**301224** 2009 $BX_8$ 1 4.9 13°.75 0°.2/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.76 | +21 40.4 | 1.154 | 2.014 | 18.2 | 20.5 |
| 12 13 | 7 21.21 | +21 45.1 | 1.096 | 2.017 | 13.4 | 20.2 |
| 12 23 | 7 13.30 | +21 55.4 | 1.059 | 2.022 | 7.9 | 19.9 |
| 1 2 | 7 3.17 | +22 8.1 | 1.045 | 2.027 | 1.9 | 19.6 |
| 1 12 | 6 52.59 | +22 19.8 | 1.056 | 2.033 | 4.3 | 19.7 |
| 1 22 | 6 43.37 | +22 28.4 | 1.092 | 2.041 | 10.0 | 20.1 |
| 2 1 | 6 36.98 | +22 33.6 | 1.150 | 2.049 | 15.1 | 20.4 |
| 2 11 | 6 34.28 | +22 35.7 | 1.228 | 2.059 | 19.3 | 20.7 |

**379884** 2012 $HJ_{62}$ 1 4.9 232°.54 7°.2/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.81 | + 2 12.6 | 2.099 | 2.876 | 14.2 | 21.4 |
| 12 13 | 7 18.50 | + 1 37.7 | 2.016 | 2.870 | 11.7 | 21.2 |
| 12 23 | 7 11.24 | + 1 19.1 | 1.957 | 2.864 | 9.2 | 21.1 |
| 1 2 | 7 2.66 | + 1 19.3 | 1.923 | 2.858 | 7.4 | 20.9 |
| 1 12 | 6 53.70 | + 1 38.7 | 1.917 | 2.852 | 7.4 | 20.9 |
| 1 22 | 6 45.31 | + 2 15.8 | 1.938 | 2.846 | 9.3 | 21.0 |
| 2 1 | 6 38.39 | + 3 6.9 | 1.986 | 2.839 | 11.9 | 21.2 |
| 2 11 | 6 33.60 | + 4 7.4 | 2.056 | 2.832 | 14.5 | 21.3 |

**423292** 2005 $EN_{48}$ 1 4.9 261°.92 3°.5/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.78 | +33 8.9 | 2.274 | 3.097 | 11.7 | 21.5 |
| 12 13 | 7 21.55 | +33 30.4 | 2.190 | 3.089 | 8.9 | 21.3 |
| 12 23 | 7 13.07 | +33 46.6 | 2.132 | 3.080 | 5.8 | 21.0 |
| 1 2 | 7 3.10 | +33 53.2 | 2.102 | 3.071 | 3.6 | 20.9 |
| 1 12 | 6 52.73 | +33 47.7 | 2.101 | 3.063 | 4.6 | 20.9 |
| 1 22 | 6 43.13 | +33 29.8 | 2.130 | 3.054 | 7.6 | 21.1 |
| 2 1 | 6 35.31 | +33 1.2 | 2.185 | 3.045 | 10.7 | 21.3 |
| 2 11 | 6 29.97 | +32 25.2 | 2.264 | 3.036 | 13.5 | 21.5 |

**428171** 2006 $SL_{398}$ 1 4.9 123°.42 5°.3/ 3.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.88 | +40 20.6 | 2.646 | 3.451 | 10.8 | 21.4 |
| 12 13 | 7 22.13 | +41 1.6 | 2.581 | 3.459 | 8.6 | 21.2 |
| 12 23 | 7 13.28 | +41 33.3 | 2.542 | 3.467 | 6.5 | 21.1 |
| 1 2 | 7 3.12 | +41 51.2 | 2.531 | 3.475 | 5.3 | 21.1 |
| 1 12 | 6 52.72 | +41 52.7 | 2.550 | 3.483 | 6.0 | 21.1 |
| 1 22 | 6 43.14 | +41 37.8 | 2.597 | 3.491 | 7.8 | 21.2 |
| 2 1 | 6 35.32 | +41 8.7 | 2.671 | 3.498 | 10.0 | 21.4 |
| 2 11 | 6 29.89 | +40 29.4 | 2.767 | 3.505 | 12.1 | 21.6 |

**338245** 2002 $TV_{151}$ 1 4.9 206°.71 5°.2/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.06 | +33 23.2 | 1.485 | 2.321 | 16.2 | 20.9 |
| 12 13 | 7 27.20 | +34 6.2 | 1.415 | 2.319 | 12.3 | 20.6 |
| 12 23 | 7 16.81 | +34 42.7 | 1.367 | 2.317 | 8.2 | 20.4 |
| 1 2 | 7 4.02 | +35 4.8 | 1.345 | 2.314 | 5.3 | 20.2 |
| 1 12 | 6 50.62 | +35 6.8 | 1.350 | 2.311 | 6.7 | 20.3 |
| 1 22 | 6 38.53 | +34 48.3 | 1.382 | 2.308 | 10.7 | 20.5 |
| 2 1 | 6 29.34 | +34 13.3 | 1.438 | 2.305 | 14.8 | 20.7 |
| 2 11 | 6 24.00 | +33 28.0 | 1.514 | 2.302 | 18.3 | 21.0 |

**457122** 2008 $FP_{38}$ 1 4.9 204°.92 2°.1/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.75 | +15 37.6 | 2.142 | 2.959 | 12.6 | 22.3 |
| 12 13 | 7 19.94 | +15 43.0 | 2.059 | 2.955 | 9.5 | 22.0 |
| 12 23 | 7 12.09 | +15 56.2 | 2.000 | 2.952 | 5.9 | 21.8 |
| 1 2 | 7 2.87 | +16 15.9 | 1.970 | 2.948 | 2.6 | 21.6 |
| 1 12 | 6 53.26 | +16 40.4 | 1.970 | 2.943 | 3.4 | 21.6 |
| 1 22 | 6 44.27 | +17 7.7 | 2.000 | 2.938 | 7.0 | 21.9 |
| 2 1 | 6 36.83 | +17 36.0 | 2.057 | 2.933 | 10.5 | 22.1 |
| 2 11 | 6 31.64 | +18 4.0 | 2.137 | 2.927 | 13.6 | 22.3 |

**239537** 2008 $SW_{31}$ 1 4.9 220°.96 1°.1/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.74 | +25 20.5 | 1.698 | 2.529 | 14.7 | 21.0 |
| 12 13 | 7 24.95 | +25 26.4 | 1.616 | 2.523 | 10.9 | 20.7 |
| 12 23 | 7 15.28 | +25 32.1 | 1.557 | 2.515 | 6.4 | 20.5 |
| 1 2 | 7 3.65 | +25 34.1 | 1.526 | 2.507 | 1.8 | 20.1 |
| 1 12 | 6 51.46 | +25 29.7 | 1.524 | 2.499 | 3.8 | 20.3 |
| 1 22 | 6 40.22 | +25 18.2 | 1.550 | 2.490 | 8.6 | 20.5 |
| 2 1 | 6 31.25 | +25 0.9 | 1.603 | 2.480 | 12.9 | 20.8 |
| 2 11 | 6 25.42 | +24 40.3 | 1.677 | 2.470 | 16.6 | 21.0 |

**279302** 2009 $WK_{183}$ 1 4.9 5°.63 1°.9/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.12 | +17 17.1 | 1.821 | 2.653 | 13.9 | 21.0 |
| 12 13 | 7 19.00 | +17 15.7 | 1.748 | 2.653 | 10.3 | 20.8 |
| 12 23 | 7 11.63 | +17 21.6 | 1.698 | 2.653 | 6.3 | 20.6 |
| 1 2 | 7 2.77 | +17 33.4 | 1.675 | 2.654 | 2.4 | 20.3 |
| 1 12 | 6 53.54 | +17 49.6 | 1.680 | 2.655 | 3.5 | 20.4 |
| 1 22 | 6 45.10 | +18 8.1 | 1.714 | 2.656 | 7.6 | 20.6 |
| 2 1 | 6 38.46 | +18 27.5 | 1.774 | 2.658 | 11.5 | 20.9 |
| 2 11 | 6 34.34 | +18 46.7 | 1.856 | 2.660 | 14.8 | 21.1 |

**234412** 2001 $RY_{48}$ 1 4.9 99°.84 2°.6/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.36 | +10 49.8 | 1.583 | 2.395 | 16.5 | 19.9 |
| 12 13 | 7 24.48 | +12 5.5 | 1.522 | 2.414 | 12.5 | 19.7 |
| 12 23 | 7 14.90 | +13 39.6 | 1.484 | 2.433 | 7.8 | 19.4 |
| 1 2 | 7 3.54 | +15 27.2 | 1.474 | 2.451 | 3.4 | 19.2 |
| 1 12 | 6 51.76 | +17 20.4 | 1.495 | 2.469 | 4.0 | 19.3 |
| 1 22 | 6 40.99 | +19 11.3 | 1.545 | 2.486 | 8.4 | 19.6 |
| 2 1 | 6 32.45 | +20 53.8 | 1.623 | 2.503 | 12.6 | 19.9 |
| 2 11 | 6 26.93 | +22 24.8 | 1.725 | 2.519 | 16.1 | 20.2 |

**110215** 2001 $SR_{219}$ 1 4.9 126°.79 0°.4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 24.53 | +23 23.0 | 2.589 | 3.411 | 10.5 | 21.2 |
| 12 13 | 7 18.71 | +23 38.2 | 2.518 | 3.420 | 7.7 | 21.0 |
| 12 23 | 7 11.20 | +23 54.7 | 2.473 | 3.430 | 4.5 | 20.8 |
| 1 2 | 7 2.64 | +24 10.3 | 2.457 | 3.439 | 1.1 | 20.6 |
| 1 12 | 6 53.86 | +24 23.4 | 2.472 | 3.448 | 2.5 | 20.7 |
| 1 22 | 6 45.71 | +24 32.7 | 2.518 | 3.456 | 5.8 | 21.0 |
| 2 1 | 6 38.94 | +24 38.1 | 2.593 | 3.464 | 8.8 | 21.2 |
| 2 11 | 6 34.09 | +24 40.2 | 2.691 | 3.472 | 11.3 | 21.4 |

**15399** Hudec 1 4.9 224°.59 0°.8/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.77 | +24 8.2 | 2.120 | 2.946 | 12.4 | 19.4 |
| 12 13 | 7 21.57 | +24 24.1 | 2.034 | 2.938 | 9.1 | 19.2 |
| 12 23 | 7 13.11 | +24 41.2 | 1.973 | 2.930 | 5.4 | 18.9 |
| 1 2 | 7 3.13 | +24 56.9 | 1.940 | 2.921 | 1.4 | 18.7 |
| 1 12 | 6 52.69 | +25 8.5 | 1.937 | 2.912 | 3.1 | 18.8 |
| 1 22 | 6 42.93 | +25 14.6 | 1.965 | 2.903 | 7.1 | 19.0 |
| 2 1 | 6 34.88 | +25 15.5 | 2.019 | 2.893 | 10.8 | 19.2 |
| 2 11 | 6 29.28 | +25 12.1 | 2.097 | 2.882 | 14.0 | 19.4 |

**185175** 2006 $SB_{285}$ 1 4.9 51°.14 2°.1/ 5.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.14 | +15 23.6 | 1.433 | 2.269 | 16.7 | 19.6 |
| 12 13 | 7 21.44 | +15 53.0 | 1.385 | 2.292 | 12.4 | 19.3 |
| 12 23 | 7 13.08 | +16 34.5 | 1.359 | 2.315 | 7.5 | 19.1 |
| 1 2 | 7 3.09 | +17 24.6 | 1.359 | 2.338 | 2.8 | 18.9 |
| 1 12 | 6 52.90 | +18 18.8 | 1.387 | 2.362 | 3.9 | 19.0 |
| 1 22 | 6 43.92 | +19 12.4 | 1.442 | 2.387 | 8.5 | 19.4 |
| 2 1 | 6 37.27 | +20 2.4 | 1.522 | 2.411 | 12.7 | 19.7 |
| 2 11 | 6 33.62 | +20 46.8 | 1.624 | 2.435 | 16.2 | 20.0 |

**53106** 1999 $AG_4$ 1 4.9 210°.55 1°.1/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.05 | +18 27.2 | 1.772 | 2.598 | 14.4 | 19.0 |
| 12 13 | 7 22.81 | +18 43.2 | 1.690 | 2.594 | 10.7 | 18.8 |
| 12 23 | 7 13.98 | +19 6.5 | 1.632 | 2.588 | 6.5 | 18.5 |
| 1 2 | 7 3.36 | +19 34.8 | 1.601 | 2.582 | 2.0 | 18.2 |
| 1 12 | 6 52.18 | +20 4.9 | 1.600 | 2.576 | 3.5 | 18.3 |
| 1 22 | 6 41.79 | +20 34.1 | 1.628 | 2.569 | 8.1 | 18.6 |
| 2 1 | 6 33.37 | +21 1.0 | 1.682 | 2.561 | 12.3 | 18.8 |
| 2 11 | 6 27.76 | +21 24.7 | 1.759 | 2.553 | 15.9 | 19.0 |

**83933** 2001 $VJ_{74}$ 1 4.9 74°.29 0°.3/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.77 | +18 39.0 | 1.759 | 2.588 | 14.4 | 18.5 |
| 12 13 | 7 21.65 | +19 32.3 | 1.702 | 2.608 | 10.5 | 18.3 |
| 12 23 | 7 13.15 | +20 33.6 | 1.670 | 2.628 | 6.1 | 18.1 |
| 1 2 | 7 3.13 | +21 38.2 | 1.666 | 2.648 | 1.5 | 17.8 |
| 1 12 | 6 52.82 | +22 41.1 | 1.692 | 2.668 | 3.2 | 18.0 |
| 1 22 | 6 43.48 | +23 38.4 | 1.747 | 2.688 | 7.6 | 18.3 |
| 2 1 | 6 36.14 | +24 27.7 | 1.828 | 2.707 | 11.5 | 18.6 |
| 2 11 | 6 31.51 | +25 8.8 | 1.933 | 2.727 | 14.6 | 18.8 |

**35737** 1999 $GN_{20}$ 1 5.0 231°.27 2°.9/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.12 | +14 21.6 | 1.948 | 2.762 | 13.8 | 20.0 |
| 12 13 | 7 21.96 | +14 17.6 | 1.856 | 2.750 | 10.5 | 19.8 |
| 12 23 | 7 13.43 | +14 22.7 | 1.788 | 2.737 | 6.7 | 19.6 |
| 1 2 | 7 3.25 | +14 36.4 | 1.748 | 2.723 | 3.3 | 19.3 |
| 1 12 | 6 52.50 | +14 57.0 | 1.738 | 2.709 | 4.1 | 19.3 |
| 1 22 | 6 42.36 | +15 22.8 | 1.757 | 2.694 | 7.9 | 19.5 |
| 2 1 | 6 33.93 | +15 51.7 | 1.803 | 2.678 | 11.8 | 19.7 |
| 2 11 | 6 28.03 | +16 21.8 | 1.872 | 2.662 | 15.2 | 19.9 |

**242066** 2002 $TS_{55}$ 1 5.0 94°.10 1°.6/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.87 | +17 4.9 | 1.855 | 2.676 | 14.1 | 21.0 |
| 12 13 | 7 22.22 | +17 20.2 | 1.800 | 2.700 | 10.4 | 20.8 |
| 12 23 | 7 13.36 | +17 43.0 | 1.769 | 2.723 | 6.2 | 20.6 |
| 1 2 | 7 3.18 | +18 10.8 | 1.767 | 2.746 | 2.2 | 20.4 |
| 1 12 | 6 52.83 | +18 40.9 | 1.794 | 2.769 | 3.3 | 20.5 |
| 1 22 | 6 43.47 | +19 11.0 | 1.850 | 2.791 | 7.3 | 20.8 |
| 2 1 | 6 36.05 | +19 39.4 | 1.934 | 2.812 | 11.0 | 21.1 |
| 2 11 | 6 31.19 | +20 5.2 | 2.041 | 2.833 | 14.0 | 21.3 |

**132806** 2002 $QF_9$ 1 5.0 216°.67 1°.2/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.14 | +16 42.5 | 2.704 | 3.515 | 10.4 | 20.8 |
| 12 13 | 7 18.48 | +17 5.6 | 2.612 | 3.507 | 7.8 | 20.6 |
| 12 23 | 7 11.15 | +17 35.1 | 2.546 | 3.498 | 4.7 | 20.4 |
| 1 2 | 7 2.69 | +18 9.2 | 2.510 | 3.489 | 1.7 | 20.1 |
| 1 12 | 6 53.86 | +18 45.9 | 2.505 | 3.480 | 2.6 | 20.2 |
| 1 22 | 6 45.45 | +19 23.2 | 2.532 | 3.470 | 5.8 | 20.4 |
| 2 1 | 6 38.24 | +19 59.2 | 2.587 | 3.459 | 8.8 | 20.6 |
| 2 11 | 6 32.82 | +20 33.0 | 2.668 | 3.448 | 11.4 | 20.7 |

**459158** 2012 $DL_6$ 1 5.0 349°.30 6°.0/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.48 | + 8 0.0 | 1.384 | 2.211 | 17.6 | 21.2 |
| 12 13 | 7 18.41 | + 7 55.4 | 1.311 | 2.205 | 13.9 | 20.9 |
| 12 23 | 7 11.58 | + 8 11.1 | 1.258 | 2.199 | 9.9 | 20.7 |
| 1 2 | 7 2.84 | + 8 48.2 | 1.230 | 2.195 | 6.5 | 20.5 |
| 1 12 | 6 53.51 | + 9 44.5 | 1.226 | 2.191 | 6.7 | 20.4 |
| 1 22 | 6 45.03 | +10 55.2 | 1.249 | 2.188 | 10.2 | 20.6 |
| 2 1 | 6 38.71 | +12 14.0 | 1.295 | 2.187 | 14.3 | 20.9 |
| 2 11 | 6 35.42 | +13 34.6 | 1.362 | 2.186 | 18.1 | 21.1 |

**93238** 2000 $SH_{150}$ 1 5.0 352°.94 1°.9/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.37 | +25 33.3 | 1.221 | 2.080 | 17.5 | 18.6 |
| 12 13 | 7 21.80 | +25 53.8 | 1.155 | 2.075 | 13.0 | 18.4 |
| 12 23 | 7 13.77 | +26 16.0 | 1.109 | 2.071 | 7.7 | 18.1 |
| 1 2 | 7 3.37 | +26 34.8 | 1.087 | 2.068 | 2.5 | 17.7 |
| 1 12 | 6 52.35 | +26 45.5 | 1.090 | 2.066 | 4.7 | 17.9 |
| 1 22 | 6 42.57 | +26 46.4 | 1.119 | 2.065 | 10.2 | 18.2 |
| 2 1 | 6 35.63 | +26 38.5 | 1.170 | 2.065 | 15.3 | 18.5 |
| 2 11 | 6 32.45 | +26 24.3 | 1.241 | 2.066 | 19.5 | 18.7 |

**47968** 2000 $TZ_{55}$ 1 5.0 40°.86 7°.4/ 1.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.64 | +23 51.4 | 0.921 | 1.783 | 21.5 | 17.7 |
| 12 13 | 7 30.18 | +27 46.2 | 0.869 | 1.790 | 16.0 | 17.4 |
| 12 23 | 7 19.62 | +32 1.1 | 0.839 | 1.798 | 10.3 | 17.2 |
| 1 2 | 7 4.93 | +36 8.4 | 0.835 | 1.806 | 7.4 | 17.0 |
| 1 12 | 6 48.50 | +39 39.4 | 0.859 | 1.814 | 10.7 | 17.2 |
| 1 22 | 6 33.46 | +42 17.2 | 0.907 | 1.824 | 16.0 | 17.6 |
| 2 1 | 6 22.62 | +44 1.7 | 0.976 | 1.833 | 20.9 | 17.9 |
| 2 11 | 6 17.56 | +45 3.4 | 1.061 | 1.843 | 24.8 | 18.2 |

**430264** 2013 $WN_{40}$ 1 5.0 50°.36 3°.0/ 3.8 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.40 | +27 40.2 | 2.085 | 2.916 | 12.3 | 21.0 |
| 12 13 | 7 20.71 | +28 54.8 | 2.014 | 2.920 | 9.1 | 20.8 |
| 12 23 | 7 12.69 | +30 10.5 | 1.970 | 2.925 | 5.7 | 20.6 |
| 1 2 | 7 3.08 | +31 21.3 | 1.954 | 2.929 | 3.0 | 20.4 |
| 1 12 | 6 52.99 | +32 21.9 | 1.968 | 2.934 | 4.5 | 20.5 |
| 1 22 | 6 43.60 | +33 9.1 | 2.012 | 2.938 | 7.8 | 20.7 |
| 2 1 | 6 35.97 | +33 42.4 | 2.082 | 2.943 | 11.1 | 20.9 |
| 2 11 | 6 30.88 | +34 3.4 | 2.175 | 2.948 | 13.9 | 21.1 |

**146390** 2001 $QJ_{87}$ 1 5.0 173°.17 3°.2/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.06 | +14 16.2 | 2.090 | 2.902 | 13.0 | 20.4 |
| 12 13 | 7 20.85 | +13 48.0 | 2.012 | 2.904 | 9.9 | 20.2 |
| 12 23 | 7 12.60 | +13 27.0 | 1.959 | 2.906 | 6.4 | 20.0 |
| 1 2 | 7 3.04 | +13 13.5 | 1.935 | 2.907 | 3.5 | 19.8 |
| 1 12 | 6 53.17 | +13 7.4 | 1.940 | 2.908 | 4.2 | 19.8 |
| 1 22 | 6 44.04 | +13 7.9 | 1.975 | 2.909 | 7.4 | 20.0 |
| 2 1 | 6 36.54 | +13 14.0 | 2.037 | 2.909 | 10.8 | 20.2 |
| 2 11 | 6 31.32 | +13 24.4 | 2.122 | 2.908 | 13.8 | 20.4 |

**68150** 2001 $AC_{49}$ 1 5.0 107°.80 3°.0/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.28 | +28 1.9 | 1.695 | 2.528 | 14.6 | 19.6 |
| 12 13 | 7 24.52 | +28 53.5 | 1.635 | 2.542 | 10.8 | 19.4 |
| 12 23 | 7 14.96 | +29 44.0 | 1.600 | 2.556 | 6.6 | 19.2 |
| 1 2 | 7 3.61 | +30 27.4 | 1.592 | 2.569 | 3.2 | 19.0 |
| 1 12 | 6 51.90 | +30 58.7 | 1.613 | 2.582 | 4.8 | 19.1 |
| 1 22 | 6 41.31 | +31 16.1 | 1.663 | 2.595 | 8.7 | 19.4 |
| 2 1 | 6 33.07 | +31 20.7 | 1.738 | 2.607 | 12.5 | 19.6 |
| 2 11 | 6 27.95 | +31 15.5 | 1.835 | 2.619 | 15.7 | 19.9 |

**167999** 2005 $GD_{129}$ 1 5.0 192°.13 1°.5/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.60 | +18 23.8 | 2.365 | 3.184 | 11.5 | 20.1 |
| 12 13 | 7 18.91 | +18 7.4 | 2.284 | 3.183 | 8.5 | 19.9 |
| 12 23 | 7 11.41 | +17 54.9 | 2.229 | 3.183 | 5.2 | 19.7 |
| 1 2 | 7 2.76 | +17 45.6 | 2.203 | 3.182 | 2.0 | 19.5 |
| 1 12 | 6 53.84 | +17 39.1 | 2.207 | 3.181 | 3.0 | 19.5 |
| 1 22 | 6 45.55 | +17 34.7 | 2.242 | 3.180 | 6.3 | 19.8 |
| 2 1 | 6 38.69 | +17 32.1 | 2.304 | 3.179 | 9.6 | 20.0 |
| 2 11 | 6 33.86 | +17 31.1 | 2.390 | 3.178 | 12.4 | 20.1 |

**65443** 2002 $TR_{300}$ 1 5.0 107°.17 0°.1/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.50 | +19 57.7 | 2.330 | 3.153 | 11.5 | 19.8 |
| 12 13 | 7 18.90 | +20 34.1 | 2.259 | 3.162 | 8.4 | 19.7 |
| 12 23 | 7 11.44 | +21 15.5 | 2.213 | 3.170 | 4.9 | 19.4 |
| 1 2 | 7 2.77 | +21 59.1 | 2.196 | 3.178 | 1.2 | 19.2 |
| 1 12 | 6 53.81 | +22 41.8 | 2.210 | 3.186 | 2.6 | 19.3 |
| 1 22 | 6 45.47 | +23 21.3 | 2.255 | 3.194 | 6.3 | 19.6 |
| 2 1 | 6 38.59 | +23 55.9 | 2.327 | 3.202 | 9.5 | 19.8 |
| 2 11 | 6 33.79 | +24 25.3 | 2.424 | 3.210 | 12.3 | 20.0 |

**467135** 2016 $ED_{78}$ 1 5.0 57°.15 2°.5/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.30 | +28 56.2 | 1.865 | 2.698 | 13.5 | 21.3 |
| 12 13 | 7 22.18 | +29 15.3 | 1.794 | 2.700 | 10.0 | 21.1 |
| 12 23 | 7 13.55 | +29 31.5 | 1.747 | 2.703 | 6.1 | 20.8 |
| 1 2 | 7 3.29 | +29 41.0 | 1.727 | 2.705 | 2.8 | 20.6 |
| 1 12 | 6 52.69 | +29 40.8 | 1.737 | 2.708 | 4.2 | 20.7 |
| 1 22 | 6 43.03 | +29 30.4 | 1.775 | 2.710 | 8.0 | 21.0 |
| 2 1 | 6 35.45 | +29 11.4 | 1.839 | 2.713 | 11.7 | 21.2 |
| 2 11 | 6 30.68 | +28 46.7 | 1.926 | 2.715 | 14.9 | 21.4 |

**203560** 2002 $CV_{113}$ 1 5.0 24°.57 3°.6/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.64 | +27 29.9 | 1.298 | 2.151 | 17.0 | 19.6 |
| 12 13 | 7 23.35 | +28 29.7 | 1.238 | 2.155 | 12.6 | 19.4 |
| 12 23 | 7 14.64 | +29 30.7 | 1.200 | 2.159 | 7.8 | 19.1 |
| 1 2 | 7 3.61 | +30 24.7 | 1.187 | 2.164 | 3.8 | 18.9 |
| 1 12 | 6 51.99 | +31 5.0 | 1.200 | 2.170 | 5.7 | 19.0 |
| 1 22 | 6 41.67 | +31 28.3 | 1.239 | 2.176 | 10.4 | 19.3 |
| 2 1 | 6 34.18 | +31 35.7 | 1.301 | 2.183 | 14.9 | 19.6 |
| 2 11 | 6 30.44 | +31 30.8 | 1.382 | 2.190 | 18.7 | 19.9 |

**233999** 1996 $VG_{35}$ 1 5.0 218°.13 1°.2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 24.50 | +19 21.7 | 2.441 | 3.260 | 11.1 | 20.4 |
| 12 13 | 7 18.82 | +19 7.7 | 2.357 | 3.257 | 8.3 | 20.2 |
| 12 23 | 7 11.37 | +18 56.8 | 2.300 | 3.254 | 5.0 | 20.0 |
| 1 2 | 7 2.78 | +18 48.3 | 2.271 | 3.251 | 1.7 | 19.8 |
| 1 12 | 6 53.91 | +18 41.4 | 2.273 | 3.248 | 2.8 | 19.8 |
| 1 22 | 6 45.64 | +18 35.8 | 2.306 | 3.245 | 6.2 | 20.0 |
| 2 1 | 6 38.77 | +18 31.2 | 2.366 | 3.241 | 9.4 | 20.2 |
| 2 11 | 6 33.87 | +18 27.5 | 2.451 | 3.238 | 12.1 | 20.4 |

**460429** 2014 $SY_{157}$ 1 5.0 107°.32 1°.0/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.67 | +24 52.0 | 1.905 | 2.736 | 13.4 | 22.1 |
| 12 13 | 7 22.26 | +25 7.9 | 1.840 | 2.747 | 9.8 | 21.9 |
| 12 23 | 7 13.51 | +25 24.3 | 1.800 | 2.758 | 5.7 | 21.6 |
| 1 2 | 7 3.29 | +25 38.0 | 1.787 | 2.769 | 1.6 | 21.4 |
| 1 12 | 6 52.80 | +25 46.4 | 1.805 | 2.779 | 3.4 | 21.5 |
| 1 22 | 6 43.27 | +25 48.6 | 1.851 | 2.790 | 7.4 | 21.8 |
| 2 1 | 6 35.71 | +25 45.1 | 1.924 | 2.800 | 11.2 | 22.0 |
| 2 11 | 6 30.80 | +25 37.4 | 2.020 | 2.810 | 14.3 | 22.3 |

