

"Pseudo-MPEC" for C/2017 K2Created 2017 Jun 1 6:06:30 UT using [Find_Orb](#)

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Astrometry:

| | | | | | | | | | | | |
|--------------------------|--------|----|-------------|----|-----------|-----------|-------|---------|------|---------|---------------------|
| CK17K020 | C2017 | 05 | 21.49169 | 17 | 52 | 21.398+64 | 30 | 27.80 | 20.8 | TLEK035 | F51 |
| CK17K020 | C2017 | 05 | 21.50472 | 17 | 52 | 20.968+64 | 30 | 29.10 | 21.1 | TLEK035 | F51 |
| CK17K020 | C2017 | 05 | 21.51771 | 17 | 52 | 20.603+64 | 30 | 29.94 | 20.8 | TLEK035 | F51 |
| CK17K020 | C2017 | 05 | 21.53069 | 17 | 52 | 20.168+64 | 30 | 31.22 | 21.0 | TLEK035 | F51 |
| CK17K020 | 5C2017 | 05 | 22.45004 | 17 | 51 | 52.97 | +64 | 31 45.4 | | vEK035 | U69 |
| CK17K020 | 5C2017 | 05 | 22.45297 | 17 | 51 | 52.88 | +64 | 31 45.8 | | vEK035 | U69 |
| CK17K020 | 5C2017 | 05 | 22.45591 | 17 | 51 | 52.80 | +64 | 31 45.9 | 18.9 | TvEK035 | U69 |
| CK17K020 | _C2017 | 05 | 22.56016717 | 51 | 49.671+64 | 31 | 53.97 | | 19.7 | TUEK035 | 568 |
| CK17K020 | _C2017 | 05 | 22.56261417 | 51 | 49.606+64 | 31 | 54.14 | | 19.7 | TUEK035 | 568 |
| CK17K020 | _C2017 | 05 | 22.56393117 | 51 | 49.559+64 | 31 | 54.25 | | 19.7 | TUEK035 | 568 |
| CK17K020 | _C2017 | 05 | 22.56637117 | 51 | 49.494+64 | 31 | 54.45 | | 19.7 | TUEK035 | 568 |
| CK17K020 | IC2017 | 05 | 24.07111 | 17 | 51 | 04.20 | +64 | 33 48.0 | | UEK035 | J95 |
| CK17K020 | KC2017 | 05 | 24.08350 | 17 | 51 | 03.89 | +64 | 33 49.2 | | UEK035 | J95 |
| CK17K020 | KC2017 | 05 | 24.09719 | 17 | 51 | 03.49 | +64 | 33 50.4 | 19.3 | TUEK035 | J95 |
| CK17K020 | 9C2017 | 05 | 24.15020 | 17 | 51 | 01.88 | +64 | 33 54.5 | 19.2 | TqEK090 | G40 |
| CK17K020 | 9C2017 | 05 | 24.18833 | 17 | 51 | 00.68 | +64 | 33 57.2 | 19.1 | TqEK090 | G40 |
| CK17K020 | _C2017 | 05 | 24.55208117 | 50 | 49.679+64 | 34 | 23.45 | | 21.2 | TUEK090 | 568 |
| CK17K020 | _C2017 | 05 | 24.55406717 | 50 | 49.614+64 | 34 | 23.50 | | 21.2 | TUEK090 | 568 |
| CK17K020 | _C2017 | 05 | 24.55598317 | 50 | 49.552+64 | 34 | 23.70 | | 21.3 | TUEK090 | 568 |
| CK17K020 | KC2017 | 05 | 24.87600 | 17 | 50 | 39.80 | +64 | 34 46.5 | 19.7 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 24.88202 | 17 | 50 | 39.68 | +64 | 34 47.2 | 19.8 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 24.90072 | 17 | 50 | 39.01 | +64 | 34 48.4 | 19.9 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 25.92272 | 17 | 50 | 07.67 | +64 | 35 57.4 | 20.1 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 25.94697 | 17 | 50 | 06.90 | +64 | 35 59.3 | 19.9 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 25.95681 | 17 | 50 | 06.63 | +64 | 36 00.1 | 19.9 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 26.01911 | 17 | 50 | 04.65 | +64 | 36 03.9 | 19.3 | TUEK090 | J95 |
| CK17K020 | KC2017 | 05 | 26.03215 | 17 | 50 | 04.26 | +64 | 36 04.7 | 19.5 | TUEK090 | J95 |
| CK17K020 | KC2017 | 05 | 26.98094 | 17 | 49 | 34.80 | +64 | 37 05.4 | | UEK090 | J95 |
| CK17K020 | KC2017 | 05 | 26.98275 | 17 | 49 | 34.79 | +64 | 37 06.1 | 19.8 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 26.98499 | 17 | 49 | 34.70 | +64 | 37 05.0 | | UEK090 | J95 |
| CK17K020 | KC2017 | 05 | 26.98904 | 17 | 49 | 34.53 | +64 | 37 05.4 | 19.2 | TUEK090 | J95 |
| CK17K020 | KC2017 | 05 | 27.01596 | 17 | 49 | 33.71 | +64 | 37 07.7 | 19.7 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 27.01692 | 17 | 49 | 33.78 | +64 | 37 07.1 | 19.7 | TqEK090 | 215 |
| CK17K020 | KC2017 | 05 | 27.01949 | 17 | 49 | 33.68 | +64 | 37 07.4 | 19.8 | TqEK090 | 215 |
| CK17K020 | KC2017 | 05 | 27.02206 | 17 | 49 | 33.55 | +64 | 37 07.7 | 19.8 | TqEK090 | 215 |
| CK17K020 | 9C2017 | 05 | 27.03354 | 17 | 49 | 33.22 | +64 | 37 08.6 | 18.8 | TqEK090 | G40 |
| CK17K020 | 9C2017 | 05 | 27.07900 | 17 | 49 | 31.74 | +64 | 37 11.4 | 18.9 | TqEK090 | G40 |
| CK17K020 | 9C2017 | 05 | 27.14139 | 17 | 49 | 29.84 | +64 | 37 15.2 | 18.9 | TqEK090 | G40 |
| CK17K020 | KC2017 | 05 | 27.92074 | 17 | 49 | 05.47 | +64 | 38 01.3 | 19.4 | TUEK090 | J95 |
| CK17K020 | KC2017 | 05 | 27.94736 | 17 | 49 | 04.64 | +64 | 38 03.8 | 19.6 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 27.98068 | 17 | 49 | 03.60 | +64 | 38 06.2 | 19.9 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 27.99772 | 17 | 49 | 03.08 | +64 | 38 06.5 | 19.3 | NqEK090 | 157 |
| CK17K020 | KC2017 | 05 | 28.00720 | 17 | 49 | 02.75 | +64 | 38 07.5 | 19.3 | NqEK090 | 157 |
| CK17K020 | KC2017 | 05 | 28.01666 | 17 | 49 | 02.43 | +64 | 38 08.0 | 19.2 | NqEK090 | 157 |

