | 4.644 | 5.186 | -0.59 | -15.9 | 15.4 | 118.2 |
| Nov. 21 | 22 30.18 | +39 50.2 | 4.809 | 5.244 | -0.34 | -14.8 | 15.5 | 111.0 |
| Dec. 1 | 22 27.68 | +37 29.2 | 4.993 | 5.303 | -0.14 | -13.2 | 15.6 | 103.0 |
| Dec. 11 | 22 27.00 | +35 24.3 | 5.191 | 5.361 | +0.02 | -11.5 | 15.8 | 94.7 |
| Dec. 21 | 22 27.80 | +33 36.9 | 5.396 | 5.421 | +0.15 | -9.8 | 15.9 | 86.2 |
| Dec. 31 | 22 29.77 | +32 07.0 | 5.602 | 5.480 | +0.25 | -8.0 | 16.1 | 77.8 |
| Jan. 10 | 22 32.62 | +30 53.9 | 5.805 | 5.540 | +0.32 | -6.4 | 16.2 | 69.6 |
| Jan. 20 | 22 36.13 | +29 56.6 | 6.000 | 5.601 | +0.38 | -4.9 | 16.3 | 61.7 |
| Jan. 30 | 22 40.10 | +29 13.8 | 6.181 | 5.661 | +0.42 | -3.5 | 16.4 | 54.2 |
| Feb. 9 | 22 44.37 | +28 44.0 | 6.346 | 5.722 | +0.44 | -2.3 | 16.5 | 47.2 |
| Feb. 19 | 22 48.78 | +28 25.7 | 6.491 | 5.783 | +0.44 | -1.2 | 16.6 | 41.1 |
| Mar. 1 | 22 53.20 | +28 17.5 | 6.615 | 5.844 | +0.44 | -0.3 | 16.7 | 36.1 |
| Mar. 11 | 22 57.50 | +28 18.1 | 6.716 | 5.906 | +0.42 | +0.5 | 16.8 | 32.8 |
| Mar. 21 | 23 01.56 | +28 26.2 | 6.792 | 5.968 | +0.39 | +1.2 | 16.9 | 31.7 |
| Mar. 31 | 23 05.28 | +28 40.6 | 6.844 | 6.030 | +0.35 | +1.7 | 17.0 | 32.9 |

Comet C/2023 A3 (Tsuchinshan-ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Sept. 27.74568 TT
 Peri. = 308.50908
 Node = 21.57769 2000.0
 Incl. = 139.11083
 q = 0.3915035 AU
 e = 1.0001062

$$m1 = 4.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 19 45.24 | +06 40.3 | 2.817 | 2.039 | +0.88 | +5.3 | 10.0 | 31.1 |
| Jan. 15 | 19 53.68 | +07 36.7 | 2.999 | 2.190 | +0.80 | +6.1 | 10.5 | 28.8 |
| Jan. 25 | 20 01.31 | +08 41.1 | 3.154 | 2.337 | +0.72 | +6.9 | 10.9 | 28.6 |
| Feb. 4 | 20 08.11 | +09 53.2 | 3.280 | 2.480 | +0.63 | +7.6 | 11.2 | 30.4 |
| Feb. 14 | 20 13.99 | +11 12.7 | 3.380 | 2.621 | +0.53 | +8.3 | 11.5 | 34.0 |
| Feb. 24 | 20 18.86 | +12 39.0 | 3.454 | 2.758 | +0.43 | +9.0 | 11.8 | 39.1 |
| Mar. 6 | 20 22.60 | +14 11.8 | 3.505 | 2.892 | +0.30 | +9.6 | 12.0 | 45.2 |
| Mar. 16 | 20 25.03 | +15 50.3 | 3.534 | 3.024 | +0.17 | +10.1 | 12.2 | 51.9 |
| Mar. 26 | 20 26.00 | +17 33.4 | 3.545 | 3.153 | +0.01 | +10.5 | 12.4 | 59.2 |
| Apr. 5 | 20 25.31 | +19 19.7 | 3.541 | 3.280 | -0.17 | +10.7 | 12.6 | 66.9 |
| Apr. 15 | 20 22.76 | +21 07.3 | 3.527 | 3.405 | -0.36 | +10.7 | 12.8 | 74.9 |
| Apr. 25 | 20 18.18 | +22 53.4 | 3.506 | 3.529 | -0.58 | +10.4 | 12.9 | 83.0 |
| May 5 | 20 11.42 | +24 34.6 | 3.485 | 3.650 | -0.80 | +9.7 | 13.0 | 91.3 |
| May 15 | 20 02.42 | +26 06.4 | 3.469 | 3.769 | -1.02 | +8.5 | 13.2 | 99.5 |
| May 25 | 19 51.28 | +27 23.8 | 3.463 | 3.887 | -1.22 | +6.7 | 13.3 | 107.4 |
| June 4 | 19 38.27 | +28 21.6 | 3.473 | 4.003 | -1.39 | +4.5 | 13.4 | 114.7 |
| June 14 | 19 23.90 | +28 55.3 | 3.503 | 4.118 | -1.49 | +1.9 | 13.6 | 120.9 |
| June 24 | 19 08.86 | +29 02.4 | 3.557 | 4.232 | -1.51 | -0.8 | 13.7 | 125.7 |
| July 4 | 18 53.95 | +28 42.3 | 3.638 | 4.344 | -1.45 | -3.4 | 13.9 | 128.4 |
| July 14 | 18 39.92 | +27 57.3 | 3.748 | 4.454 | -1.33 | -5.7 | 14.1 | 128.7 |
| July 24 | 18 27.40 | +26 51.8 | 3.884 | 4.564 | -1.15 | -7.5 | 14.2 | 126.7 |
| Aug. 3 | 18 16.79 | +25 31.2 | 4.046 | 4.672 | -0.95 | -8.7 | 14.4 | 122.7 |
| Aug. 13 | 18 08.28 | +24 01.3 | 4.230 | 4.779 | -0.73 | -9.3 | 14.6 | 117.3 |
| Aug. 23 | 18 01.89 | +22 27.3 | 4.432 | 4.885 | -0.53 | -9.5 | 14.8 | 110.9 |
| Sept. 2 | 17 57.50 | +20 53.4 | 4.650 | 4.991 | -0.33 | -9.2 | 15.0 | 104.0 |
| Sept. 12 | 17 54.95 | +19 23.0 | 4.877 | 5.095 | -0.16 | -8.8 | 15.2 | 96.8 |
| Sept. 22 | 17 54.00 | +17 58.3 | 5.110 | 5.198 | -0.01 | -8.1 | 15.4 | 89.4 |
| Oct. 2 | 17 54.46 | +16 40.9 | 5.345 | 5.300 | +0.11 | -7.3 | 15.6 | 82.0 |
| Oct. 12 | 17 56.10 | +15 31.8 | 5.577 | 5.401 | +0.22 | -6.4 | 15.8 | 74.7 |
| Oct. 22 | 17 58.73 | +14 31.7 | 5.803 | 5.502 | +0.31 | -5.5 | 15.9 | 67.6 |
| Nov. 1 | 18 02.16 | +13 40.8 | 6.019 | 5.601 | +0.38 | -4.6 | 16.1 | 60.7 |
| Nov. 11 | 18 06.23 | +12 59.4 | 6.222 | 5.700 | +0.44 | -3.6 | 16.2 | 54.2 |
| Nov. 21 | 18 10.78 | +12 27.2 | 6.409 | 5.798 | +0.48 | -2.7 | 16.4 | 48.2 |
| Dec. 1 | 18 15.66 | +12 04.3 | 6.579 | 5.895 | +0.50 | -1.8 | 16.5 | 42.9 |
| Dec. 11 | 18 20.75 | +11 50.4 | 6.728 | 5.992 | +0.51 | -0.9 | 16.6 | 38.7 |
| Dec. 21 | 18 25.90 | +11 45.2 | 6.856 | 6.087 | +0.52 | 0.0 | 16.7 | 36.0 |
| Dec. 31 | 18 31.01 | +11 48.6 | 6.962 | 6.182 | +0.50 | +0.8 | 16.8 | 35.0 |
| Jan. 10 | 18 35.94 | +12 00.0 | 7.046 | 6.277 | +0.48 | +1.6 | 16.9 | 36.0 |
| Jan. 20 | 18 40.60 | +12 19.0 | 7.107 | 6.371 | +0.45 | +2.3 | 17.0 | 38.9 |
| Jan. 30 | 18 44.85 | +12 45.1 | 7.146 | 6.464 | +0.40 | +3.0 | 17.1 | 43.2 |
| Feb. 9 | 18 48.60 | +13 17.8 | 7.165 | 6.556 | +0.34 | +3.6 | 17.1 | 48.7 |
| Feb. 19 | 18 51.74 | +13 56.3 | 7.166 | 6.648 | +0.28 | +4.1 | 17.2 | 54.9 |
| Mar. 1 | 18 54.16 | +14 39.7 | 7.151 | 6.739 | +0.20 | +4.6 | 17.3 | 61.8 |
| Mar. 11 | 18 55.77 | +15 27.2 | 7.123 | 6.830 | +0.11 | +4.9 | 17.3 | 69.0 |
| Mar. 21 | 18 56.49 | +16 17.6 | 7.085 | 6.920 | +0.02 | +5.1 | 17.4 | 76.5 |
| Mar. 31 | 18 56.25 | +17 09.5 | 7.041 | 7.010 | -0.08 | +5.2 | 17.4 | 84.1 |

Comet P/2024 T1 (Rankin)

Epoch = 2025 July 24.0 TT
 T = 2024 Sept. 30.38497 TT
 Peri. = 164.86435 e = 0.6533805
 Node = 279.71041 2000.0 a = 6.5980050 AU
 Incl. = 17.62003 n = 0.05815474
 q = 2.2869972 AU P = 16.95 years

$$m1 = 13.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 08 24.62 | +10° 02' 0" | 1.516 | 2.450 | -0.73 -7.7 | 18.0 | 156.8 |
| Jan. 15 | 08 16.85 | +08 51.4 | 1.519 | 2.484 | -0.81 -6.3 | 18.1 | 165.7 |
| Jan. 25 | 08 08.77 | +07 55.2 | 1.549 | 2.520 | -0.78 -4.8 | 18.2 | 167.8 |
| Feb. 4 | 08 01.49 | +07 13.5 | 1.606 | 2.558 | -0.64 -3.4 | 18.3 | 160.9 |
| Feb. 14 | 07 55.95 | +06 44.5 | 1.689 | 2.599 | -0.43 -2.3 | 18.5 | 151.3 |
| Feb. 24 | 07 52.70 | +06 25.1 | 1.795 | 2.641 | -0.19 -1.5 | 18.7 | 141.3 |
| Mar. 6 | 07 51.97 | +06 12.2 | 1.920 | 2.685 | +0.07 -1.1 | 18.9 | 131.8 |
| Mar. 16 | 07 53.71 | +06 02.2 | 2.062 | 2.731 | +0.30 -0.9 | 19.1 | 122.8 |
| Mar. 26 | 07 57.69 | +05 52.5 | 2.216 | 2.779 | +0.51 -1.1 | 19.4 | 114.2 |
| Apr. 5 | 08 03.63 | +05 40.7 | 2.380 | 2.828 | +0.69 -1.4 | 19.6 | 106.2 |
| Apr. 15 | 08 11.21 | +05 25.2 | 2.551 | 2.878 | +0.84 -1.8 | 19.8 | 98.6 |
| Apr. 25 | 08 20.11 | +05 04.7 | 2.727 | 2.929 | +0.95 -2.3 | 20.0 | 91.4 |
| May 5 | 08 30.09 | +04 38.7 | 2.904 | 2.981 | +1.05 -2.9 | 20.3 | 84.5 |
| May 15 | 08 40.89 | +04 06.7 | 3.082 | 3.034 | +1.12 -3.5 | 20.5 | 77.8 |
| May 25 | 08 52.33 | +03 28.6 | 3.259 | 3.088 | +1.17 -4.1 | 20.7 | 71.4 |
| June 4 | 09 04.23 | +02 44.4 | 3.432 | 3.143 | +1.21 -4.7 | 20.9 | 65.1 |
| June 14 | 09 16.46 | +01 54.4 | 3.600 | 3.198 | +1.24 -5.3 | 21.0 | 59.0 |
| June 24 | 09 28.91 | +00 59.0 | 3.762 | 3.254 | +1.25 -5.8 | 21.2 | 53.0 |
| July 4 | 09 41.48 | +00 01.6 | 3.917 | 3.310 | +1.26 -6.3 | 21.4 | 47.1 |
| July 14 | 09 54.09 | -01 06.8 | 4.062 | 3.367 | +1.26 -6.8 | 21.5 | 41.3 |
| July 24 | 10 06.68 | -02 16.2 | 4.197 | 3.423 | +1.26 -7.2 | 21.7 | 35.6 |
| Aug. 3 | 10 19.20 | -03 29.4 | 4.321 | 3.481 | +1.25 -7.5 | 21.8 | 30.1 |
| Aug. 13 | 10 31.60 | -04 45.7 | 4.433 | 3.538 | +1.23 -7.8 | 21.9 | 24.7 |
| Aug. 23 | 10 43.84 | -06 04.8 | 4.531 | 3.596 | +1.21 -8.0 | 22.0 | 19.8 |
| Sept. 2 | 10 55.87 | -07 26.2 | 4.614 | 3.653 | +1.19 -8.2 | . | 15.7 |
| Sept. 12 | 11 07.66 | -08 49.2 | 4.682 | 3.711 | +1.16 -8.4 | . | 13.5 |
| Sept. 22 | 11 19.16 | -10 13.6 | 4.735 | 3.769 | +1.13 -8.5 | . | 14.1 |
| Oct. 2 | 11 30.32 | -11 38.7 | 4.770 | 3.827 | +1.10 -8.5 | . | 17.3 |
| Oct. 12 | 11 41.09 | -13 04.0 | 4.790 | 3.884 | +1.05 -8.5 | . | 22.3 |
| Oct. 22 | 11 51.40 | -14 29.2 | 4.792 | 3.942 | +1.00 -8.5 | . | 28.1 |
| Nov. 1 | 12 01.19 | -15 53.7 | 4.777 | 4.000 | +0.95 -8.4 | . | 34.5 |
| Nov. 11 | 12 10.35 | -17 16.9 | 4.747 | 4.057 | +0.88 -8.2 | . | 41.4 |
| Nov. 21 | 12 18.81 | -18 38.3 | 4.701 | 4.115 | +0.80 -8.0 | . | 48.6 |
| Dec. 1 | 12 26.43 | -19 57.3 | 4.642 | 4.172 | +0.71 -7.7 | . | 56.1 |
| Dec. 11 | 12 33.11 | -21 13.1 | 4.570 | 4.229 | +0.61 -7.4 | . | 63.8 |
| Dec. 21 | 12 38.70 | -22 25.1 | 4.488 | 4.286 | +0.49 -6.9 | . | 71.9 |
| Dec. 31 | 12 43.05 | -23 32.0 | 4.398 | 4.343 | +0.36 -6.4 | . | 80.3 |
| Jan. 10 | 12 46.05 | -24 32.9 | 4.305 | 4.399 | +0.22 -5.7 | . | 89.0 |
| Jan. 20 | 12 47.56 | -25 26.5 | 4.211 | 4.456 | +0.07 -4.9 | . | 98.0 |
| Jan. 30 | 12 47.51 | -26 11.0 | 4.121 | 4.512 | -0.09 -3.9 | . | 107.2 |
| Feb. 9 | 12 45.89 | -26 45.0 | 4.039 | 4.568 | -0.25 -2.8 | . | 116.7 |
| Feb. 19 | 12 42.77 | -27 06.8 | 3.970 | 4.623 | -0.39 -1.4 | . | 126.2 |
| Mar. 1 | 12 38.33 | -27 15.0 | 3.918 | 4.679 | -0.51 0.0 | . | 135.7 |
| Mar. 11 | 12 32.88 | -27 09.0 | 3.888 | 4.734 | -0.59 +1.4 | . | 144.7 |
| Mar. 21 | 12 26.81 | -26 49.1 | 3.884 | 4.789 | -0.62 +2.7 | . | 152.4 |
| Mar. 31 | 12 20.60 | -26 16.7 | 3.906 | 4.843 | -0.61 +3.8 | . | 157.3 |

Comet C/2024 B1 (Lemmon)

Epoch = 2025 July 24.0 TT
 T = 2024 Oct. 7.72360 TT
 Peri. = 66.21814
 Node = 79.18853 2000.0
 Incl. = 70.90297
 q = 1.6338121 AU
 e = 1.0010400

$$m1 = 9.7 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 17 10.51 | +19 49.5 | 2.490 | 2.014 | +1.55 | -10.7 | 16.2 | 50.6 |
| Jan. 15 | 17 25.07 | +18 12.4 | 2.540 | 2.091 | +1.34 | -8.5 | 16.5 | 52.5 |
| Jan. 25 | 17 37.55 | +16 56.0 | 2.574 | 2.172 | +1.14 | -6.6 | 16.8 | 55.4 |
| Feb. 4 | 17 48.00 | +15 57.7 | 2.592 | 2.255 | +0.93 | -5.0 | 17.1 | 59.4 |
| Feb. 14 | 17 56.39 | +15 14.4 | 2.594 | 2.342 | +0.72 | -3.6 | 17.3 | 64.3 |
| Feb. 24 | 18 02.63 | +14 43.2 | 2.580 | 2.430 | +0.50 | -2.6 | 17.5 | 70.2 |
| Mar. 6 | 18 06.60 | +14 20.9 | 2.553 | 2.520 | +0.26 | -1.9 | 17.8 | 76.9 |
| Mar. 16 | 18 08.11 | +14 04.1 | 2.516 | 2.612 | +0.01 | -1.5 | 18.0 | 84.3 |
| Mar. 26 | 18 07.00 | +13 49.1 | 2.471 | 2.705 | -0.26 | -1.6 | 18.1 | 92.5 |
| Apr. 5 | 18 03.11 | +13 31.5 | 2.425 | 2.798 | -0.54 | -2.1 | 18.3 | 101.3 |
| Apr. 15 | 17 56.40 | +13 06.4 | 2.382 | 2.892 | -0.82 | -3.1 | 18.5 | 110.6 |
| Apr. 25 | 17 46.98 | +12 29.2 | 2.349 | 2.987 | -1.08 | -4.6 | 18.7 | 120.4 |
| May 5 | 17 35.17 | +11 35.4 | 2.334 | 3.082 | -1.29 | -6.4 | 18.9 | 130.2 |
| May 15 | 17 21.63 | +10 22.1 | 2.341 | 3.177 | -1.42 | -8.4 | 19.1 | 139.4 |
| May 25 | 17 07.21 | +08 49.2 | 2.378 | 3.272 | -1.45 | -10.3 | 19.3 | 146.8 |
| June 4 | 16 52.89 | +06 58.9 | 2.447 | 3.368 | -1.39 | -11.8 | 19.6 | 150.6 |
| June 14 | 16 39.61 | +04 56.2 | 2.550 | 3.463 | -1.24 | -12.7 | 19.8 | 149.4 |
| June 24 | 16 28.04 | +02 46.9 | 2.686 | 3.558 | -1.04 | -13.1 | 20.1 | 143.8 |
| July 4 | 16 18.63 | +00 36.2 | 2.853 | 3.652 | -0.81 | -13.0 | 20.4 | 135.9 |
| July 14 | 16 11.55 | -01 31.6 | 3.046 | 3.747 | -0.58 | -12.5 | 20.7 | 127.1 |
| July 24 | 16 06.74 | -03 33.8 | 3.259 | 3.841 | -0.36 | -11.9 | 21.0 | 117.9 |
| Aug. 3 | 16 04.07 | -05 29.1 | 3.490 | 3.935 | -0.16 | -11.1 | 21.3 | 108.8 |
| Aug. 13 | 16 03.30 | -07 16.9 | 3.731 | 4.029 | +0.02 | -10.4 | 21.6 | 99.8 |
| Aug. 23 | 16 04.19 | -08 57.1 | 3.979 | 4.122 | +0.17 | -9.6 | 21.9 | 91.0 |
| Sept. 2 | 16 06.53 | -10 30.2 | 4.229 | 4.215 | +0.30 | -8.9 | . | 82.3 |
| Sept. 12 | 16 10.09 | -11 56.4 | 4.478 | 4.308 | +0.41 | -8.3 | . | 73.9 |
| Sept. 22 | 16 14.67 | -13 16.3 | 4.720 | 4.400 | +0.51 | -7.7 | . | 65.5 |
| Oct. 2 | 16 20.11 | -14 30.3 | 4.954 | 4.492 | +0.58 | -7.1 | . | 57.2 |
| Oct. 12 | 16 26.24 | -15 38.7 | 5.175 | 4.583 | +0.65 | -6.6 | . | 49.1 |
| Oct. 22 | 16 32.93 | -16 42.0 | 5.381 | 4.675 | +0.69 | -6.1 | . | 40.9 |
| Nov. 1 | 16 40.05 | -17 40.6 | 5.570 | 4.765 | +0.73 | -5.6 | . | 32.7 |
| Nov. 11 | 16 47.47 | -18 34.6 | 5.738 | 4.855 | +0.75 | -5.2 | . | 24.6 |
| Nov. 21 | 16 55.08 | -19 24.6 | 5.885 | 4.945 | +0.77 | -4.8 | . | 16.4 |
| Dec. 1 | 17 02.76 | -20 10.7 | 6.008 | 5.035 | +0.77 | -4.4 | . | 8.3 |
| Dec. 11 | 17 10.40 | -20 53.4 | 6.108 | 5.124 | +0.76 | -4.1 | . | 2.1 |
| Dec. 21 | 17 17.89 | -21 33.1 | 6.182 | 5.212 | +0.74 | -3.8 | . | 8.9 |
| Dec. 31 | 17 25.12 | -22 10.2 | 6.231 | 5.300 | +0.70 | -3.6 | . | 17.3 |
| Jan. 10 | 17 31.96 | -22 45.1 | 6.256 | 5.388 | +0.66 | -3.4 | . | 25.8 |
| Jan. 20 | 17 38.31 | -23 18.4 | 6.258 | 5.476 | +0.60 | -3.3 | . | 34.5 |
| Jan. 30 | 17 44.04 | -23 50.5 | 6.237 | 5.562 | +0.53 | -3.2 | . | 43.4 |
| Feb. 9 | 17 49.03 | -24 22.0 | 6.197 | 5.649 | +0.45 | -3.1 | . | 52.4 |
| Feb. 19 | 17 53.16 | -24 53.4 | 6.140 | 5.735 | +0.36 | -3.2 | . | 61.5 |
| Mar. 1 | 17 56.30 | -25 25.2 | 6.070 | 5.821 | +0.26 | -3.2 | . | 70.9 |
| Mar. 11 | 17 58.35 | -25 57.7 | 5.990 | 5.907 | +0.14 | -3.3 | . | 80.4 |
| Mar. 21 | 17 59.21 | -26 31.1 | 5.905 | 5.992 | +0.02 | -3.4 | . | 90.2 |
| Mar. 31 | 17 58.78 | -27 05.4 | 5.820 | 6.076 | -0.11 | -3.5 | . | 100.2 |

Comet 37P/Forbes

Epoch = 2025 July 24.0 TT
 T = 2024 Oct. 11.23520 TT
 Peri. = 330.06549 e = 0.5326359
 Node = 314.54803 2000.0 a = 3.4617828 AU
 Incl. = 8.94780 n = 0.15302217
 q = 1.6179130 AU P = 6.44 years

$$m1 = 5.8 + 5 \log(\Delta) + 25.0 \log(r(t-20))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 21 08.75 | -14° 30' 4" | 2.592 | 1.818 | +2.59 +14.5 | 13.9 | 30.8 |
| Jan. 15 | 21 34.08 | -12 03.0 | 2.681 | 1.862 | +2.47 +15.0 | 14.2 | 27.3 |
| Jan. 25 | 21 58.26 | -09 31.5 | 2.770 | 1.909 | +2.36 +15.3 | 14.5 | 23.6 |
| Feb. 4 | 22 21.38 | -06 57.9 | 2.858 | 1.958 | +2.26 +15.4 | 14.8 | 19.8 |
| Feb. 14 | 22 43.52 | -04 24.1 | 2.942 | 2.010 | +2.16 +15.3 | 15.2 | 15.9 |
| Feb. 24 | 23 04.77 | -01 51.8 | 3.021 | 2.063 | +2.08 +15.1 | 15.5 | 11.9 |
| Mar. 6 | 23 25.22 | +00 38.0 | 3.095 | 2.117 | +2.00 +14.8 | 15.8 | 8.0 |
| Mar. 16 | 23 44.94 | +03 04.1 | 3.162 | 2.173 | +1.93 +14.4 | 16.2 | 5.0 |
| Mar. 26 | 00 03.99 | +05 25.6 | 3.221 | 2.230 | +1.87 +13.9 | 16.5 | 5.1 |
| Apr. 5 | 00 22.41 | +07 41.9 | 3.272 | 2.287 | +1.81 +13.3 | 16.8 | 8.4 |
| Apr. 15 | 00 40.24 | +09 52.5 | 3.312 | 2.344 | +1.75 +12.7 | 17.1 | 12.8 |
| Apr. 25 | 00 57.51 | +11 57.0 | 3.342 | 2.402 | +1.70 +12.1 | 17.4 | 17.6 |
| May 5 | 01 14.21 | +13 55.1 | 3.360 | 2.461 | +1.64 +11.4 | 17.7 | 22.7 |
| May 15 | 01 30.33 | +15 46.6 | 3.367 | 2.519 | +1.58 +10.8 | 18.0 | 27.9 |
| May 25 | 01 45.84 | +17 31.5 | 3.362 | 2.577 | +1.52 +10.1 | 18.2 | 33.4 |
| June 4 | 02 00.69 | +19 09.6 | 3.344 | 2.635 | +1.45 +9.4 | 18.5 | 39.0 |
| June 14 | 02 14.80 | +20 41.0 | 3.315 | 2.692 | +1.37 +8.8 | 18.7 | 44.9 |
| June 24 | 02 28.09 | +22 06.0 | 3.274 | 2.750 | +1.28 +8.1 | 18.9 | 51.0 |
| July 4 | 02 40.43 | +23 24.5 | 3.222 | 2.807 | +1.18 +7.5 | 19.1 | 57.3 |
| July 14 | 02 51.68 | +24 36.9 | 3.160 | 2.863 | +1.06 +6.9 | 19.3 | 64.0 |
| July 24 | 03 01.68 | +25 43.2 | 3.089 | 2.919 | +0.92 +6.3 | 19.5 | 70.9 |
| Aug. 3 | 03 10.20 | +26 43.7 | 3.010 | 2.975 | +0.76 +5.7 | 19.6 | 78.3 |
| Aug. 13 | 03 17.04 | +27 38.3 | 2.926 | 3.030 | +0.58 +5.1 | 19.8 | 86.1 |
| Aug. 23 | 03 21.96 | +28 26.7 | 2.839 | 3.084 | +0.38 +4.5 | 19.9 | 94.3 |
| Sept. 2 | 03 24.70 | +29 08.4 | 2.753 | 3.138 | +0.15 +3.8 | 20.0 | 103.0 |
| Sept. 12 | 03 25.07 | +29 42.3 | 2.670 | 3.191 | -0.10 +2.9 | 20.2 | 112.3 |
| Sept. 22 | 03 22.96 | +30 06.8 | 2.597 | 3.244 | -0.35 +1.9 | 20.3 | 122.1 |
| Oct. 2 | 03 18.38 | +30 20.1 | 2.536 | 3.296 | -0.59 +0.6 | 20.4 | 132.4 |
| Oct. 12 | 03 11.58 | +30 20.1 | 2.495 | 3.347 | -0.78 -0.8 | 20.6 | 143.1 |
| Oct. 22 | 03 03.07 | +30 05.5 | 2.476 | 3.397 | -0.92 -2.3 | 20.7 | 153.8 |
| Nov. 1 | 02 53.58 | +29 36.5 | 2.485 | 3.447 | -0.97 -3.6 | 20.9 | 163.3 |
| Nov. 11 | 02 44.02 | +28 55.2 | 2.523 | 3.496 | -0.93 -4.7 | 21.1 | 167.5 |
| Nov. 21 | 02 35.22 | +28 05.4 | 2.592 | 3.545 | -0.81 -5.2 | 21.3 | 162.0 |
| Dec. 1 | 02 27.90 | +27 12.5 | 2.690 | 3.592 | -0.63 -5.3 | 21.5 | 152.2 |
| Dec. 11 | 02 22.53 | +26 21.3 | 2.815 | 3.639 | -0.42 -4.9 | 21.8 | 141.6 |
| Dec. 21 | 02 19.29 | +25 36.0 | 2.964 | 3.686 | -0.20 -4.1 | 22.0 | 131.1 |
| Dec. 31 | 02 18.22 | +24 59.2 | 3.131 | 3.731 | +0.01 -3.1 | . | 120.8 |
| Jan. 10 | 02 19.17 | +24 32.4 | 3.311 | 3.776 | +0.20 -2.1 | . | 110.9 |
| Jan. 20 | 02 21.95 | +24 15.6 | 3.501 | 3.820 | +0.37 -1.1 | . | 101.4 |
| Jan. 30 | 02 26.34 | +24 08.3 | 3.696 | 3.864 | +0.52 -0.2 | . | 92.3 |
| Feb. 9 | 02 32.12 | +24 09.5 | 3.892 | 3.906 | +0.65 +0.5 | . | 83.6 |
| Feb. 19 | 02 39.07 | +24 17.9 | 4.085 | 3.948 | +0.75 +1.2 | . | 75.1 |
| Mar. 1 | 02 47.02 | +24 32.3 | 4.272 | 3.990 | +0.84 +1.7 | . | 66.9 |
| Mar. 11 | 02 55.79 | +24 51.4 | 4.450 | 4.030 | +0.92 +2.1 | . | 59.0 |
| Mar. 21 | 03 05.24 | +25 13.9 | 4.618 | 4.070 | +0.98 +2.4 | . | 51.3 |
| Mar. 31 | 03 15.24 | +25 38.8 | 4.771 | 4.109 | +1.03 +2.6 | . | 43.8 |

Comet 487P/Siding Spring

Epoch = 2025 July 24.0 TT
 T = 2024 Oct. 20.58662 TT
 Peri. = 0.84213 e = 0.6484326
 Node = 49.20228 2000.0 a = 5.1617900 AU
 Incl. = 39.36618 n = 0.08404339
 q = 1.8147171 AU P = 11.73 years

$$m1 = 7.2 + 5 \log(\Delta) + 30.0 \log(r(t-50))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° | | | m | ' | | ° |
| Jan. 5 | 02 40.87 | +55 34.8 | 1.266 | 1.974 | -0.23 | +5.2 | 15.6 | 122.2 |
| Jan. 15 | 02 41.82 | +56 21.4 | 1.390 | 2.015 | +0.48 | +4.1 | 16.0 | 115.1 |
| Jan. 25 | 02 49.37 | +57 00.2 | 1.522 | 2.060 | +1.08 | +3.6 | 16.3 | 108.6 |
| Feb. 4 | 03 02.51 | +57 35.4 | 1.658 | 2.107 | +1.59 | +3.4 | 16.7 | 102.7 |
| Feb. 14 | 03 20.32 | +58 07.8 | 1.797 | 2.158 | +2.00 | +3.0 | 17.1 | 97.3 |
| Feb. 24 | 03 41.97 | +58 35.5 | 1.939 | 2.211 | +2.35 | +2.4 | 17.5 | 92.2 |
| Mar. 6 | 04 06.79 | +58 56.2 | 2.082 | 2.266 | +2.63 | +1.6 | 17.9 | 87.4 |
| Mar. 16 | 04 34.08 | +59 07.2 | 2.225 | 2.323 | +2.84 | +0.5 | 18.3 | 82.9 |
| Mar. 26 | 05 03.11 | +59 06.0 | 2.369 | 2.381 | +2.97 | -0.9 | 18.8 | 78.6 |
| Apr. 5 | 05 33.24 | +58 50.8 | 2.513 | 2.441 | +3.05 | -2.3 | 19.2 | 74.3 |
| Apr. 15 | 06 03.75 | +58 20.8 | 2.656 | 2.502 | +3.05 | -3.8 | 19.7 | 70.3 |
| Apr. 25 | 06 34.03 | +57 35.8 | 2.798 | 2.564 | +3.00 | -5.3 | 20.1 | 66.3 |
| May 5 | 07 03.60 | +56 36.6 | 2.939 | 2.627 | +2.90 | -6.6 | 20.5 | 62.3 |
| May 15 | 07 32.09 | +55 24.7 | 3.077 | 2.690 | +2.78 | -7.8 | 20.9 | 58.5 |
| May 25 | 07 59.26 | +54 01.8 | 3.213 | 2.754 | +2.64 | -8.8 | 21.4 | 54.7 |
| June 4 | 08 25.03 | +52 30.0 | 3.345 | 2.818 | +2.50 | -9.6 | 21.8 | 50.9 |
| June 14 | 08 49.35 | +50 51.3 | 3.472 | 2.882 | +2.35 | -10.2 | . | 47.3 |
| June 24 | 09 12.28 | +49 07.7 | 3.595 | 2.946 | +2.22 | -10.6 | . | 43.8 |
| July 4 | 09 33.90 | +47 21.0 | 3.711 | 3.011 | +2.09 | -10.8 | . | 40.5 |
| July 14 | 09 54.32 | +45 32.9 | 3.821 | 3.075 | +1.98 | -10.8 | . | 37.4 |
| July 24 | 10 13.63 | +43 44.9 | 3.922 | 3.140 | +1.88 | -10.7 | . | 34.6 |
| Aug. 3 | 10 31.95 | +41 58.2 | 4.015 | 3.204 | +1.78 | -10.5 | . | 32.4 |
| Aug. 13 | 10 49.36 | +40 14.3 | 4.097 | 3.268 | +1.69 | -10.2 | . | 30.8 |
| Aug. 23 | 11 05.94 | +38 34.1 | 4.169 | 3.332 | +1.62 | -9.8 | . | 30.0 |
| Sept. 2 | 11 21.76 | +36 58.8 | 4.229 | 3.395 | +1.54 | -9.2 | . | 30.2 |
| Sept. 12 | 11 36.87 | +35 29.3 | 4.277 | 3.459 | +1.47 | -8.6 | . | 31.4 |
| Sept. 22 | 11 51.29 | +34 06.4 | 4.313 | 3.522 | +1.41 | -7.9 | . | 33.7 |
| Oct. 2 | 12 05.06 | +32 51.4 | 4.334 | 3.584 | +1.34 | -7.0 | . | 36.9 |
| Oct. 12 | 12 18.15 | +31 44.9 | 4.343 | 3.646 | +1.27 | -6.1 | . | 40.8 |
| Oct. 22 | 12 30.56 | +30 47.8 | 4.337 | 3.708 | +1.20 | -5.1 | . | 45.5 |
| Nov. 1 | 12 42.25 | +30 01.2 | 4.319 | 3.769 | +1.13 | -4.1 | . | 50.7 |
| Nov. 11 | 12 53.15 | +29 25.7 | 4.288 | 3.830 | +1.04 | -2.9 | . | 56.4 |
| Nov. 21 | 13 03.20 | +29 02.2 | 4.246 | 3.891 | +0.95 | -1.7 | . | 62.6 |
| Dec. 1 | 13 12.27 | +28 51.3 | 4.193 | 3.951 | +0.85 | -0.4 | . | 69.1 |
| Dec. 11 | 13 20.25 | +28 53.3 | 4.132 | 4.010 | +0.73 | +0.9 | . | 76.0 |
| Dec. 21 | 13 27.01 | +29 08.6 | 4.066 | 4.070 | +0.60 | +2.3 | . | 83.3 |
| Dec. 31 | 13 32.36 | +29 36.9 | 3.997 | 4.128 | +0.45 | +3.5 | . | 90.7 |
| Jan. 10 | 13 36.14 | +30 17.2 | 3.928 | 4.186 | +0.29 | +4.6 | . | 98.4 |
| Jan. 20 | 13 38.18 | +31 08.0 | 3.863 | 4.244 | +0.10 | +5.6 | . | 106.2 |
| Jan. 30 | 13 38.33 | +32 06.7 | 3.806 | 4.301 | -0.09 | +6.2 | . | 114.0 |
| Feb. 9 | 13 36.52 | +33 09.9 | 3.761 | 4.358 | -0.29 | +6.4 | . | 121.5 |
| Feb. 19 | 13 32.72 | +34 13.2 | 3.732 | 4.414 | -0.49 | +6.1 | . | 128.4 |
| Mar. 1 | 13 27.07 | +35 11.4 | 3.723 | 4.470 | -0.66 | +5.3 | . | 134.2 |
| Mar. 11 | 13 19.86 | +35 59.3 | 3.736 | 4.525 | -0.79 | +4.0 | . | 138.2 |
| Mar. 21 | 13 11.53 | +36 32.4 | 3.773 | 4.580 | -0.87 | +2.4 | . | 139.9 |
| Mar. 31 | 13 02.67 | +36 47.4 | 3.835 | 4.634 | -0.89 | +0.4 | . | 138.8 |

Comet 253P/PANSTARRS

Epoch = 2025 July 24.0 TT
 T = 2024 Oct. 21.03318 TT
 Peri. = 230.84811 e = 0.4153153
 Node = 146.82230 2000.0 a = 3.4653664 AU
 Incl. = 4.94589 n = 0.15278487
 q = 2.0261467 AU P = 6.45 years

$$m1 = 11.5 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 01 22.35 | +02 25.0 | 1.777 | 2.109 | +1.34 +10.1 | 17.6 | 95.4 |
| Jan. 15 | 01 36.37 | +04 07.6 | 1.907 | 2.132 | +1.47 +10.4 | 17.8 | 89.1 |
| Jan. 25 | 01 51.52 | +05 52.7 | 2.040 | 2.156 | +1.57 +10.6 | 18.1 | 83.1 |
| Feb. 4 | 02 07.62 | +07 38.2 | 2.175 | 2.183 | +1.66 +10.5 | 18.3 | 77.4 |
| Feb. 14 | 02 24.52 | +09 21.8 | 2.311 | 2.211 | +1.73 +10.2 | 18.5 | 71.8 |
| Feb. 24 | 02 42.06 | +11 01.9 | 2.447 | 2.242 | +1.79 +9.8 | 18.7 | 66.3 |
| Mar. 6 | 03 00.16 | +12 36.9 | 2.582 | 2.274 | +1.84 +9.2 | 18.9 | 61.0 |
| Mar. 16 | 03 18.71 | +14 05.5 | 2.715 | 2.307 | +1.88 +8.5 | 19.1 | 55.8 |
| Mar. 26 | 03 37.61 | +15 26.5 | 2.844 | 2.342 | +1.91 +7.7 | 19.3 | 50.7 |
| Apr. 5 | 03 56.79 | +16 39.2 | 2.969 | 2.378 | +1.93 +6.8 | 19.5 | 45.6 |
| Apr. 15 | 04 16.17 | +17 42.7 | 3.089 | 2.416 | +1.94 +5.8 | 19.7 | 40.5 |
| Apr. 25 | 04 35.65 | +18 36.6 | 3.202 | 2.454 | +1.95 +4.9 | 19.9 | 35.5 |
| May 5 | 04 55.18 | +19 20.7 | 3.309 | 2.493 | +1.95 +3.9 | 20.0 | 30.5 |
| May 15 | 05 14.66 | +19 54.8 | 3.408 | 2.532 | +1.94 +2.9 | 20.2 | 25.4 |
| May 25 | 05 34.02 | +20 19.0 | 3.497 | 2.573 | +1.93 +1.9 | 20.4 | 20.4 |
| June 4 | 05 53.18 | +20 33.4 | 3.578 | 2.613 | +1.90 +0.9 | 20.5 | 15.4 |
| June 14 | 06 12.06 | +20 38.5 | 3.647 | 2.655 | +1.87 0.0 | 20.7 | 10.3 |
| June 24 | 06 30.59 | +20 34.7 | 3.706 | 2.696 | +1.83 -0.8 | 20.8 | 5.5 |
| July 4 | 06 48.72 | +20 22.6 | 3.753 | 2.738 | +1.79 -1.6 | 20.9 | 2.6 |
| July 14 | 07 06.37 | +20 02.9 | 3.788 | 2.780 | +1.74 -2.4 | 21.1 | 6.4 |
| July 24 | 07 23.48 | +19 36.5 | 3.809 | 2.822 | +1.68 -3.0 | 21.2 | 11.6 |
| Aug. 3 | 07 40.01 | +19 04.1 | 3.818 | 2.864 | +1.62 -3.5 | 21.3 | 17.2 |
| Aug. 13 | 07 55.89 | +18 26.6 | 3.813 | 2.906 | +1.55 -4.0 | 21.4 | 22.9 |
| Aug. 23 | 08 11.08 | +17 45.2 | 3.794 | 2.948 | +1.48 -4.3 | 21.4 | 28.8 |
| Sept. 2 | 08 25.51 | +17 00.8 | 3.762 | 2.991 | +1.40 -4.6 | 21.5 | 34.9 |
| Sept. 12 | 08 39.11 | +16 14.5 | 3.716 | 3.032 | +1.31 -4.7 | 21.6 | 41.3 |
| Sept. 22 | 08 51.82 | +15 27.5 | 3.656 | 3.074 | +1.22 -4.7 | 21.6 | 47.8 |
| Oct. 2 | 09 03.54 | +14 41.0 | 3.585 | 3.116 | +1.11 -4.6 | 21.7 | 54.7 |
| Oct. 12 | 09 14.18 | +13 56.4 | 3.502 | 3.157 | +1.00 -4.3 | 21.7 | 61.9 |
| Oct. 22 | 09 23.62 | +13 15.1 | 3.409 | 3.198 | +0.87 -3.9 | 21.7 | 69.4 |
| Nov. 1 | 09 31.72 | +12 38.6 | 3.309 | 3.239 | +0.73 -3.3 | 21.8 | 77.3 |
| Nov. 11 | 09 38.33 | +12 08.3 | 3.202 | 3.279 | +0.57 -2.6 | 21.8 | 85.6 |
| Nov. 21 | 09 43.30 | +11 45.9 | 3.093 | 3.319 | +0.40 -1.7 | 21.8 | 94.4 |
| Dec. 1 | 09 46.43 | +11 32.9 | 2.985 | 3.359 | +0.21 -0.7 | 21.8 | 103.7 |
| Dec. 11 | 09 47.61 | +11 30.4 | 2.882 | 3.398 | +0.01 +0.4 | 21.8 | 113.6 |
| Dec. 21 | 09 46.72 | +11 39.3 | 2.788 | 3.437 | -0.20 +1.5 | 21.8 | 124.0 |
| Dec. 31 | 09 43.78 | +11 59.8 | 2.710 | 3.475 | -0.40 +2.6 | 21.8 | 135.0 |
| Jan. 10 | 09 38.93 | +12 30.7 | 2.651 | 3.514 | -0.58 +3.6 | 21.8 | 146.5 |
| Jan. 20 | 09 32.50 | +13 10.2 | 2.618 | 3.551 | -0.71 +4.3 | 21.8 | 158.3 |
| Jan. 30 | 09 25.02 | +13 54.9 | 2.613 | 3.588 | -0.78 +4.6 | 21.9 | 170.4 |
| Feb. 9 | 09 17.15 | +14 41.0 | 2.639 | 3.625 | -0.78 +4.6 | 22.0 | 177.1 |
| Feb. 19 | 09 09.60 | +15 25.0 | 2.697 | 3.661 | -0.71 +4.1 | . | 165.2 |
| Mar. 1 | 09 03.03 | +16 03.6 | 2.784 | 3.697 | -0.58 +3.5 | . | 153.5 |
| Mar. 11 | 08 57.93 | +16 34.9 | 2.898 | 3.732 | -0.42 +2.7 | . | 142.1 |
| Mar. 21 | 08 54.59 | +16 57.9 | 3.035 | 3.767 | -0.23 +1.8 | . | 131.3 |
| Mar. 31 | 08 53.15 | +17 12.3 | 3.189 | 3.801 | -0.04 +1.0 | . | 121.0 |

Comet 33P/Daniel

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 10.87487 TT
 Peri. = 20.25431 e = 0.4519156
 Node = 66.27941 2000.0 a = 4.0914930 AU
 Incl. = 22.29404 n = 0.11909166
 q = 2.2424835 AU P = 8.28 years

$$m1 = 12.8 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 07 09.23 | +46 46.1 | 1.349 | 2.282 | -1.00 +10.5 | 17.0 | 155.8 |
| Jan. 15 | 06 59.43 | +48 14.4 | 1.386 | 2.298 | -0.93 +6.7 | 17.1 | 151.3 |
| Jan. 25 | 06 51.14 | +49 04.9 | 1.445 | 2.315 | -0.68 +3.1 | 17.2 | 144.1 |
| Feb. 4 | 06 45.96 | +49 21.6 | 1.524 | 2.335 | -0.30 +0.1 | 17.4 | 135.9 |
| Feb. 14 | 06 44.79 | +49 11.9 | 1.620 | 2.358 | +0.11 -2.1 | 17.6 | 127.7 |
| Feb. 24 | 06 47.72 | +48 43.1 | 1.730 | 2.382 | +0.51 -3.7 | 17.8 | 119.8 |
| Mar. 6 | 06 54.41 | +48 00.7 | 1.850 | 2.408 | +0.86 -4.8 | 18.0 | 112.2 |
| Mar. 16 | 07 04.31 | +47 08.4 | 1.979 | 2.436 | +1.14 -5.7 | 18.1 | 105.1 |
| Mar. 26 | 07 16.73 | +46 08.1 | 2.114 | 2.465 | +1.36 -6.4 | 18.3 | 98.4 |
| Apr. 5 | 07 31.11 | +45 00.8 | 2.252 | 2.496 | +1.52 -7.1 | 18.5 | 92.0 |
| Apr. 15 | 07 46.90 | +43 47.1 | 2.394 | 2.529 | +1.64 -7.7 | 18.7 | 85.9 |
| Apr. 25 | 08 03.64 | +42 27.3 | 2.536 | 2.563 | +1.71 -8.3 | 18.9 | 80.1 |
| May 5 | 08 21.00 | +41 01.7 | 2.679 | 2.598 | +1.76 -8.9 | 19.1 | 74.5 |
| May 15 | 08 38.68 | +39 30.7 | 2.820 | 2.634 | +1.78 -9.4 | 19.3 | 69.1 |
| May 25 | 08 56.45 | +37 54.8 | 2.959 | 2.671 | +1.78 -9.8 | 19.4 | 63.8 |
| June 4 | 09 14.18 | +36 14.6 | 3.095 | 2.709 | +1.76 -10.2 | 19.6 | 58.6 |
| June 14 | 09 31.73 | +34 30.9 | 3.227 | 2.748 | +1.74 -10.5 | 19.7 | 53.6 |
| June 24 | 09 49.03 | +32 44.2 | 3.354 | 2.788 | +1.71 -10.8 | 19.9 | 48.6 |
| July 4 | 10 06.03 | +30 55.4 | 3.475 | 2.828 | +1.68 -11.0 | 20.0 | 43.7 |
| July 14 | 10 22.69 | +29 05.4 | 3.589 | 2.869 | +1.65 -11.0 | 20.2 | 38.8 |
| July 24 | 10 39.00 | +27 14.8 | 3.695 | 2.910 | +1.61 -11.1 | 20.3 | 34.1 |
| Aug. 3 | 10 54.97 | +25 24.4 | 3.792 | 2.952 | +1.58 -11.0 | 20.4 | 29.5 |
| Aug. 13 | 11 10.59 | +23 35.1 | 3.880 | 2.994 | +1.54 -10.8 | 20.5 | 25.2 |
| Aug. 23 | 11 25.85 | +21 47.5 | 3.956 | 3.037 | +1.51 -10.6 | 20.6 | 21.3 |
| Sept. 2 | 11 40.78 | +20 02.3 | 4.021 | 3.079 | +1.47 -10.3 | 20.7 | 18.2 |
| Sept. 12 | 11 55.35 | +18 20.5 | 4.074 | 3.122 | +1.44 -10.0 | 20.8 | 16.5 |
| Sept. 22 | 12 09.57 | +16 42.4 | 4.114 | 3.165 | +1.40 -9.6 | 20.9 | 16.6 |
| Oct. 2 | 12 23.44 | +15 09.1 | 4.140 | 3.208 | +1.37 -9.1 | 20.9 | 18.7 |
| Oct. 12 | 12 36.91 | +13 41.0 | 4.152 | 3.251 | +1.33 -8.5 | 21.0 | 22.4 |
| Oct. 22 | 12 49.98 | +12 19.0 | 4.149 | 3.294 | +1.28 -7.8 | 21.1 | 27.1 |
| Nov. 1 | 13 02.59 | +11 03.7 | 4.132 | 3.337 | +1.23 -7.1 | 21.1 | 32.5 |
| Nov. 11 | 13 14.68 | +09 55.8 | 4.100 | 3.380 | +1.18 -6.4 | 21.2 | 38.4 |
| Nov. 21 | 13 26.19 | +08 56.0 | 4.054 | 3.423 | +1.12 -5.5 | 21.2 | 44.7 |
| Dec. 1 | 13 37.02 | +08 04.9 | 3.994 | 3.466 | +1.04 -4.6 | 21.2 | 51.4 |
| Dec. 11 | 13 47.07 | +07 23.0 | 3.922 | 3.509 | +0.96 -3.7 | 21.2 | 58.4 |
| Dec. 21 | 13 56.22 | +06 51.0 | 3.839 | 3.551 | +0.86 -2.6 | 21.2 | 65.8 |
| Dec. 31 | 14 04.32 | +06 29.3 | 3.747 | 3.593 | +0.75 -1.6 | 21.2 | 73.5 |
| Jan. 10 | 14 11.21 | +06 17.9 | 3.648 | 3.635 | +0.62 -0.6 | 21.2 | 81.5 |
| Jan. 20 | 14 16.73 | +06 17.1 | 3.545 | 3.677 | +0.47 +0.5 | 21.2 | 89.9 |
| Jan. 30 | 14 20.69 | +06 26.5 | 3.442 | 3.719 | +0.31 +1.5 | 21.2 | 98.6 |
| Feb. 9 | 14 22.96 | +06 45.2 | 3.341 | 3.760 | +0.13 +2.3 | 21.2 | 107.7 |
| Feb. 19 | 14 23.41 | +07 12.1 | 3.248 | 3.801 | -0.06 +3.1 | 21.2 | 117.0 |
| Mar. 1 | 14 21.97 | +07 45.1 | 3.168 | 3.842 | -0.25 +3.5 | 21.1 | 126.6 |
| Mar. 11 | 14 18.70 | +08 21.3 | 3.103 | 3.882 | -0.42 +3.7 | 21.1 | 136.2 |
| Mar. 21 | 14 13.76 | +08 57.5 | 3.060 | 3.922 | -0.58 +3.5 | 21.2 | 145.5 |
| Mar. 31 | 14 07.47 | +09 29.8 | 3.042 | 3.962 | -0.69 +2.9 | 21.2 | 153.7 |

Comet C/2023 C2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 16.78373 TT
 Peri. = 357.44794
 Node = 301.00533 2000.0
 Incl. = 48.32160
 q = 2.3684333 AU
 e = 0.9989185

$$m1 = 8.0 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 20 16.59 | -10 53.1 | 3.323 | 2.431 | +1.67 | +17.1 | 14.5 | 21.1 |
| Jan. 15 | 20 33.10 | -08 00.1 | 3.380 | 2.458 | +1.63 | +17.5 | 14.6 | 17.3 |
| Jan. 25 | 20 49.22 | -05 03.6 | 3.429 | 2.490 | +1.59 | +17.9 | 14.6 | 14.8 |
| Feb. 4 | 21 04.94 | -02 03.2 | 3.470 | 2.527 | +1.55 | +18.2 | 14.7 | 14.3 |
| Feb. 14 | 21 20.23 | +01 00.8 | 3.502 | 2.567 | +1.50 | +18.6 | 14.8 | 15.9 |
| Feb. 24 | 21 35.08 | +04 08.4 | 3.526 | 2.611 | +1.46 | +19.0 | 14.9 | 19.1 |
| Mar. 6 | 21 49.46 | +07 19.5 | 3.542 | 2.658 | +1.41 | +19.3 | 15.0 | 23.1 |
| Mar. 16 | 22 03.33 | +10 33.7 | 3.550 | 2.709 | +1.36 | +19.6 | 15.1 | 27.7 |
| Mar. 26 | 22 16.67 | +13 50.5 | 3.552 | 2.763 | +1.30 | +19.8 | 15.2 | 32.5 |
| Apr. 5 | 22 29.44 | +17 09.7 | 3.548 | 2.820 | +1.24 | +20.0 | 15.3 | 37.4 |
| Apr. 15 | 22 41.56 | +20 30.5 | 3.538 | 2.879 | +1.18 | +20.1 | 15.3 | 42.5 |
| Apr. 25 | 22 52.99 | +23 52.4 | 3.523 | 2.940 | +1.10 | +20.2 | 15.4 | 47.6 |
| May 5 | 23 03.63 | +27 14.7 | 3.504 | 3.004 | +1.02 | +20.2 | 15.5 | 52.8 |
| May 15 | 23 13.35 | +30 36.5 | 3.482 | 3.069 | +0.92 | +20.1 | 15.6 | 58.0 |
| May 25 | 23 22.04 | +33 56.8 | 3.458 | 3.136 | +0.80 | +19.9 | 15.7 | 63.3 |
| June 4 | 23 29.49 | +37 14.5 | 3.433 | 3.205 | +0.67 | +19.6 | 15.7 | 68.6 |
| June 14 | 23 35.51 | +40 28.0 | 3.407 | 3.275 | +0.51 | +19.1 | 15.8 | 74.0 |
| June 24 | 23 39.84 | +43 35.5 | 3.382 | 3.346 | +0.33 | +18.3 | 15.9 | 79.3 |
| July 4 | 23 42.19 | +46 34.6 | 3.360 | 3.419 | +0.11 | +17.3 | 16.0 | 84.7 |
| July 14 | 23 42.26 | +49 22.3 | 3.341 | 3.492 | -0.13 | +16.0 | 16.1 | 90.0 |
| July 24 | 23 39.78 | +51 55.3 | 3.327 | 3.566 | -0.40 | +14.3 | 16.1 | 95.2 |
| Aug. 3 | 23 34.56 | +54 09.3 | 3.320 | 3.641 | -0.67 | +12.2 | 16.2 | 100.3 |
| Aug. 13 | 23 26.66 | +56 00.0 | 3.321 | 3.717 | -0.93 | +9.6 | 16.3 | 105.1 |
| Aug. 23 | 23 16.41 | +57 23.4 | 3.332 | 3.793 | -1.13 | +6.7 | 16.4 | 109.6 |
| Sept. 2 | 23 04.55 | +58 16.2 | 3.354 | 3.870 | -1.23 | +3.5 | 16.5 | 113.6 |
| Sept. 12 | 22 52.16 | +58 37.4 | 3.389 | 3.947 | -1.22 | +0.4 | 16.6 | 116.8 |
| Sept. 22 | 22 40.43 | +58 28.7 | 3.438 | 4.025 | -1.09 | -2.4 | 16.7 | 119.2 |
| Oct. 2 | 22 30.47 | +57 53.7 | 3.502 | 4.103 | -0.87 | -4.7 | 16.9 | 120.6 |
| Oct. 12 | 22 23.02 | +56 58.7 | 3.581 | 4.181 | -0.59 | -6.4 | 17.0 | 120.8 |
| Oct. 22 | 22 18.42 | +55 49.9 | 3.676 | 4.259 | -0.30 | -7.4 | 17.1 | 119.8 |
| Nov. 1 | 22 16.72 | +54 33.9 | 3.785 | 4.338 | -0.02 | -7.8 | 17.3 | 117.8 |
| Nov. 11 | 22 17.69 | +53 16.5 | 3.909 | 4.416 | +0.23 | -7.6 | 17.4 | 114.8 |
| Nov. 21 | 22 21.03 | +52 02.3 | 4.046 | 4.495 | +0.45 | -7.1 | 17.6 | 110.9 |
| Dec. 1 | 22 26.39 | +50 54.8 | 4.195 | 4.574 | +0.63 | -6.3 | 17.7 | 106.5 |
| Dec. 11 | 22 33.43 | +49 56.5 | 4.354 | 4.653 | +0.78 | -5.3 | 17.9 | 101.6 |
| Dec. 21 | 22 41.85 | +49 08.9 | 4.521 | 4.732 | +0.91 | -4.1 | 18.0 | 96.4 |
| Dec. 31 | 22 51.39 | +48 32.9 | 4.693 | 4.811 | +1.01 | -3.0 | 18.2 | 90.9 |
| Jan. 10 | 23 01.82 | +48 08.6 | 4.869 | 4.890 | +1.08 | -1.8 | 18.3 | 85.4 |
| Jan. 20 | 23 12.95 | +47 55.7 | 5.047 | 4.969 | +1.15 | -0.7 | 18.5 | 79.9 |
| Jan. 30 | 23 24.63 | +47 53.8 | 5.223 | 5.048 | +1.19 | +0.4 | 18.6 | 74.4 |
| Feb. 9 | 23 36.71 | +48 02.1 | 5.396 | 5.126 | +1.23 | +1.4 | 18.8 | 69.0 |
| Feb. 19 | 23 49.11 | +48 19.6 | 5.565 | 5.205 | +1.25 | +2.2 | 18.9 | 63.8 |
| Mar. 1 | 00 01.72 | +48 45.6 | 5.726 | 5.284 | +1.27 | +3.0 | 19.0 | 58.9 |
| Mar. 11 | 00 14.47 | +49 19.0 | 5.879 | 5.362 | +1.28 | +3.7 | 19.1 | 54.4 |
| Mar. 21 | 00 27.28 | +49 58.8 | 6.022 | 5.441 | +1.28 | +4.3 | 19.3 | 50.3 |
| Mar. 31 | 00 40.10 | +50 44.3 | 6.154 | 5.519 | +1.28 | +4.8 | 19.4 | 46.8 |

Comet 305P/Skiff

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 17.13900 TT
 Peri. = 147.40208 e = 0.6940827
 Node = 240.09625 2000.0 a = 4.6353583 AU
 Incl. = 11.66982 n = 0.09875955
 q = 1.4180363 AU P = 9.98 years

$$m1 = 13.2 + 5 \log(\Delta) + 25.0 \log(r(t-40))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 01 27.40 | +08 19.8 | 1.036 | 1.533 | +3.04 | +5.8 | 17.1 | 98.8 |
| Jan. 15 | 01 57.31 | +09 20.4 | 1.142 | 1.581 | +2.93 | +6.3 | 17.4 | 95.8 |
| Jan. 25 | 02 26.02 | +10 23.9 | 1.260 | 1.635 | +2.81 | +6.4 | 17.8 | 92.7 |
| Feb. 4 | 02 53.56 | +11 26.9 | 1.390 | 1.694 | +2.69 | +6.1 | 18.3 | 89.3 |
| Feb. 14 | 03 20.01 | +12 26.2 | 1.529 | 1.757 | +2.59 | +5.6 | 18.8 | 85.7 |
| Feb. 24 | 03 45.44 | +13 19.5 | 1.678 | 1.824 | +2.49 | +4.9 | 19.3 | 81.9 |
| Mar. 6 | 04 09.96 | +14 05.4 | 1.834 | 1.894 | +2.41 | +4.1 | 19.9 | 78.0 |
| Mar. 16 | 04 33.65 | +14 42.6 | 1.996 | 1.966 | +2.32 | +3.2 | 20.4 | 73.8 |
| Mar. 26 | 04 56.55 | +15 10.5 | 2.162 | 2.040 | +2.25 | +2.3 | 21.0 | 69.5 |
| Apr. 5 | 05 18.74 | +15 28.9 | 2.332 | 2.115 | +2.18 | +1.3 | 21.6 | 65.1 |
| Apr. 15 | 05 40.22 | +15 37.6 | 2.502 | 2.191 | +2.11 | +0.3 | . | 60.6 |
| Apr. 25 | 06 01.03 | +15 36.8 | 2.673 | 2.268 | +2.05 | -0.6 | . | 55.9 |
| May 5 | 06 21.19 | +15 27.0 | 2.841 | 2.344 | +1.98 | -1.5 | . | 51.2 |
| May 15 | 06 40.70 | +15 08.4 | 3.006 | 2.421 | +1.92 | -2.3 | . | 46.4 |
| May 25 | 06 59.57 | +14 41.8 | 3.165 | 2.498 | +1.85 | -3.1 | . | 41.5 |
| June 4 | 07 17.81 | +14 07.6 | 3.319 | 2.575 | +1.79 | -3.8 | . | 36.5 |
| June 14 | 07 35.41 | +13 26.5 | 3.464 | 2.652 | +1.73 | -4.5 | . | 31.5 |
| June 24 | 07 52.39 | +12 39.2 | 3.600 | 2.728 | +1.66 | -5.1 | . | 26.4 |
| July 4 | 08 08.75 | +11 46.2 | 3.725 | 2.803 | +1.60 | -5.6 | . | 21.4 |
| July 14 | 08 24.48 | +10 48.4 | 3.839 | 2.879 | +1.54 | -6.0 | . | 16.5 |
| July 24 | 08 39.61 | +09 46.3 | 3.939 | 2.953 | +1.48 | -6.4 | . | 12.0 |
| Aug. 3 | 08 54.11 | +08 40.5 | 4.025 | 3.027 | +1.42 | -6.7 | . | 8.9 |
| Aug. 13 | 09 07.98 | +07 31.8 | 4.097 | 3.100 | +1.35 | -7.0 | . | 9.1 |
| Aug. 23 | 09 21.21 | +06 20.7 | 4.152 | 3.173 | +1.29 | -7.2 | . | 12.6 |
| Sept. 2 | 09 33.78 | +05 07.9 | 4.191 | 3.244 | +1.22 | -7.3 | . | 17.7 |
| Sept. 12 | 09 45.65 | +03 54.1 | 4.214 | 3.316 | +1.15 | -7.4 | . | 23.5 |
| Sept. 22 | 09 56.80 | +02 39.9 | 4.219 | 3.386 | +1.07 | -7.4 | . | 29.9 |
| Oct. 2 | 10 07.17 | +01 26.0 | 4.208 | 3.455 | +0.99 | -7.3 | . | 36.5 |
| Oct. 12 | 10 16.69 | +00 13.2 | 4.181 | 3.524 | +0.90 | -7.2 | . | 43.5 |
| Oct. 22 | 10 25.29 | +00 57.8 | 4.138 | 3.592 | +0.81 | -7.0 | . | 50.8 |
| Nov. 1 | 10 32.86 | -02 06.0 | 4.081 | 3.660 | +0.70 | -6.6 | . | 58.4 |
| Nov. 11 | 10 39.31 | -03 10.6 | 4.011 | 3.726 | +0.58 | -6.2 | . | 66.4 |
| Nov. 21 | 10 44.51 | -04 10.3 | 3.931 | 3.792 | +0.45 | -5.7 | . | 74.7 |
| Dec. 1 | 10 48.33 | -05 04.0 | 3.844 | 3.857 | +0.30 | -5.0 | . | 83.4 |
| Dec. 11 | 10 50.64 | -05 50.3 | 3.753 | 3.921 | +0.14 | -4.2 | . | 92.5 |
| Dec. 21 | 10 51.35 | -06 27.7 | 3.663 | 3.985 | -0.02 | -3.2 | . | 102.0 |
| Dec. 31 | 10 50.38 | -06 54.7 | 3.577 | 4.048 | -0.19 | -2.1 | . | 111.9 |
| Jan. 10 | 10 47.76 | -07 09.9 | 3.501 | 4.110 | -0.35 | -0.8 | . | 122.2 |
| Jan. 20 | 10 43.56 | -07 12.3 | 3.440 | 4.171 | -0.50 | +0.5 | . | 132.7 |
| Jan. 30 | 10 38.04 | -07 01.3 | 3.401 | 4.232 | -0.61 | +1.8 | . | 143.3 |
| Feb. 9 | 10 31.54 | -06 37.4 | 3.386 | 4.292 | -0.69 | +3.0 | . | 153.5 |
| Feb. 19 | 10 24.51 | -06 02.2 | 3.400 | 4.351 | -0.71 | +4.1 | . | 162.0 |
| Mar. 1 | 10 17.49 | -05 18.3 | 3.445 | 4.409 | -0.68 | +4.7 | . | 165.1 |
| Mar. 11 | 10 10.97 | -04 29.1 | 3.521 | 4.467 | -0.61 | +5.1 | . | 160.0 |
| Mar. 21 | 10 05.37 | -03 38.2 | 3.627 | 4.524 | -0.50 | +5.1 | . | 151.1 |
| Mar. 31 | 10 01.00 | -02 48.9 | 3.760 | 4.581 | -0.36 | +4.7 | . | 141.2 |

Comet C/2024 M1 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 19.99225 TT
 Peri. = 345.58395
 Node = 76.21411 2000.0
 Incl. = 73.70947
 q = 1.7032351 AU
 e = 0.9428195

H = 12.0 , G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | V | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 03 01.24 | +40 09.3 | 1.033 | 1.801 | -2.77 | +29.3 | 14.5 | 126.6 |
| Jan. 15 | 02 38.44 | +44 16.8 | 1.216 | 1.846 | -1.72 | +20.2 | 15.0 | 113.7 |
| Jan. 25 | 02 25.29 | +47 15.4 | 1.412 | 1.897 | -0.86 | +15.6 | 15.4 | 103.2 |
| Feb. 4 | 02 19.77 | +49 40.4 | 1.613 | 1.955 | -0.20 | +13.5 | 15.8 | 94.5 |
| Feb. 14 | 02 20.12 | +51 50.3 | 1.811 | 2.018 | +0.30 | +12.6 | 16.1 | 87.1 |
| Feb. 24 | 02 25.08 | +53 54.1 | 2.005 | 2.086 | +0.72 | +12.2 | 16.3 | 80.6 |
| Mar. 6 | 02 33.88 | +55 56.4 | 2.191 | 2.158 | +1.07 | +12.2 | 16.6 | 75.0 |
| Mar. 16 | 02 46.03 | +57 59.1 | 2.367 | 2.233 | +1.39 | +12.3 | 16.8 | 70.0 |
| Mar. 26 | 03 01.34 | +60 02.2 | 2.534 | 2.311 | +1.71 | +12.3 | 16.9 | 65.7 |
| Apr. 5 | 03 19.85 | +62 05.3 | 2.690 | 2.391 | +2.03 | +12.3 | 17.1 | 62.1 |
| Apr. 15 | 03 41.74 | +64 06.9 | 2.835 | 2.473 | +2.39 | +12.0 | 17.2 | 59.0 |
| Apr. 25 | 04 07.39 | +66 04.5 | 2.970 | 2.557 | +2.79 | +11.4 | 17.4 | 56.6 |
| May 5 | 04 37.31 | +67 55.2 | 3.095 | 2.643 | +3.25 | +10.5 | 17.5 | 54.7 |
| May 15 | 05 11.98 | +69 34.8 | 3.210 | 2.729 | +3.75 | +9.2 | 17.6 | 53.3 |
| May 25 | 05 51.77 | +70 58.5 | 3.318 | 2.816 | +4.26 | +7.3 | 17.7 | 52.4 |
| June 4 | 06 36.55 | +72 00.6 | 3.417 | 2.904 | +4.72 | +4.8 | 17.9 | 52.0 |
| June 14 | 07 25.29 | +72 36.1 | 3.510 | 2.993 | +5.02 | +1.9 | 18.0 | 51.9 |
| June 24 | 08 16.03 | +72 41.2 | 3.597 | 3.081 | +5.09 | -1.2 | 18.1 | 52.2 |
| July 4 | 09 06.24 | +72 15.5 | 3.680 | 3.170 | +4.90 | -4.2 | 18.2 | 52.8 |
| July 14 | 09 53.66 | +71 21.9 | 3.758 | 3.259 | +4.53 | -6.7 | 18.3 | 53.6 |
| July 24 | 10 36.96 | +70 05.2 | 3.833 | 3.349 | +4.08 | -8.7 | 18.4 | 54.6 |
| Aug. 3 | 11 15.76 | +68 31.5 | 3.906 | 3.438 | +3.64 | -10.1 | 18.4 | 55.7 |
| Aug. 13 | 11 50.31 | +66 46.6 | 3.977 | 3.527 | +3.24 | -10.9 | 18.5 | 56.9 |
| Aug. 23 | 12 21.20 | +64 55.4 | 4.046 | 3.616 | +2.91 | -11.3 | 18.6 | 58.1 |
| Sept. 2 | 12 49.03 | +63 02.3 | 4.114 | 3.704 | +2.64 | -11.3 | 18.7 | 59.4 |
| Sept. 12 | 13 14.35 | +61 10.7 | 4.181 | 3.793 | +2.41 | -11.0 | 18.8 | 60.8 |
| Sept. 22 | 13 37.65 | +59 23.5 | 4.246 | 3.881 | +2.23 | -10.4 | 18.9 | 62.2 |
| Oct. 2 | 13 59.27 | +57 43.2 | 4.311 | 3.969 | +2.08 | -9.6 | 18.9 | 63.6 |
| Oct. 12 | 14 19.48 | +56 11.7 | 4.374 | 4.056 | +1.95 | -8.6 | 19.0 | 65.1 |
| Oct. 22 | 14 38.49 | +54 50.6 | 4.435 | 4.144 | +1.84 | -7.5 | 19.1 | 66.7 |
| Nov. 1 | 14 56.44 | +53 41.5 | 4.495 | 4.231 | +1.74 | -6.2 | 19.1 | 68.4 |
| Nov. 11 | 15 13.40 | +52 45.4 | 4.552 | 4.317 | +1.64 | -4.9 | 19.2 | 70.1 |
| Nov. 21 | 15 29.43 | +52 03.0 | 4.608 | 4.403 | +1.55 | -3.5 | 19.3 | 72.0 |
| Dec. 1 | 15 44.52 | +51 35.0 | 4.661 | 4.489 | +1.46 | -2.0 | 19.3 | 73.9 |
| Dec. 11 | 15 58.64 | +51 21.5 | 4.711 | 4.575 | +1.36 | -0.5 | 19.4 | 76.0 |
| Dec. 21 | 16 11.75 | +51 22.7 | 4.760 | 4.660 | +1.25 | +0.9 | 19.5 | 78.2 |
| Dec. 31 | 16 23.73 | +51 38.2 | 4.806 | 4.744 | +1.13 | +2.3 | 19.5 | 80.5 |
| Jan. 10 | 16 34.48 | +52 07.3 | 4.851 | 4.829 | +1.00 | +3.6 | 19.6 | 82.9 |
| Jan. 20 | 16 43.86 | +52 49.1 | 4.895 | 4.912 | +0.86 | +4.8 | 19.6 | 85.2 |
| Jan. 30 | 16 51.69 | +53 42.2 | 4.939 | 4.996 | +0.69 | +5.9 | 19.7 | 87.6 |
| Feb. 9 | 16 57.77 | +54 44.7 | 4.983 | 5.079 | +0.50 | +6.7 | 19.7 | 89.9 |
| Feb. 19 | 17 01.90 | +55 54.5 | 5.029 | 5.161 | +0.30 | +7.3 | 19.8 | 92.1 |
| Mar. 1 | 17 03.82 | +57 08.8 | 5.077 | 5.244 | +0.06 | +7.5 | 19.8 | 94.2 |
| Mar. 11 | 17 03.32 | +58 24.3 | 5.130 | 5.326 | -0.19 | +7.5 | 19.9 | 96.0 |
| Mar. 21 | 17 00.22 | +59 37.3 | 5.186 | 5.407 | -0.46 | +7.0 | 19.9 | 97.5 |
| Mar. 31 | 16 54.42 | +60 43.8 | 5.248 | 5.488 | -0.73 | +6.1 | 20.0 | 98.6 |

Comet C/2023 H1 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 28.61446 TT
 Peri. = 333.74793
 Node = 292.64669 2000.0
 Incl. = 21.78302
 q = 4.4475964 AU
 e = 0.9941174

$$m1 = 8.3 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 18 24.40 | -29 31.6 | 5.419 | 4.458 | +1.35 | +3.1 | 18.5 | 11.1 |
| Jan. 15 | 18 37.75 | -28 58.7 | 5.393 | 4.464 | +1.32 | +3.5 | 18.5 | 17.4 |
| Jan. 25 | 18 50.72 | -28 22.8 | 5.351 | 4.472 | +1.27 | +3.7 | 18.4 | 24.3 |
| Feb. 4 | 19 03.20 | -27 44.1 | 5.293 | 4.481 | +1.22 | +4.0 | 18.4 | 31.4 |
| Feb. 14 | 19 15.09 | -27 03.0 | 5.220 | 4.492 | +1.15 | +4.2 | 18.4 | 38.7 |
| Feb. 24 | 19 26.30 | -26 19.9 | 5.133 | 4.504 | +1.08 | +4.4 | 18.4 | 46.1 |
| Mar. 6 | 19 36.71 | -25 35.4 | 5.034 | 4.517 | +0.99 | +4.5 | 18.4 | 53.7 |
| Mar. 16 | 19 46.23 | -24 49.9 | 4.924 | 4.532 | +0.90 | +4.6 | 18.3 | 61.4 |
| Mar. 26 | 19 54.75 | -24 04.0 | 4.806 | 4.548 | +0.79 | +4.6 | 18.3 | 69.2 |
| Apr. 5 | 20 02.18 | -23 18.5 | 4.681 | 4.566 | +0.68 | +4.5 | 18.2 | 77.3 |
| Apr. 15 | 20 08.42 | -22 33.8 | 4.553 | 4.585 | +0.55 | +4.4 | 18.2 | 85.5 |
| Apr. 25 | 20 13.37 | -21 50.7 | 4.425 | 4.605 | +0.42 | +4.2 | 18.2 | 94.0 |
| May 5 | 20 16.96 | -21 09.5 | 4.299 | 4.627 | +0.28 | +4.0 | 18.1 | 102.7 |
| May 15 | 20 19.12 | -20 30.8 | 4.179 | 4.650 | +0.14 | +3.7 | 18.1 | 111.8 |
| May 25 | 20 19.84 | -19 54.7 | 4.069 | 4.674 | -0.01 | +3.4 | 18.0 | 121.1 |
| June 4 | 20 19.12 | -19 21.5 | 3.974 | 4.699 | -0.15 | +3.2 | 18.0 | 130.7 |
| June 14 | 20 17.09 | -18 51.2 | 3.896 | 4.726 | -0.27 | +2.9 | 18.0 | 140.6 |
| June 24 | 20 13.90 | -18 23.6 | 3.840 | 4.753 | -0.37 | +2.6 | 18.0 | 150.8 |
| July 4 | 20 09.80 | -17 58.3 | 3.809 | 4.782 | -0.45 | +2.4 | 18.0 | 161.1 |
| July 14 | 20 05.14 | -17 35.0 | 3.804 | 4.812 | -0.48 | +2.2 | 18.0 | 171.3 |
| July 24 | 20 00.29 | -17 13.4 | 3.829 | 4.843 | -0.48 | +2.1 | 18.1 | 176.0 |
| Aug. 3 | 19 55.65 | -16 53.0 | 3.882 | 4.875 | -0.44 | +2.0 | 18.1 | 166.5 |
| Aug. 13 | 19 51.58 | -16 33.4 | 3.964 | 4.908 | -0.36 | +1.9 | 18.2 | 156.2 |
| Aug. 23 | 19 48.38 | -16 14.3 | 4.071 | 4.942 | -0.26 | +1.9 | 18.3 | 145.9 |
| Sept. 2 | 19 46.29 | -15 55.5 | 4.202 | 4.977 | -0.14 | +1.9 | 18.4 | 135.9 |
| Sept. 12 | 19 45.43 | -15 36.4 | 4.353 | 5.013 | -0.02 | +1.9 | 18.5 | 126.1 |
| Sept. 22 | 19 45.85 | -15 16.8 | 4.520 | 5.049 | +0.11 | +2.0 | 18.6 | 116.6 |
| Oct. 2 | 19 47.54 | -14 56.2 | 4.700 | 5.087 | +0.24 | +2.1 | 18.7 | 107.3 |
| Oct. 12 | 19 50.44 | -14 34.1 | 4.887 | 5.126 | +0.35 | +2.3 | 18.8 | 98.2 |
| Oct. 22 | 19 54.44 | -14 10.2 | 5.079 | 5.165 | +0.46 | +2.5 | 19.0 | 89.4 |
| Nov. 1 | 19 59.44 | -13 43.9 | 5.272 | 5.205 | +0.55 | +2.8 | 19.1 | 80.7 |
| Nov. 11 | 20 05.30 | -13 15.1 | 5.462 | 5.246 | +0.63 | +3.0 | 19.2 | 72.3 |
| Nov. 21 | 20 11.91 | -12 43.3 | 5.646 | 5.288 | +0.70 | +3.3 | 19.3 | 64.0 |
| Dec. 1 | 20 19.12 | -12 08.4 | 5.821 | 5.330 | +0.75 | +3.7 | 19.4 | 55.8 |
| Dec. 11 | 20 26.82 | -11 30.3 | 5.985 | 5.373 | +0.79 | +4.0 | 19.5 | 47.8 |
| Dec. 21 | 20 34.89 | -10 48.9 | 6.135 | 5.417 | +0.82 | +4.3 | 19.6 | 39.9 |
| Dec. 31 | 20 43.23 | -10 04.3 | 6.269 | 5.461 | +0.84 | +4.6 | 19.7 | 32.2 |
| Jan. 10 | 20 51.71 | -09 16.7 | 6.385 | 5.506 | +0.85 | +4.9 | 19.7 | 24.6 |
| Jan. 20 | 21 00.25 | -08 26.1 | 6.483 | 5.552 | +0.85 | +5.2 | 19.8 | 17.5 |
| Jan. 30 | 21 08.76 | -07 32.9 | 6.561 | 5.598 | +0.85 | +5.5 | 19.9 | 11.4 |
| Feb. 9 | 21 17.15 | -06 37.3 | 6.618 | 5.645 | +0.83 | +5.7 | 19.9 | 8.7 |
| Feb. 19 | 21 25.34 | -05 39.8 | 6.655 | 5.692 | +0.80 | +5.8 | 20.0 | 12.1 |
| Mar. 1 | 21 33.24 | -04 40.8 | 6.671 | 5.740 | +0.77 | +6.0 | 20.0 | 18.4 |
| Mar. 11 | 21 40.79 | -03 40.7 | 6.668 | 5.788 | +0.73 | +6.1 | 20.0 | 25.6 |
| Mar. 21 | 21 47.90 | -02 39.9 | 6.646 | 5.837 | +0.68 | +6.1 | 20.1 | 33.1 |
| Mar. 31 | 21 54.51 | -01 39.0 | 6.605 | 5.886 | +0.63 | +6.1 | 20.1 | 40.9 |