**256082** 2006 $UG_{203}$ 1 5.0 145°.65 0°.6/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.18 | +19 16.9 | 2.223 | 3.040 | 12.2 | 21.6 |
| 12 13 | 7 21.61 | +19 39.9 | 2.152 | 3.052 | 9.0 | 21.4 |
| 12 23 | 7 13.03 | +20 7.9 | 2.107 | 3.062 | 5.3 | 21.2 |
| 1 2 | 7 3.17 | +20 38.4 | 2.091 | 3.072 | 1.4 | 20.9 |
| 1 12 | 6 53.03 | +21 8.7 | 2.106 | 3.082 | 2.8 | 21.1 |
| 1 22 | 6 43.62 | +21 36.9 | 2.152 | 3.091 | 6.6 | 21.3 |
| 2 1 | 6 35.84 | +22 1.8 | 2.226 | 3.099 | 10.0 | 21.5 |
| 2 11 | 6 30.31 | +22 23.2 | 2.324 | 3.106 | 12.9 | 21.7 |

**5622** 1990 $TL_{4}$ 1 5.0 117°.43 0°.4/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.77 | +21 42.7 | 2.218 | 3.039 | 12.1 | 17.0 |
| 12 13 | 7 21.22 | +21 34.3 | 2.151 | 3.053 | 8.8 | 16.8 |
| 12 23 | 7 12.74 | +21 27.7 | 2.110 | 3.066 | 5.2 | 16.6 |
| 1 2 | 7 3.09 | +21 21.5 | 2.098 | 3.079 | 1.3 | 16.3 |
| 1 12 | 6 53.27 | +21 14.6 | 2.116 | 3.092 | 2.8 | 16.5 |
| 1 22 | 6 44.27 | +21 6.7 | 2.165 | 3.104 | 6.5 | 16.7 |
| 2 1 | 6 36.94 | +20 57.9 | 2.242 | 3.116 | 9.8 | 17.0 |
| 2 11 | 6 31.86 | +20 48.9 | 2.343 | 3.128 | 12.7 | 17.2 |

**25838** 2000 $EV_{30}$ 1 5.0 99°.96 3°.8/ 3.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.61 | +32 18.3 | 2.229 | 3.054 | 11.9 | 18.3 |
| 12 13 | 7 21.43 | +33 8.8 | 2.164 | 3.064 | 8.9 | 18.1 |
| 12 23 | 7 13.02 | +33 55.2 | 2.125 | 3.073 | 5.9 | 17.9 |
| 1 2 | 7 3.18 | +34 32.6 | 2.114 | 3.082 | 3.8 | 17.8 |
| 1 12 | 6 53.01 | +34 57.3 | 2.133 | 3.091 | 4.9 | 17.9 |
| 1 22 | 6 43.65 | +35 8.1 | 2.180 | 3.100 | 7.7 | 18.1 |
| 2 1 | 6 36.10 | +35 6.2 | 2.255 | 3.109 | 10.6 | 18.3 |
| 2 11 | 6 31.02 | +34 54.3 | 2.352 | 3.118 | 13.2 | 18.5 |

**418033** 2007 $UV_{134}$ 1 5.0 342°.30 3°.5/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.11 | +30 44.0 | 2.015 | 2.849 | 12.6 | 20.6 |
| 12 13 | 7 19.89 | +31 30.0 | 1.938 | 2.844 | 9.4 | 20.4 |
| 12 23 | 7 12.28 | +32 13.7 | 1.886 | 2.839 | 6.1 | 20.2 |
| 1 2 | 7 3.05 | +32 50.0 | 1.862 | 2.835 | 3.6 | 20.1 |
| 1 12 | 6 53.35 | +33 14.9 | 1.867 | 2.831 | 4.9 | 20.1 |
| 1 22 | 6 44.40 | +33 26.6 | 1.899 | 2.827 | 8.1 | 20.3 |
| 2 1 | 6 37.31 | +33 25.7 | 1.958 | 2.824 | 11.5 | 20.5 |
| 2 11 | 6 32.84 | +33 14.9 | 2.039 | 2.821 | 14.4 | 20.7 |

**13648** 1996 $JJ_{1}$ 1 5.0 163°.23 4°.1/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.29 | + 9 32.0 | 2.278 | 3.079 | 12.5 | 18.6 |
| 12 13 | 7 18.00 | + 9 21.2 | 2.199 | 3.080 | 9.7 | 18.4 |
| 12 23 | 7 10.93 | + 9 21.4 | 2.146 | 3.082 | 6.7 | 18.2 |
| 1 2 | 7 2.71 | + 9 33.0 | 2.119 | 3.083 | 4.4 | 18.1 |
| 1 12 | 6 54.19 | + 9 55.1 | 2.123 | 3.084 | 4.7 | 18.1 |
| 1 22 | 6 46.24 | +10 25.9 | 2.155 | 3.085 | 7.2 | 18.2 |
| 2 1 | 6 39.69 | +11 2.9 | 2.215 | 3.085 | 10.1 | 18.4 |
| 2 11 | 6 35.11 | +11 43.4 | 2.298 | 3.086 | 12.8 | 18.6 |

**421600** 2014 $OE_{229}$ 1 5.0 67°.63 1°.1/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.78 | +19 11.5 | 1.717 | 2.550 | 14.5 | 21.4 |
| 12 13 | 7 21.10 | +19 18.9 | 1.648 | 2.554 | 10.7 | 21.2 |
| 12 23 | 7 12.96 | +19 32.4 | 1.601 | 2.559 | 6.4 | 21.0 |
| 1 2 | 7 3.21 | +19 50.0 | 1.582 | 2.563 | 1.9 | 20.7 |
| 1 12 | 6 53.08 | +20 9.1 | 1.592 | 2.568 | 3.4 | 20.8 |
| 1 22 | 6 43.86 | +20 27.7 | 1.630 | 2.573 | 7.9 | 21.1 |
| 2 1 | 6 36.64 | +20 44.7 | 1.693 | 2.577 | 12.0 | 21.3 |
| 2 11 | 6 32.17 | +20 59.5 | 1.779 | 2.582 | 15.4 | 21.6 |

**36931** 2000 $SS_{220}$ 1 5.0 277°.69 1°.7/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.99 | +16 33.4 | 1.563 | 2.396 | 15.6 | 18.4 |
| 12 13 | 7 21.64 | +16 57.9 | 1.483 | 2.389 | 11.7 | 18.2 |
| 12 23 | 7 13.50 | +17 33.8 | 1.426 | 2.382 | 7.2 | 17.9 |
| 1 2 | 7 3.38 | +18 18.4 | 1.395 | 2.375 | 2.5 | 17.6 |
| 1 12 | 6 52.62 | +19 7.7 | 1.393 | 2.368 | 3.8 | 17.6 |
| 1 22 | 6 42.65 | +19 57.5 | 1.417 | 2.361 | 8.7 | 17.9 |
| 2 1 | 6 34.81 | +20 44.8 | 1.468 | 2.354 | 13.3 | 18.2 |
| 2 11 | 6 30.00 | +21 27.6 | 1.539 | 2.347 | 17.1 | 18.4 |

**54482** 2000 $OE_{25}$ 1 5.0 205°.07 2°.5/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.71 | +29 59.0 | 2.278 | 3.099 | 11.8 | 19.6 |
| 12 13 | 7 22.92 | +30 16.3 | 2.194 | 3.094 | 8.8 | 19.4 |
| 12 23 | 7 13.91 | +30 30.1 | 2.137 | 3.089 | 5.5 | 19.1 |
| 1 2 | 7 3.43 | +30 36.8 | 2.108 | 3.084 | 2.7 | 19.0 |
| 1 12 | 6 52.58 | +30 34.1 | 2.110 | 3.078 | 3.9 | 19.0 |
| 1 22 | 6 42.47 | +30 21.3 | 2.141 | 3.071 | 7.2 | 19.2 |
| 2 1 | 6 34.13 | +30 0.0 | 2.201 | 3.064 | 10.5 | 19.4 |
| 2 11 | 6 28.25 | +29 32.9 | 2.284 | 3.057 | 13.3 | 19.6 |

**201466** 2003 $FG_{120}$ 1 5.0 198°.20 2°.4/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.85 | +27 50.4 | 1.916 | 2.742 | 13.5 | 21.4 |
| 12 13 | 7 24.87 | +28 21.2 | 1.836 | 2.739 | 10.0 | 21.2 |
| 12 23 | 7 15.23 | +28 51.0 | 1.780 | 2.736 | 6.1 | 20.9 |
| 1 2 | 7 3.78 | +29 14.8 | 1.753 | 2.731 | 2.6 | 20.7 |
| 1 12 | 6 51.82 | +29 29.1 | 1.756 | 2.726 | 4.2 | 20.8 |
| 1 22 | 6 40.72 | +29 32.2 | 1.788 | 2.720 | 8.2 | 21.0 |
| 2 1 | 6 31.70 | +29 25.4 | 1.846 | 2.714 | 12.0 | 21.2 |
| 2 11 | 6 25.58 | +29 11.3 | 1.928 | 2.707 | 15.2 | 21.4 |

**236726** 2007 $GP_{72}$ 1 5.0 139°.63 0°.8/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.40 | +23 51.7 | 1.899 | 2.723 | 13.7 | 21.9 |
| 12 13 | 7 24.99 | +24 12.7 | 1.834 | 2.737 | 10.0 | 21.7 |
| 12 23 | 7 15.12 | +24 35.1 | 1.794 | 2.751 | 5.9 | 21.4 |
| 1 2 | 7 3.72 | +24 55.3 | 1.782 | 2.764 | 1.5 | 21.2 |
| 1 12 | 6 52.05 | +25 10.2 | 1.801 | 2.776 | 3.3 | 21.3 |
| 1 22 | 6 41.37 | +25 18.7 | 1.850 | 2.787 | 7.6 | 21.6 |
| 2 1 | 6 32.78 | +25 21.1 | 1.925 | 2.797 | 11.3 | 21.9 |
| 2 11 | 6 26.97 | +25 18.9 | 2.024 | 2.807 | 14.5 | 22.1 |

**68451** 2001 $SZ_{31}$ 1 5.0 314°.92 0°.2/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.60 | +22 16.2 | 2.091 | 2.923 | 12.3 | 19.2 |
| 12 13 | 7 18.61 | +22 33.0 | 2.004 | 2.911 | 9.0 | 18.9 |
| 12 23 | 7 11.48 | +22 53.2 | 1.941 | 2.900 | 5.3 | 18.7 |
| 1 2 | 7 2.89 | +23 14.3 | 1.907 | 2.889 | 1.3 | 18.4 |
| 1 12 | 6 53.84 | +23 33.7 | 1.902 | 2.878 | 2.9 | 18.5 |
| 1 22 | 6 45.40 | +23 49.8 | 1.925 | 2.867 | 7.0 | 18.7 |
| 2 1 | 6 38.56 | +24 1.8 | 1.976 | 2.856 | 10.7 | 18.9 |
| 2 11 | 6 34.03 | +24 9.9 | 2.050 | 2.846 | 13.9 | 19.1 |

**295712** 2008 $UG_{28}$ 1 5.0 289°.85 0°.2/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.52 | +21 53.0 | 1.455 | 2.298 | 16.1 | 21.2 |
| 12 13 | 7 22.97 | +22 11.4 | 1.380 | 2.292 | 11.9 | 20.9 |
| 12 23 | 7 14.36 | +22 35.1 | 1.326 | 2.286 | 7.0 | 20.6 |
| 1 2 | 7 3.61 | +23 0.4 | 1.298 | 2.280 | 1.7 | 20.3 |
| 1 12 | 6 52.21 | +23 23.5 | 1.298 | 2.275 | 3.9 | 20.4 |
| 1 22 | 6 41.80 | +23 41.6 | 1.325 | 2.269 | 9.2 | 20.7 |
| 2 1 | 6 33.81 | +23 54.1 | 1.376 | 2.264 | 13.9 | 21.0 |
| 2 11 | 6 29.15 | +24 1.8 | 1.448 | 2.258 | 17.9 | 21.2 |

**281583** 2008 $UL_{139}$ 1 5.0 334°.09 4°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.67 | +11 41.9 | 2.104 | 2.915 | 13.0 | 20.9 |
| 12 13 | 7 18.43 | +11 13.2 | 2.025 | 2.914 | 10.0 | 20.7 |
| 12 23 | 7 11.25 | +10 53.7 | 1.971 | 2.912 | 6.8 | 20.5 |
| 1 2 | 7 2.82 | +10 44.4 | 1.943 | 2.910 | 4.3 | 20.3 |
| 1 12 | 6 54.06 | +10 45.1 | 1.945 | 2.909 | 4.7 | 20.4 |
| 1 22 | 6 45.95 | +10 54.8 | 1.976 | 2.907 | 7.6 | 20.5 |
| 2 1 | 6 39.35 | +11 11.8 | 2.033 | 2.906 | 10.8 | 20.7 |
| 2 11 | 6 34.90 | +11 34.0 | 2.113 | 2.905 | 13.6 | 20.9 |

**120282** 2004 $HB_{34}$ 1 5.0 133°.16 5°.4/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.41 | + 5 54.1 | 2.224 | 3.010 | 13.2 | 20.4 |
| 12 13 | 7 19.49 | + 5 33.1 | 2.155 | 3.021 | 10.5 | 20.2 |
| 12 23 | 7 11.77 | + 5 25.6 | 2.110 | 3.033 | 7.7 | 20.1 |
| 1 2 | 7 2.93 | + 5 32.6 | 2.092 | 3.043 | 5.7 | 20.0 |
| 1 12 | 6 53.85 | + 5 53.6 | 2.104 | 3.053 | 5.8 | 20.0 |
| 1 22 | 6 45.45 | + 6 26.6 | 2.144 | 3.063 | 7.9 | 20.1 |
| 2 1 | 6 38.51 | + 7 8.6 | 2.212 | 3.072 | 10.5 | 20.3 |
| 2 11 | 6 33.62 | + 7 56.1 | 2.303 | 3.081 | 13.1 | 20.5 |

**94457** 2001 $TC_{111}$ 1 5.0 356°.62 2°.7/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.50 | +17 47.5 | 1.288 | 2.134 | 17.6 | 19.3 |
| 12 13 | 7 22.29 | +17 20.7 | 1.220 | 2.133 | 13.2 | 19.0 |
| 12 23 | 7 13.95 | +17 1.6 | 1.174 | 2.131 | 8.2 | 18.8 |
| 1 2 | 7 3.50 | +16 49.9 | 1.151 | 2.130 | 3.4 | 18.5 |
| 1 12 | 6 52.54 | +16 44.8 | 1.155 | 2.130 | 4.7 | 18.6 |
| 1 22 | 6 42.73 | +16 45.2 | 1.185 | 2.130 | 9.9 | 18.9 |
| 2 1 | 6 35.49 | +16 50.1 | 1.237 | 2.131 | 14.7 | 19.1 |
| 2 11 | 6 31.69 | +16 58.3 | 1.310 | 2.132 | 18.8 | 19.4 |

**161291** 2003 $HV_{29}$ 1 5.0 131°.79 2°.0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.30 | +16 25.1 | 2.125 | 2.935 | 12.9 | 20.8 |
| 12 13 | 7 23.10 | +16 22.7 | 2.060 | 2.954 | 9.6 | 20.7 |
| 12 23 | 7 13.87 | +16 26.7 | 2.022 | 2.972 | 5.9 | 20.5 |
| 1 2 | 7 3.42 | +16 35.7 | 2.012 | 2.990 | 2.5 | 20.3 |
| 1 12 | 6 52.78 | +16 48.3 | 2.033 | 3.006 | 3.3 | 20.4 |
| 1 22 | 6 43.01 | +17 3.0 | 2.085 | 3.022 | 6.9 | 20.6 |
| 2 1 | 6 34.98 | +17 18.7 | 2.165 | 3.036 | 10.3 | 20.8 |
| 2 11 | 6 29.29 | +17 34.6 | 2.268 | 3.050 | 13.2 | 21.1 |

**387664** 2002 $RW_{267}$ 1 5.0 191°.39 2°.0/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.59 | +17 38.6 | 1.810 | 2.629 | 14.5 | 22.3 |
| 12 13 | 7 24.58 | +17 26.9 | 1.730 | 2.628 | 10.8 | 22.1 |
| 12 23 | 7 15.01 | +17 21.1 | 1.673 | 2.626 | 6.7 | 21.8 |
| 1 2 | 7 3.73 | +17 20.1 | 1.644 | 2.623 | 2.6 | 21.6 |
| 1 12 | 6 51.99 | +17 22.7 | 1.646 | 2.619 | 3.8 | 21.6 |
| 1 22 | 6 41.11 | +17 27.6 | 1.676 | 2.615 | 8.1 | 21.9 |
| 2 1 | 6 32.23 | +17 34.3 | 1.734 | 2.609 | 12.2 | 22.1 |
| 2 11 | 6 26.16 | +17 42.2 | 1.814 | 2.603 | 15.7 | 22.3 |

**346275** 2008 $GT_{137}$ 1 5.0 154°.30 1°.5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.92 | +24 33.2 | 1.747 | 2.575 | 14.5 | 21.8 |
| 12 13 | 7 25.69 | +25 10.5 | 1.679 | 2.584 | 10.7 | 21.6 |
| 12 23 | 7 15.69 | +25 49.7 | 1.635 | 2.592 | 6.3 | 21.3 |
| 1 2 | 7 3.89 | +26 26.0 | 1.619 | 2.600 | 2.0 | 21.1 |
| 1 12 | 6 51.67 | +26 54.9 | 1.633 | 2.606 | 3.8 | 21.2 |
| 1 22 | 6 40.46 | +27 14.5 | 1.676 | 2.612 | 8.3 | 21.5 |
| 2 1 | 6 31.51 | +27 24.8 | 1.745 | 2.617 | 12.3 | 21.7 |
| 2 11 | 6 25.61 | +27 27.9 | 1.837 | 2.621 | 15.7 | 22.0 |

**312253** 2008 $AC_{1}$ 1 5.0 47°.62 9°.3/ 2.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.75 | +40 14.6 | 1.393 | 2.226 | 17.2 | 19.6 |
| 12 13 | 7 27.36 | +42 0.1 | 1.352 | 2.243 | 13.8 | 19.4 |
| 12 23 | 7 17.09 | +43 31.7 | 1.332 | 2.261 | 10.7 | 19.3 |
| 1 2 | 7 4.25 | +44 37.5 | 1.337 | 2.279 | 9.3 | 19.2 |
| 1 12 | 6 50.94 | +45 10.2 | 1.368 | 2.298 | 10.3 | 19.3 |
| 1 22 | 6 39.32 | +45 9.7 | 1.422 | 2.317 | 13.0 | 19.5 |
| 2 1 | 6 31.07 | +44 42.1 | 1.499 | 2.336 | 15.9 | 19.8 |
| 2 11 | 6 27.03 | +43 56.2 | 1.594 | 2.356 | 18.6 | 20.0 |

**231972** 2001 $QP_{108}$ 1 5.0 225°.64 2°.8/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.40 | +31 55.0 | 2.652 | 3.469 | 10.4 | 21.2 |
| 12 13 | 7 21.03 | +32 12.0 | 2.564 | 3.461 | 7.8 | 21.0 |
| 12 23 | 7 12.74 | +32 24.8 | 2.503 | 3.452 | 5.0 | 20.8 |
| 1 2 | 7 3.18 | +32 30.0 | 2.471 | 3.443 | 2.9 | 20.6 |
| 1 12 | 6 53.29 | +32 25.7 | 2.469 | 3.433 | 3.8 | 20.7 |
| 1 22 | 6 44.02 | +32 11.5 | 2.498 | 3.423 | 6.6 | 20.9 |
| 2 1 | 6 36.24 | +31 48.6 | 2.555 | 3.413 | 9.4 | 21.0 |
| 2 11 | 6 30.59 | +31 19.4 | 2.636 | 3.403 | 11.9 | 21.2 |

**113654** 2002 $TH_{83}$ 1 5.0 58°.35 6°.2/ 3.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.28 | +33 22.8 | 1.245 | 2.093 | 18.0 | 19.0 |
| 12 13 | 7 26.97 | +34 31.3 | 1.195 | 2.105 | 13.6 | 18.8 |
| 12 23 | 7 16.83 | +35 32.7 | 1.167 | 2.117 | 9.2 | 18.6 |
| 1 2 | 7 4.19 | +36 16.9 | 1.162 | 2.130 | 6.3 | 18.5 |
| 1 12 | 6 51.11 | +36 37.1 | 1.184 | 2.143 | 7.8 | 18.6 |
| 1 22 | 6 39.72 | +36 32.7 | 1.230 | 2.156 | 11.7 | 18.8 |
| 2 1 | 6 31.65 | +36 8.1 | 1.299 | 2.170 | 15.8 | 19.1 |
| 2 11 | 6 27.73 | +35 30.6 | 1.387 | 2.183 | 19.3 | 19.4 |

**290966** 2005 $WS_{207}$ 1 5.0 342°.12 2°.9/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.72 | +28 35.9 | 0.992 | 1.865 | 19.4 | 19.7 |
| 12 13 | 7 21.40 | +28 33.7 | 0.922 | 1.849 | 14.6 | 19.4 |
| 12 23 | 7 13.98 | +28 26.8 | 0.870 | 1.834 | 8.9 | 19.0 |
| 1 2 | 7 3.60 | +28 10.0 | 0.841 | 1.821 | 3.5 | 18.7 |
| 1 12 | 6 52.33 | +27 39.7 | 0.834 | 1.810 | 5.7 | 18.7 |
| 1 22 | 6 42.48 | +26 56.8 | 0.850 | 1.800 | 11.8 | 19.0 |
| 2 1 | 6 36.00 | +26 5.8 | 0.886 | 1.793 | 17.6 | 19.3 |
| 2 11 | 6 33.97 | +25 12.1 | 0.939 | 1.787 | 22.5 | 19.6 |

**208370** 2001 $SA_{24}$ 1 5.0 144°.62 4°.0/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.51 | +34 55.6 | 2.489 | 3.307 | 11.0 | 20.5 |
| 12 13 | 7 21.23 | +35 29.8 | 2.417 | 3.310 | 8.4 | 20.3 |
| 12 23 | 7 12.88 | +35 58.0 | 2.371 | 3.314 | 5.7 | 20.1 |
| 1 2 | 7 3.22 | +36 16.2 | 2.354 | 3.317 | 4.0 | 20.0 |
| 1 12 | 6 53.26 | +36 21.4 | 2.366 | 3.320 | 4.9 | 20.1 |
| 1 22 | 6 44.06 | +36 13.4 | 2.408 | 3.323 | 7.3 | 20.2 |
| 2 1 | 6 36.53 | +35 53.7 | 2.477 | 3.326 | 10.0 | 20.4 |
| 2 11 | 6 31.31 | +35 25.4 | 2.569 | 3.329 | 12.4 | 20.6 |

**278448** 2007 $TX_{2}$ 1 5.0 93°.61 1°.6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.44 | +16 57.3 | 2.384 | 3.201 | 11.5 | 20.8 |
| 12 13 | 7 18.71 | +16 59.0 | 2.320 | 3.217 | 8.5 | 20.6 |
| 12 23 | 7 11.29 | +17 6.3 | 2.281 | 3.233 | 5.2 | 20.5 |
| 1 2 | 7 2.83 | +17 18.1 | 2.271 | 3.249 | 2.1 | 20.3 |
| 1 12 | 6 54.19 | +17 33.0 | 2.291 | 3.265 | 2.9 | 20.4 |
| 1 22 | 6 46.24 | +17 49.5 | 2.342 | 3.281 | 6.1 | 20.6 |
| 2 1 | 6 39.72 | +18 6.5 | 2.420 | 3.296 | 9.2 | 20.8 |
| 2 11 | 6 35.16 | +18 23.3 | 2.523 | 3.311 | 11.8 | 21.0 |

**35823** 1999 $JQ_{52}$ 1 5.0 165°.40 1°.4/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.64 | +25 3.9 | 1.975 | 2.800 | 13.2 | 19.8 |
| 12 13 | 7 23.79 | +25 33.5 | 1.902 | 2.806 | 9.7 | 19.6 |
| 12 23 | 7 14.50 | +26 4.1 | 1.854 | 2.810 | 5.7 | 19.3 |
| 1 2 | 7 3.62 | +26 31.7 | 1.834 | 2.814 | 1.8 | 19.1 |
| 1 12 | 6 52.35 | +26 53.0 | 1.844 | 2.818 | 3.5 | 19.2 |
| 1 22 | 6 41.93 | +27 6.2 | 1.884 | 2.820 | 7.6 | 19.5 |
| 2 1 | 6 33.46 | +27 11.7 | 1.952 | 2.822 | 11.3 | 19.7 |
| 2 11 | 6 27.68 | +27 11.0 | 2.042 | 2.824 | 14.4 | 19.9 |

**393210** 2013 $DO_1$ 1 5.0 223°.01 0°.5/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.12 | +20 53.9 | 1.948 | 2.772 | 13.4 | 20.9 |
| 12 13 | 7 22.89 | +21 49.1 | 1.860 | 2.764 | 9.9 | 20.7 |
| 12 23 | 7 14.14 | +22 51.5 | 1.798 | 2.755 | 5.8 | 20.4 |
| 1 2 | 7 3.58 | +23 56.7 | 1.764 | 2.746 | 1.4 | 20.1 |
| 1 12 | 6 52.35 | +24 59.5 | 1.760 | 2.735 | 3.3 | 20.2 |
| 1 22 | 6 41.71 | +25 55.6 | 1.787 | 2.725 | 7.7 | 20.5 |
| 2 1 | 6 32.88 | +26 43.0 | 1.841 | 2.714 | 11.7 | 20.7 |
| 2 11 | 6 26.71 | +27 21.4 | 1.918 | 2.702 | 15.1 | 20.9 |

**322373** 2011 $LX_{13}$ 1 5.0 132°.71 3°.9/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.53 | + 8 48.4 | 2.448 | 3.245 | 11.8 | 20.8 |
| 12 13 | 7 17.35 | + 8 46.7 | 2.371 | 3.249 | 9.2 | 20.6 |
| 12 23 | 7 10.53 | + 8 56.1 | 2.319 | 3.253 | 6.4 | 20.5 |
| 1 2 | 7 2.67 | + 9 16.7 | 2.295 | 3.257 | 4.3 | 20.3 |
| 1 12 | 6 54.53 | + 9 47.4 | 2.300 | 3.261 | 4.4 | 20.4 |
| 1 22 | 6 46.94 | +10 26.0 | 2.335 | 3.264 | 6.7 | 20.5 |
| 2 1 | 6 40.61 | +11 10.0 | 2.398 | 3.268 | 9.5 | 20.7 |
| 2 11 | 6 36.13 | +11 56.7 | 2.485 | 3.271 | 12.0 | 20.9 |

**29597** 1998 $HT_{37}$ 1 5.0 7°.93 4°.7/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.90 | +35 13.2 | 2.031 | 2.859 | 12.7 | 18.0 |
| 12 13 | 7 21.19 | +35 49.3 | 1.962 | 2.860 | 9.8 | 17.8 |
| 12 23 | 7 13.03 | +36 18.4 | 1.917 | 2.862 | 6.7 | 17.6 |
| 1 2 | 7 3.27 | +36 35.5 | 1.899 | 2.863 | 4.8 | 17.5 |
| 1 12 | 6 53.17 | +36 37.2 | 1.910 | 2.865 | 5.7 | 17.5 |
| 1 22 | 6 43.99 | +36 23.1 | 1.949 | 2.868 | 8.5 | 17.7 |
| 2 1 | 6 36.81 | +35 55.7 | 2.013 | 2.871 | 11.6 | 17.9 |
| 2 11 | 6 32.37 | +35 18.6 | 2.099 | 2.874 | 14.3 | 18.1 |