| | | | | | | | | | | | | |
|--------------------------|--------|----|-------------|----|--------|-------|-----|-------|------|---------|---------------------|---------------------|
| CK17K020 | KC2017 | 05 | 28.01935 | 17 | 49 | 02.32 | +64 | 38 | 07.7 | 19.3 | TUEK090 | J95 |
| CK17K020 | _C2017 | 05 | 28.42348717 | 48 | 49.689 | +64 | 38 | 31.08 | 19.7 | TUEK090 | 568 | |
| CK17K020 | _C2017 | 05 | 28.42559417 | 48 | 49.609 | +64 | 38 | 31.15 | 19.3 | TUEK090 | 568 | |
| CK17K020 | KC2017 | 05 | 29.95777 | 17 | 48 | 00.94 | +64 | 39 | 53.4 | 19.6 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 29.96788 | 17 | 48 | 00.66 | +64 | 39 | 54.0 | 20.0 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 30.00851 | 17 | 47 | 59.28 | +64 | 39 | 56.3 | 19.5 | ToEK090 | 461 |
| CK17K020 | KC2017 | 05 | 30.93406 | 17 | 47 | 29.68 | +64 | 40 | 40.6 | 18.6 | N | 970 |
| CK17K020 | KC2017 | 05 | 30.94811 | 17 | 47 | 29.21 | +64 | 40 | 41.3 | 18.7 | N | 970 |
| CK17K020 | KC2017 | 05 | 30.96329 | 17 | 47 | 28.71 | +64 | 40 | 41.4 | 18.7 | N | 970 |
| CK17K020 | KC2017 | 05 | 31.97791 | 17 | 46 | 55.96 | +64 | 41 | 28.1 | 18.7 | N | K02 |
| CK17K020 | KC2017 | 05 | 31.98522 | 17 | 46 | 55.64 | +64 | 41 | 27.7 | 18.7 | N | K02 |