Comet 333P/LINEAR

Epoch = 2025 July 24.0 TT
 T = 2024 Nov. 29.29848 TT
 Peri. = 26.02331 e = 0.7362838
 Node = 115.70632 2000.0 a = 4.2206243 AU
 Incl. = 132.02281 n = 0.11366821
 q = 1.1130470 AU P = 8.67 years

$$m1 = 13.7 + 5 \log(\Delta) + 7.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' . | | | m | | ° |
| Jan. 5 | 21 42.74 | +40 01.5 | 1.073 | 1.223 | +2.84 -45.4 | 14.5 | 72.9 |
| Jan. 15 | 22 05.03 | +33 59.4 | 1.358 | 1.285 | +1.69 -27.1 | 15.2 | 64.2 |
| Jan. 25 | 22 19.45 | +30 19.2 | 1.631 | 1.355 | +1.21 -16.9 | 15.8 | 56.0 |
| Feb. 4 | 22 30.36 | +28 00.8 | 1.883 | 1.433 | +0.97 -10.7 | 16.2 | 48.4 |
| Feb. 14 | 22 39.32 | +26 33.7 | 2.107 | 1.515 | +0.82 -6.6 | 16.7 | 41.5 |
| Feb. 24 | 22 47.01 | +25 41.2 | 2.299 | 1.601 | +0.71 -3.8 | 17.0 | 35.6 |
| Mar. 6 | 22 53.72 | +25 13.6 | 2.459 | 1.690 | +0.62 -1.7 | 17.4 | 31.2 |
| Mar. 16 | 22 59.53 | +25 04.4 | 2.584 | 1.780 | +0.53 -0.1 | 17.6 | 28.9 |
| Mar. 26 | 23 04.43 | +25 09.3 | 2.676 | 1.870 | +0.44 +1.1 | 17.9 | 29.3 |
| Apr. 5 | 23 08.33 | +25 25.2 | 2.734 | 1.962 | +0.33 +2.1 | 18.1 | 32.2 |
| Apr. 15 | 23 11.06 | +25 49.4 | 2.761 | 2.053 | +0.20 +2.8 | 18.2 | 37.2 |
| Apr. 25 | 23 12.43 | +26 19.7 | 2.757 | 2.143 | +0.05 +3.3 | 18.4 | 43.5 |
| May 5 | 23 12.14 | +26 53.9 | 2.727 | 2.233 | -0.13 +3.5 | 18.5 | 50.9 |
| May 15 | 23 09.87 | +27 29.3 | 2.673 | 2.322 | -0.35 +3.5 | 18.6 | 59.1 |
| May 25 | 23 05.21 | +28 02.8 | 2.601 | 2.410 | -0.61 +3.1 | 18.6 | 67.9 |
| June 4 | 22 57.71 | +28 29.9 | 2.514 | 2.498 | -0.93 +2.1 | 18.7 | 77.4 |
| June 14 | 22 46.91 | +28 44.5 | 2.420 | 2.584 | -1.27 +0.5 | 18.7 | 87.5 |
| June 24 | 22 32.51 | +28 38.9 | 2.326 | 2.669 | -1.65 -2.0 | 18.7 | 98.2 |
| July 4 | 22 14.43 | +28 03.1 | 2.242 | 2.753 | -2.00 -5.6 | 18.8 | 109.4 |
| July 14 | 21 53.16 | +26 47.5 | 2.178 | 2.836 | -2.26 -10.0 | 18.8 | 120.8 |
| July 24 | 21 29.81 | +24 45.6 | 2.142 | 2.917 | -2.39 -14.8 | 18.8 | 131.6 |
| Aug. 3 | 21 06.01 | +21 57.8 | 2.146 | 2.997 | -2.33 -19.0 | 18.9 | 140.3 |
| Aug. 13 | 20 43.58 | +18 34.5 | 2.193 | 3.077 | -2.11 -21.7 | 19.1 | 144.7 |
| Aug. 23 | 20 23.95 | +14 52.6 | 2.286 | 3.155 | -1.77 -22.5 | 19.2 | 143.2 |
| Sept. 2 | 20 07.93 | +11 10.1 | 2.423 | 3.232 | -1.39 -21.7 | 19.4 | 136.7 |
| Sept. 12 | 19 55.74 | +07 41.1 | 2.595 | 3.307 | -1.02 -19.8 | 19.7 | 127.6 |
| Sept. 22 | 19 47.16 | +04 33.8 | 2.797 | 3.382 | -0.68 -17.4 | 19.9 | 117.7 |
| Oct. 2 | 19 41.76 | +01 51.1 | 3.020 | 3.456 | -0.38 -14.9 | 20.1 | 107.5 |
| Oct. 12 | 19 39.07 | +00 27.1 | 3.256 | 3.528 | -0.14 -12.5 | 20.4 | 97.5 |
| Oct. 22 | 19 38.61 | -02 22.8 | 3.498 | 3.599 | +0.06 -10.4 | 20.6 | 87.8 |
| Nov. 1 | 19 39.97 | -03 58.4 | 3.740 | 3.670 | +0.22 -8.6 | 20.8 | 78.3 |
| Nov. 11 | 19 42.78 | -05 16.6 | 3.977 | 3.739 | +0.35 -6.9 | 21.0 | 69.0 |
| Nov. 21 | 19 46.74 | -06 19.6 | 4.204 | 3.807 | +0.45 -5.6 | 21.2 | 60.0 |
| Dec. 1 | 19 51.60 | -07 09.7 | 4.416 | 3.874 | +0.53 -4.4 | 21.3 | 51.2 |
| Dec. 11 | 19 57.11 | -07 48.5 | 4.610 | 3.941 | +0.58 -3.3 | 21.5 | 42.5 |
| Dec. 21 | 20 03.11 | -08 17.8 | 4.783 | 4.006 | +0.62 -2.5 | 21.6 | 34.1 |
| Dec. 31 | 20 09.41 | -08 38.9 | 4.933 | 4.070 | +0.64 -1.7 | 21.7 | 25.8 |
| Jan. 10 | 20 15.85 | -08 53.2 | 5.057 | 4.134 | +0.65 -1.1 | 21.8 | 18.1 |
| Jan. 20 | 20 22.31 | -09 01.9 | 5.154 | 4.196 | +0.64 -0.6 | 21.9 | 11.8 |
| Jan. 30 | 20 28.65 | -09 06.0 | 5.224 | 4.258 | +0.62 -0.2 | 22.0 | 10.0 |
| Feb. 9 | 20 34.75 | -09 06.6 | 5.266 | 4.318 | +0.59 +0.1 | . | 14.5 |
| Feb. 19 | 20 40.48 | -09 04.8 | 5.281 | 4.378 | +0.55 +0.3 | . | 21.7 |
| Mar. 1 | 20 45.72 | -09 01.7 | 5.269 | 4.437 | +0.49 +0.3 | . | 29.8 |
| Mar. 11 | 20 50.36 | -08 58.3 | 5.232 | 4.495 | +0.43 +0.3 | . | 38.3 |
| Mar. 21 | 20 54.27 | -08 55.8 | 5.171 | 4.552 | +0.35 +0.2 | . | 47.1 |
| Mar. 31 | 20 57.30 | -08 55.1 | 5.090 | 4.609 | +0.25 -0.1 | . | 56.1 |

Comet C/2023 Q1 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 1.13175 TT
 Peri. = 84.42158
 Node = 7.12309 2000.0
 Incl. = 36.64477
 q = 2.5757574 AU
 e = 1.0048962

$$m1 = 10.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 08 30.16 | +75 45.5 | 1.903 | 2.603 | -1.46 | -0.9 | 15.8 | 125.7 |
| Jan. 15 | 08 14.41 | +75 17.3 | 1.921 | 2.620 | -1.62 | -5.2 | 15.8 | 125.8 |
| Jan. 25 | 07 59.24 | +74 05.3 | 1.954 | 2.642 | -1.32 | -9.5 | 15.9 | 124.8 |
| Feb. 4 | 07 48.43 | +72 13.0 | 2.001 | 2.668 | -0.76 | -13.2 | 16.0 | 122.8 |
| Feb. 14 | 07 43.46 | +69 48.4 | 2.065 | 2.697 | -0.19 | -15.9 | 16.1 | 120.0 |
| Feb. 24 | 07 43.83 | +67 01.0 | 2.144 | 2.731 | +0.29 | -17.7 | 16.2 | 116.3 |
| Mar. 6 | 07 48.43 | +63 59.0 | 2.239 | 2.768 | +0.65 | -18.7 | 16.4 | 112.0 |
| Mar. 16 | 07 56.15 | +60 49.1 | 2.348 | 2.808 | +0.90 | -19.2 | 16.5 | 107.2 |
| Mar. 26 | 08 05.98 | +57 36.4 | 2.470 | 2.851 | +1.07 | -19.3 | 16.7 | 102.1 |
| Apr. 5 | 08 17.24 | +54 24.6 | 2.605 | 2.898 | +1.18 | -19.0 | 16.9 | 96.7 |
| Apr. 15 | 08 29.42 | +51 16.1 | 2.750 | 2.947 | +1.25 | -18.6 | 17.1 | 91.2 |
| Apr. 25 | 08 42.15 | +48 12.4 | 2.903 | 2.998 | +1.29 | -18.1 | 17.3 | 85.6 |
| May 5 | 08 55.18 | +45 14.4 | 3.064 | 3.053 | +1.31 | -17.5 | 17.5 | 79.9 |
| May 15 | 09 08.33 | +42 22.6 | 3.229 | 3.109 | +1.32 | -16.8 | 17.7 | 74.1 |
| May 25 | 09 21.48 | +39 37.0 | 3.397 | 3.167 | +1.31 | -16.2 | 17.9 | 68.4 |
| June 4 | 09 34.54 | +36 57.6 | 3.566 | 3.227 | +1.30 | -15.6 | 18.0 | 62.6 |
| June 14 | 09 47.45 | +34 24.1 | 3.734 | 3.289 | +1.28 | -15.0 | 18.2 | 56.8 |
| June 24 | 10 00.17 | +31 56.4 | 3.898 | 3.352 | +1.26 | -14.5 | 18.4 | 51.0 |
| July 4 | 10 12.67 | +29 34.1 | 4.057 | 3.417 | +1.24 | -13.9 | 18.6 | 45.2 |
| July 14 | 10 24.93 | +27 17.2 | 4.209 | 3.483 | +1.21 | -13.4 | 18.7 | 39.4 |
| July 24 | 10 36.94 | +25 05.4 | 4.353 | 3.551 | +1.19 | -12.9 | 18.9 | 33.5 |
| Aug. 3 | 10 48.67 | +22 58.6 | 4.485 | 3.619 | +1.16 | -12.4 | 19.0 | 27.8 |
| Aug. 13 | 11 00.11 | +20 56.7 | 4.606 | 3.688 | +1.13 | -11.9 | 19.2 | 22.2 |
| Aug. 23 | 11 11.24 | +18 59.7 | 4.714 | 3.758 | +1.10 | -11.4 | 19.3 | 17.1 |
| Sept. 2 | 11 22.06 | +17 07.5 | 4.806 | 3.829 | +1.06 | -10.9 | 19.4 | 13.0 |
| Sept. 12 | 11 32.51 | +15 20.3 | 4.882 | 3.901 | +1.03 | -10.4 | 19.6 | 11.5 |
| Sept. 22 | 11 42.59 | +13 38.1 | 4.942 | 3.973 | +0.99 | -9.9 | 19.7 | 13.6 |
| Oct. 2 | 11 52.24 | +12 01.1 | 4.984 | 4.046 | +0.94 | -9.4 | 19.8 | 18.4 |
| Oct. 12 | 12 01.42 | +10 29.4 | 5.008 | 4.120 | +0.89 | -8.9 | 19.8 | 24.4 |
| Oct. 22 | 12 10.07 | +09 03.3 | 5.014 | 4.194 | +0.83 | -8.3 | 19.9 | 31.1 |
| Nov. 1 | 12 18.12 | +07 43.0 | 5.002 | 4.268 | +0.77 | -7.7 | 20.0 | 38.3 |
| Nov. 11 | 12 25.49 | +06 28.9 | 4.974 | 4.342 | +0.70 | -7.1 | 20.1 | 45.8 |
| Nov. 21 | 12 32.09 | +05 21.1 | 4.929 | 4.417 | +0.61 | -6.4 | 20.1 | 53.8 |
| Dec. 1 | 12 37.81 | +04 20.1 | 4.870 | 4.492 | +0.52 | -5.7 | 20.2 | 62.0 |
| Dec. 11 | 12 42.54 | +03 26.0 | 4.800 | 4.568 | +0.42 | -5.0 | 20.2 | 70.6 |
| Dec. 21 | 12 46.18 | +02 39.1 | 4.720 | 4.643 | +0.30 | -4.3 | 20.2 | 79.5 |
| Dec. 31 | 12 48.60 | +01 59.7 | 4.636 | 4.719 | +0.17 | -3.5 | 20.3 | 88.8 |
| Jan. 10 | 12 49.71 | +01 27.7 | 4.550 | 4.795 | +0.04 | -2.8 | 20.3 | 98.5 |
| Jan. 20 | 12 49.44 | +01 03.2 | 4.468 | 4.870 | -0.10 | -2.0 | 20.3 | 108.5 |
| Jan. 30 | 12 47.76 | +00 45.9 | 4.394 | 4.946 | -0.24 | -1.4 | 20.4 | 118.9 |
| Feb. 9 | 12 44.72 | +00 35.2 | 4.335 | 5.022 | -0.37 | -0.7 | 20.4 | 129.6 |
| Feb. 19 | 12 40.44 | +00 30.3 | 4.295 | 5.098 | -0.49 | -0.2 | 20.4 | 140.7 |
| Mar. 1 | 12 35.13 | +00 29.9 | 4.279 | 5.175 | -0.58 | +0.2 | 20.5 | 151.9 |
| Mar. 11 | 12 29.10 | +00 32.5 | 4.292 | 5.251 | -0.63 | +0.4 | 20.6 | 163.3 |
| Mar. 21 | 12 22.70 | +00 36.6 | 4.335 | 5.327 | -0.65 | +0.4 | 20.6 | 174.3 |
| Mar. 31 | 12 16.32 | +00 40.2 | 4.410 | 5.403 | -0.62 | +0.3 | 20.7 | 173.2 |

Comet C/2024 PN7 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 6.43358 TT
 Peri. = 74.27352
 Node = 358.58429 2000.0
 Incl. = 101.20904
 q = 1.5245740 AU
 e = 0.9773283

$$m1 = 13.8 + 5 \log(\Delta) + 10.0 \log(r(t-95))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 18 11.33 | +27 24.1 | 1.988 | 1.578 | -0.27 | +8.1 | 17.8 | 51.6 |
| Jan. 15 | 18 08.14 | +29 00.0 | 1.957 | 1.618 | -0.39 | +11.4 | 17.6 | 55.5 |
| Jan. 25 | 18 03.39 | +31 10.6 | 1.902 | 1.668 | -0.60 | +15.1 | 17.4 | 61.2 |
| Feb. 4 | 17 55.97 | +34 00.1 | 1.828 | 1.727 | -0.95 | +19.2 | 17.2 | 68.3 |
| Feb. 14 | 17 44.26 | +37 30.8 | 1.742 | 1.793 | -1.49 | +23.3 | 16.9 | 76.6 |
| Feb. 24 | 17 25.91 | +41 40.6 | 1.654 | 1.865 | -2.32 | +26.7 | 16.8 | 85.9 |
| Mar. 6 | 16 57.44 | +46 14.4 | 1.576 | 1.943 | -3.57 | +27.4 | 16.6 | 95.6 |
| Mar. 16 | 16 14.78 | +50 31.5 | 1.521 | 2.025 | -5.16 | +22.3 | 16.5 | 105.3 |
| Mar. 26 | 15 16.50 | +53 20.5 | 1.505 | 2.110 | -6.50 | +8.9 | 16.6 | 113.4 |
| Apr. 5 | 14 09.98 | +53 27.9 | 1.537 | 2.199 | -6.53 | -9.3 | 16.7 | 118.6 |
| Apr. 15 | 13 10.05 | +50 45.0 | 1.623 | 2.289 | -5.18 | -23.5 | 16.9 | 119.4 |
| Apr. 25 | 12 25.69 | +46 15.7 | 1.760 | 2.382 | -3.55 | -29.8 | 17.2 | 116.2 |
| May 5 | 11 56.36 | +41 12.2 | 1.938 | 2.476 | -2.25 | -30.3 | 17.5 | 110.3 |
| May 15 | 11 38.14 | +36 18.3 | 2.149 | 2.570 | -1.36 | -28.0 | 17.9 | 102.9 |
| May 25 | 11 27.45 | +31 51.2 | 2.381 | 2.666 | -0.76 | -25.0 | 18.3 | 94.9 |
| June 4 | 11 21.84 | +27 54.1 | 2.627 | 2.762 | -0.35 | -22.1 | 18.7 | 86.8 |
| June 14 | 11 19.69 | +24 24.6 | 2.880 | 2.859 | -0.07 | -19.6 | 19.1 | 78.7 |
| June 24 | 11 19.94 | +21 18.6 | 3.133 | 2.956 | +0.13 | -17.5 | 19.4 | 70.6 |
| July 4 | 11 21.91 | +18 31.8 | 3.381 | 3.052 | +0.27 | -15.8 | 19.8 | 62.7 |
| July 14 | 11 25.10 | +16 00.7 | 3.621 | 3.149 | +0.37 | -14.4 | 20.1 | 54.9 |
| July 24 | 11 29.17 | +13 42.3 | 3.849 | 3.246 | +0.45 | -13.2 | 20.4 | 47.2 |
| Aug. 3 | 11 33.87 | +11 34.3 | 4.062 | 3.342 | +0.50 | -12.3 | 20.7 | 39.5 |
| Aug. 13 | 11 38.99 | +09 35.0 | 4.257 | 3.438 | +0.53 | -11.5 | 21.0 | 31.8 |
| Aug. 23 | 11 44.38 | +07 42.8 | 4.433 | 3.534 | +0.55 | -10.9 | 21.2 | 24.2 |
| Sept. 2 | 11 49.92 | +05 56.7 | 4.586 | 3.630 | +0.56 | -10.3 | 21.4 | 16.5 |
| Sept. 12 | 11 55.47 | +04 16.0 | 4.716 | 3.725 | +0.55 | -9.8 | 21.7 | 8.8 |
| Sept. 22 | 12 00.94 | +02 40.1 | 4.822 | 3.820 | +0.54 | -9.4 | 21.9 | 2.6 |
| Oct. 2 | 12 06.21 | +01 08.5 | 4.903 | 3.914 | +0.51 | -8.9 | 22.0 | 7.9 |
| Oct. 12 | 12 11.19 | +00 19.0 | 4.959 | 4.008 | +0.48 | -8.5 | . | 15.9 |
| Oct. 22 | 12 15.75 | -01 42.6 | 4.989 | 4.101 | +0.43 | -8.1 | . | 24.2 |
| Nov. 1 | 12 19.77 | -03 02.2 | 4.995 | 4.194 | +0.37 | -7.7 | . | 32.7 |
| Nov. 11 | 12 23.13 | -04 17.8 | 4.978 | 4.287 | +0.29 | -7.3 | . | 41.5 |
| Nov. 21 | 12 25.69 | -05 29.2 | 4.940 | 4.379 | +0.21 | -6.9 | . | 50.5 |
| Dec. 1 | 12 27.28 | -06 36.0 | 4.883 | 4.470 | +0.10 | -6.4 | . | 59.9 |
| Dec. 11 | 12 27.76 | -07 37.8 | 4.812 | 4.562 | -0.02 | -5.9 | . | 69.5 |
| Dec. 21 | 12 26.98 | -08 34.1 | 4.730 | 4.652 | -0.15 | -5.3 | . | 79.5 |
| Dec. 31 | 12 24.79 | -09 24.0 | 4.643 | 4.742 | -0.30 | -4.6 | . | 89.8 |
| Jan. 10 | 12 21.09 | -10 06.7 | 4.556 | 4.832 | -0.46 | -3.8 | . | 100.4 |
| Jan. 20 | 12 15.83 | -10 41.1 | 4.475 | 4.921 | -0.61 | -2.9 | . | 111.4 |
| Jan. 30 | 12 09.04 | -11 06.2 | 4.408 | 5.010 | -0.76 | -2.0 | . | 122.7 |
| Feb. 9 | 12 00.88 | -11 21.4 | 4.361 | 5.098 | -0.88 | -1.0 | . | 134.2 |
| Feb. 19 | 11 51.61 | -11 26.3 | 4.340 | 5.186 | -0.97 | +0.1 | . | 145.6 |
| Mar. 1 | 11 41.63 | -11 21.2 | 4.350 | 5.273 | -1.02 | +1.0 | . | 156.4 |
| Mar. 11 | 11 31.41 | -11 07.5 | 4.395 | 5.360 | -1.02 | +1.8 | . | 164.8 |
| Mar. 21 | 11 21.45 | -10 46.9 | 4.476 | 5.446 | -0.96 | +2.3 | . | 165.6 |
| Mar. 31 | 11 12.18 | -10 22.0 | 4.592 | 5.532 | -0.87 | +2.6 | . | 158.1 |

Comet P/2024 T2 (Rankin)

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 8.32276 TT
 Peri. = 343.82488
 Node = 113.06131 2000.0
 Incl. = 12.92884
 q = 1.9723014 AU
 e = 0.6803974
 a = 6.1711056 AU
 n = 0.06429240
 P = 15.33 years

$$m1 = 13.2 + 5 \log(\Delta) + 12.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 07 44.91 | +19 41.9 | 1.016 | 1.992 | -0.35 +12.9 | 17.0 | 169.8 |
| Jan. 15 | 07 41.10 | +21 51.1 | 1.025 | 2.009 | -0.39 +12.7 | 17.0 | 178.5 |
| Jan. 25 | 07 37.48 | +23 53.8 | 1.058 | 2.030 | -0.30 +11.5 | 17.2 | 167.1 |
| Feb. 4 | 07 35.34 | +25 40.1 | 1.116 | 2.056 | -0.09 +9.5 | 17.3 | 156.0 |
| Feb. 14 | 07 35.65 | +27 04.3 | 1.195 | 2.086 | +0.19 +7.1 | 17.6 | 145.7 |
| Feb. 24 | 07 38.84 | +28 04.8 | 1.293 | 2.120 | +0.48 +4.8 | 17.8 | 136.1 |
| Mar. 6 | 07 44.93 | +28 42.6 | 1.407 | 2.158 | +0.76 +2.6 | 18.1 | 127.3 |
| Mar. 16 | 07 53.65 | +28 59.8 | 1.535 | 2.199 | +1.00 +0.7 | 18.4 | 119.2 |
| Mar. 26 | 08 04.55 | +28 58.7 | 1.674 | 2.244 | +1.19 -1.0 | 18.7 | 111.7 |
| Apr. 5 | 08 17.19 | +28 41.6 | 1.822 | 2.291 | +1.34 -2.5 | 19.0 | 104.7 |
| Apr. 15 | 08 31.13 | +28 10.5 | 1.978 | 2.340 | +1.45 -3.8 | 19.3 | 98.1 |
| Apr. 25 | 08 45.97 | +27 27.2 | 2.139 | 2.392 | +1.52 -4.9 | 19.6 | 91.8 |
| May 5 | 09 01.42 | +26 33.3 | 2.304 | 2.446 | +1.57 -5.9 | 19.9 | 85.8 |
| May 15 | 09 17.23 | +25 30.4 | 2.472 | 2.502 | +1.59 -6.7 | 20.1 | 80.0 |
| May 25 | 09 33.20 | +24 20.0 | 2.641 | 2.559 | +1.60 -7.4 | 20.4 | 74.3 |
| June 4 | 09 49.20 | +23 03.1 | 2.810 | 2.618 | +1.60 -8.0 | 20.7 | 68.7 |
| June 14 | 10 05.12 | +21 41.3 | 2.977 | 2.677 | +1.58 -8.4 | 20.9 | 63.2 |
| June 24 | 10 20.88 | +20 15.4 | 3.142 | 2.738 | +1.57 -8.8 | 21.2 | 57.7 |
| July 4 | 10 36.45 | +18 46.7 | 3.303 | 2.800 | +1.54 -9.0 | 21.4 | 52.3 |
| July 14 | 10 51.79 | +17 16.1 | 3.458 | 2.862 | +1.52 -9.1 | 21.6 | 46.9 |
| July 24 | 11 06.88 | +15 44.4 | 3.607 | 2.925 | +1.50 -9.2 | 21.8 | 41.5 |
| Aug. 3 | 11 21.73 | +14 12.5 | 3.748 | 2.988 | +1.47 -9.2 | 22.0 | 36.1 |
| Aug. 13 | 11 36.31 | +12 41.3 | 3.879 | 3.052 | +1.44 -9.1 | . | 30.7 |
| Aug. 23 | 11 50.63 | +11 11.3 | 4.000 | 3.115 | +1.42 -8.9 | . | 25.3 |
| Sept. 2 | 12 04.68 | +09 43.3 | 4.109 | 3.180 | +1.39 -8.7 | . | 20.0 |
| Sept. 12 | 12 18.46 | +08 18.1 | 4.205 | 3.244 | +1.36 -8.4 | . | 15.0 |
| Sept. 22 | 12 31.95 | +06 56.1 | 4.288 | 3.308 | +1.33 -8.0 | . | 11.1 |
| Oct. 2 | 12 45.14 | +05 38.1 | 4.355 | 3.372 | +1.30 -7.6 | . | 9.7 |
| Oct. 12 | 12 58.00 | +04 24.8 | 4.407 | 3.437 | +1.27 -7.1 | . | 12.0 |
| Oct. 22 | 13 10.51 | +03 16.5 | 4.442 | 3.501 | +1.23 -6.5 | . | 16.7 |
| Nov. 1 | 13 22.60 | +02 14.0 | 4.461 | 3.565 | +1.18 -5.9 | . | 22.5 |
| Nov. 11 | 13 34.23 | +01 17.9 | 4.463 | 3.629 | +1.14 -5.2 | . | 28.9 |
| Nov. 21 | 13 45.33 | +00 28.7 | 4.449 | 3.692 | +1.08 -4.5 | . | 35.7 |
| Dec. 1 | 13 55.82 | +00 13.1 | 4.418 | 3.756 | +1.01 -3.8 | . | 42.8 |
| Dec. 11 | 14 05.59 | +00 47.0 | 4.373 | 3.819 | +0.93 -2.9 | . | 50.2 |
| Dec. 21 | 14 14.55 | -01 12.6 | 4.314 | 3.882 | +0.85 -2.1 | . | 57.9 |
| Dec. 31 | 14 22.55 | -01 29.4 | 4.242 | 3.944 | +0.74 -1.2 | . | 65.9 |
| Jan. 10 | 14 29.48 | -01 37.3 | 4.161 | 4.007 | +0.63 -0.3 | . | 74.2 |
| Jan. 20 | 14 35.20 | -01 36.1 | 4.073 | 4.069 | +0.50 +0.6 | . | 82.8 |
| Jan. 30 | 14 39.55 | -01 25.8 | 3.982 | 4.131 | +0.36 +1.5 | . | 91.7 |
| Feb. 9 | 14 42.43 | -01 07.0 | 3.890 | 4.192 | +0.20 +2.3 | . | 101.0 |
| Feb. 19 | 14 43.74 | +00 40.3 | 3.804 | 4.253 | +0.04 +3.1 | . | 110.5 |
| Mar. 1 | 14 43.43 | +00 06.7 | 3.727 | 4.314 | -0.12 +3.7 | . | 120.4 |
| Mar. 11 | 14 41.52 | +00 31.9 | 3.664 | 4.374 | -0.27 +4.1 | . | 130.4 |
| Mar. 21 | 14 38.14 | +01 13.4 | 3.620 | 4.434 | -0.41 +4.2 | . | 140.5 |
| Mar. 31 | 14 33.49 | +01 55.2 | 3.599 | 4.493 | -0.52 +4.1 | . | 150.2 |

Comet 276P/Vorobjov

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 11.23034 TT
 Peri. = 199.41621 e = 0.2741752
 Node = 211.22994 2000.0 a = 5.3712772 AU
 Incl. = 14.76617 n = 0.07917494
 q = 3.8986062 AU P = 12.45 years

$$m1 = -12.2 + 5 \log(\Delta) + 45.0 \log(r(t+105))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 02 40.12 | +08 38.4 | 3.373 | 3.900 | +0.13 | -0.2 | 17.3 | 115.6 |
| Jan. 15 | 02 42.18 | +08 41.2 | 3.514 | 3.902 | +0.29 | +0.8 | 17.4 | 106.0 |
| Jan. 25 | 02 45.79 | +08 52.7 | 3.663 | 3.904 | +0.44 | +1.6 | 17.5 | 96.8 |
| Feb. 4 | 02 50.84 | +09 11.5 | 3.815 | 3.907 | +0.58 | +2.2 | 17.6 | 88.0 |
| Feb. 14 | 02 57.19 | +09 36.1 | 3.966 | 3.910 | +0.70 | +2.7 | 17.8 | 79.6 |
| Feb. 24 | 03 04.69 | +10 04.9 | 4.114 | 3.913 | +0.81 | +3.1 | 17.9 | 71.5 |
| Mar. 6 | 03 13.20 | +10 36.4 | 4.255 | 3.918 | +0.90 | +3.3 | 18.0 | 63.7 |
| Mar. 16 | 03 22.59 | +11 09.3 | 4.388 | 3.922 | +0.98 | +3.3 | 18.1 | 56.2 |
| Mar. 26 | 03 32.72 | +11 42.4 | 4.511 | 3.928 | +1.05 | +3.3 | 18.2 | 48.9 |
| Apr. 5 | 03 43.49 | +12 14.6 | 4.621 | 3.933 | +1.11 | +3.1 | 18.3 | 41.9 |
| Apr. 15 | 03 54.78 | +12 45.0 | 4.719 | 3.940 | +1.15 | +2.9 | 18.4 | 35.0 |
| Apr. 25 | 04 06.51 | +13 12.6 | 4.802 | 3.946 | +1.19 | +2.6 | 18.5 | 28.4 |
| May 5 | 04 18.57 | +13 36.8 | 4.870 | 3.954 | +1.22 | +2.2 | 18.6 | 22.1 |
| May 15 | 04 30.88 | +13 57.0 | 4.923 | 3.961 | +1.24 | +1.8 | 18.7 | 16.1 |
| May 25 | 04 43.36 | +14 12.7 | 4.959 | 3.970 | +1.25 | +1.3 | 18.8 | 11.0 |
| June 4 | 04 55.91 | +14 23.4 | 4.980 | 3.978 | +1.26 | +0.8 | 18.8 | 8.2 |
| June 14 | 05 08.47 | +14 28.9 | 4.984 | 3.987 | +1.25 | +0.3 | 18.9 | 10.0 |
| June 24 | 05 20.94 | +14 29.0 | 4.972 | 3.997 | +1.24 | -0.3 | 19.0 | 14.7 |
| July 4 | 05 33.24 | +14 23.4 | 4.944 | 4.007 | +1.22 | -0.9 | 19.0 | 20.5 |
| July 14 | 05 45.29 | +14 12.3 | 4.900 | 4.018 | +1.19 | -1.4 | 19.1 | 26.6 |
| July 24 | 05 56.98 | +13 55.6 | 4.842 | 4.028 | +1.15 | -2.0 | 19.1 | 33.0 |
| Aug. 3 | 06 08.24 | +13 33.5 | 4.770 | 4.040 | +1.10 | -2.5 | 19.2 | 39.6 |
| Aug. 13 | 06 18.94 | +13 06.2 | 4.684 | 4.052 | +1.04 | -3.0 | 19.2 | 46.4 |
| Aug. 23 | 06 28.99 | +12 34.1 | 4.586 | 4.064 | +0.96 | -3.5 | 19.2 | 53.3 |
| Sept. 2 | 06 38.27 | +11 57.6 | 4.477 | 4.076 | +0.88 | -3.9 | 19.2 | 60.5 |
| Sept. 12 | 06 46.64 | +11 17.3 | 4.359 | 4.089 | +0.78 | -4.2 | 19.3 | 68.0 |
| Sept. 22 | 06 54.00 | +10 33.8 | 4.234 | 4.103 | +0.67 | -4.5 | 19.3 | 75.7 |
| Oct. 2 | 07 00.18 | +09 48.0 | 4.105 | 4.116 | +0.55 | -4.7 | 19.3 | 83.7 |
| Oct. 12 | 07 05.07 | +09 00.8 | 3.974 | 4.130 | +0.41 | -4.7 | 19.3 | 92.0 |
| Oct. 22 | 07 08.51 | +08 13.5 | 3.844 | 4.145 | +0.26 | -4.7 | 19.3 | 100.7 |
| Nov. 1 | 07 10.41 | +07 27.3 | 3.719 | 4.160 | +0.10 | -4.5 | 19.3 | 109.7 |
| Nov. 11 | 07 10.69 | +06 43.9 | 3.604 | 4.175 | -0.06 | -4.1 | 19.3 | 119.0 |
| Nov. 21 | 07 09.34 | +06 04.8 | 3.502 | 4.190 | -0.22 | -3.6 | 19.3 | 128.6 |
| Dec. 1 | 07 06.45 | +05 31.8 | 3.417 | 4.206 | -0.37 | -2.9 | 19.4 | 138.4 |
| Dec. 11 | 07 02.22 | +05 06.4 | 3.356 | 4.222 | -0.48 | -2.1 | 19.4 | 147.9 |
| Dec. 21 | 06 56.99 | +04 50.1 | 3.319 | 4.238 | -0.56 | -1.1 | 19.5 | 156.2 |
| Dec. 31 | 06 51.17 | +04 43.4 | 3.311 | 4.255 | -0.59 | -0.1 | 19.6 | 161.4 |
| Jan. 10 | 06 45.29 | +04 46.3 | 3.333 | 4.272 | -0.57 | +0.8 | 19.6 | 160.4 |
| Jan. 20 | 06 39.85 | +04 58.1 | 3.383 | 4.289 | -0.50 | +1.6 | 19.8 | 153.9 |
| Jan. 30 | 06 35.31 | +05 17.5 | 3.461 | 4.306 | -0.39 | +2.3 | 19.9 | 145.1 |
| Feb. 9 | 06 32.01 | +05 42.4 | 3.564 | 4.324 | -0.25 | +2.7 | 20.0 | 135.6 |
| Feb. 19 | 06 30.16 | +06 11.0 | 3.687 | 4.342 | -0.10 | +3.0 | 20.2 | 125.9 |
| Mar. 1 | 06 29.88 | +06 41.2 | 3.827 | 4.360 | +0.06 | +3.0 | 20.4 | 116.5 |
| Mar. 11 | 06 31.15 | +07 11.4 | 3.980 | 4.378 | +0.21 | +3.0 | 20.5 | 107.3 |
| Mar. 21 | 06 33.91 | +07 40.1 | 4.140 | 4.397 | +0.35 | +2.7 | 20.7 | 98.4 |
| Mar. 31 | 06 38.03 | +08 06.0 | 4.304 | 4.416 | +0.48 | +2.4 | 20.9 | 89.8 |

Comet P/2015 CD60 (LINEAR)

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 18.90756 TT
 Peri. = 179.07956 e = 0.5722882
 Node = 279.23047 2000.0 a = 4.5926914 AU
 Incl. = 14.48293 n = 0.10013898
 q = 1.9643483 AU P = 9.84 years

$$m1 = 8.8 + 5 \log(\Delta) + 30.0 \log(r(t-30))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 07 11.73 | +19 02.6 | 0.989 | 1.971 | -0.76 -12.0 | 17.6 | 175.9 |
| Jan. 15 | 07 04.47 | +17 06.3 | 1.005 | 1.980 | -0.66 -11.0 | 17.6 | 169.2 |
| Jan. 25 | 06 58.78 | +15 22.2 | 1.046 | 1.994 | -0.44 -9.5 | 17.7 | 158.2 |
| Feb. 4 | 06 55.76 | +13 54.7 | 1.110 | 2.012 | -0.13 -7.8 | 17.9 | 147.5 |
| Feb. 14 | 06 55.95 | +12 43.9 | 1.192 | 2.034 | +0.20 -6.2 | 18.1 | 137.7 |
| Feb. 24 | 06 59.37 | +11 47.6 | 1.291 | 2.059 | +0.51 -5.0 | 18.3 | 128.7 |
| Mar. 6 | 07 05.73 | +11 02.1 | 1.402 | 2.088 | +0.78 -4.1 | 18.6 | 120.5 |
| Mar. 16 | 07 14.62 | +10 23.1 | 1.525 | 2.121 | +1.01 -3.7 | 19.0 | 112.9 |
| Mar. 26 | 07 25.57 | +09 46.9 | 1.657 | 2.156 | +1.19 -3.6 | 19.3 | 106.0 |
| Apr. 5 | 07 38.15 | +09 10.4 | 1.795 | 2.194 | +1.33 -3.8 | 19.7 | 99.5 |
| Apr. 15 | 07 51.99 | +08 31.2 | 1.939 | 2.234 | +1.44 -4.1 | 20.0 | 93.4 |
| Apr. 25 | 08 06.75 | +07 47.9 | 2.087 | 2.277 | +1.52 -4.6 | 20.4 | 87.5 |
| May 5 | 08 22.19 | +06 59.4 | 2.238 | 2.322 | +1.57 -5.2 | 20.8 | 81.9 |
| May 15 | 08 38.06 | +06 05.2 | 2.390 | 2.369 | +1.60 -5.7 | 21.2 | 76.5 |
| May 25 | 08 54.21 | +05 05.0 | 2.544 | 2.417 | +1.62 -6.3 | 21.5 | 71.3 |
| June 4 | 09 10.50 | +03 59.1 | 2.697 | 2.467 | +1.63 -6.9 | 21.9 | 66.1 |
| June 14 | 09 26.82 | +02 47.6 | 2.848 | 2.517 | +1.63 -7.4 | . | 61.0 |
| June 24 | 09 43.09 | +01 31.2 | 2.997 | 2.569 | +1.62 -7.9 | . | 55.9 |
| July 4 | 09 59.26 | +00 10.2 | 3.143 | 2.622 | +1.61 -8.3 | . | 50.8 |
| July 14 | 10 15.28 | -01 14.7 | 3.283 | 2.676 | +1.59 -8.7 | . | 45.8 |
| July 24 | 10 31.13 | -02 42.9 | 3.418 | 2.730 | +1.57 -9.0 | . | 40.8 |
| Aug. 3 | 10 46.78 | -04 13.8 | 3.545 | 2.785 | +1.55 -9.2 | . | 35.7 |
| Aug. 13 | 11 02.23 | -05 46.7 | 3.664 | 2.840 | +1.53 -9.4 | . | 30.7 |
| Aug. 23 | 11 17.45 | -07 21.0 | 3.773 | 2.895 | +1.51 -9.5 | . | 25.7 |
| Sept. 2 | 11 32.44 | -08 56.3 | 3.872 | 2.951 | +1.49 -9.6 | . | 20.8 |
| Sept. 12 | 11 47.19 | -10 31.9 | 3.960 | 3.007 | +1.46 -9.6 | . | 16.3 |
| Sept. 22 | 12 01.69 | -12 07.2 | 4.035 | 3.063 | +1.44 -9.5 | . | 12.6 |
| Oct. 2 | 12 15.92 | -13 41.9 | 4.096 | 3.119 | +1.41 -9.4 | . | 11.0 |
| Oct. 12 | 12 29.84 | -15 15.3 | 4.143 | 3.175 | +1.37 -9.3 | . | 12.4 |
| Oct. 22 | 12 43.43 | -16 47.0 | 4.175 | 3.231 | +1.34 -9.1 | . | 16.2 |
| Nov. 1 | 12 56.63 | -18 16.6 | 4.191 | 3.287 | +1.30 -8.8 | . | 21.4 |
| Nov. 11 | 13 09.39 | -19 43.7 | 4.192 | 3.342 | +1.25 -8.6 | . | 27.3 |
| Nov. 21 | 13 21.64 | -21 07.9 | 4.176 | 3.398 | +1.19 -8.2 | . | 33.6 |
| Dec. 1 | 13 33.28 | -22 28.8 | 4.146 | 3.453 | +1.13 -7.9 | . | 40.3 |
| Dec. 11 | 13 44.20 | -23 46.1 | 4.100 | 3.508 | +1.05 -7.5 | . | 47.3 |
| Dec. 21 | 13 54.28 | -24 59.5 | 4.041 | 3.563 | +0.96 -7.1 | . | 54.6 |
| Dec. 31 | 14 03.35 | -26 08.6 | 3.970 | 3.617 | +0.85 -6.7 | . | 62.2 |
| Jan. 10 | 14 11.26 | -27 13.0 | 3.888 | 3.671 | +0.72 -6.2 | . | 70.1 |
| Jan. 20 | 14 17.83 | -28 12.2 | 3.797 | 3.724 | +0.58 -5.6 | . | 78.3 |
| Jan. 30 | 14 22.86 | -29 05.5 | 3.702 | 3.778 | +0.41 -5.0 | . | 86.8 |
| Feb. 9 | 14 26.17 | -29 52.0 | 3.604 | 3.831 | +0.23 -4.2 | . | 95.7 |
| Feb. 19 | 14 27.62 | -30 30.6 | 3.509 | 3.883 | +0.04 -3.4 | . | 105.0 |
| Mar. 1 | 14 27.09 | -30 59.8 | 3.420 | 3.935 | -0.16 -2.3 | . | 114.5 |
| Mar. 11 | 14 24.61 | -31 18.0 | 3.342 | 3.987 | -0.35 -1.1 | . | 124.3 |
| Mar. 21 | 14 20.29 | -31 23.6 | 3.279 | 4.038 | -0.52 +0.2 | . | 134.3 |
| Mar. 31 | 14 14.45 | -31 15.2 | 3.237 | 4.089 | -0.65 +1.6 | . | 144.3 |

Comet 242P/Spahr

Epoch = 2025 July 24.0 TT
 T = 2024 Dec. 23.42829 TT
 Peri. = 244.99965 e = 0.2828640
 Node = 180.23039 2000.0 a = 5.5383234 AU
 Incl. = 32.42331 n = 0.07561999
 q = 3.9717311 AU P = 13.03 years

$$m1 = 7.4 + 5 \log(\Delta) + 12.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 03 46.63 | -16° 06.1 | 3.411 | 3.972 | -0.16 +4.2 | 17.6 | 118.3 |
| Jan. 15 | 03 45.81 | -15 18.3 | 3.519 | 3.973 | +0.01 +5.4 | 17.6 | 110.6 |
| Jan. 25 | 03 46.62 | -14 20.2 | 3.637 | 3.975 | +0.17 +6.3 | 17.7 | 102.9 |
| Feb. 4 | 03 49.04 | -13 14.9 | 3.761 | 3.977 | +0.33 +6.8 | 17.8 | 95.4 |
| Feb. 14 | 03 53.00 | -12 05.5 | 3.889 | 3.979 | +0.47 +7.1 | 17.8 | 88.0 |
| Feb. 24 | 03 58.36 | -10 54.4 | 4.017 | 3.982 | +0.61 +7.1 | 17.9 | 80.9 |
| Mar. 6 | 04 04.97 | -09 43.9 | 4.142 | 3.986 | +0.73 +7.0 | 18.0 | 74.1 |
| Mar. 16 | 04 12.71 | -08 35.6 | 4.264 | 3.990 | +0.83 +6.7 | 18.1 | 67.5 |
| Mar. 26 | 04 21.41 | -07 30.9 | 4.379 | 3.994 | +0.92 +6.2 | 18.1 | 61.2 |
| Apr. 5 | 04 30.96 | -06 30.9 | 4.486 | 3.999 | +1.00 +5.7 | 18.2 | 55.1 |
| Apr. 15 | 04 41.21 | -05 36.6 | 4.584 | 4.005 | +1.06 +5.1 | 18.2 | 49.4 |
| Apr. 25 | 04 52.05 | -04 48.7 | 4.672 | 4.011 | +1.11 +4.4 | 18.3 | 44.1 |
| May 5 | 05 03.38 | -04 07.8 | 4.749 | 4.018 | +1.16 +3.7 | 18.3 | 39.2 |
| May 15 | 05 15.09 | -03 34.4 | 4.813 | 4.025 | +1.19 +2.9 | 18.4 | 34.8 |
| May 25 | 05 27.08 | -03 08.6 | 4.866 | 4.032 | +1.21 +2.1 | 18.4 | 31.1 |
| June 4 | 05 39.26 | -02 50.9 | 4.906 | 4.041 | +1.23 +1.3 | 18.4 | 28.2 |
| June 14 | 05 51.55 | -02 41.3 | 4.932 | 4.049 | +1.23 +0.5 | 18.5 | 26.5 |
| June 24 | 06 03.85 | -02 39.8 | 4.946 | 4.058 | +1.23 -0.3 | 18.5 | 26.1 |
| July 4 | 06 16.09 | -02 46.5 | 4.946 | 4.068 | +1.22 -1.1 | 18.5 | 27.1 |
| July 14 | 06 28.17 | -03 01.3 | 4.933 | 4.077 | +1.20 -1.9 | 18.5 | 29.4 |
| July 24 | 06 40.02 | -03 23.8 | 4.906 | 4.088 | +1.17 -2.7 | 18.5 | 32.6 |
| Aug. 3 | 06 51.54 | -03 54.0 | 4.867 | 4.099 | +1.13 -3.4 | 18.5 | 36.7 |
| Aug. 13 | 07 02.65 | -04 31.3 | 4.816 | 4.110 | +1.08 -4.1 | 18.5 | 41.3 |
| Aug. 23 | 07 13.26 | -05 15.4 | 4.752 | 4.121 | +1.03 -4.8 | 18.5 | 46.5 |
| Sept. 2 | 07 23.26 | -06 05.6 | 4.677 | 4.134 | +0.96 -5.3 | 18.5 | 52.0 |
| Sept. 12 | 07 32.55 | -07 01.4 | 4.592 | 4.146 | +0.89 -5.8 | 18.4 | 57.9 |
| Sept. 22 | 07 41.01 | -08 01.8 | 4.498 | 4.159 | +0.80 -6.3 | 18.4 | 64.1 |
| Oct. 2 | 07 48.53 | -09 05.9 | 4.397 | 4.172 | +0.69 -6.6 | 18.4 | 70.6 |
| Oct. 12 | 07 54.97 | -10 12.4 | 4.289 | 4.186 | +0.58 -6.7 | 18.3 | 77.4 |
| Oct. 22 | 08 00.21 | -11 19.8 | 4.178 | 4.200 | +0.45 -6.7 | 18.3 | 84.4 |
| Nov. 1 | 08 04.11 | -12 26.4 | 4.066 | 4.214 | +0.31 -6.5 | 18.3 | 91.7 |
| Nov. 11 | 08 06.57 | -13 29.8 | 3.955 | 4.229 | +0.16 -6.1 | 18.2 | 99.3 |
| Nov. 21 | 08 07.51 | -14 27.6 | 3.848 | 4.244 | +0.01 -5.4 | 18.2 | 107.0 |
| Dec. 1 | 08 06.88 | -15 16.9 | 3.750 | 4.259 | -0.15 -4.3 | 18.1 | 114.8 |
| Dec. 11 | 08 04.74 | -15 54.6 | 3.664 | 4.275 | -0.29 -3.0 | 18.1 | 122.5 |
| Dec. 21 | 08 01.23 | -16 17.8 | 3.594 | 4.291 | -0.42 -1.4 | 18.1 | 129.8 |
| Dec. 31 | 07 56.61 | -16 23.8 | 3.543 | 4.307 | -0.51 +0.4 | 18.1 | 136.3 |
| Jan. 10 | 07 51.29 | -16 11.3 | 3.513 | 4.324 | -0.56 +2.3 | 18.1 | 141.2 |
| Jan. 20 | 07 45.69 | -15 39.8 | 3.508 | 4.341 | -0.55 +4.2 | 18.1 | 143.7 |
| Jan. 30 | 07 40.34 | -14 50.8 | 3.528 | 4.358 | -0.50 +5.8 | 18.1 | 143.3 |
| Feb. 9 | 07 35.69 | -13 47.0 | 3.574 | 4.375 | -0.41 +7.1 | 18.2 | 139.9 |
| Feb. 19 | 07 32.10 | -12 32.1 | 3.644 | 4.393 | -0.29 +7.9 | 18.2 | 134.4 |
| Mar. 1 | 07 29.87 | -11 10.5 | 3.736 | 4.411 | -0.14 +8.4 | 18.3 | 127.6 |
| Mar. 11 | 07 29.12 | -09 46.4 | 3.847 | 4.429 | +0.01 +8.4 | 18.4 | 120.1 |
| Mar. 21 | 07 29.88 | -08 23.2 | 3.974 | 4.447 | +0.16 +8.1 | 18.5 | 112.2 |
| Mar. 31 | 07 32.12 | -07 04.1 | 4.113 | 4.466 | +0.30 +7.6 | 18.6 | 104.3 |

Comet 136P/Mueller

Epoch = 2025 July 24.0 TT
 T = 2025 Jan. 3.46035 TT
 Peri. = 225.32331 e = 0.2931524
 Node = 137.41789 2000.0 a = 4.1854978 AU
 Incl. = 9.42724 n = 0.11510214
 q = 2.9585091 AU P = 8.56 years

$$m1 = 4.3 + 5 \log(\Delta) + 25.0 \log(r(t-160))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 23 16.66 | -11 12.3 | 3.303 | 2.959 | +1.25 +7.8 | 19.1 | 61.3 |
| Jan. 15 | 23 29.49 | -09 51.7 | 3.418 | 2.959 | +1.32 +8.3 | 19.1 | 54.6 |
| Jan. 25 | 23 42.90 | -08 26.8 | 3.526 | 2.961 | +1.37 +8.7 | 19.1 | 48.1 |
| Feb. 4 | 23 56.78 | -06 58.5 | 3.625 | 2.963 | +1.41 +9.0 | 19.2 | 41.8 |
| Feb. 14 | 00 11.03 | -05 28.0 | 3.714 | 2.967 | +1.44 +9.1 | 19.2 | 35.6 |
| Feb. 24 | 00 25.58 | -03 56.3 | 3.791 | 2.972 | +1.47 +9.2 | 19.2 | 29.6 |
| Mar. 6 | 00 40.38 | -02 24.2 | 3.858 | 2.977 | +1.49 +9.2 | 19.2 | 23.8 |
| Mar. 16 | 00 55.35 | +00 52.9 | 3.913 | 2.984 | +1.51 +9.1 | 19.2 | 18.2 |
| Mar. 26 | 01 10.47 | +00 37.0 | 3.955 | 2.991 | +1.52 +8.9 | 19.2 | 12.9 |
| Apr. 5 | 01 25.68 | +02 04.3 | 3.985 | 2.999 | +1.52 +8.6 | 19.2 | 8.4 |
| Apr. 15 | 01 40.95 | +03 28.5 | 4.003 | 3.009 | +1.53 +8.2 | 19.2 | 6.5 |
| Apr. 25 | 01 56.23 | +04 48.6 | 4.009 | 3.019 | +1.53 +7.8 | 19.1 | 8.9 |
| May 5 | 02 11.49 | +06 04.0 | 4.002 | 3.030 | +1.52 +7.3 | 19.1 | 13.5 |
| May 15 | 02 26.66 | +07 14.0 | 3.982 | 3.042 | +1.51 +6.7 | 19.1 | 18.6 |
| May 25 | 02 41.71 | +08 18.1 | 3.951 | 3.054 | +1.50 +6.1 | 19.1 | 24.1 |
| June 4 | 02 56.57 | +09 15.8 | 3.908 | 3.068 | +1.47 +5.4 | 19.0 | 29.7 |
| June 14 | 03 11.16 | +10 06.6 | 3.854 | 3.082 | +1.44 +4.7 | 19.0 | 35.4 |
| June 24 | 03 25.40 | +10 50.2 | 3.788 | 3.097 | +1.40 +4.0 | 19.0 | 41.2 |
| July 4 | 03 39.19 | +11 26.5 | 3.713 | 3.113 | +1.35 +3.2 | 18.9 | 47.2 |
| July 14 | 03 52.43 | +11 55.1 | 3.627 | 3.129 | +1.29 +2.5 | 18.9 | 53.4 |
| July 24 | 04 04.98 | +12 16.2 | 3.533 | 3.146 | +1.21 +1.7 | 18.8 | 59.7 |
| Aug. 3 | 04 16.71 | +12 29.8 | 3.432 | 3.164 | +1.12 +1.0 | 18.8 | 66.4 |
| Aug. 13 | 04 27.45 | +12 36.1 | 3.323 | 3.183 | +1.01 +0.2 | 18.8 | 73.2 |
| Aug. 23 | 04 37.03 | +12 35.6 | 3.210 | 3.202 | +0.89 -0.4 | 18.7 | 80.4 |
| Sept. 2 | 04 45.24 | +12 28.5 | 3.095 | 3.221 | +0.74 -1.0 | 18.6 | 88.0 |
| Sept. 12 | 04 51.89 | +12 15.8 | 2.978 | 3.241 | +0.57 -1.6 | 18.6 | 95.9 |
| Sept. 22 | 04 56.78 | +11 58.2 | 2.864 | 3.262 | +0.38 -2.0 | 18.5 | 104.4 |
| Oct. 2 | 04 59.71 | +11 36.7 | 2.756 | 3.283 | +0.18 -2.3 | 18.5 | 113.3 |
| Oct. 12 | 05 00.55 | +11 12.9 | 2.657 | 3.304 | -0.03 -2.5 | 18.5 | 122.7 |
| Oct. 22 | 04 59.25 | +10 48.1 | 2.571 | 3.326 | -0.25 -2.5 | 18.4 | 132.6 |
| Nov. 1 | 04 55.89 | +10 24.3 | 2.503 | 3.349 | -0.44 -2.2 | 18.4 | 142.8 |
| Nov. 11 | 04 50.76 | +10 03.4 | 2.458 | 3.371 | -0.60 -1.8 | 18.4 | 153.1 |
| Nov. 21 | 04 44.28 | +09 47.6 | 2.439 | 3.394 | -0.70 -1.2 | 18.5 | 162.6 |
| Dec. 1 | 04 37.12 | +09 38.7 | 2.448 | 3.418 | -0.73 -0.5 | 18.5 | 167.7 |
| Dec. 11 | 04 30.01 | +09 38.0 | 2.486 | 3.441 | -0.68 +0.4 | 18.6 | 163.4 |
| Dec. 21 | 04 23.62 | +09 46.1 | 2.553 | 3.465 | -0.57 +1.3 | 18.7 | 154.1 |
| Dec. 31 | 04 18.56 | +10 03.0 | 2.647 | 3.490 | -0.42 +2.2 | 18.9 | 143.8 |
| Jan. 10 | 04 15.21 | +10 27.9 | 2.764 | 3.514 | -0.23 +2.9 | 19.0 | 133.5 |
| Jan. 20 | 04 13.78 | +10 59.6 | 2.901 | 3.539 | -0.04 +3.5 | 19.2 | 123.4 |
| Jan. 30 | 04 14.30 | +11 36.5 | 3.052 | 3.564 | +0.16 +3.9 | 19.4 | 113.7 |
| Feb. 9 | 04 16.71 | +12 17.1 | 3.213 | 3.589 | +0.34 +4.2 | 19.5 | 104.4 |
| Feb. 19 | 04 20.83 | +12 59.9 | 3.381 | 3.614 | +0.50 +4.3 | 19.7 | 95.6 |
| Mar. 1 | 04 26.52 | +13 43.5 | 3.552 | 3.639 | +0.65 +4.3 | 19.9 | 87.1 |
| Mar. 11 | 04 33.56 | +14 26.6 | 3.723 | 3.665 | +0.77 +4.2 | 20.1 | 79.0 |
| Mar. 21 | 04 41.78 | +15 08.2 | 3.890 | 3.690 | +0.88 +4.0 | 20.2 | 71.1 |
| Mar. 31 | 04 50.99 | +15 47.4 | 4.051 | 3.716 | +0.97 +3.8 | 20.4 | 63.6 |

Comet C/2024 N4 (Sarneczky)

Epoch = 2025 July 24.0 TT
 T = 2025 Jan. 10.22828 TT
 Peri. = 116.71112
 Node = 339.65574 2000.0
 Incl. = 49.77532
 q = 5.3978339 AU
 e = 1.0043380

$$m1 = 7.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|-----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 08 35.82 | +72° 30.9 | 4.731 | 5.398 | -1.49 | -0.5 | 17.9 | 128.5 |
| Jan. 15 | 08 20.43 | +72 17.1 | 4.729 | 5.398 | -1.56 | -2.5 | 17.9 | 128.7 |
| Jan. 25 | 08 05.12 | +71 42.1 | 4.746 | 5.399 | -1.46 | -4.7 | 17.9 | 127.2 |
| Feb. 4 | 07 51.56 | +70 46.1 | 4.784 | 5.401 | -1.21 | -6.7 | 17.9 | 124.3 |
| Feb. 14 | 07 40.96 | +69 32.0 | 4.841 | 5.404 | -0.87 | -8.3 | 18.0 | 120.1 |
| Feb. 24 | 07 33.81 | +68 03.6 | 4.916 | 5.408 | -0.52 | -9.5 | 18.0 | 114.9 |
| Mar. 6 | 07 30.10 | +66 25.1 | 5.007 | 5.413 | -0.19 | -10.3 | 18.0 | 109.1 |
| Mar. 16 | 07 29.51 | +64 40.3 | 5.111 | 5.419 | +0.09 | -10.7 | 18.1 | 102.8 |
| Mar. 26 | 07 31.54 | +62 52.2 | 5.226 | 5.426 | +0.33 | -10.9 | 18.1 | 96.3 |
| Apr. 5 | 07 35.74 | +61 02.9 | 5.348 | 5.434 | +0.52 | -10.9 | 18.2 | 89.6 |
| Apr. 15 | 07 41.67 | +59 14.3 | 5.476 | 5.443 | +0.67 | -10.8 | 18.3 | 82.9 |
| Apr. 25 | 07 48.94 | +57 27.2 | 5.605 | 5.453 | +0.79 | -10.6 | 18.3 | 76.2 |
| May 5 | 07 57.24 | +55 42.3 | 5.733 | 5.464 | +0.88 | -10.4 | 18.4 | 69.6 |
| May 15 | 08 06.31 | +53 59.9 | 5.859 | 5.476 | +0.94 | -10.1 | 18.4 | 63.1 |
| May 25 | 08 15.92 | +52 20.3 | 5.978 | 5.489 | +0.99 | -9.8 | 18.5 | 56.8 |
| June 4 | 08 25.93 | +50 43.6 | 6.090 | 5.503 | +1.02 | -9.5 | 18.5 | 50.7 |
| June 14 | 08 36.17 | +49 09.7 | 6.192 | 5.518 | +1.03 | -9.2 | 18.6 | 44.8 |
| June 24 | 08 46.52 | +47 38.6 | 6.283 | 5.534 | +1.04 | -8.9 | 18.6 | 39.3 |
| July 4 | 08 56.90 | +46 10.5 | 6.361 | 5.551 | +1.04 | -8.6 | 18.7 | 34.3 |
| July 14 | 09 07.21 | +44 45.5 | 6.424 | 5.568 | +1.02 | -8.3 | 18.7 | 30.1 |
| July 24 | 09 17.38 | +43 23.6 | 6.472 | 5.587 | +1.01 | -8.0 | 18.7 | 27.1 |
| Aug. 3 | 09 27.34 | +42 05.0 | 6.504 | 5.606 | +0.98 | -7.7 | 18.8 | 25.6 |
| Aug. 13 | 09 37.03 | +40 49.9 | 6.519 | 5.627 | +0.95 | -7.3 | 18.8 | 26.1 |
| Aug. 23 | 09 46.40 | +39 38.7 | 6.516 | 5.648 | +0.92 | -6.9 | 18.8 | 28.5 |
| Sept. 2 | 09 55.37 | +38 31.6 | 6.496 | 5.670 | +0.87 | -6.5 | 18.8 | 32.4 |
| Sept. 12 | 10 03.88 | +37 29.1 | 6.458 | 5.692 | +0.82 | -6.0 | 18.8 | 37.5 |
| Sept. 22 | 10 11.87 | +36 31.5 | 6.404 | 5.716 | +0.77 | -5.5 | 18.8 | 43.4 |
| Oct. 2 | 10 19.25 | +35 39.3 | 6.334 | 5.741 | +0.70 | -4.9 | 18.8 | 49.9 |
| Oct. 12 | 10 25.94 | +34 52.9 | 6.249 | 5.766 | +0.63 | -4.3 | 18.8 | 57.0 |
| Oct. 22 | 10 31.86 | +34 12.6 | 6.151 | 5.792 | +0.54 | -3.7 | 18.8 | 64.4 |
| Nov. 1 | 10 36.89 | +33 38.9 | 6.043 | 5.819 | +0.45 | -3.0 | 18.8 | 72.3 |
| Nov. 11 | 10 40.93 | +33 11.8 | 5.927 | 5.846 | +0.35 | -2.3 | 18.7 | 80.5 |
| Nov. 21 | 10 43.88 | +32 51.5 | 5.806 | 5.875 | +0.23 | -1.7 | 18.7 | 89.1 |
| Dec. 1 | 10 45.62 | +32 37.7 | 5.685 | 5.904 | +0.10 | -1.0 | 18.7 | 98.0 |
| Dec. 11 | 10 46.06 | +32 29.8 | 5.567 | 5.933 | -0.03 | -0.5 | 18.7 | 107.2 |
| Dec. 21 | 10 45.14 | +32 26.8 | 5.458 | 5.964 | -0.17 | -0.1 | 18.6 | 116.6 |
| Dec. 31 | 10 42.84 | +32 27.2 | 5.362 | 5.995 | -0.30 | +0.2 | 18.6 | 126.2 |
| Jan. 10 | 10 39.21 | +32 29.1 | 5.283 | 6.027 | -0.43 | +0.2 | 18.6 | 135.7 |
| Jan. 20 | 10 34.38 | +32 30.3 | 5.227 | 6.059 | -0.54 | 0.0 | 18.6 | 145.0 |
| Jan. 30 | 10 28.58 | +32 28.5 | 5.197 | 6.092 | -0.62 | -0.4 | 18.6 | 153.2 |
| Feb. 9 | 10 22.12 | +32 21.3 | 5.196 | 6.126 | -0.67 | -1.1 | 18.6 | 158.7 |
| Feb. 19 | 10 15.37 | +32 07.3 | 5.225 | 6.160 | -0.68 | -1.8 | 18.7 | 159.3 |
| Mar. 1 | 10 08.73 | +31 45.2 | 5.286 | 6.195 | -0.64 | -2.7 | 18.7 | 154.5 |
| Mar. 11 | 10 02.59 | +31 15.0 | 5.376 | 6.230 | -0.58 | -3.5 | 18.8 | 146.7 |
| Mar. 21 | 09 57.24 | +30 37.0 | 5.493 | 6.266 | -0.48 | -4.2 | 18.9 | 137.7 |
| Mar. 31 | 09 52.92 | +29 52.2 | 5.635 | 6.303 | -0.37 | -4.8 | 18.9 | 128.3 |

Comet C/2024 G3 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 Jan. 13.42596 TT
 Peri. = 108.13001
 Node = 220.34938 2000.0
 Incl. = 116.84650
 q = 0.0935631 AU
 e = 1.0000059

$$m1 = 5.6 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 17 57.12 | -26 57.6 | 1.226 | 0.384 | +6.80 | +62.7 | 1.9 | 15.6 |
| Jan. 15 | 20 15.27 | -18 33.3 | 0.948 | 0.127 | +16.80 | 113.7 | -3.5 | 7.2 |
| Jan. 25 | 21 50.38 | -31 11.6 | 1.230 | 0.486 | +5.57 | -40.5 | 2.9 | 22.0 |
| Feb. 4 | 22 35.96 | -35 56.9 | 1.498 | 0.770 | +3.68 | -18.4 | 5.3 | 27.4 |
| Feb. 14 | 23 08.76 | -38 18.7 | 1.729 | 1.014 | +2.89 | -10.4 | 6.8 | 30.7 |
| Feb. 24 | 23 35.59 | -39 45.1 | 1.928 | 1.233 | +2.47 | -7.1 | 7.9 | 33.7 |
| Mar. 6 | 23 59.08 | -40 48.9 | 2.099 | 1.437 | +2.22 | -5.8 | 8.8 | 37.0 |
| Mar. 16 | 00 20.50 | -41 45.9 | 2.245 | 1.627 | +2.06 | -5.7 | 9.5 | 40.8 |
| Mar. 26 | 00 40.54 | -42 44.2 | 2.368 | 1.808 | +1.95 | -6.1 | 10.0 | 45.1 |
| Apr. 5 | 00 59.66 | -43 49.4 | 2.473 | 1.980 | +1.87 | -7.0 | 10.5 | 49.8 |
| Apr. 15 | 01 18.10 | -45 05.0 | 2.560 | 2.145 | +1.81 | -8.2 | 11.0 | 54.8 |
| Apr. 25 | 01 36.05 | -46 33.3 | 2.635 | 2.305 | +1.77 | -9.6 | 11.3 | 60.1 |
| May 5 | 01 53.64 | -48 16.4 | 2.699 | 2.460 | +1.74 | -11.2 | 11.7 | 65.6 |
| May 15 | 02 10.91 | -50 15.0 | 2.756 | 2.609 | +1.71 | -12.7 | 12.0 | 71.0 |
| May 25 | 02 27.93 | -52 29.3 | 2.810 | 2.755 | +1.69 | -14.3 | 12.2 | 76.5 |
| June 4 | 02 44.69 | -54 59.1 | 2.864 | 2.898 | +1.66 | -15.8 | 12.5 | 81.7 |
| June 14 | 03 01.16 | -57 43.0 | 2.922 | 3.037 | +1.63 | -17.1 | 12.8 | 86.6 |
| June 24 | 03 17.27 | -60 38.9 | 2.986 | 3.173 | +1.59 | -18.2 | 13.0 | 91.1 |
| July 4 | 03 32.90 | -63 44.3 | 3.060 | 3.306 | +1.53 | -18.9 | 13.2 | 94.9 |
| July 14 | 03 47.81 | -66 55.7 | 3.145 | 3.437 | +1.44 | -19.3 | 13.4 | 97.9 |
| July 24 | 04 01.70 | -70 09.8 | 3.244 | 3.565 | +1.31 | -19.4 | 13.7 | 100.1 |
| Aug. 3 | 04 13.93 | -73 23.1 | 3.357 | 3.691 | +1.10 | -19.1 | 13.9 | 101.2 |
| Aug. 13 | 04 23.42 | -76 32.1 | 3.485 | 3.815 | +0.73 | -18.5 | 14.1 | 101.3 |
| Aug. 23 | 04 28.06 | -79 33.5 | 3.626 | 3.937 | +0.05 | -17.6 | 14.3 | 100.4 |
| Sept. 2 | 04 22.84 | -82 23.7 | 3.781 | 4.057 | -1.44 | -16.2 | 14.6 | 98.7 |
| Sept. 12 | 03 54.48 | -84 55.7 | 3.947 | 4.176 | -5.24 | -13.7 | 14.8 | 96.1 |
| Sept. 22 | 02 23.75 | -86 48.7 | 4.122 | 4.293 | -14.98 | -7.1 | 15.0 | 93.0 |
| Oct. 2 | 23 29.37 | -87 03.8 | 4.304 | 4.408 | -15.54 | +5.2 | 15.2 | 89.4 |
| Oct. 12 | 21 43.83 | -85 41.1 | 4.490 | 4.522 | -5.59 | +10.5 | 15.4 | 85.4 |
| Oct. 22 | 21 09.29 | -83 50.4 | 4.679 | 4.634 | -1.59 | +11.4 | 15.6 | 81.3 |
| Nov. 1 | 21 01.35 | -81 57.6 | 4.867 | 4.746 | -0.06 | +11.1 | 15.8 | 77.1 |
| Nov. 11 | 21 04.25 | -80 09.1 | 5.053 | 4.856 | +0.63 | +10.5 | 16.0 | 72.9 |
| Nov. 21 | 21 12.37 | -78 26.7 | 5.233 | 4.964 | +0.99 | +9.9 | 16.2 | 68.9 |
| Dec. 1 | 21 23.29 | -76 51.1 | 5.406 | 5.072 | +1.19 | +9.2 | 16.3 | 65.2 |
| Dec. 11 | 21 35.80 | -75 22.3 | 5.570 | 5.178 | +1.31 | +8.5 | 16.5 | 61.9 |
| Dec. 21 | 21 49.26 | -74 00.6 | 5.722 | 5.284 | +1.38 | +7.8 | 16.6 | 59.0 |
| Dec. 31 | 22 03.30 | -72 46.0 | 5.863 | 5.388 | +1.42 | +7.1 | 16.8 | 56.8 |
| Jan. 10 | 22 17.65 | -71 38.8 | 5.990 | 5.492 | +1.45 | +6.3 | 16.9 | 55.4 |
| Jan. 20 | 22 32.17 | -70 39.1 | 6.104 | 5.594 | +1.46 | +5.5 | 17.0 | 54.8 |
| Jan. 30 | 22 46.76 | -69 47.3 | 6.203 | 5.696 | +1.46 | +4.7 | 17.1 | 55.0 |
| Feb. 9 | 23 01.33 | -69 03.7 | 6.288 | 5.796 | +1.45 | +3.9 | 17.2 | 56.1 |
| Feb. 19 | 23 15.84 | -68 28.6 | 6.359 | 5.896 | +1.45 | +3.0 | 17.3 | 58.1 |
| Mar. 1 | 23 30.25 | -68 02.5 | 6.418 | 5.995 | +1.43 | +2.1 | 17.4 | 60.7 |
| Mar. 11 | 23 44.51 | -67 45.8 | 6.464 | 6.093 | +1.42 | +1.1 | 17.5 | 63.9 |
| Mar. 21 | 23 58.62 | -67 38.8 | 6.500 | 6.191 | +1.40 | +0.2 | 17.6 | 67.7 |
| Mar. 31 | 00 12.53 | -67 41.9 | 6.528 | 6.287 | +1.38 | -0.9 | 17.7 | 71.8 |

Comet 105P/Singer Brewster

Epoch = 2025 July 24.0 TT
 T = 2025 Jan. 22.73565 TT
 Peri. = 46.32688 e = 0.4091281
 Node = 192.39255 2000.0 a = 3.4728929 AU
 Incl. = 9.16712 n = 0.15228846
 q = 2.0520348 AU P = 6.47 years

$$m1 = 8.2 + 5 \log(\Delta) + 20.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 16 27.63 | -17 22.5 | 2.758 | 2.057 | +2.42 -2.6 | 16.7 | 36.8 |
| Jan. 15 | 16 51.76 | -17 41.8 | 2.687 | 2.053 | +2.40 -1.1 | 16.6 | 41.3 |
| Jan. 25 | 17 15.66 | -17 45.9 | 2.614 | 2.052 | +2.37 +0.4 | 16.5 | 45.7 |
| Feb. 4 | 17 39.13 | -17 34.9 | 2.539 | 2.054 | +2.31 +1.9 | 16.5 | 50.3 |
| Feb. 14 | 18 01.95 | -17 09.3 | 2.461 | 2.059 | +2.24 +3.3 | 16.4 | 55.0 |
| Feb. 24 | 18 23.94 | -16 30.2 | 2.381 | 2.067 | +2.15 +4.6 | 16.4 | 59.7 |
| Mar. 6 | 18 44.90 | -15 38.7 | 2.299 | 2.077 | +2.03 +5.8 | 16.4 | 64.6 |
| Mar. 16 | 19 04.61 | -14 36.8 | 2.215 | 2.091 | +1.90 +6.7 | 16.3 | 69.7 |
| Mar. 26 | 19 22.92 | -13 26.3 | 2.131 | 2.106 | +1.75 +7.4 | 16.3 | 75.0 |
| Apr. 5 | 19 39.62 | -12 09.6 | 2.045 | 2.125 | +1.57 +7.9 | 16.3 | 80.6 |
| Apr. 15 | 19 54.52 | -10 49.3 | 1.960 | 2.145 | +1.38 +8.1 | 16.3 | 86.4 |
| Apr. 25 | 20 07.44 | -09 28.0 | 1.874 | 2.168 | +1.17 +8.1 | 16.3 | 92.7 |
| May 5 | 20 18.15 | -08 08.7 | 1.791 | 2.193 | +0.94 +7.7 | 16.3 | 99.3 |
| May 15 | 20 26.43 | -06 54.4 | 1.711 | 2.220 | +0.69 +7.0 | 16.3 | 106.5 |
| May 25 | 20 32.10 | -05 48.6 | 1.636 | 2.249 | +0.41 +6.0 | 16.3 | 114.2 |
| June 4 | 20 34.96 | -04 54.9 | 1.568 | 2.279 | +0.13 +4.6 | 16.3 | 122.4 |
| June 14 | 20 34.98 | -04 16.8 | 1.512 | 2.311 | -0.15 +2.8 | 16.4 | 131.3 |
| June 24 | 20 32.27 | -03 57.2 | 1.468 | 2.345 | -0.41 +0.8 | 16.4 | 140.6 |
| July 4 | 20 27.20 | -03 58.3 | 1.443 | 2.379 | -0.61 -1.3 | 16.5 | 150.2 |
| July 14 | 20 20.46 | -04 19.9 | 1.438 | 2.415 | -0.73 -3.2 | 16.6 | 159.1 |
| July 24 | 20 12.97 | -04 59.8 | 1.456 | 2.452 | -0.75 -4.8 | 16.8 | 165.1 |
| Aug. 3 | 20 05.76 | -05 53.6 | 1.499 | 2.489 | -0.67 -5.9 | 17.0 | 163.7 |
| Aug. 13 | 19 59.81 | -06 55.2 | 1.566 | 2.528 | -0.50 -6.4 | 17.2 | 156.5 |
| Aug. 23 | 19 55.78 | -07 59.0 | 1.657 | 2.567 | -0.28 -6.3 | 17.5 | 147.4 |
| Sept. 2 | 19 54.09 | -08 59.8 | 1.768 | 2.606 | -0.03 -5.8 | 17.8 | 138.0 |
| Sept. 12 | 19 54.86 | -09 54.0 | 1.897 | 2.647 | +0.21 -5.0 | 18.0 | 128.8 |
| Sept. 22 | 19 57.96 | -10 39.5 | 2.040 | 2.687 | +0.43 -4.0 | 18.3 | 120.0 |
| Oct. 2 | 20 03.21 | -11 14.7 | 2.196 | 2.728 | +0.63 -2.9 | 18.6 | 111.6 |
| Oct. 12 | 20 10.32 | -11 39.2 | 2.360 | 2.769 | +0.80 -1.9 | 18.9 | 103.5 |
| Oct. 22 | 20 19.00 | -11 53.0 | 2.531 | 2.810 | +0.94 -0.8 | 19.2 | 95.7 |
| Nov. 1 | 20 28.98 | -11 56.0 | 2.705 | 2.851 | +1.06 +0.3 | 19.5 | 88.2 |
| Nov. 11 | 20 40.00 | -11 48.9 | 2.880 | 2.893 | +1.15 +1.2 | 19.7 | 80.8 |
| Nov. 21 | 20 51.85 | -11 32.2 | 3.054 | 2.934 | +1.22 +2.2 | 20.0 | 73.7 |
| Dec. 1 | 21 04.35 | -11 06.5 | 3.225 | 2.976 | +1.28 +3.0 | 20.2 | 66.7 |
| Dec. 11 | 21 17.30 | -10 32.6 | 3.390 | 3.017 | +1.32 +3.8 | 20.4 | 59.8 |
| Dec. 21 | 21 30.59 | -09 51.1 | 3.548 | 3.058 | +1.34 +4.5 | 20.7 | 52.9 |
| Dec. 31 | 21 44.10 | -09 03.1 | 3.697 | 3.099 | +1.36 +5.1 | 20.9 | 46.2 |
| Jan. 10 | 21 57.71 | -08 09.2 | 3.836 | 3.139 | +1.36 +5.7 | 21.1 | 39.5 |
| Jan. 20 | 22 11.35 | -07 10.4 | 3.962 | 3.180 | +1.36 +6.1 | 21.2 | 32.8 |
| Jan. 30 | 22 24.94 | -06 07.5 | 4.074 | 3.220 | +1.35 +6.5 | 21.4 | 26.2 |
| Feb. 9 | 22 38.43 | -05 01.4 | 4.172 | 3.260 | +1.34 +6.8 | 21.6 | 19.7 |
| Feb. 19 | 22 51.77 | -03 52.9 | 4.255 | 3.300 | +1.32 +6.9 | 21.7 | 13.2 |
| Mar. 1 | 23 04.90 | -02 42.9 | 4.320 | 3.339 | +1.30 +7.1 | 21.9 | 6.9 |
| Mar. 11 | 23 17.78 | -01 32.1 | 4.370 | 3.378 | +1.27 +7.1 | 22.0 | 2.8 |
| Mar. 21 | 23 30.37 | +00 21.5 | 4.402 | 3.416 | +1.24 +7.0 | . | 7.4 |
| Mar. 31 | 23 42.63 | +00 48.4 | 4.416 | 3.455 | +1.21 +6.9 | . | 13.8 |