**353399** 2011 $PF_5$ 1 5.0 119°.99 0°.1/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.02 | +22 25.2 | 1.781 | 2.607 | 14.4 | 21.0 |
| 12 13 | 7 24.74 | +22 23.3 | 1.720 | 2.624 | 10.5 | 20.8 |
| 12 23 | 7 14.98 | +22 23.3 | 1.682 | 2.640 | 6.2 | 20.6 |
| 1 2 | 7 3.71 | +22 22.8 | 1.674 | 2.655 | 1.5 | 20.3 |
| 1 12 | 6 52.26 | +22 20.1 | 1.694 | 2.670 | 3.3 | 20.5 |
| 1 22 | 6 41.91 | +22 14.5 | 1.744 | 2.685 | 7.7 | 20.8 |
| 2 1 | 6 33.73 | +22 6.7 | 1.821 | 2.698 | 11.6 | 21.1 |
| 2 11 | 6 28.39 | +21 57.8 | 1.921 | 2.711 | 14.9 | 21.3 |

**397462** 2007 $HY_{35}$ 1 5.0 32°.67 3°.9/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.24 | +28 37.7 | 1.320 | 2.169 | 17.0 | 20.5 |
| 12 13 | 7 24.58 | +29 34.5 | 1.258 | 2.172 | 12.7 | 20.2 |
| 12 23 | 7 15.42 | +30 30.8 | 1.218 | 2.176 | 7.9 | 20.0 |
| 1 2 | 7 3.89 | +31 18.6 | 1.203 | 2.180 | 4.1 | 19.8 |
| 1 12 | 6 51.76 | +31 51.3 | 1.215 | 2.184 | 5.9 | 19.9 |
| 1 22 | 6 40.94 | +32 6.1 | 1.253 | 2.189 | 10.5 | 20.2 |
| 2 1 | 6 33.01 | +32 4.8 | 1.314 | 2.193 | 15.0 | 20.4 |
| 2 11 | 6 28.88 | +31 51.8 | 1.394 | 2.198 | 18.8 | 20.7 |

**196306** 2003 $FT_{16}$ 1 5.0 229°.56 1°.1/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.51 | +24 15.8 | 1.801 | 2.630 | 14.1 | 21.2 |
| 12 13 | 7 24.07 | +24 39.9 | 1.714 | 2.621 | 10.4 | 20.9 |
| 12 23 | 7 14.87 | +25 6.3 | 1.652 | 2.610 | 6.2 | 20.7 |
| 1 2 | 7 3.76 | +25 30.9 | 1.617 | 2.599 | 1.7 | 20.3 |
| 1 12 | 6 52.00 | +25 50.2 | 1.612 | 2.587 | 3.7 | 20.4 |
| 1 22 | 6 41.02 | +26 2.0 | 1.636 | 2.575 | 8.3 | 20.7 |
| 2 1 | 6 32.10 | +26 6.5 | 1.686 | 2.562 | 12.5 | 20.9 |
| 2 11 | 6 26.13 | +26 5.1 | 1.759 | 2.548 | 16.1 | 21.1 |

**125130** 2001 $UO_{56}$ 1 5.0 160°.89 1°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 18.90 | +14 33.7 | 3.901 | 4.703 | 7.7 | 20.9 |
| 12 13 | 7 14.21 | +14 30.6 | 3.820 | 4.707 | 5.8 | 20.7 |
| 12 23 | 7 8.51 | +14 31.8 | 3.765 | 4.711 | 3.7 | 20.6 |
| 1 2 | 7 2.18 | +14 37.0 | 3.741 | 4.715 | 1.9 | 20.5 |
| 1 12 | 6 55.71 | +14 45.7 | 3.749 | 4.718 | 2.3 | 20.5 |
| 1 22 | 6 49.56 | +14 57.1 | 3.788 | 4.722 | 4.2 | 20.6 |
| 2 1 | 6 44.20 | +15 10.4 | 3.856 | 4.725 | 6.2 | 20.8 |
| 2 11 | 6 39.99 | +15 24.8 | 3.951 | 4.728 | 8.1 | 20.9 |

**87939** 2000 $SF_{353}$ 1 5.0 147°.92 4°.4/ 3.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.98 | +33 54.0 | 2.244 | 3.064 | 12.0 | 20.4 |
| 12 13 | 7 23.28 | +34 54.6 | 2.176 | 3.071 | 9.1 | 20.2 |
| 12 23 | 7 14.21 | +35 50.3 | 2.134 | 3.078 | 6.2 | 20.1 |
| 1 2 | 7 3.57 | +36 35.3 | 2.121 | 3.084 | 4.4 | 20.0 |
| 1 12 | 6 52.52 | +37 5.5 | 2.137 | 3.090 | 5.5 | 20.0 |
| 1 22 | 6 42.27 | +37 19.4 | 2.183 | 3.095 | 8.1 | 20.2 |
| 2 1 | 6 33.89 | +37 18.5 | 2.255 | 3.100 | 11.0 | 20.4 |
| 2 11 | 6 28.13 | +37 5.9 | 2.350 | 3.105 | 13.5 | 20.6 |

**380025** 2013 $QQ_{21}$ 1 5.0 200°.15 0°.3/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.47 | +22 3.4 | 2.243 | 3.066 | 11.9 | 21.5 |
| 12 13 | 7 20.55 | +22 31.5 | 2.160 | 3.064 | 8.7 | 21.3 |
| 12 23 | 7 12.56 | +23 3.2 | 2.104 | 3.061 | 5.1 | 21.1 |
| 1 2 | 7 3.19 | +23 35.4 | 2.076 | 3.058 | 1.2 | 20.8 |
| 1 12 | 6 53.40 | +24 5.4 | 2.078 | 3.054 | 2.8 | 20.9 |
| 1 22 | 6 44.23 | +24 31.0 | 2.111 | 3.050 | 6.7 | 21.1 |
| 2 1 | 6 36.63 | +24 51.4 | 2.172 | 3.046 | 10.2 | 21.4 |
| 2 11 | 6 31.27 | +25 6.8 | 2.256 | 3.041 | 13.1 | 21.5 |

**24874** 1996 $HF_{14}$ 1 5.0 21°.36 1°.3/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.66 | +25 3.5 | 1.896 | 2.732 | 13.2 | 19.1 |
| 12 13 | 7 20.23 | +25 25.7 | 1.825 | 2.734 | 9.7 | 18.9 |
| 12 23 | 7 12.46 | +25 49.0 | 1.778 | 2.737 | 5.7 | 18.7 |
| 1 2 | 7 3.17 | +26 9.9 | 1.759 | 2.740 | 1.8 | 18.4 |
| 1 12 | 6 53.52 | +26 25.5 | 1.769 | 2.743 | 3.4 | 18.6 |
| 1 22 | 6 44.71 | +26 34.4 | 1.807 | 2.747 | 7.5 | 18.8 |
| 2 1 | 6 37.78 | +26 36.6 | 1.872 | 2.751 | 11.2 | 19.1 |
| 2 11 | 6 33.43 | +26 33.5 | 1.959 | 2.755 | 14.4 | 19.3 |

**223783** 2004 $SB_{42}$ 1 5.0 140°.29 2°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.52 | +14 18.6 | 2.144 | 2.957 | 12.7 | 21.1 |
| 12 13 | 7 19.74 | +14 10.5 | 2.070 | 2.963 | 9.6 | 20.9 |
| 12 23 | 7 12.01 | +14 10.4 | 2.021 | 2.969 | 6.1 | 20.7 |
| 1 2 | 7 3.05 | +14 17.9 | 2.000 | 2.974 | 3.1 | 20.5 |
| 1 12 | 6 53.80 | +14 31.8 | 2.009 | 2.979 | 3.7 | 20.5 |
| 1 22 | 6 45.25 | +14 50.4 | 2.047 | 2.984 | 7.0 | 20.7 |
| 2 1 | 6 38.25 | +15 12.3 | 2.113 | 2.989 | 10.3 | 21.0 |
| 2 11 | 6 33.43 | +15 35.8 | 2.202 | 2.993 | 13.2 | 21.2 |

**495471** 2014 $UO_6$ 1 5.0 91°.31 1°.2/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.36 | +18 2.0 | 1.926 | 2.752 | 13.4 | 21.5 |
| 12 13 | 7 20.54 | +18 16.4 | 1.860 | 2.763 | 9.9 | 21.3 |
| 12 23 | 7 12.55 | +18 37.5 | 1.819 | 2.774 | 6.0 | 21.1 |
| 1 2 | 7 3.18 | +19 3.1 | 1.805 | 2.786 | 1.9 | 20.8 |
| 1 12 | 6 53.53 | +19 30.7 | 1.821 | 2.797 | 3.1 | 20.9 |
| 1 22 | 6 44.71 | +19 58.1 | 1.866 | 2.808 | 7.2 | 21.2 |
| 2 1 | 6 37.67 | +20 23.6 | 1.938 | 2.819 | 10.8 | 21.5 |
| 2 11 | 6 33.09 | +20 46.7 | 2.033 | 2.829 | 14.0 | 21.7 |

**140260** 2001 $SG_{263}$ 1 5.0 40°.15 1°.8/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.46 | +24 31.9 | 1.423 | 2.271 | 16.1 | 19.3 |
| 12 13 | 7 22.01 | +25 17.3 | 1.372 | 2.287 | 11.8 | 19.1 |
| 12 23 | 7 13.65 | +26 5.3 | 1.343 | 2.304 | 6.9 | 18.9 |
| 1 2 | 7 3.45 | +26 50.3 | 1.341 | 2.321 | 2.3 | 18.6 |
| 1 12 | 6 52.96 | +27 27.0 | 1.365 | 2.340 | 4.3 | 18.8 |
| 1 22 | 6 43.71 | +27 52.9 | 1.417 | 2.358 | 9.0 | 19.1 |
| 2 1 | 6 36.96 | +28 8.0 | 1.493 | 2.377 | 13.2 | 19.4 |
| 2 11 | 6 33.44 | +28 14.2 | 1.589 | 2.397 | 16.7 | 19.7 |

**228409** 2001 $FM_{184}$ 1 5.0 227°.63 4°.8/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.60 | +36 22.4 | 2.222 | 3.041 | 12.1 | 20.1 |
| 12 13 | 7 23.07 | +36 56.6 | 2.145 | 3.037 | 9.4 | 19.9 |
| 12 23 | 7 14.12 | +37 23.2 | 2.093 | 3.033 | 6.6 | 19.7 |
| 1 2 | 7 3.57 | +37 37.3 | 2.069 | 3.029 | 4.8 | 19.6 |
| 1 12 | 6 52.64 | +37 35.5 | 2.074 | 3.025 | 5.7 | 19.6 |
| 1 22 | 6 42.56 | +37 17.6 | 2.108 | 3.021 | 8.3 | 19.8 |
| 2 1 | 6 34.43 | +36 46.1 | 2.168 | 3.017 | 11.2 | 20.0 |
| 2 11 | 6 28.97 | +36 4.9 | 2.250 | 3.013 | 13.8 | 20.1 |

**299014** 2004 $XT_{143}$ 1 5.0 70°.53 0°.1/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.81 | +23 24.1 | 1.451 | 2.292 | 16.2 | 20.5 |
| 12 13 | 7 24.33 | +23 17.6 | 1.393 | 2.305 | 11.9 | 20.3 |
| 12 23 | 7 14.95 | +23 12.8 | 1.358 | 2.318 | 7.0 | 20.0 |
| 1 2 | 7 3.76 | +23 6.8 | 1.349 | 2.331 | 1.6 | 19.7 |
| 1 12 | 6 52.33 | +22 57.7 | 1.367 | 2.344 | 3.7 | 19.9 |
| 1 22 | 6 42.22 | +22 45.3 | 1.413 | 2.357 | 8.8 | 20.2 |
| 2 1 | 6 34.65 | +22 30.8 | 1.484 | 2.370 | 13.2 | 20.5 |
| 2 11 | 6 30.33 | +22 15.5 | 1.576 | 2.383 | 16.8 | 20.8 |

**445634** 2011 $SK_{250}$ 1 5.0 58°.01 0°.4/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.88 | +23 13.6 | 1.343 | 2.188 | 17.0 | 21.0 |
| 12 13 | 7 24.43 | +23 19.8 | 1.296 | 2.210 | 12.5 | 20.8 |
| 12 23 | 7 14.98 | +23 28.4 | 1.272 | 2.232 | 7.2 | 20.6 |
| 1 2 | 7 3.75 | +23 35.9 | 1.272 | 2.254 | 1.7 | 20.3 |
| 1 12 | 6 52.40 | +23 39.6 | 1.300 | 2.277 | 3.9 | 20.5 |
| 1 22 | 6 42.53 | +23 38.4 | 1.355 | 2.299 | 9.0 | 20.9 |
| 2 1 | 6 35.37 | +23 33.3 | 1.434 | 2.322 | 13.4 | 21.2 |
| 2 11 | 6 31.56 | +23 25.6 | 1.534 | 2.345 | 17.1 | 21.5 |

**340581** 2006 $PL_5$ 1 5.0 139°.33 0°.5/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.88 | +19 13.6 | 2.824 | 3.638 | 10.0 | 21.3 |
| 12 13 | 7 18.20 | +19 41.1 | 2.750 | 3.648 | 7.3 | 21.1 |
| 12 23 | 7 10.99 | +20 12.7 | 2.703 | 3.658 | 4.3 | 21.0 |
| 1 2 | 7 2.81 | +20 46.6 | 2.686 | 3.667 | 1.2 | 20.7 |
| 1 12 | 6 54.40 | +21 20.5 | 2.701 | 3.676 | 2.2 | 20.8 |
| 1 22 | 6 46.49 | +21 52.6 | 2.746 | 3.685 | 5.3 | 21.1 |
| 2 1 | 6 39.78 | +22 21.8 | 2.821 | 3.693 | 8.2 | 21.3 |
| 2 11 | 6 34.79 | +22 47.6 | 2.921 | 3.701 | 10.6 | 21.4 |

**108299** 2001 $HP_{67}$ 1 5.1 154°.62 1°.1/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.16 | +24 16.5 | 2.270 | 3.090 | 11.9 | 20.6 |
| 12 13 | 7 22.43 | +24 49.9 | 2.198 | 3.099 | 8.7 | 20.5 |
| 12 23 | 7 13.62 | +25 24.7 | 2.151 | 3.108 | 5.1 | 20.3 |
| 1 2 | 7 3.46 | +25 57.5 | 2.134 | 3.115 | 1.5 | 20.0 |
| 1 12 | 6 52.98 | +26 25.1 | 2.149 | 3.122 | 3.1 | 20.1 |
| 1 22 | 6 43.22 | +26 46.0 | 2.193 | 3.129 | 6.7 | 20.4 |
| 2 1 | 6 35.13 | +26 59.8 | 2.266 | 3.134 | 10.0 | 20.6 |
| 2 11 | 6 29.37 | +27 7.5 | 2.363 | 3.139 | 12.8 | 20.8 |

**522062** 2015 $XQ_{416}$ 1 5.1 286°.50 8°.4/ 2.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.98 | +41 57.0 | 1.768 | 2.585 | 14.8 | 21.0 |
| 12 13 | 7 26.57 | +43 13.8 | 1.695 | 2.575 | 12.1 | 20.8 |
| 12 23 | 7 16.67 | +44 19.2 | 1.644 | 2.565 | 9.6 | 20.7 |
| 1 2 | 7 4.27 | +45 3.7 | 1.619 | 2.556 | 8.4 | 20.6 |
| 1 12 | 6 51.07 | +45 20.7 | 1.620 | 2.546 | 9.4 | 20.6 |
| 1 22 | 6 38.97 | +45 8.8 | 1.647 | 2.536 | 11.8 | 20.7 |
| 2 1 | 6 29.63 | +44 32.1 | 1.697 | 2.526 | 14.7 | 20.9 |
| 2 11 | 6 24.06 | +43 37.9 | 1.767 | 2.517 | 17.5 | 21.1 |

**362175** 2009 $FB_{21}$ 1 5.1 262°.35 0°.6/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.82 | +23 30.1 | 1.764 | 2.597 | 14.1 | 21.6 |
| 12 13 | 7 22.89 | +23 42.1 | 1.675 | 2.583 | 10.5 | 21.3 |
| 12 23 | 7 14.24 | +23 56.6 | 1.610 | 2.569 | 6.2 | 21.1 |
| 1 2 | 7 3.67 | +24 10.2 | 1.572 | 2.554 | 1.6 | 20.7 |
| 1 12 | 6 52.46 | +24 20.0 | 1.563 | 2.539 | 3.5 | 20.8 |
| 1 22 | 6 41.99 | +24 24.5 | 1.583 | 2.524 | 8.3 | 21.1 |
| 2 1 | 6 33.55 | +24 23.7 | 1.628 | 2.508 | 12.6 | 21.3 |
| 2 11 | 6 28.03 | +24 19.0 | 1.696 | 2.493 | 16.3 | 21.5 |

**69909** 1998 $SS_{154}$ 1 5.1 132°.72 6°.0/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.90 | + 2 4.7 | 2.629 | 3.391 | 12.0 | 20.7 |
| 12 13 | 7 18.18 | + 1 32.5 | 2.560 | 3.405 | 9.8 | 20.5 |
| 12 23 | 7 10.96 | + 1 13.9 | 2.516 | 3.418 | 7.7 | 20.4 |
| 1 2 | 7 2.82 | + 1 10.2 | 2.499 | 3.430 | 6.2 | 20.3 |
| 1 12 | 6 54.49 | + 1 21.7 | 2.512 | 3.442 | 6.2 | 20.4 |
| 1 22 | 6 46.73 | + 1 46.8 | 2.553 | 3.453 | 7.7 | 20.5 |
| 2 1 | 6 40.18 | + 2 23.0 | 2.621 | 3.464 | 9.7 | 20.6 |
| 2 11 | 6 35.36 | + 3 6.9 | 2.714 | 3.475 | 11.7 | 20.8 |

**378253** 2007 $DT_{19}$ 1 5.1 111°.75 4°.3/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.01 | + 9 2.6 | 2.040 | 2.842 | 13.7 | 20.9 |
| 12 13 | 7 19.44 | + 9 4.7 | 1.970 | 2.851 | 10.6 | 20.7 |
| 12 23 | 7 11.88 | + 9 20.1 | 1.923 | 2.860 | 7.3 | 20.5 |
| 1 2 | 7 3.06 | + 9 48.5 | 1.904 | 2.869 | 4.7 | 20.4 |
| 1 12 | 6 53.95 | +10 28.2 | 1.914 | 2.877 | 4.9 | 20.4 |
| 1 22 | 6 45.53 | +11 16.2 | 1.953 | 2.886 | 7.6 | 20.6 |
| 2 1 | 6 38.70 | +12 9.2 | 2.019 | 2.894 | 10.8 | 20.8 |
| 2 11 | 6 34.08 | +13 3.8 | 2.109 | 2.902 | 13.7 | 21.0 |

**272122** 2005 $MX_{5}$ 1 5.1 85°.91 1°.8/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.12 | +16 42.9 | 1.399 | 2.231 | 17.2 | 20.5 |
| 12 13 | 7 25.21 | +17 3.8 | 1.350 | 2.255 | 12.8 | 20.3 |
| 12 23 | 7 15.43 | +17 35.2 | 1.324 | 2.280 | 7.7 | 20.0 |
| 1 2 | 7 3.89 | +18 13.4 | 1.324 | 2.304 | 2.7 | 19.8 |
| 1 12 | 6 52.18 | +18 54.3 | 1.352 | 2.327 | 4.0 | 20.0 |
| 1 22 | 6 41.83 | +19 34.2 | 1.407 | 2.350 | 8.8 | 20.3 |
| 2 1 | 6 34.03 | +20 10.8 | 1.488 | 2.373 | 13.2 | 20.6 |
| 2 11 | 6 29.50 | +20 43.1 | 1.590 | 2.395 | 16.8 | 20.9 |

**495946** 2006 $SQ_{407}$ 1 5.1 148°.79 4°.3/ 3.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.12 | +38 44.6 | 3.142 | 3.944 | 9.4 | 22.7 |
| 12 13 | 7 21.37 | +39 22.5 | 3.075 | 3.953 | 7.3 | 22.6 |
| 12 23 | 7 12.87 | +39 53.2 | 3.034 | 3.963 | 5.4 | 22.4 |
| 1 2 | 7 3.28 | +40 13.0 | 3.023 | 3.971 | 4.3 | 22.4 |
| 1 12 | 6 53.47 | +40 19.7 | 3.042 | 3.980 | 4.9 | 22.4 |
| 1 22 | 6 44.30 | +40 13.1 | 3.091 | 3.987 | 6.6 | 22.6 |
| 2 1 | 6 36.56 | +39 54.5 | 3.167 | 3.995 | 8.6 | 22.7 |
| 2 11 | 6 30.81 | +39 26.9 | 3.268 | 4.002 | 10.5 | 22.8 |

**204326** 2004 $RY_{105}$ 1 5.1 117°.94 2°.5/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.41 | +16 55.3 | 1.658 | 2.482 | 15.3 | 20.3 |
| 12 13 | 7 23.71 | +16 36.9 | 1.594 | 2.495 | 11.4 | 20.1 |
| 12 23 | 7 14.49 | +16 25.7 | 1.554 | 2.507 | 7.1 | 19.9 |
| 1 2 | 7 3.68 | +16 20.9 | 1.541 | 2.519 | 3.0 | 19.7 |
| 1 12 | 6 52.62 | +16 21.4 | 1.557 | 2.530 | 4.1 | 19.7 |
| 1 22 | 6 42.61 | +16 26.0 | 1.601 | 2.541 | 8.3 | 20.0 |
| 2 1 | 6 34.77 | +16 33.8 | 1.671 | 2.552 | 12.3 | 20.3 |
| 2 11 | 6 29.78 | +16 43.6 | 1.764 | 2.562 | 15.7 | 20.5 |

**242831** 2006 $DW_{9}$ 1 5.1 178°.22 1°.9/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.97 | +15 58.9 | 2.097 | 2.909 | 13.0 | 21.7 |
| 12 13 | 7 22.40 | +16 12.1 | 2.017 | 2.912 | 9.7 | 21.5 |
| 12 23 | 7 13.68 | +16 33.2 | 1.962 | 2.913 | 6.0 | 21.3 |
| 1 2 | 7 3.52 | +17 0.4 | 1.936 | 2.914 | 2.4 | 21.0 |
| 1 12 | 6 52.96 | +17 31.4 | 1.941 | 2.914 | 3.3 | 21.1 |
| 1 22 | 6 43.09 | +18 3.9 | 1.975 | 2.914 | 7.1 | 21.3 |
| 2 1 | 6 34.88 | +18 35.9 | 2.038 | 2.912 | 10.7 | 21.5 |
| 2 11 | 6 29.05 | +19 6.4 | 2.125 | 2.910 | 13.8 | 21.7 |

**498222** 2007 $TM_{449}$ 1 5.1 347°.59 4°.1/ 3.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.67 | +33 22.2 | 2.266 | 3.091 | 11.7 | 21.2 |
| 12 13 | 7 20.89 | +34 12.9 | 2.193 | 3.091 | 8.9 | 21.1 |
| 12 23 | 7 12.86 | +34 59.2 | 2.144 | 3.090 | 6.0 | 20.9 |
| 1 2 | 7 3.34 | +35 36.2 | 2.124 | 3.090 | 4.1 | 20.8 |
| 1 12 | 6 53.39 | +36 0.1 | 2.133 | 3.089 | 5.1 | 20.8 |
| 1 22 | 6 44.16 | +36 9.6 | 2.171 | 3.089 | 7.9 | 21.0 |
| 2 1 | 6 36.68 | +36 5.6 | 2.236 | 3.089 | 10.8 | 21.2 |
| 2 11 | 6 31.67 | +35 51.1 | 2.323 | 3.089 | 13.3 | 21.4 |

**13373** 1998 $VL_{7}$ 1 5.1 56°.33 0°.5/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.69 | +20 47.4 | 1.919 | 2.750 | 13.2 | 18.4 |
| 12 13 | 7 20.08 | +20 54.0 | 1.855 | 2.762 | 9.7 | 18.2 |
| 12 23 | 7 12.31 | +21 4.4 | 1.815 | 2.773 | 5.7 | 18.0 |
| 1 2 | 7 3.19 | +21 16.7 | 1.803 | 2.784 | 1.5 | 17.7 |
| 1 12 | 6 53.81 | +21 28.8 | 1.820 | 2.796 | 3.0 | 17.8 |
| 1 22 | 6 45.30 | +21 39.3 | 1.866 | 2.808 | 7.1 | 18.1 |
| 2 1 | 6 38.59 | +21 47.6 | 1.938 | 2.820 | 10.8 | 18.4 |
| 2 11 | 6 34.33 | +21 53.7 | 2.033 | 2.832 | 13.9 | 18.6 |

**434433** 2005 $NO_{8}$ 1 5.1 254°.84 4°.9/ 4.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.47 | +41 2.7 | 2.684 | 3.477 | 11.0 | 21.5 |
| 12 13 | 7 26.26 | +41 1.4 | 2.591 | 3.464 | 8.7 | 21.4 |
| 12 23 | 7 15.82 | +40 48.4 | 2.524 | 3.450 | 6.4 | 21.2 |
| 1 2 | 7 4.01 | +40 19.7 | 2.487 | 3.437 | 5.0 | 21.1 |
| 1 12 | 6 51.97 | +39 33.6 | 2.480 | 3.423 | 5.5 | 21.1 |
| 1 22 | 6 40.86 | +38 31.4 | 2.504 | 3.409 | 7.6 | 21.2 |
| 2 1 | 6 31.65 | +37 16.9 | 2.557 | 3.394 | 10.1 | 21.3 |
| 2 11 | 6 24.99 | +35 55.2 | 2.634 | 3.380 | 12.4 | 21.5 |

**193850** 2001 $QT_{112}$ 1 5.1 81°.75 4°.9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.13 | +12 16.2 | 1.426 | 2.251 | 17.4 | 19.9 |
| 12 13 | 7 23.70 | +11 37.8 | 1.372 | 2.268 | 13.3 | 19.7 |
| 12 23 | 7 14.54 | +11 12.3 | 1.339 | 2.285 | 8.9 | 19.5 |
| 1 2 | 7 3.72 | +11 0.7 | 1.332 | 2.302 | 5.4 | 19.4 |
| 1 12 | 6 52.70 | +11 2.7 | 1.353 | 2.319 | 5.9 | 19.4 |
| 1 22 | 6 42.91 | +11 16.4 | 1.400 | 2.336 | 9.6 | 19.7 |
| 2 1 | 6 35.51 | +11 38.9 | 1.471 | 2.352 | 13.6 | 20.0 |
| 2 11 | 6 31.18 | +12 6.9 | 1.564 | 2.368 | 17.1 | 20.2 |

**62090** 2000 $RR_{91}$ 1 5.1 104°.80 4°.1/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.38 | +10 25.6 | 2.122 | 2.924 | 13.2 | 20.1 |
| 12 13 | 7 20.26 | +10 6.0 | 2.060 | 2.942 | 10.2 | 20.0 |
| 12 23 | 7 12.28 | + 9 57.1 | 2.023 | 2.960 | 7.0 | 19.8 |
| 1 2 | 7 3.17 | + 9 59.3 | 2.013 | 2.978 | 4.4 | 19.7 |
| 1 12 | 6 53.89 | +10 11.8 | 2.033 | 2.995 | 4.7 | 19.7 |
| 1 22 | 6 45.38 | +10 32.8 | 2.081 | 3.011 | 7.4 | 19.9 |
| 2 1 | 6 38.46 | +11 0.2 | 2.158 | 3.027 | 10.4 | 20.1 |
| 2 11 | 6 33.69 | +11 31.4 | 2.258 | 3.043 | 13.1 | 20.3 |

**296896** 2010 $BN_{105}$ 1 5.1 37°.86 5°.3/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.29 | +11 17.3 | 1.991 | 2.797 | 13.8 | 19.7 |
| 12 13 | 7 21.00 | + 9 51.8 | 1.926 | 2.808 | 10.8 | 19.5 |
| 12 23 | 7 12.73 | + 8 34.1 | 1.886 | 2.820 | 7.7 | 19.4 |
| 1 2 | 7 3.28 | + 7 27.7 | 1.874 | 2.832 | 5.5 | 19.3 |
| 1 12 | 6 53.68 | + 6 34.9 | 1.891 | 2.844 | 6.0 | 19.3 |
| 1 22 | 6 44.93 | + 5 57.0 | 1.938 | 2.857 | 8.6 | 19.5 |
| 2 1 | 6 37.90 | + 5 33.3 | 2.010 | 2.870 | 11.5 | 19.7 |
| 2 11 | 6 33.16 | + 5 21.8 | 2.106 | 2.883 | 14.2 | 19.9 |