Station data:

- (157) [Frasso Sabino](#) ([N42.2276 E12.8117](#)) Italy.
- (215) [Buchloe](#) ([N48.0174 E10.7328](#)) Germany. Observer W. Hasubick. 0.44-m f/4.6 reflector + CCD.
- (461) [University of Szeged, Piszkesteto Stn](#) ([Konkoly](#)) ([N47.9181 E19.8943](#)) Hungary. Observer K. [Sárneczky](#). 0.60-m Schmidt + CCD.
- (568) [Mauna Kea](#) ([N19.8262 W155.4722](#)) US/Hawaii. Observer D. J. [Tholen](#). 2.24-m [University of Hawaii](#) reflector.
- (970) [Chelmsford](#) ([N51.7448 E0.4954](#)) UK. Observer N. James. 0.28-m f/10 Schmidt-Cassegrain + CCD.
- (F51) [Pan-STARRS 1, Haleakala](#) ([N20.70733 W156.25591](#)) US/Hawaii. Observers N. [Primak](#), A. Schultz, S. [Watters](#), J. Thiel, T. Goggia. Measurer PS1 Science Consortium. 1.8-m Ritchey-Chrétien + CCD.
- (G40) Slooh.com Canary Islands Observatory ([N28.29982 W16.50826](#)) Canary Islands (Spain).
- (J95) [Great Shefford](#) ([N51.47502 W1.44700](#)) UK. Observer P. [Birtwhistle](#). 0.30-m f/6.3 Schmidt-Cassegrain + CCD.
- (K02) Eastwood Observatory, Leigh on Sea ([N51.56885 E0.66761](#)) UK.
- (U69) iTelescope SRO Observatory, Auberry ([N37.0705 W119.4130](#)) US/California.

Orbital elements: C/2017 K2

Perihelion 2023 Apr 17.497940 +/- 117 TT = 11:57:02 (JD 2460051.997940)
 Epoch 2017 May 31.0 TT = JDT 2457904.5 Ju: 0.7892 [Find_Orb](#)
 M 355.43324 +/- 4.3
 n 0.00212654 +/- 0.00438 Peri. 239.57554 +/- 3.3
 a 59.8898154 +/- 82.1 Node 85.05870 +/- 1.8
 e 0.9708381 +/- 0.041 Incl. 87.85533 +/- 0.17
 P 463.48 M(N) 0.8 K 10.0 U 9.1
 q 1.74649736 +/- 0.0297 Q 118.033133 +/- 69.7
 From 55 observations 2017 May 21-31; mean residual 0".29

Residuals in arcseconds:

| | | | | | | | | | | | |
|------------------------|---------------------|------|------|------------------------|---------------------|------|------|------------------------|---------------------|------|------|
| 170521 | F51 | .17+ | .20- | 170524 | 461 | .09- | .57+ | 170527 | J95 | .10+ | .52- |
| 170521 | F51 | .09- | .02+ | 170524 | 461 | .33+ | .84+ | 170527 | 461 | .28+ | .29+ |
| 170521 | F51 | .07+ | .21- | 170524 | 461 | .27- | .70+ | 170527 | 461 | .40+ | .73+ |
| 170521 | F51 | .23- | .00 | 170525 | 461 | .07+ | .09+ | 170527 | 157 | .49+ | .01- |
| 170522 | U69 | .11+ | .16+ | 170525 | 461 | .02- | .36+ | 170528 | 157 | .30+ | .43+ |
| 170522 | U69 | .10+ | .34+ | 170525 | 461 | .22+ | .50+ | 170528 | 157 | .18+ | .38+ |
| 170522 | U69 | .16+ | .21+ | 170526 | J95 | .13- | .23+ | 170528 | J95 | .05- | .02+ |
| 170522 | 568 | .05+ | .06- | 170526 | J95 | .02- | .16+ | 170528 | 568 | .44+ | .03- |
| 170522 | 568 | .11+ | .08- | 170526 | J95 | .27- | .22+ | 170528 | 568 | .36+ | .08- |
| 170522 | 568 | .07+ | .08- | 170526 | 461 | .15+ | .74+ | 170529 | 461 | .15+ | .20+ |
| 170522 | 568 | .12+ | .07- | 170526 | J95 | .09- | .43- | 170529 | 461 | .45+ | .28+ |
| 170524 | J95 | .41- | .40- | 170526 | J95 | .37- | .29- | 170530 | 461 | .01+ | .52+ |
| 170524 | J95 | .04+ | .11- | 170527 | 461 | .06- | .27+ | 170530 | 970 | .10+ | .09- |
| 170524 | J95 | .17+ | .10+ | 170527 | 215 | .52+ | .39- | 170530 | 970 | .01+ | .06- |
| 170524 | G40 | .20+ | .14+ | 170527 | 215 | .40+ | .25- | 170530 | 970 | .04- | .69- |
| 170524 | G40 | .03+ | .10+ | 170527 | 215 | .08+ | .11- | 170531 | K02 | .12- | .63+ |
| 170524 | 568 | .34+ | .09+ | 170527 | G40 | .07+ | .04- | 170531 | K02 | .64- | .09- |
| 170524 | 568 | .32+ | .00 | 170527 | G40 | .20- | .09- | | | | |
| 170524 | 568 | .30+ | .07+ | 170527 | G40 | .28+ | .14- | | | | |

Ephemerides for (970) Chelmsford:

| Date (UTC) | RA | Dec | delta | r | elong | mag | '/hr | PA | " sig | PA |
|------------|--------------|--------------|--------|--------|-------|------|------|-------|-------|----|
| 2017 06 01 | 17 46 55.257 | +64 41 28.42 | 16.082 | 16.153 | 92.2 | 18.9 | 0.15 | 281.6 | 0.2 | 14 |