Comet C/2023 T3 (Fuls)

Epoch = 2025 July 24.0 TT
 T = 2025 Jan. 25.35816 TT
 Peri. = 302.84785
 Node = 246.00198 2000.0
 Incl. = 27.22134
 q = 3.5483231 AU
 e = 0.9959325

$$m1 = 7.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 12 52.64 | -31 15.6 | 3.579 | 3.553 | +0.93 | -8.0 | 16.0 | 80.6 |
| Jan. 15 | 13 01.38 | -32 32.1 | 3.450 | 3.550 | +0.80 | -7.2 | 15.9 | 87.7 |
| Jan. 25 | 13 08.79 | -33 40.2 | 3.322 | 3.548 | +0.66 | -6.3 | 15.8 | 95.1 |
| Feb. 4 | 13 14.67 | -34 37.7 | 3.198 | 3.549 | +0.50 | -5.1 | 15.7 | 102.8 |
| Feb. 14 | 13 18.87 | -35 22.4 | 3.080 | 3.553 | +0.32 | -3.7 | 15.6 | 110.8 |
| Feb. 24 | 13 21.29 | -35 52.1 | 2.972 | 3.559 | +0.14 | -2.0 | 15.6 | 119.0 |
| Mar. 6 | 13 21.94 | -36 04.1 | 2.876 | 3.567 | -0.03 | -0.1 | 15.5 | 127.4 |
| Mar. 16 | 13 20.98 | -35 56.4 | 2.796 | 3.577 | -0.17 | +1.9 | 15.5 | 135.8 |
| Mar. 26 | 13 18.72 | -35 27.7 | 2.735 | 3.590 | -0.28 | +4.0 | 15.4 | 143.9 |
| Apr. 5 | 13 15.65 | -34 38.0 | 2.697 | 3.604 | -0.33 | +6.1 | 15.4 | 150.9 |
| Apr. 15 | 13 12.34 | -33 29.5 | 2.684 | 3.622 | -0.32 | +7.8 | 15.4 | 155.7 |
| Apr. 25 | 13 09.37 | -32 05.8 | 2.696 | 3.641 | -0.26 | +9.0 | 15.5 | 156.5 |
| May 5 | 13 07.25 | -30 32.5 | 2.735 | 3.662 | -0.15 | +9.6 | 15.5 | 152.9 |
| May 15 | 13 06.36 | -28 55.6 | 2.800 | 3.685 | -0.01 | +9.7 | 15.6 | 146.5 |
| May 25 | 13 06.92 | -27 20.6 | 2.889 | 3.711 | +0.14 | +9.2 | 15.7 | 138.7 |
| June 4 | 13 09.00 | -25 52.3 | 3.000 | 3.738 | +0.29 | +8.3 | 15.8 | 130.4 |
| June 14 | 13 12.59 | -24 34.1 | 3.130 | 3.767 | +0.44 | +7.2 | 15.9 | 122.0 |
| June 24 | 13 17.58 | -23 27.5 | 3.275 | 3.798 | +0.57 | +6.0 | 16.1 | 113.7 |
| July 4 | 13 23.85 | -22 33.3 | 3.432 | 3.831 | +0.69 | +4.7 | 16.2 | 105.5 |
| July 14 | 13 31.24 | -21 51.3 | 3.598 | 3.866 | +0.80 | +3.6 | 16.4 | 97.6 |
| July 24 | 13 39.61 | -21 20.6 | 3.770 | 3.902 | +0.89 | +2.5 | 16.5 | 89.8 |
| Aug. 3 | 13 48.83 | -20 59.9 | 3.946 | 3.940 | +0.96 | +1.6 | 16.6 | 82.3 |
| Aug. 13 | 13 58.77 | -20 47.8 | 4.121 | 3.979 | +1.03 | +0.8 | 16.8 | 74.9 |
| Aug. 23 | 14 09.33 | -20 42.9 | 4.295 | 4.020 | +1.09 | +0.1 | 16.9 | 67.6 |
| Sept. 2 | 14 20.40 | -20 43.9 | 4.464 | 4.062 | +1.13 | -0.4 | 17.0 | 60.4 |
| Sept. 12 | 14 31.89 | -20 49.2 | 4.627 | 4.105 | +1.17 | -0.7 | 17.2 | 53.3 |
| Sept. 22 | 14 43.73 | -20 57.6 | 4.781 | 4.150 | +1.20 | -1.0 | 17.3 | 46.2 |
| Oct. 2 | 14 55.85 | -21 08.0 | 4.924 | 4.196 | +1.22 | -1.1 | 17.4 | 39.2 |
| Oct. 12 | 15 08.16 | -21 19.3 | 5.055 | 4.243 | +1.24 | -1.1 | 17.5 | 32.1 |
| Oct. 22 | 15 20.61 | -21 30.5 | 5.173 | 4.292 | +1.25 | -1.1 | 17.6 | 25.0 |
| Nov. 1 | 15 33.10 | -21 40.8 | 5.275 | 4.341 | +1.25 | -0.9 | 17.7 | 17.9 |
| Nov. 11 | 15 45.58 | -21 49.4 | 5.360 | 4.391 | +1.24 | -0.7 | 17.8 | 10.7 |
| Nov. 21 | 15 57.96 | -21 55.7 | 5.428 | 4.442 | +1.23 | -0.5 | 17.8 | 3.6 |
| Dec. 1 | 16 10.16 | -21 59.1 | 5.477 | 4.494 | +1.21 | -0.2 | 17.9 | 4.1 |
| Dec. 11 | 16 22.08 | -21 59.3 | 5.508 | 4.547 | +1.17 | +0.2 | 18.0 | 11.4 |
| Dec. 21 | 16 33.64 | -21 55.9 | 5.520 | 4.601 | +1.13 | +0.5 | 18.0 | 19.0 |
| Dec. 31 | 16 44.75 | -21 48.6 | 5.514 | 4.656 | +1.08 | +0.9 | 18.1 | 26.6 |
| Jan. 10 | 16 55.28 | -21 37.5 | 5.489 | 4.711 | +1.02 | +1.3 | 18.1 | 34.4 |
| Jan. 20 | 17 05.16 | -21 22.3 | 5.448 | 4.767 | +0.95 | +1.7 | 18.2 | 42.3 |
| Jan. 30 | 17 14.25 | -21 03.3 | 5.390 | 4.823 | +0.86 | +2.1 | 18.2 | 50.4 |
| Feb. 9 | 17 22.45 | -20 40.6 | 5.320 | 4.880 | +0.77 | +2.5 | 18.2 | 58.7 |
| Feb. 19 | 17 29.65 | -20 14.4 | 5.237 | 4.938 | +0.66 | +2.8 | 18.2 | 67.1 |
| Mar. 1 | 17 35.75 | -19 44.9 | 5.146 | 4.996 | +0.54 | +3.1 | 18.2 | 75.8 |
| Mar. 11 | 17 40.65 | -19 12.6 | 5.050 | 5.055 | +0.42 | +3.4 | 18.3 | 84.6 |
| Mar. 21 | 17 44.26 | -18 37.8 | 4.951 | 5.114 | +0.29 | +3.6 | 18.3 | 93.7 |
| Mar. 31 | 17 46.52 | -18 00.9 | 4.855 | 5.174 | +0.15 | +3.8 | 18.3 | 103.1 |

Comet 249P/LINEAR

Epoch = 2025 July 24.0 TT
 T = 2025 Feb. 1.70419 TT
 Peri. = 65.76155
 Node = 239.03752 2000.0
 Incl. = 8.38343
 q = 0.4996032 AU
 e = 0.8193998
 a = 2.7663491 AU
 n = 0.21421190
 P = 4.60 years

H = 16.2 , G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | V | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 17 17.57 | -23 51.2 | 1.544 | 0.763 | +6.81 +1.2 | 17.9 | 24.3 |
| Jan. 15 | 18 29.39 | -22 43.0 | 1.485 | 0.628 | +7.57 +14.2 | 17.3 | 18.0 |
| Jan. 25 | 19 46.82 | -19 18.1 | 1.469 | 0.527 | +7.85 +27.9 | 16.6 | 10.0 |
| Feb. 4 | 21 04.40 | -13 53.4 | 1.484 | 0.502 | +7.53 +36.8 | 16.0 | 2.8 |
| Feb. 14 | 22 16.28 | -07 34.4 | 1.524 | 0.566 | +6.73 +38.0 | 16.7 | 8.5 |
| Feb. 24 | 23 19.54 | -01 28.1 | 1.593 | 0.687 | +5.84 +34.3 | 17.5 | 15.1 |
| Mar. 6 | 00 14.33 | +03 50.5 | 1.695 | 0.830 | +5.06 +28.7 | 18.1 | 19.6 |
| Mar. 16 | 01 01.81 | +08 11.6 | 1.824 | 0.978 | +4.40 +23.0 | 18.5 | 22.1 |
| Mar. 26 | 01 43.26 | +11 38.6 | 1.973 | 1.123 | +3.86 +18.0 | 18.9 | 22.9 |
| Apr. 5 | 02 19.83 | +14 19.9 | 2.132 | 1.265 | +3.43 +13.9 | 19.3 | 22.3 |
| Apr. 15 | 02 52.46 | +16 24.0 | 2.294 | 1.401 | +3.08 +10.7 | 19.6 | 20.6 |
| Apr. 25 | 03 21.91 | +17 58.4 | 2.456 | 1.532 | +2.79 +8.1 | 19.8 | 18.1 |
| May 5 | 03 48.76 | +19 09.1 | 2.612 | 1.658 | +2.56 +5.9 | 20.0 | 14.8 |
| May 15 | 04 13.44 | +20 00.4 | 2.760 | 1.779 | +2.36 +4.2 | 20.1 | 11.1 |
| May 25 | 04 36.27 | +20 35.9 | 2.897 | 1.895 | +2.19 +2.8 | 20.2 | 6.9 |
| June 4 | 04 57.52 | +20 58.1 | 3.020 | 2.007 | +2.04 +1.6 | 20.3 | 2.7 |
| June 14 | 05 17.33 | +21 09.1 | 3.128 | 2.115 | +1.91 +0.6 | 20.5 | 3.4 |
| June 24 | 05 35.85 | +21 10.5 | 3.220 | 2.219 | +1.78 -0.3 | 20.8 | 8.3 |
| July 4 | 05 53.15 | +21 03.9 | 3.295 | 2.320 | +1.66 -1.1 | 21.1 | 13.7 |
| July 14 | 06 09.28 | +20 50.4 | 3.352 | 2.418 | +1.55 -1.7 | 21.3 | 19.5 |
| July 24 | 06 24.27 | +20 31.0 | 3.391 | 2.512 | +1.44 -2.2 | 21.5 | 25.5 |
| Aug. 3 | 06 38.10 | +20 06.8 | 3.411 | 2.603 | +1.32 -2.6 | 21.7 | 31.8 |
| Aug. 13 | 06 50.76 | +19 38.9 | 3.412 | 2.692 | +1.20 -3.0 | 21.8 | 38.3 |
| Aug. 23 | 07 02.19 | +19 08.0 | 3.396 | 2.777 | +1.07 -3.2 | 21.9 | 45.2 |
| Sept. 2 | 07 12.32 | +18 35.2 | 3.362 | 2.860 | +0.94 -3.3 | 22.0 | 52.4 |
| Sept. 12 | 07 21.03 | +18 01.5 | 3.313 | 2.941 | +0.79 -3.4 | . | 60.0 |
| Sept. 22 | 07 28.21 | +17 27.9 | 3.250 | 3.019 | +0.63 -3.3 | . | 67.9 |
| Oct. 2 | 07 33.69 | +16 55.3 | 3.175 | 3.095 | +0.45 -3.1 | . | 76.3 |
| Oct. 12 | 07 37.30 | +16 25.0 | 3.092 | 3.169 | +0.25 -2.9 | . | 85.2 |
| Oct. 22 | 07 38.86 | +15 58.0 | 3.005 | 3.241 | +0.04 -2.5 | . | 94.7 |
| Nov. 1 | 07 38.19 | +15 35.2 | 2.917 | 3.311 | -0.20 -2.0 | 22.0 | 104.7 |
| Nov. 11 | 07 35.16 | +15 17.6 | 2.835 | 3.379 | -0.43 -1.5 | 22.0 | 115.3 |
| Nov. 21 | 07 29.75 | +15 05.7 | 2.764 | 3.444 | -0.67 -0.9 | 21.9 | 126.5 |
| Dec. 1 | 07 22.07 | +14 59.7 | 2.711 | 3.509 | -0.88 -0.3 | 21.8 | 138.2 |
| Dec. 11 | 07 12.49 | +14 59.2 | 2.682 | 3.571 | -1.04 +0.2 | 21.7 | 150.3 |
| Dec. 21 | 07 01.57 | +15 03.5 | 2.681 | 3.631 | -1.14 +0.7 | 21.5 | 162.4 |
| Dec. 31 | 06 50.09 | +15 11.6 | 2.714 | 3.690 | -1.15 +1.0 | 21.5 | 171.7 |
| Jan. 10 | 06 38.91 | +15 22.4 | 2.781 | 3.747 | -1.07 +1.2 | 21.6 | 167.4 |
| Jan. 20 | 06 28.80 | +15 35.1 | 2.882 | 3.803 | -0.93 +1.3 | 21.9 | 156.2 |
| Jan. 30 | 06 20.37 | +15 49.0 | 3.012 | 3.857 | -0.73 +1.4 | . | 144.5 |
| Feb. 9 | 06 13.98 | +16 03.5 | 3.169 | 3.910 | -0.52 +1.5 | . | 133.1 |
| Feb. 19 | 06 09.76 | +16 18.3 | 3.346 | 3.961 | -0.30 +1.5 | . | 122.1 |
| Mar. 1 | 06 07.67 | +16 32.8 | 3.538 | 4.010 | -0.10 +1.4 | . | 111.6 |
| Mar. 11 | 06 07.56 | +16 46.6 | 3.739 | 4.058 | +0.09 +1.3 | . | 101.7 |
| Mar. 21 | 06 09.20 | +16 59.3 | 3.945 | 4.105 | +0.25 +1.2 | . | 92.2 |
| Mar. 31 | 06 12.39 | +17 10.3 | 4.150 | 4.150 | +0.39 +1.0 | . | 83.1 |

Comet C/2023 F3 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 Feb. 2.61845 TT
 Peri. = 265.53298
 Node = 109.46639 2000.0
 Incl. = 145.96361
 q = 5.1908070 AU
 e = 1.0033262

$$m1 = 6.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 13 39.74 | -44 38.4 | 5.483 | 5.195 | -0.40 | -5.2 | 17.1 | 68.0 |
| Jan. 15 | 13 34.77 | -45 29.6 | 5.324 | 5.193 | -0.62 | -5.0 | 17.0 | 77.1 |
| Jan. 25 | 13 27.53 | -46 16.9 | 5.159 | 5.191 | -0.86 | -4.4 | 16.9 | 86.4 |
| Feb. 4 | 13 17.75 | -46 56.4 | 4.995 | 5.191 | -1.12 | -3.3 | 16.8 | 95.9 |
| Feb. 14 | 13 05.33 | -47 23.0 | 4.840 | 5.192 | -1.39 | -1.8 | 16.8 | 105.5 |
| Feb. 24 | 12 50.38 | -47 31.4 | 4.700 | 5.193 | -1.62 | +0.4 | 16.7 | 114.8 |
| Mar. 6 | 12 33.35 | -47 15.7 | 4.582 | 5.196 | -1.79 | +3.1 | 16.7 | 123.5 |
| Mar. 16 | 12 15.05 | -46 31.9 | 4.492 | 5.200 | -1.86 | +6.0 | 16.6 | 131.1 |
| Mar. 26 | 11 56.50 | -45 18.3 | 4.436 | 5.205 | -1.83 | +9.0 | 16.6 | 136.5 |
| Apr. 5 | 11 38.78 | -43 36.9 | 4.418 | 5.211 | -1.69 | +11.5 | 16.6 | 138.7 |
| Apr. 15 | 11 22.81 | -41 33.3 | 4.438 | 5.219 | -1.48 | +13.3 | 16.6 | 137.2 |
| Apr. 25 | 11 09.14 | -39 15.3 | 4.495 | 5.227 | -1.23 | +14.3 | 16.6 | 132.5 |
| May 5 | 10 58.02 | -36 51.1 | 4.586 | 5.237 | -0.97 | +14.4 | 16.7 | 125.5 |
| May 15 | 10 49.43 | -34 28.7 | 4.707 | 5.247 | -0.73 | +13.9 | 16.8 | 117.2 |
| May 25 | 10 43.17 | -32 13.9 | 4.851 | 5.259 | -0.51 | +12.9 | 16.8 | 108.4 |
| June 4 | 10 38.96 | -30 10.9 | 5.011 | 5.271 | -0.32 | +11.5 | 16.9 | 99.3 |
| June 14 | 10 36.49 | -28 22.0 | 5.182 | 5.285 | -0.16 | +10.1 | 17.0 | 90.2 |
| June 24 | 10 35.47 | -26 48.1 | 5.356 | 5.299 | -0.03 | +8.6 | 17.1 | 81.3 |
| July 4 | 10 35.63 | -25 29.4 | 5.529 | 5.315 | +0.07 | +7.1 | 17.2 | 72.6 |
| July 14 | 10 36.74 | -24 25.1 | 5.695 | 5.332 | +0.15 | +5.7 | 17.2 | 64.2 |
| July 24 | 10 38.58 | -23 34.3 | 5.848 | 5.349 | +0.22 | +4.4 | 17.3 | 56.1 |
| Aug. 3 | 10 40.98 | -22 56.0 | 5.987 | 5.368 | +0.26 | +3.2 | 17.4 | 48.5 |
| Aug. 13 | 10 43.75 | -22 28.9 | 6.106 | 5.388 | +0.29 | +2.1 | 17.4 | 41.4 |
| Aug. 23 | 10 46.76 | -22 11.8 | 6.204 | 5.408 | +0.31 | +1.2 | 17.5 | 35.1 |
| Sept. 2 | 10 49.87 | -22 03.6 | 6.279 | 5.430 | +0.31 | +0.4 | 17.5 | 30.1 |
| Sept. 12 | 10 52.95 | -22 03.2 | 6.328 | 5.452 | +0.30 | -0.3 | 17.6 | 27.2 |
| Sept. 22 | 10 55.85 | -22 09.5 | 6.351 | 5.475 | +0.28 | -1.0 | 17.6 | 26.9 |
| Oct. 2 | 10 58.46 | -22 21.5 | 6.348 | 5.499 | +0.24 | -1.5 | 17.6 | 29.5 |
| Oct. 12 | 11 00.64 | -22 38.1 | 6.319 | 5.524 | +0.19 | -1.9 | 17.6 | 34.4 |
| Oct. 22 | 11 02.24 | -22 58.1 | 6.266 | 5.550 | +0.12 | -2.2 | 17.6 | 40.8 |
| Nov. 1 | 11 03.11 | -23 20.4 | 6.189 | 5.577 | +0.04 | -2.3 | 17.6 | 48.2 |
| Nov. 11 | 11 03.10 | -23 43.7 | 6.092 | 5.605 | -0.06 | -2.3 | 17.6 | 56.4 |
| Nov. 21 | 11 02.05 | -24 06.3 | 5.977 | 5.633 | -0.17 | -2.2 | 17.6 | 65.1 |
| Dec. 1 | 10 59.79 | -24 26.6 | 5.849 | 5.662 | -0.30 | -1.8 | 17.6 | 74.3 |
| Dec. 11 | 10 56.20 | -24 42.3 | 5.713 | 5.692 | -0.44 | -1.2 | 17.5 | 83.8 |
| Dec. 21 | 10 51.15 | -24 51.4 | 5.575 | 5.723 | -0.59 | -0.4 | 17.5 | 93.7 |
| Dec. 31 | 10 44.61 | -24 51.0 | 5.441 | 5.754 | -0.74 | +0.7 | 17.5 | 103.7 |
| Jan. 10 | 10 36.60 | -24 38.5 | 5.317 | 5.786 | -0.88 | +2.0 | 17.5 | 113.9 |
| Jan. 20 | 10 27.27 | -24 11.7 | 5.212 | 5.819 | -1.00 | +3.6 | 17.4 | 124.0 |
| Jan. 30 | 10 16.89 | -23 28.6 | 5.132 | 5.853 | -1.08 | +5.2 | 17.4 | 133.4 |
| Feb. 9 | 10 05.85 | -22 28.7 | 5.082 | 5.887 | -1.12 | +6.9 | 17.4 | 141.6 |
| Feb. 19 | 09 54.63 | -21 12.8 | 5.067 | 5.922 | -1.11 | +8.4 | 17.4 | 147.1 |
| Mar. 1 | 09 43.71 | -19 43.4 | 5.090 | 5.957 | -1.06 | +9.5 | 17.5 | 148.5 |
| Mar. 11 | 09 33.56 | -18 04.2 | 5.152 | 5.993 | -0.96 | +10.3 | 17.5 | 145.1 |
| Mar. 21 | 09 24.53 | -16 19.7 | 5.250 | 6.030 | -0.83 | +10.6 | 17.6 | 138.3 |
| Mar. 31 | 09 16.86 | -14 34.2 | 5.380 | 6.068 | -0.69 | +10.4 | 17.7 | 129.7 |

Comet P/2023 S1

Epoch = 2025 July 24.0 TT
 T = 2025 Feb. 24.18719 TT
 Peri. = 180.30971 e = 0.3184560
 Node = 317.29005 2000.0 a = 3.8437967 AU
 Incl. = 9.15779 n = 0.13078666
 q = 2.6197166 AU P = 7.54 years

$$m1 = 6.0 + 5 \log(\Delta) + 20.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 09 15.65 | +19° 09' 8" | 1.745 | 2.637 | -0.49 -1.0 | 15.6 | 148.9 |
| Jan. 15 | 09 09.76 | +19 02.0 | 1.683 | 2.631 | -0.70 -0.6 | 15.5 | 160.4 |
| Jan. 25 | 09 02.11 | +18 56.3 | 1.647 | 2.626 | -0.83 -0.6 | 15.5 | 172.2 |
| Feb. 4 | 08 53.68 | +18 49.4 | 1.639 | 2.623 | -0.84 -0.9 | 15.4 | 175.3 |
| Feb. 14 | 08 45.62 | +18 38.6 | 1.658 | 2.620 | -0.74 -1.4 | 15.5 | 163.6 |
| Feb. 24 | 08 38.97 | +18 22.3 | 1.704 | 2.620 | -0.55 -2.0 | 15.5 | 152.1 |
| Mar. 6 | 08 34.53 | +18 00.0 | 1.773 | 2.620 | -0.30 -2.6 | 15.6 | 141.1 |
| Mar. 16 | 08 32.74 | +17 31.6 | 1.862 | 2.622 | -0.03 -3.2 | 15.7 | 130.8 |
| Mar. 26 | 08 33.64 | +16 57.6 | 1.966 | 2.626 | +0.24 -3.7 | 15.9 | 121.2 |
| Apr. 5 | 08 37.13 | +16 17.9 | 2.082 | 2.631 | +0.48 -4.3 | 16.0 | 112.3 |
| Apr. 15 | 08 42.92 | +15 32.6 | 2.207 | 2.637 | +0.69 -4.8 | 16.1 | 104.1 |
| Apr. 25 | 08 50.67 | +14 41.7 | 2.337 | 2.644 | +0.87 -5.4 | 16.3 | 96.3 |
| May 5 | 09 00.07 | +13 45.0 | 2.470 | 2.653 | +1.02 -6.0 | 16.4 | 89.1 |
| May 15 | 09 10.81 | +12 42.4 | 2.604 | 2.663 | +1.14 -6.6 | 16.6 | 82.2 |
| May 25 | 09 22.62 | +11 33.9 | 2.737 | 2.674 | +1.23 -7.2 | 16.7 | 75.7 |
| June 4 | 09 35.28 | +10 19.6 | 2.868 | 2.686 | +1.31 -7.7 | 16.9 | 69.5 |
| June 14 | 09 48.61 | +08 59.8 | 2.996 | 2.700 | +1.36 -8.3 | 17.0 | 63.5 |
| June 24 | 10 02.45 | +07 34.8 | 3.118 | 2.715 | +1.41 -8.8 | 17.1 | 57.7 |
| July 4 | 10 16.68 | +06 05.0 | 3.236 | 2.730 | +1.44 -9.2 | 17.3 | 52.0 |
| July 14 | 10 31.20 | +04 30.9 | 3.347 | 2.747 | +1.46 -9.6 | 17.4 | 46.5 |
| July 24 | 10 45.94 | +02 52.9 | 3.450 | 2.765 | +1.48 -10.0 | 17.5 | 41.0 |
| Aug. 3 | 11 00.83 | +01 11.8 | 3.546 | 2.784 | +1.50 -10.3 | 17.6 | 35.6 |
| Aug. 13 | 11 15.83 | +00 31.9 | 3.632 | 2.804 | +1.50 -10.5 | 17.8 | 30.3 |
| Aug. 23 | 11 30.91 | -02 17.6 | 3.709 | 2.824 | +1.51 -10.7 | 17.9 | 24.9 |
| Sept. 2 | 11 46.04 | -04 04.6 | 3.776 | 2.846 | +1.51 -10.7 | 18.0 | 19.6 |
| Sept. 12 | 12 01.19 | -05 52.3 | 3.832 | 2.868 | +1.51 -10.8 | 18.1 | 14.4 |
| Sept. 22 | 12 16.34 | -07 40.0 | 3.876 | 2.891 | +1.51 -10.8 | 18.2 | 9.6 |
| Oct. 2 | 12 31.46 | -09 27.1 | 3.908 | 2.915 | +1.51 -10.7 | 18.3 | 6.0 |
| Oct. 12 | 12 46.54 | -11 13.0 | 3.928 | 2.939 | +1.50 -10.5 | 18.3 | 6.7 |
| Oct. 22 | 13 01.53 | -12 57.1 | 3.935 | 2.964 | +1.49 -10.3 | 18.4 | 11.0 |
| Nov. 1 | 13 16.41 | -14 38.7 | 3.928 | 2.989 | +1.48 -10.0 | 18.5 | 16.4 |
| Nov. 11 | 13 31.11 | -16 17.4 | 3.908 | 3.015 | +1.46 -9.7 | 18.5 | 22.3 |
| Nov. 21 | 13 45.58 | -17 52.6 | 3.875 | 3.042 | +1.43 -9.3 | 18.6 | 28.4 |
| Dec. 1 | 13 59.75 | -19 24.0 | 3.828 | 3.069 | +1.40 -8.9 | 18.7 | 34.7 |
| Dec. 11 | 14 13.51 | -20 51.1 | 3.769 | 3.096 | +1.35 -8.5 | 18.7 | 41.2 |
| Dec. 21 | 14 26.76 | -22 13.6 | 3.697 | 3.124 | +1.29 -8.0 | 18.7 | 47.9 |
| Dec. 31 | 14 39.36 | -23 31.4 | 3.614 | 3.152 | +1.22 -7.5 | 18.8 | 54.8 |
| Jan. 10 | 14 51.14 | -24 44.3 | 3.521 | 3.180 | +1.13 -7.0 | 18.8 | 62.0 |
| Jan. 20 | 15 01.94 | -25 52.3 | 3.419 | 3.208 | +1.02 -6.5 | 18.8 | 69.4 |
| Jan. 30 | 15 11.54 | -26 55.2 | 3.311 | 3.237 | +0.89 -6.0 | 18.8 | 77.1 |
| Feb. 9 | 15 19.72 | -27 52.9 | 3.198 | 3.266 | +0.73 -5.5 | 18.8 | 85.1 |
| Feb. 19 | 15 26.24 | -28 45.3 | 3.084 | 3.295 | +0.55 -4.9 | 18.8 | 93.5 |
| Mar. 1 | 15 30.85 | -29 31.9 | 2.970 | 3.324 | +0.35 -4.3 | 18.8 | 102.2 |
| Mar. 11 | 15 33.35 | -30 12.1 | 2.862 | 3.354 | +0.13 -3.6 | 18.8 | 111.3 |
| Mar. 21 | 15 33.58 | -30 44.6 | 2.762 | 3.383 | -0.10 -2.8 | 18.8 | 120.8 |
| Mar. 31 | 15 31.50 | -31 07.9 | 2.676 | 3.412 | -0.33 -1.8 | 18.8 | 130.7 |

Comet 48P/Johnson

Epoch = 2025 July 24.0 TT
 T = 2025 Mar. 2.65932 TT
 Peri. = 216.78073 e = 0.4265413
 Node = 110.06375 2000.0 a = 3.4991502 AU
 Incl. = 12.20176 n = 0.15057754
 q = 2.0066181 AU P = 6.55 years

$$m1 = 9.0 + 5 \log(\Delta) + 15.0 \log(r(t-50))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 19 59.34 | -22° 36' 7" | 3.002 | 2.056 | +2.53 +3.9 | 16.4 | 13.0 |
| Jan. 15 | 20 24.68 | -21 51.3 | 3.006 | 2.040 | +2.54 +5.3 | 16.4 | 8.9 |
| Jan. 25 | 20 50.03 | -20 51.6 | 3.006 | 2.028 | +2.53 +6.7 | 16.3 | 5.3 |
| Feb. 4 | 21 15.25 | -19 38.8 | 3.001 | 2.018 | +2.51 +7.9 | 16.2 | 3.5 |
| Feb. 14 | 21 40.22 | -18 14.4 | 2.991 | 2.011 | +2.48 +9.0 | 16.1 | 5.6 |
| Feb. 24 | 22 04.87 | -16 40.1 | 2.978 | 2.007 | +2.44 +9.9 | 16.1 | 9.1 |
| Mar. 6 | 22 29.13 | -14 57.8 | 2.962 | 2.007 | +2.40 +10.6 | 16.0 | 12.9 |
| Mar. 16 | 22 52.95 | -13 09.5 | 2.942 | 2.009 | +2.36 +11.1 | 15.9 | 16.7 |
| Mar. 26 | 23 16.32 | -11 17.3 | 2.918 | 2.015 | +2.31 +11.4 | 15.9 | 20.6 |
| Apr. 5 | 23 39.22 | -09 23.4 | 2.892 | 2.024 | +2.26 +11.4 | 15.9 | 24.5 |
| Apr. 15 | 00 01.62 | -07 29.8 | 2.862 | 2.036 | +2.21 +11.3 | 15.8 | 28.4 |
| Apr. 25 | 00 23.53 | -05 38.3 | 2.828 | 2.050 | +2.16 +11.0 | 15.8 | 32.3 |
| May 5 | 00 44.93 | -03 50.8 | 2.791 | 2.068 | +2.11 +10.5 | 15.8 | 36.4 |
| May 15 | 01 05.78 | -02 09.1 | 2.751 | 2.088 | +2.05 +9.8 | 15.8 | 40.5 |
| May 25 | 01 26.07 | +00 34.4 | 2.706 | 2.111 | +2.00 +9.0 | 15.8 | 44.7 |
| June 4 | 01 45.72 | +00 51.8 | 2.657 | 2.136 | +1.93 +8.1 | 15.8 | 49.1 |
| June 14 | 02 04.67 | +02 08.5 | 2.603 | 2.163 | +1.85 +7.1 | 15.8 | 53.7 |
| June 24 | 02 22.84 | +03 14.9 | 2.545 | 2.192 | +1.77 +6.0 | 15.8 | 58.5 |
| July 4 | 02 40.08 | +04 10.1 | 2.482 | 2.223 | +1.67 +4.9 | 15.8 | 63.5 |
| July 14 | 02 56.28 | +04 53.7 | 2.414 | 2.256 | +1.56 +3.7 | 15.8 | 68.8 |
| July 24 | 03 11.25 | +05 25.7 | 2.343 | 2.290 | +1.42 +2.5 | 15.8 | 74.5 |
| Aug. 3 | 03 24.79 | +05 45.8 | 2.267 | 2.326 | +1.27 +1.4 | 15.8 | 80.5 |
| Aug. 13 | 03 36.68 | +05 54.4 | 2.190 | 2.363 | +1.09 +0.2 | 15.8 | 87.0 |
| Aug. 23 | 03 46.67 | +05 51.9 | 2.110 | 2.402 | +0.88 -0.8 | 15.8 | 93.9 |
| Sept. 2 | 03 54.46 | +05 39.3 | 2.032 | 2.441 | +0.65 -1.8 | 15.8 | 101.4 |
| Sept. 12 | 03 59.80 | +05 17.9 | 1.956 | 2.481 | +0.39 -2.6 | 15.9 | 109.5 |
| Sept. 22 | 04 02.43 | +04 49.4 | 1.887 | 2.522 | +0.11 -3.1 | 15.9 | 118.2 |
| Oct. 2 | 04 02.20 | +04 16.4 | 1.827 | 2.563 | -0.18 -3.4 | 15.9 | 127.6 |
| Oct. 12 | 03 59.14 | +03 42.4 | 1.781 | 2.605 | -0.45 -3.3 | 16.0 | 137.4 |
| Oct. 22 | 03 53.50 | +03 11.0 | 1.754 | 2.647 | -0.69 -2.8 | 16.0 | 147.4 |
| Nov. 1 | 03 45.83 | +02 46.9 | 1.749 | 2.690 | -0.85 -1.8 | 16.1 | 156.8 |
| Nov. 11 | 03 37.00 | +02 34.1 | 1.770 | 2.733 | -0.91 -0.5 | 16.3 | 163.2 |
| Nov. 21 | 03 28.01 | +02 35.3 | 1.819 | 2.776 | -0.87 +1.0 | 16.4 | 162.2 |
| Dec. 1 | 03 19.86 | +02 51.8 | 1.895 | 2.820 | -0.73 +2.5 | 16.6 | 154.9 |
| Dec. 11 | 03 13.35 | +03 22.9 | 1.997 | 2.863 | -0.54 +3.8 | 16.8 | 145.4 |
| Dec. 21 | 03 08.95 | +04 06.7 | 2.122 | 2.906 | -0.31 +5.0 | 17.1 | 135.4 |
| Dec. 31 | 03 06.89 | +05 00.8 | 2.267 | 2.950 | -0.08 +5.9 | 17.3 | 125.6 |
| Jan. 10 | 03 07.14 | +06 02.3 | 2.426 | 2.993 | +0.15 +6.5 | 17.6 | 116.2 |
| Jan. 20 | 03 09.53 | +07 08.9 | 2.597 | 3.036 | +0.35 +6.9 | 17.8 | 107.1 |
| Jan. 30 | 03 13.87 | +08 18.4 | 2.775 | 3.079 | +0.53 +7.0 | 18.1 | 98.5 |
| Feb. 9 | 03 19.88 | +09 29.0 | 2.958 | 3.121 | +0.68 +7.1 | 18.3 | 90.2 |
| Feb. 19 | 03 27.33 | +10 39.2 | 3.141 | 3.164 | +0.82 +7.0 | 18.5 | 82.3 |
| Mar. 1 | 03 36.00 | +11 47.9 | 3.323 | 3.206 | +0.93 +6.7 | 18.7 | 74.6 |
| Mar. 11 | 03 45.70 | +12 54.0 | 3.500 | 3.248 | +1.02 +6.4 | 19.0 | 67.2 |
| Mar. 21 | 03 56.26 | +13 56.8 | 3.671 | 3.289 | +1.10 +6.1 | 19.1 | 60.1 |
| Mar. 31 | 04 07.52 | +14 55.6 | 3.834 | 3.330 | +1.16 +5.6 | 19.3 | 53.1 |

Comet 496P/Hill

Epoch = 2025 July 24.0 TT
 T = 2025 Mar. 10.27451 TT
 Peri. = 42.24477 e = 0.7341995
 Node = 63.58590 2000.0 a = 6.0987218 AU
 Incl. = 14.81448 n = 0.06544038
 q = 1.6210433 AU P = 15.06 years

$$m1 = 10.7 + 5 \log(\Delta) + 20.0 \log(r(t-30))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|---------|------|--------|
| 2025/26 | h m | ° ' . | | | m | ' | | ° |
| Jan. 5 | 02 16.62 | +15° 29' .1 | 1.154 | 1.780 | +0.60 | +15' .3 | 16.8 | 112.5 |
| Jan. 15 | 02 24.58 | +18 06.6 | 1.200 | 1.737 | +1.03 | +16.2 | 16.6 | 105.0 |
| Jan. 25 | 02 36.66 | +20 50.4 | 1.249 | 1.699 | +1.43 | +16.6 | 16.4 | 98.4 |
| Feb. 4 | 02 52.66 | +23 36.1 | 1.302 | 1.669 | +1.81 | +16.5 | 16.3 | 92.6 |
| Feb. 14 | 03 12.38 | +26 18.7 | 1.357 | 1.645 | +2.17 | +15.9 | 16.2 | 87.6 |
| Feb. 24 | 03 35.57 | +28 52.4 | 1.415 | 1.629 | +2.50 | +14.6 | 16.1 | 83.3 |
| Mar. 6 | 04 02.03 | +31 11.1 | 1.476 | 1.622 | +2.81 | +12.8 | 16.0 | 79.5 |
| Mar. 16 | 04 31.39 | +33 08.6 | 1.541 | 1.622 | +3.08 | +10.3 | 16.0 | 76.2 |
| Mar. 26 | 05 03.19 | +34 38.9 | 1.610 | 1.631 | +3.29 | +7.3 | 16.0 | 73.2 |
| Apr. 5 | 05 36.80 | +35 37.2 | 1.685 | 1.648 | +3.43 | +4.0 | 16.0 | 70.5 |
| Apr. 15 | 06 11.42 | +36 00.8 | 1.766 | 1.673 | +3.49 | +0.4 | 16.1 | 68.0 |
| Apr. 25 | 06 46.22 | +35 49.2 | 1.854 | 1.704 | +3.46 | -3.1 | 16.3 | 65.6 |
| May 5 | 07 20.43 | +35 04.2 | 1.949 | 1.743 | +3.36 | -6.2 | 16.5 | 63.1 |
| May 15 | 07 53.41 | +33 49.5 | 2.051 | 1.787 | +3.21 | -8.9 | 16.7 | 60.6 |
| May 25 | 08 24.74 | +32 10.3 | 2.161 | 1.837 | +3.03 | -11.1 | 17.0 | 58.0 |
| June 4 | 08 54.24 | +30 11.8 | 2.276 | 1.891 | +2.85 | -12.7 | 17.3 | 55.2 |
| June 14 | 09 21.85 | +27 59.3 | 2.398 | 1.949 | +2.66 | -13.8 | 17.6 | 52.2 |
| June 24 | 09 47.64 | +25 37.4 | 2.524 | 2.011 | +2.49 | -14.6 | 18.0 | 49.1 |
| July 4 | 10 11.79 | +23 09.9 | 2.653 | 2.076 | +2.33 | -14.9 | 18.4 | 45.7 |
| July 14 | 10 34.43 | +20 40.0 | 2.784 | 2.143 | +2.19 | -15.0 | 18.7 | 42.2 |
| July 24 | 10 55.77 | +18 10.2 | 2.916 | 2.212 | +2.07 | -14.9 | 19.1 | 38.4 |
| Aug. 3 | 11 15.96 | +15 42.3 | 3.046 | 2.282 | +1.96 | -14.6 | 19.5 | 34.5 |
| Aug. 13 | 11 35.16 | +13 17.8 | 3.173 | 2.355 | +1.87 | -14.2 | 19.8 | 30.3 |
| Aug. 23 | 11 53.49 | +10 57.7 | 3.296 | 2.428 | +1.79 | -13.7 | 20.2 | 26.0 |
| Sept. 2 | 12 11.08 | +08 42.9 | 3.413 | 2.502 | +1.72 | -13.2 | 20.5 | 21.5 |
| Sept. 12 | 12 27.99 | +06 33.9 | 3.521 | 2.576 | +1.66 | -12.6 | 20.9 | 17.1 |
| Sept. 22 | 12 44.30 | +04 31.2 | 3.621 | 2.651 | +1.60 | -11.9 | 21.2 | 12.7 |
| Oct. 2 | 13 00.06 | +02 35.2 | 3.709 | 2.726 | +1.55 | -11.2 | 21.5 | 9.3 |
| Oct. 12 | 13 15.28 | +00 46.3 | 3.786 | 2.802 | +1.49 | -10.5 | 21.8 | 8.2 |
| Oct. 22 | 13 30.00 | +00 55.3 | 3.849 | 2.877 | +1.44 | -9.8 | . | 10.8 |
| Nov. 1 | 13 44.19 | -02 29.5 | 3.897 | 2.952 | +1.39 | -9.0 | . | 15.4 |
| Nov. 11 | 13 57.83 | -03 55.9 | 3.930 | 3.027 | +1.33 | -8.2 | . | 21.1 |
| Nov. 21 | 14 10.88 | -05 14.5 | 3.948 | 3.102 | +1.27 | -7.4 | . | 27.2 |
| Dec. 1 | 14 23.28 | -06 25.2 | 3.949 | 3.177 | +1.20 | -6.6 | . | 33.8 |
| Dec. 11 | 14 34.93 | -07 27.9 | 3.934 | 3.251 | +1.12 | -5.8 | . | 40.6 |
| Dec. 21 | 14 45.76 | -08 22.6 | 3.904 | 3.325 | +1.03 | -5.0 | . | 47.8 |
| Dec. 31 | 14 55.62 | -09 09.2 | 3.860 | 3.398 | +0.93 | -4.2 | . | 55.3 |
| Jan. 10 | 15 04.41 | -09 48.0 | 3.803 | 3.471 | +0.81 | -3.5 | . | 63.1 |
| Jan. 20 | 15 11.96 | -10 19.0 | 3.734 | 3.544 | +0.68 | -2.7 | . | 71.3 |
| Jan. 30 | 15 18.11 | -10 42.5 | 3.657 | 3.616 | +0.53 | -1.9 | . | 79.8 |
| Feb. 9 | 15 22.72 | -10 58.7 | 3.575 | 3.687 | +0.37 | -1.2 | . | 88.7 |
| Feb. 19 | 15 25.64 | -11 08.0 | 3.491 | 3.758 | +0.19 | -0.6 | . | 98.0 |
| Mar. 1 | 15 26.73 | -11 10.7 | 3.409 | 3.829 | +0.01 | +0.1 | . | 107.7 |
| Mar. 11 | 15 25.95 | -11 07.6 | 3.335 | 3.899 | -0.18 | +0.6 | . | 117.8 |
| Mar. 21 | 15 23.32 | -10 59.2 | 3.272 | 3.968 | -0.36 | +1.1 | . | 128.3 |
| Mar. 31 | 15 18.96 | -10 46.7 | 3.228 | 4.037 | -0.52 | +1.4 | . | 139.2 |

Comet C/2024 L5 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 Mar. 10.38910 TT
 Peri. = 290.51468
 Node = 139.17841 2000.0
 Incl. = 166.57294
 q = 3.4324752 AU
 e = 1.0370815

$$m1 = 8.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 15 19.05 | -30 13.6 | 4.032 | 3.486 | -0.12 | -2.1 | 16.7 | 50.3 |
| Jan. 15 | 15 17.06 | -30 34.2 | 3.848 | 3.471 | -0.31 | -2.0 | 16.5 | 60.5 |
| Jan. 25 | 15 12.97 | -30 53.1 | 3.647 | 3.458 | -0.55 | -1.7 | 16.4 | 71.2 |
| Feb. 4 | 15 06.22 | -31 07.8 | 3.436 | 3.448 | -0.85 | -1.1 | 16.3 | 82.5 |
| Feb. 14 | 14 56.17 | -31 14.3 | 3.222 | 3.440 | -1.21 | 0.0 | 16.1 | 94.3 |
| Feb. 24 | 14 42.23 | -31 06.7 | 3.014 | 3.435 | -1.63 | +1.8 | 16.0 | 106.9 |
| Mar. 6 | 14 23.96 | -30 36.8 | 2.824 | 3.433 | -2.07 | +4.6 | 15.8 | 120.3 |
| Mar. 16 | 14 01.41 | -29 34.4 | 2.663 | 3.433 | -2.47 | +8.4 | 15.7 | 134.3 |
| Mar. 26 | 13 35.37 | -27 50.8 | 2.546 | 3.436 | -2.74 | +12.8 | 15.6 | 148.5 |
| Apr. 5 | 13 07.49 | -25 22.6 | 2.482 | 3.441 | -2.80 | +17.1 | 15.5 | 160.4 |
| Apr. 15 | 12 40.01 | -22 17.7 | 2.480 | 3.449 | -2.64 | +19.9 | 15.5 | 162.2 |
| Apr. 25 | 12 14.97 | -18 53.2 | 2.540 | 3.459 | -2.31 | +20.7 | 15.6 | 151.9 |
| May 5 | 11 53.72 | -15 29.4 | 2.655 | 3.472 | -1.89 | +19.6 | 15.7 | 138.2 |
| May 15 | 11 36.73 | -12 22.7 | 2.815 | 3.488 | -1.47 | +17.3 | 15.9 | 124.4 |
| May 25 | 11 23.81 | -09 41.6 | 3.008 | 3.506 | -1.09 | +14.6 | 16.0 | 111.3 |
| June 4 | 11 14.47 | -07 28.6 | 3.222 | 3.526 | -0.76 | +11.8 | 16.2 | 99.0 |
| June 14 | 11 08.11 | -05 42.2 | 3.445 | 3.549 | -0.49 | +9.3 | 16.4 | 87.5 |
| June 24 | 11 04.16 | -04 19.0 | 3.669 | 3.574 | -0.28 | +7.2 | 16.6 | 76.6 |
| July 4 | 11 02.12 | -03 15.6 | 3.887 | 3.601 | -0.12 | +5.4 | 16.7 | 66.3 |
| July 14 | 11 01.58 | -02 28.4 | 4.092 | 3.630 | +0.01 | +4.0 | 16.9 | 56.4 |
| July 24 | 11 02.18 | -01 54.3 | 4.280 | 3.662 | +0.11 | +2.8 | 17.0 | 46.9 |
| Aug. 3 | 11 03.65 | -01 30.9 | 4.447 | 3.695 | +0.19 | +1.8 | 17.1 | 37.6 |
| Aug. 13 | 11 05.75 | -01 15.8 | 4.589 | 3.730 | +0.24 | +1.1 | 17.2 | 28.5 |
| Aug. 23 | 11 08.27 | -01 07.2 | 4.704 | 3.768 | +0.27 | +0.6 | 17.3 | 19.7 |
| Sept. 2 | 11 11.03 | -01 03.4 | 4.791 | 3.807 | +0.28 | +0.2 | 17.4 | 11.3 |
| Sept. 12 | 11 13.86 | -01 02.9 | 4.848 | 3.847 | +0.28 | -0.1 | 17.5 | 5.6 |
| Sept. 22 | 11 16.61 | -01 04.2 | 4.874 | 3.890 | +0.26 | -0.2 | 17.5 | 10.0 |
| Oct. 2 | 11 19.11 | -01 06.1 | 4.871 | 3.933 | +0.23 | -0.2 | 17.6 | 18.4 |
| Oct. 12 | 11 21.21 | -01 07.1 | 4.838 | 3.979 | +0.18 | 0.0 | 17.6 | 27.4 |
| Oct. 22 | 11 22.72 | -01 05.8 | 4.777 | 4.026 | +0.11 | +0.3 | 17.6 | 36.9 |
| Nov. 1 | 11 23.45 | -01 00.7 | 4.691 | 4.074 | +0.02 | +0.8 | 17.7 | 46.6 |
| Nov. 11 | 11 23.19 | +00 50.2 | 4.582 | 4.123 | -0.09 | +1.4 | 17.7 | 56.7 |
| Nov. 21 | 11 21.73 | +00 32.5 | 4.456 | 4.174 | -0.22 | +2.2 | 17.6 | 67.2 |
| Dec. 1 | 11 18.81 | +00 05.7 | 4.317 | 4.226 | -0.38 | +3.3 | 17.6 | 78.1 |
| Dec. 11 | 11 14.21 | +00 32.1 | 4.171 | 4.278 | -0.56 | +4.4 | 17.6 | 89.6 |
| Dec. 21 | 11 07.70 | +01 22.5 | 4.027 | 4.332 | -0.76 | +5.8 | 17.6 | 101.5 |
| Dec. 31 | 10 59.11 | +02 27.0 | 3.893 | 4.387 | -0.97 | +7.2 | 17.6 | 114.1 |
| Jan. 10 | 10 48.43 | +03 45.7 | 3.778 | 4.443 | -1.18 | +8.6 | 17.6 | 127.2 |
| Jan. 20 | 10 35.76 | +05 17.5 | 3.693 | 4.500 | -1.36 | +9.8 | 17.6 | 140.9 |
| Jan. 30 | 10 21.48 | +06 59.4 | 3.646 | 4.557 | -1.50 | +10.6 | 17.6 | 154.9 |
| Feb. 9 | 10 06.17 | +08 46.6 | 3.643 | 4.615 | -1.56 | +10.8 | 17.6 | 169.1 |
| Feb. 19 | 09 50.59 | +10 33.2 | 3.688 | 4.674 | -1.54 | +10.4 | 17.7 | 175.6 |
| Mar. 1 | 09 35.56 | +12 13.6 | 3.781 | 4.734 | -1.44 | +9.5 | 17.8 | 162.0 |
| Mar. 11 | 09 21.78 | +13 43.6 | 3.919 | 4.794 | -1.29 | +8.3 | 18.0 | 148.4 |
| Mar. 21 | 09 09.78 | +15 01.0 | 4.095 | 4.855 | -1.09 | +7.0 | 18.1 | 135.3 |
| Mar. 31 | 08 59.84 | +16 05.0 | 4.302 | 4.916 | -0.88 | +5.7 | 18.3 | 122.8 |

Comet C/2024 J2 (Wierzchos)

Epoch = 2025 July 24.0 TT
 T = 2025 Mar. 19.78324 TT
 Peri. = 143.16115
 Node = 189.05882 2000.0
 Incl. = 79.29694
 q = 1.8109100 AU
 e = 0.9877241

$$m1 = 8.2 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 19 31.29 | +31 55.7 | 2.433 | 2.035 | +3.62 | -7.3 | 14.8 | 55.0 |
| Jan. 15 | 20 07.30 | +30 39.1 | 2.428 | 1.981 | +3.56 | -8.1 | 14.6 | 52.1 |
| Jan. 25 | 20 42.44 | +29 16.1 | 2.442 | 1.934 | +3.44 | -8.6 | 14.4 | 48.4 |
| Feb. 4 | 21 16.16 | +27 49.4 | 2.472 | 1.894 | +3.28 | -8.8 | 14.3 | 44.2 |
| Feb. 14 | 21 48.09 | +26 21.3 | 2.514 | 1.861 | +3.09 | -8.8 | 14.2 | 39.5 |
| Feb. 24 | 22 18.09 | +24 53.8 | 2.563 | 1.836 | +2.89 | -8.7 | 14.2 | 34.6 |
| Mar. 6 | 22 46.17 | +23 28.1 | 2.614 | 1.819 | +2.70 | -8.5 | 14.2 | 29.6 |
| Mar. 16 | 23 12.40 | +22 04.0 | 2.663 | 1.812 | +2.53 | -8.3 | 14.2 | 25.1 |
| Mar. 26 | 23 36.95 | +20 41.1 | 2.706 | 1.813 | +2.37 | -8.3 | 14.2 | 21.3 |
| Apr. 5 | 23 59.98 | +19 18.2 | 2.739 | 1.823 | +2.23 | -8.4 | 14.3 | 19.0 |
| Apr. 15 | 00 21.65 | +17 53.6 | 2.760 | 1.841 | +2.10 | -8.6 | 14.4 | 19.0 |
| Apr. 25 | 00 42.11 | +16 25.4 | 2.768 | 1.868 | +1.98 | -9.1 | 14.5 | 21.4 |
| May 5 | 01 01.48 | +14 51.4 | 2.761 | 1.903 | +1.88 | -9.8 | 14.6 | 25.6 |
| May 15 | 01 19.83 | +13 09.1 | 2.740 | 1.945 | +1.78 | -10.8 | 14.7 | 31.0 |
| May 25 | 01 37.22 | +11 15.9 | 2.706 | 1.994 | +1.69 | -12.0 | 14.9 | 37.1 |
| June 4 | 01 53.67 | +09 08.9 | 2.658 | 2.048 | +1.59 | -13.6 | 15.0 | 43.7 |
| June 14 | 02 09.13 | +06 45.1 | 2.600 | 2.108 | +1.49 | -15.4 | 15.1 | 50.7 |
| June 24 | 02 23.58 | +04 01.3 | 2.534 | 2.173 | +1.38 | -17.6 | 15.3 | 58.0 |
| July 4 | 02 36.89 | +00 54.5 | 2.462 | 2.242 | +1.26 | -20.1 | 15.4 | 65.6 |
| July 14 | 02 48.93 | -02 38.1 | 2.390 | 2.315 | +1.13 | -22.7 | 15.6 | 73.4 |
| July 24 | 02 59.51 | -06 38.1 | 2.320 | 2.390 | +0.97 | -25.6 | 15.7 | 81.4 |
| Aug. 3 | 03 08.38 | -11 06.1 | 2.258 | 2.468 | +0.78 | -28.3 | 15.9 | 89.5 |
| Aug. 13 | 03 15.28 | -15 59.4 | 2.210 | 2.549 | +0.57 | -30.5 | 16.0 | 97.5 |
| Aug. 23 | 03 19.86 | -21 12.6 | 2.179 | 2.631 | +0.32 | -32.1 | 16.2 | 105.1 |
| Sept. 2 | 03 21.79 | -26 36.0 | 2.171 | 2.715 | +0.03 | -32.4 | 16.4 | 111.9 |
| Sept. 12 | 03 20.77 | -31 56.3 | 2.190 | 2.800 | -0.27 | -31.3 | 16.6 | 117.4 |
| Sept. 22 | 03 16.57 | -36 58.5 | 2.237 | 2.886 | -0.60 | -28.6 | 16.9 | 121.1 |
| Oct. 2 | 03 09.20 | -41 27.7 | 2.312 | 2.973 | -0.90 | -24.6 | 17.1 | 122.6 |
| Oct. 12 | 02 59.06 | -45 12.2 | 2.413 | 3.061 | -1.14 | -19.7 | 17.4 | 122.0 |
| Oct. 22 | 02 46.91 | -48 05.2 | 2.538 | 3.149 | -1.28 | -14.3 | 17.7 | 119.4 |
| Nov. 1 | 02 33.92 | -50 04.9 | 2.684 | 3.238 | -1.29 | -9.1 | 18.0 | 115.6 |
| Nov. 11 | 02 21.41 | -51 15.1 | 2.845 | 3.327 | -1.18 | -4.6 | 18.3 | 110.8 |
| Nov. 21 | 02 10.51 | -51 42.7 | 3.017 | 3.417 | -0.97 | -0.7 | 18.6 | 105.5 |
| Dec. 1 | 02 02.04 | -51 36.3 | 3.198 | 3.506 | -0.70 | +2.2 | 18.9 | 100.0 |
| Dec. 11 | 01 56.35 | -51 04.5 | 3.382 | 3.596 | -0.41 | +4.3 | 19.2 | 94.5 |
| Dec. 21 | 01 53.47 | -50 14.7 | 3.568 | 3.685 | -0.14 | +5.7 | 19.5 | 89.0 |
| Dec. 31 | 01 53.21 | -49 13.3 | 3.753 | 3.775 | +0.11 | +6.6 | 19.7 | 83.8 |
| Jan. 10 | 01 55.26 | -48 05.1 | 3.933 | 3.864 | +0.32 | +7.0 | 20.0 | 78.8 |
| Jan. 20 | 01 59.31 | -46 53.8 | 4.108 | 3.953 | +0.50 | +7.2 | 20.2 | 74.1 |
| Jan. 30 | 02 05.03 | -45 42.2 | 4.275 | 4.042 | +0.65 | +7.1 | 20.5 | 69.8 |
| Feb. 9 | 02 12.15 | -44 32.6 | 4.433 | 4.131 | +0.78 | +6.8 | 20.7 | 66.0 |
| Feb. 19 | 02 20.41 | -43 26.7 | 4.582 | 4.220 | +0.88 | +6.3 | 20.9 | 62.6 |
| Mar. 1 | 02 29.63 | -42 25.8 | 4.720 | 4.308 | +0.97 | +5.8 | 21.1 | 59.8 |
| Mar. 11 | 02 39.61 | -41 31.2 | 4.847 | 4.397 | +1.03 | +5.1 | 21.3 | 57.6 |
| Mar. 21 | 02 50.21 | -40 43.6 | 4.964 | 4.484 | +1.09 | +4.3 | 21.5 | 56.1 |
| Mar. 31 | 03 01.31 | -40 04.0 | 5.069 | 4.572 | +1.13 | +3.5 | 21.6 | 55.1 |

Comet 21P/Giacobini-Zinner

Epoch = 2025 July 24.0 TT
 T = 2025 Mar. 25.38444 TT
 Peri. = 172.94254 e = 0.7110596
 Node = 195.32738 2000.0 a = 3.4919264 AU
 Incl. = 32.04980 n = 0.15104504
 q = 1.0089586 AU P = 6.53 years

$$m1 = 9.5 + 5 \log(\Delta) + 17.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 19 12.80 | -02 59.0 | 2.367 | 1.480 | +3.14 +1.6 | 14.3 | 19.8 |
| Jan. 15 | 19 45.25 | -02 35.9 | 2.287 | 1.390 | +3.37 +3.1 | 13.8 | 18.6 |
| Jan. 25 | 20 19.93 | -01 58.0 | 2.212 | 1.305 | +3.59 +4.6 | 13.2 | 17.2 |
| Feb. 4 | 20 56.82 | -01 06.4 | 2.146 | 1.225 | +3.80 +5.8 | 12.7 | 15.6 |
| Feb. 14 | 21 35.74 | +00 03.8 | 2.090 | 1.154 | +4.00 +6.7 | 12.2 | 13.5 |
| Feb. 24 | 22 16.47 | +01 06.3 | 2.048 | 1.093 | +4.16 +7.2 | 11.7 | 11.1 |
| Mar. 6 | 22 58.65 | +02 19.2 | 2.019 | 1.047 | +4.28 +7.2 | 11.4 | 8.3 |
| Mar. 16 | 23 41.79 | +03 29.9 | 2.004 | 1.018 | +4.35 +6.8 | 11.1 | 5.4 |
| Mar. 26 | 00 25.35 | +04 33.9 | 2.004 | 1.009 | +4.36 +5.9 | 11.1 | 2.9 |
| Apr. 5 | 01 08.74 | +05 27.9 | 2.018 | 1.020 | +4.31 +4.7 | 11.2 | 3.3 |
| Apr. 15 | 01 51.38 | +06 09.4 | 2.044 | 1.051 | +4.20 +3.4 | 11.4 | 5.9 |
| Apr. 25 | 02 32.80 | +06 37.1 | 2.084 | 1.100 | +4.06 +2.0 | 11.8 | 8.6 |
| May 5 | 03 12.59 | +06 50.3 | 2.135 | 1.162 | +3.88 +0.5 | 12.3 | 11.1 |
| May 15 | 03 50.45 | +06 48.9 | 2.196 | 1.234 | +3.67 -0.9 | 12.8 | 13.3 |
| May 25 | 04 26.22 | +06 33.3 | 2.266 | 1.315 | +3.46 -2.3 | 13.4 | 15.1 |
| June 4 | 04 59.82 | +06 04.4 | 2.343 | 1.401 | +3.24 -3.6 | 13.9 | 16.6 |
| June 14 | 05 31.24 | +05 23.2 | 2.424 | 1.490 | +3.02 -4.7 | 14.5 | 17.9 |
| June 24 | 06 00.53 | +04 31.1 | 2.508 | 1.582 | +2.82 -5.8 | 15.0 | 19.0 |
| July 4 | 06 27.78 | +03 29.4 | 2.591 | 1.675 | +2.62 -6.7 | 15.5 | 20.3 |
| July 14 | 06 53.10 | +02 19.3 | 2.672 | 1.768 | +2.43 -7.4 | 16.0 | 21.7 |
| July 24 | 07 16.61 | +01 02.1 | 2.749 | 1.861 | +2.26 -8.1 | 16.4 | 23.4 |
| Aug. 3 | 07 38.43 | +00 21.2 | 2.819 | 1.953 | +2.09 -8.6 | 16.8 | 25.5 |
| Aug. 13 | 07 58.65 | -01 49.5 | 2.882 | 2.044 | +1.94 -9.1 | 17.2 | 28.1 |
| Aug. 23 | 08 17.37 | -03 21.9 | 2.935 | 2.135 | +1.79 -9.4 | 17.6 | 31.2 |
| Sept. 2 | 08 34.65 | -04 57.7 | 2.976 | 2.224 | +1.65 -9.7 | 17.9 | 34.8 |
| Sept. 12 | 08 50.51 | -06 35.9 | 3.007 | 2.311 | +1.51 -9.9 | 18.3 | 38.9 |
| Sept. 22 | 09 04.99 | -08 15.9 | 3.024 | 2.398 | +1.37 -10.1 | 18.5 | 43.5 |
| Oct. 2 | 09 18.07 | -09 56.9 | 3.029 | 2.482 | +1.23 -10.1 | 18.8 | 48.5 |
| Oct. 12 | 09 29.70 | -11 38.0 | 3.021 | 2.566 | +1.08 -10.1 | 19.1 | 54.1 |
| Oct. 22 | 09 39.82 | -13 18.3 | 3.000 | 2.648 | +0.92 -9.9 | 19.3 | 60.0 |
| Nov. 1 | 09 48.30 | -14 56.6 | 2.968 | 2.728 | +0.75 -9.7 | 19.5 | 66.5 |
| Nov. 11 | 09 55.03 | -16 31.3 | 2.926 | 2.807 | +0.57 -9.2 | 19.7 | 73.4 |
| Nov. 21 | 09 59.84 | -18 00.8 | 2.875 | 2.885 | +0.37 -8.6 | 19.8 | 80.7 |
| Dec. 1 | 10 02.57 | -19 22.6 | 2.818 | 2.961 | +0.15 -7.6 | 20.0 | 88.5 |
| Dec. 11 | 10 03.06 | -20 33.7 | 2.759 | 3.036 | -0.08 -6.4 | 20.1 | 96.7 |
| Dec. 21 | 10 01.22 | -21 30.7 | 2.702 | 3.109 | -0.31 -4.8 | 20.3 | 105.2 |
| Dec. 31 | 09 57.07 | -22 09.4 | 2.651 | 3.181 | -0.54 -2.7 | 20.4 | 114.1 |
| Jan. 10 | 09 50.78 | -22 25.8 | 2.610 | 3.251 | -0.73 -0.3 | 20.5 | 122.9 |
| Jan. 20 | 09 42.75 | -22 16.6 | 2.586 | 3.321 | -0.88 +2.4 | 20.7 | 131.5 |
| Jan. 30 | 09 33.60 | -21 40.0 | 2.583 | 3.389 | -0.95 +5.1 | 20.8 | 139.0 |
| Feb. 9 | 09 24.11 | -20 37.2 | 2.605 | 3.456 | -0.94 +7.6 | 21.0 | 144.5 |
| Feb. 19 | 09 15.06 | -19 11.9 | 2.653 | 3.521 | -0.85 +9.5 | 21.2 | 146.6 |
| Mar. 1 | 09 07.18 | -17 30.4 | 2.730 | 3.585 | -0.70 +10.7 | 21.4 | 144.8 |
| Mar. 11 | 09 00.98 | -15 40.3 | 2.834 | 3.649 | -0.52 +11.2 | 21.6 | 139.7 |
| Mar. 21 | 08 56.71 | -13 48.6 | 2.963 | 3.710 | -0.31 +11.0 | 21.8 | 132.6 |
| Mar. 31 | 08 54.47 | -12 01.5 | 3.114 | 3.771 | -0.12 +10.3 | . | 124.5 |

Comet C/2024 V1 (Borisov)

Epoch = 2025 July 24.0 TT
 T = 2025 Apr. 4.11693 TT
 Peri. = 168.67148
 Node = 328.19397 2000.0
 Incl. = 54.62627
 q = 2.3184214 AU
 e = 0.9900232

$$m1 = 12.8 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 10 53.59 | +65 02.7 | 1.839 | 2.523 | -2.25 | +0.5 | 18.1 | 123.9 |
| Jan. 15 | 10 27.11 | +64 51.1 | 1.741 | 2.481 | -3.09 | -3.7 | 18.0 | 129.1 |
| Jan. 25 | 09 53.80 | +63 45.2 | 1.664 | 2.444 | -3.52 | -10.6 | 17.8 | 133.0 |
| Feb. 4 | 09 18.94 | +61 22.8 | 1.612 | 2.411 | -3.32 | -18.8 | 17.7 | 134.9 |
| Feb. 14 | 08 48.53 | +57 39.8 | 1.589 | 2.383 | -2.64 | -26.2 | 17.6 | 134.0 |
| Feb. 24 | 08 25.91 | +52 53.2 | 1.597 | 2.360 | -1.80 | -31.1 | 17.5 | 130.1 |
| Mar. 6 | 08 11.44 | +47 30.3 | 1.636 | 2.341 | -1.04 | -33.2 | 17.6 | 124.1 |
| Mar. 16 | 08 03.88 | +41 57.7 | 1.704 | 2.328 | -0.44 | -33.0 | 17.6 | 116.8 |
| Mar. 26 | 08 01.65 | +36 34.8 | 1.796 | 2.321 | +0.01 | -31.3 | 17.7 | 109.0 |
| Apr. 5 | 08 03.38 | +31 32.2 | 1.908 | 2.318 | +0.35 | -29.0 | 17.9 | 101.1 |
| Apr. 15 | 08 08.02 | +26 53.8 | 2.034 | 2.322 | +0.59 | -26.5 | 18.0 | 93.5 |
| Apr. 25 | 08 14.79 | +22 38.9 | 2.171 | 2.330 | +0.77 | -24.3 | 18.2 | 86.1 |
| May 5 | 08 23.13 | +18 44.9 | 2.313 | 2.344 | +0.90 | -22.4 | 18.3 | 79.2 |
| May 15 | 08 32.63 | +15 08.1 | 2.459 | 2.363 | +1.00 | -20.9 | 18.5 | 72.7 |
| May 25 | 08 43.00 | +11 45.2 | 2.604 | 2.388 | +1.08 | -19.7 | 18.7 | 66.4 |
| June 4 | 08 54.02 | +08 32.8 | 2.748 | 2.417 | +1.13 | -18.8 | 18.8 | 60.6 |
| June 14 | 09 05.52 | +05 28.3 | 2.887 | 2.450 | +1.17 | -18.1 | 19.0 | 55.0 |
| June 24 | 09 17.37 | +02 29.2 | 3.020 | 2.488 | +1.20 | -17.7 | 19.2 | 49.8 |
| July 4 | 09 29.50 | +00 26.1 | 3.147 | 2.530 | +1.22 | -17.4 | 19.3 | 44.9 |
| July 14 | 09 41.82 | -03 19.3 | 3.266 | 2.576 | +1.24 | -17.2 | 19.5 | 40.3 |
| July 24 | 09 54.27 | -06 11.5 | 3.377 | 2.626 | +1.25 | -17.2 | 19.6 | 36.1 |
| Aug. 3 | 10 06.82 | -09 03.5 | 3.479 | 2.678 | +1.26 | -17.2 | 19.8 | 32.4 |
| Aug. 13 | 10 19.41 | -11 56.2 | 3.572 | 2.734 | +1.26 | -17.3 | 19.9 | 29.3 |
| Aug. 23 | 10 32.02 | -14 49.9 | 3.655 | 2.792 | +1.26 | -17.4 | 20.1 | 27.1 |
| Sept. 2 | 10 44.62 | -17 45.0 | 3.728 | 2.853 | +1.26 | -17.6 | 20.2 | 25.8 |
| Sept. 12 | 10 57.18 | -20 41.9 | 3.791 | 2.916 | +1.25 | -17.8 | 20.3 | 25.6 |
| Sept. 22 | 11 09.66 | -23 40.5 | 3.845 | 2.981 | +1.24 | -18.0 | 20.5 | 26.6 |
| Oct. 2 | 11 22.02 | -26 41.0 | 3.889 | 3.048 | +1.23 | -18.1 | 20.6 | 28.6 |
| Oct. 12 | 11 34.22 | -29 43.2 | 3.923 | 3.117 | +1.21 | -18.3 | 20.7 | 31.5 |
| Oct. 22 | 11 46.21 | -32 47.1 | 3.949 | 3.187 | +1.18 | -18.5 | 20.8 | 35.1 |
| Nov. 1 | 11 57.90 | -35 52.4 | 3.967 | 3.258 | +1.15 | -18.6 | 20.9 | 39.2 |
| Nov. 11 | 12 09.21 | -38 58.7 | 3.976 | 3.331 | +1.11 | -18.7 | 21.0 | 43.6 |
| Nov. 21 | 12 20.03 | -42 05.7 | 3.979 | 3.404 | +1.05 | -18.7 | 21.1 | 48.4 |
| Dec. 1 | 12 30.19 | -45 12.8 | 3.975 | 3.479 | +0.97 | -18.7 | 21.2 | 53.4 |
| Dec. 11 | 12 39.50 | -48 19.2 | 3.966 | 3.554 | +0.88 | -18.6 | 21.3 | 58.6 |
| Dec. 21 | 12 47.72 | -51 24.1 | 3.953 | 3.630 | +0.75 | -18.4 | 21.4 | 63.9 |
| Dec. 31 | 12 54.50 | -54 26.3 | 3.938 | 3.706 | +0.58 | -18.0 | 21.5 | 69.3 |
| Jan. 10 | 12 59.43 | -57 24.0 | 3.921 | 3.783 | +0.37 | -17.5 | 21.5 | 74.8 |
| Jan. 20 | 13 02.00 | -60 15.3 | 3.905 | 3.861 | +0.10 | -16.7 | 21.6 | 80.2 |
| Jan. 30 | 13 01.56 | -62 57.1 | 3.891 | 3.939 | -0.24 | -15.5 | 21.7 | 85.6 |
| Feb. 9 | 12 57.43 | -65 26.0 | 3.880 | 4.017 | -0.64 | -14.0 | 21.8 | 90.8 |
| Feb. 19 | 12 48.94 | -67 37.2 | 3.876 | 4.096 | -1.11 | -12.0 | 21.9 | 95.8 |
| Mar. 1 | 12 35.70 | -69 25.4 | 3.879 | 4.174 | -1.58 | -9.3 | 21.9 | 100.5 |
| Mar. 11 | 12 18.07 | -70 45.2 | 3.890 | 4.253 | -1.96 | -6.2 | 22.0 | 104.8 |
| Mar. 21 | 11 57.35 | -71 32.5 | 3.913 | 4.332 | -2.16 | -2.8 | . | 108.5 |
| Mar. 31 | 11 35.91 | -71 45.9 | 3.946 | 4.411 | -2.08 | +0.4 | . | 111.5 |

Comet 49P/Arend-Rigaux

Epoch = 2025 July 24.0 TT
 T = 2025 Apr. 10.60236 TT
 Peri. = 332.92394 e = 0.5989891
 Node = 118.79133 2000.0 a = 3.5692716 AU
 Incl. = 19.05985 n = 0.14616207
 q = 1.4313168 AU P = 6.74 years

m1 = 10.3 + 5 log(Delta) + 20.0 log(r) (r < 1.9 AU)
 m1 = 14.8 + 5 log(Delta) + 5.0 log(r) (r > 1.9 AU)

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' | | | m | | ° |
| Jan. 5 | 00 21.97 | -18 26.2 | 1.762 | 1.763 | +1.59 +17.6 | 16.5 | 73.8 |
| Jan. 15 | 00 38.81 | -15 24.4 | 1.789 | 1.705 | +1.79 +18.9 | 16.2 | 69.0 |
| Jan. 25 | 00 57.53 | -12 09.5 | 1.812 | 1.651 | +1.97 +20.2 | 15.9 | 64.7 |
| Feb. 4 | 01 18.01 | -08 43.1 | 1.832 | 1.601 | +2.14 +21.2 | 15.7 | 60.8 |
| Feb. 14 | 01 40.18 | -05 07.4 | 1.850 | 1.556 | +2.31 +22.0 | 15.5 | 57.3 |
| Feb. 24 | 02 03.95 | -01 25.3 | 1.867 | 1.517 | +2.47 +22.4 | 15.3 | 54.2 |
| Mar. 6 | 02 29.35 | +02 19.8 | 1.884 | 1.485 | +2.63 +22.5 | 15.1 | 51.4 |
| Mar. 16 | 02 56.35 | +06 03.4 | 1.904 | 1.459 | +2.79 +22.1 | 15.0 | 49.0 |
| Mar. 26 | 03 24.92 | +09 40.3 | 1.929 | 1.442 | +2.94 +21.1 | 14.9 | 46.8 |
| Apr. 5 | 03 55.04 | +13 04.9 | 1.958 | 1.433 | +3.09 +19.5 | 14.9 | 44.7 |
| Apr. 15 | 04 26.57 | +16 11.1 | 1.994 | 1.432 | +3.22 +17.4 | 14.9 | 42.9 |
| Apr. 25 | 04 59.34 | +18 53.6 | 2.038 | 1.440 | +3.34 +14.8 | 15.0 | 41.1 |
| May 5 | 05 33.07 | +21 07.7 | 2.089 | 1.457 | +3.41 +11.7 | 15.2 | 39.4 |
| May 15 | 06 07.36 | +22 50.2 | 2.147 | 1.481 | +3.44 +8.4 | 15.4 | 37.6 |
| May 25 | 06 41.77 | +23 59.7 | 2.213 | 1.513 | +3.43 +5.1 | 15.6 | 35.8 |
| June 4 | 07 15.85 | +24 36.3 | 2.285 | 1.551 | +3.37 +1.9 | 15.9 | 34.0 |
| June 14 | 07 49.17 | +24 42.3 | 2.363 | 1.595 | +3.28 -1.0 | 16.2 | 32.0 |
| June 24 | 08 21.38 | +24 20.7 | 2.446 | 1.645 | +3.15 -3.5 | 16.6 | 29.9 |
| July 4 | 08 52.25 | +23 35.7 | 2.533 | 1.698 | +3.01 -5.6 | 16.9 | 27.6 |
| July 14 | 09 21.63 | +22 31.6 | 2.621 | 1.755 | +2.85 -7.3 | 17.3 | 25.2 |
| July 24 | 09 49.50 | +21 12.6 | 2.711 | 1.816 | +2.71 -8.6 | 17.6 | 22.6 |
| Aug. 3 | 10 15.90 | +19 42.7 | 2.800 | 1.878 | +2.56 -9.4 | 18.0 | 19.9 |
| Aug. 13 | 10 40.88 | +18 05.5 | 2.886 | 1.942 | +2.43 -10.0 | 18.5 | 17.2 |
| Aug. 23 | 11 04.58 | +16 24.0 | 2.970 | 2.008 | +2.30 -10.3 | 18.7 | 14.7 |
| Sept. 2 | 11 27.10 | +14 40.8 | 3.048 | 2.074 | +2.19 -10.3 | 18.8 | 12.5 |
| Sept. 12 | 11 48.55 | +12 58.3 | 3.120 | 2.142 | +2.09 -10.1 | 18.9 | 11.2 |
| Sept. 22 | 12 09.04 | +11 18.2 | 3.185 | 2.210 | +2.00 -9.8 | 19.0 | 11.3 |
| Oct. 2 | 12 28.65 | +09 42.2 | 3.241 | 2.278 | +1.92 -9.3 | 19.1 | 13.2 |
| Oct. 12 | 12 47.45 | +08 11.6 | 3.287 | 2.346 | +1.84 -8.7 | 19.2 | 16.3 |
| Oct. 22 | 13 05.48 | +06 47.6 | 3.322 | 2.414 | +1.76 -8.0 | 19.3 | 20.4 |
| Nov. 1 | 13 22.76 | +05 31.4 | 3.345 | 2.482 | +1.69 -7.2 | 19.4 | 25.0 |
| Nov. 11 | 13 39.31 | +04 23.9 | 3.356 | 2.549 | +1.61 -6.3 | 19.5 | 30.2 |
| Nov. 21 | 13 55.09 | +03 25.7 | 3.354 | 2.616 | +1.54 -5.3 | 19.5 | 35.7 |
| Dec. 1 | 14 10.07 | +02 37.9 | 3.339 | 2.682 | +1.45 -4.2 | 19.6 | 41.6 |
| Dec. 11 | 14 24.16 | +02 00.9 | 3.311 | 2.748 | +1.36 -3.1 | 19.6 | 47.8 |
| Dec. 21 | 14 37.30 | +01 35.3 | 3.271 | 2.813 | +1.26 -1.9 | 19.6 | 54.3 |
| Dec. 31 | 14 49.34 | +01 21.6 | 3.220 | 2.877 | +1.14 -0.7 | 19.6 | 61.2 |
| Jan. 10 | 15 00.16 | +01 20.1 | 3.158 | 2.941 | +1.01 +0.5 | 19.6 | 68.3 |
| Jan. 20 | 15 09.60 | +01 30.9 | 3.089 | 3.004 | +0.86 +1.8 | 19.6 | 75.9 |
| Jan. 30 | 15 17.47 | +01 54.0 | 3.013 | 3.066 | +0.69 +3.0 | 19.6 | 83.7 |
| Feb. 9 | 15 23.59 | +02 28.8 | 2.934 | 3.127 | +0.51 +4.1 | 19.6 | 92.0 |
| Feb. 19 | 15 27.77 | +03 14.5 | 2.855 | 3.188 | +0.30 +5.1 | 19.6 | 100.6 |
| Mar. 1 | 15 29.85 | +04 09.5 | 2.780 | 3.247 | +0.09 +5.9 | 19.6 | 109.5 |
| Mar. 11 | 15 29.73 | +05 11.5 | 2.713 | 3.306 | -0.13 +6.5 | 19.6 | 118.6 |
| Mar. 21 | 15 27.39 | +06 17.4 | 2.659 | 3.364 | -0.35 +6.6 | 19.6 | 127.9 |
| Mar. 31 | 15 22.95 | +07 22.7 | 2.623 | 3.421 | -0.55 +6.3 | 19.6 | 137.0 |