**222359** 2000 $XN_{2}$ 1 5.1 30°.89 2°.9/ 4.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.82 | +29 42.9 | 1.400 | 2.248 | 16.3 | 20.0 |
| 12 13 | 7 23.03 | +29 49.4 | 1.350 | 2.264 | 12.0 | 19.8 |
| 12 23 | 7 14.24 | +29 51.0 | 1.323 | 2.281 | 7.3 | 19.5 |
| 1 2 | 7 3.65 | +29 43.4 | 1.321 | 2.299 | 3.3 | 19.3 |
| 1 12 | 6 52.93 | +29 24.4 | 1.345 | 2.317 | 4.8 | 19.5 |
| 1 22 | 6 43.66 | +28 55.0 | 1.396 | 2.337 | 9.2 | 19.8 |
| 2 1 | 6 37.07 | +28 18.3 | 1.471 | 2.357 | 13.3 | 20.1 |
| 2 11 | 6 33.79 | +27 38.3 | 1.568 | 2.377 | 16.8 | 20.4 |

**338213** 2002 $SJ_{44}$ 1 5.1 87°.03 6°.0/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.43 | +33 59.5 | 1.393 | 2.227 | 17.2 | 20.3 |
| 12 13 | 7 29.59 | +35 6.5 | 1.350 | 2.252 | 13.0 | 20.1 |
| 12 23 | 7 18.19 | +36 4.9 | 1.329 | 2.276 | 8.8 | 19.9 |
| 1 2 | 7 4.60 | +36 45.3 | 1.334 | 2.299 | 6.1 | 19.8 |
| 1 12 | 6 50.81 | +37 2.1 | 1.366 | 2.323 | 7.3 | 19.9 |
| 1 22 | 6 38.78 | +36 55.5 | 1.424 | 2.345 | 10.9 | 20.2 |
| 2 1 | 6 29.96 | +36 30.3 | 1.507 | 2.368 | 14.6 | 20.5 |
| 2 11 | 6 25.07 | +35 53.6 | 1.610 | 2.389 | 17.7 | 20.8 |

**503353** 2016 $BR_{70}$ 1 5.1 254°.10 1°.9/ 4.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.69 | +27 18.9 | 2.208 | 3.032 | 12.0 | 22.7 |
| 12 13 | 7 22.45 | +27 43.5 | 2.110 | 3.013 | 8.9 | 22.4 |
| 12 23 | 7 13.86 | +28 7.6 | 2.038 | 2.994 | 5.4 | 22.2 |
| 1 2 | 7 3.62 | +28 27.6 | 1.995 | 2.974 | 2.2 | 21.9 |
| 1 12 | 6 52.78 | +28 40.2 | 1.982 | 2.953 | 3.6 | 22.0 |
| 1 22 | 6 42.52 | +28 44.0 | 1.998 | 2.932 | 7.4 | 22.2 |
| 2 1 | 6 33.92 | +28 39.4 | 2.042 | 2.910 | 11.0 | 22.4 |
| 2 11 | 6 27.80 | +28 28.3 | 2.110 | 2.888 | 14.1 | 22.5 |

**378369** 2007 $ME_{16}$ 1 5.1 79°.51 2°.9/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.56 | +11 21.7 | 2.319 | 3.121 | 12.2 | 21.5 |
| 12 13 | 7 19.50 | +11 40.3 | 2.266 | 3.151 | 9.3 | 21.4 |
| 12 23 | 7 11.77 | +12 8.9 | 2.238 | 3.180 | 6.1 | 21.2 |
| 1 2 | 7 3.05 | +12 46.4 | 2.239 | 3.209 | 3.3 | 21.1 |
| 1 12 | 6 54.22 | +13 30.2 | 2.270 | 3.238 | 3.6 | 21.2 |
| 1 22 | 6 46.13 | +14 17.6 | 2.332 | 3.267 | 6.4 | 21.4 |
| 2 1 | 6 39.49 | +15 6.1 | 2.422 | 3.295 | 9.3 | 21.6 |
| 2 11 | 6 34.84 | +15 53.4 | 2.536 | 3.322 | 11.8 | 21.8 |

**217412** 2005 $MT_1$ 1 5.1 34°.21 7°.1/ 4.5 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 37.62 | +15 12.0 | 1.213 | 2.042 | 19.5 | 17.9 |
| 12 13 | 7 28.88 | +12 26.8 | 1.178 | 2.075 | 14.9 | 17.7 |
| 12 23 | 7 17.29 | + 9 50.6 | 1.165 | 2.108 | 10.3 | 17.5 |
| 1 2 | 7 4.30 | + 7 32.7 | 1.181 | 2.143 | 7.3 | 17.4 |
| 1 12 | 6 51.71 | + 5 40.7 | 1.224 | 2.178 | 8.3 | 17.6 |
| 1 22 | 6 41.05 | + 4 18.1 | 1.294 | 2.215 | 11.8 | 17.9 |
| 2 1 | 6 33.38 | + 3 23.9 | 1.388 | 2.251 | 15.4 | 18.2 |
| 2 11 | 6 29.14 | + 2 53.1 | 1.502 | 2.289 | 18.5 | 18.5 |

**52840** 1998 $RF_{56}$ 1 5.1 78°.78 0°.7/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.44 | +20 53.1 | 1.377 | 2.218 | 16.9 | 18.6 |
| 12 13 | 7 24.29 | +20 51.7 | 1.315 | 2.226 | 12.5 | 18.4 |
| 12 23 | 7 15.09 | +20 55.3 | 1.275 | 2.234 | 7.4 | 18.1 |
| 1 2 | 7 3.90 | +21 1.4 | 1.261 | 2.242 | 1.9 | 17.8 |
| 1 12 | 6 52.33 | +21 7.2 | 1.274 | 2.250 | 3.9 | 17.9 |
| 1 22 | 6 42.02 | +21 11.5 | 1.313 | 2.258 | 9.2 | 18.3 |
| 2 1 | 6 34.29 | +21 14.0 | 1.378 | 2.266 | 13.8 | 18.6 |
| 2 11 | 6 29.95 | +21 15.2 | 1.463 | 2.274 | 17.7 | 18.8 |

**468970** 2015 $AM_{67}$ 1 5.1 226°.88 0°.2/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.28 | +22 34.2 | 2.340 | 3.163 | 11.5 | 21.2 |
| 12 13 | 7 20.31 | +22 23.7 | 2.256 | 3.158 | 8.4 | 20.9 |
| 12 23 | 7 12.40 | +22 14.2 | 2.196 | 3.153 | 5.0 | 20.7 |
| 1 2 | 7 3.25 | +22 4.4 | 2.166 | 3.148 | 1.2 | 20.4 |
| 1 12 | 6 53.78 | +21 53.2 | 2.167 | 3.143 | 2.7 | 20.5 |
| 1 22 | 6 44.96 | +21 40.4 | 2.197 | 3.137 | 6.4 | 20.8 |
| 2 1 | 6 37.65 | +21 26.5 | 2.256 | 3.131 | 9.8 | 21.0 |
| 2 11 | 6 32.49 | +21 12.1 | 2.339 | 3.125 | 12.6 | 21.2 |

**341423** 2007 $TZ_{203}$ 1 5.1 111°.46 4°.8/ 6.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.28 | + 6 5.7 | 2.653 | 3.433 | 11.4 | 21.6 |
| 12 13 | 7 17.73 | + 5 37.1 | 2.586 | 3.449 | 9.1 | 21.5 |
| 12 23 | 7 10.72 | + 5 19.5 | 2.545 | 3.464 | 6.8 | 21.3 |
| 1 2 | 7 2.82 | + 5 14.0 | 2.531 | 3.479 | 5.1 | 21.2 |
| 1 12 | 6 54.77 | + 5 20.3 | 2.547 | 3.493 | 5.2 | 21.3 |
| 1 22 | 6 47.28 | + 5 37.4 | 2.593 | 3.508 | 6.9 | 21.4 |
| 2 1 | 6 41.01 | + 6 3.2 | 2.666 | 3.522 | 9.1 | 21.6 |
| 2 11 | 6 36.43 | + 6 35.0 | 2.764 | 3.535 | 11.3 | 21.7 |

**280453** 2004 $DG_{26}$ 1 5.1 238°.89 3°.4/ 4.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.87 | +29 25.8 | 1.504 | 2.342 | 15.9 | 20.9 |
| 12 13 | 7 26.39 | +29 58.2 | 1.426 | 2.335 | 11.9 | 20.6 |
| 12 23 | 7 16.53 | +30 28.2 | 1.371 | 2.327 | 7.5 | 20.4 |
| 1 2 | 7 4.31 | +30 49.4 | 1.342 | 2.318 | 3.7 | 20.1 |
| 1 12 | 6 51.37 | +30 56.7 | 1.340 | 2.310 | 5.4 | 20.2 |
| 1 22 | 6 39.53 | +30 48.7 | 1.366 | 2.301 | 9.9 | 20.4 |
| 2 1 | 6 30.35 | +30 27.9 | 1.416 | 2.292 | 14.4 | 20.7 |
| 2 11 | 6 24.80 | +29 58.6 | 1.487 | 2.282 | 18.2 | 20.9 |

**167396** 2003 $WZ_{98}$ 1 5.1 5°.86 2°.0/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.34 | +27 46.6 | 1.883 | 2.719 | 13.3 | 19.5 |
| 12 13 | 7 20.81 | +27 59.3 | 1.811 | 2.719 | 9.8 | 19.3 |
| 12 23 | 7 12.87 | +28 10.2 | 1.762 | 2.720 | 5.9 | 19.1 |
| 1 2 | 7 3.38 | +28 15.9 | 1.742 | 2.721 | 2.3 | 18.8 |
| 1 12 | 6 53.54 | +28 13.8 | 1.750 | 2.722 | 3.8 | 18.9 |
| 1 22 | 6 44.58 | +28 3.5 | 1.786 | 2.724 | 7.7 | 19.2 |
| 2 1 | 6 37.59 | +27 46.2 | 1.848 | 2.726 | 11.4 | 19.4 |
| 2 11 | 6 33.26 | +27 24.0 | 1.933 | 2.729 | 14.6 | 19.6 |

**112329** 2002 $NY$ 1 5.1 32°.12 10°.3/ 8.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.84 | − 2 21.6 | 1.581 | 2.359 | 18.0 | 18.5 |
| 12 13 | 7 18.12 | − 3 20.1 | 1.536 | 2.381 | 15.2 | 18.4 |
| 12 23 | 7 11.19 | − 3 53.1 | 1.511 | 2.403 | 12.5 | 18.2 |
| 1 2 | 7 2.95 | − 3 56.8 | 1.509 | 2.426 | 10.7 | 18.2 |
| 1 12 | 6 54.56 | − 3 31.2 | 1.531 | 2.449 | 10.4 | 18.2 |
| 1 22 | 6 47.14 | − 2 39.9 | 1.577 | 2.474 | 11.8 | 18.4 |
| 2 1 | 6 41.62 | − 1 29.4 | 1.647 | 2.499 | 14.0 | 18.6 |
| 2 11 | 6 38.60 | − 0 7.3 | 1.737 | 2.524 | 16.3 | 18.8 |

**16028** 1999 $DC_6$ 1 5.1 252°.57 3°.5/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.21 | +16 41.0 | 1.561 | 2.389 | 15.9 | 17.2 |
| 12 13 | 7 23.91 | +15 48.4 | 1.482 | 2.384 | 12.1 | 17.0 |
| 12 23 | 7 14.82 | +15 1.0 | 1.427 | 2.379 | 7.7 | 16.7 |
| 1 2 | 7 3.87 | +14 20.0 | 1.398 | 2.374 | 3.9 | 16.5 |
| 1 12 | 6 52.44 | +13 46.8 | 1.398 | 2.368 | 5.0 | 16.5 |
| 1 22 | 6 41.98 | +13 22.1 | 1.425 | 2.363 | 9.3 | 16.8 |
| 2 1 | 6 33.75 | +13 6.1 | 1.477 | 2.357 | 13.6 | 17.0 |
| 2 11 | 6 28.58 | +12 57.9 | 1.551 | 2.352 | 17.3 | 17.2 |

**284707** 2008 $TA_{22}$ 1 5.1 120°.77 0°.3/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.95 | +21 7.9 | 1.606 | 2.438 | 15.4 | 21.7 |
| 12 13 | 7 24.32 | +21 17.1 | 1.542 | 2.449 | 11.3 | 21.5 |
| 12 23 | 7 14.97 | +21 30.7 | 1.501 | 2.459 | 6.7 | 21.2 |
| 1 2 | 7 3.88 | +21 45.8 | 1.488 | 2.469 | 1.6 | 20.9 |
| 1 12 | 6 52.46 | +21 59.4 | 1.503 | 2.479 | 3.5 | 21.1 |
| 1 22 | 6 42.13 | +22 10.0 | 1.546 | 2.488 | 8.3 | 21.4 |
| 2 1 | 6 34.10 | +22 17.3 | 1.615 | 2.497 | 12.6 | 21.7 |
| 2 11 | 6 29.11 | +22 21.8 | 1.707 | 2.506 | 16.1 | 21.9 |

**376622** 2013 $PP_{49}$ 1 5.1 179°.42 0°.0/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.98 | +22 29.9 | 2.130 | 2.956 | 12.3 | 21.1 |
| 12 13 | 7 20.98 | +22 34.9 | 2.052 | 2.956 | 9.1 | 20.9 |
| 12 23 | 7 12.87 | +22 42.1 | 1.999 | 2.957 | 5.3 | 20.7 |
| 1 2 | 7 3.39 | +22 49.1 | 1.975 | 2.957 | 1.3 | 20.4 |
| 1 12 | 6 53.57 | +22 54.3 | 1.981 | 2.957 | 2.9 | 20.5 |
| 1 22 | 6 44.48 | +22 56.5 | 2.016 | 2.957 | 6.8 | 20.8 |
| 2 1 | 6 37.07 | +22 55.8 | 2.079 | 2.956 | 10.4 | 21.0 |
| 2 11 | 6 32.00 | +22 52.8 | 2.166 | 2.955 | 13.4 | 21.2 |

**81797** 2000 $KR_1$ 1 5.1 126°.89 10°.5/ 8.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.91 | −10 49.1 | 2.405 | 3.096 | 14.8 | 19.3 |
| 12 13 | 7 19.80 | −12 0.0 | 2.347 | 3.112 | 13.2 | 19.2 |
| 12 23 | 7 12.01 | −12 49.2 | 2.310 | 3.128 | 11.7 | 19.1 |
| 1 2 | 7 3.17 | −13 12.7 | 2.297 | 3.143 | 10.7 | 19.1 |
| 1 12 | 6 54.12 | −13 9.0 | 2.309 | 3.157 | 10.6 | 19.1 |
| 1 22 | 6 45.71 | −12 39.6 | 2.346 | 3.171 | 11.3 | 19.2 |
| 2 1 | 6 38.69 | −11 48.4 | 2.406 | 3.184 | 12.5 | 19.3 |
| 2 11 | 6 33.61 | −10 41.1 | 2.488 | 3.197 | 14.0 | 19.4 |

**354191** 2002 $EU_{48}$ 1 5.1 266°.50 2°.8/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.45 | +15 24.4 | 1.660 | 2.487 | 15.2 | 21.2 |
| 12 13 | 7 21.94 | +15 19.3 | 1.573 | 2.474 | 11.5 | 21.0 |
| 12 23 | 7 13.75 | +15 23.9 | 1.508 | 2.461 | 7.3 | 20.7 |
| 1 2 | 7 3.66 | +15 37.5 | 1.470 | 2.447 | 3.4 | 20.4 |
| 1 12 | 6 52.91 | +15 58.3 | 1.460 | 2.433 | 4.3 | 20.4 |
| 1 22 | 6 42.86 | +16 24.1 | 1.478 | 2.419 | 8.7 | 20.7 |
| 2 1 | 6 34.79 | +16 52.7 | 1.521 | 2.405 | 13.1 | 20.9 |
| 2 11 | 6 29.59 | +17 22.2 | 1.586 | 2.391 | 16.9 | 21.1 |

**296027** 2008 $YG_{158}$ 1 5.1 257°.68 0°.3/ 5.2 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.94 | +21 59.4 | 2.579 | 3.399 | 10.6 | 21.2 |
| 12 13 | 7 19.25 | +21 52.0 | 2.484 | 3.386 | 7.8 | 21.0 |
| 12 23 | 7 11.79 | +21 46.0 | 2.415 | 3.371 | 4.6 | 20.8 |
| 1 2 | 7 3.14 | +21 40.1 | 2.376 | 3.357 | 1.2 | 20.5 |
| 1 12 | 6 54.13 | +21 33.3 | 2.367 | 3.343 | 2.5 | 20.6 |
| 1 22 | 6 45.64 | +21 25.3 | 2.389 | 3.328 | 6.0 | 20.8 |
| 2 1 | 6 38.46 | +21 16.1 | 2.439 | 3.313 | 9.2 | 20.9 |
| 2 11 | 6 33.21 | +21 6.1 | 2.514 | 3.298 | 11.9 | 21.1 |

**406130** 2006 $VF_{85}$ 1 5.1 63°.55 1°.9/ 4.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.47 | +24 54.9 | 1.575 | 2.415 | 15.2 | 20.9 |
| 12 13 | 7 23.30 | +25 44.7 | 1.524 | 2.435 | 11.1 | 20.7 |
| 12 23 | 7 14.39 | +26 36.4 | 1.496 | 2.455 | 6.6 | 20.5 |
| 1 2 | 7 3.76 | +27 24.3 | 1.495 | 2.475 | 2.3 | 20.3 |
| 1 12 | 6 52.86 | +28 3.4 | 1.523 | 2.496 | 4.2 | 20.5 |
| 1 22 | 6 43.14 | +28 31.2 | 1.578 | 2.516 | 8.5 | 20.8 |
| 2 1 | 6 35.79 | +28 47.9 | 1.659 | 2.537 | 12.5 | 21.1 |
| 2 11 | 6 31.50 | +28 55.5 | 1.761 | 2.558 | 15.8 | 21.3 |

**457136** 2008 $FD_{86}$ 1 5.1 354°.45 9°.2/ 3.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.59 | +42 25.9 | 1.507 | 2.333 | 16.5 | 21.1 |
| 12 13 | 7 26.62 | +43 36.8 | 1.444 | 2.330 | 13.5 | 20.9 |
| 12 23 | 7 16.83 | +44 33.4 | 1.403 | 2.328 | 10.7 | 20.7 |
| 1 2 | 7 4.41 | +45 5.4 | 1.387 | 2.326 | 9.3 | 20.7 |
| 1 12 | 6 51.36 | +45 6.1 | 1.395 | 2.325 | 10.2 | 20.7 |
| 1 22 | 6 39.78 | +44 35.7 | 1.427 | 2.325 | 12.7 | 20.9 |
| 2 1 | 6 31.40 | +43 40.2 | 1.482 | 2.325 | 15.8 | 21.0 |
| 2 11 | 6 27.13 | +42 28.2 | 1.557 | 2.325 | 18.7 | 21.3 |

**335253** 2005 $MN_4$ 1 5.1 314°.39 6°.4/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.41 | + 6 11.7 | 1.997 | 2.796 | 14.0 | 20.4 |
| 12 13 | 7 17.78 | + 5 27.6 | 1.907 | 2.779 | 11.4 | 20.2 |
| 12 23 | 7 11.10 | + 4 56.5 | 1.839 | 2.763 | 8.6 | 20.0 |
| 1 2 | 7 3.01 | + 4 41.2 | 1.797 | 2.746 | 6.6 | 19.9 |
| 1 12 | 6 54.42 | + 4 42.6 | 1.782 | 2.730 | 6.8 | 19.8 |
| 1 22 | 6 46.37 | + 5 0.1 | 1.795 | 2.715 | 9.1 | 19.9 |
| 2 1 | 6 39.79 | + 5 31.1 | 1.833 | 2.699 | 12.1 | 20.1 |
| 2 11 | 6 35.42 | + 6 11.9 | 1.894 | 2.685 | 15.0 | 20.3 |

**215366** 2001 $XH_{256}$ 1 5.1 93°.57 3°.9/ 3.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.47 | +30 23.8 | 1.988 | 2.811 | 13.2 | 20.4 |
| 12 13 | 7 25.20 | +31 46.1 | 1.938 | 2.837 | 9.8 | 20.2 |
| 12 23 | 7 15.41 | +33 5.3 | 1.913 | 2.862 | 6.3 | 20.1 |
| 1 2 | 7 4.01 | +34 14.5 | 1.918 | 2.887 | 4.0 | 20.0 |
| 1 12 | 6 52.29 | +35 8.2 | 1.953 | 2.912 | 5.3 | 20.1 |
| 1 22 | 6 41.57 | +35 44.3 | 2.017 | 2.935 | 8.3 | 20.3 |
| 2 1 | 6 32.97 | +36 4.0 | 2.108 | 2.959 | 11.4 | 20.6 |
| 2 11 | 6 27.20 | +36 10.6 | 2.222 | 2.982 | 14.1 | 20.8 |

**326999** 2004 $QG_{28}$ 1 5.1 31°.50 3°.2/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.10 | +14 10.6 | 1.815 | 2.638 | 14.2 | 21.0 |
| 12 13 | 7 19.80 | +13 57.4 | 1.743 | 2.641 | 10.8 | 20.8 |
| 12 23 | 7 12.26 | +13 53.6 | 1.695 | 2.644 | 7.0 | 20.6 |
| 1 2 | 7 3.27 | +13 59.1 | 1.673 | 2.647 | 3.6 | 20.4 |
| 1 12 | 6 53.92 | +14 12.6 | 1.680 | 2.650 | 4.3 | 20.4 |
| 1 22 | 6 45.37 | +14 32.4 | 1.714 | 2.654 | 7.9 | 20.6 |
| 2 1 | 6 38.60 | +14 56.5 | 1.775 | 2.657 | 11.6 | 20.9 |
| 2 11 | 6 34.33 | +15 22.7 | 1.859 | 2.661 | 14.8 | 21.1 |

**325463** 2009 $QO_{50}$ 1 5.1 143°.32 6°.6/ 3.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.23 | +40 25.9 | 2.166 | 2.975 | 12.7 | 20.5 |
| 12 13 | 7 25.28 | +41 34.4 | 2.102 | 2.981 | 10.2 | 20.3 |
| 12 23 | 7 15.59 | +42 33.1 | 2.062 | 2.986 | 7.8 | 20.2 |
| 1 2 | 7 4.08 | +43 14.9 | 2.050 | 2.991 | 6.6 | 20.1 |
| 1 12 | 6 52.10 | +43 35.2 | 2.067 | 2.996 | 7.4 | 20.2 |
| 1 22 | 6 41.08 | +43 33.3 | 2.110 | 3.000 | 9.6 | 20.3 |
| 2 1 | 6 32.25 | +43 12.2 | 2.180 | 3.004 | 12.1 | 20.5 |
| 2 11 | 6 26.43 | +42 36.9 | 2.270 | 3.008 | 14.4 | 20.7 |

**26922** Samara 1 5.1 103°.33 0°.2/ 5.2 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.01 | +20 57.1 | 2.397 | 3.219 | 11.2 | 18.7 |
| 12 13 | 7 19.27 | +21 11.8 | 2.329 | 3.232 | 8.2 | 18.6 |
| 12 23 | 7 11.74 | +21 29.7 | 2.288 | 3.244 | 4.8 | 18.4 |
| 1 2 | 7 3.12 | +21 48.8 | 2.275 | 3.256 | 1.2 | 18.1 |
| 1 12 | 6 54.28 | +22 7.1 | 2.293 | 3.268 | 2.5 | 18.2 |
| 1 22 | 6 46.10 | +22 23.2 | 2.340 | 3.280 | 6.0 | 18.5 |
| 2 1 | 6 39.38 | +22 36.4 | 2.416 | 3.292 | 9.2 | 18.7 |
| 2 11 | 6 34.68 | +22 46.9 | 2.517 | 3.304 | 11.9 | 18.9 |

**449194** 2013 $CM_{27}$ 1 5.1 8°.17 1°.3/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.99 | +21 20.9 | 1.260 | 2.109 | 17.6 | 20.4 |
| 12 13 | 7 23.52 | +20 51.5 | 1.194 | 2.110 | 13.1 | 20.2 |
| 12 23 | 7 14.78 | +20 25.2 | 1.150 | 2.111 | 7.8 | 19.9 |
| 1 2 | 7 3.90 | +20 1.0 | 1.131 | 2.112 | 2.3 | 19.6 |
| 1 12 | 6 52.57 | +19 38.3 | 1.137 | 2.114 | 4.2 | 19.7 |
| 1 22 | 6 42.53 | +19 17.4 | 1.170 | 2.117 | 9.8 | 20.0 |
| 2 1 | 6 35.22 | +18 59.3 | 1.226 | 2.120 | 14.7 | 20.3 |
| 2 11 | 6 31.46 | +18 44.3 | 1.301 | 2.124 | 18.9 | 20.6 |

**393835** 2005 $SF_{100}$ 1 5.1 171°.47 0°.9/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.03 | +20 19.9 | 1.575 | 2.407 | 15.6 | 21.3 |
| 12 13 | 7 24.54 | +20 17.3 | 1.503 | 2.409 | 11.6 | 21.1 |
| 12 23 | 7 15.21 | +20 19.5 | 1.453 | 2.411 | 6.9 | 20.8 |
| 1 2 | 7 4.00 | +20 24.3 | 1.431 | 2.412 | 1.9 | 20.5 |
| 1 12 | 6 52.33 | +20 29.5 | 1.437 | 2.413 | 3.7 | 20.6 |
| 1 22 | 6 41.69 | +20 33.7 | 1.471 | 2.414 | 8.6 | 20.9 |
| 2 1 | 6 33.35 | +20 36.8 | 1.531 | 2.414 | 13.0 | 21.2 |
| 2 11 | 6 28.13 | +20 38.9 | 1.612 | 2.414 | 16.8 | 21.4 |

**93058** 2000 $SL_{14}$ 1 5.1 35°.30 8°.5/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.60 | + 8 30.8 | 1.109 | 1.945 | 20.5 | 17.7 |
| 12 13 | 7 22.26 | + 7 1.7 | 1.068 | 1.964 | 16.2 | 17.5 |
| 12 23 | 7 13.86 | + 5 52.2 | 1.046 | 1.983 | 11.9 | 17.3 |
| 1 2 | 7 3.64 | + 5 7.8 | 1.046 | 2.004 | 8.9 | 17.2 |
| 1 12 | 6 53.30 | + 4 50.3 | 1.070 | 2.025 | 9.2 | 17.3 |
| 1 22 | 6 44.46 | + 4 57.7 | 1.118 | 2.047 | 12.3 | 17.5 |
| 2 1 | 6 38.35 | + 5 24.9 | 1.188 | 2.071 | 16.0 | 17.8 |
| 2 11 | 6 35.62 | + 6 4.8 | 1.276 | 2.094 | 19.4 | 18.1 |

**486777** 2014 $HY_{19}$ 1 5.1 212°.71 3°.4/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.88 | +14 19.1 | 1.774 | 2.590 | 14.8 | 22.1 |
| 12 13 | 7 23.49 | +13 59.8 | 1.690 | 2.584 | 11.3 | 21.9 |
| 12 23 | 7 14.55 | +13 49.4 | 1.629 | 2.577 | 7.3 | 21.6 |
| 1 2 | 7 3.87 | +13 48.0 | 1.596 | 2.570 | 3.8 | 21.4 |
| 1 12 | 6 52.65 | +13 54.7 | 1.591 | 2.561 | 4.6 | 21.4 |
| 1 22 | 6 42.20 | +14 8.0 | 1.616 | 2.553 | 8.5 | 21.7 |
| 2 1 | 6 33.68 | +14 26.5 | 1.667 | 2.543 | 12.5 | 21.9 |
| 2 11 | 6 27.91 | +14 48.2 | 1.740 | 2.533 | 16.1 | 22.1 |

**503640** 2016 $GU_{174}$ 1 5.1 212°.04 1°.8/ 5.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.97 | +15 5.2 | 3.136 | 3.939 | 9.3 | 23.1 |
| 12 13 | 7 17.51 | +15 8.3 | 3.042 | 3.930 | 7.0 | 22.9 |
| 12 23 | 7 10.66 | +15 16.7 | 2.975 | 3.922 | 4.4 | 22.7 |
| 1 2 | 7 2.90 | +15 30.0 | 2.938 | 3.913 | 2.1 | 22.5 |
| 1 12 | 6 54.85 | +15 46.9 | 2.932 | 3.903 | 2.6 | 22.6 |
| 1 22 | 6 47.17 | +16 6.5 | 2.958 | 3.893 | 5.2 | 22.7 |
| 2 1 | 6 40.50 | +16 27.6 | 3.013 | 3.883 | 7.8 | 22.9 |
| 2 11 | 6 35.33 | +16 49.1 | 3.094 | 3.872 | 10.1 | 23.0 |