| | | | | | | | | | | | | |
|------------|-------|--------|--------|-------|--------|--------|------|------|------|-------|----|-----|
| 2017 08 07 | 17 13 | 45.678 | +63 00 | 28.64 | 15.791 | 15.797 | 88.5 | 18.8 | 0.17 | 211.6 | 35 | 164 |
| 2017 08 08 | 17 13 | 27.440 | +62 57 | 02.19 | 15.787 | 15.792 | 88.4 | 18.8 | 0.17 | 210.6 | 36 | 163 |
| 2017 08 09 | 17 13 | 09.718 | +62 53 | 33.40 | 15.783 | 15.787 | 88.4 | 18.8 | 0.17 | 209.7 | 37 | 163 |
| 2017 08 10 | 17 12 | 52.516 | +62 50 | 02.33 | 15.780 | 15.781 | 88.3 | 18.8 | 0.17 | 208.7 | 38 | 163 |
| 2017 08 11 | 17 12 | 35.836 | +62 46 | 29.05 | 15.776 | 15.776 | 88.2 | 18.8 | 0.17 | 207.8 | 39 | 162 |
| 2017 08 12 | 17 12 | 19.681 | +62 42 | 53.59 | 15.773 | 15.771 | 88.1 | 18.8 | 0.17 | 206.8 | 40 | 162 |
| 2017 08 13 | 17 12 | 04.054 | +62 39 | 16.04 | 15.769 | 15.765 | 88.0 | 18.8 | 0.17 | 205.9 | 41 | 161 |
| 2017 08 14 | 17 11 | 48.959 | +62 35 | 36.43 | 15.765 | 15.760 | 87.9 | 18.8 | 0.17 | 204.9 | 42 | 161 |
| 2017 08 15 | 17 11 | 34.398 | +62 31 | 54.84 | 15.762 | 15.755 | 87.8 | 18.8 | 0.17 | 204.0 | 43 | 161 |
| 2017 08 16 | 17 11 | 20.374 | +62 28 | 11.32 | 15.758 | 15.749 | 87.7 | 18.8 | 0.17 | 203.0 | 44 | 160 |
| 2017 08 17 | 17 11 | 06.889 | +62 24 | 25.93 | 15.755 | 15.744 | 87.6 | 18.8 | 0.17 | 202.1 | 45 | 160 |
| 2017 08 18 | 17 10 | 53.946 | +62 20 | 38.74 | 15.751 | 15.739 | 87.5 | 18.8 | 0.17 | 201.2 | 46 | 160 |
| 2017 08 19 | 17 10 | 41.547 | +62 16 | 49.82 | 15.747 | 15.733 | 87.4 | 18.8 | 0.17 | 200.2 | 47 | 159 |
| 2017 08 20 | 17 10 | 29.694 | +62 12 | 59.23 | 15.744 | 15.728 | 87.3 | 18.8 | 0.17 | 199.3 | 48 | 159 |
| 2017 08 21 | 17 10 | 18.389 | +62 09 | 07.04 | 15.740 | 15.723 | 87.2 | 18.8 | 0.17 | 198.4 | 49 | 159 |
| 2017 08 22 | 17 10 | 07.633 | +62 05 | 13.32 | 15.737 | 15.717 | 87.1 | 18.8 | 0.17 | 197.4 | 50 | 158 |
| 2017 08 23 | 17 09 | 57.426 | +62 01 | 18.14 | 15.733 | 15.712 | 87.0 | 18.8 | 0.17 | 196.5 | 51 | 158 |
| 2017 08 24 | 17 09 | 47.770 | +61 57 | 21.57 | 15.730 | 15.707 | 86.8 | 18.8 | 0.17 | 195.6 | 52 | 157 |
| 2017 08 25 | 17 09 | 38.664 | +61 53 | 23.69 | 15.726 | 15.701 | 86.7 | 18.8 | 0.17 | 194.7 | 53 | 157 |
| 2017 08 26 | 17 09 | 30.107 | +61 49 | 24.55 | 15.723 | 15.696 | 86.6 | 18.8 | 0.17 | 193.8 | 55 | 157 |
| 2017 08 27 | 17 09 | 22.100 | +61 45 | 24.25 | 15.719 | 15.691 | 86.5 | 18.8 | 0.17 | 192.8 | 56 | 156 |
| 2017 08 28 | 17 09 | 14.641 | +61 41 | 22.83 | 15.716 | 15.685 | 86.4 | 18.8 | 0.17 | 191.9 | 57 | 156 |
| 2017 08 29 | 17 09 | 07.730 | +61 37 | 20.38 | 15.712 | 15.680 | 86.3 | 18.8 | 0.17 | 191.0 | 58 | 156 |
| 2017 08 30 | 17 09 | 01.364 | +61 33 | 16.95 | 15.709 | 15.675 | 86.2 | 18.8 | 0.17 | 190.1 | 59 | 155 |
| 2017 08 31 | 17 08 | 55.542 | +61 29 | 12.61 | 15.705 | 15.669 | 86.1 | 18.8 | 0.17 | 189.2 | 60 | 155 |
| 2017 09 01 | 17 08 | 50.263 | +61 25 | 07.44 | 15.702 | 15.664 | 86.0 | 18.8 | 0.17 | 188.3 | 61 | 155 |
| 2017 09 02 | 17 08 | 45.525 | +61 21 | 01.49 | 15.698 | 15.659 | 85.9 | 18.8 | 0.17 | 187.4 | 62 | 154 |
| 2017 09 03 | 17 08 | 41.325 | +61 16 | 54.83 | 15.695 | 15.653 | 85.8 | 18.8 | 0.17 | 186.5 | 64 | 154 |
| 2017 09 04 | 17 08 | 37.662 | +61 12 | 47.52 | 15.691 | 15.648 | 85.7 | 18.8 | 0.17 | 185.6 | 65 | 154 |
| 2017 09 05 | 17 08 | 34.534 | +61 08 | 39.62 | 15.688 | 15.642 | 85.6 | 18.8 | 0.17 | 184.8 | 66 | 154 |
| 2017 09 06 | 17 08 | 31.938 | +61 04 | 31.20 | 15.684 | 15.637 | 85.5 | 18.8 | 0.17 | 183.9 | 67 | 153 |
| 2017 09 07 | 17 08 | 29.873 | +61 00 | 22.31 | 15.681 | 15.632 | 85.4 | 18.7 | 0.17 | 183.0 | 68 | 153 |
| 2017 09 08 | 17 08 | 28.335 | +60 56 | 13.02 | 15.677 | 15.626 | 85.3 | 18.7 | 0.17 | 182.1 | 70 | 153 |