Comet C/2024 N3 (Sarneczky)

Epoch = 2025 July 24.0 TT
 T = 2025 Apr. 11.45582 TT
 Peri. = 86.88723
 Node = 82.60867 2000.0
 Incl. = 88.72892
 q = 5.0145847 AU
 e = 1.0014606

$$m1 = 7.8 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 18 43.25 | +70 29.5 | 4.918 | 5.069 | +1.95 | -6.2 | 18.3 | 93.2 |
| Jan. 15 | 19 01.65 | +69 34.1 | 4.943 | 5.058 | +1.71 | -4.7 | 18.3 | 91.1 |
| Jan. 25 | 19 17.83 | +68 53.6 | 4.972 | 5.049 | +1.50 | -3.2 | 18.3 | 88.9 |
| Feb. 4 | 19 31.95 | +68 28.5 | 5.002 | 5.041 | +1.30 | -1.7 | 18.3 | 86.6 |
| Feb. 14 | 19 44.05 | +68 18.7 | 5.031 | 5.033 | +1.10 | -0.2 | 18.3 | 84.5 |
| Feb. 24 | 19 54.10 | +68 23.7 | 5.058 | 5.027 | +0.89 | +1.3 | 18.3 | 82.6 |
| Mar. 6 | 20 01.95 | +68 42.7 | 5.082 | 5.022 | +0.65 | +2.6 | 18.3 | 81.0 |
| Mar. 16 | 20 07.32 | +69 14.2 | 5.100 | 5.019 | +0.39 | +3.8 | 18.3 | 79.7 |
| Mar. 26 | 20 09.86 | +69 56.2 | 5.113 | 5.016 | +0.08 | +4.7 | 18.3 | 78.9 |
| Apr. 5 | 20 09.04 | +70 46.5 | 5.119 | 5.015 | -0.29 | +5.4 | 18.3 | 78.4 |
| Apr. 15 | 20 04.20 | +71 41.5 | 5.120 | 5.015 | -0.73 | +5.6 | 18.3 | 78.3 |
| Apr. 25 | 19 54.62 | +72 37.0 | 5.116 | 5.016 | -1.25 | +5.4 | 18.3 | 78.6 |
| May 5 | 19 39.57 | +73 27.2 | 5.107 | 5.018 | -1.82 | +4.5 | 18.3 | 79.2 |
| May 15 | 19 18.76 | +74 05.0 | 5.095 | 5.021 | -2.39 | +2.8 | 18.3 | 80.1 |
| May 25 | 18 52.78 | +74 22.3 | 5.082 | 5.026 | -2.82 | +0.3 | 18.3 | 81.1 |
| June 4 | 18 23.51 | +74 11.6 | 5.068 | 5.031 | -3.00 | -2.8 | 18.3 | 82.2 |
| June 14 | 17 53.97 | +73 27.9 | 5.057 | 5.038 | -2.85 | -6.2 | 18.3 | 83.2 |
| June 24 | 17 27.16 | +72 10.7 | 5.048 | 5.046 | -2.44 | -9.5 | 18.3 | 84.1 |
| July 4 | 17 05.05 | +70 22.8 | 5.045 | 5.055 | -1.92 | -12.3 | 18.4 | 84.8 |
| July 14 | 16 48.32 | +68 09.6 | 5.048 | 5.066 | -1.38 | -14.5 | 18.4 | 85.2 |
| July 24 | 16 36.65 | +65 37.1 | 5.059 | 5.077 | -0.91 | -16.1 | 18.4 | 85.3 |
| Aug. 3 | 16 29.34 | +62 50.9 | 5.079 | 5.090 | -0.52 | -17.2 | 18.4 | 84.9 |
| Aug. 13 | 16 25.59 | +59 56.2 | 5.109 | 5.103 | -0.21 | -17.8 | 18.4 | 84.0 |
| Aug. 23 | 16 24.67 | +56 57.4 | 5.148 | 5.118 | +0.04 | -18.0 | 18.4 | 82.7 |
| Sept. 2 | 16 26.01 | +53 58.2 | 5.197 | 5.134 | +0.24 | -17.8 | 18.5 | 80.9 |
| Sept. 12 | 16 29.12 | +51 02.2 | 5.253 | 5.151 | +0.39 | -17.3 | 18.5 | 78.7 |
| Sept. 22 | 16 33.61 | +48 12.0 | 5.317 | 5.169 | +0.51 | -16.6 | 18.6 | 76.1 |
| Oct. 2 | 16 39.20 | +45 29.9 | 5.387 | 5.188 | +0.61 | -15.7 | 18.6 | 73.3 |
| Oct. 12 | 16 45.63 | +42 57.9 | 5.459 | 5.208 | +0.68 | -14.6 | 18.7 | 70.3 |
| Oct. 22 | 16 52.71 | +40 37.4 | 5.534 | 5.229 | +0.74 | -13.4 | 18.7 | 67.2 |
| Nov. 1 | 17 00.26 | +38 29.4 | 5.607 | 5.251 | +0.77 | -12.1 | 18.7 | 64.2 |
| Nov. 11 | 17 08.12 | +36 34.7 | 5.677 | 5.274 | +0.80 | -10.7 | 18.8 | 61.3 |
| Nov. 21 | 17 16.16 | +34 53.8 | 5.742 | 5.298 | +0.81 | -9.3 | 18.8 | 58.8 |
| Dec. 1 | 17 24.26 | +33 26.8 | 5.799 | 5.323 | +0.81 | -7.9 | 18.9 | 56.8 |
| Dec. 11 | 17 32.28 | +32 13.8 | 5.846 | 5.349 | +0.79 | -6.6 | 18.9 | 55.4 |
| Dec. 21 | 17 40.12 | +31 14.3 | 5.882 | 5.376 | +0.77 | -5.2 | 19.0 | 54.8 |
| Dec. 31 | 17 47.65 | +30 28.3 | 5.906 | 5.403 | +0.73 | -3.9 | 19.0 | 55.0 |
| Jan. 10 | 17 54.75 | +29 54.8 | 5.917 | 5.432 | +0.68 | -2.7 | 19.0 | 56.2 |
| Jan. 20 | 18 01.30 | +29 33.4 | 5.914 | 5.461 | +0.62 | -1.5 | 19.0 | 58.3 |
| Jan. 30 | 18 07.17 | +29 23.2 | 5.898 | 5.492 | +0.55 | -0.5 | 19.1 | 61.2 |
| Feb. 9 | 18 12.25 | +29 23.0 | 5.868 | 5.523 | +0.46 | +0.5 | 19.1 | 64.9 |
| Feb. 19 | 18 16.40 | +29 31.7 | 5.827 | 5.554 | +0.36 | +1.3 | 19.1 | 69.3 |
| Mar. 1 | 18 19.48 | +29 47.9 | 5.775 | 5.587 | +0.25 | +2.0 | 19.1 | 74.2 |
| Mar. 11 | 18 21.39 | +30 09.8 | 5.715 | 5.620 | +0.12 | +2.4 | 19.1 | 79.6 |
| Mar. 21 | 18 22.01 | +30 35.5 | 5.649 | 5.654 | -0.01 | +2.7 | 19.1 | 85.3 |
| Mar. 31 | 18 21.23 | +31 02.7 | 5.579 | 5.689 | -0.16 | +2.7 | 19.1 | 91.2 |

Comet 341P/Gibbs

Epoch = 2025 July 24.0 TT
 T = 2025 Apr. 22.72732 TT
 Peri. = 312.36983 e = 0.4150077
 Node = 29.95248 2000.0 a = 4.2846754 AU
 Incl. = 3.79649 n = 0.11112894
 q = 2.5065021 AU P = 8.87 years

$$m1 = 11.8 + 5 \log(\Delta) + 12.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 20 28.74 | -21° 54' 2" | 3.520 | 2.616 | +1.94 +7.1 | 19.8 | 19.8 |
| Jan. 15 | 20 48.13 | -20 39.1 | 3.538 | 2.597 | +1.94 +8.0 | 19.7 | 14.4 |
| Jan. 25 | 21 07.52 | -19 15.9 | 3.547 | 2.580 | +1.94 +8.7 | 19.7 | 9.1 |
| Feb. 4 | 21 26.85 | -17 45.3 | 3.546 | 2.564 | +1.93 +9.4 | 19.7 | 4.2 |
| Feb. 14 | 21 46.03 | -16 08.0 | 3.536 | 2.551 | +1.91 +10.1 | 19.6 | 3.1 |
| Feb. 24 | 22 05.03 | -14 25.0 | 3.517 | 2.539 | +1.89 +10.6 | 19.6 | 7.5 |
| Mar. 6 | 22 23.79 | -12 37.1 | 3.488 | 2.529 | +1.86 +11.0 | 19.5 | 12.4 |
| Mar. 16 | 22 42.29 | -10 45.7 | 3.452 | 2.520 | +1.83 +11.3 | 19.5 | 17.4 |
| Mar. 26 | 23 00.50 | -08 51.6 | 3.407 | 2.514 | +1.80 +11.5 | 19.5 | 22.5 |
| Apr. 5 | 23 18.40 | -06 56.1 | 3.354 | 2.510 | +1.77 +11.6 | 19.4 | 27.5 |
| Apr. 15 | 23 35.96 | -05 00.3 | 3.295 | 2.507 | +1.74 +11.6 | 19.4 | 32.5 |
| Apr. 25 | 23 53.17 | -03 05.3 | 3.228 | 2.507 | +1.70 +11.4 | 19.3 | 37.5 |
| May 5 | 00 09.99 | -01 12.1 | 3.155 | 2.508 | +1.66 +11.2 | 19.3 | 42.6 |
| May 15 | 00 26.38 | +00 38.1 | 3.076 | 2.511 | +1.61 +10.8 | 19.2 | 47.8 |
| May 25 | 00 42.29 | +02 24.4 | 2.991 | 2.517 | +1.56 +10.4 | 19.2 | 53.1 |
| June 4 | 00 57.65 | +04 05.8 | 2.902 | 2.524 | +1.50 +9.8 | 19.1 | 58.5 |
| June 14 | 01 12.36 | +05 41.4 | 2.808 | 2.533 | +1.43 +9.2 | 19.1 | 64.0 |
| June 24 | 01 26.31 | +07 10.5 | 2.709 | 2.544 | +1.35 +8.5 | 19.0 | 69.8 |
| July 4 | 01 39.35 | +08 32.2 | 2.608 | 2.557 | +1.25 +7.7 | 19.0 | 75.8 |
| July 14 | 01 51.31 | +09 45.9 | 2.504 | 2.571 | +1.13 +6.9 | 18.9 | 82.2 |
| July 24 | 02 02.00 | +10 51.1 | 2.400 | 2.587 | +0.99 +6.0 | 18.9 | 88.9 |
| Aug. 3 | 02 11.14 | +11 47.0 | 2.296 | 2.605 | +0.82 +5.1 | 18.8 | 96.0 |
| Aug. 13 | 02 18.50 | +12 33.4 | 2.194 | 2.625 | +0.63 +4.1 | 18.7 | 103.6 |
| Aug. 23 | 02 23.80 | +13 09.6 | 2.097 | 2.645 | +0.41 +3.0 | 18.7 | 111.8 |
| Sept. 2 | 02 26.79 | +13 35.1 | 2.008 | 2.668 | +0.16 +2.0 | 18.6 | 120.6 |
| Sept. 12 | 02 27.31 | +13 49.8 | 1.930 | 2.692 | -0.09 +0.9 | 18.6 | 130.2 |
| Sept. 22 | 02 25.34 | +13 53.6 | 1.867 | 2.717 | -0.33 -0.2 | 18.6 | 140.3 |
| Oct. 2 | 02 21.06 | +13 47.0 | 1.823 | 2.743 | -0.54 -1.2 | 18.6 | 151.2 |
| Oct. 12 | 02 14.96 | +13 31.7 | 1.802 | 2.770 | -0.68 -1.9 | 18.6 | 162.5 |
| Oct. 22 | 02 07.78 | +13 10.1 | 1.807 | 2.799 | -0.74 -2.4 | 18.7 | 174.2 |
| Nov. 1 | 02 00.42 | +12 46.2 | 1.839 | 2.828 | -0.71 -2.3 | 18.8 | 174.0 |
| Nov. 11 | 01 53.81 | +12 24.4 | 1.899 | 2.859 | -0.59 -1.9 | 18.9 | 162.3 |
| Nov. 21 | 01 48.67 | +12 08.3 | 1.986 | 2.890 | -0.41 -1.2 | 19.1 | 151.0 |
| Dec. 1 | 01 45.52 | +12 01.2 | 2.096 | 2.922 | -0.20 -0.2 | 19.2 | 140.1 |
| Dec. 11 | 01 44.56 | +12 04.5 | 2.227 | 2.955 | +0.03 +0.9 | 19.4 | 129.8 |
| Dec. 21 | 01 45.80 | +12 18.5 | 2.373 | 2.988 | +0.24 +2.0 | 19.6 | 119.9 |
| Dec. 31 | 01 49.13 | +12 42.7 | 2.532 | 3.023 | +0.44 +2.9 | 19.8 | 110.7 |
| Jan. 10 | 01 54.31 | +13 15.7 | 2.700 | 3.057 | +0.61 +3.7 | 20.0 | 101.9 |
| Jan. 20 | 02 01.13 | +13 56.2 | 2.873 | 3.092 | +0.76 +4.4 | 20.2 | 93.5 |
| Jan. 30 | 02 09.37 | +14 42.7 | 3.048 | 3.128 | +0.89 +4.9 | 20.4 | 85.4 |
| Feb. 9 | 02 18.79 | +15 33.4 | 3.224 | 3.164 | +1.00 +5.3 | 20.6 | 77.7 |
| Feb. 19 | 02 29.24 | +16 27.1 | 3.396 | 3.201 | +1.09 +5.5 | 20.8 | 70.3 |
| Mar. 1 | 02 40.54 | +17 22.3 | 3.563 | 3.237 | +1.17 +5.6 | 20.9 | 63.1 |
| Mar. 11 | 02 52.55 | +18 17.9 | 3.723 | 3.274 | +1.24 +5.5 | 21.1 | 56.1 |
| Mar. 21 | 03 05.15 | +19 12.8 | 3.875 | 3.312 | +1.29 +5.4 | 21.2 | 49.2 |
| Mar. 31 | 03 18.24 | +20 06.1 | 4.016 | 3.349 | +1.33 +5.2 | 21.4 | 42.6 |

Comet C/2024 J4 (Lemmon)

Epoch = 2025 July 24.0 TT
 T = 2025 Apr. 25.97096 TT
 Peri. = 127.85530
 Node = 19.30670 2000.0
 Incl. = 117.52907
 q = 5.6952011 AU
 e = 0.9991454

$$m1 = -3.9 + 5 \log(\Delta) + 25.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 17 03.43 | +24 19.5 | 6.255 | 5.751 | +0.26 | +0.3 | 19.1 | 55.2 |
| Jan. 15 | 17 05.73 | +24 27.4 | 6.168 | 5.741 | +0.20 | +1.4 | 19.0 | 60.1 |
| Jan. 25 | 17 07.35 | +24 46.0 | 6.066 | 5.733 | +0.12 | +2.4 | 19.0 | 65.8 |
| Feb. 4 | 17 08.11 | +25 15.0 | 5.951 | 5.725 | +0.02 | +3.4 | 18.9 | 72.1 |
| Feb. 14 | 17 07.79 | +25 53.2 | 5.826 | 5.718 | -0.10 | +4.3 | 18.9 | 78.9 |
| Feb. 24 | 17 06.22 | +26 39.4 | 5.696 | 5.712 | -0.23 | +5.0 | 18.8 | 86.0 |
| Mar. 6 | 17 03.20 | +27 31.7 | 5.564 | 5.707 | -0.39 | +5.5 | 18.7 | 93.3 |
| Mar. 16 | 16 58.55 | +28 27.7 | 5.435 | 5.703 | -0.56 | +5.7 | 18.7 | 100.6 |
| Mar. 26 | 16 52.16 | +29 24.3 | 5.316 | 5.700 | -0.74 | +5.5 | 18.6 | 107.8 |
| Apr. 5 | 16 43.97 | +30 17.6 | 5.209 | 5.697 | -0.92 | +5.0 | 18.6 | 114.5 |
| Apr. 15 | 16 34.04 | +31 03.4 | 5.122 | 5.696 | -1.08 | +4.0 | 18.5 | 120.4 |
| Apr. 25 | 16 22.59 | +31 37.4 | 5.057 | 5.695 | -1.22 | +2.6 | 18.5 | 125.1 |
| May 5 | 16 09.95 | +31 55.4 | 5.018 | 5.696 | -1.31 | +0.8 | 18.5 | 128.0 |
| May 15 | 15 56.63 | +31 54.4 | 5.009 | 5.697 | -1.35 | -1.2 | 18.5 | 128.8 |
| May 25 | 15 43.20 | +31 33.2 | 5.029 | 5.699 | -1.33 | -3.3 | 18.5 | 127.3 |
| June 4 | 15 30.24 | +30 51.8 | 5.078 | 5.702 | -1.25 | -5.2 | 18.5 | 123.6 |
| June 14 | 15 18.26 | +29 52.3 | 5.154 | 5.706 | -1.13 | -6.8 | 18.6 | 118.3 |
| June 24 | 15 07.65 | +28 37.7 | 5.254 | 5.711 | -0.98 | -8.2 | 18.6 | 111.8 |
| July 4 | 14 58.62 | +27 11.5 | 5.375 | 5.717 | -0.81 | -9.1 | 18.7 | 104.6 |
| July 14 | 14 51.27 | +25 37.7 | 5.511 | 5.724 | -0.64 | -9.7 | 18.7 | 96.9 |
| July 24 | 14 45.57 | +23 59.3 | 5.657 | 5.731 | -0.48 | -10.0 | 18.8 | 89.0 |
| Aug. 3 | 14 41.44 | +22 19.3 | 5.810 | 5.740 | -0.33 | -10.0 | 18.9 | 81.0 |
| Aug. 13 | 14 38.72 | +20 39.8 | 5.962 | 5.749 | -0.20 | -9.9 | 19.0 | 73.0 |
| Aug. 23 | 14 37.26 | +19 02.5 | 6.111 | 5.759 | -0.08 | -9.6 | 19.0 | 65.1 |
| Sept. 2 | 14 36.90 | +17 28.6 | 6.252 | 5.770 | +0.02 | -9.2 | 19.1 | 57.4 |
| Sept. 12 | 14 37.46 | +15 59.1 | 6.380 | 5.782 | +0.10 | -8.7 | 19.2 | 49.8 |
| Sept. 22 | 14 38.79 | +14 34.5 | 6.494 | 5.795 | +0.17 | -8.2 | 19.2 | 42.6 |
| Oct. 2 | 14 40.75 | +13 15.3 | 6.588 | 5.809 | +0.22 | -7.6 | 19.3 | 36.1 |
| Oct. 12 | 14 43.18 | +12 01.9 | 6.662 | 5.823 | +0.26 | -7.0 | 19.3 | 30.4 |
| Oct. 22 | 14 45.95 | +10 54.5 | 6.713 | 5.839 | +0.29 | -6.4 | 19.4 | 26.5 |
| Nov. 1 | 14 48.94 | +09 53.3 | 6.740 | 5.855 | +0.30 | -5.8 | 19.4 | 25.0 |
| Nov. 11 | 14 51.99 | +08 58.5 | 6.742 | 5.872 | +0.30 | -5.1 | 19.5 | 26.5 |
| Nov. 21 | 14 55.00 | +08 10.2 | 6.718 | 5.890 | +0.29 | -4.5 | 19.5 | 30.6 |
| Dec. 1 | 14 57.81 | +07 28.5 | 6.671 | 5.908 | +0.26 | -3.8 | 19.5 | 36.6 |
| Dec. 11 | 15 00.28 | +06 53.6 | 6.599 | 5.928 | +0.22 | -3.1 | 19.5 | 43.8 |
| Dec. 21 | 15 02.28 | +06 25.4 | 6.506 | 5.948 | +0.17 | -2.4 | 19.5 | 51.8 |
| Dec. 31 | 15 03.64 | +06 04.0 | 6.394 | 5.969 | +0.10 | -1.8 | 19.5 | 60.3 |
| Jan. 10 | 15 04.23 | +05 49.2 | 6.267 | 5.991 | +0.01 | -1.1 | 19.5 | 69.3 |
| Jan. 20 | 15 03.88 | +05 40.8 | 6.127 | 6.013 | -0.09 | -0.5 | 19.5 | 78.7 |
| Jan. 30 | 15 02.46 | +05 38.4 | 5.982 | 6.036 | -0.21 | +0.1 | 19.5 | 88.5 |
| Feb. 9 | 14 59.82 | +05 41.4 | 5.835 | 6.060 | -0.33 | +0.6 | 19.5 | 98.5 |
| Feb. 19 | 14 55.89 | +05 48.9 | 5.693 | 6.085 | -0.47 | +1.0 | 19.5 | 108.8 |
| Mar. 1 | 14 50.59 | +05 59.7 | 5.562 | 6.110 | -0.60 | +1.2 | 19.5 | 119.4 |
| Mar. 11 | 14 43.96 | +06 12.3 | 5.450 | 6.136 | -0.73 | +1.3 | 19.5 | 130.0 |
| Mar. 21 | 14 36.09 | +06 25.1 | 5.361 | 6.163 | -0.85 | +1.2 | 19.5 | 140.6 |
| Mar. 31 | 14 27.18 | +06 36.0 | 5.301 | 6.190 | -0.94 | +0.9 | 19.5 | 150.4 |

Comet C/2023 X7 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2025 May 15.24911 TT
 Peri. = 354.40506
 Node = 119.19928 2000.0
 Incl. = 69.09832
 q = 4.8202761 AU
 e = 1.0022486

$$m1 = 8.4 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 07 20.66 | -04 02.8 | 4.031 | 4.927 | -0.67 | +9.2 | 18.4 | 153.0 |
| Jan. 15 | 07 13.92 | -02 24.5 | 4.002 | 4.911 | -0.67 | +10.5 | 18.3 | 155.1 |
| Jan. 25 | 07 07.38 | +00 35.1 | 4.006 | 4.897 | -0.63 | +11.4 | 18.3 | 152.0 |
| Feb. 4 | 07 01.48 | +01 21.8 | 4.044 | 4.884 | -0.54 | +12.0 | 18.3 | 145.0 |
| Feb. 14 | 06 56.59 | +03 22.2 | 4.112 | 4.872 | -0.42 | +12.1 | 18.3 | 136.1 |
| Feb. 24 | 06 52.95 | +05 22.4 | 4.207 | 4.861 | -0.29 | +11.9 | 18.4 | 126.5 |
| Mar. 6 | 06 50.75 | +07 19.3 | 4.325 | 4.852 | -0.14 | +11.4 | 18.4 | 116.7 |
| Mar. 16 | 06 50.04 | +09 10.5 | 4.460 | 4.843 | +0.01 | +10.7 | 18.5 | 106.9 |
| Mar. 26 | 06 50.79 | +10 54.7 | 4.606 | 4.836 | +0.15 | +10.0 | 18.6 | 97.4 |
| Apr. 5 | 06 52.95 | +12 30.9 | 4.760 | 4.831 | +0.29 | +9.2 | 18.6 | 88.1 |
| Apr. 15 | 06 56.39 | +13 58.9 | 4.915 | 4.826 | +0.41 | +8.4 | 18.7 | 79.0 |
| Apr. 25 | 07 00.98 | +15 18.9 | 5.068 | 4.823 | +0.52 | +7.6 | 18.8 | 70.3 |
| May 5 | 07 06.60 | +16 31.1 | 5.215 | 4.821 | +0.61 | +6.8 | 18.8 | 61.8 |
| May 15 | 07 13.11 | +17 36.1 | 5.352 | 4.820 | +0.69 | +6.1 | 18.9 | 53.5 |
| May 25 | 07 20.37 | +18 34.4 | 5.477 | 4.821 | +0.76 | +5.5 | 18.9 | 45.4 |
| June 4 | 07 28.27 | +19 26.7 | 5.587 | 4.823 | +0.82 | +4.9 | 19.0 | 37.5 |
| June 14 | 07 36.69 | +20 13.6 | 5.681 | 4.826 | +0.87 | +4.4 | 19.0 | 29.8 |
| June 24 | 07 45.54 | +20 55.9 | 5.757 | 4.830 | +0.90 | +4.0 | 19.0 | 22.1 |
| July 4 | 07 54.70 | +21 34.3 | 5.813 | 4.836 | +0.93 | +3.7 | 19.1 | 14.6 |
| July 14 | 08 04.10 | +22 09.5 | 5.850 | 4.843 | +0.95 | +3.4 | 19.1 | 7.3 |
| July 24 | 08 13.63 | +22 42.5 | 5.866 | 4.851 | +0.96 | +3.2 | 19.1 | 2.8 |
| Aug. 3 | 08 23.23 | +23 14.1 | 5.861 | 4.861 | +0.96 | +3.1 | 19.1 | 8.8 |
| Aug. 13 | 08 32.81 | +23 45.3 | 5.836 | 4.871 | +0.95 | +3.1 | 19.1 | 16.3 |
| Aug. 23 | 08 42.28 | +24 17.0 | 5.791 | 4.883 | +0.94 | +3.3 | 19.1 | 23.9 |
| Sept. 2 | 08 51.57 | +24 50.6 | 5.726 | 4.896 | +0.91 | +3.5 | 19.1 | 31.7 |
| Sept. 12 | 09 00.58 | +25 27.1 | 5.645 | 4.911 | +0.88 | +3.9 | 19.1 | 39.6 |
| Sept. 22 | 09 09.23 | +26 07.8 | 5.546 | 4.926 | +0.84 | +4.4 | 19.0 | 47.6 |
| Oct. 2 | 09 17.41 | +26 54.1 | 5.434 | 4.943 | +0.79 | +5.0 | 19.0 | 55.9 |
| Oct. 12 | 09 25.01 | +27 47.5 | 5.311 | 4.961 | +0.72 | +5.8 | 19.0 | 64.3 |
| Oct. 22 | 09 31.92 | +28 49.3 | 5.179 | 4.980 | +0.65 | +6.7 | 18.9 | 73.0 |
| Nov. 1 | 09 37.98 | +30 00.8 | 5.042 | 5.000 | +0.55 | +7.7 | 18.9 | 81.9 |
| Nov. 11 | 09 43.05 | +31 23.1 | 4.905 | 5.021 | +0.45 | +8.8 | 18.9 | 91.0 |
| Nov. 21 | 09 46.97 | +32 56.6 | 4.772 | 5.043 | +0.32 | +10.0 | 18.8 | 100.3 |
| Dec. 1 | 09 49.58 | +34 41.4 | 4.648 | 5.066 | +0.18 | +11.1 | 18.8 | 109.7 |
| Dec. 11 | 09 50.70 | +36 36.4 | 4.538 | 5.091 | +0.03 | +12.0 | 18.8 | 119.2 |
| Dec. 21 | 09 50.22 | +38 39.5 | 4.447 | 5.116 | -0.14 | +12.6 | 18.7 | 128.4 |
| Dec. 31 | 09 48.05 | +40 47.3 | 4.380 | 5.143 | -0.31 | +12.9 | 18.7 | 137.0 |
| Jan. 10 | 09 44.21 | +42 55.1 | 4.340 | 5.170 | -0.47 | +12.6 | 18.7 | 144.2 |
| Jan. 20 | 09 38.85 | +44 57.9 | 4.331 | 5.198 | -0.61 | +11.8 | 18.7 | 148.8 |
| Jan. 30 | 09 32.27 | +46 50.4 | 4.354 | 5.228 | -0.71 | +10.5 | 18.8 | 149.6 |
| Feb. 9 | 09 24.95 | +48 28.2 | 4.408 | 5.258 | -0.75 | +8.9 | 18.8 | 146.4 |
| Feb. 19 | 09 17.46 | +49 48.5 | 4.491 | 5.289 | -0.73 | +7.0 | 18.9 | 140.3 |
| Mar. 1 | 09 10.44 | +50 50.2 | 4.600 | 5.321 | -0.65 | +5.2 | 19.0 | 132.6 |
| Mar. 11 | 09 04.46 | +51 34.2 | 4.731 | 5.354 | -0.52 | +3.5 | 19.1 | 124.3 |
| Mar. 21 | 08 59.96 | +52 02.2 | 4.879 | 5.387 | -0.36 | +2.0 | 19.2 | 115.8 |
| Mar. 31 | 08 57.23 | +52 16.8 | 5.040 | 5.422 | -0.17 | +0.8 | 19.3 | 107.3 |

Comet 217P/LINEAR

Epoch = 2025 July 24.0 TT
 T = 2025 May 24.94699 TT
 Peri. = 247.03847 e = 0.6891191
 Node = 125.37097 2000.0 a = 3.9448541 AU
 Incl. = 12.86551 n = 0.12579334
 q = 1.2263798 AU P = 7.84 years

$$m1 = 12.3 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|-------------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 18 58.69 | -19° 26' 7" | 3.038 | 2.057 | +2.36 +0.4 | 17.8 | 3.4 |
| Jan. 15 | 19 22.86 | -19 16.8 | 2.951 | 1.975 | +2.48 +1.8 | 17.6 | 5.9 |
| Jan. 25 | 19 48.26 | -18 52.3 | 2.856 | 1.893 | +2.61 +3.3 | 17.4 | 9.6 |
| Feb. 4 | 20 14.89 | -18 11.7 | 2.757 | 1.812 | +2.73 +5.0 | 17.1 | 13.3 |
| Feb. 14 | 20 42.76 | -17 13.9 | 2.654 | 1.732 | +2.85 +6.8 | 16.8 | 16.7 |
| Feb. 24 | 21 11.87 | -15 57.9 | 2.552 | 1.654 | +2.98 +8.6 | 16.5 | 19.7 |
| Mar. 6 | 21 42.22 | -14 22.7 | 2.451 | 1.579 | +3.10 +10.6 | 16.2 | 22.3 |
| Mar. 16 | 22 13.78 | -12 28.5 | 2.356 | 1.507 | +3.22 +12.5 | 15.9 | 24.5 |
| Mar. 26 | 22 46.56 | -10 15.5 | 2.268 | 1.441 | +3.34 +14.3 | 15.7 | 26.2 |
| Apr. 5 | 23 20.48 | -07 45.4 | 2.190 | 1.381 | +3.45 +15.8 | 15.4 | 27.4 |
| Apr. 15 | 23 55.46 | -05 01.2 | 2.124 | 1.328 | +3.55 +17.0 | 15.2 | 28.3 |
| Apr. 25 | 00 31.35 | -02 07.1 | 2.073 | 1.285 | +3.63 +17.7 | 15.0 | 28.7 |
| May 5 | 01 07.97 | +00 51.1 | 2.036 | 1.253 | +3.69 +17.8 | 14.8 | 29.0 |
| May 15 | 01 45.04 | +03 46.6 | 2.015 | 1.233 | +3.72 +17.2 | 14.7 | 29.0 |
| May 25 | 02 22.26 | +06 32.8 | 2.008 | 1.226 | +3.72 +15.8 | 14.7 | 29.1 |
| June 4 | 02 59.27 | +09 03.2 | 2.015 | 1.233 | +3.67 +14.0 | 14.7 | 29.2 |
| June 14 | 03 35.66 | +11 12.8 | 2.033 | 1.253 | +3.59 +11.7 | 14.8 | 29.5 |
| June 24 | 04 11.10 | +12 58.7 | 2.059 | 1.285 | +3.48 +9.2 | 15.0 | 30.1 |
| July 4 | 04 45.23 | +14 19.6 | 2.090 | 1.329 | +3.33 +6.7 | 15.1 | 31.1 |
| July 14 | 05 17.78 | +15 16.3 | 2.124 | 1.381 | +3.16 +4.4 | 15.3 | 32.6 |
| July 24 | 05 48.54 | +15 50.5 | 2.158 | 1.441 | +2.97 +2.3 | 15.6 | 34.5 |
| Aug. 3 | 06 17.38 | +16 05.2 | 2.189 | 1.508 | +2.77 +0.5 | 15.8 | 37.0 |
| Aug. 13 | 06 44.21 | +16 03.7 | 2.215 | 1.579 | +2.57 -0.9 | 16.0 | 40.0 |
| Aug. 23 | 07 09.01 | +15 49.2 | 2.235 | 1.655 | +2.37 -2.0 | 16.2 | 43.5 |
| Sept. 2 | 07 31.77 | +15 25.1 | 2.245 | 1.732 | +2.16 -2.8 | 16.4 | 47.5 |
| Sept. 12 | 07 52.49 | +14 54.8 | 2.247 | 1.812 | +1.96 -3.3 | 16.6 | 52.1 |
| Sept. 22 | 08 11.18 | +14 21.2 | 2.238 | 1.893 | +1.76 -3.4 | 16.8 | 57.3 |
| Oct. 2 | 08 27.80 | +13 47.3 | 2.218 | 1.975 | +1.55 -3.3 | 17.0 | 62.9 |
| Oct. 12 | 08 42.31 | +13 15.9 | 2.188 | 2.058 | +1.33 -2.9 | 17.1 | 69.2 |
| Oct. 22 | 08 54.61 | +12 49.7 | 2.149 | 2.140 | +1.10 -2.2 | 17.3 | 76.1 |
| Nov. 1 | 09 04.56 | +12 31.6 | 2.102 | 2.222 | +0.86 -1.3 | 17.4 | 83.6 |
| Nov. 11 | 09 12.01 | +12 24.3 | 2.049 | 2.304 | +0.60 -0.1 | 17.5 | 91.8 |
| Nov. 21 | 09 16.75 | +12 30.1 | 1.993 | 2.385 | +0.32 +1.4 | 17.6 | 100.8 |
| Dec. 1 | 09 18.58 | +12 51.4 | 1.939 | 2.466 | +0.02 +3.0 | 17.7 | 110.6 |
| Dec. 11 | 09 17.39 | +13 29.3 | 1.892 | 2.545 | -0.29 +4.7 | 17.7 | 121.2 |
| Dec. 21 | 09 13.18 | +14 23.4 | 1.856 | 2.624 | -0.58 +6.2 | 17.8 | 132.6 |
| Dec. 31 | 09 06.20 | +15 31.4 | 1.839 | 2.702 | -0.83 +7.4 | 17.9 | 144.8 |
| Jan. 10 | 08 57.04 | +16 48.3 | 1.845 | 2.779 | -1.00 +8.0 | 18.1 | 157.5 |
| Jan. 20 | 08 46.58 | +18 07.9 | 1.880 | 2.855 | -1.08 +7.8 | 18.2 | 170.4 |
| Jan. 30 | 08 35.92 | +19 23.4 | 1.946 | 2.930 | -1.03 +7.1 | 18.4 | 176.6 |
| Feb. 9 | 08 26.17 | +20 29.4 | 2.044 | 3.004 | -0.89 +6.0 | 18.6 | 164.0 |
| Feb. 19 | 08 18.17 | +21 23.1 | 2.170 | 3.077 | -0.68 +4.6 | 18.9 | 151.9 |
| Mar. 1 | 08 12.47 | +22 03.6 | 2.322 | 3.149 | -0.43 +3.4 | 19.1 | 140.4 |
| Mar. 11 | 08 09.26 | +22 31.8 | 2.496 | 3.220 | -0.19 +2.2 | 19.4 | 129.5 |
| Mar. 21 | 08 08.47 | +22 49.0 | 2.686 | 3.290 | +0.05 +1.2 | 19.6 | 119.3 |
| Mar. 31 | 08 09.91 | +22 56.8 | 2.888 | 3.359 | +0.25 +0.3 | 19.9 | 109.7 |

Comet 164P/Christensen

Epoch = 2025 July 24.0 TT
 T = 2025 May 27.40962 TT
 Peri. = 325.95051 e = 0.5413995
 Node = 88.26902 2000.0 a = 3.6526122 AU
 Incl. = 16.27725 n = 0.14118830
 q = 1.6750898 AU P = 6.98 years

$$m1 = 14.3 + 5 \log(\Delta) + 5.0 \log(r(t-210))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° | | | m | ' | | ° |
| Jan. 5 | 22 16.43 | -24 01.9 | 2.732 | 2.140 | +1.95 | +12.3 | 19.1 | 44.2 |
| Jan. 15 | 22 36.28 | -21 54.1 | 2.752 | 2.087 | +2.02 | +13.4 | 19.1 | 39.3 |
| Jan. 25 | 22 56.82 | -19 35.9 | 2.765 | 2.035 | +2.09 | +14.4 | 19.0 | 34.8 |
| Feb. 4 | 23 17.96 | -17 07.9 | 2.770 | 1.986 | +2.15 | +15.3 | 19.0 | 30.6 |
| Feb. 14 | 23 39.65 | -14 30.8 | 2.770 | 1.939 | +2.20 | +16.2 | 19.0 | 26.7 |
| Feb. 24 | 00 01.86 | -11 45.6 | 2.765 | 1.895 | +2.25 | +16.9 | 18.9 | 23.1 |
| Mar. 6 | 00 24.60 | -08 53.7 | 2.756 | 1.853 | +2.30 | +17.5 | 18.9 | 19.7 |
| Mar. 16 | 00 47.85 | -05 56.6 | 2.745 | 1.815 | +2.35 | +17.9 | 18.8 | 16.7 |
| Mar. 26 | 01 11.65 | -02 56.4 | 2.732 | 1.781 | +2.41 | +18.1 | 18.8 | 14.0 |
| Apr. 5 | 01 36.02 | +00 05.0 | 2.719 | 1.751 | +2.47 | +18.1 | 18.7 | 11.7 |
| Apr. 15 | 02 00.98 | +03 04.8 | 2.706 | 1.725 | +2.53 | +17.8 | 18.7 | 9.7 |
| Apr. 25 | 02 26.56 | +06 00.6 | 2.694 | 1.705 | +2.59 | +17.3 | 18.6 | 8.2 |
| May 5 | 02 52.77 | +08 49.6 | 2.684 | 1.689 | +2.65 | +16.4 | 18.6 | 7.4 |
| May 15 | 03 19.58 | +11 28.9 | 2.676 | 1.679 | +2.71 | +15.3 | 18.5 | 7.5 |
| May 25 | 03 46.97 | +13 56.0 | 2.671 | 1.675 | +2.77 | +13.9 | 18.5 | 8.4 |
| June 4 | 04 14.85 | +16 08.4 | 2.667 | 1.677 | +2.81 | +12.3 | 18.4 | 9.9 |
| June 14 | 04 43.11 | +18 04.1 | 2.665 | 1.684 | +2.84 | +10.6 | 18.3 | 11.9 |
| June 24 | 05 11.61 | +19 41.6 | 2.664 | 1.697 | +2.86 | +8.7 | 18.3 | 14.2 |
| July 4 | 05 40.17 | +21 00.1 | 2.663 | 1.715 | +2.85 | +6.8 | 18.2 | 16.7 |
| July 14 | 06 08.57 | +21 59.5 | 2.662 | 1.738 | +2.83 | +4.9 | 18.2 | 19.5 |
| July 24 | 06 36.64 | +22 40.2 | 2.660 | 1.766 | +2.78 | +3.1 | 18.1 | 22.6 |
| Aug. 3 | 07 04.15 | +23 03.5 | 2.656 | 1.798 | +2.71 | +1.4 | 18.1 | 25.9 |
| Aug. 13 | 07 30.92 | +23 11.2 | 2.648 | 1.834 | +2.63 | 0.0 | 18.0 | 29.4 |
| Aug. 23 | 07 56.80 | +23 05.5 | 2.637 | 1.874 | +2.53 | -1.2 | 17.9 | 33.2 |
| Sept. 2 | 08 21.65 | +22 48.9 | 2.621 | 1.917 | +2.42 | -2.2 | 17.9 | 37.2 |
| Sept. 12 | 08 45.37 | +22 24.1 | 2.599 | 1.963 | +2.31 | -2.8 | 17.8 | 41.6 |
| Sept. 22 | 09 07.88 | +21 54.1 | 2.571 | 2.011 | +2.18 | -3.2 | 17.7 | 46.2 |
| Oct. 2 | 09 29.10 | +21 21.8 | 2.536 | 2.062 | +2.05 | -3.2 | 17.7 | 51.2 |
| Oct. 12 | 09 48.98 | +20 50.0 | 2.494 | 2.114 | +1.91 | -3.0 | 17.6 | 56.5 |
| Oct. 22 | 10 07.45 | +20 21.8 | 2.446 | 2.167 | +1.77 | -2.5 | 17.5 | 62.2 |
| Nov. 1 | 10 24.41 | +20 00.1 | 2.390 | 2.222 | +1.61 | -1.7 | 17.4 | 68.2 |
| Nov. 11 | 10 39.76 | +19 47.7 | 2.328 | 2.278 | +1.44 | -0.6 | 17.3 | 74.7 |
| Nov. 21 | 10 53.37 | +19 47.2 | 2.262 | 2.334 | +1.26 | +0.7 | 17.2 | 81.7 |
| Dec. 1 | 11 05.03 | +20 01.4 | 2.193 | 2.391 | +1.05 | +2.3 | 17.1 | 89.2 |
| Dec. 11 | 11 14.54 | +20 32.3 | 2.122 | 2.449 | +0.82 | +4.1 | 17.1 | 97.2 |
| Dec. 21 | 11 21.64 | +21 21.3 | 2.054 | 2.507 | +0.57 | +5.9 | 17.0 | 105.7 |
| Dec. 31 | 11 26.06 | +22 28.6 | 1.992 | 2.565 | +0.29 | +7.7 | 16.9 | 114.8 |
| Jan. 10 | 11 27.60 | +23 52.3 | 1.939 | 2.623 | -0.01 | +9.1 | 16.9 | 124.3 |
| Jan. 20 | 11 26.12 | +25 28.5 | 1.901 | 2.681 | -0.31 | +10.1 | 16.8 | 134.1 |
| Jan. 30 | 11 21.70 | +27 10.0 | 1.882 | 2.738 | -0.59 | +10.1 | 16.8 | 143.6 |
| Feb. 9 | 11 14.76 | +28 47.7 | 1.887 | 2.796 | -0.81 | +9.2 | 16.9 | 151.9 |
| Feb. 19 | 11 06.00 | +30 12.0 | 1.917 | 2.853 | -0.94 | +7.4 | 16.9 | 157.0 |
| Mar. 1 | 10 56.47 | +31 14.8 | 1.975 | 2.910 | -0.95 | +4.9 | 17.1 | 156.4 |
| Mar. 11 | 10 47.29 | +31 51.6 | 2.059 | 2.966 | -0.86 | +2.2 | 17.2 | 150.8 |
| Mar. 21 | 10 39.40 | +32 02.1 | 2.169 | 3.022 | -0.69 | -0.3 | 17.3 | 142.7 |
| Mar. 31 | 10 33.51 | +31 48.7 | 2.301 | 3.078 | -0.46 | -2.5 | 17.5 | 133.8 |

Comet C/2024 G2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 June 13.49955 TT
 Peri. = 328.73337
 Node = 171.39762 2000.0
 Incl. = 122.12465
 q = 5.3484049 AU
 e = 0.9926283

$$m1 = 6.2 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 13 00.30 | -48 20.4 | 5.670 | 5.477 | -0.19 | -1.5 | 17.4 | 73.7 |
| Jan. 15 | 12 57.51 | -48 32.7 | 5.511 | 5.462 | -0.39 | -0.9 | 17.3 | 82.0 |
| Jan. 25 | 12 52.75 | -48 37.7 | 5.348 | 5.447 | -0.59 | 0.0 | 17.2 | 90.6 |
| Feb. 4 | 12 45.94 | -48 31.8 | 5.185 | 5.434 | -0.79 | +1.4 | 17.1 | 99.4 |
| Feb. 14 | 12 37.16 | -48 10.8 | 5.029 | 5.421 | -0.98 | +3.1 | 17.0 | 108.3 |
| Feb. 24 | 12 26.66 | -47 30.8 | 4.886 | 5.410 | -1.13 | +5.2 | 17.0 | 117.2 |
| Mar. 6 | 12 14.91 | -46 28.3 | 4.762 | 5.399 | -1.22 | +7.6 | 16.9 | 125.5 |
| Mar. 16 | 12 02.54 | -45 01.2 | 4.663 | 5.389 | -1.24 | +10.1 | 16.9 | 132.9 |
| Mar. 26 | 11 50.25 | -43 09.7 | 4.594 | 5.381 | -1.20 | +12.4 | 16.8 | 138.4 |
| Apr. 5 | 11 38.73 | -40 56.5 | 4.559 | 5.373 | -1.09 | +14.3 | 16.8 | 141.0 |
| Apr. 15 | 11 28.55 | -38 26.6 | 4.559 | 5.367 | -0.93 | +15.7 | 16.8 | 140.0 |
| Apr. 25 | 11 20.05 | -35 46.4 | 4.595 | 5.361 | -0.75 | +16.3 | 16.8 | 135.7 |
| May 5 | 11 13.40 | -33 03.0 | 4.664 | 5.356 | -0.56 | +16.3 | 16.8 | 129.0 |
| May 15 | 11 08.61 | -30 22.8 | 4.763 | 5.353 | -0.38 | +15.6 | 16.9 | 120.9 |
| May 25 | 11 05.58 | -27 50.9 | 4.886 | 5.350 | -0.21 | +14.6 | 16.9 | 112.1 |
| June 4 | 11 04.14 | -25 30.9 | 5.029 | 5.349 | -0.06 | +13.2 | 17.0 | 103.0 |
| June 14 | 11 04.10 | -23 24.9 | 5.185 | 5.348 | +0.06 | +11.8 | 17.1 | 93.8 |
| June 24 | 11 05.26 | -21 33.8 | 5.347 | 5.349 | +0.17 | +10.3 | 17.1 | 84.6 |
| July 4 | 11 07.43 | -19 57.4 | 5.512 | 5.351 | +0.27 | +8.9 | 17.2 | 75.6 |
| July 14 | 11 10.44 | -18 35.0 | 5.672 | 5.353 | +0.34 | +7.5 | 17.3 | 66.8 |
| July 24 | 11 14.13 | -17 25.6 | 5.824 | 5.357 | +0.40 | +6.3 | 17.3 | 58.1 |
| Aug. 3 | 11 18.36 | -16 27.9 | 5.964 | 5.361 | +0.45 | +5.2 | 17.4 | 49.6 |
| Aug. 13 | 11 23.00 | -15 40.5 | 6.087 | 5.367 | +0.48 | +4.2 | 17.4 | 41.2 |
| Aug. 23 | 11 27.94 | -15 01.9 | 6.191 | 5.374 | +0.51 | +3.4 | 17.5 | 33.2 |
| Sept. 2 | 11 33.07 | -14 31.0 | 6.274 | 5.382 | +0.52 | +2.7 | 17.5 | 25.6 |
| Sept. 12 | 11 38.29 | -14 06.1 | 6.332 | 5.390 | +0.52 | +2.2 | 17.5 | 18.9 |
| Sept. 22 | 11 43.50 | -13 46.2 | 6.366 | 5.400 | +0.52 | +1.8 | 17.5 | 14.5 |
| Oct. 2 | 11 48.61 | -13 29.8 | 6.373 | 5.411 | +0.50 | +1.5 | 17.6 | 14.7 |
| Oct. 12 | 11 53.51 | -13 15.7 | 6.354 | 5.422 | +0.48 | +1.3 | 17.6 | 19.4 |
| Oct. 22 | 11 58.11 | -13 02.6 | 6.308 | 5.435 | +0.44 | +1.3 | 17.6 | 26.4 |
| Nov. 1 | 12 02.28 | -12 49.2 | 6.237 | 5.448 | +0.39 | +1.4 | 17.5 | 34.5 |
| Nov. 11 | 12 05.92 | -12 34.1 | 6.142 | 5.463 | +0.33 | +1.7 | 17.5 | 43.2 |
| Nov. 21 | 12 08.90 | -12 15.8 | 6.026 | 5.478 | +0.26 | +2.1 | 17.5 | 52.3 |
| Dec. 1 | 12 11.08 | -11 53.0 | 5.891 | 5.495 | +0.17 | +2.6 | 17.5 | 61.8 |
| Dec. 11 | 12 12.34 | -11 23.9 | 5.742 | 5.512 | +0.07 | +3.3 | 17.4 | 71.7 |
| Dec. 21 | 12 12.54 | -10 47.0 | 5.583 | 5.530 | -0.04 | +4.2 | 17.4 | 81.9 |
| Dec. 31 | 12 11.56 | -10 00.5 | 5.419 | 5.550 | -0.17 | +5.2 | 17.3 | 92.5 |
| Jan. 10 | 12 09.30 | -09 03.1 | 5.257 | 5.570 | -0.30 | +6.4 | 17.3 | 103.5 |
| Jan. 20 | 12 05.71 | -07 53.6 | 5.104 | 5.591 | -0.43 | +7.7 | 17.2 | 114.9 |
| Jan. 30 | 12 00.79 | -06 31.3 | 4.968 | 5.612 | -0.56 | +8.9 | 17.2 | 126.7 |
| Feb. 9 | 11 54.64 | -04 56.4 | 4.854 | 5.635 | -0.68 | +10.1 | 17.1 | 138.9 |
| Feb. 19 | 11 47.43 | -03 10.4 | 4.771 | 5.658 | -0.77 | +11.1 | 17.1 | 151.3 |
| Mar. 1 | 11 39.44 | -01 15.8 | 4.724 | 5.683 | -0.83 | +11.8 | 17.1 | 163.9 |
| Mar. 11 | 11 31.05 | +00 43.7 | 4.716 | 5.708 | -0.85 | +12.0 | 17.1 | 176.3 |
| Mar. 21 | 11 22.64 | +02 43.7 | 4.749 | 5.734 | -0.83 | +11.9 | 17.2 | 170.3 |
| Mar. 31 | 11 14.62 | +04 39.8 | 4.823 | 5.760 | -0.77 | +11.2 | 17.2 | 157.8 |

Comet C/2024 A1 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 June 13.63055 TT
 Peri. = 353.29679
 Node = 112.13488 2000.0
 Incl. = 94.47552
 q = 3.8752821 AU
 e = 1.0026165

$$m1 = 7.0 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 07 30.61 | -22 45.6 | 3.371 | 4.117 | -1.20 | +11.9 | 15.8 | 134.1 |
| Jan. 15 | 07 18.53 | -20 33.4 | 3.307 | 4.089 | -1.20 | +14.8 | 15.7 | 137.7 |
| Jan. 25 | 07 06.74 | -17 53.5 | 3.277 | 4.062 | -1.14 | +17.3 | 15.7 | 137.9 |
| Feb. 4 | 06 55.96 | -14 51.7 | 3.284 | 4.037 | -1.00 | +19.1 | 15.6 | 134.5 |
| Feb. 14 | 06 46.75 | -11 36.1 | 3.326 | 4.013 | -0.82 | +20.0 | 15.6 | 128.3 |
| Feb. 24 | 06 39.49 | -08 15.6 | 3.400 | 3.992 | -0.61 | +20.0 | 15.7 | 120.3 |
| Mar. 6 | 06 34.32 | -04 57.6 | 3.502 | 3.972 | -0.40 | +19.4 | 15.7 | 111.4 |
| Mar. 16 | 06 31.24 | -01 48.2 | 3.624 | 3.954 | -0.20 | +18.3 | 15.8 | 102.1 |
| Mar. 26 | 06 30.13 | +01 09.2 | 3.762 | 3.937 | -0.01 | +17.0 | 15.8 | 92.7 |
| Apr. 5 | 06 30.81 | +03 52.7 | 3.909 | 3.923 | +0.16 | +15.6 | 15.9 | 83.4 |
| Apr. 15 | 06 33.08 | +06 21.9 | 4.059 | 3.910 | +0.31 | +14.1 | 16.0 | 74.4 |
| Apr. 25 | 06 36.72 | +08 37.1 | 4.207 | 3.900 | +0.43 | +12.8 | 16.0 | 65.5 |
| May 5 | 06 41.53 | +10 39.5 | 4.348 | 3.891 | +0.54 | +11.6 | 16.1 | 56.9 |
| May 15 | 06 47.34 | +12 30.1 | 4.479 | 3.884 | +0.63 | +10.5 | 16.1 | 48.5 |
| May 25 | 06 53.96 | +14 10.3 | 4.596 | 3.879 | +0.70 | +9.5 | 16.2 | 40.3 |
| June 4 | 07 01.26 | +15 41.6 | 4.696 | 3.876 | +0.76 | +8.7 | 16.2 | 32.2 |
| June 14 | 07 09.10 | +17 05.1 | 4.779 | 3.875 | +0.81 | +8.0 | 16.3 | 24.3 |
| June 24 | 07 17.37 | +18 22.4 | 4.841 | 3.876 | +0.85 | +7.4 | 16.3 | 16.4 |
| July 4 | 07 25.95 | +19 34.7 | 4.882 | 3.879 | +0.87 | +7.0 | 16.3 | 8.6 |
| July 14 | 07 34.73 | +20 43.3 | 4.901 | 3.884 | +0.89 | +6.7 | 16.3 | 1.1 |
| July 24 | 07 43.64 | +21 49.7 | 4.897 | 3.891 | +0.89 | +6.6 | 16.4 | 7.1 |
| Aug. 3 | 07 52.56 | +22 55.3 | 4.872 | 3.900 | +0.89 | +6.6 | 16.3 | 14.9 |
| Aug. 13 | 08 01.40 | +24 01.6 | 4.825 | 3.911 | +0.88 | +6.7 | 16.3 | 22.9 |
| Aug. 23 | 08 10.07 | +25 10.4 | 4.757 | 3.924 | +0.85 | +7.1 | 16.3 | 30.9 |
| Sept. 2 | 08 18.45 | +26 23.3 | 4.670 | 3.938 | +0.82 | +7.6 | 16.3 | 39.1 |
| Sept. 12 | 08 26.43 | +27 42.5 | 4.565 | 3.955 | +0.77 | +8.3 | 16.3 | 47.5 |
| Sept. 22 | 08 33.87 | +29 10.0 | 4.446 | 3.973 | +0.71 | +9.3 | 16.2 | 56.0 |
| Oct. 2 | 08 40.60 | +30 48.0 | 4.315 | 3.993 | +0.63 | +10.5 | 16.2 | 64.8 |
| Oct. 12 | 08 46.43 | +32 39.0 | 4.176 | 4.015 | +0.53 | +11.9 | 16.1 | 73.9 |
| Oct. 22 | 08 51.14 | +34 45.0 | 4.034 | 4.038 | +0.40 | +13.5 | 16.1 | 83.2 |
| Nov. 1 | 08 54.43 | +37 07.8 | 3.893 | 4.064 | +0.24 | +15.2 | 16.0 | 92.8 |
| Nov. 11 | 08 55.95 | +39 48.1 | 3.760 | 4.091 | +0.04 | +17.0 | 16.0 | 102.5 |
| Nov. 21 | 08 55.29 | +42 45.3 | 3.641 | 4.119 | -0.20 | +18.6 | 16.0 | 112.3 |
| Dec. 1 | 08 51.97 | +45 56.4 | 3.542 | 4.149 | -0.50 | +19.7 | 15.9 | 121.9 |
| Dec. 11 | 08 45.48 | +49 15.7 | 3.470 | 4.180 | -0.84 | +20.1 | 15.9 | 130.8 |
| Dec. 21 | 08 35.36 | +52 34.4 | 3.430 | 4.213 | -1.22 | +19.4 | 15.9 | 138.0 |
| Dec. 31 | 08 21.38 | +55 41.4 | 3.425 | 4.248 | -1.61 | +17.6 | 16.0 | 142.4 |
| Jan. 10 | 08 03.78 | +58 25.4 | 3.458 | 4.283 | -1.93 | +14.8 | 16.0 | 142.9 |
| Jan. 20 | 07 43.48 | +60 37.3 | 3.525 | 4.320 | -2.12 | +11.2 | 16.1 | 139.4 |
| Jan. 30 | 07 22.12 | +62 12.8 | 3.626 | 4.358 | -2.12 | +7.5 | 16.2 | 133.1 |
| Feb. 9 | 07 01.72 | +63 13.3 | 3.754 | 4.398 | -1.91 | +4.3 | 16.3 | 125.3 |
| Feb. 19 | 06 44.06 | +63 45.0 | 3.904 | 4.439 | -1.56 | +1.9 | 16.4 | 116.8 |
| Mar. 1 | 06 30.29 | +63 56.3 | 4.070 | 4.480 | -1.14 | +0.3 | 16.6 | 108.2 |
| Mar. 11 | 06 20.80 | +63 55.3 | 4.247 | 4.523 | -0.71 | -0.5 | 16.7 | 99.8 |
| Mar. 21 | 06 15.48 | +63 48.5 | 4.428 | 4.567 | -0.32 | -0.8 | 16.8 | 91.7 |
| Mar. 31 | 06 13.92 | +63 40.5 | 4.608 | 4.612 | +0.03 | -0.7 | 17.0 | 84.0 |

Comet P/2005 T5 (Broughton)

Epoch = 2025 July 24.0 TT
 T = 2025 June 15.02244 TT
 Peri. = 304.84910 e = 0.5517183
 Node = 56.99940 2000.0 a = 7.2578466 AU
 Incl. = 21.38479 n = 0.05040718
 q = 3.2535598 AU P = 19.55 years

$$m1 = 10.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | m1 | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|----------|--------|
| 2025/26 | h m | ° | | | for T=+1 day | | | ° |
| Jan. 5 | 21 53.12 | -31 32.8 | 4.158 | 3.444 | -0.65 -2.9 | 19.2 | 20.9/63 | 38.6 |
| Jan. 15 | 22 07.76 | -29 56.5 | 4.207 | 3.422 | -0.64 -3.3 | 19.2 | 21.6/63 | 32.9 |
| Jan. 25 | 22 22.62 | -28 17.7 | 4.244 | 3.401 | -0.62 -3.6 | 19.2 | 22.2/63 | 27.5 |
| Feb. 4 | 22 37.62 | -26 36.8 | 4.269 | 3.382 | -0.61 -3.9 | 19.1 | 22.6/63 | 22.8 |
| Feb. 14 | 22 52.68 | -24 54.5 | 4.282 | 3.364 | -0.60 -4.2 | 19.1 | 22.9/63 | 18.9 |
| Feb. 24 | 23 07.73 | -23 11.3 | 4.283 | 3.347 | -0.59 -4.5 | 19.1 | 23.2/64 | 16.5 |
| Mar. 6 | 23 22.72 | -21 28.0 | 4.272 | 3.331 | -0.58 -4.7 | 19.1 | 23.3/64 | 16.2 |
| Mar. 16 | 23 37.60 | -19 45.2 | 4.249 | 3.317 | -0.57 -5.0 | 19.0 | 23.3/64 | 17.9 |
| Mar. 26 | 23 52.33 | -18 03.6 | 4.214 | 3.304 | -0.56 -5.2 | 19.0 | 23.2/64 | 21.2 |
| Apr. 5 | 00 06.87 | -16 24.0 | 4.168 | 3.292 | -0.56 -5.5 | 19.0 | 23.0/65 | 25.4 |
| Apr. 15 | 00 21.17 | -14 47.2 | 4.111 | 3.282 | -0.56 -5.7 | 18.9 | 22.6/65 | 30.1 |
| Apr. 25 | 00 35.21 | -13 13.8 | 4.044 | 3.274 | -0.55 -5.9 | 18.9 | 22.2/66 | 35.2 |
| May 5 | 00 48.92 | -11 44.7 | 3.967 | 3.267 | -0.55 -6.1 | 18.8 | 21.6/66 | 40.5 |
| May 15 | 01 02.24 | -10 20.4 | 3.881 | 3.261 | -0.55 -6.3 | 18.8 | 21.0/67 | 46.0 |
| May 25 | 01 15.12 | -09 01.5 | 3.786 | 3.257 | -0.56 -6.6 | 18.7 | 20.2/68 | 51.7 |
| June 4 | 01 27.48 | -07 48.8 | 3.684 | 3.255 | -0.56 -6.8 | 18.7 | 19.2/69 | 57.5 |
| June 14 | 01 39.21 | -06 42.8 | 3.576 | 3.254 | -0.57 -7.0 | 18.6 | 18.0/70 | 63.6 |
| June 24 | 01 50.22 | -05 43.9 | 3.462 | 3.254 | -0.58 -7.3 | 18.5 | 16.7/71 | 69.8 |
| July 4 | 02 00.37 | -04 52.6 | 3.344 | 3.256 | -0.59 -7.6 | 18.4 | 15.1/72 | 76.3 |
| July 14 | 02 09.50 | -04 09.0 | 3.223 | 3.260 | -0.60 -7.9 | 18.4 | 13.3/73 | 83.1 |
| July 24 | 02 17.45 | -03 33.2 | 3.100 | 3.265 | -0.62 -8.2 | 18.3 | 11.3/74 | 90.2 |
| Aug. 3 | 02 24.03 | -03 05.4 | 2.979 | 3.272 | -0.64 -8.5 | 18.2 | 8.9/75 | 97.6 |
| Aug. 13 | 02 29.04 | -02 44.8 | 2.861 | 3.280 | -0.67 -8.9 | 18.1 | 6.3/75 | 105.5 |
| Aug. 23 | 02 32.30 | -02 31.0 | 2.749 | 3.290 | -0.69 -9.3 | 18.1 | 3.5/72 | 113.8 |
| Sept. 2 | 02 33.64 | -02 22.7 | 2.646 | 3.301 | -0.73 -9.6 | 18.0 | 0.7/32 | 122.6 |
| Sept. 12 | 02 32.98 | -02 18.1 | 2.557 | 3.314 | -0.76 -10.0 | 17.9 | 2.7/277 | 131.8 |
| Sept. 22 | 02 30.33 | -02 15.2 | 2.484 | 3.328 | -0.79 -10.3 | 17.9 | 5.5/273 | 141.4 |
| Oct. 2 | 02 25.87 | -02 11.2 | 2.432 | 3.343 | -0.81 -10.5 | 17.9 | 8.0/274 | 151.0 |
| Oct. 12 | 02 19.96 | -02 03.0 | 2.405 | 3.360 | -0.83 -10.5 | 17.9 | 9.8/277 | 159.9 |
| Oct. 22 | 02 13.15 | -01 48.2 | 2.405 | 3.378 | -0.84 -10.5 | 17.9 | 10.8/280 | 165.6 |
| Nov. 1 | 02 06.10 | -01 24.3 | 2.433 | 3.397 | -0.84 -10.3 | 17.9 | 10.8/286 | 163.6 |
| Nov. 11 | 01 59.51 | +00 50.2 | 2.490 | 3.418 | -0.82 -10.0 | 18.0 | 10.0/293 | 155.9 |
| Nov. 21 | 01 53.97 | +00 05.8 | 2.574 | 3.440 | -0.79 -9.7 | 18.1 | 8.7/305 | 146.2 |
| Dec. 1 | 01 49.94 | +00 48.3 | 2.683 | 3.463 | -0.76 -9.2 | 18.2 | 7.5/322 | 136.2 |
| Dec. 11 | 01 47.67 | +01 50.9 | 2.812 | 3.487 | -0.72 -8.8 | 18.4 | 6.9/344 | 126.3 |
| Dec. 21 | 01 47.26 | +03 00.5 | 2.958 | 3.512 | -0.68 -8.3 | 18.5 | 7.3/7 | 116.7 |
| Dec. 31 | 01 48.68 | +04 15.7 | 3.117 | 3.538 | -0.64 -7.9 | 18.7 | 8.5/25 | 107.5 |
| Jan. 10 | 01 51.80 | +05 34.9 | 3.284 | 3.565 | -0.61 -7.4 | 18.8 | 10.1/36 | 98.5 |
| Jan. 20 | 01 56.45 | +06 57.0 | 3.457 | 3.594 | -0.57 -7.0 | 18.9 | 11.6/44 | 90.0 |
| Jan. 30 | 02 02.48 | +08 20.9 | 3.631 | 3.623 | -0.55 -6.6 | 19.1 | 13.1/50 | 81.7 |
| Feb. 9 | 02 09.69 | +09 45.6 | 3.804 | 3.653 | -0.52 -6.3 | 19.2 | 14.3/54 | 73.7 |
| Feb. 19 | 02 17.93 | +11 10.4 | 3.973 | 3.684 | -0.50 -5.9 | 19.4 | 15.4/57 | 66.0 |
| Mar. 1 | 02 27.05 | +12 34.4 | 4.136 | 3.715 | -0.48 -5.6 | 19.5 | 16.3/59 | 58.5 |
| Mar. 11 | 02 36.90 | +13 57.0 | 4.290 | 3.748 | -0.47 -5.3 | 19.6 | 17.0/61 | 51.2 |
| Mar. 21 | 02 47.38 | +15 17.8 | 4.433 | 3.781 | -0.45 -5.0 | 19.7 | 17.5/63 | 44.0 |
| Mar. 31 | 02 58.37 | +16 36.1 | 4.565 | 3.815 | -0.44 -4.8 | 19.8 | 17.9/65 | 37.0 |

Comet 65P/Gunn

Epoch = 2025 July 24.0 TT
 T = 2025 June 16.45096 TT
 Peri. = 213.66970 e = 0.2481241
 Node = 61.97531 2000.0 a = 3.8919405 AU
 Incl. = 9.17524 n = 0.12836741
 q = 2.9262563 AU P = 7.68 years

$$m1 = 7.0 + 5 \log(\Delta) + 12.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 16 38.16 | -21 57.1 | 3.806 | 3.035 | +1.61 -4.7 | 15.9 | 33.5 |
| Jan. 15 | 16 54.23 | -22 41.4 | 3.711 | 3.022 | +1.60 -4.1 | 15.9 | 39.9 |
| Jan. 25 | 17 10.07 | -23 20.0 | 3.604 | 3.010 | +1.57 -3.6 | 15.8 | 46.4 |
| Feb. 4 | 17 25.55 | -23 53.4 | 3.488 | 2.999 | +1.52 -3.1 | 15.7 | 52.9 |
| Feb. 14 | 17 40.51 | -24 22.1 | 3.364 | 2.989 | +1.46 -2.6 | 15.6 | 59.6 |
| Feb. 24 | 17 54.81 | -24 47.0 | 3.233 | 2.979 | +1.39 -2.3 | 15.5 | 66.5 |
| Mar. 6 | 18 08.26 | -25 09.1 | 3.097 | 2.970 | +1.29 -2.1 | 15.4 | 73.5 |
| Mar. 16 | 18 20.67 | -25 29.5 | 2.957 | 2.962 | +1.18 -2.0 | 15.2 | 80.6 |
| Mar. 26 | 18 31.84 | -25 49.7 | 2.815 | 2.955 | +1.04 -2.1 | 15.1 | 88.1 |
| Apr. 5 | 18 41.54 | -26 11.2 | 2.675 | 2.949 | +0.88 -2.3 | 15.0 | 95.8 |
| Apr. 15 | 18 49.53 | -26 35.3 | 2.537 | 2.943 | +0.70 -2.6 | 14.9 | 103.8 |
| Apr. 25 | 18 55.57 | -27 03.5 | 2.406 | 2.938 | +0.49 -3.1 | 14.8 | 112.2 |
| May 5 | 18 59.40 | -27 36.6 | 2.283 | 2.934 | +0.25 -3.6 | 14.6 | 121.1 |
| May 15 | 19 00.84 | -28 14.9 | 2.173 | 2.931 | +0.01 -4.1 | 14.5 | 130.4 |
| May 25 | 18 59.79 | -28 57.8 | 2.078 | 2.928 | -0.24 -4.5 | 14.4 | 140.2 |
| June 4 | 18 56.30 | -29 43.4 | 2.002 | 2.927 | -0.47 -4.6 | 14.3 | 150.3 |
| June 14 | 18 50.68 | -30 28.5 | 1.950 | 2.926 | -0.66 -4.4 | 14.3 | 160.4 |
| June 24 | 18 43.50 | -31 09.6 | 1.922 | 2.926 | -0.77 -3.8 | 14.2 | 169.3 |
| July 4 | 18 35.61 | -31 43.3 | 1.920 | 2.928 | -0.79 -2.9 | 14.2 | 170.5 |
| July 14 | 18 27.99 | -32 07.4 | 1.945 | 2.930 | -0.71 -1.9 | 14.3 | 162.2 |
| July 24 | 18 21.56 | -32 21.7 | 1.995 | 2.932 | -0.55 -0.9 | 14.3 | 152.2 |
| Aug. 3 | 18 17.08 | -32 27.0 | 2.068 | 2.936 | -0.32 -0.1 | 14.4 | 142.1 |
| Aug. 13 | 18 15.01 | -32 25.3 | 2.161 | 2.940 | -0.07 +0.5 | 14.5 | 132.4 |
| Aug. 23 | 18 15.51 | -32 18.5 | 2.269 | 2.946 | +0.19 +0.9 | 14.6 | 123.1 |
| Sept. 2 | 18 18.58 | -32 07.8 | 2.391 | 2.952 | +0.44 +1.2 | 14.8 | 114.2 |
| Sept. 12 | 18 24.03 | -31 54.1 | 2.521 | 2.959 | +0.67 +1.5 | 14.9 | 105.8 |
| Sept. 22 | 18 31.61 | -31 37.6 | 2.658 | 2.966 | +0.87 +1.8 | 15.0 | 97.8 |
| Oct. 2 | 18 41.08 | -31 18.1 | 2.799 | 2.975 | +1.04 +2.1 | 15.2 | 90.1 |
| Oct. 12 | 18 52.14 | -30 55.1 | 2.941 | 2.984 | +1.18 +2.5 | 15.3 | 82.8 |
| Oct. 22 | 19 04.53 | -30 28.1 | 3.081 | 2.994 | +1.30 +2.9 | 15.4 | 75.6 |
| Nov. 1 | 19 18.02 | -29 56.6 | 3.219 | 3.005 | +1.40 +3.4 | 15.5 | 68.7 |
| Nov. 11 | 19 32.38 | -29 20.0 | 3.352 | 3.016 | +1.48 +3.9 | 15.6 | 62.0 |
| Nov. 21 | 19 47.42 | -28 38.2 | 3.479 | 3.028 | +1.53 +4.5 | 15.7 | 55.3 |
| Dec. 1 | 20 02.96 | -27 50.8 | 3.598 | 3.041 | +1.58 +5.0 | 15.8 | 48.8 |
| Dec. 11 | 20 18.84 | -26 58.0 | 3.708 | 3.055 | +1.60 +5.6 | 15.9 | 42.4 |
| Dec. 21 | 20 34.93 | -25 59.8 | 3.808 | 3.069 | +1.62 +6.1 | 16.0 | 36.1 |
| Dec. 31 | 20 51.11 | -24 56.7 | 3.896 | 3.083 | +1.62 +6.6 | 16.1 | 29.9 |
| Jan. 10 | 21 07.26 | -23 49.0 | 3.972 | 3.098 | +1.61 +7.0 | 16.1 | 23.8 |
| Jan. 20 | 21 23.33 | -22 37.3 | 4.036 | 3.114 | +1.60 +7.4 | 16.2 | 17.9 |
| Jan. 30 | 21 39.22 | -21 22.2 | 4.085 | 3.130 | +1.58 +7.7 | 16.3 | 12.4 |
| Feb. 9 | 21 54.87 | -20 04.6 | 4.121 | 3.147 | +1.55 +7.9 | 16.3 | 8.1 |
| Feb. 19 | 22 10.24 | -18 45.2 | 4.143 | 3.165 | +1.52 +8.0 | 16.3 | 7.3 |
| Mar. 1 | 22 25.28 | -17 24.8 | 4.150 | 3.182 | +1.48 +8.1 | 16.4 | 10.9 |
| Mar. 11 | 22 39.94 | -16 04.3 | 4.142 | 3.200 | +1.44 +8.0 | 16.4 | 16.2 |
| Mar. 21 | 22 54.20 | -14 44.5 | 4.121 | 3.219 | +1.40 +7.9 | 16.4 | 22.0 |
| Mar. 31 | 23 08.01 | -13 26.4 | 4.086 | 3.238 | +1.35 +7.7 | 16.4 | 28.0 |

Comet C/2023 H5 (Lemmon)