**467298** 2016 $EJ_{198}$ 1 5.1 5°.30 2°.5/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.60 | +28 14.1 | 1.701 | 2.540 | 14.3 | 20.7 |
| 12 13 | 7 22.00 | +28 34.5 | 1.630 | 2.540 | 10.6 | 20.5 |
| 12 23 | 7 13.72 | +28 52.8 | 1.583 | 2.541 | 6.5 | 20.2 |
| 1 2 | 7 3.66 | +29 5.0 | 1.563 | 2.541 | 2.8 | 20.0 |
| 1 12 | 6 53.19 | +29 7.7 | 1.570 | 2.542 | 4.3 | 20.1 |
| 1 22 | 6 43.70 | +29 0.1 | 1.606 | 2.544 | 8.4 | 20.3 |
| 2 1 | 6 36.41 | +28 43.7 | 1.667 | 2.546 | 12.4 | 20.6 |
| 2 11 | 6 32.09 | +28 21.2 | 1.749 | 2.548 | 15.8 | 20.8 |

**279477** 2010 $VU_{94}$ 1 5.1 213°.07 1°.9/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.99 | +26 36.6 | 2.184 | 3.008 | 12.1 | 21.2 |
| 12 13 | 7 22.62 | +27 10.5 | 2.099 | 3.002 | 9.0 | 21.0 |
| 12 23 | 7 13.96 | +27 44.6 | 2.039 | 2.995 | 5.4 | 20.8 |
| 1 2 | 7 3.72 | +28 15.1 | 2.008 | 2.987 | 2.1 | 20.5 |
| 1 12 | 6 53.00 | +28 38.5 | 2.008 | 2.979 | 3.6 | 20.6 |
| 1 22 | 6 42.93 | +28 53.0 | 2.037 | 2.970 | 7.3 | 20.8 |
| 2 1 | 6 34.56 | +28 58.7 | 2.094 | 2.961 | 10.8 | 21.0 |
| 2 11 | 6 28.67 | +28 57.2 | 2.174 | 2.952 | 13.8 | 21.2 |

**382147** 2011 $LU_{22}$ 1 5.1 160°.74 2°.7/ 5.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 24.20 | +14 23.0 | 2.504 | 3.312 | 11.2 | 21.4 |
| 12 13 | 7 18.61 | +14 1.4 | 2.425 | 3.315 | 8.5 | 21.2 |
| 12 23 | 7 11.36 | +13 45.9 | 2.372 | 3.317 | 5.5 | 21.0 |
| 1 2 | 7 3.07 | +13 36.8 | 2.347 | 3.320 | 3.0 | 20.9 |
| 1 12 | 6 54.54 | +13 33.6 | 2.353 | 3.322 | 3.5 | 20.9 |
| 1 22 | 6 46.57 | +13 35.7 | 2.389 | 3.323 | 6.3 | 21.1 |
| 2 1 | 6 39.92 | +13 42.1 | 2.453 | 3.325 | 9.2 | 21.3 |
| 2 11 | 6 35.13 | +13 51.8 | 2.542 | 3.326 | 11.8 | 21.5 |

**147067** 2002 $RD_{202}$ 1 5.1 294°.86 0°.8/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.29 | +21 22.5 | 1.330 | 2.175 | 17.2 | 19.9 |
| 12 13 | 7 24.52 | +21 9.5 | 1.257 | 2.169 | 12.8 | 19.6 |
| 12 23 | 7 15.46 | +21 0.4 | 1.205 | 2.164 | 7.7 | 19.3 |
| 1 2 | 7 4.13 | +20 53.0 | 1.178 | 2.159 | 2.1 | 19.0 |
| 1 12 | 6 52.18 | +20 45.6 | 1.178 | 2.154 | 4.1 | 19.1 |
| 1 22 | 6 41.38 | +20 37.3 | 1.204 | 2.150 | 9.7 | 19.4 |
| 2 1 | 6 33.21 | +20 28.7 | 1.254 | 2.145 | 14.7 | 19.7 |
| 2 11 | 6 28.63 | +20 20.6 | 1.324 | 2.140 | 19.0 | 19.9 |

**182593** 2001 $UL_{1}$ 1 5.1 260°.82 1°.4/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.77 | +25 19.2 | 1.867 | 2.700 | 13.5 | 20.4 |
| 12 13 | 7 21.99 | +25 43.1 | 1.787 | 2.695 | 10.0 | 20.2 |
| 12 23 | 7 13.69 | +26 8.2 | 1.731 | 2.689 | 5.9 | 19.9 |
| 1 2 | 7 3.69 | +26 30.7 | 1.703 | 2.684 | 1.9 | 19.6 |
| 1 12 | 6 53.18 | +26 47.2 | 1.704 | 2.678 | 3.6 | 19.7 |
| 1 22 | 6 43.46 | +26 56.1 | 1.733 | 2.672 | 7.8 | 20.0 |
| 2 1 | 6 35.68 | +26 57.5 | 1.789 | 2.666 | 11.8 | 20.2 |
| 2 11 | 6 30.65 | +26 53.1 | 1.867 | 2.660 | 15.1 | 20.4 |

**235074** 2003 $GU_{28}$ 1 5.1 190°.66 2°.8/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.75 | +12 50.2 | 2.191 | 2.994 | 12.8 | 21.4 |
| 12 13 | 7 22.25 | +13 2.3 | 2.106 | 2.993 | 9.8 | 21.2 |
| 12 23 | 7 13.66 | +13 24.3 | 2.046 | 2.991 | 6.3 | 21.0 |
| 1 2 | 7 3.66 | +13 55.4 | 2.014 | 2.987 | 3.2 | 20.8 |
| 1 12 | 6 53.24 | +14 33.3 | 2.013 | 2.984 | 3.8 | 20.8 |
| 1 22 | 6 43.40 | +15 15.4 | 2.043 | 2.979 | 7.1 | 21.0 |
| 2 1 | 6 35.11 | +15 59.2 | 2.101 | 2.973 | 10.5 | 21.2 |
| 2 11 | 6 29.07 | +16 42.7 | 2.184 | 2.966 | 13.6 | 21.4 |

**427135** 2014 $UV_{117}$ 1 5.1 63°.57 2°.6/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.63 | +27 44.1 | 1.754 | 2.590 | 14.1 | 20.7 |
| 12 13 | 7 22.58 | +28 26.9 | 1.697 | 2.605 | 10.4 | 20.5 |
| 12 23 | 7 13.96 | +29 8.6 | 1.664 | 2.620 | 6.3 | 20.3 |
| 1 2 | 7 3.72 | +29 44.2 | 1.658 | 2.636 | 2.9 | 20.1 |
| 1 12 | 6 53.19 | +30 9.5 | 1.681 | 2.651 | 4.4 | 20.2 |
| 1 22 | 6 43.71 | +30 22.9 | 1.732 | 2.667 | 8.2 | 20.5 |
| 2 1 | 6 36.39 | +30 25.3 | 1.809 | 2.682 | 11.9 | 20.7 |
| 2 11 | 6 31.95 | +30 19.3 | 1.908 | 2.698 | 15.0 | 21.0 |

**397129** 2005 $WS_{42}$ 1 5.1 228°.07 2°.7/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.62 | +17 0.4 | 1.712 | 2.535 | 15.0 | 21.3 |
| 12 13 | 7 24.15 | +16 30.7 | 1.627 | 2.526 | 11.3 | 21.1 |
| 12 23 | 7 15.00 | +16 6.6 | 1.565 | 2.517 | 7.1 | 20.8 |
| 1 2 | 7 4.02 | +15 48.3 | 1.531 | 2.508 | 3.2 | 20.5 |
| 1 12 | 6 52.48 | +15 35.4 | 1.525 | 2.497 | 4.3 | 20.6 |
| 1 22 | 6 41.76 | +15 27.6 | 1.548 | 2.487 | 8.6 | 20.8 |
| 2 1 | 6 33.09 | +15 24.7 | 1.597 | 2.475 | 12.9 | 21.0 |
| 2 11 | 6 27.31 | +15 25.9 | 1.668 | 2.464 | 16.5 | 21.3 |

**276305** 2002 $TB_{140}$ 1 5.1 74°.21 5°.9/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.29 | + 5 26.4 | 2.215 | 3.004 | 13.2 | 20.3 |
| 12 13 | 7 18.09 | + 4 50.2 | 2.144 | 3.010 | 10.6 | 20.1 |
| 12 23 | 7 11.12 | + 4 27.1 | 2.097 | 3.016 | 8.0 | 20.0 |
| 1 2 | 7 3.04 | + 4 19.1 | 2.076 | 3.022 | 6.1 | 19.9 |
| 1 12 | 6 54.71 | + 4 26.3 | 2.083 | 3.028 | 6.2 | 19.9 |
| 1 22 | 6 47.00 | + 4 47.3 | 2.119 | 3.035 | 8.1 | 20.0 |
| 2 1 | 6 40.69 | + 5 19.5 | 2.181 | 3.041 | 10.7 | 20.2 |
| 2 11 | 6 36.37 | + 5 59.4 | 2.266 | 3.047 | 13.2 | 20.4 |

**364337** 2006 $UJ_{143}$ 1 5.1 61°.24 0°.5/ 5.0 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.67 | +23 25.8 | 1.509 | 2.346 | 15.9 | 20.9 |
| 12 13 | 7 24.71 | +23 33.9 | 1.467 | 2.377 | 11.6 | 20.7 |
| 12 23 | 7 15.10 | +23 43.8 | 1.449 | 2.408 | 6.7 | 20.5 |
| 1 2 | 7 3.97 | +23 52.0 | 1.456 | 2.438 | 1.6 | 20.3 |
| 1 12 | 6 52.84 | +23 56.0 | 1.492 | 2.469 | 3.6 | 20.5 |
| 1 22 | 6 43.11 | +23 55.3 | 1.556 | 2.499 | 8.2 | 20.8 |
| 2 1 | 6 35.87 | +23 50.4 | 1.646 | 2.529 | 12.3 | 21.1 |
| 2 11 | 6 31.70 | +23 43.0 | 1.757 | 2.559 | 15.6 | 21.4 |

**405958** 2006 $SW_{13}$ 1 5.1 60°.66 10°.5/ 8.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.13 | − 3 32.8 | 1.639 | 2.405 | 18.0 | 20.8 |
| 12 13 | 7 19.88 | − 4 23.5 | 1.582 | 2.417 | 15.3 | 20.7 |
| 12 23 | 7 12.34 | − 4 48.6 | 1.546 | 2.430 | 12.7 | 20.5 |
| 1 2 | 7 3.35 | − 4 44.1 | 1.532 | 2.444 | 10.9 | 20.4 |
| 1 12 | 6 54.08 | − 4 9.6 | 1.542 | 2.457 | 10.6 | 20.5 |
| 1 22 | 6 45.71 | − 3 8.5 | 1.578 | 2.470 | 12.0 | 20.6 |
| 2 1 | 6 39.24 | − 1 47.5 | 1.637 | 2.484 | 14.3 | 20.8 |
| 2 11 | 6 35.34 | − 0 14.5 | 1.717 | 2.498 | 16.7 | 21.0 |

**318069** 2004 $FW_{147}$ 1 5.1 239°.01 2°.9/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.04 | +12 21.6 | 2.047 | 2.857 | 13.3 | 20.5 |
| 12 13 | 7 20.48 | +12 44.5 | 1.957 | 2.848 | 10.2 | 20.3 |
| 12 23 | 7 12.74 | +13 19.7 | 1.892 | 2.838 | 6.6 | 20.1 |
| 1 2 | 7 3.48 | +14 5.8 | 1.854 | 2.828 | 3.4 | 19.8 |
| 1 12 | 6 53.69 | +15 0.1 | 1.846 | 2.818 | 3.8 | 19.8 |
| 1 22 | 6 44.44 | +15 59.0 | 1.868 | 2.807 | 7.4 | 20.0 |
| 2 1 | 6 36.73 | +16 59.1 | 1.918 | 2.796 | 11.1 | 20.2 |
| 2 11 | 6 31.34 | +17 57.5 | 1.991 | 2.785 | 14.3 | 20.4 |

**211964** 2005 $AJ_{8}$ 1 5.1 314°.67 0°.7/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.89 | +22 24.2 | 1.431 | 2.278 | 16.1 | 20.3 |
| 12 13 | 7 22.03 | +22 53.4 | 1.351 | 2.265 | 12.0 | 20.1 |
| 12 23 | 7 14.07 | +23 28.8 | 1.293 | 2.253 | 7.1 | 19.7 |
| 1 2 | 7 3.85 | +24 5.9 | 1.260 | 2.242 | 1.8 | 19.4 |
| 1 12 | 6 52.86 | +24 40.1 | 1.254 | 2.230 | 4.0 | 19.5 |
| 1 22 | 6 42.73 | +25 7.7 | 1.274 | 2.219 | 9.4 | 19.8 |
| 2 1 | 6 34.99 | +25 27.6 | 1.319 | 2.209 | 14.2 | 20.0 |
| 2 11 | 6 30.62 | +25 40.4 | 1.384 | 2.199 | 18.4 | 20.3 |

**375512** 2008 $UJ_{112}$ 1 5.1 93°.07 4°.8/ 3.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.06 | +35 34.5 | 2.169 | 2.990 | 12.3 | 21.2 |
| 12 13 | 7 22.74 | +36 20.6 | 2.103 | 2.996 | 9.4 | 21.0 |
| 12 23 | 7 14.02 | +37 0.0 | 2.062 | 3.003 | 6.6 | 20.9 |
| 1 2 | 7 3.77 | +37 27.2 | 2.049 | 3.009 | 4.8 | 20.8 |
| 1 12 | 6 53.16 | +37 38.8 | 2.065 | 3.016 | 5.7 | 20.8 |
| 1 22 | 6 43.45 | +37 34.1 | 2.109 | 3.022 | 8.3 | 21.0 |
| 2 1 | 6 35.70 | +37 15.2 | 2.179 | 3.029 | 11.1 | 21.2 |
| 2 11 | 6 30.60 | +36 45.9 | 2.272 | 3.035 | 13.7 | 21.4 |

**414920** 2011 $AG_{33}$ 1 5.1 66°.62 0°.7/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.70 | +22 29.5 | 1.859 | 2.692 | 13.5 | 21.3 |
| 12 13 | 7 21.11 | +23 6.8 | 1.789 | 2.696 | 9.9 | 21.1 |
| 12 23 | 7 13.13 | +23 48.3 | 1.742 | 2.701 | 5.8 | 20.8 |
| 1 2 | 7 3.56 | +24 30.0 | 1.724 | 2.706 | 1.5 | 20.5 |
| 1 12 | 6 53.59 | +25 8.2 | 1.735 | 2.710 | 3.3 | 20.7 |
| 1 22 | 6 44.42 | +25 40.0 | 1.775 | 2.715 | 7.6 | 21.0 |
| 2 1 | 6 37.13 | +26 4.4 | 1.841 | 2.720 | 11.4 | 21.2 |
| 2 11 | 6 32.48 | +26 22.1 | 1.929 | 2.725 | 14.6 | 21.4 |

**204621** 2005 $LU_{49}$ 1 5.1 228°.28 3°.3/ 3.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.07 | +29 16.7 | 2.405 | 3.228 | 11.2 | 20.0 |
| 12 13 | 7 21.20 | +30 37.8 | 2.326 | 3.226 | 8.3 | 19.9 |
| 12 23 | 7 13.15 | +31 59.3 | 2.273 | 3.224 | 5.4 | 19.7 |
| 1 2 | 7 3.59 | +33 15.4 | 2.251 | 3.222 | 3.3 | 19.5 |
| 1 12 | 6 53.46 | +34 21.1 | 2.260 | 3.220 | 4.5 | 19.6 |
| 1 22 | 6 43.86 | +35 13.2 | 2.299 | 3.218 | 7.4 | 19.8 |
| 2 1 | 6 35.77 | +35 50.9 | 2.365 | 3.215 | 10.3 | 20.0 |
| 2 11 | 6 29.97 | +36 15.8 | 2.455 | 3.213 | 12.9 | 20.1 |

**62708** 2000 $TX_{38}$ 1 5.1 109°.22 2°.3/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.59 | +26 5.4 | 1.637 | 2.472 | 15.0 | 19.3 |
| 12 13 | 7 24.95 | +26 55.8 | 1.577 | 2.485 | 11.0 | 19.1 |
| 12 23 | 7 15.46 | +27 47.3 | 1.541 | 2.498 | 6.6 | 18.8 |
| 1 2 | 7 4.12 | +28 33.9 | 1.531 | 2.510 | 2.7 | 18.6 |
| 1 12 | 6 52.40 | +29 10.4 | 1.551 | 2.523 | 4.4 | 18.8 |
| 1 22 | 6 41.78 | +29 34.4 | 1.599 | 2.535 | 8.7 | 19.0 |
| 2 1 | 6 33.52 | +29 46.5 | 1.673 | 2.546 | 12.7 | 19.3 |
| 2 11 | 6 28.42 | +29 49.1 | 1.768 | 2.558 | 16.0 | 19.5 |

**493743** 2015 $TE_{205}$ 1 5.1 83°.38 0°.7/ 5.3 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.33 | +19 48.1 | 1.497 | 2.331 | 16.2 | 21.9 |
| 12 13 | 7 24.62 | +20 5.1 | 1.446 | 2.353 | 11.9 | 21.7 |
| 12 23 | 7 15.16 | +20 28.4 | 1.417 | 2.375 | 7.0 | 21.5 |
| 1 2 | 7 4.03 | +20 54.5 | 1.415 | 2.397 | 1.8 | 21.2 |
| 1 12 | 6 52.69 | +21 20.0 | 1.442 | 2.418 | 3.6 | 21.4 |
| 1 22 | 6 42.62 | +21 42.5 | 1.496 | 2.439 | 8.4 | 21.7 |
| 2 1 | 6 34.98 | +22 1.1 | 1.576 | 2.460 | 12.7 | 22.0 |
| 2 11 | 6 30.46 | +22 16.0 | 1.677 | 2.480 | 16.2 | 22.3 |

**106137** 2000 $TC_{43}$ 1 5.1 42°.38 7°.5/ 3.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.25 | +38 29.5 | 1.619 | 2.449 | 15.4 | 19.1 |
| 12 13 | 7 25.16 | +39 54.8 | 1.567 | 2.460 | 12.1 | 19.0 |
| 12 23 | 7 15.79 | +41 9.8 | 1.539 | 2.473 | 9.1 | 18.8 |
| 1 2 | 7 4.23 | +42 5.1 | 1.536 | 2.485 | 7.6 | 18.8 |
| 1 12 | 6 52.19 | +42 34.6 | 1.560 | 2.498 | 8.6 | 18.8 |
| 1 22 | 6 41.45 | +42 37.5 | 1.610 | 2.512 | 11.2 | 19.0 |
| 2 1 | 6 33.47 | +42 17.7 | 1.683 | 2.525 | 14.2 | 19.2 |
| 2 11 | 6 29.09 | +41 41.7 | 1.776 | 2.539 | 16.9 | 19.5 |

**24635** 1981 $EN_{42}$ 1 5.1 174°.19 0°.6/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.66 | +20 14.8 | 1.755 | 2.579 | 14.6 | 19.6 |
| 12 13 | 7 24.81 | +20 23.9 | 1.680 | 2.582 | 10.8 | 19.4 |
| 12 23 | 7 15.34 | +20 37.9 | 1.629 | 2.585 | 6.4 | 19.1 |
| 1 2 | 7 4.11 | +20 54.2 | 1.605 | 2.587 | 1.7 | 18.8 |
| 1 12 | 6 52.44 | +21 10.2 | 1.612 | 2.588 | 3.4 | 18.9 |
| 1 22 | 6 41.68 | +21 23.9 | 1.647 | 2.588 | 8.0 | 19.2 |
| 2 1 | 6 33.02 | +21 34.9 | 1.709 | 2.588 | 12.2 | 19.5 |
| 2 11 | 6 27.26 | +21 43.4 | 1.794 | 2.587 | 15.7 | 19.7 |

**496528** 2014 $WX_{73}$ 1 5.1 40°.67 2°.4/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.30 | +26 31.7 | 1.679 | 2.520 | 14.4 | 20.5 |
| 12 13 | 7 21.78 | +27 16.9 | 1.617 | 2.528 | 10.6 | 20.3 |
| 12 23 | 7 13.60 | +28 2.9 | 1.579 | 2.537 | 6.4 | 20.1 |
| 1 2 | 7 3.69 | +28 44.3 | 1.567 | 2.546 | 2.7 | 19.9 |
| 1 12 | 6 53.39 | +29 16.6 | 1.584 | 2.556 | 4.3 | 20.0 |
| 1 22 | 6 44.08 | +29 37.5 | 1.629 | 2.566 | 8.4 | 20.3 |
| 2 1 | 6 36.94 | +29 47.3 | 1.699 | 2.576 | 12.3 | 20.5 |
| 2 11 | 6 32.75 | +29 48.2 | 1.790 | 2.587 | 15.6 | 20.8 |

**39301** 2001 $OB_{100}$ 1 5.1 88°.94 0°.2/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.19 | +21 1.3 | 3.310 | 4.126 | 8.6 | 19.2 |
| 12 13 | 7 16.10 | +21 14.2 | 3.245 | 4.144 | 6.3 | 19.0 |
| 12 23 | 7 9.78 | +21 29.2 | 3.207 | 4.162 | 3.7 | 18.9 |
| 1 2 | 7 2.73 | +21 45.0 | 3.199 | 4.180 | 0.9 | 18.7 |
| 1 12 | 6 55.54 | +22 0.3 | 3.222 | 4.198 | 1.9 | 18.8 |
| 1 22 | 6 48.82 | +22 14.1 | 3.277 | 4.216 | 4.5 | 19.0 |
| 2 1 | 6 43.11 | +22 26.0 | 3.361 | 4.233 | 7.0 | 19.2 |
| 2 11 | 6 38.82 | +22 35.8 | 3.470 | 4.251 | 9.0 | 19.4 |

**467094** 2016 $EV_{11}$ 1 5.1 286°.83 0°.8/ 4.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.38 | +21 30.7 | 1.895 | 2.726 | 13.4 | 21.4 |
| 12 13 | 7 21.08 | +22 26.1 | 1.805 | 2.713 | 9.9 | 21.2 |
| 12 23 | 7 13.28 | +23 28.8 | 1.741 | 2.699 | 5.8 | 20.9 |
| 1 2 | 7 3.67 | +24 34.4 | 1.704 | 2.685 | 1.5 | 20.6 |
| 1 12 | 6 53.35 | +25 37.6 | 1.697 | 2.672 | 3.4 | 20.7 |
| 1 22 | 6 43.60 | +26 34.1 | 1.719 | 2.658 | 7.8 | 21.0 |
| 2 1 | 6 35.60 | +27 21.6 | 1.767 | 2.645 | 11.9 | 21.2 |
| 2 11 | 6 30.27 | +27 59.8 | 1.839 | 2.631 | 15.4 | 21.4 |

**466766** 2015 $AD_{155}$ 1 5.1 203°.47 0°.9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.51 | +24 31.7 | 2.338 | 3.164 | 11.4 | 21.1 |
| 12 13 | 7 19.86 | +24 51.3 | 2.258 | 3.163 | 8.3 | 20.9 |
| 12 23 | 7 12.26 | +25 12.0 | 2.204 | 3.161 | 4.9 | 20.7 |
| 1 2 | 7 3.37 | +25 31.1 | 2.179 | 3.160 | 1.4 | 20.5 |
| 1 12 | 6 54.14 | +25 46.3 | 2.184 | 3.158 | 2.9 | 20.6 |
| 1 22 | 6 45.53 | +25 56.3 | 2.218 | 3.156 | 6.4 | 20.8 |
| 2 1 | 6 38.43 | +26 0.9 | 2.281 | 3.154 | 9.7 | 21.0 |
| 2 11 | 6 33.49 | +26 1.0 | 2.367 | 3.152 | 12.6 | 21.2 |

**30711** 4186 $T\text{-}_{3}$ 1 5.1 287°.34 2°.0/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.80 | +16 33.0 | 1.432 | 2.269 | 16.6 | 19.2 |
| 12 13 | 7 22.57 | +16 49.4 | 1.354 | 2.262 | 12.5 | 19.0 |
| 12 23 | 7 14.32 | +17 17.4 | 1.298 | 2.254 | 7.7 | 18.7 |
| 1 2 | 7 3.93 | +17 54.9 | 1.267 | 2.247 | 2.8 | 18.4 |
| 1 12 | 6 52.83 | +18 38.0 | 1.263 | 2.239 | 4.1 | 18.4 |
| 1 22 | 6 42.59 | +19 22.6 | 1.287 | 2.232 | 9.2 | 18.7 |
| 2 1 | 6 34.66 | +20 5.5 | 1.334 | 2.225 | 14.1 | 19.0 |
| 2 11 | 6 30.00 | +20 44.9 | 1.403 | 2.218 | 18.2 | 19.2 |

**217798** 2000 $UB_{69}$ 1 5.1 59°.60 0°.9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.96 | +24 49.8 | 1.660 | 2.494 | 14.9 | 19.5 |
| 12 13 | 7 24.04 | +24 58.6 | 1.617 | 2.525 | 10.8 | 19.3 |
| 12 23 | 7 14.66 | +25 7.6 | 1.599 | 2.557 | 6.3 | 19.1 |
| 1 2 | 7 3.90 | +25 13.3 | 1.607 | 2.589 | 1.7 | 18.9 |
| 1 12 | 6 53.14 | +25 13.8 | 1.645 | 2.620 | 3.5 | 19.1 |
| 1 22 | 6 43.68 | +25 8.6 | 1.711 | 2.652 | 7.8 | 19.4 |
| 2 1 | 6 36.52 | +24 58.8 | 1.803 | 2.683 | 11.6 | 19.7 |
| 2 11 | 6 32.23 | +24 46.1 | 1.917 | 2.714 | 14.7 | 20.0 |

**283387** 2000 $QC_{167}$ 1 5.1 75°.76 1°.5/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.26 | +26 0.1 | 1.455 | 2.293 | 16.3 | 20.6 |
| 12 13 | 7 26.14 | +26 8.2 | 1.405 | 2.315 | 12.0 | 20.4 |
| 12 23 | 7 16.07 | +26 15.2 | 1.379 | 2.337 | 7.0 | 20.2 |
| 1 2 | 7 4.26 | +26 17.2 | 1.378 | 2.359 | 2.1 | 19.9 |
| 1 12 | 6 52.34 | +26 11.7 | 1.406 | 2.381 | 4.0 | 20.1 |
| 1 22 | 6 41.89 | +25 58.6 | 1.461 | 2.403 | 8.8 | 20.4 |
| 2 1 | 6 34.10 | +25 40.0 | 1.542 | 2.424 | 13.0 | 20.7 |
| 2 11 | 6 29.64 | +25 18.4 | 1.644 | 2.445 | 16.5 | 21.0 |

**171989** 2001 $TS_{203}$ 1 5.1 91°.21 2°.2/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.94 | +28 2.7 | 2.459 | 3.282 | 11.0 | 20.0 |
| 12 13 | 7 20.75 | +28 47.9 | 2.401 | 3.302 | 8.1 | 19.9 |
| 12 23 | 7 12.68 | +29 31.8 | 2.369 | 3.323 | 4.9 | 19.7 |
| 1 2 | 7 3.46 | +30 10.5 | 2.367 | 3.343 | 2.4 | 19.6 |
| 1 12 | 6 54.02 | +30 41.1 | 2.395 | 3.363 | 3.5 | 19.7 |
| 1 22 | 6 45.30 | +31 2.0 | 2.454 | 3.383 | 6.5 | 19.9 |
| 2 1 | 6 38.14 | +31 13.7 | 2.540 | 3.402 | 9.3 | 20.1 |
| 2 11 | 6 33.12 | +31 17.5 | 2.651 | 3.422 | 11.7 | 20.3 |