Epoch = 2025 July 24.0 TT
 T = 2025 June 30.29165 TT
 Peri. = 60.10137
 Node = 159.47818 2000.0
 Incl. = 97.85516
 q = 4.3126293 AU
 e = 1.0004681

$$m1 = 3.5 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 12 25.25 | +38 45.5 | 4.104 | 4.551 | +0.25 | +18.4 | 16.4 | 111.1 |
| Jan. 15 | 12 26.95 | +41 56.8 | 3.972 | 4.526 | +0.07 | +19.9 | 16.3 | 118.5 |
| Jan. 25 | 12 26.73 | +45 21.3 | 3.867 | 4.502 | -0.14 | +20.9 | 16.2 | 124.7 |
| Feb. 4 | 12 24.22 | +48 52.4 | 3.792 | 4.479 | -0.39 | +21.2 | 16.2 | 129.0 |
| Feb. 14 | 12 19.07 | +52 21.5 | 3.749 | 4.457 | -0.67 | +20.4 | 16.1 | 130.8 |
| Feb. 24 | 12 11.07 | +55 39.0 | 3.739 | 4.437 | -0.96 | +18.8 | 16.1 | 129.7 |
| Mar. 6 | 12 00.21 | +58 35.9 | 3.760 | 4.419 | -1.23 | +16.2 | 16.1 | 126.2 |
| Mar. 16 | 11 46.92 | +61 04.5 | 3.808 | 4.401 | -1.43 | +13.1 | 16.1 | 120.8 |
| Mar. 26 | 11 32.06 | +63 00.7 | 3.880 | 4.386 | -1.53 | +9.8 | 16.1 | 114.3 |
| Apr. 5 | 11 16.89 | +64 23.8 | 3.969 | 4.371 | -1.48 | +6.6 | 16.1 | 107.3 |
| Apr. 15 | 11 02.84 | +65 16.4 | 4.069 | 4.359 | -1.29 | +3.8 | 16.1 | 100.1 |
| Apr. 25 | 10 51.12 | +65 43.7 | 4.177 | 4.347 | -1.01 | +1.6 | 16.2 | 93.0 |
| May 5 | 10 42.53 | +65 51.6 | 4.285 | 4.338 | -0.67 | 0.0 | 16.2 | 86.2 |
| May 15 | 10 37.43 | +65 46.0 | 4.391 | 4.330 | -0.32 | -1.1 | 16.3 | 79.9 |
| May 25 | 10 35.79 | +65 31.7 | 4.491 | 4.323 | +0.02 | -1.8 | 16.3 | 74.0 |
| June 4 | 10 37.40 | +65 12.4 | 4.582 | 4.318 | +0.33 | -2.1 | 16.3 | 68.7 |
| June 14 | 10 41.93 | +64 51.1 | 4.660 | 4.315 | +0.60 | -2.2 | 16.4 | 64.1 |
| June 24 | 10 49.07 | +64 29.5 | 4.726 | 4.313 | +0.85 | -2.1 | 16.4 | 60.3 |
| July 4 | 10 58.54 | +64 09.0 | 4.777 | 4.313 | +1.06 | -1.9 | 16.4 | 57.3 |
| July 14 | 11 10.09 | +63 50.6 | 4.813 | 4.314 | +1.26 | -1.7 | 16.4 | 55.2 |
| July 24 | 11 23.54 | +63 34.7 | 4.834 | 4.317 | +1.45 | -1.4 | 16.4 | 54.0 |
| Aug. 3 | 11 38.77 | +63 22.0 | 4.841 | 4.322 | +1.62 | -1.1 | 16.5 | 53.9 |
| Aug. 13 | 11 55.69 | +63 12.6 | 4.834 | 4.328 | +1.78 | -0.8 | 16.5 | 54.7 |
| Aug. 23 | 12 14.27 | +63 06.5 | 4.815 | 4.335 | +1.95 | -0.4 | 16.5 | 56.2 |
| Sept. 2 | 12 34.51 | +63 03.8 | 4.785 | 4.345 | +2.11 | -0.1 | 16.5 | 58.5 |
| Sept. 12 | 12 56.41 | +63 04.1 | 4.747 | 4.356 | +2.28 | +0.2 | 16.5 | 61.4 |
| Sept. 22 | 13 20.01 | +63 07.0 | 4.703 | 4.368 | +2.45 | +0.4 | 16.5 | 64.6 |
| Oct. 2 | 13 45.31 | +63 11.8 | 4.656 | 4.382 | +2.62 | +0.5 | 16.5 | 68.1 |
| Oct. 12 | 14 12.31 | +63 17.5 | 4.609 | 4.397 | +2.79 | +0.6 | 16.5 | 71.6 |
| Oct. 22 | 14 40.93 | +63 22.7 | 4.564 | 4.414 | +2.95 | +0.5 | 16.5 | 75.1 |
| Nov. 1 | 15 11.02 | +63 26.4 | 4.526 | 4.432 | +3.08 | +0.2 | 16.5 | 78.3 |
| Nov. 11 | 15 42.30 | +63 26.9 | 4.496 | 4.452 | +3.18 | -0.2 | 16.5 | 81.1 |
| Nov. 21 | 16 14.41 | +63 23.3 | 4.477 | 4.473 | +3.24 | -0.6 | 16.5 | 83.4 |
| Dec. 1 | 16 46.90 | +63 15.1 | 4.471 | 4.495 | +3.25 | -1.1 | 16.5 | 85.1 |
| Dec. 11 | 17 19.22 | +63 02.0 | 4.480 | 4.519 | +3.20 | -1.5 | 16.6 | 86.0 |
| Dec. 21 | 17 50.88 | +62 45.0 | 4.502 | 4.544 | +3.11 | -1.9 | 16.6 | 86.2 |
| Dec. 31 | 18 21.41 | +62 25.5 | 4.539 | 4.571 | +2.98 | -2.0 | 16.7 | 85.6 |
| Jan. 10 | 18 50.46 | +62 05.3 | 4.589 | 4.598 | +2.81 | -2.0 | 16.7 | 84.4 |
| Jan. 20 | 19 17.79 | +61 46.4 | 4.650 | 4.627 | +2.63 | -1.7 | 16.8 | 82.6 |
| Jan. 30 | 19 43.24 | +61 30.7 | 4.719 | 4.657 | +2.44 | -1.3 | 16.9 | 80.4 |
| Feb. 9 | 20 06.76 | +61 19.7 | 4.795 | 4.689 | +2.25 | -0.8 | 17.0 | 77.9 |
| Feb. 19 | 20 28.34 | +61 14.8 | 4.873 | 4.721 | +2.05 | -0.1 | 17.0 | 75.4 |
| Mar. 1 | 20 48.00 | +61 16.7 | 4.952 | 4.755 | +1.86 | +0.6 | 17.1 | 72.8 |
| Mar. 11 | 21 05.78 | +61 25.7 | 5.028 | 4.789 | +1.68 | +1.3 | 17.2 | 70.5 |
| Mar. 21 | 21 21.69 | +61 42.0 | 5.099 | 4.825 | +1.49 | +2.0 | 17.3 | 68.6 |
| Mar. 31 | 21 35.73 | +62 05.0 | 5.163 | 4.861 | +1.30 | +2.7 | 17.4 | 67.1 |

Comet C/2024 X2 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 July 8.05828 TT
 Peri. = 315.79952
 Node = 122.48372 2000.0
 Incl. = 109.23129
 q = 3.6769916 AU
 e = 0.9297579

$$m1 = 9.0 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 10 19.00 | -69 15.6 | 4.025 | 4.002 | -2.50 | -2.2 | 18.0 | 81.6 |
| Jan. 15 | 09 51.63 | -69 22.1 | 3.902 | 3.969 | -2.98 | +1.5 | 17.9 | 86.7 |
| Jan. 25 | 09 20.73 | -68 46.0 | 3.784 | 3.938 | -3.16 | +6.4 | 17.8 | 91.7 |
| Feb. 4 | 08 49.72 | -67 18.1 | 3.676 | 3.909 | -2.96 | +11.8 | 17.7 | 96.3 |
| Feb. 14 | 08 22.14 | -64 55.9 | 3.582 | 3.880 | -2.47 | +17.1 | 17.7 | 100.2 |
| Feb. 24 | 08 00.10 | -61 44.4 | 3.508 | 3.854 | -1.87 | +21.5 | 17.6 | 103.1 |
| Mar. 6 | 07 44.10 | -57 53.1 | 3.458 | 3.829 | -1.28 | +24.9 | 17.5 | 104.6 |
| Mar. 16 | 07 33.63 | -53 34.1 | 3.434 | 3.806 | -0.78 | +26.9 | 17.5 | 104.5 |
| Mar. 26 | 07 27.73 | -48 59.9 | 3.438 | 3.785 | -0.38 | +27.8 | 17.5 | 102.7 |
| Apr. 5 | 07 25.45 | -44 22.1 | 3.469 | 3.766 | -0.06 | +27.6 | 17.5 | 99.5 |
| Apr. 15 | 07 25.97 | -39 50.8 | 3.526 | 3.748 | +0.18 | +26.5 | 17.5 | 94.9 |
| Apr. 25 | 07 28.62 | -35 33.5 | 3.604 | 3.732 | +0.36 | +24.7 | 17.5 | 89.4 |
| May 5 | 07 32.89 | -31 35.4 | 3.699 | 3.718 | +0.50 | +22.6 | 17.5 | 83.3 |
| May 15 | 07 38.39 | -27 59.6 | 3.806 | 3.707 | +0.60 | +20.3 | 17.6 | 76.7 |
| May 25 | 07 44.79 | -24 47.1 | 3.920 | 3.697 | +0.68 | +18.0 | 17.6 | 69.9 |
| June 4 | 07 51.85 | -21 57.7 | 4.035 | 3.689 | +0.73 | +15.7 | 17.7 | 63.1 |
| June 14 | 07 59.37 | -19 30.3 | 4.147 | 3.683 | +0.77 | +13.6 | 17.8 | 56.3 |
| June 24 | 08 07.20 | -17 23.1 | 4.253 | 3.679 | +0.79 | +11.7 | 17.8 | 49.8 |
| July 4 | 08 15.20 | -15 34.4 | 4.347 | 3.677 | +0.80 | +9.9 | 17.8 | 43.5 |
| July 14 | 08 23.24 | -14 02.0 | 4.427 | 3.677 | +0.80 | +8.4 | 17.9 | 37.8 |
| July 24 | 08 31.22 | -12 44.0 | 4.490 | 3.680 | +0.79 | +7.1 | 17.9 | 33.0 |
| Aug. 3 | 08 39.05 | -11 38.4 | 4.534 | 3.684 | +0.77 | +5.9 | 17.9 | 29.4 |
| Aug. 13 | 08 46.63 | -10 43.4 | 4.557 | 3.690 | +0.74 | +5.0 | 18.0 | 27.7 |
| Aug. 23 | 08 53.87 | -09 57.1 | 4.558 | 3.698 | +0.70 | +4.2 | 18.0 | 28.2 |
| Sept. 2 | 09 00.66 | -09 17.6 | 4.537 | 3.709 | +0.65 | +3.6 | 18.0 | 31.0 |
| Sept. 12 | 09 06.88 | -08 43.3 | 4.492 | 3.721 | +0.59 | +3.2 | 18.0 | 35.7 |
| Sept. 22 | 09 12.44 | -08 12.2 | 4.425 | 3.735 | +0.51 | +3.0 | 18.0 | 41.6 |
| Oct. 2 | 09 17.16 | -07 42.4 | 4.337 | 3.751 | +0.42 | +3.0 | 17.9 | 48.6 |
| Oct. 12 | 09 20.92 | -07 11.6 | 4.228 | 3.769 | +0.32 | +3.2 | 17.9 | 56.4 |
| Oct. 22 | 09 23.52 | -06 37.7 | 4.103 | 3.789 | +0.19 | +3.7 | 17.9 | 64.9 |
| Nov. 1 | 09 24.76 | -05 57.8 | 3.964 | 3.810 | +0.04 | +4.4 | 17.8 | 73.9 |
| Nov. 11 | 09 24.44 | -05 09.1 | 3.815 | 3.834 | -0.13 | +5.5 | 17.7 | 83.6 |
| Nov. 21 | 09 22.32 | -04 08.3 | 3.662 | 3.859 | -0.32 | +6.9 | 17.7 | 94.0 |
| Dec. 1 | 09 18.21 | -02 52.2 | 3.512 | 3.886 | -0.53 | +8.6 | 17.6 | 105.0 |
| Dec. 11 | 09 11.96 | -01 17.7 | 3.371 | 3.914 | -0.75 | +10.5 | 17.6 | 116.7 |
| Dec. 21 | 09 03.52 | +00 37.2 | 3.249 | 3.944 | -0.96 | +12.6 | 17.5 | 129.1 |
| Dec. 31 | 08 53.02 | +02 52.7 | 3.154 | 3.975 | -1.15 | +14.6 | 17.5 | 142.0 |
| Jan. 10 | 08 40.83 | +05 26.4 | 3.095 | 4.008 | -1.29 | +16.2 | 17.5 | 155.1 |
| Jan. 20 | 08 27.52 | +08 12.6 | 3.078 | 4.042 | -1.36 | +17.0 | 17.5 | 167.0 |
| Jan. 30 | 08 13.88 | +11 03.5 | 3.106 | 4.078 | -1.35 | +17.0 | 17.6 | 169.2 |
| Feb. 9 | 08 00.76 | +13 50.6 | 3.181 | 4.115 | -1.25 | +16.2 | 17.7 | 158.6 |
| Feb. 19 | 07 48.89 | +16 26.7 | 3.298 | 4.153 | -1.09 | +14.8 | 17.8 | 145.9 |
| Mar. 1 | 07 38.85 | +18 47.4 | 3.452 | 4.193 | -0.89 | +13.1 | 17.9 | 133.2 |
| Mar. 11 | 07 30.94 | +20 51.0 | 3.634 | 4.234 | -0.67 | +11.4 | 18.1 | 121.1 |
| Mar. 21 | 07 25.27 | +22 38.0 | 3.837 | 4.275 | -0.45 | +9.8 | 18.2 | 109.6 |
| Mar. 31 | 07 21.76 | +24 09.9 | 4.053 | 4.318 | -0.24 | +8.4 | 18.4 | 98.7 |

Comet P/2005 J1 (McNaught)

Epoch = 2025 July 24.0 TT
 T = 2025 July 11.13853 TT
 Peri. = 338.88127
 Node = 268.83006 2000.0
 Incl. = 31.73328
 q = 1.5393121 AU
 e = 0.5694119
 a = 3.5749063 AU
 n = 0.14581664
 P = 6.76 years

$$m1 = 15.0 + 5 \log(\Delta) + 17.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | m1 | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|----------|--------|
| 2025/26 | h m | ° ' " | | | for T=+1 day | | | ° |
| Jan. 5 | 11 13.86 | -34 12.2 | 2.023 | 2.365 | -1.59 +9.5 | . | 23.3/162 | 97.7 |
| Jan. 15 | 11 18.76 | -37 55.4 | 1.876 | 2.302 | -1.83 +10.4 | . | 22.9/169 | 102.7 |
| Jan. 25 | 11 21.38 | -41 39.7 | 1.738 | 2.239 | -2.13 +11.5 | . | 22.3/177 | 107.4 |
| Feb. 4 | 11 21.15 | -45 18.8 | 1.612 | 2.177 | -2.47 +13.0 | 21.9 | 21.4/186 | 111.6 |
| Feb. 14 | 11 17.54 | -48 43.9 | 1.498 | 2.116 | -2.84 +15.1 | 21.6 | 20.1/196 | 115.2 |
| Feb. 24 | 11 10.19 | -51 44.5 | 1.395 | 2.055 | -3.20 +17.9 | 21.2 | 18.4/208 | 118.0 |
| Mar. 6 | 10 59.22 | -54 07.7 | 1.305 | 1.996 | -3.51 +21.4 | 20.8 | 16.2/223 | 120.1 |
| Mar. 16 | 10 45.77 | -55 41.9 | 1.225 | 1.938 | -3.69 +25.5 | 20.5 | 13.5/242 | 121.3 |
| Mar. 26 | 10 31.99 | -56 19.5 | 1.156 | 1.882 | -3.70 +29.7 | 20.1 | 10.7/267 | 121.7 |
| Apr. 5 | 10 20.71 | -55 58.9 | 1.097 | 1.829 | -3.56 +33.4 | 19.8 | 9.0/304 | 121.3 |
| Apr. 15 | 10 14.59 | -54 46.2 | 1.046 | 1.778 | -3.36 +36.0 | 19.5 | 10.0/347 | 120.4 |
| Apr. 25 | 10 15.17 | -52 50.6 | 1.002 | 1.731 | -3.20 +37.3 | 19.2 | 14.2/ 17 | 119.1 |
| May 5 | 10 23.00 | -50 21.9 | 0.966 | 1.688 | -3.13 +36.9 | 18.9 | 19.9/ 35 | 117.5 |
| May 15 | 10 37.75 | -47 28.3 | 0.937 | 1.649 | -3.16 +34.8 | 18.7 | 26.2/ 45 | 115.6 |
| May 25 | 10 58.55 | -44 14.8 | 0.918 | 1.615 | -3.26 +30.9 | 18.5 | 32.6/ 52 | 113.5 |
| June 4 | 11 24.32 | -40 45.6 | 0.909 | 1.587 | -3.40 +25.4 | 18.3 | 38.5/ 56 | 111.1 |
| June 14 | 11 53.76 | -37 05.6 | 0.911 | 1.565 | -3.52 +18.6 | 18.2 | 43.3/ 59 | 108.5 |
| June 24 | 12 25.50 | -33 20.4 | 0.928 | 1.550 | -3.58 +11.1 | 18.2 | 46.7/ 61 | 105.6 |
| July 4 | 12 58.35 | -29 38.1 | 0.960 | 1.541 | -3.56 +3.8 | 18.2 | 48.3/ 63 | 102.4 |
| July 14 | 13 31.27 | -26 06.8 | 1.008 | 1.540 | -3.45 -2.6 | 18.3 | 48.5/ 65 | 99.0 |
| July 24 | 14 03.54 | -22 53.1 | 1.070 | 1.545 | -3.28 -7.8 | 18.5 | 47.5/ 68 | 95.6 |
| Aug. 3 | 14 34.76 | -20 01.1 | 1.146 | 1.558 | -3.05 -11.5 | 18.7 | 46.0/ 70 | 92.0 |
| Aug. 13 | 15 04.73 | -17 31.6 | 1.235 | 1.577 | -2.81 -14.0 | 18.9 | 44.1/ 72 | 88.5 |
| Aug. 23 | 15 33.44 | -15 23.1 | 1.334 | 1.603 | -2.56 -15.5 | 19.2 | 42.3/ 74 | 85.0 |
| Sept. 2 | 16 01.00 | -13 32.8 | 1.442 | 1.634 | -2.32 -16.2 | 19.5 | 40.6/ 76 | 81.5 |
| Sept. 12 | 16 27.51 | -11 56.9 | 1.557 | 1.671 | -2.10 -16.3 | 19.9 | 39.2/ 77 | 78.1 |
| Sept. 22 | 16 53.10 | -10 31.8 | 1.678 | 1.712 | -1.90 -16.1 | 20.2 | 38.0/ 78 | 74.6 |
| Oct. 2 | 17 17.92 | -09 14.0 | 1.803 | 1.758 | -1.72 -15.7 | 20.6 | 36.9/ 78 | 71.2 |
| Oct. 12 | 17 42.05 | -08 00.1 | 1.932 | 1.807 | -1.56 -15.1 | 20.9 | 36.0/ 78 | 67.7 |
| Oct. 22 | 18 05.55 | -06 47.8 | 2.063 | 1.859 | -1.41 -14.4 | 21.3 | 35.3/ 78 | 64.2 |
| Nov. 1 | 18 28.50 | -05 34.6 | 2.195 | 1.914 | -1.29 -13.7 | 21.6 | 34.6/ 78 | 60.6 |
| Nov. 11 | 18 50.91 | -04 19.1 | 2.327 | 1.971 | -1.18 -12.9 | 22.0 | 34.0/ 77 | 57.0 |
| Nov. 21 | 19 12.80 | -03 00.0 | 2.459 | 2.029 | -1.08 -12.2 | . | 33.4/ 76 | 53.3 |
| Dec. 1 | 19 34.18 | -01 36.4 | 2.589 | 2.089 | -0.99 -11.4 | . | 32.8/ 75 | 49.6 |
| Dec. 11 | 19 55.05 | +00 07.8 | 2.717 | 2.151 | -0.92 -10.7 | . | 32.2/ 74 | 45.8 |
| Dec. 21 | 20 15.40 | +01 25.9 | 2.842 | 2.212 | -0.85 -10.1 | . | 31.6/ 72 | 42.1 |
| Dec. 31 | 20 35.23 | +03 04.6 | 2.962 | 2.275 | -0.79 -9.4 | . | 31.0/ 71 | 38.4 |
| Jan. 10 | 20 54.53 | +04 48.2 | 3.077 | 2.338 | -0.74 -8.8 | . | 30.3/ 70 | 34.8 |
| Jan. 20 | 21 13.31 | +06 36.2 | 3.185 | 2.401 | -0.69 -8.1 | . | 29.7/ 68 | 31.4 |
| Jan. 30 | 21 31.56 | +08 28.2 | 3.286 | 2.464 | -0.65 -7.6 | . | 29.0/ 67 | 28.3 |
| Feb. 9 | 21 49.28 | +10 23.4 | 3.379 | 2.527 | -0.62 -7.0 | . | 28.2/ 66 | 25.7 |
| Feb. 19 | 22 06.48 | +12 21.4 | 3.462 | 2.589 | -0.59 -6.4 | . | 27.5/ 64 | 23.8 |
| Mar. 1 | 22 23.14 | +14 21.6 | 3.536 | 2.652 | -0.56 -5.9 | . | 26.7/ 63 | 22.9 |
| Mar. 11 | 22 39.26 | +16 23.2 | 3.599 | 2.714 | -0.54 -5.4 | . | 25.9/ 62 | 23.1 |
| Mar. 21 | 22 54.86 | +18 25.8 | 3.652 | 2.775 | -0.52 -4.9 | . | 25.0/ 60 | 24.4 |
| Mar. 31 | 23 09.89 | +20 28.8 | 3.692 | 2.836 | -0.50 -4.5 | . | 24.1/ 59 | 26.8 |

Comet C/2023 V1 (Lemmon)

Epoch = 2025 July 24.0 TT
 T = 2025 July 13.04860 TT
 Peri. = 103.31626
 Node = 15.04327 2000.0
 Incl. = 102.01349
 q = 5.0925501 AU
 e = 1.0004316

$$m1 = 0.3 + 5 \log(\Delta) + 20.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 19 19.74 | +45 31.6 | 5.576 | 5.291 | +0.41 | -0.1 | 18.5 | 68.3 |
| Jan. 15 | 19 23.80 | +45 38.6 | 5.577 | 5.271 | +0.40 | +1.6 | 18.5 | 67.0 |
| Jan. 25 | 19 27.74 | +46 02.1 | 5.566 | 5.252 | +0.38 | +3.3 | 18.4 | 66.5 |
| Feb. 4 | 19 31.32 | +46 41.9 | 5.543 | 5.234 | +0.33 | +4.9 | 18.4 | 66.8 |
| Feb. 14 | 19 34.30 | +47 37.4 | 5.509 | 5.217 | +0.25 | +6.4 | 18.4 | 67.8 |
| Feb. 24 | 19 36.41 | +48 47.6 | 5.464 | 5.201 | +0.15 | +7.8 | 18.3 | 69.5 |
| Mar. 6 | 19 37.34 | +50 11.4 | 5.411 | 5.186 | +0.01 | +9.1 | 18.3 | 71.7 |
| Mar. 16 | 19 36.73 | +51 47.1 | 5.351 | 5.173 | -0.16 | +10.2 | 18.2 | 74.4 |
| Mar. 26 | 19 34.16 | +53 32.6 | 5.287 | 5.160 | -0.38 | +11.0 | 18.2 | 77.3 |
| Apr. 5 | 19 29.14 | +55 24.9 | 5.220 | 5.148 | -0.66 | +11.5 | 18.1 | 80.4 |
| Apr. 15 | 19 21.08 | +57 19.9 | 5.155 | 5.138 | -0.99 | +11.4 | 18.1 | 83.4 |
| Apr. 25 | 19 09.42 | +59 12.1 | 5.094 | 5.128 | -1.39 | +10.8 | 18.0 | 86.3 |
| May 5 | 18 53.61 | +60 54.9 | 5.040 | 5.120 | -1.82 | +9.4 | 18.0 | 88.8 |
| May 15 | 18 33.43 | +62 19.9 | 4.995 | 5.112 | -2.25 | +7.2 | 18.0 | 90.9 |
| May 25 | 18 09.20 | +63 18.4 | 4.962 | 5.106 | -2.61 | +4.1 | 17.9 | 92.4 |
| June 4 | 17 42.08 | +63 42.4 | 4.942 | 5.101 | -2.80 | +0.3 | 17.9 | 93.2 |
| June 14 | 17 14.05 | +63 27.3 | 4.938 | 5.097 | -2.77 | -3.7 | 17.9 | 93.3 |
| June 24 | 16 47.32 | +62 32.7 | 4.949 | 5.095 | -2.52 | -7.5 | 17.9 | 92.5 |
| July 4 | 16 23.72 | +61 03.0 | 4.975 | 5.093 | -2.14 | -10.6 | 17.9 | 90.9 |
| July 14 | 16 04.24 | +59 05.5 | 5.015 | 5.093 | -1.71 | -13.0 | 17.9 | 88.6 |
| July 24 | 15 49.05 | +56 48.5 | 5.068 | 5.093 | -1.29 | -14.5 | 18.0 | 85.7 |
| Aug. 3 | 15 37.85 | +54 19.8 | 5.132 | 5.095 | -0.92 | -15.2 | 18.0 | 82.2 |
| Aug. 13 | 15 30.09 | +51 46.0 | 5.204 | 5.098 | -0.61 | -15.4 | 18.0 | 78.4 |
| Aug. 23 | 15 25.19 | +49 12.3 | 5.280 | 5.102 | -0.35 | -15.2 | 18.1 | 74.4 |
| Sept. 2 | 15 22.63 | +46 42.7 | 5.359 | 5.107 | -0.15 | -14.6 | 18.1 | 70.3 |
| Sept. 12 | 15 21.92 | +44 20.1 | 5.437 | 5.114 | +0.02 | -13.8 | 18.2 | 66.2 |
| Sept. 22 | 15 22.70 | +42 06.7 | 5.510 | 5.121 | +0.15 | -12.8 | 18.2 | 62.3 |
| Oct. 2 | 15 24.63 | +40 03.9 | 5.577 | 5.130 | +0.25 | -11.6 | 18.2 | 58.8 |
| Oct. 12 | 15 27.44 | +38 12.8 | 5.634 | 5.139 | +0.32 | -10.4 | 18.3 | 55.8 |
| Oct. 22 | 15 30.91 | +36 34.1 | 5.679 | 5.150 | +0.38 | -9.2 | 18.3 | 53.5 |
| Nov. 1 | 15 34.83 | +35 08.4 | 5.710 | 5.162 | +0.41 | -7.8 | 18.3 | 52.2 |
| Nov. 11 | 15 39.01 | +33 56.1 | 5.727 | 5.175 | +0.43 | -6.5 | 18.4 | 51.9 |
| Nov. 21 | 15 43.28 | +32 57.2 | 5.727 | 5.189 | +0.43 | -5.1 | 18.4 | 52.8 |
| Dec. 1 | 15 47.47 | +32 12.1 | 5.710 | 5.204 | +0.41 | -3.8 | 18.4 | 54.8 |
| Dec. 11 | 15 51.40 | +31 40.7 | 5.677 | 5.220 | +0.37 | -2.4 | 18.4 | 57.9 |
| Dec. 21 | 15 54.91 | +31 22.9 | 5.628 | 5.238 | +0.32 | -1.0 | 18.4 | 62.0 |
| Dec. 31 | 15 57.79 | +31 18.6 | 5.564 | 5.256 | +0.25 | +0.3 | 18.4 | 66.9 |
| Jan. 10 | 15 59.86 | +31 27.2 | 5.488 | 5.275 | +0.15 | +1.5 | 18.4 | 72.4 |
| Jan. 20 | 16 00.92 | +31 48.1 | 5.402 | 5.295 | +0.04 | +2.7 | 18.4 | 78.6 |
| Jan. 30 | 16 00.74 | +32 20.0 | 5.309 | 5.316 | -0.09 | +3.7 | 18.4 | 85.1 |
| Feb. 9 | 15 59.12 | +33 01.3 | 5.213 | 5.338 | -0.25 | +4.6 | 18.4 | 91.9 |
| Feb. 19 | 15 55.86 | +33 49.8 | 5.119 | 5.362 | -0.42 | +5.1 | 18.4 | 98.9 |
| Mar. 1 | 15 50.78 | +34 42.2 | 5.030 | 5.386 | -0.61 | +5.3 | 18.4 | 105.8 |
| Mar. 11 | 15 43.79 | +35 34.7 | 4.953 | 5.410 | -0.81 | +5.1 | 18.4 | 112.4 |
| Mar. 21 | 15 34.87 | +36 22.8 | 4.891 | 5.436 | -0.99 | +4.4 | 18.5 | 118.5 |
| Mar. 31 | 15 24.18 | +37 01.5 | 4.848 | 5.463 | -1.16 | +3.2 | 18.5 | 123.5 |

Comet 60P/Tsuchinshan

Epoch = 2025 July 24.0 TT
 T = 2025 July 20.61259 TT
 Peri. = 216.91426 e = 0.5337800
 Node = 267.39611 2000.0 a = 3.5299048 AU
 Incl. = 3.57984 n = 0.14861395
 q = 1.6457122 AU P = 6.63 years

$$m1 = 8.1 + 5 \log(\Delta) + 27.5 \log(r(t-20))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 00 50.47 | +08 36.3 | 2.205 | 2.421 | +0.82 | +3.2 | 20.9 | 90.4 |
| Jan. 15 | 00 59.61 | +09 14.6 | 2.280 | 2.364 | +1.03 | +4.5 | 20.7 | 82.6 |
| Jan. 25 | 01 10.77 | +10 05.4 | 2.351 | 2.306 | +1.22 | +5.7 | 20.5 | 75.3 |
| Feb. 4 | 01 23.79 | +11 06.7 | 2.417 | 2.250 | +1.40 | +6.6 | 20.3 | 68.4 |
| Feb. 14 | 01 38.52 | +12 16.6 | 2.475 | 2.194 | +1.56 | +7.4 | 20.0 | 62.1 |
| Feb. 24 | 01 54.84 | +13 32.6 | 2.525 | 2.139 | +1.72 | +7.9 | 19.8 | 56.2 |
| Mar. 6 | 02 12.70 | +14 52.8 | 2.567 | 2.085 | +1.87 | +8.2 | 19.5 | 50.7 |
| Mar. 16 | 02 32.03 | +16 14.7 | 2.601 | 2.033 | +2.01 | +8.2 | 19.3 | 45.5 |
| Mar. 26 | 02 52.80 | +17 36.0 | 2.628 | 1.982 | +2.16 | +8.0 | 19.0 | 40.8 |
| Apr. 5 | 03 15.01 | +18 54.0 | 2.647 | 1.934 | +2.30 | +7.5 | 18.7 | 36.3 |
| Apr. 15 | 03 38.60 | +20 06.0 | 2.660 | 1.888 | +2.43 | +6.8 | 18.4 | 32.2 |
| Apr. 25 | 04 03.54 | +21 09.4 | 2.667 | 1.844 | +2.57 | +5.7 | 18.1 | 28.3 |
| May 5 | 04 29.78 | +22 01.2 | 2.670 | 1.804 | +2.69 | +4.4 | 17.8 | 24.8 |
| May 15 | 04 57.19 | +22 38.7 | 2.669 | 1.768 | +2.80 | +2.9 | 17.5 | 21.5 |
| May 25 | 05 25.64 | +22 59.2 | 2.667 | 1.735 | +2.89 | +1.0 | 17.3 | 18.4 |
| June 4 | 05 54.92 | +23 00.6 | 2.663 | 1.707 | +2.96 | -1.0 | 17.0 | 15.5 |
| June 14 | 06 24.78 | +22 41.3 | 2.659 | 1.684 | +3.01 | -3.1 | 16.8 | 12.9 |
| June 24 | 06 54.98 | +22 00.3 | 2.656 | 1.666 | +3.03 | -5.3 | 16.6 | 10.4 |
| July 4 | 07 25.22 | +20 57.6 | 2.655 | 1.654 | +3.02 | -7.4 | 16.4 | 8.0 |
| July 14 | 07 55.24 | +19 33.9 | 2.655 | 1.647 | +2.98 | -9.5 | 16.3 | 5.7 |
| July 24 | 08 24.83 | +17 51.0 | 2.659 | 1.646 | +2.93 | -11.3 | 16.2 | 3.5 |
| Aug. 3 | 08 53.81 | +15 51.0 | 2.665 | 1.651 | +2.86 | -12.8 | 16.2 | 1.8 |
| Aug. 13 | 09 22.04 | +13 36.9 | 2.673 | 1.662 | +2.78 | -14.1 | 16.2 | 2.3 |
| Aug. 23 | 09 49.45 | +11 11.6 | 2.684 | 1.678 | +2.70 | -15.0 | 16.2 | 4.4 |
| Sept. 2 | 10 16.02 | +08 38.2 | 2.696 | 1.699 | +2.61 | -15.6 | 16.3 | 7.0 |
| Sept. 12 | 10 41.74 | +06 00.1 | 2.709 | 1.726 | +2.53 | -16.0 | 16.4 | 9.7 |
| Sept. 22 | 11 06.64 | +03 19.9 | 2.722 | 1.757 | +2.45 | -16.0 | 16.6 | 12.7 |
| Oct. 2 | 11 30.75 | +00 40.3 | 2.734 | 1.792 | +2.37 | -15.8 | 16.8 | 15.8 |
| Oct. 12 | 11 54.11 | -01 56.3 | 2.743 | 1.831 | +2.30 | -15.4 | 17.0 | 19.3 |
| Oct. 22 | 12 16.76 | -04 27.9 | 2.749 | 1.873 | +2.23 | -14.8 | 17.3 | 23.0 |
| Nov. 1 | 12 38.71 | -06 52.9 | 2.749 | 1.918 | +2.16 | -14.1 | 17.5 | 27.0 |
| Nov. 11 | 12 59.97 | -09 09.9 | 2.744 | 1.966 | +2.09 | -13.2 | 17.8 | 31.2 |
| Nov. 21 | 13 20.52 | -11 17.9 | 2.733 | 2.016 | +2.01 | -12.3 | 18.1 | 35.8 |
| Dec. 1 | 13 40.30 | -13 15.9 | 2.713 | 2.068 | +1.93 | -11.2 | 18.3 | 40.7 |
| Dec. 11 | 13 59.27 | -15 03.5 | 2.685 | 2.121 | +1.85 | -10.2 | 18.6 | 45.9 |
| Dec. 21 | 14 17.31 | -16 40.3 | 2.649 | 2.176 | +1.75 | -9.1 | 18.9 | 51.4 |
| Dec. 31 | 14 34.29 | -18 06.2 | 2.604 | 2.232 | +1.63 | -8.0 | 19.2 | 57.3 |
| Jan. 10 | 14 50.05 | -19 21.2 | 2.550 | 2.288 | +1.50 | -6.9 | 19.4 | 63.5 |
| Jan. 20 | 15 04.41 | -20 25.6 | 2.488 | 2.345 | +1.35 | -5.9 | 19.7 | 70.2 |
| Jan. 30 | 15 17.10 | -21 19.6 | 2.419 | 2.402 | +1.17 | -4.8 | 19.9 | 77.2 |
| Feb. 9 | 15 27.91 | -22 03.7 | 2.346 | 2.460 | +0.97 | -3.9 | 20.1 | 84.7 |
| Feb. 19 | 15 36.54 | -22 38.2 | 2.268 | 2.518 | +0.73 | -2.9 | 20.3 | 92.8 |
| Mar. 1 | 15 42.70 | -23 03.2 | 2.191 | 2.575 | +0.47 | -2.0 | 20.6 | 101.3 |
| Mar. 11 | 15 46.17 | -23 18.8 | 2.116 | 2.633 | +0.19 | -1.0 | 20.8 | 110.5 |
| Mar. 21 | 15 46.75 | -23 24.6 | 2.047 | 2.691 | -0.11 | 0.0 | 21.0 | 120.3 |
| Mar. 31 | 15 44.39 | -23 20.0 | 1.990 | 2.748 | -0.39 | +1.0 | 21.2 | 130.7 |

Comet C/2022 N2 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2025 July 31.81284 TT
 Peri. = 75.40106
 Node = 319.73945 2000.0
 Incl. = 5.50288
 q = 3.8253479 AU
 e = 1.0033445

$$m1 = 5.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 23 06.97 | -02 12.3 | 4.598 | 4.234 | +0.84 | +5.4 | 15.3 | 62.4 |
| Jan. 15 | 23 15.78 | -01 15.6 | 4.689 | 4.198 | +0.92 | +6.0 | 15.3 | 54.7 |
| Jan. 25 | 23 25.33 | +00 13.4 | 4.770 | 4.163 | +0.99 | +6.5 | 15.3 | 47.1 |
| Feb. 4 | 23 35.53 | +00 53.9 | 4.839 | 4.130 | +1.05 | +7.0 | 15.3 | 39.8 |
| Feb. 14 | 23 46.27 | +02 05.5 | 4.895 | 4.098 | +1.10 | +7.4 | 15.3 | 32.6 |
| Feb. 24 | 23 57.47 | +03 20.8 | 4.937 | 4.068 | +1.14 | +7.7 | 15.3 | 25.7 |
| Mar. 6 | 00 09.06 | +04 39.0 | 4.965 | 4.039 | +1.18 | +8.0 | 15.2 | 18.9 |
| Mar. 16 | 00 20.96 | +05 59.5 | 4.978 | 4.012 | +1.21 | +8.1 | 15.2 | 12.4 |
| Mar. 26 | 00 33.12 | +07 21.6 | 4.977 | 3.987 | +1.23 | +8.3 | 15.2 | 6.3 |
| Apr. 5 | 00 45.49 | +08 44.6 | 4.961 | 3.963 | +1.25 | +8.3 | 15.2 | 3.8 |
| Apr. 15 | 00 58.00 | +10 07.8 | 4.930 | 3.941 | +1.26 | +8.3 | 15.1 | 8.5 |
| Apr. 25 | 01 10.62 | +11 30.6 | 4.887 | 3.921 | +1.26 | +8.2 | 15.1 | 14.5 |
| May 5 | 01 23.27 | +12 52.3 | 4.830 | 3.903 | +1.27 | +8.1 | 15.0 | 20.7 |
| May 15 | 01 35.91 | +14 12.5 | 4.760 | 3.886 | +1.26 | +7.9 | 15.0 | 26.9 |
| May 25 | 01 48.47 | +15 30.5 | 4.679 | 3.872 | +1.25 | +7.7 | 14.9 | 33.2 |
| June 4 | 02 00.89 | +16 45.9 | 4.587 | 3.859 | +1.23 | +7.4 | 14.9 | 39.5 |
| June 14 | 02 13.08 | +17 58.1 | 4.485 | 3.848 | +1.20 | +7.0 | 14.8 | 45.9 |
| June 24 | 02 24.96 | +19 06.8 | 4.375 | 3.840 | +1.17 | +6.7 | 14.7 | 52.4 |
| July 4 | 02 36.41 | +20 11.6 | 4.256 | 3.833 | +1.12 | +6.3 | 14.7 | 59.0 |
| July 14 | 02 47.32 | +21 12.3 | 4.132 | 3.829 | +1.06 | +5.8 | 14.6 | 65.8 |
| July 24 | 02 57.55 | +22 08.5 | 4.002 | 3.826 | +0.98 | +5.4 | 14.5 | 72.7 |
| Aug. 3 | 03 06.94 | +23 00.1 | 3.870 | 3.825 | +0.89 | +4.9 | 14.5 | 79.9 |
| Aug. 13 | 03 15.33 | +23 46.8 | 3.736 | 3.827 | +0.78 | +4.4 | 14.4 | 87.4 |
| Aug. 23 | 03 22.54 | +24 28.5 | 3.604 | 3.830 | +0.65 | +3.9 | 14.3 | 95.2 |
| Sept. 2 | 03 28.38 | +25 04.9 | 3.474 | 3.836 | +0.50 | +3.3 | 14.2 | 103.4 |
| Sept. 12 | 03 32.70 | +25 35.7 | 3.352 | 3.843 | +0.34 | +2.8 | 14.2 | 111.9 |
| Sept. 22 | 03 35.37 | +26 00.4 | 3.239 | 3.853 | +0.17 | +2.1 | 14.1 | 120.9 |
| Oct. 2 | 03 36.31 | +26 18.4 | 3.140 | 3.864 | 0.00 | +1.4 | 14.1 | 130.3 |
| Oct. 12 | 03 35.58 | +26 29.3 | 3.058 | 3.878 | -0.16 | +0.7 | 14.0 | 140.1 |
| Oct. 22 | 03 33.33 | +26 32.6 | 2.997 | 3.893 | -0.30 | -0.1 | 14.0 | 150.3 |
| Nov. 1 | 03 29.88 | +26 28.2 | 2.961 | 3.910 | -0.39 | -0.8 | 14.0 | 160.5 |
| Nov. 11 | 03 25.70 | +26 16.7 | 2.951 | 3.929 | -0.44 | -1.5 | 14.0 | 169.7 |
| Nov. 21 | 03 21.31 | +25 59.6 | 2.970 | 3.950 | -0.43 | -2.0 | 14.0 | 171.7 |
| Dec. 1 | 03 17.29 | +25 38.8 | 3.018 | 3.973 | -0.36 | -2.2 | 14.1 | 163.4 |
| Dec. 11 | 03 14.14 | +25 16.9 | 3.094 | 3.997 | -0.25 | -2.2 | 14.2 | 153.2 |
| Dec. 21 | 03 12.25 | +24 56.3 | 3.195 | 4.023 | -0.11 | -1.9 | 14.3 | 142.8 |
| Dec. 31 | 03 11.88 | +24 39.2 | 3.320 | 4.051 | +0.05 | -1.5 | 14.4 | 132.7 |
| Jan. 10 | 03 13.11 | +24 27.1 | 3.463 | 4.081 | +0.21 | -0.9 | 14.5 | 122.8 |
| Jan. 20 | 03 15.96 | +24 20.5 | 3.621 | 4.112 | +0.37 | -0.3 | 14.6 | 113.3 |
| Jan. 30 | 03 20.36 | +24 19.7 | 3.791 | 4.144 | +0.52 | +0.2 | 14.8 | 104.2 |
| Feb. 9 | 03 26.16 | +24 24.1 | 3.968 | 4.178 | +0.65 | +0.7 | 14.9 | 95.4 |
| Feb. 19 | 03 33.23 | +24 33.1 | 4.149 | 4.213 | +0.77 | +1.1 | 15.0 | 87.0 |
| Mar. 1 | 03 41.41 | +24 45.7 | 4.330 | 4.250 | +0.87 | +1.4 | 15.2 | 78.8 |
| Mar. 11 | 03 50.55 | +25 00.9 | 4.509 | 4.288 | +0.96 | +1.6 | 15.3 | 70.9 |
| Mar. 21 | 04 00.50 | +25 17.7 | 4.684 | 4.327 | +1.04 | +1.7 | 15.4 | 63.2 |
| Mar. 31 | 04 11.13 | +25 35.1 | 4.851 | 4.368 | +1.10 | +1.7 | 15.5 | 55.8 |

Comet C/2024 X1 (Fazekas)

Epoch = 2025 July 24.0 TT
 T = 2025 Aug. 3.26545 TT
 Peri. = 124.32874
 Node = 351.98195 2000.0
 Incl. = 6.46510
 q = 3.8174704 AU
 e = 0.5960624
 a = 9.4506439 AU
 n = 0.03392438
 P = 29.05 years

$$m1 = 10.4 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 04 55.41 | +30 55.8 | 3.187 | 4.072 | -0.42 -1.7 | 19.0 | 150.4 |
| Jan. 15 | 04 51.86 | +30 38.2 | 3.247 | 4.049 | -0.26 -1.8 | 19.0 | 139.8 |
| Jan. 25 | 04 50.03 | +30 20.1 | 3.329 | 4.027 | -0.08 -1.8 | 19.1 | 129.5 |
| Feb. 4 | 04 50.09 | +30 03.1 | 3.429 | 4.007 | +0.11 -1.6 | 19.1 | 119.4 |
| Feb. 14 | 04 52.09 | +29 48.2 | 3.542 | 3.987 | +0.30 -1.4 | 19.2 | 109.8 |
| Feb. 24 | 04 55.96 | +29 35.8 | 3.664 | 3.968 | +0.49 -1.1 | 19.2 | 100.7 |
| Mar. 6 | 05 01.58 | +29 26.0 | 3.791 | 3.951 | +0.65 -0.9 | 19.3 | 91.9 |
| Mar. 16 | 05 08.79 | +29 18.2 | 3.920 | 3.934 | +0.80 -0.7 | 19.3 | 83.5 |
| Mar. 26 | 05 17.40 | +29 11.6 | 4.047 | 3.918 | +0.93 -0.6 | 19.4 | 75.5 |
| Apr. 5 | 05 27.26 | +29 05.5 | 4.170 | 3.904 | +1.05 -0.6 | 19.4 | 67.8 |
| Apr. 15 | 05 38.19 | +28 58.9 | 4.286 | 3.890 | +1.14 -0.7 | 19.5 | 60.4 |
| Apr. 25 | 05 50.01 | +28 51.0 | 4.394 | 3.878 | +1.23 -0.9 | 19.5 | 53.3 |
| May 5 | 06 02.60 | +28 40.9 | 4.492 | 3.866 | +1.30 -1.1 | 19.5 | 46.4 |
| May 15 | 06 15.80 | +28 28.1 | 4.580 | 3.856 | +1.35 -1.5 | 19.6 | 39.7 |
| May 25 | 06 29.50 | +28 11.9 | 4.655 | 3.847 | +1.39 -1.8 | 19.6 | 33.1 |
| June 4 | 06 43.56 | +27 51.9 | 4.718 | 3.839 | +1.42 -2.2 | 19.6 | 26.8 |
| June 14 | 06 57.89 | +27 27.8 | 4.767 | 3.833 | +1.44 -2.6 | 19.6 | 20.5 |
| June 24 | 07 12.37 | +26 59.5 | 4.803 | 3.827 | +1.45 -3.1 | 19.6 | 14.4 |
| July 4 | 07 26.93 | +26 26.9 | 4.825 | 3.823 | +1.45 -3.5 | 19.6 | 8.7 |
| July 14 | 07 41.45 | +25 50.2 | 4.832 | 3.820 | +1.45 -3.9 | 19.6 | 4.6 |
| July 24 | 07 55.87 | +25 09.5 | 4.826 | 3.818 | +1.43 -4.3 | 19.6 | 6.6 |
| Aug. 3 | 08 10.10 | +24 25.2 | 4.804 | 3.817 | +1.41 -4.6 | 19.6 | 12.0 |
| Aug. 13 | 08 24.06 | +23 37.7 | 4.769 | 3.818 | +1.38 -4.9 | 19.6 | 18.0 |
| Aug. 23 | 08 37.70 | +22 47.6 | 4.720 | 3.820 | +1.34 -5.1 | 19.6 | 24.2 |
| Sept. 2 | 08 50.92 | +21 55.6 | 4.657 | 3.823 | +1.30 -5.3 | 19.6 | 30.6 |
| Sept. 12 | 09 03.66 | +21 02.2 | 4.581 | 3.827 | +1.24 -5.4 | 19.5 | 37.1 |
| Sept. 22 | 09 15.84 | +20 08.4 | 4.493 | 3.832 | +1.18 -5.4 | 19.5 | 43.8 |
| Oct. 2 | 09 27.36 | +19 15.0 | 4.393 | 3.839 | +1.11 -5.3 | 19.5 | 50.7 |
| Oct. 12 | 09 38.15 | +18 23.1 | 4.284 | 3.847 | +1.03 -5.1 | 19.4 | 57.9 |
| Oct. 22 | 09 48.10 | +17 33.5 | 4.165 | 3.856 | +0.94 -4.8 | 19.4 | 65.3 |
| Nov. 1 | 09 57.08 | +16 47.5 | 4.039 | 3.866 | +0.84 -4.4 | 19.3 | 72.9 |
| Nov. 11 | 10 04.98 | +16 06.1 | 3.908 | 3.877 | +0.73 -3.8 | 19.2 | 80.9 |
| Nov. 21 | 10 11.66 | +15 30.4 | 3.775 | 3.889 | +0.60 -3.2 | 19.2 | 89.2 |
| Dec. 1 | 10 16.98 | +15 01.5 | 3.642 | 3.903 | +0.45 -2.5 | 19.1 | 98.0 |
| Dec. 11 | 10 20.81 | +14 40.1 | 3.513 | 3.917 | +0.30 -1.7 | 19.1 | 107.1 |
| Dec. 21 | 10 23.03 | +14 26.9 | 3.392 | 3.933 | +0.13 -0.9 | 19.0 | 116.7 |
| Dec. 31 | 10 23.57 | +14 22.1 | 3.283 | 3.950 | -0.04 0.0 | 18.9 | 126.7 |
| Jan. 10 | 10 22.46 | +14 25.0 | 3.190 | 3.967 | -0.20 +0.7 | 18.9 | 137.1 |
| Jan. 20 | 10 19.79 | +14 34.7 | 3.118 | 3.986 | -0.34 +1.3 | 18.9 | 147.9 |
| Jan. 30 | 10 15.83 | +14 49.2 | 3.071 | 4.006 | -0.45 +1.6 | 18.9 | 158.9 |
| Feb. 9 | 10 10.95 | +15 06.0 | 3.051 | 4.026 | -0.52 +1.7 | 18.9 | 169.9 |
| Feb. 19 | 10 05.62 | +15 22.4 | 3.061 | 4.048 | -0.54 +1.5 | 18.9 | 176.1 |
| Mar. 1 | 10 00.40 | +15 35.9 | 3.101 | 4.070 | -0.50 +1.1 | 19.0 | 166.3 |
| Mar. 11 | 09 55.79 | +15 44.3 | 3.169 | 4.094 | -0.41 +0.5 | 19.0 | 155.4 |
| Mar. 21 | 09 52.20 | +15 46.3 | 3.264 | 4.118 | -0.29 -0.2 | 19.1 | 144.7 |
| Mar. 31 | 09 49.94 | +15 41.1 | 3.383 | 4.143 | -0.15 -0.9 | 19.2 | 134.4 |

Comet 489P/Denning [Orbit 1]

Epoch = 2025 July 24.0 TT
 T = 2025 Aug. 4.66503 TT
 Peri. = 109.79599
 Node = 22.88420 2000.0
 Incl. = 3.96394
 q = 1.6007291 AU

e = 0.5226736
 a = 3.3535315 AU
 n = 0.16049093
 P = 6.14 years

H = 15.5, G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | V | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|----------|--------|
| 2025/26 | h m | ° | | | for T=+1 day | | | ° |
| Jan. 5 | 01 02.91 | +08 11.8 | 2.218 | 2.474 | -0.70 -5.7 | 20.3 | 10.6/64 | 93.1 |
| Jan. 15 | 01 10.35 | +09 03.7 | 2.296 | 2.416 | -0.70 -5.6 | 20.3 | 14.1/65 | 84.9 |
| Jan. 25 | 01 19.91 | +10 07.1 | 2.370 | 2.359 | -0.70 -5.5 | 20.4 | 17.2/66 | 77.3 |
| Feb. 4 | 01 31.44 | +11 20.4 | 2.439 | 2.301 | -0.71 -5.4 | 20.4 | 20.0/67 | 70.3 |
| Feb. 14 | 01 44.75 | +12 41.6 | 2.500 | 2.244 | -0.74 -5.3 | 20.3 | 22.5/68 | 63.7 |
| Feb. 24 | 01 59.74 | +14 08.7 | 2.554 | 2.188 | -0.77 -5.3 | 20.3 | 24.8/69 | 57.5 |
| Mar. 6 | 02 16.33 | +15 39.9 | 2.598 | 2.132 | -0.81 -5.2 | 20.3 | 26.8/70 | 51.8 |
| Mar. 16 | 02 34.47 | +17 13.0 | 2.634 | 2.077 | -0.86 -5.1 | 20.2 | 28.7/71 | 46.4 |
| Mar. 26 | 02 54.12 | +18 45.9 | 2.661 | 2.023 | -0.92 -5.0 | 20.1 | 30.5/72 | 41.4 |
| Apr. 5 | 03 15.30 | +20 16.2 | 2.679 | 1.971 | -0.98 -4.7 | 20.0 | 32.2/74 | 36.8 |
| Apr. 15 | 03 37.98 | +21 41.4 | 2.690 | 1.921 | -1.05 -4.4 | 19.9 | 33.7/76 | 32.4 |
| Apr. 25 | 04 02.15 | +22 58.8 | 2.695 | 1.873 | -1.13 -3.9 | 19.8 | 35.2/78 | 28.4 |
| May 5 | 04 27.80 | +24 05.6 | 2.693 | 1.827 | -1.21 -3.4 | 19.7 | 36.7/80 | 24.7 |
| May 15 | 04 54.84 | +24 58.7 | 2.688 | 1.784 | -1.29 -2.6 | 19.6 | 38.0/83 | 21.3 |
| May 25 | 05 23.17 | +25 35.2 | 2.678 | 1.745 | -1.36 -1.7 | 19.5 | 39.3/86 | 18.1 |
| June 4 | 05 52.62 | +25 52.4 | 2.667 | 1.709 | -1.43 -0.7 | 19.4 | 40.5/89 | 15.2 |
| June 14 | 06 22.94 | +25 48.0 | 2.655 | 1.678 | -1.48 +0.5 | 19.3 | 41.5/92 | 12.5 |
| June 24 | 06 53.87 | +25 20.3 | 2.643 | 1.652 | -1.52 +1.8 | 19.2 | 42.4/95 | 10.1 |
| July 4 | 07 25.10 | +24 28.7 | 2.632 | 1.631 | -1.54 +3.1 | 19.1 | 43.2/98 | 7.8 |
| July 14 | 07 56.31 | +23 13.1 | 2.623 | 1.615 | -1.54 +4.3 | 19.0 | 43.8/101 | 5.6 |
| July 24 | 08 27.22 | +21 34.9 | 2.617 | 1.605 | -1.52 +5.5 | 18.9 | 44.2/104 | 3.7 |
| Aug. 3 | 08 57.60 | +19 36.1 | 2.614 | 1.601 | -1.49 +6.6 | 18.8 | 44.4/107 | 2.4 |
| Aug. 13 | 09 27.26 | +17 19.5 | 2.614 | 1.603 | -1.45 +7.5 | 18.8 | 44.3/109 | 2.7 |
| Aug. 23 | 09 56.10 | +14 48.4 | 2.618 | 1.611 | -1.40 +8.2 | 18.9 | 44.1/111 | 4.3 |
| Sept. 2 | 10 24.06 | +12 06.5 | 2.623 | 1.625 | -1.34 +8.6 | 19.0 | 43.6/112 | 6.4 |
| Sept. 12 | 10 51.12 | +09 17.3 | 2.632 | 1.644 | -1.29 +8.9 | 19.1 | 42.9/114 | 8.7 |
| Sept. 22 | 11 17.33 | +06 24.5 | 2.641 | 1.669 | -1.23 +9.0 | 19.2 | 42.1/114 | 11.3 |
| Oct. 2 | 11 42.71 | +03 31.1 | 2.651 | 1.698 | -1.18 +8.9 | 19.3 | 41.1/115 | 14.1 |
| Oct. 12 | 12 07.31 | +00 40.2 | 2.661 | 1.732 | -1.13 +8.6 | 19.5 | 40.0/115 | 17.2 |
| Oct. 22 | 12 31.19 | -02 05.9 | 2.668 | 1.771 | -1.08 +8.3 | 19.6 | 38.8/115 | 20.5 |
| Nov. 1 | 12 54.38 | -04 45.0 | 2.672 | 1.812 | -1.04 +7.9 | 19.7 | 37.4/114 | 24.1 |
| Nov. 11 | 13 16.90 | -07 15.5 | 2.672 | 1.857 | -1.00 +7.4 | 19.8 | 36.0/114 | 28.0 |
| Nov. 21 | 13 38.76 | -09 36.2 | 2.666 | 1.904 | -0.96 +6.9 | 19.9 | 34.5/113 | 32.2 |
| Dec. 1 | 13 59.92 | -11 45.9 | 2.654 | 1.954 | -0.93 +6.3 | 20.0 | 32.9/112 | 36.7 |
| Dec. 11 | 14 20.32 | -13 44.3 | 2.634 | 2.006 | -0.90 +5.8 | 20.1 | 31.2/111 | 41.5 |
| Dec. 21 | 14 39.90 | -15 31.1 | 2.607 | 2.059 | -0.87 +5.3 | 20.2 | 29.3/110 | 46.6 |
| Dec. 31 | 14 58.53 | -17 06.1 | 2.571 | 2.113 | -0.85 +4.8 | 20.2 | 27.3/109 | 52.0 |
| Jan. 10 | 15 16.07 | -18 29.8 | 2.526 | 2.169 | -0.84 +4.4 | 20.3 | 25.2/108 | 57.8 |
| Jan. 20 | 15 32.36 | -19 42.6 | 2.473 | 2.225 | -0.82 +4.0 | 20.3 | 22.9/107 | 64.0 |
| Jan. 30 | 15 47.17 | -20 45.4 | 2.413 | 2.282 | -0.82 +3.7 | 20.3 | 20.3/106 | 70.5 |
| Feb. 9 | 16 00.28 | -21 38.9 | 2.345 | 2.339 | -0.82 +3.4 | 20.3 | 17.5/106 | 77.5 |
| Feb. 19 | 16 11.44 | -22 24.3 | 2.273 | 2.397 | -0.83 +3.1 | 20.3 | 14.4/107 | 84.9 |
| Mar. 1 | 16 20.33 | -23 02.5 | 2.197 | 2.454 | -0.85 +2.9 | 20.3 | 11.0/108 | 92.9 |
| Mar. 11 | 16 26.70 | -23 34.2 | 2.120 | 2.512 | -0.88 +2.8 | 20.2 | 7.3/113 | 101.3 |
| Mar. 21 | 16 30.25 | -24 00.0 | 2.046 | 2.569 | -0.92 +2.8 | 20.1 | 3.5/131 | 110.4 |
| Mar. 31 | 16 30.78 | -24 19.9 | 1.979 | 2.627 | -0.97 +2.8 | 20.1 | 2.3/224 | 120.1 |

Comet 43P/Wolf-Harrington

Epoch = 2025 Feb. 14.0 TT
 T = 2025 Aug. 4.69007 TT
 Peri. = 223.80596 e = 0.4361101
 Node = 243.99077 2000.0 a = 4.3320423 AU
 Incl. = 9.33097 n = 0.10931130
 q = 2.4427949 AU P = 9.02 years

$$m1 = 6.6 + 5 \log(\Delta) + 17.5 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 01 47.34 | +14 04.0 | 2.437 | 2.860 | +0.52 -0.7 | 16.5 | 105.4 |
| Jan. 15 | 01 53.51 | +14 03.0 | 2.539 | 2.826 | +0.73 +0.6 | 16.5 | 96.6 |
| Jan. 25 | 02 01.63 | +14 14.2 | 2.642 | 2.793 | +0.91 +1.7 | 16.5 | 88.3 |
| Feb. 4 | 02 11.52 | +14 35.9 | 2.746 | 2.761 | +1.08 +2.7 | 16.5 | 80.6 |
| Feb. 14 | 02 22.99 | +15 06.0 | 2.846 | 2.730 | +1.23 +3.4 | 16.5 | 73.2 |
| Feb. 24 | 02 35.85 | +15 42.1 | 2.942 | 2.700 | +1.36 +3.9 | 16.5 | 66.3 |
| Mar. 6 | 02 49.97 | +16 22.4 | 3.032 | 2.672 | +1.48 +4.2 | 16.5 | 59.7 |
| Mar. 16 | 03 05.22 | +17 04.7 | 3.115 | 2.645 | +1.58 +4.3 | 16.5 | 53.4 |
| Mar. 26 | 03 21.46 | +17 47.0 | 3.190 | 2.619 | +1.68 +4.2 | 16.4 | 47.4 |
| Apr. 5 | 03 38.62 | +18 27.7 | 3.256 | 2.594 | +1.76 +3.9 | 16.4 | 41.6 |
| Apr. 15 | 03 56.58 | +19 04.9 | 3.313 | 2.572 | +1.84 +3.5 | 16.4 | 36.1 |
| Apr. 25 | 04 15.25 | +19 37.1 | 3.362 | 2.550 | +1.90 +2.9 | 16.3 | 30.8 |
| May 5 | 04 34.56 | +20 02.9 | 3.402 | 2.531 | +1.96 +2.2 | 16.3 | 25.6 |
| May 15 | 04 54.38 | +20 21.1 | 3.433 | 2.513 | +2.01 +1.4 | 16.3 | 20.7 |
| May 25 | 05 14.62 | +20 30.7 | 3.456 | 2.497 | +2.04 +0.4 | 16.2 | 15.9 |
| June 4 | 05 35.20 | +20 30.6 | 3.470 | 2.483 | +2.07 -0.6 | 16.2 | 11.2 |
| June 14 | 05 55.99 | +20 20.4 | 3.477 | 2.471 | +2.09 -1.6 | 16.2 | 6.9 |
| June 24 | 06 16.88 | +19 59.5 | 3.475 | 2.461 | +2.09 -2.7 | 16.2 | 3.7 |
| July 4 | 06 37.78 | +19 27.8 | 3.465 | 2.454 | +2.09 -3.8 | 16.1 | 4.8 |
| July 14 | 06 58.57 | +18 45.3 | 3.448 | 2.448 | +2.07 -4.8 | 16.1 | 8.6 |
| July 24 | 07 19.16 | +17 52.2 | 3.424 | 2.444 | +2.04 -5.9 | 16.1 | 12.9 |
| Aug. 3 | 07 39.45 | +16 49.0 | 3.392 | 2.443 | +2.01 -6.9 | 16.0 | 17.4 |
| Aug. 13 | 07 59.35 | +15 36.3 | 3.354 | 2.444 | +1.97 -7.8 | 16.0 | 21.9 |
| Aug. 23 | 08 18.80 | +14 15.0 | 3.308 | 2.446 | +1.92 -8.6 | 16.0 | 26.6 |
| Sept. 2 | 08 37.71 | +12 46.0 | 3.256 | 2.451 | +1.86 -9.3 | 16.0 | 31.4 |
| Sept. 12 | 08 56.02 | +11 10.4 | 3.196 | 2.459 | +1.80 -9.9 | 16.0 | 36.3 |
| Sept. 22 | 09 13.67 | +09 29.3 | 3.130 | 2.468 | +1.73 -10.4 | 15.9 | 41.4 |
| Oct. 2 | 09 30.59 | +07 43.9 | 3.058 | 2.479 | +1.65 -10.7 | 15.9 | 46.6 |
| Oct. 12 | 09 46.70 | +05 55.7 | 2.979 | 2.492 | +1.56 -10.9 | 15.9 | 52.0 |
| Oct. 22 | 10 01.94 | +04 06.0 | 2.894 | 2.508 | +1.47 -11.0 | 15.9 | 57.7 |
| Nov. 1 | 10 16.18 | +02 16.1 | 2.804 | 2.525 | +1.37 -10.9 | 15.9 | 63.6 |
| Nov. 11 | 10 29.32 | +00 27.8 | 2.709 | 2.544 | +1.25 -10.7 | 15.9 | 69.9 |
| Nov. 21 | 10 41.22 | -01 17.6 | 2.609 | 2.564 | +1.11 -10.3 | 15.8 | 76.4 |
| Dec. 1 | 10 51.70 | -02 58.0 | 2.508 | 2.586 | +0.96 -9.7 | 15.8 | 83.4 |
| Dec. 11 | 11 00.57 | -04 31.7 | 2.405 | 2.610 | +0.79 -8.9 | 15.8 | 90.7 |
| Dec. 21 | 11 07.62 | -05 56.6 | 2.303 | 2.636 | +0.60 -7.9 | 15.8 | 98.6 |
| Dec. 31 | 11 12.62 | -07 10.1 | 2.205 | 2.662 | +0.38 -6.6 | 15.8 | 106.9 |
| Jan. 10 | 11 15.40 | -08 09.8 | 2.113 | 2.691 | +0.15 -5.1 | 15.7 | 115.8 |
| Jan. 20 | 11 15.82 | -08 52.8 | 2.031 | 2.720 | -0.09 -3.3 | 15.7 | 125.2 |
| Jan. 30 | 11 13.91 | -09 16.7 | 1.964 | 2.750 | -0.31 -1.3 | 15.8 | 135.1 |
| Feb. 9 | 11 09.90 | -09 19.8 | 1.914 | 2.782 | -0.50 +0.9 | 15.8 | 145.2 |
| Feb. 19 | 11 04.26 | -09 01.9 | 1.886 | 2.815 | -0.63 +2.9 | 15.8 | 155.2 |
| Mar. 1 | 10 57.69 | -08 25.1 | 1.884 | 2.848 | -0.67 +4.6 | 15.9 | 163.5 |
| Mar. 11 | 10 51.07 | -07 33.9 | 1.909 | 2.882 | -0.63 +5.7 | 16.0 | 165.9 |
| Mar. 21 | 10 45.19 | -06 34.4 | 1.961 | 2.917 | -0.52 +6.2 | 16.2 | 160.2 |
| Mar. 31 | 10 40.75 | -05 33.2 | 2.039 | 2.953 | -0.35 +6.0 | 16.4 | 151.1 |

Comet 195P/Hill

Epoch = 2025 July 24.0 TT
 T = 2025 Aug. 5.73422 TT
 Peri. = 250.61652 e = 0.3107908
 Node = 243.09543 2000.0 a = 6.4429568 AU
 Incl. = 36.41593 n = 0.06026654
 q = 4.4405451 AU P = 16.35 years

$$m1 = 6.0 + 5 \log(\Delta) + 12.5 \log(r(t-110))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 06 39.77 | -08 25.2 | 3.677 | 4.544 | -0.61 -2.8 | 17.2 | 148.4 |
| Jan. 15 | 06 33.84 | -08 46.6 | 3.692 | 4.534 | -0.57 -1.3 | 17.2 | 145.1 |
| Jan. 25 | 06 28.54 | -08 53.8 | 3.734 | 4.525 | -0.48 0.0 | 17.2 | 139.2 |
| Feb. 4 | 06 24.26 | -08 48.3 | 3.799 | 4.517 | -0.36 +1.2 | 17.2 | 131.9 |
| Feb. 14 | 06 21.29 | -08 32.6 | 3.884 | 4.509 | -0.22 +2.0 | 17.3 | 123.9 |
| Feb. 24 | 06 19.80 | -08 09.5 | 3.984 | 4.501 | -0.06 +2.6 | 17.3 | 115.6 |
| Mar. 6 | 06 19.85 | -07 41.7 | 4.097 | 4.494 | +0.09 +2.9 | 17.3 | 107.4 |
| Mar. 16 | 06 21.44 | -07 12.1 | 4.217 | 4.488 | +0.24 +3.0 | 17.4 | 99.4 |
| Mar. 26 | 06 24.48 | -06 42.9 | 4.342 | 4.481 | +0.38 +2.8 | 17.4 | 91.6 |
| Apr. 5 | 06 28.86 | -06 15.9 | 4.467 | 4.475 | +0.51 +2.5 | 17.5 | 84.0 |
| Apr. 15 | 06 34.44 | -05 52.7 | 4.591 | 4.470 | +0.62 +2.1 | 17.5 | 76.8 |
| Apr. 25 | 06 41.08 | -05 34.6 | 4.710 | 4.465 | +0.72 +1.5 | 17.6 | 69.9 |
| May 5 | 06 48.64 | -05 22.3 | 4.821 | 4.461 | +0.80 +0.9 | 17.6 | 63.3 |
| May 15 | 06 56.98 | -05 16.7 | 4.925 | 4.456 | +0.87 +0.2 | 17.7 | 57.1 |
| May 25 | 07 05.98 | -05 18.2 | 5.018 | 4.453 | +0.93 -0.5 | 17.7 | 51.2 |
| June 4 | 07 15.53 | -05 27.0 | 5.099 | 4.450 | +0.98 -1.3 | 17.7 | 45.7 |
| June 14 | 07 25.50 | -05 43.6 | 5.168 | 4.447 | +1.02 -2.1 | 17.7 | 40.6 |
| June 24 | 07 35.81 | -06 07.8 | 5.225 | 4.445 | +1.05 -2.9 | 17.7 | 36.2 |
| July 4 | 07 46.35 | -06 39.8 | 5.268 | 4.443 | +1.06 -3.6 | 17.8 | 32.4 |
| July 14 | 07 57.04 | -07 19.5 | 5.297 | 4.442 | +1.07 -4.4 | 17.8 | 29.6 |
| July 24 | 08 07.80 | -08 06.8 | 5.311 | 4.441 | +1.08 -5.1 | 17.8 | 28.1 |
| Aug. 3 | 08 18.55 | -09 01.5 | 5.312 | 4.441 | +1.07 -5.9 | 17.8 | 27.9 |
| Aug. 13 | 08 29.21 | -10 03.4 | 5.299 | 4.441 | +1.06 -6.6 | 17.7 | 29.1 |
| Aug. 23 | 08 39.70 | -11 12.2 | 5.272 | 4.441 | +1.04 -7.2 | 17.7 | 31.5 |
| Sept. 2 | 08 49.95 | -12 27.5 | 5.231 | 4.442 | +1.01 -7.9 | 17.7 | 35.0 |
| Sept. 12 | 08 59.87 | -13 48.9 | 5.178 | 4.444 | +0.97 -8.5 | 17.7 | 39.2 |
| Sept. 22 | 09 09.38 | -15 15.9 | 5.112 | 4.446 | +0.92 -9.0 | 17.6 | 44.0 |
| Oct. 2 | 09 18.38 | -16 48.0 | 5.035 | 4.448 | +0.87 -9.5 | 17.6 | 49.3 |
| Oct. 12 | 09 26.78 | -18 24.4 | 4.948 | 4.451 | +0.80 -9.9 | 17.6 | 55.0 |
| Oct. 22 | 09 34.45 | -20 04.4 | 4.852 | 4.454 | +0.72 -10.2 | 17.5 | 60.9 |
| Nov. 1 | 09 41.29 | -21 46.9 | 4.749 | 4.458 | +0.63 -10.3 | 17.5 | 67.2 |
| Nov. 11 | 09 47.15 | -23 30.8 | 4.640 | 4.462 | +0.53 -10.4 | 17.4 | 73.6 |
| Nov. 21 | 09 51.90 | -25 14.4 | 4.527 | 4.467 | +0.41 -10.3 | 17.4 | 80.3 |
| Dec. 1 | 09 55.39 | -26 56.1 | 4.413 | 4.472 | +0.28 -10.0 | 17.3 | 87.1 |
| Dec. 11 | 09 57.50 | -28 33.4 | 4.300 | 4.478 | +0.13 -9.4 | 17.3 | 94.0 |
| Dec. 21 | 09 58.14 | -30 04.0 | 4.192 | 4.484 | -0.02 -8.6 | 17.2 | 101.0 |
| Dec. 31 | 09 57.23 | -31 24.8 | 4.090 | 4.491 | -0.17 -7.4 | 17.2 | 107.9 |
| Jan. 10 | 09 54.83 | -32 32.5 | 3.998 | 4.497 | -0.32 -5.9 | 17.1 | 114.6 |
| Jan. 20 | 09 51.07 | -33 24.1 | 3.920 | 4.505 | -0.44 -4.2 | 17.1 | 120.9 |
| Jan. 30 | 09 46.22 | -33 56.7 | 3.857 | 4.513 | -0.53 -2.1 | 17.0 | 126.5 |
| Feb. 9 | 09 40.67 | -34 08.6 | 3.813 | 4.521 | -0.57 0.0 | 17.0 | 130.9 |
| Feb. 19 | 09 34.91 | -33 59.1 | 3.788 | 4.529 | -0.57 +2.1 | 17.0 | 133.8 |
| Mar. 1 | 09 29.46 | -33 29.4 | 3.785 | 4.538 | -0.51 +4.0 | 17.0 | 134.9 |
| Mar. 11 | 09 24.81 | -32 42.2 | 3.803 | 4.548 | -0.41 +5.5 | 17.0 | 133.8 |
| Mar. 21 | 09 21.34 | -31 41.2 | 3.843 | 4.558 | -0.27 +6.7 | 17.1 | 130.9 |
| Mar. 31 | 09 19.32 | -30 31.1 | 3.902 | 4.568 | -0.12 +7.3 | 17.1 | 126.5 |

Comet C/2022 R6 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2025 Aug. 26.28397 TT
 Peri. = 319.92287
 Node = 150.78472 2000.0
 Incl. = 57.01985
 q = 6.5654974 AU
 e = 1.0050631

$$m1 = -0.3 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 06 54.37 | -30 08.0 | 6.110 | 6.750 | -0.41 | +3.4 | 16.1 | 127.2 |
| Jan. 15 | 06 50.36 | -29 27.5 | 6.089 | 6.735 | -0.39 | +4.8 | 16.0 | 127.6 |
| Jan. 25 | 06 46.69 | -28 33.5 | 6.089 | 6.720 | -0.34 | +6.1 | 16.0 | 126.4 |
| Feb. 4 | 06 43.62 | -27 27.4 | 6.110 | 6.706 | -0.26 | +7.2 | 16.0 | 123.6 |
| Feb. 14 | 06 41.37 | -26 11.6 | 6.149 | 6.693 | -0.17 | +8.0 | 16.0 | 119.6 |
| Feb. 24 | 06 40.08 | -24 48.6 | 6.207 | 6.680 | -0.07 | +8.6 | 16.0 | 114.6 |
| Mar. 6 | 06 39.83 | -23 21.0 | 6.280 | 6.668 | +0.03 | +8.9 | 16.0 | 108.9 |
| Mar. 16 | 06 40.65 | -21 51.7 | 6.367 | 6.657 | +0.14 | +8.9 | 16.1 | 102.7 |
| Mar. 26 | 06 42.52 | -20 22.9 | 6.464 | 6.646 | +0.24 | +8.8 | 16.1 | 96.2 |
| Apr. 5 | 06 45.38 | -18 56.6 | 6.569 | 6.636 | +0.34 | +8.4 | 16.1 | 89.5 |
| Apr. 15 | 06 49.16 | -17 34.7 | 6.677 | 6.626 | +0.42 | +7.9 | 16.1 | 82.8 |
| Apr. 25 | 06 53.76 | -16 18.2 | 6.787 | 6.618 | +0.50 | +7.3 | 16.2 | 76.1 |
| May 5 | 06 59.08 | -15 08.1 | 6.896 | 6.610 | +0.57 | +6.6 | 16.2 | 69.5 |
| May 15 | 07 05.02 | -14 05.1 | 7.000 | 6.602 | +0.62 | +5.9 | 16.2 | 63.0 |
| May 25 | 07 11.47 | -13 09.5 | 7.097 | 6.595 | +0.67 | +5.1 | 16.2 | 56.7 |
| June 4 | 07 18.35 | -12 21.5 | 7.185 | 6.589 | +0.71 | +4.4 | 16.3 | 50.7 |
| June 14 | 07 25.56 | -11 41.1 | 7.261 | 6.584 | +0.73 | +3.6 | 16.3 | 45.1 |
| June 24 | 07 33.00 | -11 08.0 | 7.325 | 6.579 | +0.75 | +2.9 | 16.3 | 40.0 |
| July 4 | 07 40.59 | -10 42.2 | 7.375 | 6.575 | +0.76 | +2.2 | 16.3 | 35.7 |
| July 14 | 07 48.26 | -10 23.3 | 7.408 | 6.572 | +0.77 | +1.5 | 16.3 | 32.3 |
| July 24 | 07 55.92 | -10 10.7 | 7.425 | 6.569 | +0.76 | +0.9 | 16.3 | 30.4 |
| Aug. 3 | 08 03.48 | -10 04.2 | 7.425 | 6.567 | +0.75 | +0.3 | 16.3 | 30.1 |
| Aug. 13 | 08 10.89 | -10 03.2 | 7.407 | 6.566 | +0.73 | -0.2 | 16.3 | 31.7 |
| Aug. 23 | 08 18.05 | -10 06.9 | 7.371 | 6.566 | +0.70 | -0.6 | 16.3 | 34.8 |
| Sept. 2 | 08 24.89 | -10 15.0 | 7.317 | 6.566 | +0.66 | -1.0 | 16.3 | 39.2 |
| Sept. 12 | 08 31.33 | -10 26.5 | 7.246 | 6.566 | +0.62 | -1.3 | 16.3 | 44.5 |
| Sept. 22 | 08 37.29 | -10 40.7 | 7.159 | 6.568 | +0.57 | -1.5 | 16.2 | 50.6 |
| Oct. 2 | 08 42.69 | -10 56.7 | 7.057 | 6.570 | +0.50 | -1.7 | 16.2 | 57.3 |
| Oct. 12 | 08 47.43 | -11 13.5 | 6.942 | 6.573 | +0.44 | -1.7 | 16.2 | 64.4 |
| Oct. 22 | 08 51.43 | -11 30.0 | 6.816 | 6.577 | +0.36 | -1.6 | 16.1 | 72.0 |
| Nov. 1 | 08 54.62 | -11 44.9 | 6.682 | 6.581 | +0.27 | -1.4 | 16.1 | 79.9 |
| Nov. 11 | 08 56.92 | -11 57.0 | 6.543 | 6.586 | +0.18 | -1.0 | 16.1 | 88.1 |
| Nov. 21 | 08 58.28 | -12 04.8 | 6.403 | 6.591 | +0.08 | -0.5 | 16.0 | 96.7 |
| Dec. 1 | 08 58.65 | -12 06.8 | 6.266 | 6.598 | -0.02 | +0.2 | 16.0 | 105.5 |
| Dec. 11 | 08 58.06 | -12 01.4 | 6.136 | 6.605 | -0.11 | +1.0 | 15.9 | 114.4 |
| Dec. 21 | 08 56.53 | -11 47.4 | 6.019 | 6.612 | -0.20 | +1.9 | 15.9 | 123.5 |
| Dec. 31 | 08 54.16 | -11 23.6 | 5.918 | 6.621 | -0.28 | +2.9 | 15.9 | 132.4 |
| Jan. 10 | 08 51.12 | -10 49.4 | 5.838 | 6.630 | -0.33 | +4.0 | 15.9 | 140.8 |
| Jan. 20 | 08 47.59 | -10 04.7 | 5.784 | 6.639 | -0.37 | +5.0 | 15.8 | 148.1 |
| Jan. 30 | 08 43.83 | -09 10.0 | 5.757 | 6.649 | -0.38 | +6.0 | 15.8 | 153.0 |
| Feb. 9 | 08 40.11 | -08 06.8 | 5.760 | 6.660 | -0.36 | +6.7 | 15.9 | 154.0 |
| Feb. 19 | 08 36.66 | -06 56.9 | 5.792 | 6.672 | -0.32 | +7.3 | 15.9 | 150.7 |
| Mar. 1 | 08 33.75 | -05 42.7 | 5.855 | 6.684 | -0.25 | +7.6 | 15.9 | 144.3 |
| Mar. 11 | 08 31.55 | -04 26.5 | 5.944 | 6.697 | -0.18 | +7.6 | 16.0 | 136.3 |
| Mar. 21 | 08 30.19 | -03 10.7 | 6.058 | 6.711 | -0.08 | +7.5 | 16.0 | 127.5 |
| Mar. 31 | 08 29.77 | -01 57.5 | 6.192 | 6.725 | +0.01 | +7.1 | 16.1 | 118.4 |

Comet C/2022 QE78 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2025 Sept. 11.77866 TT
 Peri. = 0.60264
 Node = 119.88698 2000.0
 Incl. = 36.62482
 q = 5.4758215 AU
 e = 1.0023998

$$m1 = 3.8 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 06 29.05 | +05 18.1 | 4.836 | 5.774 | -0.42 | +4.6 | 14.8 | 160.8 |
| Jan. 15 | 06 24.98 | +06 06.9 | 4.844 | 5.751 | -0.39 | +5.2 | 14.8 | 155.1 |
| Jan. 25 | 06 21.39 | +07 00.8 | 4.880 | 5.729 | -0.32 | +5.6 | 14.8 | 146.7 |
| Feb. 4 | 06 18.57 | +07 58.4 | 4.944 | 5.708 | -0.23 | +5.9 | 14.8 | 137.3 |
| Feb. 14 | 06 16.74 | +08 57.8 | 5.031 | 5.688 | -0.12 | +6.0 | 14.9 | 127.6 |
| Feb. 24 | 06 16.03 | +09 57.7 | 5.137 | 5.669 | -0.01 | +6.0 | 14.9 | 117.9 |
| Mar. 6 | 06 16.51 | +10 56.8 | 5.259 | 5.650 | +0.12 | +5.8 | 14.9 | 108.4 |
| Mar. 16 | 06 18.21 | +11 53.8 | 5.390 | 5.633 | +0.23 | +5.6 | 15.0 | 99.1 |
| Mar. 26 | 06 21.07 | +12 48.0 | 5.527 | 5.616 | +0.35 | +5.2 | 15.0 | 90.0 |
| Apr. 5 | 06 25.05 | +13 38.7 | 5.666 | 5.600 | +0.46 | +4.9 | 15.0 | 81.2 |
| Apr. 15 | 06 30.04 | +14 25.5 | 5.802 | 5.585 | +0.55 | +4.5 | 15.1 | 72.6 |
| Apr. 25 | 06 35.95 | +15 08.1 | 5.933 | 5.571 | +0.64 | +4.0 | 15.1 | 64.3 |
| May 5 | 06 42.67 | +15 46.4 | 6.055 | 5.558 | +0.71 | +3.6 | 15.2 | 56.2 |
| May 15 | 06 50.09 | +16 20.2 | 6.166 | 5.546 | +0.78 | +3.1 | 15.2 | 48.4 |
| May 25 | 06 58.10 | +16 49.6 | 6.264 | 5.535 | +0.83 | +2.7 | 15.2 | 40.6 |
| June 4 | 07 06.61 | +17 14.8 | 6.347 | 5.525 | +0.87 | +2.3 | 15.2 | 33.0 |
| June 14 | 07 15.53 | +17 35.9 | 6.414 | 5.516 | +0.91 | +1.9 | 15.3 | 25.6 |
| June 24 | 07 24.74 | +17 53.1 | 6.464 | 5.507 | +0.94 | +1.5 | 15.3 | 18.2 |
| July 4 | 07 34.19 | +18 06.8 | 6.494 | 5.500 | +0.95 | +1.2 | 15.3 | 11.0 |
| July 14 | 07 43.76 | +18 17.3 | 6.507 | 5.493 | +0.96 | +0.9 | 15.3 | 4.3 |
| July 24 | 07 53.40 | +18 25.1 | 6.500 | 5.488 | +0.96 | +0.7 | 15.3 | 4.9 |
| Aug. 3 | 08 03.01 | +18 30.7 | 6.473 | 5.484 | +0.96 | +0.5 | 15.2 | 11.7 |
| Aug. 13 | 08 12.52 | +18 34.7 | 6.428 | 5.480 | +0.94 | +0.3 | 15.2 | 19.0 |
| Aug. 23 | 08 21.85 | +18 37.8 | 6.365 | 5.478 | +0.92 | +0.3 | 15.2 | 26.4 |
| Sept. 2 | 08 30.91 | +18 40.6 | 6.284 | 5.476 | +0.89 | +0.3 | 15.2 | 34.0 |
| Sept. 12 | 08 39.63 | +18 44.1 | 6.186 | 5.476 | +0.85 | +0.4 | 15.1 | 41.7 |
| Sept. 22 | 08 47.92 | +18 49.1 | 6.073 | 5.476 | +0.80 | +0.6 | 15.1 | 49.6 |
| Oct. 2 | 08 55.69 | +18 56.6 | 5.947 | 5.478 | +0.74 | +0.9 | 15.1 | 57.7 |
| Oct. 12 | 09 02.83 | +19 07.5 | 5.810 | 5.480 | +0.68 | +1.3 | 15.0 | 66.0 |
| Oct. 22 | 09 09.25 | +19 22.9 | 5.665 | 5.484 | +0.60 | +1.8 | 15.0 | 74.5 |
| Nov. 1 | 09 14.83 | +19 43.9 | 5.514 | 5.488 | +0.51 | +2.4 | 14.9 | 83.4 |
| Nov. 11 | 09 19.48 | +20 11.2 | 5.362 | 5.494 | +0.41 | +3.1 | 14.8 | 92.5 |
| Nov. 21 | 09 23.10 | +20 45.7 | 5.211 | 5.500 | +0.30 | +3.9 | 14.8 | 101.9 |
| Dec. 1 | 09 25.58 | +21 27.9 | 5.068 | 5.508 | +0.18 | +4.6 | 14.7 | 111.6 |
| Dec. 11 | 09 26.88 | +22 17.6 | 4.936 | 5.516 | +0.06 | +5.4 | 14.7 | 121.5 |
| Dec. 21 | 09 26.97 | +23 14.3 | 4.821 | 5.525 | -0.06 | +6.0 | 14.6 | 131.8 |
| Dec. 31 | 09 25.88 | +24 16.7 | 4.726 | 5.535 | -0.17 | +6.5 | 14.6 | 142.2 |
| Jan. 10 | 09 23.73 | +25 22.9 | 4.656 | 5.547 | -0.27 | +6.7 | 14.6 | 152.4 |
| Jan. 20 | 09 20.70 | +26 30.5 | 4.615 | 5.559 | -0.34 | +6.7 | 14.6 | 162.0 |
| Jan. 30 | 09 17.08 | +27 36.6 | 4.604 | 5.572 | -0.38 | +6.4 | 14.6 | 168.2 |
| Feb. 9 | 09 13.19 | +28 38.3 | 4.625 | 5.586 | -0.39 | +5.8 | 14.6 | 165.7 |
| Feb. 19 | 09 09.41 | +29 33.5 | 4.676 | 5.601 | -0.36 | +5.1 | 14.6 | 157.3 |
| Mar. 1 | 09 06.08 | +30 20.4 | 4.756 | 5.617 | -0.29 | +4.2 | 14.7 | 147.5 |
| Mar. 11 | 09 03.53 | +30 58.1 | 4.862 | 5.633 | -0.20 | +3.3 | 14.7 | 137.4 |
| Mar. 21 | 09 01.97 | +31 26.6 | 4.990 | 5.651 | -0.09 | +2.3 | 14.8 | 127.5 |
| Mar. 31 | 09 01.59 | +31 46.1 | 5.135 | 5.669 | +0.03 | +1.5 | 14.9 | 117.8 |

Comet 248P/Gibbs

Epoch = 2025 July 24.0 TT
 T = 2025 Sept. 14.92271 TT
 Peri. = 209.99074 e = 0.6393407
 Node = 207.79626 2000.0 a = 5.9828015 AU
 Incl. = 6.35185 n = 0.06735149
 q = 2.1577530 AU P = 14.63 years

$$m1 = 10.0 + 5 \log(\Delta) + 20.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 21 55.34 | -08 31.8 | 3.739 | 3.102 | +1.30 +5.5 | . | 43.6 |
| Jan. 15 | 22 08.64 | -07 33.3 | 3.774 | 3.045 | +1.37 +6.3 | . | 36.9 |
| Jan. 25 | 22 22.64 | -06 27.3 | 3.797 | 2.989 | +1.44 +7.0 | . | 30.4 |
| Feb. 4 | 22 37.27 | -05 14.1 | 3.805 | 2.933 | +1.49 +7.7 | . | 24.1 |
| Feb. 14 | 22 52.45 | -03 54.5 | 3.801 | 2.878 | +1.55 +8.3 | . | 18.0 |
| Feb. 24 | 23 08.14 | -02 29.1 | 3.784 | 2.824 | +1.59 +8.8 | 21.9 | 12.2 |
| Mar. 6 | 23 24.29 | +00 58.6 | 3.754 | 2.771 | +1.64 +9.3 | 21.7 | 6.6 |
| Mar. 16 | 23 40.87 | +00 36.2 | 3.712 | 2.718 | +1.68 +9.7 | 21.5 | 2.5 |
| Mar. 26 | 23 57.89 | +02 14.4 | 3.659 | 2.668 | +1.72 +10.0 | 21.3 | 5.3 |
| Apr. 5 | 00 15.33 | +03 55.1 | 3.596 | 2.618 | +1.77 +10.2 | 21.1 | 10.2 |
| Apr. 15 | 00 33.18 | +05 37.1 | 3.524 | 2.570 | +1.81 +10.2 | 20.9 | 15.2 |
| Apr. 25 | 00 51.47 | +07 19.6 | 3.445 | 2.523 | +1.85 +10.2 | 20.7 | 20.1 |
| May 5 | 01 10.21 | +09 01.2 | 3.358 | 2.479 | +1.90 +10.1 | 20.5 | 24.8 |
| May 15 | 01 29.38 | +10 40.8 | 3.265 | 2.436 | +1.94 +9.8 | 20.3 | 29.5 |
| May 25 | 01 49.01 | +12 16.9 | 3.168 | 2.396 | +1.99 +9.4 | 20.1 | 34.0 |
| June 4 | 02 09.08 | +13 48.3 | 3.066 | 2.358 | +2.03 +8.8 | 19.9 | 38.5 |
| June 14 | 02 29.55 | +15 13.4 | 2.962 | 2.323 | +2.07 +8.1 | 19.7 | 42.9 |
| June 24 | 02 50.41 | +16 30.8 | 2.855 | 2.291 | +2.10 +7.3 | 19.5 | 47.3 |
| July 4 | 03 11.57 | +17 39.2 | 2.747 | 2.262 | +2.13 +6.3 | 19.3 | 51.7 |
| July 14 | 03 32.93 | +18 37.1 | 2.639 | 2.236 | +2.14 +5.2 | 19.1 | 56.0 |
| July 24 | 03 54.36 | +19 23.5 | 2.530 | 2.214 | +2.14 +4.0 | 18.9 | 60.5 |
| Aug. 3 | 04 15.69 | +19 57.3 | 2.422 | 2.195 | +2.12 +2.7 | 18.7 | 65.0 |
| Aug. 13 | 04 36.71 | +20 17.9 | 2.314 | 2.180 | +2.08 +1.3 | 18.6 | 69.7 |
| Aug. 23 | 04 57.19 | +20 25.2 | 2.207 | 2.168 | +2.01 0.0 | 18.4 | 74.5 |
| Sept. 2 | 05 16.83 | +20 19.3 | 2.102 | 2.161 | +1.91 -1.3 | 18.3 | 79.6 |
| Sept. 12 | 05 35.33 | +20 00.9 | 1.999 | 2.158 | +1.78 -2.5 | 18.2 | 85.0 |
| Sept. 22 | 05 52.39 | +19 31.2 | 1.899 | 2.159 | +1.61 -3.5 | 18.1 | 90.7 |
| Oct. 2 | 06 07.61 | +18 52.0 | 1.802 | 2.164 | +1.41 -4.4 | 18.0 | 96.9 |
| Oct. 12 | 06 20.67 | +18 05.4 | 1.710 | 2.173 | +1.17 -5.0 | 17.9 | 103.6 |
| Oct. 22 | 06 31.20 | +17 13.9 | 1.623 | 2.185 | +0.90 -5.3 | 17.8 | 110.9 |
| Nov. 1 | 06 38.85 | +16 20.5 | 1.544 | 2.202 | +0.60 -5.3 | 17.8 | 118.9 |
| Nov. 11 | 06 43.39 | +15 28.4 | 1.476 | 2.222 | +0.28 -5.0 | 17.8 | 127.6 |
| Nov. 21 | 06 44.72 | +14 40.8 | 1.420 | 2.246 | -0.04 -4.4 | 17.8 | 137.0 |
| Dec. 1 | 06 42.98 | +14 01.0 | 1.382 | 2.274 | -0.32 -3.4 | 17.8 | 147.0 |
| Dec. 11 | 06 38.71 | +13 31.5 | 1.364 | 2.304 | -0.54 -2.3 | 17.9 | 157.3 |
| Dec. 21 | 06 32.75 | +13 13.9 | 1.369 | 2.338 | -0.65 -1.1 | 18.1 | 166.5 |
| Dec. 31 | 06 26.26 | +13 08.8 | 1.400 | 2.374 | -0.63 +0.1 | 18.2 | 169.5 |
| Jan. 10 | 06 20.41 | +13 14.9 | 1.456 | 2.413 | -0.51 +1.2 | 18.5 | 162.5 |
| Jan. 20 | 06 16.17 | +13 30.4 | 1.537 | 2.454 | -0.31 +2.0 | 18.7 | 152.7 |
| Jan. 30 | 06 14.19 | +13 52.6 | 1.641 | 2.497 | -0.06 +2.5 | 19.0 | 142.7 |
| Feb. 9 | 06 14.74 | +14 18.4 | 1.764 | 2.542 | +0.19 +2.7 | 19.3 | 133.1 |
| Feb. 19 | 06 17.78 | +14 45.2 | 1.904 | 2.589 | +0.44 +2.6 | 19.7 | 123.9 |
| Mar. 1 | 06 23.13 | +15 10.7 | 2.058 | 2.638 | +0.65 +2.4 | 20.0 | 115.3 |
| Mar. 11 | 06 30.48 | +15 33.0 | 2.222 | 2.688 | +0.83 +2.0 | 20.3 | 107.2 |
| Mar. 21 | 06 39.52 | +15 50.7 | 2.394 | 2.740 | +0.99 +1.5 | 20.6 | 99.5 |
| Mar. 31 | 06 49.96 | +16 02.6 | 2.571 | 2.792 | +1.11 +0.8 | 21.0 | 92.1 |

Comet 171P/Spahr

Epoch = 2025 July 24.0 TT
 T = 2025 Sept. 25.05442 TT
 Peri. = 347.08518
 Node = 101.69399 2000.0
 Incl. = 21.95507
 q = 1.7664313 AU

e = 0.5028124
 a = 3.5528467 AU
 n = 0.14717681
 P = 6.70 years

$$m1 = 13.0 + 5 \log(\Delta) + 15.0 \log(r(t+15))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 22 55.41 | -25 56.8 | 3.278 | 2.792 | +1.30 +10.3 | . | 52.6 |
| Jan. 15 | 23 08.79 | -24 11.9 | 3.322 | 2.739 | +1.39 +10.8 | 22.0 | 46.5 |
| Jan. 25 | 23 23.05 | -22 22.3 | 3.354 | 2.686 | +1.47 +11.2 | 21.9 | 40.7 |
| Feb. 4 | 23 38.08 | -20 28.2 | 3.375 | 2.633 | +1.54 +11.6 | 21.7 | 35.3 |
| Feb. 14 | 23 53.80 | -18 30.3 | 3.384 | 2.580 | +1.61 +12.0 | 21.6 | 30.3 |
| Feb. 24 | 00 10.14 | -16 28.9 | 3.382 | 2.527 | +1.67 +12.3 | 21.5 | 25.7 |
| Mar. 6 | 00 27.07 | -14 24.7 | 3.368 | 2.474 | +1.72 +12.5 | 21.3 | 21.7 |
| Mar. 16 | 00 44.54 | -12 18.4 | 3.344 | 2.422 | +1.78 +12.7 | 21.2 | 18.5 |
| Mar. 26 | 01 02.56 | -10 10.5 | 3.311 | 2.370 | +1.83 +12.9 | 21.0 | 16.3 |
| Apr. 5 | 01 21.12 | -08 01.8 | 3.268 | 2.319 | +1.89 +12.9 | 20.8 | 15.4 |
| Apr. 15 | 01 40.22 | -05 53.1 | 3.218 | 2.268 | +1.94 +12.8 | 20.7 | 15.7 |
| Apr. 25 | 01 59.89 | -03 45.3 | 3.161 | 2.219 | +2.00 +12.7 | 20.5 | 17.0 |
| May 5 | 02 20.14 | -01 39.4 | 3.098 | 2.171 | +2.06 +12.5 | 20.3 | 19.1 |
| May 15 | 02 40.98 | +00 23.7 | 3.031 | 2.124 | +2.12 +12.1 | 20.1 | 21.6 |
| May 25 | 03 02.44 | +02 22.9 | 2.960 | 2.079 | +2.18 +11.7 | 19.9 | 24.3 |
| June 4 | 03 24.52 | +04 17.1 | 2.886 | 2.035 | +2.24 +11.1 | 19.7 | 27.0 |
| June 14 | 03 47.22 | +06 05.2 | 2.809 | 1.994 | +2.30 +10.4 | 19.6 | 29.9 |
| June 24 | 04 10.52 | +07 46.2 | 2.732 | 1.955 | +2.36 +9.7 | 19.4 | 32.7 |
| July 4 | 04 34.40 | +09 18.9 | 2.653 | 1.920 | +2.42 +8.8 | 19.2 | 35.6 |
| July 14 | 04 58.81 | +10 42.6 | 2.574 | 1.887 | +2.47 +7.8 | 19.0 | 38.5 |
| July 24 | 05 23.69 | +11 56.6 | 2.494 | 1.857 | +2.51 +6.8 | 18.9 | 41.4 |
| Aug. 3 | 05 48.95 | +13 00.3 | 2.415 | 1.832 | +2.54 +5.8 | 18.7 | 44.3 |
| Aug. 13 | 06 14.49 | +13 53.8 | 2.336 | 1.810 | +2.56 +4.8 | 18.6 | 47.3 |
| Aug. 23 | 06 40.19 | +14 37.2 | 2.257 | 1.792 | +2.57 +3.8 | 18.5 | 50.5 |
| Sept. 2 | 07 05.92 | +15 11.3 | 2.178 | 1.779 | +2.57 +2.9 | 18.4 | 53.8 |
| Sept. 12 | 07 31.52 | +15 37.2 | 2.100 | 1.770 | +2.55 +2.2 | 18.3 | 57.2 |
| Sept. 22 | 07 56.87 | +15 56.7 | 2.022 | 1.767 | +2.51 +1.7 | 18.2 | 60.9 |
| Oct. 2 | 08 21.79 | +16 11.9 | 1.943 | 1.768 | +2.46 +1.4 | 18.2 | 64.8 |
| Oct. 12 | 08 46.12 | +16 25.7 | 1.865 | 1.773 | +2.40 +1.4 | 18.1 | 69.1 |
| Oct. 22 | 09 09.70 | +16 41.0 | 1.787 | 1.784 | +2.31 +1.8 | 18.1 | 73.6 |
| Nov. 1 | 09 32.33 | +17 01.7 | 1.709 | 1.798 | +2.20 +2.5 | 18.1 | 78.6 |
| Nov. 11 | 09 53.80 | +17 31.8 | 1.633 | 1.818 | +2.08 +3.7 | 18.1 | 83.9 |
| Nov. 21 | 10 13.87 | +18 15.5 | 1.558 | 1.841 | +1.92 +5.3 | 18.1 | 89.7 |
| Dec. 1 | 10 32.23 | +19 17.2 | 1.486 | 1.868 | +1.73 +7.3 | 18.1 | 96.1 |
| Dec. 11 | 10 48.56 | +20 40.7 | 1.419 | 1.899 | +1.51 +9.7 | 18.1 | 102.9 |
| Dec. 21 | 11 02.43 | +22 28.9 | 1.357 | 1.933 | +1.23 +12.3 | 18.1 | 110.3 |
| Dec. 31 | 11 13.38 | +24 42.9 | 1.305 | 1.970 | +0.92 +14.7 | 18.2 | 118.2 |
| Jan. 10 | 11 20.96 | +27 20.0 | 1.264 | 2.010 | +0.56 +16.8 | 18.3 | 126.4 |
| Jan. 20 | 11 24.76 | +30 13.2 | 1.238 | 2.052 | +0.16 +17.8 | 18.4 | 134.5 |
| Jan. 30 | 11 24.59 | +33 10.3 | 1.231 | 2.096 | -0.23 +17.3 | 18.5 | 141.9 |
| Feb. 9 | 11 20.71 | +35 55.1 | 1.244 | 2.142 | -0.57 +15.2 | 18.6 | 147.4 |
| Feb. 19 | 11 13.90 | +38 11.2 | 1.279 | 2.189 | -0.79 +11.5 | 18.9 | 149.5 |
| Mar. 1 | 11 05.54 | +39 46.0 | 1.337 | 2.238 | -0.86 +6.9 | 19.1 | 147.7 |
| Mar. 11 | 10 57.24 | +40 34.4 | 1.416 | 2.288 | -0.77 +2.3 | 19.4 | 142.9 |
| Mar. 21 | 10 50.43 | +40 38.5 | 1.514 | 2.338 | -0.56 -1.8 | 19.6 | 136.4 |
| Mar. 31 | 10 46.07 | +40 05.0 | 1.630 | 2.390 | -0.28 -5.1 | 19.9 | 129.2 |

Comet 414P/STEREO

Epoch = 2025 July 24.0 TT
 T = 2025 Sept. 26.31513 TT
 Peri. = 210.71093 e = 0.8122749
 Node = 257.81545 2000.0 a = 2.7921333 AU
 Incl. = 23.40718 n = 0.21125153
 q = 0.5241535 AU P = 4.67 years

$$m1 = 24.0 + 5 \log(\Delta) + 35.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 20 26.74 | -02 45.8 | 4.074 | 3.243 | +1.12 +3.2 | . | 28.4 |
| Jan. 15 | 20 38.15 | -02 09.2 | 4.055 | 3.171 | +1.17 +4.2 | . | 22.8 |
| Jan. 25 | 20 50.08 | -01 23.5 | 4.016 | 3.097 | +1.22 +5.1 | . | 18.4 |
| Feb. 4 | 21 02.44 | +00 28.6 | 3.957 | 3.022 | +1.26 +6.0 | . | 15.9 |
| Feb. 14 | 21 15.17 | +00 35.3 | 3.879 | 2.944 | +1.29 +6.9 | . | 16.2 |
| Feb. 24 | 21 28.25 | +01 48.4 | 3.782 | 2.863 | +1.33 +7.8 | . | 18.8 |
| Mar. 6 | 21 41.64 | +03 10.6 | 3.668 | 2.780 | +1.36 +8.7 | . | 22.9 |
| Mar. 16 | 21 55.32 | +04 42.1 | 3.537 | 2.695 | +1.39 +9.7 | . | 27.6 |
| Mar. 26 | 22 09.33 | +06 23.0 | 3.391 | 2.607 | +1.42 +10.6 | . | 32.7 |
| Apr. 5 | 22 23.69 | +08 13.7 | 3.232 | 2.517 | +1.46 +11.6 | . | 37.8 |
| Apr. 15 | 22 38.47 | +10 14.5 | 3.061 | 2.423 | +1.50 +12.7 | . | 42.8 |
| Apr. 25 | 22 53.76 | +12 26.0 | 2.881 | 2.326 | +1.56 +13.8 | . | 47.7 |
| May 5 | 23 09.72 | +14 49.1 | 2.694 | 2.227 | +1.64 +15.0 | . | 52.4 |
| May 15 | 23 26.56 | +17 24.7 | 2.500 | 2.123 | +1.74 +16.3 | . | 56.8 |
| May 25 | 23 44.60 | +20 14.2 | 2.304 | 2.016 | +1.89 +17.8 | . | 60.9 |
| June 4 | 00 04.32 | +23 18.9 | 2.107 | 1.906 | +2.09 +19.4 | . | 64.5 |
| June 14 | 00 26.42 | +26 40.0 | 1.912 | 1.791 | +2.38 +21.1 | . | 67.6 |
| June 24 | 00 52.01 | +30 18.3 | 1.721 | 1.671 | +2.81 +22.7 | . | 69.9 |
| July 4 | 01 22.78 | +34 11.8 | 1.538 | 1.548 | +3.45 +24.0 | . | 71.3 |
| July 14 | 02 01.42 | +38 12.3 | 1.367 | 1.419 | +4.44 +23.7 | . | 71.4 |
| July 24 | 02 51.78 | +41 56.3 | 1.214 | 1.286 | +5.85 +19.7 | . | 69.8 |
| Aug. 3 | 03 57.99 | +44 28.8 | 1.086 | 1.148 | +7.57 +7.9 | . | 66.1 |
| Aug. 13 | 05 20.05 | +44 14.4 | 0.993 | 1.006 | +8.78 -14.8 | . | 60.2 |
| Aug. 23 | 06 47.80 | +39 39.5 | 0.947 | 0.863 | +8.48 -42.8 | 21.6 | 52.2 |
| Sept. 2 | 08 07.04 | +30 49.3 | 0.959 | 0.724 | +7.18 -63.2 | 19.0 | 43.1 |
| Sept. 12 | 09 13.38 | +19 36.5 | 1.034 | 0.605 | +6.07 -69.9 | 16.4 | 34.5 |
| Sept. 22 | 10 11.42 | +08 10.0 | 1.164 | 0.532 | +5.57 -65.5 | 14.7 | 27.2 |
| Oct. 2 | 11 06.11 | -01 57.4 | 1.325 | 0.538 | +5.34 -54.1 | 15.2 | 21.5 |
| Oct. 12 | 11 57.92 | -09 57.4 | 1.491 | 0.619 | +4.96 -40.7 | 17.6 | 17.7 |
| Oct. 22 | 12 45.44 | -15 51.9 | 1.652 | 0.743 | +4.49 -29.5 | 20.6 | 15.5 |
| Nov. 1 | 13 28.18 | -20 07.1 | 1.806 | 0.882 | +4.02 -21.1 | . | 14.6 |
| Nov. 11 | 14 06.47 | -23 09.2 | 1.952 | 1.025 | +3.61 -15.0 | . | 14.7 |
| Nov. 21 | 14 40.86 | -25 18.4 | 2.086 | 1.167 | +3.24 -10.6 | . | 15.8 |
| Dec. 1 | 15 11.84 | -26 48.7 | 2.206 | 1.304 | +2.93 -7.3 | . | 18.0 |
| Dec. 11 | 15 39.84 | -27 50.1 | 2.310 | 1.437 | +2.65 -4.8 | . | 21.2 |
| Dec. 21 | 16 05.21 | -28 29.7 | 2.397 | 1.565 | +2.40 -3.0 | . | 25.3 |
| Dec. 31 | 16 28.17 | -28 52.4 | 2.465 | 1.688 | +2.17 -1.5 | . | 30.1 |
| Jan. 10 | 16 48.88 | -29 02.2 | 2.514 | 1.806 | +1.95 -0.4 | . | 35.5 |
| Jan. 20 | 17 07.46 | -29 01.8 | 2.544 | 1.921 | +1.74 +0.5 | . | 41.5 |
| Jan. 30 | 17 23.92 | -28 53.7 | 2.555 | 2.031 | +1.53 +1.2 | . | 47.9 |
| Feb. 9 | 17 38.25 | -28 39.8 | 2.547 | 2.137 | +1.31 +1.7 | . | 54.8 |
| Feb. 19 | 17 50.38 | -28 21.6 | 2.523 | 2.240 | +1.09 +2.0 | . | 62.2 |
| Mar. 1 | 18 00.19 | -28 00.6 | 2.484 | 2.340 | +0.85 +2.2 | . | 70.1 |
| Mar. 11 | 18 07.52 | -27 37.8 | 2.432 | 2.436 | +0.59 +2.3 | . | 78.4 |
| Mar. 21 | 18 12.17 | -27 13.9 | 2.372 | 2.529 | +0.31 +2.4 | . | 87.3 |
| Mar. 31 | 18 13.93 | -26 49.5 | 2.306 | 2.619 | +0.01 +2.5 | . | 96.8 |

Comet 47P/Ashbrook-Jackson

Epoch = 2025 July 24.0 TT
 T = 2025 Oct. 27.98604 TT
 Peri. = 357.91355 e = 0.3181558
 Node = 356.88164 2000.0 a = 4.1174619 AU
 Incl. = 13.03869 n = 0.11796677
 q = 2.8074675 AU P = 8.35 years

$$m1 = 5.0 + 5 \log(\Delta) + 20.0 \log(r(t+10))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 19 30.85 | -31 04.9 | 4.213 | 3.251 | +1.71 +4.5 | 18.3 | 10.5 |
| Jan. 15 | 19 47.98 | -30 17.2 | 4.193 | 3.226 | +1.71 +5.1 | 18.2 | 9.1 |
| Jan. 25 | 20 05.05 | -29 24.3 | 4.158 | 3.201 | +1.70 +5.6 | 18.1 | 11.7 |
| Feb. 4 | 20 21.97 | -28 26.6 | 4.109 | 3.176 | +1.68 +6.0 | 18.0 | 16.4 |
| Feb. 14 | 20 38.66 | -27 24.4 | 4.046 | 3.152 | +1.65 +6.4 | 17.9 | 21.9 |
| Feb. 24 | 20 55.03 | -26 18.4 | 3.971 | 3.128 | +1.62 +6.8 | 17.8 | 27.7 |
| Mar. 6 | 21 11.03 | -25 09.1 | 3.882 | 3.105 | +1.58 +7.1 | 17.7 | 33.6 |
| Mar. 16 | 21 26.58 | -23 57.4 | 3.783 | 3.083 | +1.53 +7.3 | 17.6 | 39.6 |
| Mar. 26 | 21 41.61 | -22 43.9 | 3.673 | 3.061 | +1.47 +7.4 | 17.5 | 45.7 |
| Apr. 5 | 21 56.07 | -21 29.7 | 3.554 | 3.040 | +1.41 +7.4 | 17.4 | 51.9 |
| Apr. 15 | 22 09.88 | -20 15.7 | 3.427 | 3.020 | +1.34 +7.4 | 17.2 | 58.1 |
| Apr. 25 | 22 22.96 | -19 02.8 | 3.294 | 3.000 | +1.27 +7.2 | 17.1 | 64.4 |
| May 5 | 22 35.22 | -17 52.2 | 3.155 | 2.981 | +1.18 +6.9 | 16.9 | 70.9 |
| May 15 | 22 46.55 | -16 44.8 | 3.012 | 2.963 | +1.08 +6.5 | 16.8 | 77.5 |
| May 25 | 22 56.83 | -15 41.8 | 2.868 | 2.946 | +0.96 +6.0 | 16.6 | 84.3 |
| June 4 | 23 05.90 | -14 44.3 | 2.722 | 2.929 | +0.83 +5.4 | 16.5 | 91.5 |
| June 14 | 23 13.57 | -13 53.3 | 2.579 | 2.914 | +0.68 +4.7 | 16.3 | 98.9 |
| June 24 | 23 19.66 | -13 09.9 | 2.439 | 2.899 | +0.51 +3.9 | 16.1 | 106.7 |
| July 4 | 23 23.93 | -12 34.8 | 2.306 | 2.886 | +0.32 +3.0 | 16.0 | 114.9 |
| July 14 | 23 26.18 | -12 08.4 | 2.182 | 2.873 | +0.11 +2.2 | 15.8 | 123.7 |
| July 24 | 23 26.24 | -11 50.8 | 2.071 | 2.861 | -0.12 +1.3 | 15.7 | 133.0 |
| Aug. 3 | 23 24.02 | -11 41.2 | 1.976 | 2.851 | -0.34 +0.6 | 15.5 | 142.9 |
| Aug. 13 | 23 19.64 | -11 37.5 | 1.900 | 2.842 | -0.55 +0.1 | 15.4 | 153.2 |
| Aug. 23 | 23 13.41 | -11 37.2 | 1.848 | 2.833 | -0.70 0.0 | 15.4 | 163.9 |
| Sept. 2 | 23 05.93 | -11 36.6 | 1.821 | 2.826 | -0.79 +0.2 | 15.3 | 173.5 |
| Sept. 12 | 22 58.01 | -11 31.9 | 1.822 | 2.820 | -0.78 +0.8 | 15.3 | 170.9 |
| Sept. 22 | 22 50.55 | -11 20.1 | 1.849 | 2.815 | -0.69 +1.7 | 15.3 | 160.4 |
| Oct. 2 | 22 44.38 | -10 59.1 | 1.902 | 2.811 | -0.52 +2.7 | 15.4 | 149.6 |
| Oct. 12 | 22 40.14 | -10 27.9 | 1.978 | 2.809 | -0.30 +3.7 | 15.4 | 139.0 |
| Oct. 22 | 22 38.16 | -09 46.7 | 2.073 | 2.808 | -0.07 +4.7 | 15.5 | 128.9 |
| Nov. 1 | 22 38.54 | -08 55.8 | 2.184 | 2.808 | +0.17 +5.6 | 15.7 | 119.4 |
| Nov. 11 | 22 41.21 | -07 56.0 | 2.307 | 2.809 | +0.38 +6.4 | 15.8 | 110.3 |
| Nov. 21 | 22 45.95 | -06 48.2 | 2.438 | 2.811 | +0.58 +7.2 | 15.9 | 101.8 |
| Dec. 1 | 22 52.53 | -05 33.0 | 2.574 | 2.814 | +0.75 +7.9 | 16.1 | 93.6 |
| Dec. 11 | 23 00.69 | -04 11.1 | 2.713 | 2.819 | +0.89 +8.5 | 16.2 | 85.9 |
| Dec. 21 | 23 10.19 | -02 43.4 | 2.851 | 2.825 | +1.01 +9.1 | 16.3 | 78.5 |
| Dec. 31 | 23 20.81 | -01 10.3 | 2.988 | 2.832 | +1.12 +9.6 | 16.4 | 71.4 |
| Jan. 10 | 23 32.36 | +00 27.3 | 3.121 | 2.840 | +1.20 +10.0 | 16.6 | 64.5 |
| Jan. 20 | 23 44.68 | +02 08.7 | 3.248 | 2.849 | +1.27 +10.3 | 16.7 | 57.8 |
| Jan. 30 | 23 57.65 | +03 53.3 | 3.369 | 2.859 | +1.33 +10.6 | 16.8 | 51.4 |
| Feb. 9 | 00 11.14 | +05 40.1 | 3.481 | 2.871 | +1.38 +10.8 | 16.9 | 45.1 |
| Feb. 19 | 00 25.09 | +07 28.5 | 3.584 | 2.883 | +1.42 +10.9 | 17.0 | 38.9 |
| Mar. 1 | 00 39.42 | +09 17.7 | 3.677 | 2.896 | +1.45 +10.9 | 17.1 | 33.0 |
| Mar. 11 | 00 54.05 | +11 06.9 | 3.759 | 2.911 | +1.48 +10.9 | 17.2 | 27.1 |
| Mar. 21 | 01 08.96 | +12 55.4 | 3.831 | 2.926 | +1.50 +10.8 | 17.3 | 21.4 |
| Mar. 31 | 01 24.10 | +14 42.5 | 3.890 | 2.942 | +1.52 +10.6 | 17.4 | 15.9 |

Comet P/2018 L1 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2025 Nov. 5.74845 TT
 Peri. = 17.94772 e = 0.4813288
 Node = 268.58194 2000.0 a = 3.6581493 AU
 Incl. = 10.57484 n = 0.14086786
 q = 1.8973767 AU P = 7.00 years

$$m1 = 14.0 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | | m1 | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|----------|--------|
| 2025/26 | h m | ° ' . | | | for T=+1 day | | | | ° |
| Jan. 5 | 13 26.26 | -20 03.5 | 3.075 | 3.016 | -0.80 | +3.5 | 21.2 | 16.3/120 | 77.3 |
| Jan. 15 | 13 35.85 | -21 24.5 | 2.890 | 2.967 | -0.88 | +3.6 | 21.0 | 14.9/122 | 84.8 |
| Jan. 25 | 13 44.45 | -22 41.5 | 2.705 | 2.918 | -0.97 | +3.8 | 20.8 | 13.3/124 | 92.5 |
| Feb. 4 | 13 51.78 | -23 53.3 | 2.522 | 2.868 | -1.07 | +4.0 | 20.6 | 11.2/127 | 100.4 |
| Feb. 14 | 13 57.54 | -24 58.4 | 2.344 | 2.819 | -1.17 | +4.2 | 20.4 | 8.9/133 | 108.6 |
| Feb. 24 | 14 01.43 | -25 55.0 | 2.173 | 2.770 | -1.29 | +4.6 | 20.1 | 6.3/144 | 117.2 |
| Mar. 6 | 14 03.11 | -26 40.6 | 2.014 | 2.720 | -1.42 | +5.0 | 19.9 | 3.9/173 | 126.2 |
| Mar. 16 | 14 02.36 | -27 12.1 | 1.869 | 2.671 | -1.55 | +5.6 | 19.6 | 3.6/232 | 135.6 |
| Mar. 26 | 13 59.10 | -27 25.8 | 1.741 | 2.622 | -1.67 | +6.3 | 19.4 | 6.2/268 | 145.2 |
| Apr. 5 | 13 53.47 | -27 18.1 | 1.634 | 2.574 | -1.77 | +7.0 | 19.2 | 9.2/283 | 154.6 |
| Apr. 15 | 13 46.07 | -26 46.8 | 1.550 | 2.525 | -1.83 | +7.8 | 19.0 | 11.7/292 | 162.6 |
| Apr. 25 | 13 37.77 | -25 52.2 | 1.492 | 2.478 | -1.85 | +8.5 | 18.8 | 13.1/300 | 165.2 |
| May 5 | 13 29.74 | -24 38.4 | 1.459 | 2.431 | -1.83 | +8.9 | 18.7 | 13.0/309 | 159.9 |
| May 15 | 13 23.15 | -23 13.3 | 1.450 | 2.384 | -1.77 | +8.9 | 18.6 | 11.5/320 | 150.9 |
| May 25 | 13 18.90 | -21 46.0 | 1.463 | 2.339 | -1.69 | +8.5 | 18.5 | 9.3/336 | 141.0 |
| June 4 | 13 17.56 | -20 25.6 | 1.495 | 2.295 | -1.60 | +7.9 | 18.5 | 7.4/ 4 | 131.3 |
| June 14 | 13 19.35 | -19 18.7 | 1.540 | 2.252 | -1.52 | +7.1 | 18.5 | 7.6/ 40 | 122.2 |
| June 24 | 13 24.18 | -18 28.6 | 1.597 | 2.210 | -1.46 | +6.3 | 18.5 | 10.0/ 66 | 113.6 |
| July 4 | 13 31.91 | -17 56.7 | 1.661 | 2.170 | -1.41 | +5.5 | 18.5 | 13.3/ 80 | 105.8 |
| July 14 | 13 42.24 | -17 42.0 | 1.729 | 2.132 | -1.38 | +4.7 | 18.5 | 16.7/ 88 | 98.6 |
| July 24 | 13 54.92 | -17 42.5 | 1.800 | 2.096 | -1.35 | +4.0 | 18.5 | 19.8/ 92 | 91.9 |
| Aug. 3 | 14 09.71 | -17 55.7 | 1.872 | 2.062 | -1.35 | +3.3 | 18.5 | 22.7/ 95 | 85.8 |
| Aug. 13 | 14 26.39 | -18 18.5 | 1.944 | 2.031 | -1.34 | +2.7 | 18.5 | 25.3/ 96 | 80.1 |
| Aug. 23 | 14 44.78 | -18 47.9 | 2.015 | 2.003 | -1.35 | +2.1 | 18.5 | 27.5/ 97 | 74.7 |
| Sept. 2 | 15 04.73 | -19 20.7 | 2.085 | 1.977 | -1.36 | +1.4 | 18.6 | 29.5/ 97 | 69.8 |
| Sept. 12 | 15 26.08 | -19 53.7 | 2.154 | 1.955 | -1.37 | +0.8 | 18.6 | 31.3/ 96 | 65.0 |
| Sept. 22 | 15 48.69 | -20 23.9 | 2.221 | 1.936 | -1.38 | +0.1 | 18.6 | 32.8/ 95 | 60.6 |
| Oct. 2 | 16 12.43 | -20 48.4 | 2.287 | 1.921 | -1.39 | -0.7 | 18.6 | 34.1/ 94 | 56.3 |
| Oct. 12 | 16 37.11 | -21 04.6 | 2.352 | 1.909 | -1.39 | -1.4 | 18.7 | 35.2/ 92 | 52.2 |
| Oct. 22 | 17 02.56 | -21 10.1 | 2.415 | 1.902 | -1.39 | -2.2 | 18.7 | 36.1/ 90 | 48.2 |
| Nov. 1 | 17 28.61 | -21 03.0 | 2.478 | 1.898 | -1.38 | -2.9 | 18.8 | 36.8/ 88 | 44.3 |
| Nov. 11 | 17 55.02 | -20 42.0 | 2.540 | 1.898 | -1.36 | -3.7 | 18.8 | 37.4/ 86 | 40.4 |
| Nov. 21 | 18 21.60 | -20 06.0 | 2.601 | 1.902 | -1.33 | -4.4 | 18.9 | 37.7/ 83 | 36.6 |
| Dec. 1 | 18 48.15 | -19 14.9 | 2.661 | 1.910 | -1.30 | -5.0 | 18.9 | 37.9/ 81 | 32.9 |
| Dec. 11 | 19 14.46 | -18 08.8 | 2.721 | 1.922 | -1.26 | -5.6 | 19.0 | 38.0/ 79 | 29.1 |
| Dec. 21 | 19 40.38 | -16 48.5 | 2.779 | 1.937 | -1.21 | -6.1 | 19.1 | 37.9/ 77 | 25.4 |
| Dec. 31 | 20 05.78 | -15 15.3 | 2.836 | 1.956 | -1.16 | -6.4 | 19.2 | 37.6/ 75 | 21.7 |
| Jan. 10 | 20 30.55 | -13 30.5 | 2.890 | 1.979 | -1.11 | -6.7 | 19.3 | 37.3/ 73 | 18.0 |
| Jan. 20 | 20 54.63 | -11 35.9 | 2.943 | 2.004 | -1.06 | -6.9 | 19.4 | 36.8/ 71 | 14.3 |
| Jan. 30 | 21 17.97 | -09 33.2 | 2.991 | 2.033 | -1.02 | -6.9 | 19.5 | 36.2/ 70 | 10.9 |
| Feb. 9 | 21 40.55 | -07 24.5 | 3.037 | 2.064 | -0.97 | -6.9 | 19.6 | 35.5/ 68 | 8.0 |
| Feb. 19 | 22 02.40 | -05 11.3 | 3.077 | 2.098 | -0.93 | -6.8 | 19.7 | 34.8/ 67 | 6.5 |
| Mar. 1 | 22 23.50 | -02 55.3 | 3.112 | 2.134 | -0.89 | -6.6 | 19.8 | 33.9/ 66 | 7.5 |
| Mar. 11 | 22 43.90 | +00 38.3 | 3.141 | 2.172 | -0.85 | -6.4 | 19.9 | 33.0/ 65 | 10.4 |
| Mar. 21 | 23 03.61 | +01 38.6 | 3.164 | 2.212 | -0.82 | -6.1 | 19.9 | 32.0/ 65 | 14.2 |
| Mar. 31 | 23 22.65 | +03 53.9 | 3.179 | 2.254 | -0.79 | -5.8 | 20.0 | 31.0/ 64 | 18.4 |

Comet 40P/Vaisala

Epoch = 2025 July 24.0 TT
 T = 2025 Nov. 11.99913 TT
 Peri. = 52.05082 e = 0.6311881
 Node = 128.90020 2000.0 a = 4.9450582 AU
 Incl. = 11.64008 n = 0.08962867
 q = 1.8237963 AU P = 11.00 years

$$m1 = 10.3 + 5 \log(\Delta) + 15.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 04 51.42 | +10 48.4 | 2.465 | 3.329 | -0.69 +2.3 | 20.1 | 146.4 |
| Jan. 15 | 04 45.31 | +11 15.2 | 2.491 | 3.267 | -0.51 +3.1 | 20.0 | 135.5 |
| Jan. 25 | 04 41.16 | +11 50.0 | 2.538 | 3.204 | -0.29 +3.9 | 19.9 | 124.8 |
| Feb. 4 | 04 39.29 | +12 31.6 | 2.601 | 3.142 | -0.06 +4.5 | 19.8 | 114.6 |
| Feb. 14 | 04 39.80 | +13 18.4 | 2.673 | 3.079 | +0.18 +4.9 | 19.8 | 104.9 |
| Feb. 24 | 04 42.67 | +14 08.9 | 2.751 | 3.016 | +0.41 +5.2 | 19.7 | 95.8 |
| Mar. 6 | 04 47.81 | +15 01.4 | 2.831 | 2.953 | +0.63 +5.3 | 19.6 | 87.1 |
| Mar. 16 | 04 55.05 | +15 54.6 | 2.909 | 2.890 | +0.83 +5.3 | 19.5 | 79.1 |
| Mar. 26 | 05 04.23 | +16 46.7 | 2.981 | 2.827 | +1.02 +5.1 | 19.4 | 71.5 |
| Apr. 5 | 05 15.20 | +17 36.6 | 3.047 | 2.765 | +1.19 +4.8 | 19.3 | 64.3 |
| Apr. 15 | 05 27.80 | +18 22.8 | 3.105 | 2.702 | +1.34 +4.4 | 19.2 | 57.5 |
| Apr. 25 | 05 41.88 | +19 04.0 | 3.153 | 2.640 | +1.49 +3.8 | 19.1 | 51.1 |
| May 5 | 05 57.34 | +19 39.2 | 3.190 | 2.579 | +1.62 +3.1 | 19.0 | 45.1 |
| May 15 | 06 14.05 | +20 07.0 | 3.217 | 2.518 | +1.74 +2.3 | 18.9 | 39.3 |
| May 25 | 06 31.91 | +20 26.4 | 3.234 | 2.458 | +1.85 +1.4 | 18.7 | 33.9 |
| June 4 | 06 50.83 | +20 36.5 | 3.240 | 2.400 | +1.95 +0.5 | 18.6 | 28.7 |
| June 14 | 07 10.70 | +20 36.3 | 3.236 | 2.342 | +2.04 -0.6 | 18.4 | 23.7 |
| June 24 | 07 31.45 | +20 25.0 | 3.223 | 2.286 | +2.12 -1.8 | 18.2 | 19.0 |
| July 4 | 07 52.98 | +20 01.9 | 3.201 | 2.231 | +2.19 -3.0 | 18.1 | 14.5 |
| July 14 | 08 15.20 | +19 26.6 | 3.172 | 2.179 | +2.26 -4.2 | 17.9 | 10.2 |
| July 24 | 08 38.02 | +18 38.8 | 3.136 | 2.129 | +2.31 -5.5 | 17.7 | 6.0 |
| Aug. 3 | 09 01.38 | +17 38.4 | 3.095 | 2.081 | +2.36 -6.7 | 17.5 | 2.2 |
| Aug. 13 | 09 25.19 | +16 25.6 | 3.049 | 2.037 | +2.40 -7.9 | 17.4 | 2.1 |
| Aug. 23 | 09 49.39 | +15 01.0 | 2.999 | 1.995 | +2.44 -9.1 | 17.2 | 5.6 |
| Sept. 2 | 10 13.93 | +13 25.3 | 2.947 | 1.958 | +2.47 -10.1 | 17.0 | 9.2 |
| Sept. 12 | 10 38.74 | +11 39.7 | 2.894 | 1.924 | +2.50 -11.1 | 16.9 | 12.6 |
| Sept. 22 | 11 03.80 | +09 45.6 | 2.840 | 1.895 | +2.52 -11.8 | 16.7 | 16.0 |
| Oct. 2 | 11 29.05 | +07 45.0 | 2.785 | 1.870 | +2.54 -12.3 | 16.6 | 19.3 |
| Oct. 12 | 11 54.48 | +05 39.8 | 2.732 | 1.851 | +2.55 -12.7 | 16.5 | 22.6 |
| Oct. 22 | 12 20.03 | +03 32.5 | 2.680 | 1.836 | +2.56 -12.8 | 16.4 | 25.8 |
| Nov. 1 | 12 45.68 | +01 25.6 | 2.630 | 1.827 | +2.57 -12.6 | 16.3 | 29.1 |
| Nov. 11 | 13 11.34 | +00 38.2 | 2.581 | 1.824 | +2.57 -12.1 | 16.3 | 32.4 |
| Nov. 21 | 13 36.97 | -02 36.4 | 2.534 | 1.826 | +2.56 -11.4 | 16.2 | 35.7 |
| Dec. 1 | 14 02.46 | -04 26.3 | 2.488 | 1.834 | +2.54 -10.4 | 16.2 | 39.2 |
| Dec. 11 | 14 27.67 | -06 05.7 | 2.443 | 1.847 | +2.50 -9.3 | 16.2 | 42.9 |
| Dec. 21 | 14 52.49 | -07 32.9 | 2.399 | 1.866 | +2.45 -8.0 | 16.3 | 46.6 |
| Dec. 31 | 15 16.71 | -08 46.4 | 2.353 | 1.889 | +2.38 -6.6 | 16.3 | 50.6 |
| Jan. 10 | 15 40.16 | -09 45.4 | 2.307 | 1.918 | +2.29 -5.1 | 16.4 | 54.9 |
| Jan. 20 | 16 02.63 | -10 29.8 | 2.258 | 1.951 | +2.18 -3.6 | 16.4 | 59.4 |
| Jan. 30 | 16 23.87 | -10 59.6 | 2.208 | 1.987 | +2.05 -2.2 | 16.5 | 64.2 |
| Feb. 9 | 16 43.68 | -11 16.0 | 2.154 | 2.028 | +1.89 -0.9 | 16.6 | 69.3 |
| Feb. 19 | 17 01.81 | -11 20.2 | 2.098 | 2.072 | +1.71 +0.2 | 16.7 | 74.8 |
| Mar. 1 | 17 18.00 | -11 13.9 | 2.039 | 2.119 | +1.50 +1.1 | 16.7 | 80.8 |
| Mar. 11 | 17 32.03 | -10 59.3 | 1.978 | 2.169 | +1.27 +1.8 | 16.8 | 87.1 |
| Mar. 21 | 17 43.65 | -10 38.7 | 1.916 | 2.221 | +1.02 +2.3 | 16.9 | 94.0 |
| Mar. 31 | 17 52.61 | -10 14.8 | 1.855 | 2.275 | +0.74 +2.5 | 17.0 | 101.5 |

Comet 210P/Christensen

Epoch = 2025 July 24.0 TT
 T = 2025 Nov. 22.70273 TT
 Peri. = 345.94733 e = 0.8340682
 Node = 93.79765 2000.0 a = 3.1605846 AU
 Incl. = 10.28735 n = 0.17540943
 q = 0.5244415 AU P = 5.62 years

$$m1 = 13.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 19 10.62 | -24 15.9 | 4.736 | 3.754 | +1.16 +1.4 | . | 2.4 |
| Jan. 15 | 19 22.33 | -24 00.4 | 4.663 | 3.687 | +1.18 +1.7 | . | 6.3 |
| Jan. 25 | 19 34.25 | -23 41.9 | 4.568 | 3.618 | +1.20 +2.0 | . | 13.6 |
| Feb. 4 | 19 46.30 | -23 20.6 | 4.451 | 3.548 | +1.21 +2.3 | . | 20.9 |
| Feb. 14 | 19 58.40 | -22 56.8 | 4.314 | 3.476 | +1.21 +2.5 | . | 28.2 |
| Feb. 24 | 20 10.47 | -22 30.9 | 4.159 | 3.402 | +1.20 +2.7 | . | 35.5 |
| Mar. 6 | 20 22.42 | -22 03.3 | 3.987 | 3.326 | +1.19 +2.8 | 21.9 | 42.7 |
| Mar. 16 | 20 34.19 | -21 34.8 | 3.799 | 3.249 | +1.16 +2.9 | 21.7 | 49.9 |
| Mar. 26 | 20 45.69 | -21 06.1 | 3.598 | 3.169 | +1.13 +2.8 | 21.5 | 57.1 |
| Apr. 5 | 20 56.85 | -20 38.2 | 3.386 | 3.088 | +1.09 +2.7 | 21.2 | 64.3 |
| Apr. 15 | 21 07.57 | -20 12.1 | 3.166 | 3.004 | +1.04 +2.5 | 21.0 | 71.6 |
| Apr. 25 | 21 17.74 | -19 49.3 | 2.939 | 2.918 | +0.98 +2.0 | 20.7 | 79.0 |
| May 5 | 21 27.25 | -19 31.4 | 2.707 | 2.830 | +0.91 +1.4 | 20.4 | 86.4 |
| May 15 | 21 35.92 | -19 20.5 | 2.475 | 2.739 | +0.82 +0.6 | 20.0 | 94.1 |
| May 25 | 21 43.57 | -19 19.1 | 2.244 | 2.646 | +0.70 -0.5 | 19.7 | 101.9 |
| June 4 | 21 49.91 | -19 30.5 | 2.017 | 2.550 | +0.55 -2.0 | 19.3 | 110.1 |
| June 14 | 21 54.60 | -19 58.4 | 1.796 | 2.451 | +0.36 -3.9 | 18.9 | 118.7 |
| June 24 | 21 57.16 | -20 47.7 | 1.585 | 2.350 | +0.11 -6.3 | 18.4 | 127.8 |
| July 4 | 21 56.92 | -22 03.9 | 1.388 | 2.245 | -0.21 -9.3 | 17.9 | 137.4 |
| July 14 | 21 53.02 | -23 52.8 | 1.207 | 2.136 | -0.63 -12.9 | 17.4 | 147.7 |
| July 24 | 21 44.35 | -26 18.7 | 1.046 | 2.025 | -1.18 -16.7 | 16.9 | 158.1 |
| Aug. 3 | 21 29.63 | -29 20.9 | 0.910 | 1.909 | -1.85 -19.9 | 16.3 | 165.4 |
| Aug. 13 | 21 07.81 | -32 47.9 | 0.800 | 1.789 | -2.59 -21.2 | 15.7 | 161.3 |
| Aug. 23 | 20 38.75 | -36 14.4 | 0.718 | 1.665 | -3.25 -19.3 | 15.2 | 148.2 |
| Sept. 2 | 20 04.39 | -39 05.7 | 0.662 | 1.537 | -3.58 -14.1 | 14.7 | 132.6 |
| Sept. 12 | 19 28.67 | -40 57.9 | 0.625 | 1.404 | -3.49 -7.7 | 14.2 | 116.7 |
| Sept. 22 | 18 55.46 | -41 50.2 | 0.599 | 1.266 | -3.09 -2.5 | 13.6 | 101.3 |
| Oct. 2 | 18 26.28 | -41 58.9 | 0.573 | 1.124 | -2.75 +0.8 | 13.0 | 86.6 |
| Oct. 12 | 17 58.69 | -41 38.9 | 0.539 | 0.978 | -2.89 +3.6 | 12.3 | 72.2 |
| Oct. 22 | 17 26.03 | -40 41.4 | 0.495 | 0.833 | -3.94 +9.7 | 11.4 | 56.6 |
| Nov. 1 | 16 37.37 | -37 52.7 | 0.447 | 0.695 | -6.12 +29.5 | 10.4 | 37.7 |
| Nov. 11 | 15 29.53 | -30 16.8 | 0.432 | 0.581 | -6.85 +64.7 | 9.5 | 14.2 |
| Nov. 21 | 14 34.95 | -19 01.7 | 0.503 | 0.526 | -3.24 +59.5 | 9.4 | 16.6 |
| Dec. 1 | 14 20.00 | -11 44.5 | 0.656 | 0.554 | +0.23 +25.5 | 10.2 | 32.1 |
| Dec. 11 | 14 29.72 | -09 07.2 | 0.822 | 0.652 | +1.57 +7.0 | 11.4 | 41.1 |
| Dec. 21 | 14 47.02 | -08 30.8 | 0.964 | 0.784 | +1.81 +0.9 | 12.6 | 47.5 |
| Dec. 31 | 15 04.74 | -08 29.9 | 1.072 | 0.928 | +1.69 -0.4 | 13.5 | 53.5 |
| Jan. 10 | 15 20.55 | -08 32.9 | 1.151 | 1.074 | +1.44 0.0 | 14.3 | 59.8 |
| Jan. 20 | 15 33.62 | -08 27.8 | 1.203 | 1.218 | +1.14 +1.2 | 15.0 | 66.8 |
| Jan. 30 | 15 43.46 | -08 10.3 | 1.232 | 1.357 | +0.79 +2.5 | 15.5 | 74.5 |
| Feb. 9 | 15 49.76 | -07 39.0 | 1.244 | 1.492 | +0.42 +3.9 | 15.9 | 83.1 |
| Feb. 19 | 15 52.16 | -06 53.3 | 1.243 | 1.622 | +0.01 +5.4 | 16.3 | 92.6 |
| Mar. 1 | 15 50.30 | -05 53.8 | 1.234 | 1.747 | -0.43 +6.6 | 16.6 | 103.0 |
| Mar. 11 | 15 44.00 | -04 42.4 | 1.225 | 1.868 | -0.87 +7.7 | 16.9 | 114.4 |
| Mar. 21 | 15 33.35 | -03 22.6 | 1.223 | 1.985 | -1.29 +8.2 | 17.1 | 126.6 |
| Mar. 31 | 15 18.96 | -02 00.4 | 1.237 | 2.099 | -1.60 +8.0 | 17.4 | 139.4 |

Comet P/2015 T019 (Lemmon-PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2025 Nov. 23.52197 TT
 Peri. = 89.39478 e = 0.3596182
 Node = 321.60972 2000.0 a = 4.5462938 AU
 Incl. = 6.50515 n = 0.10167585
 q = 2.9113638 AU P = 9.69 years

$$m1 = 13.0 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | | m1 | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|----------|--------|
| 2025/26 | h m | ° | | | for T=+1 day | | | | ° |
| Jan. 5 | 22 14.81 | -08 31.2 | 4.035 | 3.455 | -0.46 | -3.6 | 21.4 | 17.7/67 | 48.0 |
| Jan. 15 | 22 26.12 | -07 20.7 | 4.110 | 3.427 | -0.46 | -3.7 | 21.4 | 18.8/67 | 40.9 |
| Jan. 25 | 22 37.98 | -06 04.8 | 4.171 | 3.399 | -0.46 | -3.7 | 21.4 | 19.7/67 | 33.9 |
| Feb. 4 | 22 50.30 | -04 44.1 | 4.219 | 3.372 | -0.46 | -3.8 | 21.4 | 20.5/66 | 27.2 |
| Feb. 14 | 23 02.99 | -03 19.1 | 4.251 | 3.345 | -0.47 | -3.8 | 21.4 | 21.1/66 | 20.6 |
| Feb. 24 | 23 15.98 | -01 50.4 | 4.269 | 3.318 | -0.48 | -3.9 | 21.4 | 21.7/65 | 14.1 |
| Mar. 6 | 23 29.21 | +00 18.5 | 4.272 | 3.292 | -0.48 | -4.0 | 21.3 | 22.1/65 | 8.0 |
| Mar. 16 | 23 42.61 | +01 15.9 | 4.260 | 3.267 | -0.49 | -4.0 | 21.3 | 22.4/65 | 3.1 |
| Mar. 26 | 23 56.16 | +02 52.2 | 4.233 | 3.242 | -0.51 | -4.1 | 21.2 | 22.6/65 | 5.8 |
| Apr. 5 | 00 09.82 | +04 29.7 | 4.192 | 3.218 | -0.52 | -4.1 | 21.2 | 22.7/64 | 11.5 |
| Apr. 15 | 00 23.53 | +06 07.9 | 4.137 | 3.194 | -0.54 | -4.2 | 21.1 | 22.7/64 | 17.4 |
| Apr. 25 | 00 37.27 | +07 46.2 | 4.070 | 3.171 | -0.55 | -4.2 | 21.1 | 22.7/64 | 23.3 |
| May 5 | 00 51.00 | +09 23.8 | 3.991 | 3.149 | -0.58 | -4.3 | 21.0 | 22.5/64 | 29.2 |
| May 15 | 01 04.67 | +11 00.3 | 3.900 | 3.128 | -0.60 | -4.3 | 20.9 | 22.2/64 | 35.1 |
| May 25 | 01 18.24 | +12 35.0 | 3.799 | 3.107 | -0.63 | -4.3 | 20.8 | 21.9/65 | 41.1 |
| June 4 | 01 31.65 | +14 07.5 | 3.688 | 3.088 | -0.65 | -4.3 | 20.7 | 21.4/65 | 47.0 |
| June 14 | 01 44.81 | +15 37.2 | 3.570 | 3.069 | -0.69 | -4.3 | 20.6 | 20.7/65 | 53.1 |
| June 24 | 01 57.66 | +17 03.6 | 3.444 | 3.051 | -0.72 | -4.3 | 20.5 | 20.0/65 | 59.2 |
| July 4 | 02 10.07 | +18 26.3 | 3.312 | 3.034 | -0.76 | -4.3 | 20.4 | 19.0/65 | 65.5 |
| July 14 | 02 21.91 | +19 44.9 | 3.175 | 3.018 | -0.81 | -4.3 | 20.3 | 17.9/65 | 71.9 |
| July 24 | 02 33.02 | +20 59.1 | 3.035 | 3.003 | -0.86 | -4.3 | 20.2 | 16.5/64 | 78.5 |
| Aug. 3 | 02 43.20 | +22 08.4 | 2.893 | 2.989 | -0.91 | -4.2 | 20.1 | 14.9/63 | 85.4 |
| Aug. 13 | 02 52.23 | +23 12.5 | 2.752 | 2.976 | -0.97 | -4.2 | 19.9 | 13.0/62 | 92.7 |
| Aug. 23 | 02 59.86 | +24 10.9 | 2.612 | 2.964 | -1.04 | -4.3 | 19.8 | 10.7/59 | 100.3 |
| Sept. 2 | 03 05.79 | +25 03.0 | 2.477 | 2.954 | -1.11 | -4.3 | 19.7 | 8.2/54 | 108.3 |
| Sept. 12 | 03 09.75 | +25 48.0 | 2.350 | 2.944 | -1.18 | -4.4 | 19.5 | 5.5/43 | 116.8 |
| Sept. 22 | 03 11.52 | +26 24.7 | 2.233 | 2.936 | -1.26 | -4.6 | 19.4 | 3.2/11 | 125.8 |
| Oct. 2 | 03 10.91 | +26 51.6 | 2.130 | 2.929 | -1.34 | -4.9 | 19.3 | 3.3/309 | 135.4 |
| Oct. 12 | 03 07.99 | +27 06.8 | 2.045 | 2.923 | -1.41 | -5.2 | 19.2 | 5.6/279 | 145.4 |
| Oct. 22 | 03 03.01 | +27 09.0 | 1.982 | 2.918 | -1.46 | -5.7 | 19.1 | 7.9/266 | 155.7 |
| Nov. 1 | 02 56.54 | +26 57.5 | 1.944 | 2.915 | -1.48 | -6.1 | 19.1 | 9.5/259 | 165.3 |
| Nov. 11 | 02 49.43 | +26 33.5 | 1.932 | 2.912 | -1.48 | -6.4 | 19.1 | 10.0/253 | 170.2 |
| Nov. 21 | 02 42.62 | +26 00.2 | 1.948 | 2.911 | -1.45 | -6.7 | 19.1 | 9.2/247 | 164.3 |
| Dec. 1 | 02 37.03 | +25 22.2 | 1.991 | 2.912 | -1.40 | -6.7 | 19.1 | 7.4/239 | 154.4 |
| Dec. 11 | 02 33.33 | +24 44.9 | 2.059 | 2.913 | -1.33 | -6.6 | 19.2 | 4.9/224 | 143.9 |
| Dec. 21 | 02 31.94 | +24 12.8 | 2.149 | 2.916 | -1.26 | -6.3 | 19.3 | 2.8/181 | 133.7 |
| Dec. 31 | 02 33.01 | +23 49.1 | 2.256 | 2.920 | -1.19 | -5.9 | 19.4 | 3.8/119 | 123.8 |
| Jan. 10 | 02 36.46 | +23 35.3 | 2.377 | 2.925 | -1.12 | -5.4 | 19.5 | 6.5/97 | 114.5 |
| Jan. 20 | 02 42.13 | +23 31.6 | 2.509 | 2.932 | -1.06 | -5.0 | 19.7 | 9.4/89 | 105.7 |
| Jan. 30 | 02 49.81 | +23 37.1 | 2.648 | 2.940 | -1.01 | -4.5 | 19.8 | 12.0/85 | 97.3 |
| Feb. 9 | 02 59.22 | +23 50.3 | 2.790 | 2.949 | -0.97 | -4.0 | 19.9 | 14.2/83 | 89.3 |
| Feb. 19 | 03 10.15 | +24 09.6 | 2.933 | 2.959 | -0.93 | -3.6 | 20.0 | 16.1/82 | 81.8 |
| Mar. 1 | 03 22.39 | +24 33.2 | 3.076 | 2.970 | -0.90 | -3.1 | 20.2 | 17.7/82 | 74.6 |
| Mar. 11 | 03 35.73 | +24 59.2 | 3.215 | 2.982 | -0.87 | -2.7 | 20.3 | 19.1/82 | 67.6 |
| Mar. 21 | 03 50.01 | +25 25.9 | 3.350 | 2.996 | -0.84 | -2.3 | 20.4 | 20.1/82 | 61.0 |
| Mar. 31 | 04 05.08 | +25 51.9 | 3.478 | 3.010 | -0.82 | -1.9 | 20.5 | 21.0/83 | 54.5 |

Comet 489P/Denning [Orbit 2]

Epoch = 2025 July 24.0 TT
 T = 2025 Dec. 13.10142 TT
 Peri. = 109.05486 e = 0.6471813
 Node = 20.56419 2000.0 a = 4.4279008 AU
 Incl. = 4.02523 n = 0.10578090
 q = 1.5622462 AU P = 9.32 years

H = 15.5, G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Variation | V | Mot./PA | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|----------|--------|
| 2025/26 | h m | ° ' " | | | for T=+1 day | | | ° |
| Jan. 5 | 23 59.02 | -00 29.8 | 3.633 | 3.510 | -0.32 -2.7 | 21.9 | 10.9/63 | 75.0 |
| Jan. 15 | 00 05.52 | +00 19.0 | 3.716 | 3.446 | -0.33 -2.7 | 21.9 | 12.9/64 | 66.7 |
| Jan. 25 | 00 13.28 | +01 15.5 | 3.788 | 3.382 | -0.33 -2.7 | 21.9 | 14.8/64 | 58.6 |
| Feb. 4 | 00 22.16 | +02 19.0 | 3.849 | 3.317 | -0.35 -2.8 | 21.8 | 16.4/65 | 50.9 |
| Feb. 14 | 00 32.06 | +03 28.5 | 3.896 | 3.252 | -0.36 -2.9 | 21.7 | 17.8/65 | 43.5 |
| Feb. 24 | 00 42.87 | +04 43.1 | 3.928 | 3.186 | -0.38 -3.0 | 21.7 | 19.1/65 | 36.4 |
| Mar. 6 | 00 54.53 | +06 02.2 | 3.944 | 3.120 | -0.40 -3.1 | 21.6 | 20.3/66 | 29.6 |
| Mar. 16 | 01 06.97 | +07 24.8 | 3.943 | 3.052 | -0.42 -3.2 | 21.4 | 21.4/66 | 23.0 |
| Mar. 26 | 01 20.16 | +08 50.3 | 3.927 | 2.985 | -0.45 -3.3 | 21.3 | 22.4/67 | 16.6 |
| Apr. 5 | 01 34.07 | +10 17.8 | 3.895 | 2.917 | -0.49 -3.4 | 21.1 | 23.3/67 | 10.4 |
| Apr. 15 | 01 48.68 | +11 46.6 | 3.847 | 2.848 | -0.52 -3.5 | 20.9 | 24.2/68 | 4.5 |
| Apr. 25 | 02 04.00 | +13 15.9 | 3.785 | 2.780 | -0.57 -3.6 | 20.7 | 25.0/69 | 1.4 |
| May 5 | 02 20.06 | +14 45.1 | 3.709 | 2.711 | -0.62 -3.7 | 20.8 | 25.8/70 | 6.8 |
| May 15 | 02 36.86 | +16 13.1 | 3.621 | 2.641 | -0.67 -3.8 | 20.8 | 26.7/71 | 12.2 |
| May 25 | 02 54.44 | +17 39.1 | 3.521 | 2.572 | -0.73 -3.8 | 20.8 | 27.5/72 | 17.4 |
| June 4 | 03 12.85 | +19 02.3 | 3.411 | 2.502 | -0.80 -3.8 | 20.8 | 28.3/73 | 22.4 |
| June 14 | 03 32.11 | +20 21.4 | 3.292 | 2.433 | -0.88 -3.7 | 20.7 | 29.2/74 | 27.2 |
| June 24 | 03 52.30 | +21 35.5 | 3.165 | 2.364 | -0.97 -3.6 | 20.6 | 30.1/76 | 31.9 |
| July 4 | 04 13.44 | +22 43.2 | 3.033 | 2.296 | -1.07 -3.4 | 20.6 | 31.1/78 | 36.4 |
| July 14 | 04 35.58 | +23 43.2 | 2.897 | 2.228 | -1.17 -3.0 | 20.5 | 32.1/80 | 40.8 |
| July 24 | 04 58.75 | +24 33.9 | 2.757 | 2.161 | -1.29 -2.5 | 20.4 | 33.2/82 | 45.0 |
| Aug. 3 | 05 22.97 | +25 13.6 | 2.616 | 2.095 | -1.41 -1.9 | 20.2 | 34.3/84 | 49.0 |
| Aug. 13 | 05 48.21 | +25 40.8 | 2.476 | 2.031 | -1.53 -1.0 | 20.1 | 35.5/87 | 52.9 |
| Aug. 23 | 06 14.45 | +25 53.5 | 2.336 | 1.969 | -1.66 0.0 | 20.0 | 36.7/89 | 56.6 |
| Sept. 2 | 06 41.61 | +25 50.2 | 2.200 | 1.909 | -1.79 +1.3 | 19.8 | 37.9/92 | 60.1 |
| Sept. 12 | 07 09.58 | +25 29.2 | 2.067 | 1.852 | -1.92 +2.8 | 19.7 | 39.1/94 | 63.5 |
| Sept. 22 | 07 38.20 | +24 49.4 | 1.940 | 1.799 | -2.03 +4.6 | 19.5 | 40.2/97 | 66.7 |
| Oct. 2 | 08 07.27 | +23 50.0 | 1.820 | 1.749 | -2.14 +6.5 | 19.4 | 41.2/100 | 69.9 |
| Oct. 12 | 08 36.57 | +22 30.9 | 1.706 | 1.704 | -2.22 +8.5 | 19.2 | 42.0/102 | 72.8 |
| Oct. 22 | 09 05.85 | +20 53.0 | 1.600 | 1.664 | -2.29 +10.6 | 19.1 | 42.4/104 | 75.8 |
| Nov. 1 | 09 34.82 | +18 58.0 | 1.503 | 1.630 | -2.33 +12.7 | 18.9 | 42.5/107 | 78.6 |
| Nov. 11 | 10 03.20 | +16 48.7 | 1.413 | 1.602 | -2.36 +14.7 | 18.8 | 42.1/108 | 81.6 |
| Nov. 21 | 10 30.71 | +14 28.8 | 1.331 | 1.581 | -2.38 +16.5 | 18.7 | 41.1/110 | 84.6 |
| Dec. 1 | 10 57.01 | +12 02.8 | 1.257 | 1.568 | -2.38 +18.1 | 18.5 | 39.4/111 | 87.8 |
| Dec. 11 | 11 21.81 | +09 35.7 | 1.190 | 1.562 | -2.39 +19.4 | 18.4 | 36.9/112 | 91.4 |
| Dec. 21 | 11 44.74 | +07 12.5 | 1.128 | 1.565 | -2.40 +20.5 | 18.3 | 33.6/113 | 95.3 |
| Dec. 31 | 12 05.37 | +04 58.2 | 1.072 | 1.575 | -2.42 +21.4 | 18.2 | 29.5/114 | 99.9 |
| Jan. 10 | 12 23.31 | +02 57.0 | 1.022 | 1.592 | -2.47 +22.2 | 18.0 | 24.4/115 | 105.1 |
| Jan. 20 | 12 38.05 | +01 12.6 | 0.976 | 1.617 | -2.55 +22.9 | 17.9 | 18.6/117 | 111.2 |
| Jan. 30 | 12 49.08 | -00 12.3 | 0.935 | 1.649 | -2.66 +23.7 | 17.8 | 12.2/122 | 118.3 |
| Feb. 9 | 12 56.01 | -01 16.2 | 0.902 | 1.686 | -2.80 +24.4 | 17.7 | 5.7/138 | 126.4 |
| Feb. 19 | 12 58.59 | -01 58.5 | 0.879 | 1.729 | -2.95 +25.1 | 17.5 | 3.3/228 | 135.6 |
| Mar. 1 | 12 56.96 | -02 20.7 | 0.868 | 1.777 | -3.09 +25.6 | 17.4 | 7.7/266 | 145.9 |
| Mar. 11 | 12 51.85 | -02 26.5 | 0.873 | 1.829 | -3.18 +25.7 | 17.3 | 11.1/273 | 157.0 |
| Mar. 21 | 12 44.48 | -02 21.5 | 0.898 | 1.885 | -3.19 +25.2 | 17.1 | 12.0/274 | 168.7 |
| Mar. 31 | 12 36.49 | -02 13.1 | 0.945 | 1.944 | -3.09 +24.0 | 17.0 | 10.6/273 | 178.3 |

Comet 240P/NEAT

Epoch = 2025 July 24.0 TT
 T = 2025 Dec. 19.97005 TT
 Peri. = 352.07867 e = 0.4503453
 Node = 74.91193 2000.0 a = 3.8600039 AU
 Incl. = 23.53704 n = 0.12996382
 q = 2.1216693 AU P = 7.58 years

$$m1 = 10.8 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 21 49.75 | -32 44.9 | 3.970 | 3.252 | +1.42 +8.5 | 18.9 | 38.0 |
| Jan. 15 | 22 04.19 | -31 18.3 | 3.996 | 3.208 | +1.47 +8.8 | 18.9 | 32.3 |
| Jan. 25 | 22 19.09 | -29 48.7 | 4.008 | 3.164 | +1.51 +9.1 | 18.8 | 27.2 |
| Feb. 4 | 22 34.35 | -28 16.2 | 4.005 | 3.120 | +1.54 +9.4 | 18.8 | 22.8 |
| Feb. 14 | 22 49.89 | -26 41.3 | 3.989 | 3.076 | +1.57 +9.6 | 18.7 | 19.5 |
| Feb. 24 | 23 05.65 | -25 04.4 | 3.959 | 3.032 | +1.59 +9.8 | 18.6 | 17.8 |
| Mar. 6 | 23 21.58 | -23 25.9 | 3.915 | 2.988 | +1.60 +9.9 | 18.5 | 18.0 |
| Mar. 16 | 23 37.65 | -21 46.6 | 3.859 | 2.944 | +1.61 +10.0 | 18.4 | 19.9 |
| Mar. 26 | 23 53.83 | -20 06.8 | 3.791 | 2.900 | +1.62 +10.0 | 18.3 | 23.0 |
| Apr. 5 | 00 10.08 | -18 27.4 | 3.712 | 2.856 | +1.63 +9.9 | 18.2 | 26.9 |
| Apr. 15 | 00 26.40 | -16 48.9 | 3.624 | 2.813 | +1.63 +9.8 | 18.1 | 31.1 |
| Apr. 25 | 00 42.76 | -15 12.1 | 3.526 | 2.770 | +1.64 +9.6 | 18.0 | 35.5 |
| May 5 | 00 59.14 | -13 37.7 | 3.420 | 2.727 | +1.64 +9.3 | 17.8 | 40.1 |
| May 15 | 01 15.52 | -12 06.5 | 3.307 | 2.685 | +1.64 +8.9 | 17.7 | 44.7 |
| May 25 | 01 31.87 | -10 39.0 | 3.188 | 2.644 | +1.63 +8.5 | 17.5 | 49.4 |
| June 4 | 01 48.15 | -09 16.2 | 3.064 | 2.603 | +1.62 +8.0 | 17.4 | 54.2 |
| June 14 | 02 04.31 | -07 58.6 | 2.935 | 2.563 | +1.61 +7.5 | 17.2 | 58.9 |
| June 24 | 02 20.29 | -06 46.7 | 2.803 | 2.524 | +1.58 +6.8 | 17.1 | 63.8 |
| July 4 | 02 35.99 | -05 41.3 | 2.668 | 2.486 | +1.55 +6.2 | 16.9 | 68.7 |
| July 14 | 02 51.31 | -04 42.7 | 2.531 | 2.449 | +1.51 +5.5 | 16.7 | 73.7 |
| July 24 | 03 06.11 | -03 51.1 | 2.393 | 2.413 | +1.45 +4.8 | 16.5 | 78.9 |
| Aug. 3 | 03 20.22 | -03 06.5 | 2.256 | 2.379 | +1.36 +4.1 | 16.3 | 84.3 |
| Aug. 13 | 03 33.43 | -02 28.7 | 2.119 | 2.346 | +1.26 +3.4 | 16.1 | 89.9 |
| Aug. 23 | 03 45.48 | -01 56.8 | 1.983 | 2.315 | +1.13 +2.9 | 15.9 | 95.8 |
| Sept. 2 | 03 56.06 | -01 29.7 | 1.851 | 2.286 | +0.96 +2.5 | 15.7 | 102.1 |
| Sept. 12 | 04 04.82 | -01 05.4 | 1.723 | 2.259 | +0.76 +2.4 | 15.5 | 108.8 |
| Sept. 22 | 04 11.36 | +00 41.3 | 1.601 | 2.234 | +0.51 +2.5 | 15.3 | 116.2 |
| Oct. 2 | 04 15.24 | +00 13.4 | 1.488 | 2.211 | +0.23 +3.2 | 15.1 | 124.1 |
| Oct. 12 | 04 16.08 | +00 23.1 | 1.386 | 2.190 | -0.09 +4.3 | 14.9 | 132.7 |
| Oct. 22 | 04 13.61 | +01 13.3 | 1.299 | 2.172 | -0.43 +6.0 | 14.7 | 142.1 |
| Nov. 1 | 04 07.86 | +02 23.0 | 1.230 | 2.157 | -0.74 +8.2 | 14.6 | 151.8 |
| Nov. 11 | 03 59.33 | +03 56.0 | 1.183 | 2.144 | -0.97 +10.6 | 14.5 | 161.0 |
| Nov. 21 | 03 49.02 | +05 52.7 | 1.162 | 2.134 | -1.08 +12.9 | 14.4 | 166.0 |
| Dec. 1 | 03 38.40 | +08 09.7 | 1.167 | 2.127 | -1.02 +14.6 | 14.4 | 161.9 |
| Dec. 11 | 03 29.06 | +10 40.2 | 1.199 | 2.123 | -0.81 +15.5 | 14.5 | 152.7 |
| Dec. 21 | 03 22.25 | +13 16.4 | 1.256 | 2.122 | -0.50 +15.7 | 14.6 | 142.3 |
| Dec. 31 | 03 18.81 | +15 52.4 | 1.334 | 2.123 | -0.15 +15.4 | 14.7 | 132.3 |
| Jan. 10 | 03 18.98 | +18 23.7 | 1.428 | 2.128 | +0.22 +14.8 | 14.9 | 122.8 |
| Jan. 20 | 03 22.70 | +20 48.1 | 1.536 | 2.136 | +0.56 +14.0 | 15.0 | 114.1 |
| Jan. 30 | 03 29.69 | +23 04.4 | 1.655 | 2.146 | +0.87 +13.2 | 15.2 | 106.0 |
| Feb. 9 | 03 39.58 | +25 11.9 | 1.780 | 2.160 | +1.13 +12.2 | 15.4 | 98.6 |
| Feb. 19 | 03 52.02 | +27 09.8 | 1.910 | 2.176 | +1.37 +11.2 | 15.6 | 91.7 |
| Mar. 1 | 04 06.68 | +28 57.6 | 2.042 | 2.194 | +1.57 +10.2 | 15.8 | 85.2 |
| Mar. 11 | 04 23.23 | +30 34.5 | 2.176 | 2.215 | +1.75 +9.1 | 15.9 | 79.2 |
| Mar. 21 | 04 41.40 | +31 59.7 | 2.309 | 2.239 | +1.90 +7.9 | 16.1 | 73.4 |
| Mar. 31 | 05 00.95 | +33 12.6 | 2.441 | 2.264 | +2.02 +6.6 | 16.3 | 67.9 |