**285578** 2000 $QA_{39}$ 1 5.1 126°.64 1°.2/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.65 | +18 34.3 | 1.799 | 2.621 | 14.4 | 21.2 |
| 12 13 | 7 23.86 | +18 42.7 | 1.735 | 2.636 | 10.6 | 21.0 |
| 12 23 | 7 14.67 | +18 57.2 | 1.695 | 2.650 | 6.4 | 20.8 |
| 1 2 | 7 3.95 | +19 15.7 | 1.683 | 2.663 | 2.0 | 20.5 |
| 1 12 | 6 52.96 | +19 35.6 | 1.700 | 2.676 | 3.3 | 20.6 |
| 1 22 | 6 42.94 | +19 54.9 | 1.747 | 2.688 | 7.6 | 20.9 |
| 2 1 | 6 34.94 | +20 12.7 | 1.821 | 2.700 | 11.5 | 21.2 |
| 2 11 | 6 29.67 | +20 28.5 | 1.918 | 2.711 | 14.8 | 21.4 |

**103609** 2000 $CE_{20}$ 1 5.1 349.°60 3.°6/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 24.35 | +14 38.4 | 1.357 | 2.200 | 17.1 | 19.2 |
| 12 13 | 7 20.01 | +14 26.0 | 1.285 | 2.194 | 13.0 | 18.9 |
| 12 23 | 7 12.78 | +14 25.7 | 1.235 | 2.189 | 8.4 | 18.6 |
| 1 2 | 7 3.56 | +14 37.5 | 1.208 | 2.185 | 4.2 | 18.4 |
| 1 12 | 6 53.75 | +14 59.7 | 1.208 | 2.181 | 5.0 | 18.4 |
| 1 22 | 6 44.90 | +15 29.3 | 1.233 | 2.179 | 9.5 | 18.7 |
| 2 1 | 6 38.33 | +16 3.4 | 1.282 | 2.177 | 14.2 | 18.9 |
| 2 11 | 6 34.93 | +16 38.9 | 1.352 | 2.177 | 18.2 | 19.2 |

**291582** 2006 $FL_{53}$ 1 5.1 214.°03 0.°4/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.19 | +23 13.9 | 1.938 | 2.763 | 13.4 | 21.7 |
| 12 13 | 7 23.69 | +23 26.3 | 1.853 | 2.757 | 9.9 | 21.5 |
| 12 23 | 7 14.70 | +23 40.9 | 1.793 | 2.750 | 5.8 | 21.2 |
| 1 2 | 7 4.01 | +23 54.6 | 1.761 | 2.742 | 1.5 | 20.9 |
| 1 12 | 6 52.81 | +24 4.8 | 1.759 | 2.734 | 3.2 | 21.0 |
| 1 22 | 6 42.37 | +24 10.0 | 1.786 | 2.726 | 7.6 | 21.3 |
| 2 1 | 6 33.82 | +24 10.5 | 1.841 | 2.716 | 11.6 | 21.5 |
| 2 11 | 6 27.96 | +24 7.3 | 1.918 | 2.707 | 15.0 | 21.7 |

**364297** 2006 $TL_{126}$ 1 5.1 82.°51 9.°1/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.75 | + 2 14.9 | 1.813 | 2.593 | 16.0 | 20.4 |
| 12 13 | 7 21.71 | + 0 36.4 | 1.744 | 2.595 | 13.3 | 20.3 |
| 12 23 | 7 13.42 | − 0 46.7 | 1.697 | 2.598 | 10.8 | 20.1 |
| 1 2 | 7 3.69 | − 1 48.7 | 1.676 | 2.600 | 9.2 | 20.0 |
| 1 12 | 6 53.60 | − 2 26.3 | 1.682 | 2.603 | 9.5 | 20.0 |
| 1 22 | 6 44.31 | − 2 39.2 | 1.714 | 2.605 | 11.4 | 20.2 |
| 2 1 | 6 36.80 | − 2 29.8 | 1.771 | 2.608 | 13.9 | 20.3 |
| 2 11 | 6 31.79 | − 2 3.2 | 1.848 | 2.610 | 16.4 | 20.5 |

**31663** 1999 $JG_{2}$ 1 5.1 14.°40 1.°5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.01 | +22 32.3 | 1.321 | 2.171 | 17.0 | 18.2 |
| 12 13 | 7 22.95 | +23 30.5 | 1.256 | 2.172 | 12.5 | 17.9 |
| 12 23 | 7 14.63 | +24 36.2 | 1.213 | 2.174 | 7.4 | 17.6 |
| 1 2 | 7 4.04 | +25 42.8 | 1.195 | 2.176 | 2.2 | 17.3 |
| 1 12 | 6 52.79 | +26 43.3 | 1.204 | 2.179 | 4.5 | 17.5 |
| 1 22 | 6 42.63 | +27 32.5 | 1.239 | 2.183 | 9.8 | 17.8 |
| 2 1 | 6 35.09 | +28 8.8 | 1.298 | 2.186 | 14.5 | 18.1 |
| 2 11 | 6 31.13 | +28 33.2 | 1.377 | 2.190 | 18.5 | 18.3 |

**122398** 2000 $QK_{79}$ 1 5.1 164.°74 1.°5/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.77 | +17 23.4 | 2.401 | 3.214 | 11.5 | 20.6 |
| 12 13 | 7 20.61 | +17 25.6 | 2.323 | 3.219 | 8.6 | 20.5 |
| 12 23 | 7 12.63 | +17 33.1 | 2.271 | 3.223 | 5.2 | 20.3 |
| 1 2 | 7 3.48 | +17 44.7 | 2.249 | 3.228 | 2.0 | 20.0 |
| 1 12 | 6 54.05 | +17 58.8 | 2.257 | 3.231 | 2.8 | 20.1 |
| 1 22 | 6 45.24 | +18 14.2 | 2.296 | 3.234 | 6.2 | 20.3 |
| 2 1 | 6 37.87 | +18 29.9 | 2.363 | 3.237 | 9.4 | 20.5 |
| 2 11 | 6 32.53 | +18 45.1 | 2.454 | 3.238 | 12.2 | 20.7 |

**466946** 2016 $AB_{127}$ 1 5.1 246.°96 2.°2/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.27 | +26 37.6 | 2.133 | 2.961 | 12.2 | 21.1 |
| 12 13 | 7 21.51 | +27 27.6 | 2.048 | 2.952 | 9.1 | 20.9 |
| 12 23 | 7 13.43 | +28 19.0 | 1.988 | 2.944 | 5.5 | 20.7 |
| 1 2 | 7 3.72 | +29 7.3 | 1.957 | 2.935 | 2.4 | 20.5 |
| 1 12 | 6 53.46 | +29 48.1 | 1.956 | 2.926 | 3.9 | 20.5 |
| 1 22 | 6 43.80 | +30 18.8 | 1.984 | 2.917 | 7.5 | 20.8 |
| 2 1 | 6 35.82 | +30 38.9 | 2.040 | 2.908 | 11.0 | 21.0 |
| 2 11 | 6 30.33 | +30 49.6 | 2.118 | 2.898 | 14.0 | 21.1 |

**57731** 2001 $UN_{154}$ 1 5.1 71.°89 1.°3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.87 | +24 48.1 | 1.797 | 2.632 | 13.9 | 19.0 |
| 12 13 | 7 22.04 | +25 15.7 | 1.729 | 2.638 | 10.2 | 18.7 |
| 12 23 | 7 13.71 | +25 45.0 | 1.686 | 2.644 | 6.0 | 18.5 |
| 1 2 | 7 3.77 | +26 11.8 | 1.670 | 2.651 | 1.9 | 18.3 |
| 1 12 | 6 53.45 | +26 32.7 | 1.682 | 2.657 | 3.6 | 18.4 |
| 1 22 | 6 44.05 | +26 46.1 | 1.724 | 2.663 | 7.8 | 18.7 |
| 2 1 | 6 36.67 | +26 51.9 | 1.791 | 2.670 | 11.7 | 18.9 |
| 2 11 | 6 32.05 | +26 51.7 | 1.881 | 2.677 | 14.9 | 19.1 |

**144275** 2004 $CY_{98}$ 1 5.1 249.°93 2.°2/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.21 | +14 58.1 | 2.487 | 3.299 | 11.2 | 20.4 |
| 12 13 | 7 18.05 | +14 59.2 | 2.398 | 3.292 | 8.4 | 20.2 |
| 12 23 | 7 11.17 | +15 7.3 | 2.335 | 3.284 | 5.4 | 20.0 |
| 1 2 | 7 3.15 | +15 21.6 | 2.301 | 3.276 | 2.6 | 19.8 |
| 1 12 | 6 54.78 | +15 41.0 | 2.297 | 3.269 | 3.1 | 19.8 |
| 1 22 | 6 46.89 | +16 3.9 | 2.322 | 3.261 | 6.2 | 20.0 |
| 2 1 | 6 40.27 | +16 28.9 | 2.376 | 3.253 | 9.3 | 20.2 |
| 2 11 | 6 35.51 | +16 54.4 | 2.455 | 3.244 | 12.0 | 20.3 |

**166297** 2002 $JC_{5}$ 1 5.1 200.°69 0.°4/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.53 | +22 27.5 | 2.003 | 2.827 | 13.1 | 20.9 |
| 12 13 | 7 23.13 | +22 48.6 | 1.920 | 2.823 | 9.6 | 20.7 |
| 12 23 | 7 14.34 | +23 12.9 | 1.863 | 2.820 | 5.7 | 20.5 |
| 1 2 | 7 3.95 | +23 37.3 | 1.833 | 2.815 | 1.4 | 20.2 |
| 1 12 | 6 53.06 | +23 58.7 | 1.835 | 2.810 | 3.1 | 20.3 |
| 1 22 | 6 42.91 | +24 15.4 | 1.865 | 2.805 | 7.4 | 20.5 |
| 2 1 | 6 34.56 | +24 26.8 | 1.923 | 2.798 | 11.2 | 20.7 |
| 2 11 | 6 28.79 | +24 33.7 | 2.004 | 2.792 | 14.4 | 21.0 |

**142136** 2002 $RZ_{14}$ 1 5.1 31.°77 1.°4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.90 | +24 46.6 | 1.312 | 2.164 | 16.9 | 19.8 |
| 12 13 | 7 22.63 | +25 4.8 | 1.259 | 2.176 | 12.4 | 19.5 |
| 12 23 | 7 14.25 | +25 24.7 | 1.227 | 2.188 | 7.3 | 19.3 |
| 1 2 | 7 3.91 | +25 41.8 | 1.220 | 2.202 | 2.1 | 19.0 |
| 1 12 | 6 53.27 | +25 52.3 | 1.240 | 2.216 | 4.2 | 19.2 |
| 1 22 | 6 43.97 | +25 55.0 | 1.286 | 2.231 | 9.3 | 19.5 |
| 2 1 | 6 37.32 | +25 50.6 | 1.355 | 2.246 | 13.8 | 19.8 |
| 2 11 | 6 34.09 | +25 41.1 | 1.445 | 2.263 | 17.6 | 20.1 |

**258269** 2001 $TB_{236}$ 1 5.1 59.°80 1.°5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.34 | +23 38.7 | 1.637 | 2.475 | 14.8 | 20.0 |
| 12 13 | 7 22.52 | +24 32.8 | 1.581 | 2.491 | 10.8 | 19.8 |
| 12 23 | 7 14.05 | +25 30.6 | 1.548 | 2.507 | 6.4 | 19.5 |
| 1 2 | 7 3.87 | +26 26.5 | 1.542 | 2.523 | 2.0 | 19.3 |
| 1 12 | 6 53.35 | +27 15.3 | 1.565 | 2.539 | 3.9 | 19.5 |
| 1 22 | 6 43.86 | +27 53.7 | 1.616 | 2.556 | 8.3 | 19.8 |
| 2 1 | 6 36.58 | +28 21.2 | 1.693 | 2.572 | 12.2 | 20.0 |
| 2 11 | 6 32.25 | +28 39.1 | 1.792 | 2.589 | 15.5 | 20.3 |

**261910** 2006 $JP_{58}$ 1 5.1 150.°99 5.°5/ 2.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.09 | +43 39.0 | 3.223 | 4.008 | 9.5 | 21.3 |
| 12 13 | 7 23.79 | +44 36.4 | 3.160 | 4.018 | 7.8 | 21.2 |
| 12 23 | 7 14.52 | +45 24.4 | 3.123 | 4.028 | 6.2 | 21.1 |
| 1 2 | 7 3.97 | +45 58.5 | 3.116 | 4.038 | 5.5 | 21.0 |
| 1 12 | 6 53.10 | +46 15.9 | 3.138 | 4.047 | 6.0 | 21.1 |
| 1 22 | 6 42.89 | +46 16.2 | 3.188 | 4.055 | 7.4 | 21.2 |
| 2 1 | 6 34.22 | +46 1.1 | 3.266 | 4.063 | 9.1 | 21.3 |
| 2 11 | 6 27.73 | +45 34.2 | 3.367 | 4.070 | 10.7 | 21.5 |

**472383** 2015 $BX_{93}$ 1 5.1 261.°73 3.°0/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.14 | +12 7.2 | 2.332 | 3.140 | 12.0 | 21.0 |
| 12 13 | 7 18.08 | +12 10.9 | 2.247 | 3.135 | 9.2 | 20.9 |
| 12 23 | 7 11.24 | +12 24.3 | 2.187 | 3.131 | 6.1 | 20.7 |
| 1 2 | 7 3.19 | +12 47.0 | 2.155 | 3.126 | 3.4 | 20.5 |
| 1 12 | 6 54.79 | +13 17.5 | 2.153 | 3.121 | 3.8 | 20.5 |
| 1 22 | 6 46.90 | +13 53.6 | 2.180 | 3.116 | 6.7 | 20.7 |
| 2 1 | 6 40.35 | +14 33.1 | 2.235 | 3.111 | 9.8 | 20.8 |
| 2 11 | 6 35.74 | +15 13.8 | 2.314 | 3.107 | 12.6 | 21.0 |

**58226** 1993 $FW_{22}$ 1 5.1 93.°14 1.°5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.43 | +27 7.4 | 2.442 | 3.266 | 11.0 | 19.4 |
| 12 13 | 7 20.36 | +27 24.0 | 2.379 | 3.281 | 8.1 | 19.2 |
| 12 23 | 7 12.47 | +27 39.3 | 2.341 | 3.297 | 4.8 | 19.0 |
| 1 2 | 7 3.46 | +27 50.6 | 2.333 | 3.312 | 1.8 | 18.9 |
| 1 12 | 6 54.28 | +27 56.0 | 2.355 | 3.327 | 3.0 | 19.0 |
| 1 22 | 6 45.84 | +27 54.8 | 2.407 | 3.342 | 6.2 | 19.2 |
| 2 1 | 6 38.94 | +27 47.7 | 2.487 | 3.356 | 9.2 | 19.4 |
| 2 11 | 6 34.13 | +27 36.1 | 2.591 | 3.371 | 11.7 | 19.6 |

**425340** 2010 $AE_{111}$ 1 5.1 348.°55 12.°0/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 44.73 | +57 24.3 | 2.008 | 2.755 | 15.7 | 20.5 |
| 12 13 | 7 35.47 | +58 8.6 | 1.945 | 2.750 | 14.1 | 20.3 |
| 12 23 | 7 21.92 | +58 28.5 | 1.902 | 2.747 | 12.7 | 20.2 |
| 1 2 | 7 5.76 | +58 14.4 | 1.882 | 2.743 | 12.0 | 20.2 |
| 1 12 | 6 49.47 | +57 21.7 | 1.886 | 2.740 | 12.3 | 20.2 |
| 1 22 | 6 35.46 | +55 53.5 | 1.913 | 2.738 | 13.5 | 20.3 |
| 2 1 | 6 25.36 | +53 57.9 | 1.963 | 2.736 | 15.2 | 20.4 |
| 2 11 | 6 19.84 | +51 46.0 | 2.034 | 2.735 | 16.9 | 20.5 |

**238773** 2005 $JO_{97}$ 1 5.1 170.°54 1.°5/ 5.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.47 | +16 30.3 | 2.801 | 3.611 | 10.1 | 21.5 |
| 12 13 | 7 18.03 | +16 34.6 | 2.720 | 3.613 | 7.6 | 21.3 |
| 12 23 | 7 11.07 | +16 44.2 | 2.665 | 3.616 | 4.7 | 21.1 |
| 1 2 | 7 3.14 | +16 58.0 | 2.640 | 3.618 | 1.9 | 20.9 |
| 1 12 | 6 54.97 | +17 14.8 | 2.646 | 3.619 | 2.6 | 21.0 |
| 1 22 | 6 47.28 | +17 33.4 | 2.682 | 3.620 | 5.5 | 21.2 |
| 2 1 | 6 40.75 | +17 52.7 | 2.748 | 3.621 | 8.3 | 21.4 |
| 2 11 | 6 35.90 | +18 11.7 | 2.838 | 3.622 | 10.7 | 21.5 |

**182169** 2000 $SQ_{216}$ 1 5.1 98.°89 3.°3/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.00 | +29 50.8 | 2.041 | 2.867 | 12.8 | 20.0 |
| 12 13 | 7 23.40 | +30 44.6 | 1.983 | 2.885 | 9.5 | 19.8 |
| 12 23 | 7 14.43 | +31 35.8 | 1.950 | 2.902 | 6.0 | 19.6 |
| 1 2 | 7 3.97 | +32 19.1 | 1.946 | 2.919 | 3.4 | 19.5 |
| 1 12 | 6 53.21 | +32 50.4 | 1.971 | 2.936 | 4.6 | 19.6 |
| 1 22 | 6 43.37 | +33 8.1 | 2.026 | 2.952 | 7.8 | 19.8 |
| 2 1 | 6 35.49 | +33 13.3 | 2.107 | 2.968 | 11.0 | 20.1 |
| 2 11 | 6 30.27 | +33 8.7 | 2.211 | 2.984 | 13.7 | 20.3 |

**291312** 2006 $BE_{158}$ 1 5.1 67.°14 3.°3/ 6.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.65 | +13 30.0 | 1.393 | 2.224 | 17.3 | 20.8 |
| 12 13 | 7 22.89 | +13 41.7 | 1.337 | 2.239 | 13.1 | 20.5 |
| 12 23 | 7 14.32 | +14 7.6 | 1.303 | 2.255 | 8.3 | 20.3 |
| 1 2 | 7 3.96 | +14 45.9 | 1.295 | 2.271 | 4.0 | 20.1 |
| 1 12 | 6 53.28 | +15 32.6 | 1.314 | 2.287 | 4.6 | 20.2 |
| 1 22 | 6 43.76 | +16 23.4 | 1.359 | 2.303 | 9.0 | 20.5 |
| 2 1 | 6 36.62 | +17 14.4 | 1.430 | 2.319 | 13.4 | 20.8 |
| 2 11 | 6 32.61 | +18 2.7 | 1.521 | 2.335 | 17.0 | 21.1 |

**99660** 2002 $HY_{11}$ 1 5.1 276.°00 1.°2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.80 | +20 2.3 | 1.632 | 2.466 | 15.1 | 19.5 |
| 12 13 | 7 23.12 | +19 53.4 | 1.543 | 2.450 | 11.3 | 19.2 |
| 12 23 | 7 14.61 | +19 49.1 | 1.476 | 2.434 | 6.8 | 18.9 |
| 1 2 | 7 4.09 | +19 47.9 | 1.436 | 2.417 | 2.1 | 18.5 |
| 1 12 | 6 52.86 | +19 48.1 | 1.425 | 2.401 | 3.7 | 18.6 |
| 1 22 | 6 42.39 | +19 48.4 | 1.441 | 2.384 | 8.7 | 18.9 |
| 2 1 | 6 34.01 | +19 48.7 | 1.482 | 2.367 | 13.3 | 19.1 |
| 2 11 | 6 28.66 | +19 49.0 | 1.545 | 2.350 | 17.2 | 19.3 |

**332442** 2007 $YQ_{8}$ 1 5.1 124.°68 3.°2/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.03 | +13 46.1 | 2.620 | 3.421 | 11.0 | 20.1 |
| 12 13 | 7 19.84 | +12 59.5 | 2.546 | 3.430 | 8.4 | 20.0 |
| 12 23 | 7 12.10 | +12 18.1 | 2.497 | 3.438 | 5.6 | 19.8 |
| 1 2 | 7 3.40 | +11 43.1 | 2.479 | 3.447 | 3.4 | 19.7 |
| 1 12 | 6 54.53 | +11 15.0 | 2.491 | 3.455 | 3.8 | 19.7 |
| 1 22 | 6 46.28 | +10 54.2 | 2.534 | 3.462 | 6.3 | 19.9 |
| 2 1 | 6 39.34 | +10 40.2 | 2.606 | 3.470 | 9.0 | 20.1 |
| 2 11 | 6 34.21 | +10 32.2 | 2.702 | 3.477 | 11.4 | 20.3 |

**72958** 2002 $CP_{104}$ 1 5.1 228.°78 0.°2/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.20 | +20 41.6 | 1.838 | 2.665 | 13.9 | 20.3 |
| 12 13 | 7 23.13 | +21 3.5 | 1.752 | 2.656 | 10.3 | 20.1 |
| 12 23 | 7 14.49 | +21 30.9 | 1.690 | 2.647 | 6.1 | 19.8 |
| 1 2 | 7 4.05 | +22 0.7 | 1.656 | 2.638 | 1.5 | 19.5 |
| 1 12 | 6 53.01 | +22 29.8 | 1.652 | 2.628 | 3.3 | 19.6 |
| 1 22 | 6 42.67 | +22 55.4 | 1.677 | 2.618 | 7.9 | 19.9 |
| 2 1 | 6 34.24 | +23 16.4 | 1.728 | 2.607 | 12.0 | 20.1 |
| 2 11 | 6 28.56 | +23 33.0 | 1.802 | 2.596 | 15.6 | 20.3 |

**502761** 2015 $DT_{68}$ 1 5.1 172.°38 3.°8/ 4.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.65 | +34 54.2 | 2.596 | 3.412 | 10.7 | 21.5 |
| 12 13 | 7 21.40 | +35 22.0 | 2.520 | 3.413 | 8.1 | 21.3 |
| 12 23 | 7 13.17 | +35 43.8 | 2.471 | 3.414 | 5.6 | 21.2 |
| 1 2 | 7 3.68 | +35 55.9 | 2.450 | 3.414 | 3.8 | 21.1 |
| 1 12 | 6 53.90 | +35 55.9 | 2.460 | 3.415 | 4.6 | 21.1 |
| 1 22 | 6 44.83 | +35 43.5 | 2.499 | 3.415 | 7.0 | 21.3 |
| 2 1 | 6 37.34 | +35 20.3 | 2.565 | 3.416 | 9.6 | 21.4 |
| 2 11 | 6 32.07 | +34 49.0 | 2.655 | 3.416 | 12.0 | 21.6 |

**424966** 2009 $AH_{39}$ 1 5.1 207.°63 0.°3/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.61 | +23 57.2 | 2.441 | 3.264 | 11.0 | 21.0 |
| 12 13 | 7 19.84 | +23 53.7 | 2.360 | 3.263 | 8.1 | 20.8 |
| 12 23 | 7 12.23 | +23 50.4 | 2.304 | 3.261 | 4.8 | 20.6 |
| 1 2 | 7 3.45 | +23 45.9 | 2.278 | 3.260 | 1.2 | 20.3 |
| 1 12 | 6 54.40 | +23 38.8 | 2.283 | 3.259 | 2.6 | 20.4 |
| 1 22 | 6 45.98 | +23 28.8 | 2.317 | 3.257 | 6.1 | 20.7 |
| 2 1 | 6 39.01 | +23 16.3 | 2.380 | 3.255 | 9.3 | 20.9 |
| 2 11 | 6 34.09 | +23 2.1 | 2.467 | 3.254 | 12.1 | 21.1 |

**133784** 2003 $WB_{104}$ 1 5.1 99.°99 3.°0/ 4.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.52 | +29 25.2 | 2.235 | 3.061 | 11.8 | 19.5 |
| 12 13 | 7 21.51 | +30 19.1 | 2.169 | 3.071 | 8.8 | 19.3 |
| 12 23 | 7 13.33 | +31 11.3 | 2.128 | 3.081 | 5.5 | 19.1 |
| 1 2 | 7 3.75 | +31 57.1 | 2.117 | 3.091 | 3.1 | 19.0 |
| 1 12 | 6 53.82 | +32 32.6 | 2.136 | 3.100 | 4.2 | 19.1 |
| 1 22 | 6 44.62 | +32 56.0 | 2.184 | 3.110 | 7.3 | 19.3 |
| 2 1 | 6 37.14 | +33 7.6 | 2.259 | 3.120 | 10.4 | 19.5 |
| 2 11 | 6 32.04 | +33 9.5 | 2.357 | 3.129 | 13.0 | 19.7 |

**283289** 2011 $HK_{80}$ 1 5.1 91.°22 0.°7/ 4.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.88 | +22 15.4 | 2.386 | 3.208 | 11.3 | 20.6 |
| 12 13 | 7 20.06 | +23 5.6 | 2.321 | 3.223 | 8.2 | 20.4 |
| 12 23 | 7 12.38 | +23 59.2 | 2.282 | 3.239 | 4.8 | 20.3 |
| 1 2 | 7 3.51 | +24 52.6 | 2.273 | 3.255 | 1.3 | 20.0 |
| 1 12 | 6 54.36 | +25 42.3 | 2.295 | 3.270 | 2.7 | 20.2 |
| 1 22 | 6 45.85 | +26 25.6 | 2.348 | 3.285 | 6.2 | 20.4 |
| 2 1 | 6 38.82 | +27 1.6 | 2.429 | 3.300 | 9.3 | 20.6 |
| 2 11 | 6 33.86 | +27 30.2 | 2.534 | 3.315 | 12.0 | 20.8 |

**124319** 2001 $QL_{83}$ 1 5.1 102.°90 2.°4/ 4.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.44 | +28 32.0 | 1.538 | 2.372 | 15.8 | 19.2 |
| 12 13 | 7 27.11 | +28 42.5 | 1.480 | 2.387 | 11.7 | 19.0 |
| 12 23 | 7 16.77 | +28 49.4 | 1.445 | 2.401 | 7.1 | 18.7 |
| 1 2 | 7 4.58 | +28 48.2 | 1.436 | 2.415 | 2.9 | 18.5 |
| 1 12 | 6 52.16 | +28 36.0 | 1.456 | 2.429 | 4.4 | 18.6 |
| 1 22 | 6 41.13 | +28 13.4 | 1.504 | 2.442 | 8.9 | 18.9 |
| 2 1 | 6 32.74 | +27 43.3 | 1.578 | 2.455 | 13.1 | 19.2 |
| 2 11 | 6 27.73 | +27 9.4 | 1.673 | 2.468 | 16.5 | 19.5 |

**267946** 2004 $ER_{59}$ 1 5.1 275.°61 2.°7/ 4.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.07 | +31 2.8 | 2.449 | 3.271 | 11.0 | 20.2 |
| 12 13 | 7 21.14 | +31 17.8 | 2.355 | 3.255 | 8.3 | 20.0 |
| 12 23 | 7 13.13 | +31 29.0 | 2.287 | 3.238 | 5.3 | 19.8 |
| 1 2 | 7 3.72 | +31 33.1 | 2.248 | 3.222 | 2.8 | 19.6 |
| 1 12 | 6 53.87 | +31 27.9 | 2.238 | 3.205 | 3.9 | 19.6 |
| 1 22 | 6 44.62 | +31 12.8 | 2.259 | 3.188 | 6.9 | 19.8 |
| 2 1 | 6 36.93 | +30 49.0 | 2.307 | 3.171 | 10.0 | 20.0 |
| 2 11 | 6 31.47 | +30 18.9 | 2.379 | 3.154 | 12.8 | 20.1 |

**121999** 2000 $FM_{44}$ 1 5.1 189.°44 2.°8/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.15 | +27 43.1 | 1.619 | 2.454 | 15.1 | 19.7 |
| 12 13 | 7 25.66 | +28 24.8 | 1.546 | 2.454 | 11.3 | 19.5 |
| 12 23 | 7 16.12 | +29 6.3 | 1.497 | 2.453 | 6.9 | 19.2 |
| 1 2 | 7 4.48 | +29 41.6 | 1.474 | 2.452 | 3.1 | 19.0 |
| 1 12 | 6 52.26 | +30 5.5 | 1.480 | 2.451 | 4.8 | 19.1 |
| 1 22 | 6 41.05 | +30 16.2 | 1.514 | 2.449 | 9.1 | 19.4 |
| 2 1 | 6 32.25 | +30 14.5 | 1.573 | 2.447 | 13.3 | 19.6 |
| 2 11 | 6 26.76 | +30 3.7 | 1.653 | 2.444 | 16.9 | 19.8 |