Comet 261P/Larson

Epoch = 2025 July 24.0 TT
 T = 2025 Dec. 27.41004 TT
 Peri. = 67.36384 e = 0.4227867
 Node = 291.05060 2000.0 a = 3.4895249 AU
 Incl. = 6.07338 n = 0.15120098
 q = 2.0142002 AU P = 6.52 years

$$m1 = 9.2 + 5 \log(\Delta) + 20.0 \log(r(t-25))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° ' " | | | m | | ° |
| Jan. 5 | 17 25.22 | -25 58.6 | 4.057 | 3.171 | +1.62 -0.8 | . | 22.5 |
| Jan. 15 | 17 41.43 | -26 03.9 | 3.953 | 3.129 | +1.62 -0.2 | . | 29.0 |
| Jan. 25 | 17 57.63 | -26 03.2 | 3.835 | 3.087 | +1.62 +0.4 | . | 35.5 |
| Feb. 4 | 18 13.73 | -25 56.5 | 3.704 | 3.045 | +1.60 +1.0 | 22.0 | 42.0 |
| Feb. 14 | 18 29.60 | -25 43.8 | 3.563 | 3.002 | +1.57 +1.6 | 21.8 | 48.6 |
| Feb. 24 | 18 45.15 | -25 25.3 | 3.412 | 2.959 | +1.53 +2.1 | 21.6 | 55.1 |
| Mar. 6 | 19 00.23 | -25 01.6 | 3.253 | 2.916 | +1.48 +2.6 | 21.4 | 61.7 |
| Mar. 16 | 19 14.72 | -24 33.1 | 3.087 | 2.873 | +1.41 +3.1 | 21.1 | 68.4 |
| Mar. 26 | 19 28.49 | -24 00.6 | 2.918 | 2.831 | +1.33 +3.4 | 20.9 | 75.1 |
| Apr. 5 | 19 41.37 | -23 24.8 | 2.745 | 2.788 | +1.23 +3.7 | 20.6 | 82.0 |
| Apr. 15 | 19 53.19 | -22 47.0 | 2.573 | 2.745 | +1.12 +3.9 | 20.4 | 89.0 |
| Apr. 25 | 20 03.75 | -22 08.0 | 2.401 | 2.702 | +0.98 +3.9 | 20.1 | 96.2 |
| May 5 | 20 12.84 | -21 29.3 | 2.233 | 2.660 | +0.82 +3.8 | 19.8 | 103.8 |
| May 15 | 20 20.19 | -20 52.1 | 2.071 | 2.618 | +0.63 +3.6 | 19.5 | 111.6 |
| May 25 | 20 25.54 | -20 17.6 | 1.917 | 2.576 | +0.41 +3.2 | 19.2 | 119.9 |
| June 4 | 20 28.60 | -19 47.4 | 1.774 | 2.535 | +0.17 +2.8 | 18.9 | 128.7 |
| June 14 | 20 29.14 | -19 22.0 | 1.645 | 2.494 | -0.09 +2.2 | 18.6 | 138.0 |
| June 24 | 20 27.02 | -19 02.0 | 1.533 | 2.455 | -0.36 +1.7 | 18.3 | 148.0 |
| July 4 | 20 22.29 | -18 47.1 | 1.441 | 2.416 | -0.60 +1.3 | 18.0 | 158.5 |
| July 14 | 20 15.38 | -18 35.9 | 1.371 | 2.377 | -0.78 +1.0 | 17.8 | 169.5 |
| July 24 | 20 07.05 | -18 26.6 | 1.325 | 2.340 | -0.87 +0.9 | 17.5 | 178.0 |
| Aug. 3 | 19 58.43 | -18 17.2 | 1.304 | 2.305 | -0.83 +1.0 | 17.4 | 167.2 |
| Aug. 13 | 19 50.79 | -18 06.0 | 1.307 | 2.270 | -0.67 +1.3 | 17.2 | 155.9 |
| Aug. 23 | 19 45.24 | -17 52.2 | 1.332 | 2.237 | -0.41 +1.5 | 17.1 | 145.1 |
| Sept. 2 | 19 42.59 | -17 35.2 | 1.375 | 2.206 | -0.09 +1.9 | 17.1 | 134.9 |
| Sept. 12 | 19 43.25 | -17 14.4 | 1.433 | 2.177 | +0.25 +2.3 | 17.0 | 125.4 |
| Sept. 22 | 19 47.21 | -16 49.3 | 1.502 | 2.149 | +0.57 +2.8 | 17.0 | 116.7 |
| Oct. 2 | 19 54.32 | -16 18.5 | 1.580 | 2.124 | +0.87 +3.4 | 17.0 | 108.7 |
| Oct. 12 | 20 04.22 | -15 40.9 | 1.664 | 2.101 | +1.13 +4.2 | 17.0 | 101.3 |
| Oct. 22 | 20 16.55 | -14 55.3 | 1.751 | 2.080 | +1.35 +5.0 | 17.0 | 94.5 |
| Nov. 1 | 20 30.93 | -14 00.5 | 1.841 | 2.062 | +1.54 +6.0 | 17.0 | 88.1 |
| Nov. 11 | 20 46.99 | -12 55.7 | 1.931 | 2.047 | +1.69 +7.0 | 17.0 | 82.2 |
| Nov. 21 | 21 04.41 | -11 40.5 | 2.023 | 2.034 | +1.81 +8.1 | 17.1 | 76.6 |
| Dec. 1 | 21 22.93 | -10 14.7 | 2.114 | 2.025 | +1.90 +9.2 | 17.1 | 71.3 |
| Dec. 11 | 21 42.27 | -08 38.7 | 2.204 | 2.018 | +1.97 +10.1 | 17.1 | 66.2 |
| Dec. 21 | 22 02.25 | -06 53.1 | 2.293 | 2.015 | +2.03 +11.0 | 17.1 | 61.3 |
| Dec. 31 | 22 22.72 | -04 59.0 | 2.381 | 2.014 | +2.07 +11.8 | 17.2 | 56.6 |
| Jan. 10 | 22 43.53 | -02 57.7 | 2.468 | 2.017 | +2.10 +12.5 | 17.3 | 52.0 |
| Jan. 20 | 23 04.60 | +00 50.5 | 2.552 | 2.023 | +2.12 +13.0 | 17.3 | 47.5 |
| Jan. 30 | 23 25.85 | +01 20.8 | 2.635 | 2.031 | +2.13 +13.3 | 17.4 | 43.2 |
| Feb. 9 | 23 47.23 | +03 34.5 | 2.715 | 2.043 | +2.14 +13.4 | 17.5 | 38.8 |
| Feb. 19 | 00 08.72 | +05 49.0 | 2.793 | 2.058 | +2.15 +13.4 | 17.6 | 34.6 |
| Mar. 1 | 00 30.30 | +08 02.5 | 2.868 | 2.075 | +2.16 +13.2 | 17.7 | 30.4 |
| Mar. 11 | 00 51.94 | +10 13.3 | 2.940 | 2.095 | +2.17 +12.9 | 17.8 | 26.2 |
| Mar. 21 | 01 13.65 | +12 20.0 | 3.007 | 2.117 | +2.17 +12.4 | 17.9 | 22.0 |
| Mar. 31 | 01 35.42 | +14 20.9 | 3.070 | 2.142 | +2.18 +11.7 | 18.0 | 17.9 |

Comet C/2023 X2 (Lemmon)

Epoch = 2025 July 24.0 TT
 T = 2025 Dec. 28.22990 TT
 Peri. = 64.77182
 Node = 66.30229 2000.0
 Incl. = 76.98156
 q = 5.0886739 AU
 e = 1.0000442

$$m1 = 7.1 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 03 45.52 | +48 34.7 | 5.039 | 5.758 | -0.87 | +0.8 | 18.2 | 133.3 |
| Jan. 15 | 03 37.61 | +48 40.3 | 5.117 | 5.724 | -0.69 | +0.3 | 18.2 | 123.9 |
| Jan. 25 | 03 31.61 | +48 42.4 | 5.212 | 5.690 | -0.49 | +0.1 | 18.2 | 114.4 |
| Feb. 4 | 03 27.64 | +48 44.0 | 5.321 | 5.657 | -0.29 | +0.2 | 18.3 | 105.0 |
| Feb. 14 | 03 25.68 | +48 47.8 | 5.437 | 5.625 | -0.09 | +0.6 | 18.3 | 95.9 |
| Feb. 24 | 03 25.62 | +48 55.5 | 5.555 | 5.594 | +0.09 | +1.0 | 18.3 | 87.1 |
| Mar. 6 | 03 27.32 | +49 08.6 | 5.671 | 5.564 | +0.26 | +1.6 | 18.3 | 78.7 |
| Mar. 16 | 03 30.62 | +49 27.6 | 5.781 | 5.534 | +0.41 | +2.2 | 18.3 | 70.8 |
| Mar. 26 | 03 35.35 | +49 53.0 | 5.881 | 5.505 | +0.55 | +2.9 | 18.4 | 63.3 |
| Apr. 5 | 03 41.37 | +50 24.7 | 5.969 | 5.477 | +0.67 | +3.5 | 18.4 | 56.3 |
| Apr. 15 | 03 48.54 | +51 02.8 | 6.041 | 5.450 | +0.78 | +4.1 | 18.4 | 49.9 |
| Apr. 25 | 03 56.74 | +51 46.8 | 6.098 | 5.423 | +0.87 | +4.7 | 18.4 | 44.3 |
| May 5 | 04 05.89 | +52 36.6 | 6.137 | 5.398 | +0.96 | +5.3 | 18.4 | 39.6 |
| May 15 | 04 15.90 | +53 31.9 | 6.158 | 5.373 | +1.05 | +5.8 | 18.3 | 36.0 |
| May 25 | 04 26.70 | +54 32.4 | 6.161 | 5.349 | +1.12 | +6.3 | 18.3 | 33.9 |
| June 4 | 04 38.26 | +55 38.1 | 6.145 | 5.327 | +1.20 | +6.8 | 18.3 | 33.3 |
| June 14 | 04 50.53 | +56 48.7 | 6.113 | 5.305 | +1.26 | +7.3 | 18.3 | 34.3 |
| June 24 | 05 03.49 | +58 04.2 | 6.064 | 5.284 | +1.33 | +7.8 | 18.2 | 36.7 |
| July 4 | 05 17.13 | +59 24.6 | 6.000 | 5.264 | +1.40 | +8.3 | 18.2 | 40.2 |
| July 14 | 05 31.45 | +60 49.9 | 5.922 | 5.245 | +1.47 | +8.8 | 18.2 | 44.4 |
| July 24 | 05 46.48 | +62 20.3 | 5.833 | 5.227 | +1.54 | +9.3 | 18.1 | 49.3 |
| Aug. 3 | 06 02.25 | +63 56.0 | 5.734 | 5.211 | +1.62 | +9.9 | 18.1 | 54.5 |
| Aug. 13 | 06 18.81 | +65 36.9 | 5.627 | 5.195 | +1.70 | +10.4 | 18.0 | 60.0 |
| Aug. 23 | 06 36.29 | +67 23.3 | 5.515 | 5.180 | +1.80 | +10.9 | 18.0 | 65.6 |
| Sept. 2 | 06 54.83 | +69 15.1 | 5.400 | 5.166 | +1.92 | +11.5 | 17.9 | 71.3 |
| Sept. 12 | 07 14.67 | +71 12.0 | 5.286 | 5.154 | +2.07 | +12.0 | 17.8 | 77.0 |
| Sept. 22 | 07 36.22 | +73 13.6 | 5.175 | 5.142 | +2.27 | +12.4 | 17.8 | 82.6 |
| Oct. 2 | 08 00.06 | +75 19.0 | 5.070 | 5.132 | +2.55 | +12.7 | 17.7 | 87.9 |
| Oct. 12 | 08 27.27 | +77 26.5 | 4.974 | 5.123 | +2.97 | +12.8 | 17.7 | 92.9 |
| Oct. 22 | 08 59.68 | +79 33.8 | 4.889 | 5.114 | +3.64 | +12.6 | 17.6 | 97.5 |
| Nov. 1 | 09 40.62 | +81 37.1 | 4.817 | 5.107 | +4.77 | +11.9 | 17.6 | 101.5 |
| Nov. 11 | 10 36.47 | +83 29.6 | 4.760 | 5.101 | +6.79 | +10.3 | 17.6 | 104.7 |
| Nov. 21 | 11 57.94 | +84 59.7 | 4.719 | 5.097 | +9.99 | +7.1 | 17.5 | 107.0 |
| Dec. 1 | 13 51.91 | +85 48.0 | 4.694 | 5.093 | +12.59 | +1.8 | 17.5 | 108.5 |
| Dec. 11 | 15 53.74 | +85 41.0 | 4.686 | 5.090 | +10.92 | -3.4 | 17.5 | 108.9 |
| Dec. 21 | 17 27.10 | +84 54.3 | 4.692 | 5.089 | +7.49 | -5.8 | 17.5 | 108.4 |
| Dec. 31 | 18 30.24 | +83 54.0 | 4.713 | 5.089 | +5.11 | -6.1 | 17.5 | 107.0 |
| Jan. 10 | 19 14.53 | +82 56.2 | 4.746 | 5.090 | +3.74 | -5.3 | 17.5 | 105.0 |
| Jan. 20 | 19 47.96 | +82 08.6 | 4.789 | 5.092 | +2.93 | -4.0 | 17.6 | 102.4 |
| Jan. 30 | 20 14.72 | +81 35.3 | 4.839 | 5.095 | +2.40 | -2.5 | 17.6 | 99.5 |
| Feb. 9 | 20 37.01 | +81 17.7 | 4.895 | 5.099 | +2.04 | -0.8 | 17.6 | 96.4 |
| Feb. 19 | 20 56.04 | +81 16.8 | 4.953 | 5.105 | +1.75 | +0.8 | 17.7 | 93.2 |
| Mar. 1 | 21 12.30 | +81 32.5 | 5.014 | 5.111 | +1.48 | +2.5 | 17.7 | 90.0 |
| Mar. 11 | 21 25.87 | +82 04.2 | 5.073 | 5.119 | +1.20 | +4.0 | 17.7 | 87.0 |
| Mar. 21 | 21 36.36 | +82 51.3 | 5.131 | 5.128 | +0.84 | +5.5 | 17.8 | 84.2 |
| Mar. 31 | 21 42.41 | +83 52.5 | 5.187 | 5.138 | +0.26 | +6.8 | 17.8 | 81.6 |

Comet C/2024 E1 (Wierzchos)

Epoch = 2025 July 24.0 TT
 T = 2026 Jan. 20.77514 TT
 Peri. = 243.63227
 Node = 108.07889 2000.0
 Incl. = 75.23941
 q = 0.5660281 AU
 e = 1.0000624

$$m1 = 6.6 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' " | | | m | ' " | | ° |
| Jan. 5 | 17 23.80 | +40 35.5 | 5.574 | 5.273 | +1.00 | +0.7 | 17.6 | 67.3 |
| Jan. 15 | 17 33.69 | +40 48.5 | 5.439 | 5.173 | +0.98 | +2.0 | 17.4 | 69.3 |
| Jan. 25 | 17 43.32 | +41 14.5 | 5.298 | 5.071 | +0.94 | +3.3 | 17.3 | 71.5 |
| Feb. 4 | 17 52.52 | +41 53.3 | 5.151 | 4.969 | +0.89 | +4.6 | 17.1 | 73.9 |
| Feb. 14 | 18 01.12 | +42 44.7 | 5.001 | 4.866 | +0.82 | +5.8 | 17.0 | 76.5 |
| Feb. 24 | 18 08.95 | +43 48.2 | 4.847 | 4.762 | +0.73 | +7.0 | 16.8 | 79.2 |
| Mar. 6 | 18 15.78 | +45 03.2 | 4.690 | 4.657 | +0.62 | +8.1 | 16.6 | 82.0 |
| Mar. 16 | 18 21.36 | +46 28.3 | 4.533 | 4.550 | +0.48 | +9.0 | 16.5 | 84.7 |
| Mar. 26 | 18 25.41 | +48 02.1 | 4.375 | 4.443 | +0.31 | +9.8 | 16.3 | 87.4 |
| Apr. 5 | 18 27.58 | +49 42.5 | 4.218 | 4.335 | +0.10 | +10.3 | 16.1 | 90.0 |
| Apr. 15 | 18 27.48 | +51 26.5 | 4.064 | 4.225 | -0.15 | +10.5 | 15.9 | 92.3 |
| Apr. 25 | 18 24.69 | +53 10.3 | 3.913 | 4.114 | -0.44 | +10.2 | 15.7 | 94.4 |
| May 5 | 18 18.78 | +54 49.2 | 3.766 | 4.002 | -0.78 | +9.4 | 15.5 | 96.2 |
| May 15 | 18 09.40 | +56 16.7 | 3.625 | 3.889 | -1.14 | +7.9 | 15.3 | 97.5 |
| May 25 | 17 56.44 | +57 25.5 | 3.491 | 3.774 | -1.49 | +5.5 | 15.1 | 98.4 |
| June 4 | 17 40.17 | +58 07.3 | 3.364 | 3.658 | -1.78 | +2.4 | 14.9 | 98.7 |
| June 14 | 17 21.48 | +58 14.1 | 3.244 | 3.540 | -1.95 | -1.5 | 14.6 | 98.5 |
| June 24 | 17 01.77 | +57 39.9 | 3.134 | 3.421 | -1.96 | -5.8 | 14.4 | 97.7 |
| July 4 | 16 42.77 | +56 21.6 | 3.032 | 3.300 | -1.80 | -10.3 | 14.2 | 96.2 |
| July 14 | 16 26.02 | +54 20.1 | 2.939 | 3.177 | -1.51 | -14.4 | 14.0 | 94.1 |
| July 24 | 16 12.54 | +51 39.2 | 2.855 | 3.052 | -1.14 | -18.1 | 13.7 | 91.3 |
| Aug. 3 | 16 02.83 | +48 24.6 | 2.778 | 2.926 | -0.76 | -21.0 | 13.5 | 88.1 |
| Aug. 13 | 15 56.86 | +44 43.1 | 2.710 | 2.797 | -0.40 | -23.4 | 13.2 | 84.3 |
| Aug. 23 | 15 54.38 | +40 40.6 | 2.648 | 2.666 | -0.07 | -25.2 | 13.0 | 80.0 |
| Sept. 2 | 15 55.03 | +36 22.6 | 2.591 | 2.532 | +0.22 | -26.5 | 12.7 | 75.4 |
| Sept. 12 | 15 58.43 | +31 53.8 | 2.537 | 2.396 | +0.48 | -27.3 | 12.4 | 70.4 |
| Sept. 22 | 16 04.24 | +27 17.4 | 2.487 | 2.257 | +0.70 | -27.9 | 12.1 | 65.2 |
| Oct. 2 | 16 12.23 | +22 36.1 | 2.436 | 2.116 | +0.91 | -28.3 | 11.8 | 59.7 |
| Oct. 12 | 16 22.17 | +17 51.4 | 2.385 | 1.971 | +1.10 | -28.6 | 11.4 | 54.0 |
| Oct. 22 | 16 33.95 | +13 03.6 | 2.330 | 1.823 | +1.28 | -29.0 | 11.0 | 48.1 |
| Nov. 1 | 16 47.53 | +08 12.2 | 2.271 | 1.672 | +1.46 | -29.4 | 10.6 | 42.0 |
| Nov. 11 | 17 02.92 | +03 15.6 | 2.205 | 1.517 | +1.64 | -30.1 | 10.1 | 35.8 |
| Nov. 21 | 17 20.27 | -01 49.6 | 2.131 | 1.359 | +1.85 | -31.1 | 9.6 | 29.4 |
| Dec. 1 | 17 39.87 | -07 07.8 | 2.046 | 1.198 | +2.10 | -32.8 | 8.9 | 22.7 |
| Dec. 11 | 18 02.29 | -12 45.7 | 1.949 | 1.037 | +2.43 | -35.2 | 8.2 | 15.8 |
| Dec. 21 | 18 28.59 | -18 51.5 | 1.837 | 0.878 | +2.91 | -38.4 | 7.4 | 8.9 |
| Dec. 31 | 19 00.82 | -25 32.3 | 1.705 | 0.732 | +3.68 | -42.0 | 6.4 | 5.3 |
| Jan. 10 | 19 43.17 | -32 42.5 | 1.548 | 0.617 | +5.06 | -43.3 | 5.4 | 11.5 |
| Jan. 20 | 20 43.54 | -39 27.0 | 1.366 | 0.566 | +7.43 | -33.9 | 4.8 | 20.8 |
| Jan. 30 | 22 10.79 | -43 04.0 | 1.182 | 0.604 | +10.17 | -2.1 | 4.8 | 30.7 |
| Feb. 9 | 23 57.08 | -39 44.2 | 1.048 | 0.711 | +10.51 | +47.6 | 5.2 | 40.7 |
| Feb. 19 | 01 32.22 | -28 53.1 | 1.014 | 0.854 | +8.07 | +80.0 | 5.9 | 50.5 |
| Mar. 1 | 02 41.31 | -15 19.2 | 1.092 | 1.012 | +5.64 | +78.0 | 6.8 | 57.9 |
| Mar. 11 | 03 30.04 | -03 34.1 | 1.258 | 1.173 | +4.09 | +60.6 | 7.8 | 61.5 |
| Mar. 21 | 04 06.40 | +05 13.1 | 1.477 | 1.334 | +3.17 | +43.9 | 8.7 | 61.7 |
| Mar. 31 | 04 35.45 | +11 33.3 | 1.724 | 1.492 | +2.62 | +31.7 | 9.5 | 59.6 |

Comet C/2024 G6 (ATLAS)

Epoch = 2025 July 24.0 TT
 T = 2026 Feb. 20.71258 TT
 Peri. = 23.43769
 Node = 250.95150 2000.0
 Incl. = 120.45594
 q = 6.4297988 AU
 e = 1.0022740

$$m1 = 5.3 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 17 11.18 | -30 29.5 | 7.873 | 7.003 | +0.40 | +2.5 | 18.2 | 26.2 |
| Jan. 15 | 17 15.00 | -30 05.0 | 7.759 | 6.977 | +0.36 | +2.5 | 18.2 | 35.1 |
| Jan. 25 | 17 18.32 | -29 40.0 | 7.621 | 6.952 | +0.30 | +2.5 | 18.1 | 44.4 |
| Feb. 4 | 17 20.99 | -29 14.1 | 7.462 | 6.927 | +0.23 | +2.6 | 18.1 | 53.9 |
| Feb. 14 | 17 22.88 | -28 47.1 | 7.286 | 6.902 | +0.14 | +2.8 | 18.0 | 63.5 |
| Feb. 24 | 17 23.86 | -28 18.4 | 7.097 | 6.878 | +0.04 | +3.0 | 17.9 | 73.3 |
| Mar. 6 | 17 23.80 | -27 47.6 | 6.898 | 6.855 | -0.07 | +3.2 | 17.9 | 83.4 |
| Mar. 16 | 17 22.60 | -27 14.1 | 6.697 | 6.832 | -0.19 | +3.5 | 17.8 | 93.6 |
| Mar. 26 | 17 20.18 | -26 37.3 | 6.497 | 6.809 | -0.31 | +3.9 | 17.7 | 104.1 |
| Apr. 5 | 17 16.47 | -25 56.7 | 6.306 | 6.788 | -0.44 | +4.3 | 17.6 | 114.9 |
| Apr. 15 | 17 11.49 | -25 11.7 | 6.130 | 6.767 | -0.57 | +4.8 | 17.5 | 125.9 |
| Apr. 25 | 17 05.32 | -24 21.8 | 5.974 | 6.746 | -0.68 | +5.3 | 17.5 | 137.1 |
| May 5 | 16 58.09 | -23 26.9 | 5.845 | 6.726 | -0.77 | +5.8 | 17.4 | 148.6 |
| May 15 | 16 50.03 | -22 27.3 | 5.747 | 6.707 | -0.84 | +6.2 | 17.4 | 160.2 |
| May 25 | 16 41.45 | -21 23.7 | 5.684 | 6.688 | -0.87 | +6.5 | 17.3 | 171.9 |
| June 4 | 16 32.68 | -20 17.3 | 5.657 | 6.670 | -0.87 | +6.7 | 17.3 | 175.9 |
| June 14 | 16 24.10 | -19 09.8 | 5.668 | 6.652 | -0.84 | +6.7 | 17.3 | 164.4 |
| June 24 | 16 16.02 | -18 02.9 | 5.715 | 6.635 | -0.77 | +6.6 | 17.3 | 152.8 |
| July 4 | 16 08.73 | -16 58.6 | 5.795 | 6.619 | -0.68 | +6.2 | 17.3 | 141.3 |
| July 14 | 16 02.45 | -15 58.3 | 5.902 | 6.603 | -0.57 | +5.8 | 17.4 | 130.1 |
| July 24 | 15 57.29 | -15 03.0 | 6.033 | 6.588 | -0.45 | +5.2 | 17.4 | 119.2 |
| Aug. 3 | 15 53.33 | -14 13.4 | 6.180 | 6.574 | -0.33 | +4.6 | 17.4 | 108.5 |
| Aug. 13 | 15 50.57 | -13 29.7 | 6.338 | 6.560 | -0.21 | +4.1 | 17.5 | 98.2 |
| Aug. 23 | 15 48.95 | -12 51.4 | 6.502 | 6.547 | -0.10 | +3.5 | 17.5 | 88.1 |
| Sept. 2 | 15 48.41 | -12 18.2 | 6.664 | 6.534 | 0.00 | +3.1 | 17.6 | 78.3 |
| Sept. 12 | 15 48.85 | -11 49.2 | 6.820 | 6.523 | +0.09 | +2.7 | 17.6 | 68.7 |
| Sept. 22 | 15 50.17 | -11 23.7 | 6.966 | 6.512 | +0.18 | +2.4 | 17.7 | 59.3 |
| Oct. 2 | 15 52.25 | -11 00.7 | 7.097 | 6.501 | +0.25 | +2.2 | 17.7 | 50.2 |
| Oct. 12 | 15 54.98 | -10 39.2 | 7.209 | 6.492 | +0.30 | +2.1 | 17.7 | 41.2 |
| Oct. 22 | 15 58.24 | -10 18.5 | 7.300 | 6.483 | +0.35 | +2.1 | 17.7 | 32.5 |
| Nov. 1 | 16 01.94 | -09 57.5 | 7.367 | 6.474 | +0.39 | +2.1 | 17.7 | 24.2 |
| Nov. 11 | 16 05.95 | -09 35.3 | 7.408 | 6.467 | +0.41 | +2.3 | 17.8 | 16.9 |
| Nov. 21 | 16 10.15 | -09 11.3 | 7.422 | 6.460 | +0.43 | +2.5 | 17.8 | 12.2 |
| Dec. 1 | 16 14.45 | -08 44.4 | 7.409 | 6.454 | +0.43 | +2.9 | 17.7 | 13.4 |
| Dec. 11 | 16 18.71 | -08 13.9 | 7.369 | 6.448 | +0.42 | +3.3 | 17.7 | 19.4 |
| Dec. 21 | 16 22.82 | -07 39.2 | 7.302 | 6.443 | +0.40 | +3.7 | 17.7 | 27.3 |
| Dec. 31 | 16 26.65 | -06 59.5 | 7.211 | 6.439 | +0.36 | +4.3 | 17.7 | 35.9 |
| Jan. 10 | 16 30.09 | -06 14.2 | 7.097 | 6.436 | +0.32 | +4.9 | 17.6 | 44.8 |
| Jan. 20 | 16 32.99 | -05 22.7 | 6.963 | 6.433 | +0.26 | +5.5 | 17.6 | 54.0 |
| Jan. 30 | 16 35.24 | -04 24.5 | 6.813 | 6.431 | +0.18 | +6.2 | 17.5 | 63.3 |
| Feb. 9 | 16 36.69 | -03 19.4 | 6.652 | 6.430 | +0.10 | +6.9 | 17.5 | 72.8 |
| Feb. 19 | 16 37.23 | -02 07.1 | 6.484 | 6.430 | 0.00 | +7.6 | 17.4 | 82.5 |
| Mar. 1 | 16 36.73 | +00 47.7 | 6.314 | 6.430 | -0.11 | +8.3 | 17.4 | 92.3 |
| Mar. 11 | 16 35.10 | +00 38.3 | 6.149 | 6.431 | -0.23 | +8.9 | 17.3 | 102.1 |
| Mar. 21 | 16 32.27 | +02 10.0 | 5.994 | 6.433 | -0.35 | +9.4 | 17.3 | 111.9 |
| Mar. 31 | 16 28.21 | +03 46.1 | 5.855 | 6.435 | -0.47 | +9.8 | 17.2 | 121.6 |

Comet C/2024 G4 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2026 Mar. 21.60263 TT
 Peri. = 131.41926
 Node = 152.98018 2000.0
 Incl. = 33.02643
 q = 4.9005474 AU
 e = 0.9984727

$$m1 = -0.8 + 5 \log(\Delta) + 20.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 16 19.33 | +08 32.0 | 6.515 | 5.942 | +0.81 | +0.8 | 18.7 | 50.8 |
| Jan. 15 | 16 27.30 | +08 43.5 | 6.373 | 5.901 | +0.78 | +1.6 | 18.6 | 57.3 |
| Jan. 25 | 16 34.86 | +09 02.4 | 6.221 | 5.860 | +0.73 | +2.3 | 18.5 | 64.2 |
| Feb. 4 | 16 41.88 | +09 28.7 | 6.062 | 5.819 | +0.67 | +3.0 | 18.4 | 71.2 |
| Feb. 14 | 16 48.26 | +10 01.8 | 5.898 | 5.780 | +0.60 | +3.7 | 18.3 | 78.3 |
| Feb. 24 | 16 53.87 | +10 41.3 | 5.731 | 5.740 | +0.52 | +4.3 | 18.2 | 85.6 |
| Mar. 6 | 16 58.61 | +11 26.2 | 5.565 | 5.702 | +0.42 | +4.7 | 18.0 | 92.9 |
| Mar. 16 | 17 02.38 | +12 15.3 | 5.402 | 5.664 | +0.32 | +5.1 | 17.9 | 100.3 |
| Mar. 26 | 17 05.10 | +13 07.2 | 5.246 | 5.627 | +0.21 | +5.3 | 17.8 | 107.5 |
| Apr. 5 | 17 06.70 | +14 00.0 | 5.099 | 5.591 | +0.10 | +5.2 | 17.7 | 114.6 |
| Apr. 15 | 17 07.17 | +14 51.4 | 4.966 | 5.555 | -0.01 | +5.0 | 17.6 | 121.4 |
| Apr. 25 | 17 06.53 | +15 39.0 | 4.847 | 5.520 | -0.12 | +4.5 | 17.5 | 127.7 |
| May 5 | 17 04.86 | +16 20.3 | 4.747 | 5.485 | -0.22 | +3.7 | 17.4 | 133.1 |
| May 15 | 17 02.31 | +16 52.7 | 4.666 | 5.452 | -0.29 | +2.7 | 17.3 | 137.3 |
| May 25 | 16 59.10 | +17 14.0 | 4.606 | 5.419 | -0.35 | +1.4 | 17.2 | 139.8 |
| June 4 | 16 55.50 | +17 22.3 | 4.569 | 5.387 | -0.37 | +0.1 | 17.1 | 140.2 |
| June 14 | 16 51.81 | +17 16.7 | 4.553 | 5.356 | -0.36 | -1.3 | 17.1 | 138.5 |
| June 24 | 16 48.33 | +16 57.1 | 4.560 | 5.326 | -0.32 | -2.7 | 17.0 | 134.9 |
| July 4 | 16 45.37 | +16 23.9 | 4.586 | 5.297 | -0.26 | -4.0 | 17.0 | 130.0 |
| July 14 | 16 43.19 | +15 38.6 | 4.631 | 5.268 | -0.17 | -5.1 | 17.0 | 124.1 |
| July 24 | 16 41.96 | +14 43.1 | 4.692 | 5.241 | -0.06 | -6.0 | 16.9 | 117.6 |
| Aug. 3 | 16 41.84 | +13 39.4 | 4.767 | 5.214 | +0.05 | -6.7 | 16.9 | 110.8 |
| Aug. 13 | 16 42.89 | +12 29.8 | 4.852 | 5.189 | +0.17 | -7.2 | 16.9 | 103.8 |
| Aug. 23 | 16 45.12 | +11 16.4 | 4.946 | 5.164 | +0.29 | -7.5 | 16.9 | 96.8 |
| Sept. 2 | 16 48.53 | +10 01.3 | 5.046 | 5.140 | +0.40 | -7.5 | 16.9 | 89.7 |
| Sept. 12 | 16 53.07 | +08 46.3 | 5.147 | 5.118 | +0.51 | -7.4 | 16.9 | 82.7 |
| Sept. 22 | 16 58.66 | +07 32.9 | 5.249 | 5.096 | +0.61 | -7.2 | 16.9 | 75.7 |
| Oct. 2 | 17 05.23 | +06 22.3 | 5.349 | 5.075 | +0.71 | -6.8 | 17.0 | 68.9 |
| Oct. 12 | 17 12.68 | +05 15.9 | 5.444 | 5.056 | +0.79 | -6.4 | 17.0 | 62.2 |
| Oct. 22 | 17 20.91 | +04 14.3 | 5.532 | 5.038 | +0.86 | -5.9 | 17.0 | 55.6 |
| Nov. 1 | 17 29.85 | +03 18.5 | 5.612 | 5.020 | +0.93 | -5.2 | 17.0 | 49.2 |
| Nov. 11 | 17 39.37 | +02 29.0 | 5.681 | 5.004 | +0.98 | -4.6 | 17.0 | 43.1 |
| Nov. 21 | 17 49.38 | +01 46.1 | 5.739 | 4.989 | +1.03 | -3.9 | 17.0 | 37.3 |
| Dec. 1 | 17 59.79 | +01 10.4 | 5.783 | 4.975 | +1.06 | -3.2 | 16.9 | 32.1 |
| Dec. 11 | 18 10.49 | +00 41.8 | 5.813 | 4.962 | +1.08 | -2.5 | 16.9 | 27.7 |
| Dec. 21 | 18 21.39 | +00 20.5 | 5.828 | 4.951 | +1.10 | -1.7 | 16.9 | 24.6 |
| Dec. 31 | 18 32.38 | +00 06.4 | 5.828 | 4.940 | +1.10 | -1.0 | 16.9 | 23.3 |
| Jan. 10 | 18 43.36 | +00 00.7 | 5.812 | 4.931 | +1.09 | -0.3 | 16.9 | 24.1 |
| Jan. 20 | 18 54.24 | +00 01.1 | 5.780 | 4.923 | +1.08 | +0.3 | 16.9 | 26.9 |
| Jan. 30 | 19 04.91 | +00 04.8 | 5.733 | 4.916 | +1.05 | +0.9 | 16.8 | 31.2 |
| Feb. 9 | 19 15.29 | +00 16.4 | 5.670 | 4.911 | +1.02 | +1.4 | 16.8 | 36.4 |
| Feb. 19 | 19 25.27 | +00 33.1 | 5.593 | 4.906 | +0.97 | +1.9 | 16.8 | 42.2 |
| Mar. 1 | 19 34.75 | +00 54.1 | 5.503 | 4.903 | +0.92 | +2.3 | 16.7 | 48.5 |
| Mar. 11 | 19 43.64 | +01 18.4 | 5.400 | 4.901 | +0.85 | +2.6 | 16.7 | 55.2 |
| Mar. 21 | 19 51.85 | +01 45.3 | 5.287 | 4.901 | +0.78 | +2.8 | 16.6 | 62.1 |
| Mar. 31 | 19 59.27 | +02 13.6 | 5.166 | 4.901 | +0.70 | +2.9 | 16.6 | 69.2 |

Comet C/2023 R1 (PANSTARRS)

Epoch = 2025 July 24.0 TT
 T = 2026 Apr. 13.46948 TT
 Peri. = 144.27176
 Node = 62.56333 2000.0
 Incl. = 149.31694
 q = 3.5698875 AU
 e = 1.0022583

$$m1 = 5.7 + 5 \log(\Delta) + 10.0 \log(r)$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|-------|------|--------|
| 2025/26 | h m | ° ' | | | m | ' | | ° |
| Jan. 5 | 22 10.98 | +17 50.1 | 5.800 | 5.395 | +0.11 | -3.3 | 16.8 | 61.2 |
| Jan. 15 | 22 12.42 | +17 22.1 | 5.875 | 5.334 | +0.18 | -2.2 | 16.8 | 52.5 |
| Jan. 25 | 22 14.51 | +17 04.7 | 5.931 | 5.274 | +0.24 | -1.2 | 16.8 | 44.5 |
| Feb. 4 | 22 17.07 | +16 57.2 | 5.966 | 5.214 | +0.28 | -0.2 | 16.7 | 37.1 |
| Feb. 14 | 22 19.95 | +16 59.0 | 5.975 | 5.154 | +0.30 | +0.7 | 16.7 | 31.0 |
| Feb. 24 | 22 22.98 | +17 09.2 | 5.959 | 5.095 | +0.31 | +1.5 | 16.6 | 26.8 |
| Mar. 6 | 22 26.03 | +17 27.2 | 5.915 | 5.036 | +0.30 | +2.2 | 16.6 | 25.2 |
| Mar. 16 | 22 28.93 | +17 52.2 | 5.845 | 4.978 | +0.28 | +2.9 | 16.5 | 26.8 |
| Mar. 26 | 22 31.55 | +18 23.5 | 5.748 | 4.920 | +0.24 | +3.4 | 16.4 | 31.0 |
| Apr. 5 | 22 33.71 | +19 00.3 | 5.625 | 4.863 | +0.18 | +4.0 | 16.3 | 36.9 |
| Apr. 15 | 22 35.24 | +19 42.0 | 5.479 | 4.806 | +0.11 | +4.4 | 16.2 | 43.9 |
| Apr. 25 | 22 35.96 | +20 27.5 | 5.311 | 4.750 | +0.02 | +4.7 | 16.1 | 51.5 |
| May 5 | 22 35.66 | +21 16.0 | 5.124 | 4.694 | -0.10 | +5.0 | 16.0 | 59.5 |
| May 15 | 22 34.08 | +22 06.3 | 4.923 | 4.640 | -0.24 | +5.1 | 15.8 | 68.0 |
| May 25 | 22 30.98 | +22 56.8 | 4.711 | 4.586 | -0.40 | +5.0 | 15.7 | 76.7 |
| June 4 | 22 26.07 | +23 45.4 | 4.494 | 4.533 | -0.60 | +4.6 | 15.5 | 85.7 |
| June 14 | 22 19.06 | +24 29.2 | 4.276 | 4.480 | -0.83 | +4.0 | 15.4 | 95.0 |
| June 24 | 22 09.68 | +25 04.7 | 4.064 | 4.429 | -1.08 | +2.9 | 15.2 | 104.5 |
| July 4 | 21 57.74 | +25 26.9 | 3.866 | 4.378 | -1.34 | +1.3 | 15.0 | 113.9 |
| July 14 | 21 43.25 | +25 30.3 | 3.688 | 4.329 | -1.58 | -0.9 | 14.9 | 123.2 |
| July 24 | 21 26.44 | +25 09.1 | 3.539 | 4.280 | -1.79 | -3.7 | 14.8 | 131.5 |
| Aug. 3 | 21 07.89 | +24 18.6 | 3.425 | 4.233 | -1.92 | -6.8 | 14.6 | 137.9 |
| Aug. 13 | 20 48.50 | +22 56.9 | 3.351 | 4.187 | -1.94 | -9.8 | 14.5 | 140.9 |
| Aug. 23 | 20 29.33 | +21 05.9 | 3.321 | 4.142 | -1.86 | -12.5 | 14.5 | 139.4 |
| Sept. 2 | 20 11.44 | +18 51.9 | 3.335 | 4.098 | -1.69 | -14.3 | 14.4 | 133.8 |
| Sept. 12 | 19 55.62 | +16 23.9 | 3.388 | 4.055 | -1.45 | -15.2 | 14.4 | 125.4 |
| Sept. 22 | 19 42.34 | +13 51.1 | 3.476 | 4.014 | -1.18 | -15.2 | 14.4 | 115.6 |
| Oct. 2 | 19 31.76 | +11 21.6 | 3.591 | 3.974 | -0.91 | -14.5 | 14.5 | 105.3 |
| Oct. 12 | 19 23.80 | +09 01.3 | 3.723 | 3.936 | -0.66 | -13.4 | 14.5 | 94.9 |
| Oct. 22 | 19 18.22 | +06 53.5 | 3.866 | 3.900 | -0.44 | -12.0 | 14.5 | 84.6 |
| Nov. 1 | 19 14.72 | +04 59.7 | 4.010 | 3.864 | -0.25 | -10.6 | 14.6 | 74.5 |
| Nov. 11 | 19 12.98 | +03 20.3 | 4.148 | 3.831 | -0.09 | -9.2 | 14.6 | 64.7 |
| Nov. 21 | 19 12.70 | +01 54.7 | 4.274 | 3.800 | +0.04 | -7.8 | 14.7 | 55.3 |
| Dec. 1 | 19 13.59 | +00 42.0 | 4.384 | 3.770 | +0.14 | -6.6 | 14.7 | 46.2 |
| Dec. 11 | 19 15.36 | +00 18.7 | 4.472 | 3.742 | +0.22 | -5.5 | 14.7 | 37.7 |
| Dec. 21 | 19 17.80 | -01 08.6 | 4.536 | 3.716 | +0.27 | -4.4 | 14.7 | 29.9 |
| Dec. 31 | 19 20.67 | -01 48.9 | 4.573 | 3.692 | +0.30 | -3.5 | 14.7 | 23.5 |
| Jan. 10 | 19 23.75 | -02 20.6 | 4.581 | 3.670 | +0.31 | -2.7 | 14.7 | 19.7 |
| Jan. 20 | 19 26.85 | -02 44.8 | 4.559 | 3.650 | +0.30 | -2.0 | 14.6 | 20.0 |
| Jan. 30 | 19 29.75 | -03 02.5 | 4.507 | 3.632 | +0.27 | -1.5 | 14.6 | 24.3 |
| Feb. 9 | 19 32.23 | -03 14.7 | 4.426 | 3.616 | +0.22 | -1.0 | 14.5 | 31.0 |
| Feb. 19 | 19 34.09 | -03 22.5 | 4.317 | 3.603 | +0.14 | -0.6 | 14.4 | 39.0 |
| Mar. 1 | 19 35.06 | -03 27.0 | 4.182 | 3.592 | +0.04 | -0.3 | 14.4 | 47.8 |
| Mar. 11 | 19 34.87 | -03 29.4 | 4.025 | 3.583 | -0.09 | -0.2 | 14.3 | 57.0 |
| Mar. 21 | 19 33.21 | -03 31.1 | 3.850 | 3.576 | -0.26 | -0.2 | 14.2 | 66.8 |
| Mar. 31 | 19 29.69 | -03 33.6 | 3.661 | 3.572 | -0.47 | -0.4 | 14.0 | 77.0 |

Comet 74P/Smirnova-Chernykh

Epoch = 2025 July 24.0 TT
 T = 2026 June 11.62207 TT
 Peri. = 64.93828 e = 0.0453503
 Node = 52.77870 2000.0 a = 5.0587852 AU
 Incl. = 6.14412 n = 0.08662330
 q = 4.8293678 AU P = 11.38 years

$$m1 = 6.0 + 5 \log(\Delta) + 15.0 \log(r(t-90))$$

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | m1 | Elong. |
|----------|--------------|----------|-------|-------|--------------|------|--------|
| 2025/26 | h m | ° | | | m | | ° |
| Jan. 5 | 03 51.56 | +22 11.3 | 4.149 | 4.903 | -0.28 -0.5 | 19.5 | 135.9 |
| Jan. 15 | 03 49.39 | +22 08.0 | 4.266 | 4.900 | -0.14 -0.1 | 19.5 | 125.2 |
| Jan. 25 | 03 48.71 | +22 08.4 | 4.401 | 4.898 | +0.01 +0.3 | 19.6 | 114.9 |
| Feb. 4 | 03 49.54 | +22 13.0 | 4.547 | 4.895 | +0.16 +0.7 | 19.7 | 105.0 |
| Feb. 14 | 03 51.82 | +22 21.6 | 4.700 | 4.893 | +0.30 +1.1 | 19.7 | 95.4 |
| Feb. 24 | 03 55.44 | +22 33.8 | 4.855 | 4.890 | +0.43 +1.4 | 19.8 | 86.2 |
| Mar. 6 | 04 00.31 | +22 49.2 | 5.009 | 4.888 | +0.55 +1.7 | 19.9 | 77.3 |
| Mar. 16 | 04 06.28 | +23 06.9 | 5.158 | 4.885 | +0.65 +1.9 | 19.9 | 68.7 |
| Mar. 26 | 04 13.23 | +23 26.4 | 5.298 | 4.883 | +0.74 +2.0 | 20.0 | 60.4 |
| Apr. 5 | 04 21.02 | +23 46.8 | 5.427 | 4.881 | +0.82 +2.1 | 20.0 | 52.4 |
| Apr. 15 | 04 29.54 | +24 07.7 | 5.542 | 4.879 | +0.89 +2.1 | 20.1 | 44.6 |
| Apr. 25 | 04 38.66 | +24 28.2 | 5.643 | 4.876 | +0.94 +2.0 | 20.1 | 36.9 |
| May 5 | 04 48.30 | +24 48.0 | 5.727 | 4.874 | +0.99 +1.9 | 20.1 | 29.4 |
| May 15 | 04 58.34 | +25 06.5 | 5.794 | 4.872 | +1.02 +1.8 | 20.2 | 22.1 |
| May 25 | 05 08.68 | +25 23.3 | 5.842 | 4.870 | +1.05 +1.6 | 20.2 | 14.9 |
| June 4 | 05 19.25 | +25 38.3 | 5.871 | 4.868 | +1.06 +1.4 | 20.2 | 7.9 |
| June 14 | 05 29.94 | +25 51.1 | 5.880 | 4.866 | +1.07 +1.2 | 20.2 | 2.6 |
| June 24 | 05 40.68 | +26 01.8 | 5.871 | 4.864 | +1.07 +0.9 | 20.2 | 7.3 |
| July 4 | 05 51.37 | +26 10.3 | 5.842 | 4.862 | +1.06 +0.7 | 20.2 | 14.1 |
| July 14 | 06 01.91 | +26 16.7 | 5.794 | 4.860 | +1.04 +0.5 | 20.1 | 21.2 |
| July 24 | 06 12.24 | +26 21.1 | 5.728 | 4.859 | +1.02 +0.3 | 20.1 | 28.4 |
| Aug. 3 | 06 22.24 | +26 23.9 | 5.644 | 4.857 | +0.98 +0.2 | 20.1 | 35.7 |
| Aug. 13 | 06 31.81 | +26 25.4 | 5.545 | 4.855 | +0.93 +0.1 | 20.0 | 43.1 |
| Aug. 23 | 06 40.86 | +26 26.0 | 5.430 | 4.853 | +0.87 0.0 | 20.0 | 50.7 |
| Sept. 2 | 06 49.25 | +26 26.4 | 5.303 | 4.852 | +0.80 0.0 | 19.9 | 58.5 |
| Sept. 12 | 06 56.88 | +26 27.0 | 5.164 | 4.850 | +0.72 +0.1 | 19.9 | 66.5 |
| Sept. 22 | 07 03.60 | +26 28.6 | 5.016 | 4.849 | +0.62 +0.2 | 19.8 | 74.7 |
| Oct. 2 | 07 09.28 | +26 31.7 | 4.862 | 4.847 | +0.50 +0.4 | 19.7 | 83.2 |
| Oct. 12 | 07 13.77 | +26 37.0 | 4.706 | 4.846 | +0.38 +0.7 | 19.7 | 92.1 |
| Oct. 22 | 07 16.94 | +26 45.0 | 4.550 | 4.845 | +0.24 +1.0 | 19.6 | 101.3 |
| Nov. 1 | 07 18.65 | +26 56.0 | 4.400 | 4.843 | +0.09 +1.3 | 19.5 | 110.9 |
| Nov. 11 | 07 18.83 | +27 10.0 | 4.259 | 4.842 | -0.07 +1.6 | 19.4 | 120.8 |
| Nov. 21 | 07 17.41 | +27 26.6 | 4.133 | 4.841 | -0.23 +1.8 | 19.4 | 131.2 |
| Dec. 1 | 07 14.46 | +27 45.1 | 4.026 | 4.840 | -0.37 +1.9 | 19.3 | 141.9 |
| Dec. 11 | 07 10.13 | +28 04.3 | 3.942 | 4.839 | -0.50 +1.9 | 19.3 | 152.8 |
| Dec. 21 | 07 04.68 | +28 22.6 | 3.886 | 4.838 | -0.59 +1.7 | 19.2 | 163.7 |
| Dec. 31 | 06 58.54 | +28 38.6 | 3.859 | 4.837 | -0.63 +1.4 | 19.2 | 173.1 |
| Jan. 10 | 06 52.18 | +28 51.1 | 3.864 | 4.836 | -0.63 +1.0 | 19.2 | 170.1 |
| Jan. 20 | 06 46.12 | +28 59.3 | 3.900 | 4.835 | -0.57 +0.6 | 19.2 | 159.7 |
| Jan. 30 | 06 40.86 | +29 03.2 | 3.965 | 4.834 | -0.47 +0.2 | 19.3 | 148.7 |
| Feb. 9 | 06 36.78 | +29 03.1 | 4.057 | 4.834 | -0.33 -0.2 | 19.3 | 137.9 |
| Feb. 19 | 06 34.14 | +28 59.8 | 4.170 | 4.833 | -0.18 -0.5 | 19.4 | 127.3 |
| Mar. 1 | 06 33.10 | +28 53.9 | 4.300 | 4.832 | -0.01 -0.7 | 19.4 | 117.1 |
| Mar. 11 | 06 33.68 | +28 46.2 | 4.443 | 4.832 | +0.14 -0.9 | 19.5 | 107.3 |
| Mar. 21 | 06 35.82 | +28 37.0 | 4.594 | 4.831 | +0.30 -1.0 | 19.6 | 97.8 |
| Mar. 31 | 06 39.42 | +28 26.6 | 4.748 | 4.831 | +0.43 -1.1 | 19.7 | 88.8 |

Comet 95P/(2060) Chiron

Epoch = 2025 July 24.0 TT
 T = 2046 Aug. 12.41101 TT
 Peri. = 339.24563
 Node = 209.30031 2000.0
 Incl. = 6.92346
 q = 8.5127367 AU

e = 0.3784840
 a = 13.6967298 AU
 n = 0.01944369
 P = 50.69 years

H = 5.3 , G = 0.15

| Oh TT | R. A. (2000) | Decl. | Delta | r | Daily motion | V | Elong. |
|----------|--------------|----------|--------|--------|--------------|------|--------|
| 2025/26 | h m | ° | ' | | m | | ° |
| Jan. 5 | 01 07.47 | +08 10.3 | 18.490 | 18.586 | +0.03 | 0.0 | 94.1 |
| Jan. 15 | 01 07.89 | +08 11.5 | 18.659 | 18.582 | +0.06 | +0.2 | 84.0 |
| Jan. 25 | 01 08.65 | +08 14.9 | 18.824 | 18.578 | +0.09 | +0.4 | 74.1 |
| Feb. 4 | 01 09.72 | +08 20.2 | 18.982 | 18.573 | +0.12 | +0.6 | 64.2 |
| Feb. 14 | 01 11.08 | +08 27.3 | 19.126 | 18.569 | +0.15 | +0.8 | 54.4 |
| Feb. 24 | 01 12.70 | +08 36.0 | 19.254 | 18.565 | +0.17 | +0.9 | 44.8 |
| Mar. 6 | 01 14.54 | +08 46.0 | 19.362 | 18.560 | +0.19 | +1.1 | 35.2 |
| Mar. 16 | 01 16.54 | +08 57.1 | 19.446 | 18.556 | +0.21 | +1.2 | 25.8 |
| Mar. 26 | 01 18.68 | +09 09.1 | 19.506 | 18.551 | +0.22 | +1.2 | 16.4 |
| Apr. 5 | 01 20.89 | +09 21.5 | 19.539 | 18.546 | +0.22 | +1.3 | 7.1 |
| Apr. 15 | 01 23.15 | +09 34.1 | 19.544 | 18.542 | +0.23 | +1.3 | 2.3 |
| Apr. 25 | 01 25.39 | +09 46.7 | 19.522 | 18.537 | +0.22 | +1.2 | 11.3 |
| May 5 | 01 27.59 | +09 59.0 | 19.474 | 18.533 | +0.21 | +1.2 | 20.5 |
| May 15 | 01 29.68 | +10 10.7 | 19.400 | 18.528 | +0.20 | +1.1 | 29.6 |
| May 25 | 01 31.63 | +10 21.5 | 19.303 | 18.523 | +0.19 | +1.0 | 38.7 |
| June 4 | 01 33.40 | +10 31.4 | 19.184 | 18.518 | +0.17 | +0.9 | 47.8 |
| June 14 | 01 34.96 | +10 39.9 | 19.048 | 18.514 | +0.14 | +0.8 | 57.0 |
| June 24 | 01 36.26 | +10 47.0 | 18.896 | 18.509 | +0.12 | +0.6 | 66.2 |
| July 4 | 01 37.28 | +10 52.5 | 18.733 | 18.504 | +0.09 | +0.5 | 75.4 |
| July 14 | 01 38.00 | +10 56.3 | 18.564 | 18.499 | +0.05 | +0.3 | 84.8 |
| July 24 | 01 38.39 | +10 58.1 | 18.391 | 18.494 | +0.02 | +0.1 | 94.2 |
| Aug. 3 | 01 38.45 | +10 58.1 | 18.221 | 18.489 | -0.01 | -0.1 | 103.8 |
| Aug. 13 | 01 38.17 | +10 56.1 | 18.058 | 18.484 | -0.05 | -0.3 | 113.4 |
| Aug. 23 | 01 37.57 | +10 52.3 | 17.906 | 18.479 | -0.08 | -0.5 | 123.2 |
| Sept. 2 | 01 36.67 | +10 46.6 | 17.770 | 18.474 | -0.11 | -0.7 | 133.1 |
| Sept. 12 | 01 35.50 | +10 39.4 | 17.654 | 18.469 | -0.13 | -0.8 | 143.1 |
| Sept. 22 | 01 34.09 | +10 30.7 | 17.562 | 18.464 | -0.15 | -0.9 | 153.3 |
| Oct. 2 | 01 32.52 | +10 20.9 | 17.497 | 18.459 | -0.16 | -1.0 | 163.5 |
| Oct. 12 | 01 30.83 | +10 10.4 | 17.461 | 18.454 | -0.17 | -1.1 | 173.8 |
| Oct. 22 | 01 29.11 | +09 59.5 | 17.456 | 18.448 | -0.17 | -1.1 | 175.8 |
| Nov. 1 | 01 27.41 | +09 48.7 | 17.481 | 18.443 | -0.16 | -1.1 | 165.4 |
| Nov. 11 | 01 25.83 | +09 38.4 | 17.536 | 18.438 | -0.15 | -1.0 | 154.9 |
| Nov. 21 | 01 24.41 | +09 29.0 | 17.620 | 18.433 | -0.13 | -0.9 | 144.5 |
| Dec. 1 | 01 23.22 | +09 21.0 | 17.728 | 18.427 | -0.10 | -0.7 | 134.0 |
| Dec. 11 | 01 22.32 | +09 14.5 | 17.858 | 18.422 | -0.07 | -0.5 | 123.6 |
| Dec. 21 | 01 21.73 | +09 10.0 | 18.005 | 18.416 | -0.04 | -0.3 | 113.3 |
| Dec. 31 | 01 21.49 | +09 07.4 | 18.164 | 18.411 | 0.00 | -0.1 | 103.0 |
| Jan. 10 | 01 21.60 | +09 07.0 | 18.330 | 18.406 | +0.03 | +0.1 | 92.9 |
| Jan. 20 | 01 22.06 | +09 08.7 | 18.497 | 18.400 | +0.07 | +0.3 | 82.8 |
| Jan. 30 | 01 22.86 | +09 12.4 | 18.661 | 18.395 | +0.10 | +0.5 | 72.9 |
| Feb. 9 | 01 23.99 | +09 18.1 | 18.816 | 18.389 | +0.13 | +0.7 | 63.0 |
| Feb. 19 | 01 25.40 | +09 25.4 | 18.958 | 18.383 | +0.16 | +0.8 | 53.3 |
| Mar. 1 | 01 27.07 | +09 34.3 | 19.082 | 18.378 | +0.18 | +1.0 | 43.6 |
| Mar. 11 | 01 28.95 | +09 44.5 | 19.186 | 18.372 | +0.20 | +1.1 | 34.1 |
| Mar. 21 | 01 31.00 | +09 55.6 | 19.267 | 18.366 | +0.21 | +1.2 | 24.7 |
| Mar. 31 | 01 33.19 | +10 07.5 | 19.322 | 18.361 | +0.22 | +1.2 | 15.4 |

Orbital elements:

Comet 29P/Schwassmann-Wachmann

Epoch 2019 Mar. 18.0 TT = JDT 2458560.5

T 2019 Mar. 7.74919 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 5.7668259 | (2000.0) | | | |
| n | 0.06662630 | Peri. | 47.77384 | +0.99270165 | -0.00956041 |
| a | 6.0261360 | Node | 312.39464 | -0.05135932 | +0.86841703 |
| e | 0.0430309 | Incl. | 9.36834 | +0.10911303 | +0.49574233 |
| P | 14.79 | | | | |

From 19657 observations 2018 May 1–2025 Jan. 27, mean residual 0".56.

Comet C/2017 K2 (PANSTARRS)

Epoch 2022 Dec. 7.0 TT = JDT 2459920.5

T 2022 Dec. 19.68774 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 1.7970244 | (2000.0) | | | |
| z | -0.0004824 | Peri. | 236.19542 | +0.01818904 | +0.04922772 |
| | +/-0.0000001 | Node | 88.23584 | -0.18097830 | +0.98245089 |
| e | 1.0008670 | Incl. | 87.56290 | -0.98331888 | -0.17990795 |

From 10364 observations 2013 May 12–2025 Jan. 23, mean residual 0".73.

Comet C/2019 U5 (PANSTARRS)

Epoch 2023 Apr. 6.0 TT = JDT 2460040.5

T 2023 Mar. 29.84000 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.6242030 | (2000.0) | | | |
| z | -0.0004021 | Peri. | 181.49486 | -0.99907986 | +0.00770306 |
| | +/-0.0000001 | Node | 2.63734 | -0.02314643 | +0.73133369 |
| e | 1.0014574 | Incl. | 113.51999 | -0.03610644 | -0.68197632 |

From 5146 observations 2019 Oct. 11–2025 Jan. 14, mean residual 0".45.

Comet C/2020 K1 (PANSTARRS)

Epoch 2023 May 16.0 TT = JDT 2460080.5

T 2023 May 9.08484 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.0733377 | (2000.0) | | | |
| z | +0.0000087 | Peri. | 213.98427 | +0.06617479 | -0.03769955 |
| | +/-0.0000002 | Node | 94.35548 | -0.53600711 | +0.84151938 |
| e | 0.9999733 | Incl. | 89.67078 | -0.84161587 | -0.53890990 |

From 3367 observations 2020 Apr. 17–2025 Jan. 9, mean residual 0".56.

Comet C/2021 A9 (PANSTARRS)

Epoch 2023 Dec. 2.0 TT = JDT 2460280.5

T 2023 Dec. 1.90224 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 7.7601292 | (2000.0) | | | |
| z | -0.0001758 | Peri. | 211.47246 | -0.25804547 | +0.92894053 |
| | +/-0.0000011 | Node | 314.83553 | +0.94582887 | +0.29893711 |
| e | 1.0013638 | Incl. | 158.01408 | +0.19702865 | -0.21841726 |

From 437 observations 2020 Dec. 12–2025 Jan. 25, mean residual 0".55.

Comet C/2021 S3 (PANSTARRS)

Epoch 2024 Feb. 20.0 TT = JDT 2460360.5

T 2024 Feb. 14.71148 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 1.3202211 | (2000.0) | | | |
| z | -0.0002325 | Peri. | 6.85500 | -0.77078831 | +0.39887867 |
| | +/-0.0000002 | Node | 215.62101 | -0.61750435 | -0.65961039 |
| e | 1.0003070 | Incl. | 58.53299 | -0.15676018 | +0.63703214 |

From 4295 observations 2020 Dec. 6–2025 Jan. 13, mean residual 0".68.

Comet C/2022 L2 (ATLAS)

Epoch 2024 Mar. 31.0 TT = JDT 2460400.5

T 2024 Mar. 12.26181 TT

| | | | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 2.6927313 | (2000.0) | | | |
| z | -0.0004724 | Peri. | 199.91746 | -0.86469651 | -0.11297566 |
| | +/-0.0000017 | Node | 39.24144 | -0.28746339 | +0.91033733 |
| e | 1.0012720 | Incl. | 129.31411 | -0.41190381 | -0.39814878 |

From 2803 observations 2022 May 20–2025 Jan. 13, mean residual 0".52.

Nongravitational parameters Y1 = +2.29, Y2 = -1.4412.

Comet 130P/McNaught-Hughes

Epoch 2024 Mar. 31.0 TT = JDT 2460400.5

T 2024 Apr. 14.88281 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8229860 | | | | |
| n | 0.15851949 | Peri. | 246.12770 | +0.71822813 | +0.68867489 |
| a | 3.3812784 | Node | 70.17844 | -0.59378588 | +0.68108648 |
| e | 0.4608589 | Incl. | 6.06362 | -0.36272121 | +0.24869278 |
| P | 6.22 | | | | |

From 2253 observations 1991 Sept. 30–2025 Jan. 12, mean residual 0".63.

Comet C/2024 A2 (ATLAS)

Epoch 2024 May 10.0 TT = JDT 2460440.5

T 2024 Apr. 28.90311 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 1.8816275 | | | | |
| z | +0.0309324 | Peri. | 295.57885 | -0.34096626 | +0.39054244 |
| | +/-0.0000004 | Node | 78.16740 | +0.78373356 | +0.62041260 |
| e | 0.9417846 | Incl. | 119.11109 | -0.51913748 | +0.68012116 |
| P | 183.8 | | | | |

From 493 observations 2024 Jan. 15–2025 Jan. 22, mean residual 0".30.

Comet 50P/Arend

Epoch 2024 May 10.0 TT = JDT 2460440.5

T 2024 May 12.78343 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.9223265 | | | | |
| n | 0.11914924 | Peri. | 49.34656 | +0.70954196 | -0.70412423 |
| a | 4.0901747 | Node | 355.16910 | +0.50633108 | +0.53664278 |
| e | 0.5300136 | Incl. | 19.09879 | +0.49008065 | +0.46499850 |
| P | 8.27 | | | | |

From 1706 observations 1991 Aug. 1–2025 Jan. 25, mean residual 0".64.

Nongravitational parameters A1 = +0.18, A2 = -0.0199.

Comet 472P/NEAT-LINEAR

Epoch 2024 July 29.0 TT = JDT 2460520.5

T 2024 July 15.54349 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.3895613 | | | | |
| n | 0.04498429 | Peri. | 218.95060 | +0.42837250 | -0.89983729 |
| a | 7.8300066 | Node | 205.99620 | +0.86892794 | +0.43523737 |
| e | 0.5671062 | Incl. | 10.83581 | +0.24791378 | +0.02934748 |
| P | 21.91 | | | | |

From 960 observations 2002 Sept. 15–2025 Jan. 13, mean residual 0".61.

Comet 492P/LINEAR

Epoch 2024 July 29.0 TT = JDT 2460520.5

T 2024 July 20.53670 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 1.7822682 | | | | |
| n | 0.07116964 | Peri. | 41.00304 | +0.61370062 | -0.78858427 |
| a | 5.7668620 | Node | 11.32363 | +0.66296046 | +0.48799261 |
| e | 0.6909466 | Incl. | 11.40067 | +0.42878314 | +0.37416314 |
| P | 13.85 | | | | |

From 711 observations 2010 Aug. 10–2025 Jan. 3, mean residual 0".63.

Comet 30P/Reinmuth

Epoch 2024 July 29.0 TT = JDT 2460520.5

T 2024 Aug. 17.18190 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8136443 | | | | |
| n | 0.13657441 | Peri. | 9.48599 | -0.59648628 | -0.79289889 |
| a | 3.7344199 | Node | 117.23590 | +0.72690373 | -0.59947098 |
| e | 0.5143438 | Incl. | 8.05324 | +0.34031614 | -0.10929726 |
| P | 7.22 | | | | |

From 2246 observations 2009 Aug. 20–2025 Jan. 25, mean residual 0".66.

Nongravitational parameters A1 = -0.22, A2 = +0.0027.

Comet C/2021 G2 (ATLAS)

Epoch 2024 Sept. 7.0 TT = JDT 2460560.5

T 2024 Sept. 9.20949 TT

| | | | | | |
|---|--------------|----------|-----------|-------------|-------------|
| q | 4.9824130 | (2000.0) | P | Q | Sato |
| z | -0.0000534 | Peri. | 343.27810 | -0.84713655 | +0.20051230 |
| | +/-0.0000003 | Node | 221.09501 | -0.35999043 | -0.89773574 |
| e | 1.0002661 | Incl. | 48.47319 | -0.39085363 | +0.39225676 |

From 1574 observations 2020 Nov. 3–2025 Jan. 29, mean residual 0".36.

Comet C/2022 E2 (ATLAS)

Epoch 2024 Sept. 7.0 TT = JDT 2460560.5

T 2024 Sept. 14.13585 TT

| | | | | | |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.6662818 | (2000.0) | P | Q | Sato |
| z | -0.0002835 | Peri. | 41.72573 | -0.03434113 | +0.83133354 |
| | +/-0.0000002 | Node | 125.37582 | +0.63732128 | -0.40932315 |
| e | 1.0010392 | Incl. | 137.13155 | +0.76983262 | +0.37595093 |

From 3661 observations 2022 Feb. 23–2025 Jan. 25, mean residual 0".47.

Comet C/2023 A3 (Tsuchinshan–ATLAS)

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Sept. 27.74152 TT

| | | | | | |
|---|--------------|----------|-----------|-------------|-------------|
| q | 0.3914213 | (2000.0) | P | Q | Sato |
| z | -0.0001231 | Peri. | 308.48762 | +0.36136392 | +0.90086313 |
| | +/-0.0000016 | Node | 21.55938 | +0.91855474 | -0.29960748 |
| e | 1.0000482 | Incl. | 139.11029 | -0.16022893 | +0.31413527 |

From 6552 observations 2022 Apr. 9–2025 Jan. 28, mean residual 0".52.

Nongravitational parameters Y1 = +0.94, Y2 = -0.0880, Y3 = -0.0300.

Comet P/2024 T1 (Rankin)

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Sept. 30.47416 TT

| | | | | | |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.2870835 | (2000.0) | P | Q | Sato |
| n | 0.05801583 | Peri. | 164.88912 | +0.08208630 | -0.95092371 |
| a | 6.6085326 | Node | 279.70912 | +0.88012961 | +0.20961141 |
| e | 0.6539196 | Incl. | 17.61828 | +0.46758284 | -0.22761185 |

P 16.99

From 124 observations 2024 Sept. 9–2025 Jan. 23, mean residual 0".55.

Comet C/2024 B1 (Lemmon)

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Oct. 7.70003 TT

| | | | | | |
|---|--------------|----------|----------|-------------|-------------|
| q | 1.6337016 | (2000.0) | P | Q | Sato |
| z | -0.0005063 | Peri. | 66.20774 | -0.21835878 | -0.30127964 |
| | +/-0.0000030 | Node | 79.18815 | +0.07113818 | -0.95353351 |
| e | 1.0008271 | Incl. | 70.90402 | +0.97327221 | +0.00210176 |

From 133 observations 2023 Oct. 13–2025 Jan. 7, mean residual 0".66.

Comet 37P/Forbes

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Oct. 11.25578 TT

| | | | | | |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.6178334 | (2000.0) | P | Q | Sato |
| n | 0.15295701 | Peri. | 330.06776 | +0.25668879 | +0.96011755 |
| a | 3.4627659 | Node | 314.54954 | -0.85300773 | +0.17113476 |
| e | 0.5327916 | Incl. | 8.94761 | -0.45441025 | +0.22110448 |

P 6.44

From 1631 observations 2011 May 29–2024 Dec. 31, mean residual 0".57.

Nongravitational parameters A1 = +0.23, A2 = -0.0726.

Comet 487P/Siding Spring

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Oct. 20.65500 TT

| | | | | | |
|---|------------|----------|----------|-------------|-------------|
| q | 1.8149858 | (2000.0) | P | Q | Sato |
| n | 0.08395457 | Peri. | 0.86653 | +0.64434970 | -0.59511603 |
| a | 5.1654303 | Node | 49.21094 | +0.69775586 | +0.20050193 |
| e | 0.6486283 | Incl. | 39.37001 | +0.31297001 | +0.77822612 |

P 11.74

From 1197 observations 2002 Feb. 13–2025 Jan. 15, mean residual 0".47.

Nongravitational parameters A1 = -0.31, A2 = -0.0065.

Comet 253P/PANSTARRS

Epoch 2024 Oct. 17.0 TT = JDT 2460600.5

T 2024 Oct. 20.98012 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0267814 | | | | |
| n | 0.15298504 | Peri. | 230.81605 | +0.95118532 | -0.30500364 |
| a | 3.4623428 | Node | 146.86504 | +0.30301333 | +0.89399548 |
| e | 0.4146214 | Incl. | 4.94410 | +0.05856122 | +0.32824512 |
| P | 6.44 | | | | |

From 855 observations 1998 Sept. 14–2025 Jan. 23, mean residual 0".54.

Nongravitational parameters A1 = -0.08, A2 = -0.0068.

Comet 33P/Daniel

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 10.98221 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 2.2425980 | | | | |
| n | 0.11893789 | Peri. | 20.28222 | +0.08363164 | -0.93400431 |
| a | 4.0950187 | Node | 66.28336 | +0.85396038 | -0.11246378 |
| e | 0.4523595 | Incl. | 22.29497 | +0.51357318 | +0.33909857 |
| P | 8.29 | | | | |

From 600 observations 2000 Dec. 22–2025 Jan. 29, mean residual 0".67.

Nongravitational parameters A1 = +0.68, A2 = +0.0513.

Comet C/2023 C2 (ATLAS)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 16.81293 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 2.3685113 | | | | |
| z | +0.0003528 | Peri. | 357.45707 | +0.48930620 | +0.59225604 |
| | +/-0.0000006 | Node | 301.00424 | -0.78638813 | -0.01773514 |
| e | 0.9991644 | Incl. | 48.32015 | -0.37705855 | +0.80555462 |

From 618 observations 2023 Feb. 1–2024 Dec. 17, mean residual 0".46.

Comet 305P/Skiff

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 17.16128 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4186024 | | | | |
| n | 0.09873148 | Peri. | 147.42649 | +0.87709691 | -0.44714922 |
| a | 4.6362368 | Node | 240.10619 | +0.38587724 | +0.87341892 |
| e | 0.6940186 | Incl. | 11.67130 | +0.28600658 | +0.19286518 |
| P | 9.98 | | | | |

From 1147 observations 2004 Oct. 7–2025 Jan. 13, mean residual 0".69.

Nongravitational parameters A1 = +0.02, A2 = -0.0080.

Comet C/2024 M1 (ATLAS)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 20.02857 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 1.7033730 | | | | |
| z | +0.0334133 | Peri. | 345.60036 | +0.29853791 | -0.20460400 |
| | +/-0.0000006 | Node | 76.21510 | +0.94276317 | -0.08882806 |
| e | 0.9430848 | Incl. | 73.71013 | +0.14856892 | +0.97480602 |
| P | 163.7 | | | | |

From 1195 observations 2022 May 10–2025 Jan. 21, mean residual 0".35.

Comet C/2023 H1 (PANSTARRS)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 28.73131 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 4.4477752 | | | | |
| z | +0.0013059 | Peri. | 333.76443 | -0.03345196 | +0.93893927 |
| | +/-0.0000025 | Node | 292.64772 | -0.83928473 | -0.21243534 |
| e | 0.9941916 | Incl. | 21.78137 | -0.54266206 | +0.27067376 |

From 118 observations 2023 Apr. 17–2024 Sept. 5, mean residual 0".42.

Comet 333P/LINEAR

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Nov. 29.29836 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|---|
| q | 1.1129421 | | | | |
| n | 0.11366036 | Peri. 26.01723 | -0.12521921 | +0.73230354 | |
| a | 4.2208186 | Node 115.70568 | +0.73014171 | -0.38877269 | |
| e | 0.7363208 | Incl. 132.02206 | +0.67172407 | +0.55909509 | |
| P | 8.67 | | | | |

From 1175 observations 2007 Nov. 4–2025 Jan. 19, mean residual 0".54.

Comet C/2023 Q1 (PANSTARRS)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Dec. 1.14201 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------------|-------------|-------------|---|
| q | 2.5756939 | | | | |
| z | -0.0020541 | Peri. 84.41373 | -0.00254759 | -0.99724801 | |
| +/- | -0.0000009 | Node 7.13150 | +0.50180927 | -0.06536472 | |
| e | 1.0052908 | Incl. 36.64283 | +0.86497455 | +0.03498374 | |

From 736 observations 2023 July 25–2025 Jan. 15, mean residual 0".54.

Comet C/2024 PN7 (PANSTARRS)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Dec. 6.43724 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|-----------------|-------------|-------------|---|
| q | 1.5245380 | | | | |
| z | +0.0148275 | Peri. 74.27210 | +0.26635587 | -0.96356914 | |
| +/- | -0.0000195 | Node 358.58221 | -0.55337626 | -0.13225398 | |
| e | 0.9773949 | Incl. 101.21075 | +0.78919532 | +0.23247234 | |

From 233 observations 2024 Aug. 15–2025 Jan. 28, mean residual 0".47.

Comet P/2024 T2 (Rankin)

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Dec. 8.35053 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|---|
| q | 1.9722896 | | | | |
| n | 0.06419091 | Peri. 343.83300 | -0.12652814 | -0.97037014 | |
| a | 6.1776085 | Node 113.06109 | +0.93309078 | -0.18685309 | |
| e | 0.6807357 | Incl. 12.92785 | +0.33664853 | +0.15319173 | |
| P | 15.35 | | | | |

From 203 observations 2024 Oct. 4–2025 Jan. 28, mean residual 0".46.

Comet 276P/Vorobjov

Epoch 2024 Nov. 26.0 TT = JDT 2460640.5

T 2024 Dec. 10.77006 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|---|
| q | 3.8986934 | | | | |
| n | 0.07964855 | Peri. 199.26577 | +0.64038892 | -0.75647229 | |
| a | 5.3499631 | Node 211.33687 | +0.73394535 | +0.65370232 | |
| e | 0.2712672 | Incl. 14.80118 | +0.22633217 | +0.02056579 | |
| P | 12.37 | | | | |

From 900 observations 2000 Dec. 19–2025 Jan. 24, mean residual 0".54.

Comet P/2015 CD60 (LINEAR)

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2024 Dec. 18.93443 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|---|
| q | 1.9643495 | | | | |
| n | 0.10004451 | Peri. 179.08779 | -0.14516153 | -0.95812043 | |
| a | 4.5955823 | Node 279.22993 | +0.90617298 | -0.02858395 | |
| e | 0.5725570 | Incl. 14.48253 | +0.39721361 | -0.28493542 | |
| P | 9.85 | | | | |

From 218 observations 2014 Nov. 25–2025 Jan. 22, mean residual 0".40.

Comet 242P/Spahr

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2024 Dec. 23.18102 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|---|
| q | 3.9716066 | | | | |
| n | 0.07565126 | Peri. 244.90910 | +0.42008648 | -0.90747982 | |
| a | 5.5367972 | Node 180.29708 | +0.89651964 | +0.41453411 | |
| e | 0.2826888 | Incl. 32.42896 | -0.14064098 | -0.06813117 | |
| P | 13.03 | | | | |

From 1029 observations 1997 Oct. 29–2025 Jan. 13, mean residual 0".67..

Comet 136P/Mueller

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2025 Jan. 3.27816 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.9583253 | | | | |
| n | 0.11513166 | Peri. | 225.27943 | +0.99239546 | -0.05356530 |
| a | 4.1847824 | Node | 137.42223 | +0.08305803 | +0.95588811 |
| e | 0.2930755 | Incl. | 9.42742 | -0.09084386 | +0.28880561 |
| P | 8.56 | | | | |

From 523 observations 1990 Sept. 17–2024 Dec. 3, mean residual 0".71.

Nongravitational parameters Y1 = -0.46, Y2 = -0.0057.

Comet C/2024 N4 (Sarneczky)

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2025 Jan. 9.96581 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 5.3975798 | | | | |
| z | -0.0008391 | Peri. | 116.67693 | -0.22039918 | -0.93862324 |
| | +/-0.0000028 | Node | 339.66208 | +0.36826062 | +0.17183394 |
| e | 1.0045291 | Incl. | 49.77138 | +0.90322108 | -0.29909783 |

From 233 observations 2024 July 14–2025 Jan. 11, mean residual 0".54.

Comet C/2024 G3 (ATLAS)

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2025 Jan. 13.42850 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 0.0935408 | | | | |
| z | -0.0000994 | Peri. | 108.12322 | -0.04071784 | +0.81534156 |
| | +/-0.0000020 | Node | 220.33912 | +0.14758133 | +0.57659376 |
| e | 1.0000093 | Incl. | 116.84578 | +0.98821142 | -0.05251460 |

From 302 observations 2024 Apr. 5–Dec. 27, mean residual 0".49.

Comet 105P/Singer Brewster

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2025 Jan. 22.76233 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0520956 | | | | |
| n | 0.15230711 | Peri. | 46.33357 | -0.52104091 | +0.85284608 |
| a | 3.4726093 | Node | 192.39739 | -0.82177122 | -0.51207974 |
| e | 0.4090624 | Incl. | 9.16735 | -0.23066953 | -0.10211712 |
| P | 6.47 | | | | |

From 738 observations 1986 May 5–2024 Mar. 13, mean residual 0".69.

Nongravitational parameters A1 = +0.36, A2 = -0.1793, A3 = -0.1602.

Comet C/2023 T3 (Fuls)

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Jan. 25.33778 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.5483118 | | | | |
| z | +0.0012235 | Peri. | 302.84600 | -0.90309521 | +0.09891178 |
| | +/-0.0000012 | Node | 246.00076 | -0.02295591 | -0.98284105 |
| e | 0.9956588 | Incl. | 27.22200 | -0.42882638 | -0.15569178 |

From 579 observations 2023 Oct. 15–2025 Jan. 12, mean residual 0".39.

Comet 249P/LINEAR

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Feb. 1.69523 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.4995033 | | | | |
| n | 0.21437452 | Peri. | 65.74332 | +0.56215445 | +0.81752255 |
| a | 2.7649500 | Node | 239.04266 | -0.80180456 | +0.50167673 |
| e | 0.8193446 | Incl. | 8.38537 | -0.20271117 | +0.28280264 |
| P | 4.60 | | | | |

From 776 observations 2006 Oct. 19–2021 Jan. 18, mean residual 0".50.

Comet C/2023 F3 (ATLAS)

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Feb. 2.62570 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 5.1907946 | | | | |
| z | -0.0007190 | Peri. | 265.53101 | -0.75298467 | -0.39308514 |
| | +/-0.0000011 | Node | 109.46420 | -0.09801437 | +0.86002538 |
| e | 1.0037324 | Incl. | 145.96376 | -0.65069752 | +0.32533125 |

From 330 observations 2023 Mar. 28–2024 Dec. 11, mean residual 0".43.

Comet P/2023 S1

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Feb. 24.13959 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.6196717 | | | | |
| n | 0.13074535 | Peri. | 180.29628 | -0.73824665 | -0.66583715 |
| a | 3.8446063 | Node | 317.28979 | +0.61919686 | -0.60547266 |
| e | 0.3186112 | Incl. | 9.15740 | +0.26755773 | -0.43596302 |
| P | 7.54 | | | | |

From 869 observations 2023 Sept. 15–2025 Jan. 25, mean residual 0".49.

Comet 48P/Johnson

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Mar. 2.65627 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0065840 | | | | |
| n | 0.15055454 | Peri. | 216.77831 | +0.82446412 | +0.52994862 |
| a | 3.4995065 | Node | 110.06404 | -0.45573343 | +0.82973035 |
| e | 0.4266094 | Incl. | 12.20178 | -0.33550850 | +0.17521987 |
| P | 6.55 | | | | |

From 1961 observations 2004 Apr. 1–2024 Oct. 22, mean residual 0".62.

Nongravitational parameters A1 = -0.17, A2 = -0.0057.

Comet 496P/Hill

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 10.28271 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 1.6210526 | | | | |
| n | 0.06539174 | Peri. | 42.24704 | -0.25284091 | -0.94001614 |
| a | 6.1017459 | Node | 63.58731 | +0.80516528 | -0.33567400 |
| e | 0.7343297 | Incl. | 14.81454 | +0.53645163 | +0.06076692 |
| P | 15.07 | | | | |

From 856 observations 2009 Oct. 14–2025 Jan. 29, mean residual 0".46.

Comet C/2024 L5 (ATLAS)

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 10.38878 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 3.4324637 | | | | |
| z | -0.0108506 | Peri. | 290.51240 | -0.86070909 | -0.48593984 |
| +/- | -0.0000027 | Node | 139.17682 | -0.33581458 | +0.76602414 |
| e | 1.0372441 | Incl. | 166.57322 | -0.38263354 | +0.42079625 |

From 251 observations 2024 June 14–2025 Jan. 14, mean residual 0".36.

Comet C/2024 J2 (Wierzchos)

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 19.78077 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 1.8108823 | | | | |
| z | +0.0067690 | Peri. | 143.15899 | +0.80785305 | +0.56871657 |
| +/- | -0.0000051 | Node | 189.05881 | -0.21964000 | +0.53408294 |
| e | 0.9877422 | Incl. | 79.29711 | +0.54692935 | -0.62555326 |

From 214 observations 2024 Mar. 12–2025 Jan. 5, mean residual 0".69.

Comet 21P/Giacobini–Zinner

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 25.38113 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.0089631 | | | | |
| n | 0.15109622 | Peri. | 172.93746 | +0.98464832 | -0.10382764 |
| a | 3.4911377 | Node | 195.33166 | +0.12258332 | +0.98358646 |
| e | 0.7109930 | Incl. | 32.05069 | +0.12426191 | -0.14757204 |
| P | 6.52 | | | | |

From 1278 observations 2018 Sept. 10–2024 Oct. 21, mean residual 0".79.

Nongravitational parameters A1 = +0.30, A2 = -0.4520.

Comet C/2024 V1 (Borisov)

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Apr. 4.11248 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 2.3184059 | | | | |
| z | +0.0042531 | Peri. | 168.66911 | -0.77332338 | -0.46614821 |
| +/- | -0.0000253 | Node | 328.19393 | +0.49909451 | -0.02957853 |
| e | 0.9901395 | Incl. | 54.62452 | +0.39099312 | -0.88421205 |

From 111 observations 2024 Oct. 28–2025 Jan. 26, mean residual 0".45.

Comet 49P/Arend-Rigaux

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Apr. 10.61672 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4313511 | | | | |
| n | 0.14610846 | Peri. | 332.93346 | -0.05196463 | -0.95676749 |
| a | 3.5701446 | Node | 118.79168 | +0.96514787 | -0.12171597 |
| e | 0.5990776 | Incl. | 19.05905 | +0.25649419 | +0.26416130 |
| P | 6.75 | | | | |

From 4134 observations 1951 Feb. 8–2025 Jan. 23, mean residual 0".58.

Nongravitational parameters A1 = +0.00, A2 = -0.0005.

Comet C/2024 N3 (Sarneczky)

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Apr. 11.40714 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|----------|-------------|-------------|
| q | 5.0145642 | | | | |
| z | -0.0002451 | Peri. | 86.88151 | -0.01496736 | -0.12965896 |
| +/- | -0.0000048 | Node | 82.60826 | -0.34497866 | -0.93000188 |
| e | 1.0012289 | Incl. | 88.72890 | +0.93849118 | -0.34392594 |

From 192 observations 2023 Oct. 9–2025 Jan. 2, mean residual 0".48.

Comet 341P/Gibbs

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 Apr. 22.71878 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.5064886 | | | | |
| n | 0.11111714 | Peri. | 312.36651 | +0.95195524 | +0.30444758 |
| a | 4.2849787 | Node | 29.95297 | -0.25789939 | +0.85522091 |
| e | 0.4150523 | Incl. | 3.79644 | -0.16513366 | +0.41941490 |
| P | 8.87 | | | | |

From 203 observations 2007 Sept. 10–2016 Dec. 7, mean residual 0".79.

Comet C/2024 J4 (Lemmon)

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 Apr. 25.99135 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 5.6952111 | | | | |
| z | +0.0001519 | Peri. | 127.85640 | -0.45853120 | -0.83893390 |
| +/- | -0.0000041 | Node | 19.30452 | -0.78064776 | +0.22261016 |
| e | 0.9991347 | Incl. | 117.53087 | +0.42466248 | -0.49662322 |

From 188 observations 2024 May 11–2025 Jan. 25, mean residual 0".40.

Comet C/2023 X7 (PANSTARRS)

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 May 15.18376 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 4.8202507 | | | | |
| z | -0.0005600 | Peri. | 354.39567 | -0.45508580 | -0.35784587 |
| +/- | -0.0000473 | Node | 119.19983 | +0.84895688 | -0.45062496 |
| e | 1.0026991 | Incl. | 69.07980 | +0.26864314 | +0.81785297 |

From 69 observations 2023 Dec. 10–2024 Feb. 20, mean residual 0".37.

Comet 217P/LINEAR

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 May 24.94429 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.2263740 | | | | |
| n | 0.12582528 | Peri. | 247.03569 | +0.95779660 | -0.22284671 |
| a | 3.9441866 | Node | 125.37162 | +0.26640448 | +0.92540844 |
| e | 0.6890680 | Incl. | 12.86549 | -0.10795517 | +0.30652661 |
| P | 7.83 | | | | |

From 3225 observations 2001 June 21–2024 June 12, mean residual 0".56.

Nongravitational parameters A1 = +0.10, A2 = +0.0378.

Comet 164P/Christensen

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 May 27.41179 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.6751002 | | | | |
| n | 0.14121975 | Peri. | 325.95240 | +0.56222360 | -0.77808425 |
| a | 3.6520701 | Node | 88.26893 | +0.80738062 | +0.44311127 |
| e | 0.5413286 | Incl. | 16.27738 | +0.17900042 | +0.44523847 |
| P | 6.98 | | | | |

From 1441 observations 1998 Jan. 24–2024 Oct. 4, mean residual 0".65.

Nongravitational parameters A1 = -0.07, A2 = +0.0228.

Comet C/2024 G2 (ATLAS)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 13.49410 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 5.3484038 | | | | |
| z | +0.0013709 | Peri. | 328.73238 | -0.88642302 | -0.44520275 |
| | +/-0.0000049 | Node | 171.39695 | +0.04177130 | +0.19563210 |
| e | 0.9926679 | Incl. | 122.12567 | -0.46098740 | +0.87379780 |

From 68 observations 2024 Apr. 8–2025 Jan. 4, mean residual 0".33.

Comet C/2024 A1 (ATLAS)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 13.68938 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.8753092 | | | | |
| z | -0.0006287 | Peri. | 353.30774 | -0.38263265 | +0.02770458 |
| | +/-0.0000008 | Node | 112.13542 | +0.88714806 | -0.26810068 |
| e | 1.0024362 | Incl. | 94.46465 | +0.25799338 | +0.96299246 |

From 623 observations 2024 Jan. 3–2025 Jan. 26, mean residual 0".44.

Comet P/2005 T5 (Broughton)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 15.01026 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.2535558 | | | | |
| n | 0.05040265 | Peri. | 304.84620 | +0.95209485 | +0.00077908 |
| a | 7.2582811 | Node | 56.99973 | +0.17682106 | +0.81447636 |
| e | 0.5517457 | Incl. | 21.38470 | -0.24949893 | +0.58019622 |

P 19.55

From 93 observations 2005 Aug. 26–2006 Jan. 6, mean residual 0".59.

From CHB 2022.

Comet 65P/Gunn

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 16.47136 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.9262594 | | | | |
| n | 0.12836356 | Peri. | 213.67377 | +0.09217983 | +0.98574319 |
| a | 3.8920184 | Node | 61.97571 | -0.87479895 | +0.14769445 |
| e | 0.2481383 | Incl. | 9.17532 | -0.47563607 | -0.08060219 |

P 7.68

From 2583 observations 2015 Dec. 11–2024 Aug. 18, mean residual 0".59.

Comet C/2023 H5 (Lemmon)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 30.27470 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 4.3126283 | | | | |
| z | -0.0001118 | Peri. | 60.09876 | -0.42533751 | +0.83575806 |
| | +/-0.0000006 | Node | 159.47846 | -0.07945186 | -0.41670919 |
| e | 1.0004821 | Incl. | 97.85531 | +0.90154057 | +0.35757785 |

From 914 observations 2022 Dec. 1–2025 Jan. 23, mean residual 0".45.

Comet C/2024 X2 (ATLAS)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 July 8.05828 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 3.6769916 | | | | |
| z | +0.0191032 | Peri. | 315.79952 | -0.57872880 | -0.17523180 |
| | +/-0.0004903 | Node | 122.48372 | +0.70353081 | +0.38666540 |
| e | 0.9297579 | Incl. | 109.23129 | -0.41245289 | +0.90541907 |

P 378.7

From 64 observations 2024 Dec. 12–2025 Jan. 7, mean residual 0".51.

Comet P/2005 J1 (McNaught)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 July 11.13853 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.5393121 | | | | |
| n | 0.14581666 | Peri. | 338.88127 | -0.32542145 | +0.78586019 |
| a | 3.5749059 | Node | 268.83006 | -0.77455982 | -0.54052928 |
| e | 0.5694119 | Incl. | 31.73328 | -0.54236331 | +0.30041947 |
| P | 6.76 | | | | |

From 94 observations 2005 May 3–Aug. 7, mean residual 0".57.

Comet C/2023 V1 (Lemmon)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 July 13.04864 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 5.0925501 | | | | |
| z | -0.0000848 | Peri. | 103.31626 | -0.16986220 | -0.95220791 |
| +/- | -0.0000019 | Node | 15.04327 | -0.61291611 | -0.09963957 |
| e | 1.0004316 | Incl. | 102.01349 | +0.77167394 | -0.28874220 |

From 133 observations 2022 Sept. 23–2024 Nov. 19, mean residual 0".41.

Comet 60P/Tsuchinshan

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 July 20.61259 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.6457122 | | | | |
| n | 0.14861394 | Peri. | 216.91426 | -0.56250474 | -0.82443786 |
| a | 3.5299050 | Node | 267.39611 | +0.77270553 | -0.49736915 |
| e | 0.5337800 | Incl. | 3.57984 | +0.29413362 | -0.27004841 |
| P | 6.63 | | | | |

From 1254 observations 2011 Oct. 29–2025 Jan. 1, mean residual 0".56.

Nongravitational parameters A1 = -0.27, A2 = +0.0030.

Comet C/2022 N2 (PANSTARRS)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 July 31.81284 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 3.8253479 | | | | |
| z | -0.0008743 | Peri. | 75.40106 | +0.81486071 | -0.57633431 |
| +/- | -0.0000004 | Node | 319.73945 | +0.48805150 | +0.73983664 |
| e | 1.0033445 | Incl. | 5.50288 | +0.31274231 | +0.34710303 |

From 1668 observations 2022 June 2–2025 Jan. 15, mean residual 0".42.

Comet C/2024 X1 (Fazekas)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 Aug. 3.26545 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.8174704 | | | | |
| n | 0.03392439 | Peri. | 124.32874 | -0.44397098 | -0.89590351 |
| a | 9.4506434 | Node | 351.98195 | +0.78067575 | -0.37814684 |
| e | 0.5960624 | Incl. | 6.46510 | +0.43981261 | -0.23315633 |
| P | 29.05 | | | | |

From 73 observations 2024 Dec. 11–2025 Jan. 25, mean residual 0".41.

Comet 489P/Denning [Orbit 1]

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 Aug. 4.66503 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.6007291 | | | | |
| n | 0.16049094 | Peri. | 109.79599 | -0.67703026 | -0.73546406 |
| a | 3.3535314 | Node | 22.88420 | +0.64671067 | -0.61196864 |
| e | 0.5226736 | Incl. | 3.96394 | +0.35127673 | -0.29083845 |
| P | 6.14 | | | | |

From 60 observations 2007 Apr. 17–May 18, mean residual 0".57.

Comet 43P/Wolf-Harrington

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 Aug. 4.69007 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.4427949 | | | | |
| n | 0.10931128 | Peri. | 223.80596 | -0.29740938 | -0.94356471 |
| a | 4.3320426 | Node | 243.99077 | +0.91453682 | -0.23771720 |
| e | 0.4361101 | Incl. | 9.33097 | +0.27417159 | -0.23059960 |
| P | 9.02 | | | | |

From 3990 observations 2003 June 17–2025 Jan. 24, mean residual 0".73.

Nongravitational parameters A1 = +0.36, A2 = +0.0030.

Comet 195P/Hill

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 Aug. 5.73422 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.4405451 | | | | |
| n | 0.06026654 | Peri. | 250.61652 | -0.52676810 | -0.66502940 |
| a | 6.4429570 | Node | 243.09543 | +0.80945521 | -0.58254533 |
| e | 0.3107908 | Incl. | 36.41593 | -0.25941789 | -0.46730807 |
| P | 16.35 | | | | |

From 693 observations 1993 Feb. 26–2025 Jan. 22, mean residual 0".53.

Nongravitational parameters Y1 = +0.36, Y2 = -0.1285.

Comet C/2022 R6 (PANSTARRS)

Epoch 2025 Sept. 2.0 TT = JDT 2460920.5

T 2025 Aug. 26.37695 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 6.5654892 | | | | |
| z | -0.0007773 | Peri. | 319.93088 | -0.49688722 | -0.76514975 |
| | +/-0.0000005 | Node | 150.78421 | +0.83808669 | -0.30065990 |
| e | 1.0051032 | Incl. | 57.02034 | -0.22519722 | +0.56934127 |

From 947 observations 2022 Sept. 14–2025 Jan. 18, mean residual 0".39.

Comet C/2022 QE78 (ATLAS)

Epoch 2025 Sept. 2.0 TT = JDT 2460920.5

T 2025 Sept. 11.94233 TT

| | | (2000.0) | P | Sato | Q |
|---|--------------|----------|-----------|-------------|-------------|
| q | 5.4757761 | | | | |
| z | -0.0003022 | Peri. | 0.62047 | -0.50578454 | -0.69031057 |
| | +/-0.0000005 | Node | 119.88624 | +0.78888240 | -0.61278924 |
| e | 1.0016550 | Incl. | 36.63420 | +0.34906526 | +0.38465655 |

From 1854 observations 2022 Aug. 27–2025 Jan. 28, mean residual 0".42.

Comet 248P/Gibbs

Epoch 2025 Sept. 2.0 TT = JDT 2460920.5

T 2025 Sept. 14.92397 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.1577490 | | | | |
| n | 0.06733231 | Peri. | 209.99193 | +0.53448751 | -0.84360037 |
| a | 5.9839372 | Node | 207.79586 | +0.79577032 | +0.52286881 |
| e | 0.6394098 | Incl. | 6.35170 | +0.28473269 | +0.12225636 |
| P | 14.64 | | | | |

From 159 observations 1996 Sept. 14–2011 Mar. 21, mean residual 0".60.

Comet 171P/Spahr

Epoch 2025 Oct. 12.0 TT = JDT 2460960.5

T 2025 Sept. 25.03673 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7664446 | | | | |
| n | 0.14713050 | Peri. | 347.07652 | +0.00557418 | -0.93055128 |
| a | 3.5535921 | Node | 101.69398 | +0.94751594 | -0.11212228 |
| e | 0.5029130 | Incl. | 21.95507 | +0.31965992 | +0.34857268 |
| P | 6.70 | | | | |

From 624 observations 2000 May 1–2019 Apr. 10, mean residual 0".58.

Nongravitational parameters Y1 = +0.14, Y2 = -0.1136.

Comet 414P/STEREO

Epoch 2025 Oct. 12.0 TT = JDT 2460960.5

T 2025 Sept. 26.31441 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.5241515 | (2000.0) | | | |
| n | 0.21121377 | Peri. | 210.71030 | -0.27664223 | -0.87902490 |
| a | 2.7924660 | Node | 257.81495 | +0.94250367 | -0.16934625 |
| e | 0.8122980 | Incl. | 23.40696 | +0.18749909 | -0.44568719 |
| P | 4.67 | | | | |

From 98 observations 2020 Dec. 19–2021 Mar. 25, mean residual 0".56.

Comet 47P/Ashbrook–Jackson

Epoch 2025 Oct. 12.0 TT = JDT 2460960.5

T 2025 Oct. 28.00297 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.8074606 | (2000.0) | | | |
| n | 0.11799451 | Peri. | 357.91779 | +0.99593335 | +0.08925273 |
| a | 4.1168167 | Node | 356.88094 | -0.07905508 | +0.80041166 |
| e | 0.3180506 | Incl. | 13.03925 | -0.04320935 | +0.59276903 |
| P | 8.35 | | | | |

From 2603 observations 1948 Oct. 7–2024 Aug. 7, mean residual 0".76.

Nongravitational parameters A1 = +0.09, A2 = -0.0082.

Comet P/2018 L1 (PANSTARRS)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 5.73272 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8974047 | (2000.0) | | | |
| n | 0.14086311 | Peri. | 17.94046 | +0.27915741 | +0.94255650 |
| a | 3.6582316 | Node | 268.58177 | -0.90196587 | +0.19183713 |
| e | 0.4813328 | Incl. | 10.57477 | -0.32943697 | +0.27346986 |
| P | 7.00 | | | | |

From 69 observations 2018 May 18–Oct. 27, mean residual 0".40.

From CHB2024

Comet 40P/Vaisala

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 12.01430 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8237707 | (2000.0) | | | |
| n | 0.08966653 | Peri. | 52.05726 | -0.98723779 | +0.02655657 |
| a | 4.9436662 | Node | 128.90049 | -0.06928498 | -0.95941685 |
| e | 0.6310894 | Incl. | 11.64035 | +0.14339158 | -0.28073841 |
| P | 10.99 | | | | |

From 1037 observations 1939 Mar. 17–2025 Jan. 2, mean residual 0".76.

Nongravitational parameters A1 = +0.07, A2 = -0.0247.

Comet 210P/Christensen

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 22.70246 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.5244166 | (2000.0) | | | |
| n | 0.17542179 | Peri. | 345.95059 | +0.17410364 | -0.96847068 |
| a | 3.1604361 | Node | 93.79627 | +0.91983843 | +0.09534509 |
| e | 0.8340683 | Incl. | 10.28730 | +0.35154684 | +0.23016049 |
| P | 5.62 | | | | |

From 446 observations 2008 Dec. 30–2020 July 11, mean residual 0".65.

Nongravitational parameters Y1 = +0.03, Y2 = +0.0098.

Comet P/2015 T019 (Lemmon–PANSTARRS)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 23.58003 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.9113113 | (2000.0) | | | |
| n | 0.10165794 | Peri. | 89.41031 | +0.62507173 | -0.77738988 |
| a | 4.5468277 | Node | 321.60815 | +0.66351138 | +0.57664891 |
| e | 0.3597049 | Incl. | 6.50512 | +0.41114229 | +0.25127875 |
| P | 9.70 | | | | |

From 54 observations 2015 Sept. 12–2016 Aug. 12, mean residual 0".39.

From CHB 2022.

Comet 489P/Denning [Orbit 2]

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Dec. 13.07970 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.5623660 | | | | |
| n | 0.10574677 | Peri. | 109.04827 | -0.63666666 | -0.77074519 |
| a | 4.4288533 | Node | 20.55628 | +0.67849145 | -0.57507764 |
| e | 0.6472301 | Incl. | 4.02493 | +0.36647637 | -0.27429466 |
| P | 9.32 | | | | |

From 60 observations 2007 Apr. 17–May 18, mean residual 0".57

Comet 240P/NEAT

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2025 Dec. 19.97612 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.1216220 | | | | |
| n | 0.12991058 | Peri. | 352.08204 | +0.37975362 | -0.84090780 |
| a | 3.8610584 | Node | 74.91250 | +0.86913109 | +0.18156039 |
| e | 0.4505077 | Incl. | 23.53638 | +0.31685698 | +0.50981360 |
| P | 7.59 | | | | |

From 921 observations 2017 July 6–2024 Sept. 4, mean residual 0".79.

Comet 261P/Larson

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2025 Dec. 27.42236 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0141979 | | | | |
| n | 0.15125520 | Peri. | 67.36743 | +0.99478383 | +0.02559652 |
| a | 3.4886910 | Node | 291.05030 | -0.06588591 | +0.90022496 |
| e | 0.4226494 | Incl. | 6.07340 | +0.07787282 | +0.43467210 |
| P | 6.52 | | | | |

From 885 observations 2005 July 3–2020 Feb. 12, mean residual 0".69.

Nongravitational parameters A1 = +0.63, A2 = +0.1821.

Comet C/2023 X2 (Lemmon)

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2025 Dec. 28.40737 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|----------|-------------|-------------|
| q | 5.0885043 | | | | |
| z | -0.0000046 | Peri. | 64.79381 | -0.01546910 | -0.45151331 |
| +/- | -0.0000021 | Node | 66.30094 | +0.08230080 | -0.88978440 |
| e | 1.0000235 | Incl. | 76.98044 | +0.99648747 | +0.06647897 |

From 231 observations 2023 Aug. 18–2025 Jan. 22, mean residual 0".41

Comet C/2024 E1 (Wierzbos)

Epoch 2026 Feb. 9.0 TT = JDT 2461080.5

T 2026 Jan. 20.77728 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 0.5661102 | | | | |
| z | -0.0000926 | Peri. | 243.62793 | +0.35481923 | -0.17043177 |
| +/- | -0.0000060 | Node | 108.07760 | +0.02217642 | +0.98450189 |
| e | 1.0000524 | Incl. | 75.24046 | -0.93467188 | -0.04134044 |

From 326 observations 2024 Feb. 15–2025 Jan. 23, mean residual 0".41.

Comet C/2024 G6 (ATLAS)

Epoch 2026 Feb. 9.0 TT = JDT 2461080.5

T 2026 Feb. 20.58838 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 6.4299308 | | | | |
| z | -0.0002945 | Peri. | 23.42539 | -0.48993921 | -0.30981269 |
| +/- | -0.0000305 | Node | 250.95018 | -0.87174545 | +0.16938891 |
| e | 1.0018938 | Incl. | 120.45161 | -0.00440939 | +0.93558725 |

From 74 observations 2024 Apr. 10–Sept. 1, mean residual 0".57.

Comet C/2024 G4 (PANSTARRS)

Epoch 2026 Mar. 21.0 TT = JDT 2461120.5

T 2026 Mar. 21.47060 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 4.9007397 | | | | |
| z | -0.0002820 | Peri. | 131.40926 | +0.30344963 | +0.92009188 |
| +/- | -0.0000025 | Node | 152.97198 | -0.95228640 | +0.28392620 |
| e | 0.9986181 | Incl. | 33.02850 | +0.03269450 | -0.26984597 |

From 117 observations 2021 Jan. 12–2025 Jan. 25, mean residual 0".36.

Comet C/2023 R1 (PANSTARRS)

Epoch 2026 Apr. 30.0 TT = JDT 2461160.5

T 2026 Apr. 13.38494 TT

| | (2000.0) | P | Sato | Q |
|---|--------------|-----------------|-------------|-------------|
| q | 3.5701069 | | | |
| z | -0.0006671 | Peri. 144.26063 | +0.07193013 | -0.88863146 |
| | +/-0.0000013 | Node 62.57001 | -0.99185314 | -0.01586012 |
| e | 1.0023815 | Incl. 149.31492 | -0.10513518 | -0.45834767 |

From 1333 observations 2023 July 29–2025 Jan. 19, mean residual 0".44.

Comet 74P/Smirnova-Chernykh

Epoch 2026 Mar. 1.0 TT = JDT 2461100.5

T 2026 Mar. 3.11504 TT

| | (2000.0) | P | Sato | Q |
|---|------------|----------------|-------------|-------------|
| q | 4.8373034 | | | |
| n | 0.08409595 | Peri. 57.88477 | -0.30966130 | -0.94753922 |
| a | 5.1596390 | Node 50.36280 | +0.83404523 | -0.31069661 |
| e | 0.0624725 | Incl. 5.90610 | +0.45659439 | -0.07508021 |

P 11.72

From 5195 observations 2005 Aug. 6–2025 Jan. 23, mean residual 0".62.

Comet 95P/(2060) Chiron

Epoch 2046 Aug. 3.0 TT = JDT 2468560.5

T 2046 Aug. 3.23914 TT

| | (2000.0) | P | Sato | Q |
|---|------------|-----------------|-------------|-------------|
| q | 8.4622671 | | | |
| n | 0.01964670 | Peri. 339.58186 | -0.98687457 | +0.15029648 |
| a | 13.6022146 | Node 209.25691 | -0.12624927 | -0.94614531 |
| e | 0.3778758 | Incl. 6.94231 | -0.10069605 | -0.28674034 |

P 50.17

From 4866 observations 1941 Jan. 23–2025 Jan. 3, mean residual 0".34.

References:

Comet C/2020 F2 (ATLAS)
Epoch 2022 June 30.0 TT = JDT 2459760.5
T 2022 July 15.71839 TT
q 8.8170992 (2000.0) P Sato Q
z -0.0005839 Peri. 48.35626 -0.89905762 -0.34775798
+/-0.0000004 Node 250.27265 -0.43588836 +0.76809187
e 1.0051486 Incl. 163.58500 +0.04119153 +0.53767953
From 1966 observations 2019 May 27–2025 Jan. 25, mean residual 0".41.

Comet C/2021 T4 (Lemmon)
Epoch 2023 Aug. 4.0 TT = JDT 2460160.5
T 2023 July 31.53765 TT
q 1.4832774 (2000.0) P Sato Q
z +0.0001080 Peri. 329.82152 +0.28266218 -0.90359022
+/-0.0000002 Node 257.88471 -0.80103103 -0.40697619
e 0.9998398 Incl. 160.77708 -0.52768492 +0.13377258
From 2081 observations 2021 Aug. 7–2025 Jan. 25, mean residual 0".74.

Comet 146P/Shoemaker–LINEAR
Epoch 2024 July 29.0 TT = JDT 2460520.5
T 2024 Aug. 5.44010 TT
q 1.4195516 (2000.0) P Sato Q
n 0.12201287 Peri. 317.07758 +0.93950025 -0.13419921
a 4.0259243 Node 53.37442 +0.30276706 +0.75567033
e 0.6473973 Incl. 23.12296 -0.16022294 +0.64105611
P 8.08
From 605 observations 2008 Aug. 21–2025 Jan. 25, mean residual 0".62.
Nongravitational parameters A1 = +0.26, A2 = -0.0927.

Comet C/2024 Y1 (Masek)
Epoch 2024 Nov. 26.0 TT = JDT 2460640.5
T 2024 Nov. 26.94643 TT
q 0.8238449 (2000.0) P Sato Q
z +0.0105688 Peri. 238.28012 +0.53589065 -0.11843331
+/-0.0028720 Node 112.48839 -0.01241460 +0.98890003
e 0.9912929 Incl. 64.78808 -0.84419612 -0.08972335
From 89 observations 2024 Dec. 28–2025 Jan. 5, mean residual 0".54.

Comet 268P/Bernardi
Epoch 2025 Jan. 5.0 TT = JDT 2460680.5
T 2024 Dec. 18.46533 TT
q 2.4126310 (2000.0) P Sato Q
n 0.10015799 Peri. 0.01079 -0.58272334 -0.78249254
a 4.5921102 Node 125.63192 +0.74559047 -0.62217865
e 0.4746139 Incl. 15.66107 +0.32330846 +0.02447757
P 9.84
From 130 observations 2004 Sept. 22–2025 Jan. 23, mean residual 0".23.

Comet C/2025 A4 (PANSTARRS)
Epoch 2025 Jan. 5.0 TT = JDT 2460680.5
T 2025 Jan. 14.11454 TT
q 3.8224932 (2000.0) P Sato Q
n 0.02717057 Peri. 102.99557 -0.85298967 -0.15643951
a 10.9581400 Node 69.86402 -0.13835828 -0.85211537
e 0.6511732 Incl. 32.02889 +0.50325501 -0.49942575
P 36.27
From 32 observations 2024 Dec. 21–2025 Jan. 16, mean residual 0".31.

Comet P/2015 R2 (PANSTARRS)

Epoch 2025 Jan. 5.0 TT = JDT 2460680.5

T 2025 Jan. 21.04216 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.4633760 | (2000.0) | | | |
| n | 0.10275902 | Peri. | 149.44848 | +0.74689921 | +0.66278182 |
| a | 4.5142896 | Node | 168.55325 | -0.65147850 | +0.74551429 |
| e | 0.4543159 | Incl. | 15.63804 | -0.13310647 | +0.07020467 |
| P | 9.59 | | | | |

From 24 observations 2015 Sept. 9–18, mean residual 0".45.

From CHB 2022.

Comet P/2019 Y3 (Catalina)

Epoch 2025 Feb. 14.0 TT = JDT 2460720.5

T 2025 Mar. 2.97179 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.9310259 | (2000.0) | | | |
| n | 0.18820582 | Peri. | 2.54818 | -0.78381647 | -0.55862778 |
| a | 3.0156482 | Node | 139.30622 | +0.56214001 | -0.82387161 |
| e | 0.6912684 | Incl. | 24.58165 | +0.26387563 | +0.09576306 |
| P | 5.24 | | | | |

From 83 observations 2019 Dec. 17–2020 Jan. 27, mean residual 0".61.

From CHB 2024.

Comet P/2010 H2 (Vales)

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 10.04193 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.0758291 | (2000.0) | | | |
| n | 0.13129922 | Peri. | 128.08530 | -0.95524957 | +0.19541859 |
| a | 3.8337867 | Node | 64.18812 | -0.28198074 | -0.82837477 |
| e | 0.1977047 | Incl. | 14.28047 | +0.08935953 | -0.52498269 |
| P | 7.51 | | | | |

From 1606 observations 2010 Apr. 16–Sept. 4, mean residual 0".47.

From CHB 2022.

Comet 323P/SOHO

Epoch 2025 Mar. 26.0 TT = JDT 2460760.5

T 2025 Mar. 14.04609 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.0397528 | (2000.0) | | | |
| n | 0.23756941 | Peri. | 353.12658 | +0.73647432 | +0.67429066 |
| a | 2.5819176 | Node | 324.27981 | -0.61614182 | +0.63556858 |
| e | 0.9846158 | Incl. | 5.32680 | -0.27923975 | +0.37601155 |
| P | 4.15 | | | | |

From 108 observations 2020 Dec. 21–2021 Mar. 26, mean residual 0".16.

Comet 25D/Neujmin

Epoch 2025 May 25.0 TT = JDT 2460820.5

T 2025 May 11.32384 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4480431 | (2000.0) | | | |
| n | 0.17047293 | Peri. | 248.99404 | -0.96380126 | -0.26231711 |
| a | 3.2213094 | Node | 275.77399 | +0.25895643 | -0.87837436 |
| e | 0.5504800 | Incl. | 2.74895 | +0.06347198 | -0.39956004 |
| P | 5.78 | | | | |

From 74 observations 1916 Mar. 4–1927 Feb. 10, mean residual 1".85.

Comet P/2015 X6 (PANSTARRS)

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 May 11.55862 TT

| | | | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.2737118 | (2000.0) | | | |
| n | 0.21577921 | Peri. | 329.74693 | +0.22901940 | -0.97043786 |
| a | 2.7529373 | Node | 106.92367 | +0.90829285 | +0.18490320 |
| e | 0.1740779 | Incl. | 4.56606 | +0.35007745 | +0.15511665 |
| P | 4.57 | | | | |

From 46 observations 2015 Nov. 12–2016 Mar. 7, mean residual 0".37.

From CHB 2024.

Comet P/2016 G1 (PANSTARRS)

Epoch 2025 May 5.0 TT = JDT 2460800.5

T 2025 May 16.15527 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0410776 | | | | |
| n | 0.23730956 | Peri. | 111.08698 | +0.70137624 | +0.70857297 |
| a | 2.5838020 | Node | 204.01089 | -0.70398529 | +0.67158887 |
| e | 0.2100487 | Incl. | 10.96987 | -0.11169640 | +0.21654732 |
| P | 4.15 | | | | |

From 145 observations 2016 Mar. 12–Sept. 26, mean residual 0".67.

Comet 3D/Biela [Orbit 2]

Epoch 2025 May 25.0 TT = JDT 2460820.5

T 2025 May 25.81817 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.8208829 | | | | |
| n | 0.14816656 | Peri. | 276.05226 | -0.31569802 | -0.94839836 |
| a | 3.5370070 | Node | 192.47299 | +0.91572916 | -0.29635953 |
| e | 0.7679160 | Incl. | 7.87334 | +0.24854549 | -0.11274564 |
| P | 6.65 | | | | |

From 19 observations 1846–1852, mean residual 3".41.

From Muraoka's orbits (CHB 2010).

Comet D/1886 K1 (Brooks)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 18.2191 TT

| | | (2000.0) | P | Sato | Q |
|---|-----------|----------|----------|------------|------------|
| q | 1.888547 | | | | |
| n | 0.1470741 | Peri. | 208.3703 | -0.3872616 | +0.9141618 |
| a | 3.554500 | Node | 39.1832 | -0.8060261 | -0.2726438 |
| e | 0.468688 | Incl. | 10.9244 | -0.4476052 | -0.2999559 |
| P | 6.70 | | | | |

From 39 observations 1886 May 25–July 3, mean residual 5".0.

From R. J. Buckley orbit (1979).

Comet C/2025 B1 (PANSTARRS)

Epoch 2025 June 14.0 TT = JDT 2460840.5

T 2025 June 26.74855 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 3.5326628 | | | | |
| z | -0.0003386 | Peri. | 23.50608 | -0.50285884 | -0.59927810 |
| +/- | -0.0001305 | Node | 102.83302 | +0.65644697 | -0.73359365 |
| e | 1.0011960 | Incl. | 39.70635 | +0.56232585 | +0.32047795 |

From 38 observations 2024 Dec. 24–2025 Jan. 25, mean residual 0".38.

Comet P/2003 QX29 (NEAT)

Epoch 2025 July 24.0 TT = JDT 2460880.5

T 2025 Aug. 6.96959 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.2292330 | | | | |
| n | 0.04356572 | Peri. | 37.69077 | +0.52050028 | +0.83088587 |
| a | 7.9990687 | Node | 264.48422 | -0.82358747 | +0.42772517 |
| e | 0.4712843 | Incl. | 11.40010 | -0.22535115 | +0.35592113 |
| P | 22.62 | | | | |

From 96 observations 2002 June 11–2003 Oct. 20, mean residual 0".64.

From CHB 2022.

Comet D/1895 Q1 (Swift)

Epoch 2025 Sept. 2.0 TT = JDT 2460920.5

T 2025 Sept. 4.60529 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.3905812 | | | | |
| n | 0.13720862 | Peri. | 199.25457 | +0.90007306 | +0.40404888 |
| a | 3.7229035 | Node | 135.76494 | -0.36279720 | +0.90226281 |
| e | 0.6264794 | Incl. | 13.52387 | -0.24134351 | +0.15055342 |
| P | 7.18 | | | | |

From 182 observations 1895 Aug. 24–1896 Feb. 6.

From Belyaev & Stal'bovski's orbit (1972).

Comet P/2012 01 (McNaught)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 1.48174 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4400850 | | | | |
| n | 0.14779466 | Peri. | 238.32563 | +0.86076330 | +0.49234670 |
| a | 3.5429380 | Node | 91.88934 | -0.41222588 | +0.82313660 |
| e | 0.5935337 | Incl. | 7.42488 | -0.29859065 | +0.28291494 |
| P | 6.67 | | | | |

From 94 observations 2012 July 18–Nov. 18, mean residual 0".59.

From CHB 2024.

Comet P/1999 R028 (LONEOS)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 4.99202 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.1217905 | | | | |
| n | 0.15544780 | Peri. | 232.19699 | +0.98256725 | -0.16305615 |
| a | 3.4256763 | Node | 136.97849 | +0.18287731 | +0.93411751 |
| e | 0.6725346 | Incl. | 7.52070 | -0.03342877 | +0.31754869 |
| P | 6.34 | | | | |

From 109 observations 1999 Sept. 7–Nov. 13, mean residual 0".73.

From CHB 2024.

Comet D/1884 01 (Barnard)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Nov. 19.5616 TT

| | | (2000.0) | P | Sato | Q |
|---|-----------|----------|----------|------------|------------|
| q | 1.277039 | | | | |
| n | 0.1842794 | Peri. | 338.5316 | +0.6841331 | +0.7261935 |
| a | 3.058334 | Node | 334.4814 | -0.6441467 | +0.5579447 |
| e | 0.582440 | Incl. | 9.0629 | -0.3421065 | +0.4016725 |
| P | 5.35 | | | | |

From 18 observations 1884 July 26–Oct. 23, mean residual 2".04.

From CHB 2024.

Comet P/2000 R2 (LINEAR)

Epoch 2025 Nov. 21.0 TT = JDT 2461000.5

T 2025 Dec. 1.34001 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.6298854 | | | | |
| n | 0.15253141 | Peri. | 176.70583 | +0.92025874 | +0.38524188 |
| a | 3.4692042 | Node | 160.19905 | -0.36349329 | +0.90654489 |
| e | 0.5301846 | Incl. | 11.69189 | -0.14490161 | +0.17252553 |
| P | 6.46 | | | | |

From 54 observations 2000 Sept. 3–Nov. 29, mean residual 0".64.

From CHB 2024.

Comet P/2019 S3 (PANSTARRS)

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2025 Dec. 19.18481 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8070471 | | | | |
| n | 0.15627590 | Peri. | 213.13444 | +0.99527121 | -0.06134639 |
| a | 3.4135639 | Node | 150.10758 | +0.07975067 | +0.95870016 |
| e | 0.4706274 | Incl. | 8.69155 | -0.05545318 | +0.27772400 |
| P | 6.31 | | | | |

From 64 observations 2019 Aug. 27–Nov. 2, mean residual 0".52.

From CHB 2024.

Comet P/1999 XN120 (Catalina)

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2025 Dec. 20.79275 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.2980753 | | | | |
| n | 0.11492588 | Peri. | 161.45255 | +0.05597837 | -0.99484341 |
| a | 4.1897762 | Node | 285.27064 | +0.90459314 | +0.08638751 |
| e | 0.2128278 | Incl. | 5.02963 | +0.42258451 | -0.05313927 |
| P | 8.58 | | | | |

From 74 observations 1999 Nov. 3–2007 Dec. 16, mean residual 0".64.

From CHB 2022.

Comet C/2025 A3 (Tsuchinshan)

Epoch 2025 Dec. 31.0 TT = JDT 2461040.5

T 2026 Jan. 18.61695 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 5.8744656 | | | | |
| n | 0.03067718 | Peri. | 217.38410 | -0.99445406 | +0.00307240 |
| a | 10.1063048 | Node | 322.37674 | +0.05201140 | -0.85441879 |
| e | 0.4187326 | Incl. | 9.91620 | -0.09141086 | -0.51957587 |
| P | 32.13 | | | | |

From 34 observations 2024 Dec. 25–2025 Jan. 23, mean residual 0".42.

Comet P/2021 A5 (PANSTARRS)

Epoch 2026 Mar. 21.0 TT = JDT 2461120.5

T 2026 Mar. 16.03877 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.6212194 | | | | |
| n | 0.18507466 | Peri. | 61.85993 | +0.83822992 | -0.52065101 |
| a | 3.0495663 | Node | 328.69813 | +0.32245579 | +0.71303740 |
| e | 0.1404616 | Incl. | 18.18594 | +0.43976456 | +0.46957448 |
| P | 5.33 | | | | |

From 43 observations 2020 Dec. 16–2021 Jan. 15, mean residual 0".55.

From CHB 2024.

Comet P/2007 C2 (Catalina)

Epoch 2026 Mar. 21.0 TT = JDT 2461120.5

T 2026 Mar. 20.77627 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.6926489 | | | | |
| n | 0.05259233 | Peri. | 180.06600 | -0.09190748 | -0.98456777 |
| a | 7.0553916 | Node | 275.20809 | +0.91366738 | -0.02391339 |
| e | 0.4766203 | Incl. | 8.60054 | +0.39593552 | -0.17336222 |
| P | 18.74 | | | | |

From 289 observations 2006 Oct. 19–2008 May 3, mean residual 0".61.

From CHB 2023.

Comet P/2012 O2 (McNaught)

Epoch 2026 Mar. 21.0 TT = JDT 2461120.5

T 2026 Apr. 1.41889 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7017435 | | | | |
| n | 0.14245637 | Peri. | 183.39740 | +0.55535627 | +0.75154666 |
| a | 3.6309042 | Node | 120.65336 | -0.75290192 | +0.63619121 |
| e | 0.5313169 | Incl. | 24.44749 | -0.35315451 | -0.17446595 |
| P | 6.92 | | | | |

From 81 observations 2012 May 20–Sept. 21, mean residual 0".38.

From CHB 2023.

Comet P/2009 WX51 (Catalina)

Epoch 2026 Apr. 30.0 TT = JDT 2461160.5

T 2026 Apr. 15.11843 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.8023448 | | | | |
| n | 0.18205977 | Peri. | 118.31348 | -0.85793793 | -0.50630628 |
| a | 3.0831410 | Node | 31.49885 | +0.39327447 | -0.75638508 |
| e | 0.7397638 | Incl. | 9.60268 | +0.33057177 | -0.41416852 |
| P | 5.41 | | | | |

From 113 observations 2009 Nov. 22–2010 Apr. 17, mean residual 0".45.

From CHB 2024.

Comet P/2019 U4 (PANSTARRS)

Epoch 2026 Apr. 30.0 TT = JDT 2461160.5

T 2026 Apr. 28.75080 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8447699 | | | | |
| n | 0.14939274 | Peri. | 181.12274 | +0.93311373 | -0.35284852 |
| a | 3.5176264 | Node | 199.97389 | +0.33146961 | +0.91871570 |
| e | 0.4755640 | Incl. | 11.69789 | +0.13937958 | +0.17736792 |
| P | 6.60 | | | | |

From 42 observations 2019 Sept. 24–Oct. 28, mean residual 0".48.

From CHB 2024.

Comet P/2011 V1 (Boattini)

Epoch 2026 Apr. 30.0 TT = JDT 2461160.5

T 2026 Apr. 29.16078 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7416896 | | | | |
| n | 0.12992522 | Peri. | 269.36762 | +0.71414357 | +0.69373598 |
| a | 3.8607682 | Node | 46.70052 | -0.58028222 | +0.66135988 |
| e | 0.5488749 | Incl. | 7.37588 | -0.39149905 | +0.28519027 |
| P | 7.59 | | | | |

From 25 observations 2011 Oct. 22–Nov. 20, mean residual 0".40.

From CHB 2023.

Comet P/2004 FY140 (LINEAR)

Epoch 2026 May 20.0 TT = JDT 2461180.5

T 2026 May 27.74127 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.0820744 | | | | |
| n | 0.09048926 | Peri. | 241.92742 | -0.87665671 | +0.48068402 |
| a | 4.9136554 | Node | 326.79099 | -0.42731672 | -0.79740383 |
| e | 0.1692388 | Incl. | 2.13388 | -0.22107338 | -0.36481503 |
| P | 10.89 | | | | |

From 52 observations 2004 Mar. 27–July 12, mean residual 0".42.

From CHB 2023.

Comet P/2013 T2 (Schwartz)

Epoch 2026 June 9.0 TT = JDT 2461200.5

T 2026 June 11.38240 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7464840 | | | | |
| n | 0.15094975 | Peri. | 345.57940 | +0.97173131 | +0.23607907 |
| a | 3.4933958 | Node | 0.77584 | -0.19707675 | +0.81630445 |
| e | 0.5000612 | Incl. | 9.44716 | -0.12999624 | +0.52717522 |
| P | 6.53 | | | | |

From 118 observations 2013 Sept. 14–Dec. 11, mean residual 0".53.

From CHB 2024.

Comet P/1996 R2 (Lagerkvist)

Epoch 2026 June 9.0 TT = JDT 2461200.5

T 2026 June 15.76443 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.5870259 | | | | |
| n | 0.13460630 | Peri. | 333.56653 | +0.97186317 | -0.23373572 |
| a | 3.7707331 | Node | 39.98549 | +0.22334584 | +0.87513255 |
| e | 0.3139197 | Incl. | 2.59981 | +0.07482393 | +0.42368696 |
| P | 7.32 | | | | |

From 125 observations 1996 Aug. 12–1997 Jan. 12, mean residual 0".62.

From CHB 2023.

Comet P/2009 B1 (Boattini)

Epoch 2026 July 19.0 TT = JDT 2461240.5

T 2026 July 1.02309 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.4479988 | | | | |
| n | 0.05654693 | Peri. | 129.07287 | +0.35289579 | -0.87273958 |
| a | 6.7224879 | Node | 297.07226 | +0.69795261 | +0.48564912 |
| e | 0.6358493 | Incl. | 22.26159 | +0.62315866 | -0.04970476 |
| P | 17.43 | | | | |

From 108 observations 2008 Nov. 18–2009 Mar. 29, mean residual 0".59.

From CHB 2023.

Comet P/2012 K3 (Gibbs)

Epoch 2026 July 19.0 TT = JDT 2461240.5

T 2026 July 15.72716 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.1012089 | | | | |
| n | 0.14225583 | Peri. | 172.09786 | +0.47086959 | +0.86260736 |
| a | 3.6343159 | Node | 125.80235 | -0.82136216 | +0.50514631 |
| e | 0.4218420 | Incl. | 13.17858 | -0.32194105 | -0.02712452 |
| P | 6.93 | | | | |

From 136 observations 2012 May 21–Sept. 9, mean residual 0".56.

From CHB 2024.

Comet P/2018 VN2 (Leonard)

Epoch 2026 Aug. 28.0 TT = JDT 2461280.5

T 2026 Aug. 15.78612 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.1195516 | | | | |
| n | 0.12049430 | Peri. | 138.93231 | +0.97167467 | -0.06589478 |
| a | 4.0596792 | Node | 226.42615 | +0.02473118 | +0.98341965 |
| e | 0.4779017 | Incl. | 18.25557 | +0.23502492 | +0.16894874 |
| P | 8.18 | | | | |

From 104 observations 2018 July 2–Dec. 13, mean residual 0".54.

From CHB 2023.

Comet P/2005 T3 (Read)

Epoch 2026 Aug. 28.0 TT = JDT 2461280.5

T 2026 Aug. 26.96966 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 6.2520882 | | | | |
| n | 0.04739125 | Peri. | 7.38349 | +0.81993397 | -0.57024881 |
| a | 7.5625904 | Node | 27.57349 | +0.51951531 | +0.70436687 |
| e | 0.1732875 | Incl. | 6.23160 | +0.24044152 | +0.42270985 |
| P | 20.80 | | | | |

From 42 observations 2005 Sept. 30–Nov. 26, mean residual 0".50.

From CHB 2023.

Comet P/2010 U1 (Boattini)

Epoch 2026 Aug. 28.0 TT = JDT 2461280.5

T 2026 Sept. 9.82728 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.8753294 | | | | |
| n | 0.05975049 | Peri. | 86.68866 | +0.98170800 | -0.12834873 |
| a | 6.4800008 | Node | 280.65178 | +0.05865540 | +0.90657432 |
| e | 0.2476344 | Incl. | 8.22686 | +0.18113238 | +0.40205672 |
| P | 16.50 | | | | |

From 111 observations 2009 Sept. 17–2011 Dec. 28, mean residual 0".54.

From CHB 2023.

Comet P/2015 X3 (PANSTARRS)

Epoch 2026 Oct. 7.0 TT = JDT 2461320.5

T 2026 Oct. 22.42528 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.7985671 | | | | |
| n | 0.08835480 | Peri. | 306.94732 | +0.84242880 | -0.35747096 |
| a | 4.9924758 | Node | 77.25097 | +0.52194161 | +0.72715462 |
| e | 0.4394430 | Incl. | 24.41472 | -0.13375604 | +0.58605518 |
| P | 11.16 | | | | |

From 28 observations 2015 Nov. 6–Dec. 10, mean residual 0".40.

From CHB 2023.

Comert D/1894 F1 (Denning) [Orbit 2]

Epoch 2026 Oct. 27.0 TT = JDT 2461340.5

T 2026 Nov. 2.12646 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.5712712 | | | | |
| n | 0.10509074 | Peri. | 107.43295 | -0.60598527 | -0.79535405 |
| a | 4.4472658 | Node | 19.88641 | +0.71342378 | -0.55113648 |
| e | 0.6466883 | Incl. | 2.34549 | +0.35186413 | -0.25231036 |
| P | 9.38 | | | | |

From 142 observations 1894 Mar. 27–June 5, mean residual 2".72.

From Muraoka's orbit (CHB 2006).

Comet P/2019 X2 (PANSTARRS)

Epoch 2026 Nov. 16.0 TT = JDT 2461360.5

T 2026 Nov. 15.36434 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8145942 | | | | |
| n | 0.14227961 | Peri. | 213.54124 | -0.22853870 | -0.93851659 |
| a | 3.6339108 | Node | 250.84767 | +0.94254478 | -0.14677572 |
| e | 0.5006498 | Incl. | 15.89775 | +0.24367888 | -0.31247959 |
| P | 6.93 | | | | |

From 49 observations 2019 Nov. 25–2020 Jan. 9, mean residual 0".52.

From CHB 2024.

Comet P/2009 Y2 (Kowalski)

Epoch 2026 Dec. 26.0 TT = JDT 2461400.5

T 2026 Dec. 10.69747 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.3698871 | | | | |
| n | 0.05894781 | Peri. | 172.32363 | +0.25161928 | -0.83168688 |
| a | 6.5386927 | Node | 262.05227 | +0.85929416 | +0.42728608 |
| e | 0.6375595 | Incl. | 29.98410 | +0.44531033 | -0.35457516 |
| P | 16.72 | | | | |

From 173 observations 2009 Dec. 20–2010 Apr. 2, mean residual 0".56.

From CHB 2023.

Comet P/2007 K2 (Gibbs)

Epoch 2026 Dec. 26.0 TT = JDT 2461400.5

T 2026 Dec. 25.88227 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.3209962 | | | | |
| n | 0.04904143 | Peri. | 347.06252 | -0.99612281 | -0.08600031 |
| a | 7.3919773 | Node | 188.07274 | +0.08777822 | -0.95758767 |
| e | 0.6860115 | Incl. | 7.58172 | +0.00585993 | -0.27500874 |
| P | 20.10 | | | | |

From 49 observations 2007 Apr. 11–July 11, mean residual 0".72.

From CHB 2023.

Comet P/2021 R8 (Sheppard)

Epoch 2026 Dec. 26.0 TT = JDT 2461400.5

T 2027 Jan. 5.72103 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.1376239 | | | | |
| n | 0.18775681 | Peri. | 190.83778 | +0.99925830 | +0.03752494 |
| a | 3.0204542 | Node | 167.00234 | -0.03182757 | +0.93119819 |
| e | 0.2922839 | Incl. | 2.20284 | -0.02167631 | +0.36257661 |
| P | 5.25 | | | | |

From 26 observations 2021 Aug. 12–Dec. 7, mean residual 0".33.

Comet P/2020 G1 (Pimentel)

Epoch 2026 Dec. 26.0 TT = JDT 2461400.5

T 2027 Jan. 13.88087 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 0.5018000 | | | | |
| n | 0.14462965 | Peri. | 207.63350 | +0.06017675 | -0.95951591 |
| a | 3.5944394 | Node | 240.10914 | +0.96435941 | +0.12703859 |
| e | 0.8603955 | Incl. | 18.50385 | +0.25766198 | -0.25137704 |
| P | 6.81 | | | | |

From 440 observations 2020 Apr. 13–July 19, mean residual 0".75.

Comet P/2012 T2 (PANSTARRS)

Epoch 2027 Feb. 4.0 TT = JDT 2461440.5

T 2027 Jan. 16.12741 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.7925580 | | | | |
| n | 0.07227734 | Peri. | 311.12612 | +0.89042604 | -0.40434467 |
| a | 5.7077892 | Node | 73.67582 | +0.45475463 | +0.77183438 |
| e | 0.1603477 | Incl. | 12.57364 | +0.01843071 | +0.49069041 |
| P | 13.64 | | | | |

From 38 observations 2012 Oct. 10–Nov. 13, mean residual 0".45.

Comet P/2017 D1 (Fuls)

Epoch 2027 Feb. 4.0 TT = JDT 2461440.5

T 2027 Jan. 31.20917 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 2.7095670 | | | | |
| n | 0.09312838 | Peri. | 8.17644 | +0.00290592 | -0.93624147 |
| a | 4.8203807 | Node | 82.18179 | +0.89624738 | -0.15340035 |
| e | 0.4378936 | Incl. | 20.77149 | +0.44354502 | +0.31610164 |
| P | 10.58 | | | | |

From 75 observations 2015 Sept. 8–2017 Mar. 7, mean residual 0".52.

Comet P/2019 B2 (Groeller)

Epoch 2027 Feb. 4.0 TT = JDT 2461440.5

T 2027 Feb. 23.99533 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.5281361 | | | | |
| n | 0.12629964 | Peri. | 0.38685 | -0.99742099 | -0.06805276 |
| a | 3.9343045 | Node | 175.51569 | +0.06504222 | -0.99138863 |
| e | 0.3574122 | Incl. | 16.96032 | +0.03034593 | -0.11188122 |
| P | 7.80 | | | | |

From 182 observations 2019 Jan. 4–July 4, mean residual 0".78.

Comet P/2013 W1 (PANSTARRS)

Epoch 2027 Mar. 16.0 TT = JDT 2461480.5

T 2027 Mar. 16.05584 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4142692 | | | | |
| n | 0.15158981 | Peri. | 1.28627 | -0.48673415 | -0.87053932 |
| a | 3.4835553 | Node | 117.84426 | +0.80073304 | -0.47778097 |
| e | 0.5940156 | Incl. | 4.70086 | +0.34916539 | -0.11784161 |
| P | 6.50 | | | | |

From 102 observations 2013 Nov. 9–2014 Mar. 3, mean residual 0".63.

Comet P/2018 H2 (PANSTARRS)

Epoch 2027 Mar. 16.0 TT = JDT 2461480.5

T 2027 Mar. 17.65587 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0351485 | | | | |
| n | 0.10613553 | Peri. | 119.37924 | -0.98600594 | +0.11607985 |
| a | 4.4180320 | Node | 67.50692 | -0.15746980 | -0.88414040 |
| e | 0.5393541 | Incl. | 7.44123 | +0.05473163 | -0.45257179 |
| P | 9.29 | | | | |

From 169 observations 2017 Nov. 17–2018 June 12, mean residual 0".51.

Comet P/2012 T3 (PANSTARRS)

Epoch 2027 Mar. 16.0 TT = JDT 2461480.5

T 2027 Mar. 21.95056 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.3743143 | | | | |
| n | 0.06607084 | Peri. | 196.33971 | +0.64654222 | +0.74779658 |
| a | 6.0598633 | Node | 114.20796 | -0.68010223 | +0.65463022 |
| e | 0.6081901 | Incl. | 9.52599 | -0.34560689 | +0.11072287 |
| P | 14.92 | | | | |

From 33 observations 2012 Oct. 10–Nov. 1, mean residual 0".27.

Comet P/2016 P1 (PANSTARRS)

Epoch 2027 Apr. 25.0 TT = JDT 2461520.5

T 2027 Apr. 26.90940 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.3034782 | | | | |
| n | 0.16942642 | Peri. | 269.02863 | -0.60653164 | +0.74172707 |
| a | 3.2345606 | Node | 318.75548 | -0.43836765 | -0.61239152 |
| e | 0.2878544 | Incl. | 25.73733 | -0.66328966 | -0.27352801 |
| P | 5.82 | | | | |

From 40 observations 2016 Aug. 1–12, mean residual 0".42.

Comet C/2024 T5 (ATLAS)

Epoch 2027 Apr. 25.0 TT = JDT 2461520.5

T 2027 May 6.72705 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 3.8399921 | | | | |
| z | -0.0004782 | Peri. | 352.50618 | -0.10552594 | -0.61880314 |
| +/- | -0.0000482 | Node | 100.68029 | +0.94851718 | -0.29771399 |
| e | 1.0018364 | Incl. | 52.38676 | +0.29862926 | +0.72694502 |

From 199 observations 2024 Oct. 2–2025 Jan. 6, mean residual 0".36.

Comet P/2010 H4 (Scotti)

Epoch 2027 June 4.0 TT = JDT 2461560.5

T 2027 May 24.13745 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 4.8484711 | | | | |
| n | 0.05780311 | Peri. | 179.22806 | -0.71955073 | +0.69385634 |
| a | 6.6247357 | Node | 44.75390 | -0.63735259 | -0.64357021 |
| e | 0.2681261 | Incl. | 2.31689 | -0.27573253 | -0.32308011 |
| P | 17.05 | | | | |

From 56 observations 2010 Apr. 12–June 13, mean residual 0".40.

Comet P/2020 MK4 (PANSTARRS)

Epoch 2027 June 4.0 TT = JDT 2461560.5

T 2027 June 17.37294 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 6.1272064 | | | | |
| n | 0.06341800 | Peri. | 97.52018 | -0.14198372 | -0.98986809 |
| a | 6.2277002 | Node | 0.64700 | +0.85525547 | -0.12335318 |
| e | 0.0161366 | Incl. | 6.78047 | +0.49837607 | -0.07032175 |
| P | 15.54 | | | | |

From 149 observations 2020 June 15–2022 Oct. 29, mean residual 0".46.

Comet P/2010 D2 (WISE)

Epoch 2027 July 14.0 TT = JDT 2461600.5

T 2027 July 10.39657 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.6817683 | | | | |
| n | 0.05674256 | Peri. | 120.12171 | -0.08142673 | -0.83692689 |
| a | 6.7070278 | Node | 319.88675 | +0.33692221 | +0.48794501 |
| e | 0.4510581 | Incl. | 57.14197 | +0.93800486 | -0.24791741 |
| P | 17.37 | | | | |

From 62 observations 2010 Feb. 25–2011 Apr. 29, mean residual 0".64.

Comet 450P/LONEOS

Epoch 2027 July 14.0 TT = JDT 2461600.5

T 2027 July 24.52786 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 5.3130882 | | | | |
| n | 0.05591460 | Peri. | 39.91955 | -0.94567902 | -0.28402069 |
| a | 6.7730757 | Node | 122.88985 | +0.22880107 | -0.92712453 |
| e | 0.2155575 | Incl. | 10.85841 | +0.23095726 | -0.24448387 |
| P | 17.63 | | | | |

From 567 observations 2003 Oct. 25–2025 Jan. 22, mean residual 0".66.

Comet P/2004 V5-A = 2003 YM159 (LINEAR-Hill)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Aug. 4.42323 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 4.4332545 | | | | |
| n | 0.04269065 | Peri. | 87.15661 | -0.66310588 | -0.70750224 |
| a | 8.1080090 | Node | 47.64384 | +0.48487581 | -0.65474603 |
| e | 0.4532253 | Incl. | 19.31306 | +0.57025086 | -0.26598537 |
| P | 23.09 | | | | |

From 548 observations 2003 Dec. 17–2006 May 25, mean residual 0".58.

Comet P/2004 V5-B (LINEAR-Hill)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Aug. 5.44606 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|----------|-------------|-------------|
| q | 4.4332630 | | | | |
| n | 0.04269102 | Peri. | 87.16230 | -0.66319510 | -0.70741500 |
| a | 8.1079612 | Node | 47.64557 | +0.48478931 | -0.65481391 |
| e | 0.4532210 | Incl. | 19.31337 | +0.57022065 | -0.26605030 |
| P | 23.09 | | | | |

From 432 observations 2004 Nov. 10–2006 May 25, mean residual 0".62.

Comet P/2021 Q5 (ATLAS)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Aug. 17.14304 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.2348260 | | | | |
| n | 0.16547664 | Peri. | 181.00038 | +0.48938541 | -0.85710316 |
| a | 3.2858287 | Node | 239.71676 | +0.80139450 | +0.51474983 |
| e | 0.6241965 | Incl. | 10.73575 | +0.34390227 | +0.02016880 |
| P | 5.96 | | | | |

From 215 observations 2021 Aug. 29–Oct. 23, mean residual 0".62.

Comet P/2020 T3 (PANSTARRS)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Aug. 27.79224 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.4333132 | | | | |
| n | 0.14961651 | Peri. | 357.13425 | +0.32356919 | -0.93829364 |
| a | 3.5141182 | Node | 73.96326 | +0.87063263 | +0.24470370 |
| e | 0.5921272 | Incl. | 7.29871 | +0.37054258 | +0.24438727 |
| P | 6.59 | | | | |

From 168 observations 2020 Sept. 9–2021 Mar. 10, mean residual 0".64.

Comet P/2014 V1 (PANSTARRS)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Aug. 29.23386 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.5534706 | | | | |
| n | 0.07824299 | Peri. | 177.99442 | +0.96273144 | +0.25456894 |
| a | 5.4138442 | Node | 166.17997 | -0.25316055 | +0.96705070 |
| e | 0.5283443 | Incl. | 22.48087 | -0.09517302 | +0.00275746 |
| P | 12.60 | | | | |

From 41 observations 2014 Nov. 9–17, mean residual 0".52.

Comet P/1998 VS24 (LINEAR)

Epoch 2027 Aug. 23.0 TT = JDT 2461640.5

T 2027 Sept. 8.50345 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 3.4194254 | | | | |
| n | 0.10271147 | Peri. | 245.02403 | +0.71799277 | -0.69534013 |
| a | 4.5156828 | Node | 158.98383 | +0.66604901 | +0.67322583 |
| e | 0.2427667 | Incl. | 5.02942 | +0.20215118 | +0.25153345 |
| P | 9.60 | | | | |

From 47 observations 1998 Oct. 14–1999 Jan. 14, mean residual 0".66.

Comet P/2014 U4 (PANSTARRS)

Epoch 2027 Oct. 2.0 TT = JDT 2461680.5

T 2027 Sep. 13.96704 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8859215 | | | | |
| n | 0.14959421 | Peri. | 347.80753 | +0.99971224 | +0.00676205 |
| a | 3.5144674 | Node | 11.87733 | +0.00553717 | +0.86848606 |
| e | 0.4633834 | Incl. | 6.42050 | -0.02334036 | +0.49566746 |
| P | 6.59 | | | | |

From 61 observations 2014 Sept. 2–Nov. 17, mean residual 0".45.

Comet P/2011 Y2 (Boattini)

Epoch 2027 Oct. 2.0 TT = JDT 2461680.5

T 2027 Oct. 2.90652 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7979593 | | | | |
| n | 0.06358369 | Peri. | 132.18087 | +0.14516299 | -0.98564412 |
| a | 6.2168767 | Node | 309.26571 | +0.87177609 | +0.16862753 |
| e | 0.7107938 | Incl. | 6.39372 | +0.46790400 | -0.00839148 |
| P | 15.50 | | | | |

From 92 observations 2011 Sept. 4–2012 Apr. 11, mean residual 0".49.

Comet P/2013 T1 (PANSTARRS)

Epoch 2027 Oct. 2.0 TT = JDT 2461680.5

T 2027 Oct. 13.88576 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.2067641 | | | | |
| n | 0.06947389 | Peri. | 346.15850 | +0.99410136 | +0.08151827 |
| a | 5.8603239 | Node | 10.02362 | -0.00288061 | +0.67919556 |
| e | 0.6234399 | Incl. | 24.26721 | -0.10841672 | +0.72941632 |
| P | 14.19 | | | | |

From 43 observations 2013 Sept. 13–Nov. 4, mean residual 0".42.

Comet 75D/Kohoutek

Epoch 2027 Nov. 11.0 TT = JDT 2461720.5

T 2027 Oct. 29.84721 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.7695731 | | | | |
| n | 0.14846961 | Peri. | 175.79242 | +0.08118932 | -0.99133643 |
| a | 3.5321923 | Node | 269.52811 | +0.91141334 | +0.11577007 |
| e | 0.4990156 | Incl. | 5.92650 | +0.40340305 | -0.06204329 |
| P | 6.64 | | | | |

From 50 observations 1980 Aug. 6–1988 May 19, mean residual 0".84.

Nongravitational parameters Y1 = +1.35, Y2 = +0.5578.

Comet P/2011 N1 (ASH)

Epoch 2027 Dec. 21.0 TT = JDT 2461760.5

T 2028 Jan. 1.33127 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.8338912 | | | | |
| n | 0.06345698 | Peri. | 330.61541 | +0.57650718 | -0.58435869 |
| a | 6.2251495 | Node | 77.54868 | +0.81606175 | +0.37669042 |
| e | 0.5447674 | Incl. | 35.79341 | +0.04102059 | +0.71876926 |
| P | 15.53 | | | | |

From 263 observations 2011 July 1–2013 Feb. 5, mean residual 0".46.

Comet P/2014 A2 (Hill)

Epoch 2028 Mar. 10.0 TT = JDT 2461840.5

T 2028 Mar. 14.77260 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.0900929 | | | | |
| n | 0.06859880 | Peri. | 356.33440 | -0.22977662 | -0.88799953 |
| a | 5.9100573 | Node | 106.62336 | +0.90317195 | -0.34704097 |
| e | 0.6463498 | Incl. | 24.56306 | +0.36260603 | +0.30169421 |
| P | 14.37 | | | | |

From 119 observations 2013 Nov. 9–2014 Mar. 7, mean residual 0".65.

Comet P/2020 U2 (PANSTARRS)

Epoch 2028 Apr. 19.0 TT = JDT 2461880.5

T 2028 May 2.01323 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.8475444 | | | | |
| n | 0.13431974 | Peri. | 84.83677 | +0.37920424 | -0.92471981 |
| a | 3.7760942 | Node | 342.76423 | +0.79849734 | +0.34511394 |
| e | 0.5107261 | Incl. | 6.41917 | +0.46755336 | +0.16059153 |
| P | 7.34 | | | | |

From 292 observations 2020 Sept. 17–2021 Apr. 11, mean residual 0".61.

Comet P/2010 UH55 (Spacewatch)

Epoch 2028 May 29.0 TT = JDT 2461920.5

T 2028 June 2.57489 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.8915220 | | | | |
| n | 0.05774428 | Peri. | 225.54098 | -0.13824556 | -0.98411812 |
| a | 6.6292346 | Node | 232.72877 | +0.94376853 | -0.09680862 |
| e | 0.5638226 | Incl. | 8.04385 | +0.30031504 | -0.14879386 |
| P | 17.07 | | | | |

From 162 observations 2010 Sept. 12–2012 Mar. 23, mean residual 0".51.

Comet P/2014 C1 (TOTAS)

Epoch 2028 Aug. 17.0 TT = JDT 2462000.5

T 2028 July 29.33713 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.7239843 | | | | |
| n | 0.11977116 | Peri. | 188.69045 | -0.67591906 | +0.73613940 |
| a | 4.0760035 | Node | 38.79555 | -0.67275021 | -0.59686685 |
| e | 0.3317022 | Incl. | 3.21174 | -0.30089961 | -0.31913750 |
| P | 8.23 | | | | |

From 58 observations 2014 Feb. 1–June 27, mean residual 0".57.

Comet P/2010 C1 (Scotti)

Epoch 2028 Sept. 26.0 TT = JDT 2462040.5

T 2028 Sept. 21.12770 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 5.2434871 | | | | |
| n | 0.05148808 | Peri. | 2.84589 | -0.81441745 | -0.57192603 |
| a | 7.1559105 | Node | 141.72226 | +0.52921936 | -0.80140953 |
| e | 0.2672509 | Incl. | 9.11231 | +0.23801490 | -0.17505248 |
| P | 19.14 | | | | |

From 93 observations 2008 Dec. 30–2011 May 3, mean residual 0".51.

Comet P/2006 HR30 (Siding Spring)

Epoch 2028 Sept. 26.0 TT = JDT 2462040.5

T 2028 Oct. 9.82338 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.2212814 | | | | |
| n | 0.04535989 | Peri. | 117.59520 | +0.28333112 | -0.86814794 |
| a | 7.7867233 | Node | 309.65359 | +0.58088779 | +0.49343713 |
| e | 0.8431585 | Incl. | 31.95522 | +0.76308116 | -0.05328172 |
| P | 21.73 | | | | |

From 3046 observations 2005 July 6–2008 May 5, mean residual 0".36.

Comet P/2020 S5 (PANSTARRS)

Epoch 2028 Sept. 26.0 TT = JDT 2462040.5

T 2028 Oct. 11.31822 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.6949373 | | | | |
| n | 0.12030847 | Peri. | 53.15418 | +0.97458935 | -0.16764755 |
| a | 4.0638584 | Node | 315.93788 | +0.06480307 | +0.84587327 |
| e | 0.3368526 | Incl. | 12.33457 | +0.21442051 | +0.50635236 |
| P | 8.19 | | | | |

From 74 observations 2020 Aug. 26–Dec. 16, mean residual 0".37.

Comet P/2016 R4 (Gibbs)

Epoch 2028 Nov. 5.0 TT = JDT 2462080.5

T 2028 Nov. 19.26275 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 2.8095217 | | | | |
| n | 0.07965214 | Peri. | 173.95721 | +0.95235411 | +0.30255729 |
| a | 5.3498024 | Node | 168.21278 | -0.28712288 | +0.93193911 |
| e | 0.4748364 | Incl. | 10.85781 | -0.10286931 | +0.19987144 |
| P | 12.37 | | | | |

From 182 observations 2016 July 18–Nov. 26, mean residual 0".50.

Comet D/1894 F1 (Denning) [Orbit 1]

Epoch 2029 May 24.0 TT = JDT 2462280.5

T 2029 June 12.88617 TT

| | | (2000.0) | P | Sato | Q |
|---|------------|----------|-----------|-------------|-------------|
| q | 1.1676422 | | | | |
| n | 0.13199546 | Peri. | 198.57508 | -0.71667985 | -0.69705341 |
| a | 3.8202934 | Node | 297.21312 | +0.64295584 | -0.64814646 |
| e | 0.6943580 | Incl. | 1.42124 | +0.27014400 | -0.30663122 |
| P | 7.47 | | | | |

From 120 observations 1894 Mar. 27–June 5, mean residual 2".6.

From Williams's orbit (1993).

Comet C/2014 UN271 (Bernardinelli-Bernstein)

Epoch 2031 Jan. 14.0 TT = JDT 2462880.5

T 2031 Jan. 22.88955 TT

| | | (2000.0) | P | Sato | Q |
|-----|------------|----------|-----------|-------------|-------------|
| q | 10.9502888 | | | | |
| z | -0.0000686 | Peri. | 326.31986 | -0.81027113 | -0.55985867 |
| +/- | -0.0000006 | Node | 190.02325 | +0.03908527 | -0.34660234 |
| e | 1.0007509 | Incl. | 95.45430 | -0.58475040 | +0.75261218 |

From 924 observations 2010 Nov. 15–2025 Jan. 2, mean residual 0".45.

Remarks:

Non-gravitational parameters Y1 and Y2 indicate that the Yabushita-style non-gravitational effect based on CO sublimation is taken into account (MN 283, 347).

Acknowledgments:

This Comet Handbook has made use of data and/or services provided by the International Astronomical Union's Minor Planet Center.

彗星年表 2025

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彗星年表 2025 web 版

2025年2月1日 発行

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