**53356** 1999 $JJ_{71}$ 1 5.1 25.°29 2.°5/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.16 | +14 18.9 | 1.773 | 2.602 | 14.3 | 17.5 |
| 12 13 | 7 18.49 | +14 34.1 | 1.710 | 2.612 | 10.7 | 17.3 |
| 12 23 | 7 11.62 | +15 0.3 | 1.670 | 2.622 | 6.8 | 17.1 |
| 1 2 | 7 3.36 | +15 35.8 | 1.657 | 2.634 | 3.1 | 16.9 |
| 1 12 | 6 54.79 | +16 17.8 | 1.672 | 2.646 | 3.7 | 17.0 |
| 1 22 | 6 47.02 | +17 3.0 | 1.715 | 2.658 | 7.5 | 17.2 |
| 2 1 | 6 41.03 | +17 48.3 | 1.784 | 2.671 | 11.2 | 17.5 |
| 2 11 | 6 37.48 | +18 31.5 | 1.875 | 2.685 | 14.4 | 17.7 |

**278985** 2008 $UU_{195}$ 1 5.1 88.°64 1.°6/ 4.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.81 | +24 41.5 | 2.161 | 2.988 | 12.1 | 20.3 |
| 12 13 | 7 20.97 | +25 33.7 | 2.095 | 3.000 | 8.9 | 20.1 |
| 12 23 | 7 13.02 | +26 27.9 | 2.055 | 3.012 | 5.2 | 19.9 |
| 1 2 | 7 3.70 | +27 19.8 | 2.044 | 3.024 | 1.9 | 19.7 |
| 1 12 | 6 54.04 | +28 5.5 | 2.063 | 3.036 | 3.3 | 19.8 |
| 1 22 | 6 45.10 | +28 42.4 | 2.112 | 3.047 | 6.9 | 20.1 |
| 2 1 | 6 37.84 | +29 9.9 | 2.189 | 3.059 | 10.2 | 20.3 |
| 2 11 | 6 32.91 | +29 28.7 | 2.289 | 3.070 | 13.0 | 20.5 |

**81602** 2000 $HZ_{60}$ 1 5.1 180.°16 1.°3/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.29 | +18 19.2 | 1.905 | 2.730 | 13.6 | 20.0 |
| 12 13 | 7 21.49 | +18 24.6 | 1.828 | 2.730 | 10.1 | 19.7 |
| 12 23 | 7 13.41 | +18 36.3 | 1.775 | 2.730 | 6.1 | 19.5 |
| 1 2 | 7 3.81 | +18 52.5 | 1.750 | 2.730 | 2.1 | 19.2 |
| 1 12 | 6 53.80 | +19 11.1 | 1.755 | 2.730 | 3.2 | 19.3 |
| 1 22 | 6 44.54 | +19 30.2 | 1.788 | 2.730 | 7.4 | 19.6 |
| 2 1 | 6 37.08 | +19 48.6 | 1.848 | 2.730 | 11.3 | 19.8 |
| 2 11 | 6 32.13 | +20 5.6 | 1.931 | 2.729 | 14.5 | 20.0 |

**496262** 2012 $PT_{40}$ 1 5.1 198.°76 1.°5/ 5.5 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.17 | +17 45.2 | 2.609 | 3.422 | 10.7 | 22.0 |
| 12 13 | 7 19.40 | +17 36.4 | 2.524 | 3.419 | 8.0 | 21.8 |
| 12 23 | 7 11.96 | +17 31.8 | 2.464 | 3.416 | 4.9 | 21.6 |
| 1 2 | 7 3.44 | +17 30.6 | 2.434 | 3.412 | 1.9 | 21.4 |
| 1 12 | 6 54.62 | +17 32.0 | 2.434 | 3.408 | 2.7 | 21.5 |
| 1 22 | 6 46.33 | +17 35.3 | 2.466 | 3.404 | 5.9 | 21.7 |
| 2 1 | 6 39.32 | +17 39.8 | 2.526 | 3.399 | 8.9 | 21.9 |
| 2 11 | 6 34.16 | +17 45.1 | 2.610 | 3.394 | 11.6 | 22.0 |

**325281** 2008 $GA_{137}$ 1 5.1 271.°19 1.°0/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.60 | +19 2.6 | 1.841 | 2.670 | 13.8 | 21.3 |
| 12 13 | 7 21.11 | +19 14.7 | 1.763 | 2.668 | 10.3 | 21.1 |
| 12 23 | 7 13.25 | +19 33.2 | 1.708 | 2.665 | 6.2 | 20.9 |
| 1 2 | 7 3.78 | +19 55.8 | 1.681 | 2.662 | 1.8 | 20.6 |
| 1 12 | 6 53.85 | +20 20.1 | 1.683 | 2.659 | 3.2 | 20.7 |
| 1 22 | 6 44.67 | +20 43.6 | 1.713 | 2.656 | 7.6 | 20.9 |
| 2 1 | 6 37.31 | +21 5.2 | 1.770 | 2.654 | 11.6 | 21.2 |
| 2 11 | 6 32.56 | +21 24.1 | 1.850 | 2.651 | 15.0 | 21.4 |

**117818** 2005 $JS_{3}$ 1 5.1 167.°86 4.°9/ 3.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.72 | +37 29.1 | 2.458 | 3.263 | 11.5 | 20.1 |
| 12 13 | 7 26.02 | +38 12.3 | 2.386 | 3.269 | 9.0 | 20.0 |
| 12 23 | 7 15.98 | +38 47.5 | 2.340 | 3.274 | 6.4 | 19.8 |
| 1 2 | 7 4.42 | +39 9.5 | 2.324 | 3.278 | 4.9 | 19.7 |
| 1 12 | 6 52.52 | +39 15.1 | 2.337 | 3.281 | 5.7 | 19.8 |
| 1 22 | 6 41.47 | +39 3.8 | 2.380 | 3.284 | 8.0 | 19.9 |
| 2 1 | 6 32.33 | +38 38.1 | 2.450 | 3.286 | 10.5 | 20.1 |
| 2 11 | 6 25.80 | +38 2.2 | 2.544 | 3.287 | 12.9 | 20.3 |

**393238** 2013 $QV_{22}$ 1 5.1 197.°28 1.°5/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.86 | +16 36.2 | 2.185 | 3.002 | 12.4 | 21.4 |
| 12 13 | 7 20.23 | +16 52.7 | 2.103 | 3.001 | 9.2 | 21.2 |
| 12 23 | 7 12.59 | +17 16.7 | 2.046 | 2.999 | 5.7 | 21.0 |
| 1 2 | 7 3.61 | +17 46.3 | 2.018 | 2.997 | 2.1 | 20.8 |
| 1 12 | 6 54.23 | +18 19.4 | 2.020 | 2.994 | 3.0 | 20.8 |
| 1 22 | 6 45.45 | +18 53.5 | 2.051 | 2.992 | 6.7 | 21.0 |
| 2 1 | 6 38.18 | +19 26.8 | 2.110 | 2.989 | 10.2 | 21.3 |
| 2 11 | 6 33.10 | +19 58.0 | 2.194 | 2.986 | 13.2 | 21.5 |

**522185** 2016 $AB_{258}$ 1 5.1 121.°99 1.°4/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.23 | +24 36.6 | 2.023 | 2.849 | 12.9 | 21.8 |
| 12 13 | 7 22.82 | +25 15.2 | 1.958 | 2.862 | 9.4 | 21.6 |
| 12 23 | 7 14.13 | +25 55.3 | 1.917 | 2.874 | 5.6 | 21.4 |
| 1 2 | 7 3.98 | +26 33.0 | 1.905 | 2.886 | 1.8 | 21.1 |
| 1 12 | 6 53.50 | +27 4.6 | 1.923 | 2.897 | 3.4 | 21.3 |
| 1 22 | 6 43.86 | +27 28.1 | 1.971 | 2.908 | 7.2 | 21.5 |
| 2 1 | 6 36.07 | +27 43.3 | 2.046 | 2.918 | 10.8 | 21.8 |
| 2 11 | 6 30.82 | +27 51.4 | 2.145 | 2.929 | 13.7 | 22.0 |

**391782** 2008 $PJ_{22}$ 1 5.1 196°.14 0°.2/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.30 | +23 30.3 | 1.845 | 2.668 | 14.1 | 21.3 |
| 12 13 | 7 26.05 | +23 25.8 | 1.763 | 2.666 | 10.4 | 21.0 |
| 12 23 | 7 16.15 | +23 22.0 | 1.706 | 2.662 | 6.2 | 20.8 |
| 1 2 | 7 4.49 | +23 16.4 | 1.677 | 2.658 | 1.5 | 20.4 |
| 1 12 | 6 52.37 | +23 7.0 | 1.678 | 2.654 | 3.3 | 20.6 |
| 1 22 | 6 41.15 | +22 53.6 | 1.708 | 2.648 | 7.9 | 20.8 |
| 2 1 | 6 32.02 | +22 37.2 | 1.766 | 2.641 | 12.0 | 21.1 |
| 2 11 | 6 25.78 | +22 19.5 | 1.847 | 2.634 | 15.5 | 21.3 |

**418874** 2008 $XR_{25}$ 1 5.1 346°.30 5°.2/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.86 | +14 2.6 | 1.709 | 2.533 | 15.0 | 19.7 |
| 12 13 | 7 21.31 | +12 31.6 | 1.629 | 2.524 | 11.6 | 19.5 |
| 12 23 | 7 13.35 | +11 5.1 | 1.573 | 2.517 | 8.0 | 19.3 |
| 1 2 | 7 3.80 | + 9 47.2 | 1.544 | 2.510 | 5.4 | 19.1 |
| 1 12 | 6 53.87 | + 8 41.3 | 1.543 | 2.504 | 6.1 | 19.1 |
| 1 22 | 6 44.77 | + 7 50.0 | 1.570 | 2.499 | 9.4 | 19.3 |
| 2 1 | 6 37.58 | + 7 13.9 | 1.622 | 2.494 | 13.1 | 19.5 |
| 2 11 | 6 33.05 | + 6 51.5 | 1.696 | 2.491 | 16.4 | 19.7 |

**451894** 2014 $JU_{43}$ 1 5.1 181°.37 0°.5/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.50 | +21 28.8 | 1.725 | 2.554 | 14.6 | 21.8 |
| 12 13 | 7 24.20 | +22 9.8 | 1.650 | 2.555 | 10.8 | 21.6 |
| 12 23 | 7 15.17 | +22 56.9 | 1.598 | 2.556 | 6.4 | 21.3 |
| 1 2 | 7 4.28 | +23 45.5 | 1.574 | 2.556 | 1.6 | 21.0 |
| 1 12 | 6 52.82 | +24 30.9 | 1.580 | 2.555 | 3.5 | 21.2 |
| 1 22 | 6 42.20 | +25 9.6 | 1.614 | 2.554 | 8.2 | 21.4 |
| 2 1 | 6 33.67 | +25 40.3 | 1.675 | 2.553 | 12.4 | 21.7 |
| 2 11 | 6 28.09 | +26 3.4 | 1.758 | 2.551 | 15.9 | 21.9 |

**207962** 1995 $SF_{19}$ 1 5.2 75°.14 1°.5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.40 | +26 41.1 | 2.287 | 3.113 | 11.6 | 21.0 |
| 12 13 | 7 20.48 | +27 2.1 | 2.226 | 3.130 | 8.5 | 20.8 |
| 12 23 | 7 12.63 | +27 22.3 | 2.190 | 3.146 | 5.0 | 20.6 |
| 1 2 | 7 3.61 | +27 38.7 | 2.183 | 3.163 | 1.9 | 20.4 |
| 1 12 | 6 54.39 | +27 49.0 | 2.206 | 3.179 | 3.1 | 20.5 |
| 1 22 | 6 45.96 | +27 52.5 | 2.259 | 3.195 | 6.5 | 20.8 |
| 2 1 | 6 39.15 | +27 49.6 | 2.340 | 3.211 | 9.6 | 21.0 |
| 2 11 | 6 34.54 | +27 41.6 | 2.444 | 3.228 | 12.3 | 21.2 |

**112712** 2002 $PO_{111}$ 1 5.2 123°.46 0°.3/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.30 | +19 57.3 | 1.641 | 2.466 | 15.4 | 20.3 |
| 12 13 | 7 26.08 | +20 27.1 | 1.581 | 2.484 | 11.3 | 20.1 |
| 12 23 | 7 16.14 | +21 3.1 | 1.545 | 2.501 | 6.7 | 19.8 |
| 1 2 | 7 4.49 | +21 41.3 | 1.536 | 2.518 | 1.7 | 19.6 |
| 1 12 | 6 52.52 | +22 17.5 | 1.558 | 2.534 | 3.4 | 19.7 |
| 1 22 | 6 41.67 | +22 49.0 | 1.608 | 2.549 | 8.1 | 20.0 |
| 2 1 | 6 33.11 | +23 14.7 | 1.684 | 2.563 | 12.3 | 20.3 |
| 2 11 | 6 27.60 | +23 35.0 | 1.783 | 2.576 | 15.7 | 20.6 |

**320818** 2008 $FE_{24}$ 1 5.2 171°.86 1°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.71 | +16 32.8 | 2.120 | 2.937 | 12.7 | 21.3 |
| 12 13 | 7 20.87 | +16 45.6 | 2.042 | 2.939 | 9.5 | 21.1 |
| 12 23 | 7 12.98 | +17 5.8 | 1.989 | 2.941 | 5.8 | 20.9 |
| 1 2 | 7 3.73 | +17 31.8 | 1.964 | 2.943 | 2.3 | 20.7 |
| 1 12 | 6 54.10 | +18 1.3 | 1.969 | 2.944 | 3.1 | 20.7 |
| 1 22 | 6 45.13 | +18 32.0 | 2.004 | 2.945 | 6.8 | 21.0 |
| 2 1 | 6 37.75 | +19 2.3 | 2.067 | 2.945 | 10.4 | 21.2 |
| 2 11 | 6 32.62 | +19 30.8 | 2.153 | 2.945 | 13.4 | 21.4 |

**316064** 2009 $HB_{80}$ 1 5.2 154°.89 2°.7/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.23 | +12 50.5 | 2.233 | 3.037 | 12.6 | 21.2 |
| 12 13 | 7 21.10 | +13 4.3 | 2.157 | 3.045 | 9.5 | 21.0 |
| 12 23 | 7 13.04 | +13 27.9 | 2.107 | 3.052 | 6.2 | 20.8 |
| 1 2 | 7 3.74 | +14 0.0 | 2.086 | 3.059 | 3.2 | 20.6 |
| 1 12 | 6 54.11 | +14 38.6 | 2.094 | 3.065 | 3.6 | 20.7 |
| 1 22 | 6 45.12 | +15 21.0 | 2.134 | 3.070 | 6.7 | 20.9 |
| 2 1 | 6 37.63 | +16 4.7 | 2.201 | 3.075 | 10.0 | 21.1 |
| 2 11 | 6 32.28 | +16 47.8 | 2.293 | 3.080 | 12.9 | 21.3 |

**64397** 2001 $UK_{154}$ 1 5.2 307°.59 1°.8/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.04 | +18 38.9 | 1.681 | 2.516 | 14.7 | 19.0 |
| 12 13 | 7 21.04 | +18 24.1 | 1.591 | 2.498 | 11.0 | 18.7 |
| 12 23 | 7 13.40 | +18 14.7 | 1.523 | 2.479 | 6.8 | 18.4 |
| 1 2 | 7 3.89 | +18 10.1 | 1.482 | 2.462 | 2.5 | 18.1 |
| 1 12 | 6 53.73 | +18 9.1 | 1.468 | 2.444 | 3.8 | 18.1 |
| 1 22 | 6 44.25 | +18 10.7 | 1.483 | 2.427 | 8.4 | 18.4 |
| 2 1 | 6 36.71 | +18 14.2 | 1.522 | 2.410 | 12.8 | 18.6 |
| 2 11 | 6 32.00 | +18 19.1 | 1.583 | 2.393 | 16.7 | 18.8 |

**43575** 2001 $GQ_{6}$ 1 5.2 34°.07 5°.0/ 3.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.92 | +35 18.8 | 2.092 | 2.916 | 12.6 | 18.9 |
| 12 13 | 7 22.87 | +36 11.1 | 2.022 | 2.917 | 9.7 | 18.7 |
| 12 23 | 7 14.31 | +36 57.3 | 1.976 | 2.917 | 6.8 | 18.5 |
| 1 2 | 7 4.08 | +37 31.5 | 1.957 | 2.918 | 5.0 | 18.4 |
| 1 12 | 6 53.39 | +37 49.6 | 1.968 | 2.919 | 5.9 | 18.5 |
| 1 22 | 6 43.55 | +37 50.4 | 2.006 | 2.920 | 8.6 | 18.6 |
| 2 1 | 6 35.70 | +37 35.9 | 2.071 | 2.921 | 11.6 | 18.8 |
| 2 11 | 6 30.60 | +37 9.9 | 2.157 | 2.922 | 14.2 | 19.0 |

**306115** 2010 $JQ_{47}$ 1 5.2 127°.50 0°.0/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.03 | +22 3.0 | 1.893 | 2.717 | 13.7 | 21.7 |
| 12 13 | 7 24.15 | +22 16.6 | 1.829 | 2.732 | 10.1 | 21.5 |
| 12 23 | 7 14.92 | +22 33.0 | 1.789 | 2.746 | 5.9 | 21.3 |
| 1 2 | 7 4.20 | +22 49.4 | 1.777 | 2.759 | 1.4 | 21.0 |
| 1 12 | 6 53.21 | +23 3.3 | 1.796 | 2.772 | 3.1 | 21.2 |
| 1 22 | 6 43.18 | +23 13.2 | 1.844 | 2.784 | 7.3 | 21.5 |
| 2 1 | 6 35.14 | +23 19.0 | 1.919 | 2.796 | 11.1 | 21.7 |
| 2 11 | 6 29.76 | +23 21.5 | 2.017 | 2.807 | 14.3 | 22.0 |

**144006** 2004 $AB_{9}$ 1 5.2 258°.41 2°.9/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.92 | +15 0.6 | 2.069 | 2.881 | 13.1 | 20.5 |
| 12 13 | 7 21.99 | +14 40.6 | 1.968 | 2.861 | 10.0 | 20.3 |
| 12 23 | 7 13.79 | +14 27.4 | 1.891 | 2.839 | 6.5 | 20.0 |
| 1 2 | 7 3.98 | +14 21.0 | 1.843 | 2.817 | 3.3 | 19.8 |
| 1 12 | 6 53.56 | +14 21.1 | 1.825 | 2.795 | 4.0 | 19.8 |
| 1 22 | 6 43.66 | +14 26.8 | 1.835 | 2.772 | 7.7 | 20.0 |
| 2 1 | 6 35.32 | +14 37.1 | 1.874 | 2.749 | 11.5 | 20.2 |
| 2 11 | 6 29.35 | +14 50.8 | 1.935 | 2.725 | 14.8 | 20.3 |

**368619** 2004 $TR_{21}$ 1 5.2 121°.69 2°.0/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.20 | +17 5.1 | 2.019 | 2.840 | 13.1 | 21.2 |
| 12 13 | 7 20.55 | +16 56.2 | 1.944 | 2.843 | 9.8 | 20.9 |
| 12 23 | 7 12.80 | +16 53.5 | 1.893 | 2.846 | 6.0 | 20.7 |
| 1 2 | 7 3.70 | +16 56.2 | 1.870 | 2.849 | 2.5 | 20.5 |
| 1 12 | 6 54.27 | +17 3.0 | 1.877 | 2.851 | 3.4 | 20.6 |
| 1 22 | 6 45.57 | +17 12.7 | 1.913 | 2.854 | 7.1 | 20.8 |
| 2 1 | 6 38.54 | +17 24.3 | 1.976 | 2.856 | 10.7 | 21.0 |
| 2 11 | 6 33.83 | +17 36.7 | 2.062 | 2.859 | 13.8 | 21.2 |

**201977** 2004 $PQ_{34}$ 1 5.2 62°.00 2°.2/ 4.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.42 | +26 11.6 | 1.289 | 2.135 | 17.6 | 20.2 |
| 12 13 | 7 26.61 | +26 42.7 | 1.247 | 2.160 | 12.9 | 20.0 |
| 12 23 | 7 16.56 | +27 13.4 | 1.227 | 2.186 | 7.6 | 19.8 |
| 1 2 | 7 4.59 | +27 37.8 | 1.232 | 2.212 | 2.7 | 19.6 |
| 1 12 | 6 52.52 | +27 51.6 | 1.264 | 2.238 | 4.6 | 19.8 |
| 1 22 | 6 42.08 | +27 53.9 | 1.323 | 2.264 | 9.5 | 20.1 |
| 2 1 | 6 34.58 | +27 46.8 | 1.406 | 2.291 | 13.9 | 20.4 |
| 2 11 | 6 30.67 | +27 33.3 | 1.509 | 2.316 | 17.5 | 20.7 |

**352795** 2008 $UZ_{198}$ 1 5.2 79°.65 1°.5/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.02 | +24 35.1 | 1.453 | 2.289 | 16.5 | 21.0 |
| 12 13 | 7 26.77 | +25 10.2 | 1.408 | 2.317 | 12.0 | 20.8 |
| 12 23 | 7 16.56 | +25 46.6 | 1.386 | 2.344 | 7.0 | 20.6 |
| 1 2 | 7 4.59 | +26 18.9 | 1.390 | 2.371 | 2.2 | 20.3 |
| 1 12 | 6 52.50 | +26 42.7 | 1.423 | 2.398 | 4.1 | 20.5 |
| 1 22 | 6 41.85 | +26 56.5 | 1.484 | 2.424 | 8.8 | 20.9 |
| 2 1 | 6 33.87 | +27 1.3 | 1.570 | 2.450 | 13.0 | 21.2 |
| 2 11 | 6 29.23 | +26 59.4 | 1.677 | 2.475 | 16.4 | 21.5 |

**149852** 2005 $QB_{10}$ 1 5.2 36°.01 6°.9/ 7.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.43 | − 0 7.7 | 2.382 | 3.145 | 13.1 | 20.1 |
| 12 13 | 7 16.75 | − 0 28.3 | 2.309 | 3.150 | 10.9 | 20.0 |
| 12 23 | 7 10.45 | − 0 32.1 | 2.259 | 3.155 | 8.7 | 19.9 |
| 1 2 | 7 3.12 | − 0 17.5 | 2.234 | 3.160 | 7.2 | 19.8 |
| 1 12 | 6 55.52 | + 0 15.2 | 2.237 | 3.165 | 7.0 | 19.8 |
| 1 22 | 6 48.46 | + 1 3.9 | 2.268 | 3.170 | 8.4 | 19.9 |
| 2 1 | 6 42.65 | + 2 4.9 | 2.325 | 3.175 | 10.5 | 20.0 |
| 2 11 | 6 38.64 | + 3 13.7 | 2.405 | 3.181 | 12.7 | 20.2 |

**411750** 2012 $BE_{104}$ 1 5.2 322°.92 2°.3/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.98 | +18 24.1 | 1.428 | 2.272 | 16.3 | 20.3 |
| 12 13 | 7 21.34 | +17 59.3 | 1.345 | 2.256 | 12.3 | 20.0 |
| 12 23 | 7 13.72 | +17 40.6 | 1.283 | 2.240 | 7.6 | 19.7 |
| 1 2 | 7 4.00 | +17 27.6 | 1.246 | 2.225 | 3.0 | 19.4 |
| 1 12 | 6 53.57 | +17 19.8 | 1.236 | 2.211 | 4.3 | 19.5 |
| 1 22 | 6 43.98 | +17 16.4 | 1.251 | 2.197 | 9.4 | 19.7 |
| 2 1 | 6 36.65 | +17 16.8 | 1.291 | 2.185 | 14.2 | 20.0 |
| 2 11 | 6 32.53 | +17 20.2 | 1.351 | 2.173 | 18.4 | 20.2 |

**219740** 2001 $XE_{212}$ 1 5.2 4°.38 3°.0/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.98 | +15 35.0 | 1.533 | 2.369 | 15.8 | 20.0 |
| 12 13 | 7 20.21 | +15 19.8 | 1.464 | 2.369 | 11.9 | 19.7 |
| 12 23 | 7 12.84 | +15 14.2 | 1.416 | 2.369 | 7.6 | 19.5 |
| 1 2 | 7 3.75 | +15 18.0 | 1.394 | 2.370 | 3.6 | 19.2 |
| 1 12 | 6 54.22 | +15 29.7 | 1.399 | 2.372 | 4.4 | 19.3 |
| 1 22 | 6 45.60 | +15 47.4 | 1.430 | 2.374 | 8.7 | 19.5 |
| 2 1 | 6 39.06 | +16 9.1 | 1.487 | 2.377 | 12.9 | 19.8 |
| 2 11 | 6 35.37 | +16 32.5 | 1.565 | 2.381 | 16.5 | 20.0 |

**13926** Berners–Lee 1 5.2 55°.23 2°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.43 | +26 58.6 | 1.378 | 2.220 | 16.9 | 17.8 |
| 12 13 | 7 26.34 | +27 23.5 | 1.341 | 2.252 | 12.3 | 17.6 |
| 12 23 | 7 16.27 | +27 46.4 | 1.327 | 2.285 | 7.3 | 17.4 |
| 1 2 | 7 4.52 | +28 2.4 | 1.339 | 2.319 | 2.7 | 17.2 |
| 1 12 | 6 52.81 | +28 7.9 | 1.378 | 2.352 | 4.4 | 17.4 |
| 1 22 | 6 42.72 | +28 3.0 | 1.445 | 2.385 | 9.0 | 17.8 |
| 2 1 | 6 35.42 | +27 49.7 | 1.536 | 2.418 | 13.1 | 18.1 |
| 2 11 | 6 31.50 | +27 31.3 | 1.648 | 2.451 | 16.4 | 18.4 |

**201959** 2004 $NS_{12}$ 1 5.2 95°.11 0°.7/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.37 | +18 0.1 | 1.622 | 2.446 | 15.6 | 20.5 |
| 12 13 | 7 25.34 | +18 44.5 | 1.570 | 2.472 | 11.5 | 20.3 |
| 12 23 | 7 15.69 | +19 37.5 | 1.541 | 2.497 | 6.8 | 20.1 |
| 1 2 | 7 4.42 | +20 34.4 | 1.541 | 2.522 | 1.9 | 19.9 |
| 1 12 | 6 52.91 | +21 30.2 | 1.570 | 2.546 | 3.4 | 20.0 |
| 1 22 | 6 42.54 | +22 21.0 | 1.628 | 2.569 | 8.0 | 20.4 |
| 2 1 | 6 34.44 | +23 4.9 | 1.712 | 2.592 | 12.1 | 20.7 |
| 2 11 | 6 29.31 | +23 41.4 | 1.819 | 2.614 | 15.4 | 20.9 |

**112273** 2002 $LL_{23}$ 1 5.2 87°.06 0°.0/ 5.1 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.97 | +23 25.9 | 2.149 | 2.973 | 12.3 | 19.5 |
| 12 13 | 7 21.65 | +23 16.2 | 2.084 | 2.988 | 9.0 | 19.3 |
| 12 23 | 7 13.34 | +23 7.0 | 2.045 | 3.002 | 5.3 | 19.1 |
| 1 2 | 7 3.83 | +22 56.8 | 2.034 | 3.016 | 1.3 | 18.8 |
| 1 12 | 6 54.15 | +22 44.6 | 2.054 | 3.030 | 2.7 | 19.0 |
| 1 22 | 6 45.33 | +22 30.2 | 2.103 | 3.044 | 6.6 | 19.2 |
| 2 1 | 6 38.22 | +22 14.4 | 2.180 | 3.057 | 10.0 | 19.5 |
| 2 11 | 6 33.42 | +21 58.1 | 2.281 | 3.071 | 12.8 | 19.7 |

**426718** 2013 $TP_{46}$ 1 5.2 81°.53 1°.0/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.66 | +24 47.6 | 2.121 | 2.950 | 12.3 | 21.9 |
| 12 13 | 7 20.86 | +25 5.3 | 2.053 | 2.958 | 9.0 | 21.7 |
| 12 23 | 7 12.97 | +25 23.7 | 2.010 | 2.967 | 5.3 | 21.5 |
| 1 2 | 7 3.76 | +25 40.0 | 1.995 | 2.976 | 1.5 | 21.3 |
| 1 12 | 6 54.27 | +25 51.7 | 2.011 | 2.985 | 3.0 | 21.4 |
| 1 22 | 6 45.57 | +25 57.8 | 2.055 | 2.994 | 6.8 | 21.7 |
| 2 1 | 6 38.57 | +25 58.4 | 2.127 | 3.003 | 10.2 | 21.9 |
| 2 11 | 6 33.91 | +25 54.5 | 2.222 | 3.012 | 13.1 | 22.1 |

**171550** 1999 $SK_{15}$ 1 5.2 139°.47 2°.8/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.74 | +15 32.4 | 2.057 | 2.865 | 13.3 | 21.0 |
| 12 13 | 7 23.69 | +15 2.7 | 1.988 | 2.879 | 10.0 | 20.8 |
| 12 23 | 7 14.55 | +14 39.2 | 1.944 | 2.891 | 6.4 | 20.6 |
| 1 2 | 7 4.14 | +14 22.0 | 1.929 | 2.903 | 3.2 | 20.5 |
| 1 12 | 6 53.51 | +14 10.9 | 1.944 | 2.914 | 3.9 | 20.5 |
| 1 22 | 6 43.73 | +14 5.4 | 1.990 | 2.925 | 7.3 | 20.8 |
| 2 1 | 6 35.73 | +14 4.8 | 2.063 | 2.934 | 10.7 | 21.0 |
| 2 11 | 6 30.10 | +14 8.2 | 2.160 | 2.943 | 13.7 | 21.2 |

**449087** 2012 $RU_{34}$ 1 5.2 31°.20 4°.6/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.87 | +14 1.1 | 1.120 | 1.968 | 19.5 | 20.6 |
| 12 13 | 7 22.91 | +13 30.1 | 1.065 | 1.975 | 14.9 | 20.3 |
| 12 23 | 7 14.64 | +13 13.2 | 1.030 | 1.983 | 9.7 | 20.1 |
| 1 2 | 7 4.21 | +13 11.3 | 1.018 | 1.992 | 5.2 | 19.9 |
| 1 12 | 6 53.37 | +13 23.0 | 1.030 | 2.002 | 6.0 | 19.9 |
| 1 22 | 6 43.89 | +13 45.5 | 1.067 | 2.012 | 10.7 | 20.2 |
| 2 1 | 6 37.20 | +14 15.4 | 1.126 | 2.023 | 15.5 | 20.5 |
| 2 11 | 6 34.12 | +14 48.9 | 1.204 | 2.035 | 19.6 | 20.8 |

**376691** 2013 $QR_{68}$ 1 5.2 108°.16 2°.0/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.58 | +28 2.0 | 2.084 | 2.912 | 12.5 | 21.4 |
| 12 13 | 7 22.33 | +28 17.5 | 2.015 | 2.919 | 9.2 | 21.2 |
| 12 23 | 7 13.86 | +28 30.9 | 1.970 | 2.926 | 5.6 | 21.0 |
| 1 2 | 7 3.99 | +28 38.9 | 1.954 | 2.933 | 2.3 | 20.7 |
| 1 12 | 6 53.83 | +28 39.1 | 1.968 | 2.940 | 3.6 | 20.9 |
| 1 22 | 6 44.52 | +28 31.1 | 2.011 | 2.946 | 7.2 | 21.1 |
| 2 1 | 6 37.06 | +28 15.9 | 2.080 | 2.953 | 10.6 | 21.3 |
| 2 11 | 6 32.09 | +27 55.8 | 2.174 | 2.959 | 13.5 | 21.5 |

**277344** 2005 $TN_{75}$ 1 5.2 121°.96 4°.0/ 4.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.96 | +30 9.3 | 1.601 | 2.432 | 15.5 | 20.9 |
| 12 13 | 7 27.67 | +31 6.0 | 1.542 | 2.446 | 11.5 | 20.7 |
| 12 23 | 7 17.27 | +31 59.5 | 1.508 | 2.460 | 7.3 | 20.5 |
| 1 2 | 7 4.84 | +32 42.6 | 1.500 | 2.473 | 4.2 | 20.3 |
| 1 12 | 6 52.01 | +33 9.7 | 1.521 | 2.486 | 5.6 | 20.4 |
| 1 22 | 6 40.44 | +33 19.4 | 1.570 | 2.498 | 9.5 | 20.7 |
| 2 1 | 6 31.49 | +33 13.9 | 1.644 | 2.510 | 13.3 | 21.0 |
| 2 11 | 6 25.97 | +32 57.6 | 1.740 | 2.521 | 16.5 | 21.2 |

**387990** 2005 $QY_{57}$ 1 5.2 222°.83 1°.0/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.87 | +19 56.9 | 1.716 | 2.541 | 14.8 | 21.8 |
| 12 13 | 7 25.28 | +19 57.5 | 1.629 | 2.532 | 11.1 | 21.6 |
| 12 23 | 7 15.89 | +20 3.1 | 1.566 | 2.522 | 6.7 | 21.3 |
| 1 2 | 7 4.54 | +20 11.6 | 1.530 | 2.511 | 2.0 | 21.0 |
| 1 12 | 6 52.55 | +20 20.6 | 1.524 | 2.500 | 3.5 | 21.0 |
| 1 22 | 6 41.34 | +20 28.5 | 1.546 | 2.488 | 8.4 | 21.3 |
| 2 1 | 6 32.23 | +20 34.9 | 1.595 | 2.475 | 12.8 | 21.5 |
| 2 11 | 6 26.10 | +20 40.1 | 1.666 | 2.461 | 16.6 | 21.8 |

**139657** 2001 $QC_{184}$ 1 5.2 68°.40 0°.4/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.87 | +23 14.3 | 1.682 | 2.518 | 14.6 | 20.5 |
| 12 13 | 7 22.85 | +23 23.6 | 1.620 | 2.529 | 10.7 | 20.2 |
| 12 23 | 7 14.28 | +23 35.0 | 1.581 | 2.540 | 6.3 | 20.0 |
| 1 2 | 7 4.10 | +23 45.7 | 1.569 | 2.551 | 1.6 | 19.7 |
| 1 12 | 6 53.63 | +23 53.0 | 1.586 | 2.562 | 3.4 | 19.9 |
| 1 22 | 6 44.19 | +23 55.7 | 1.631 | 2.574 | 7.9 | 20.2 |
| 2 1 | 6 36.90 | +23 54.2 | 1.702 | 2.585 | 11.9 | 20.4 |
| 2 11 | 6 32.46 | +23 49.5 | 1.795 | 2.597 | 15.3 | 20.7 |

**14786** 4052 $T\text{-}_3$ 1 5.2 262°.40 4°.3/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.55 | +29 31.9 | 1.479 | 2.320 | 16.0 | 18.4 |
| 12 13 | 7 25.68 | +30 35.3 | 1.405 | 2.315 | 12.0 | 18.2 |
| 12 23 | 7 16.41 | +31 38.5 | 1.354 | 2.309 | 7.7 | 17.9 |
| 1 2 | 7 4.71 | +32 33.4 | 1.329 | 2.303 | 4.4 | 17.7 |
| 1 12 | 6 52.20 | +33 12.9 | 1.331 | 2.297 | 6.0 | 17.8 |
| 1 22 | 6 40.71 | +33 33.7 | 1.360 | 2.292 | 10.3 | 18.0 |
| 2 1 | 6 31.85 | +33 36.9 | 1.414 | 2.286 | 14.6 | 18.3 |
| 2 11 | 6 26.66 | +33 26.8 | 1.487 | 2.280 | 18.3 | 18.5 |

**193827** 2001 $QX_{34}$ 1 5.2 151°.03 0°.1/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.56 | +22 24.9 | 1.755 | 2.581 | 14.5 | 21.2 |
| 12 13 | 7 25.52 | +22 34.4 | 1.686 | 2.589 | 10.7 | 21.0 |
| 12 23 | 7 15.86 | +22 46.7 | 1.640 | 2.597 | 6.3 | 20.7 |
| 1 2 | 7 4.50 | +22 58.6 | 1.623 | 2.605 | 1.5 | 20.4 |
| 1 12 | 6 52.77 | +23 7.5 | 1.635 | 2.611 | 3.3 | 20.6 |
| 1 22 | 6 42.06 | +23 12.2 | 1.677 | 2.617 | 7.9 | 20.9 |
| 2 1 | 6 33.51 | +23 12.7 | 1.745 | 2.623 | 12.0 | 21.1 |
| 2 11 | 6 27.88 | +23 10.4 | 1.836 | 2.627 | 15.4 | 21.4 |

**30456** 2000 $OY_1$ 1 5.2 166°.37 0°.1/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.64 | +22 31.9 | 2.877 | 3.694 | 9.7 | 19.6 |
| 12 13 | 7 18.93 | +22 41.6 | 2.798 | 3.698 | 7.1 | 19.4 |
| 12 23 | 7 11.68 | +22 52.7 | 2.745 | 3.701 | 4.2 | 19.2 |
| 1 2 | 7 3.45 | +23 3.7 | 2.722 | 3.704 | 1.0 | 19.0 |
| 1 12 | 6 54.99 | +23 13.1 | 2.731 | 3.707 | 2.2 | 19.1 |
| 1 22 | 6 47.03 | +23 20.1 | 2.770 | 3.709 | 5.3 | 19.3 |
| 2 1 | 6 40.28 | +23 24.2 | 2.839 | 3.711 | 8.1 | 19.5 |
| 2 11 | 6 35.25 | +23 25.9 | 2.933 | 3.712 | 10.5 | 19.7 |

**81804** 2000 $KJ_7$ 1 5.2 74°.34 4°.9/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.38 | + 8 27.9 | 2.240 | 3.037 | 12.8 | 18.7 |
| 12 13 | 7 18.90 | + 7 52.0 | 2.175 | 3.050 | 10.0 | 18.6 |
| 12 23 | 7 11.71 | + 7 27.0 | 2.135 | 3.064 | 7.2 | 18.4 |
| 1 2 | 7 3.45 | + 7 14.4 | 2.122 | 3.078 | 5.1 | 18.3 |
| 1 12 | 6 55.01 | + 7 14.2 | 2.138 | 3.092 | 5.3 | 18.3 |
| 1 22 | 6 47.25 | + 7 25.2 | 2.183 | 3.106 | 7.5 | 18.5 |
| 2 1 | 6 40.92 | + 7 45.3 | 2.255 | 3.120 | 10.2 | 18.7 |
| 2 11 | 6 36.57 | + 8 11.9 | 2.350 | 3.134 | 12.7 | 18.9 |

**405392** 2004 $FA_{76}$ 1 5.2 14°.18 4°.8/ 4.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.95 | +32 36.0 | 1.476 | 2.319 | 15.9 | 20.8 |
| 12 13 | 7 24.30 | +33 13.1 | 1.413 | 2.321 | 12.0 | 20.6 |
| 12 23 | 7 15.43 | +33 44.2 | 1.371 | 2.323 | 7.9 | 20.4 |
| 1 2 | 7 4.42 | +34 2.6 | 1.355 | 2.326 | 4.9 | 20.2 |
| 1 12 | 6 52.94 | +34 3.7 | 1.366 | 2.330 | 6.2 | 20.3 |
| 1 22 | 6 42.72 | +33 47.0 | 1.403 | 2.334 | 10.0 | 20.5 |
| 2 1 | 6 35.17 | +33 15.9 | 1.463 | 2.339 | 14.0 | 20.8 |
| 2 11 | 6 31.14 | +32 35.5 | 1.545 | 2.344 | 17.5 | 21.0 |

**247497** 2002 $OF_{14}$ 1 5.2 100°.45 3°.6/ 6.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.68 | +12 24.0 | 1.940 | 2.747 | 14.1 | 21.3 |
| 12 13 | 7 22.91 | +12 10.6 | 1.885 | 2.772 | 10.7 | 21.2 |
| 12 23 | 7 14.08 | +12 7.3 | 1.854 | 2.797 | 7.1 | 21.0 |
| 1 2 | 7 4.02 | +12 14.0 | 1.851 | 2.821 | 4.0 | 20.9 |
| 1 12 | 6 53.84 | +12 29.2 | 1.877 | 2.844 | 4.4 | 20.9 |
| 1 22 | 6 44.59 | +12 51.1 | 1.933 | 2.867 | 7.5 | 21.2 |
| 2 1 | 6 37.16 | +13 17.4 | 2.016 | 2.889 | 10.8 | 21.4 |
| 2 11 | 6 32.13 | +13 46.0 | 2.122 | 2.911 | 13.7 | 21.6 |

**179189** 2001 $TU_{151}$ 1 5.2 102°.96 7°.9/ 7.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.52 | + 0 29.1 | 1.947 | 2.718 | 15.3 | 20.2 |
| 12 13 | 7 20.00 | − 0 7.3 | 1.882 | 2.729 | 12.7 | 20.0 |
| 12 23 | 7 12.47 | − 0 24.6 | 1.839 | 2.739 | 10.1 | 19.9 |
| 1 2 | 7 3.66 | − 0 20.1 | 1.820 | 2.749 | 8.3 | 19.8 |
| 1 12 | 6 54.57 | + 0 6.1 | 1.829 | 2.759 | 8.1 | 19.8 |
| 1 22 | 6 46.21 | + 0 51.5 | 1.865 | 2.769 | 9.8 | 19.9 |
| 2 1 | 6 39.47 | + 1 51.6 | 1.926 | 2.779 | 12.2 | 20.1 |
| 2 11 | 6 34.99 | + 3 0.8 | 2.009 | 2.788 | 14.7 | 20.3 |

**170795** 2004 $DF_{14}$ 1 5.2 324°.35 4°.5/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.04 | +33 50.8 | 1.905 | 2.738 | 13.3 | 19.6 |
| 12 13 | 7 21.79 | +34 25.0 | 1.820 | 2.722 | 10.2 | 19.3 |
| 12 23 | 7 13.85 | +34 53.7 | 1.759 | 2.707 | 6.9 | 19.1 |
| 1 2 | 7 4.05 | +35 11.5 | 1.724 | 2.692 | 4.6 | 18.9 |
| 1 12 | 6 53.66 | +35 14.3 | 1.718 | 2.678 | 5.7 | 19.0 |
| 1 22 | 6 44.06 | +35 1.2 | 1.738 | 2.664 | 8.9 | 19.1 |
| 2 1 | 6 36.51 | +34 33.9 | 1.784 | 2.650 | 12.4 | 19.3 |
| 2 11 | 6 31.86 | +33 56.6 | 1.852 | 2.637 | 15.5 | 19.5 |

**12225** Yanfernández 1 5.2 199°.73 2°.2/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.80 | +15 59.2 | 1.821 | 2.638 | 14.5 | 18.4 |
| 12 13 | 7 24.27 | +16 6.1 | 1.738 | 2.634 | 10.9 | 18.2 |
| 12 23 | 7 15.21 | +16 22.0 | 1.679 | 2.630 | 6.8 | 17.9 |
| 1 2 | 7 4.39 | +16 45.1 | 1.647 | 2.625 | 2.8 | 17.7 |
| 1 12 | 6 53.02 | +17 13.1 | 1.645 | 2.619 | 3.7 | 17.7 |
| 1 22 | 6 42.39 | +17 43.4 | 1.673 | 2.613 | 8.0 | 18.0 |
| 2 1 | 6 33.66 | +18 14.0 | 1.727 | 2.605 | 12.1 | 18.2 |
| 2 11 | 6 27.67 | +18 43.5 | 1.804 | 2.597 | 15.6 | 18.4 |

**338358** 2002 $XB_{41}$ 1 5.2 94.°82 3.°5/ 3.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.92 | +31 47.7 | 2.489 | 3.307 | 11.0 | 20.3 |
| 12 13 | 7 22.37 | +32 50.4 | 2.434 | 3.329 | 8.2 | 20.1 |
| 12 23 | 7 13.82 | +33 49.5 | 2.405 | 3.351 | 5.4 | 20.0 |
| 1 2 | 7 4.00 | +34 40.1 | 2.406 | 3.373 | 3.5 | 19.9 |
| 1 12 | 6 53.91 | +35 18.5 | 2.437 | 3.394 | 4.5 | 20.0 |
| 1 22 | 6 44.57 | +35 43.4 | 2.498 | 3.415 | 7.0 | 20.2 |
| 2 1 | 6 36.85 | +35 55.5 | 2.587 | 3.436 | 9.6 | 20.4 |
| 2 11 | 6 31.38 | +35 57.0 | 2.700 | 3.456 | 11.9 | 20.6 |

**195685** 2002 $PW_{2}$ 1 5.2 133.°42 4.°1/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.84 | + 9 11.3 | 2.576 | 3.366 | 11.5 | 20.5 |
| 12 13 | 7 19.08 | + 8 43.3 | 2.504 | 3.377 | 9.0 | 20.3 |
| 12 23 | 7 11.77 | + 8 24.5 | 2.457 | 3.388 | 6.4 | 20.2 |
| 1 2 | 7 3.49 | + 8 15.8 | 2.439 | 3.398 | 4.4 | 20.1 |
| 1 12 | 6 55.02 | + 8 17.1 | 2.452 | 3.408 | 4.6 | 20.1 |
| 1 22 | 6 47.12 | + 8 27.4 | 2.494 | 3.417 | 6.7 | 20.3 |
| 2 1 | 6 40.48 | + 8 45.0 | 2.563 | 3.426 | 9.2 | 20.4 |
| 2 11 | 6 35.62 | + 9 7.9 | 2.658 | 3.435 | 11.6 | 20.6 |

**461064** 2014 $YW_{20}$ 1 5.2 86.°43 0.°1/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.20 | +23 40.6 | 1.946 | 2.770 | 13.4 | 21.4 |
| 12 13 | 7 24.09 | +23 16.4 | 1.887 | 2.790 | 9.8 | 21.2 |
| 12 23 | 7 14.79 | +22 52.1 | 1.852 | 2.809 | 5.8 | 21.0 |
| 1 2 | 7 4.22 | +22 26.4 | 1.846 | 2.828 | 1.4 | 20.8 |
| 1 12 | 6 53.56 | +21 58.9 | 1.871 | 2.847 | 3.0 | 20.9 |
| 1 22 | 6 43.96 | +21 30.4 | 1.925 | 2.866 | 7.1 | 21.2 |
| 2 1 | 6 36.35 | +21 2.0 | 2.007 | 2.884 | 10.7 | 21.5 |
| 2 11 | 6 31.30 | +20 35.2 | 2.112 | 2.903 | 13.7 | 21.7 |

**520880** 2014 $WV_{503}$ 1 5.2 82.°50 3.°2/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.28 | +13 17.3 | 1.845 | 2.663 | 14.3 | 21.2 |
| 12 13 | 7 20.73 | +13 13.9 | 1.778 | 2.672 | 10.8 | 21.0 |
| 12 23 | 7 12.98 | +13 21.2 | 1.733 | 2.681 | 7.0 | 20.8 |
| 1 2 | 7 3.82 | +13 38.4 | 1.716 | 2.690 | 3.7 | 20.6 |
| 1 12 | 6 54.34 | +14 3.7 | 1.728 | 2.698 | 4.2 | 20.6 |
| 1 22 | 6 45.66 | +14 34.9 | 1.768 | 2.707 | 7.7 | 20.8 |
| 2 1 | 6 38.77 | +15 9.2 | 1.834 | 2.716 | 11.3 | 21.1 |
| 2 11 | 6 34.32 | +15 44.5 | 1.924 | 2.724 | 14.5 | 21.3 |

**242057** 2002 $SB_{3}$ 1 5.2 104.°14 1.°6/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.56 | +20 8.5 | 1.882 | 2.701 | 14.0 | 20.2 |
| 12 13 | 7 25.10 | +19 29.7 | 1.821 | 2.720 | 10.3 | 20.0 |
| 12 23 | 7 15.40 | +18 53.3 | 1.784 | 2.738 | 6.2 | 19.8 |
| 1 2 | 7 4.38 | +18 19.1 | 1.776 | 2.756 | 2.2 | 19.6 |
| 1 12 | 6 53.26 | +17 47.4 | 1.799 | 2.774 | 3.4 | 19.7 |
| 1 22 | 6 43.22 | +17 18.9 | 1.852 | 2.791 | 7.4 | 20.0 |
| 2 1 | 6 35.20 | +16 54.3 | 1.932 | 2.807 | 11.1 | 20.3 |
| 2 11 | 6 29.82 | +16 34.0 | 2.035 | 2.823 | 14.2 | 20.5 |

**276347** 2002 $TB_{378}$ 1 5.2 98.°02 4.°3/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.73 | + 8 48.5 | 2.314 | 3.111 | 12.4 | 20.9 |
| 12 13 | 7 18.47 | + 8 34.9 | 2.242 | 3.119 | 9.7 | 20.8 |
| 12 23 | 7 11.51 | + 8 32.6 | 2.195 | 3.128 | 6.8 | 20.6 |
| 1 2 | 7 3.45 | + 8 42.0 | 2.175 | 3.136 | 4.6 | 20.5 |
| 1 12 | 6 55.15 | + 9 2.3 | 2.185 | 3.144 | 4.7 | 20.5 |
| 1 22 | 6 47.45 | + 9 31.6 | 2.223 | 3.152 | 7.1 | 20.6 |
| 2 1 | 6 41.10 | +10 7.6 | 2.289 | 3.160 | 9.8 | 20.8 |
| 2 11 | 6 36.68 | +10 47.5 | 2.379 | 3.167 | 12.4 | 21.0 |

**393184** 2013 $CR_{101}$ 1 5.2 236.°61 0.°0/ 5.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 20.95 | +22 25.7 | 3.565 | 4.380 | 8.0 | 21.0 |
| 12 13 | 7 16.08 | +22 32.9 | 3.472 | 4.371 | 5.9 | 20.9 |
| 12 23 | 7 9.97 | +22 41.4 | 3.407 | 4.362 | 3.5 | 20.7 |
| 1 2 | 7 3.08 | +22 49.9 | 3.372 | 4.353 | 0.8 | 20.5 |
| 1 12 | 6 55.95 | +22 57.6 | 3.368 | 4.344 | 1.8 | 20.6 |
| 1 22 | 6 49.16 | +23 3.5 | 3.396 | 4.335 | 4.4 | 20.7 |
| 2 1 | 6 43.27 | +23 7.5 | 3.453 | 4.325 | 6.8 | 20.9 |
| 2 11 | 6 38.71 | +23 9.5 | 3.536 | 4.315 | 8.9 | 21.0 |

**241842** 2001 $SY_{346}$ 1 5.2 110.°40 5.°9/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.41 | + 3 49.6 | 2.465 | 3.240 | 12.4 | 20.7 |
| 12 13 | 7 18.14 | + 3 10.4 | 2.393 | 3.248 | 10.1 | 20.5 |
| 12 23 | 7 11.27 | + 2 44.0 | 2.346 | 3.255 | 7.8 | 20.4 |
| 1 2 | 7 3.40 | + 2 32.3 | 2.325 | 3.263 | 6.2 | 20.3 |
| 1 12 | 6 55.31 | + 2 35.7 | 2.333 | 3.270 | 6.2 | 20.3 |
| 1 22 | 6 47.77 | + 2 52.9 | 2.370 | 3.278 | 7.8 | 20.4 |
| 2 1 | 6 41.49 | + 3 21.8 | 2.433 | 3.285 | 10.1 | 20.6 |
| 2 11 | 6 37.01 | + 3 58.9 | 2.520 | 3.292 | 12.3 | 20.7 |

**241171** 2007 $RC_{166}$ 1 5.2 171.°86 1.°2/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.22 | +18 35.0 | 2.030 | 2.847 | 13.2 | 22.1 |
| 12 13 | 7 23.55 | +18 38.5 | 1.953 | 2.851 | 9.8 | 21.9 |
| 12 23 | 7 14.63 | +18 47.3 | 1.900 | 2.854 | 5.9 | 21.6 |
| 1 2 | 7 4.25 | +18 59.7 | 1.877 | 2.857 | 2.0 | 21.4 |
| 1 12 | 6 53.50 | +19 13.7 | 1.883 | 2.858 | 3.1 | 21.5 |
| 1 22 | 6 43.50 | +19 27.8 | 1.920 | 2.860 | 7.1 | 21.7 |
| 2 1 | 6 35.28 | +19 41.1 | 1.984 | 2.860 | 10.9 | 22.0 |
| 2 11 | 6 29.52 | +19 53.3 | 2.072 | 2.860 | 14.0 | 22.2 |

**187917** 2000 $WH_{9}$ 1 5.2 63.°80 2.°1/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.59 | +25 29.9 | 1.747 | 2.581 | 14.2 | 20.1 |
| 12 13 | 7 23.31 | +26 22.6 | 1.698 | 2.606 | 10.4 | 19.9 |
| 12 23 | 7 14.53 | +27 16.3 | 1.674 | 2.631 | 6.2 | 19.7 |
| 1 2 | 7 4.21 | +28 5.5 | 1.677 | 2.656 | 2.4 | 19.5 |
| 1 12 | 6 53.67 | +28 45.7 | 1.709 | 2.681 | 4.0 | 19.7 |
| 1 22 | 6 44.21 | +29 14.5 | 1.770 | 2.706 | 7.9 | 20.0 |
| 2 1 | 6 36.90 | +29 32.3 | 1.857 | 2.731 | 11.6 | 20.2 |
| 2 11 | 6 32.41 | +29 40.9 | 1.966 | 2.756 | 14.6 | 20.5 |

**290432** 2005 $TL_{100}$ 1 5.2 172.°03 1.°9/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.84 | +28 6.4 | 2.432 | 3.250 | 11.2 | 21.8 |
| 12 13 | 7 23.06 | +28 27.0 | 2.355 | 3.254 | 8.3 | 21.6 |
| 12 23 | 7 14.26 | +28 45.7 | 2.303 | 3.257 | 5.1 | 21.4 |
| 1 2 | 7 4.16 | +28 59.3 | 2.281 | 3.259 | 2.2 | 21.2 |
| 1 12 | 6 53.74 | +29 5.4 | 2.291 | 3.261 | 3.3 | 21.3 |
| 1 22 | 6 44.03 | +29 3.4 | 2.330 | 3.263 | 6.6 | 21.5 |
| 2 1 | 6 35.92 | +28 53.9 | 2.398 | 3.263 | 9.7 | 21.7 |
| 2 11 | 6 30.06 | +28 39.0 | 2.491 | 3.263 | 12.4 | 21.9 |

**413604** 2005 $UM_{195}$ 1 5.2 2.°77 1.°9/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.87 | +25 23.7 | 1.652 | 2.493 | 14.6 | 21.1 |
| 12 13 | 7 21.70 | +26 2.3 | 1.581 | 2.492 | 10.8 | 20.9 |
| 12 23 | 7 13.82 | +26 42.9 | 1.533 | 2.492 | 6.4 | 20.6 |
| 1 2 | 7 4.09 | +27 20.9 | 1.513 | 2.493 | 2.3 | 20.3 |
| 1 12 | 6 53.85 | +27 51.7 | 1.520 | 2.493 | 4.0 | 20.5 |
| 1 22 | 6 44.51 | +28 12.9 | 1.554 | 2.495 | 8.5 | 20.7 |
| 2 1 | 6 37.32 | +28 24.1 | 1.614 | 2.496 | 12.6 | 21.0 |
| 2 11 | 6 33.08 | +28 27.1 | 1.696 | 2.498 | 16.0 | 21.2 |

**18673** 1998 $FH_{66}$ 1 5.2 172.°73 0.°0/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.26 | +21 53.3 | 2.730 | 3.548 | 10.1 | 19.3 |
| 12 13 | 7 18.76 | +22 3.4 | 2.649 | 3.550 | 7.4 | 19.1 |
| 12 23 | 7 11.66 | +22 15.6 | 2.595 | 3.551 | 4.4 | 18.9 |
| 1 2 | 7 3.51 | +22 28.3 | 2.570 | 3.552 | 1.1 | 18.7 |
| 1 12 | 6 55.11 | +22 39.8 | 2.577 | 3.553 | 2.3 | 18.8 |
| 1 22 | 6 47.22 | +22 49.3 | 2.614 | 3.554 | 5.5 | 19.0 |
| 2 1 | 6 40.58 | +22 56.2 | 2.680 | 3.554 | 8.4 | 19.2 |
| 2 11 | 6 35.72 | +23 0.6 | 2.770 | 3.554 | 11.0 | 19.4 |

**232243** 2002 $OG_{27}$ 1 5.2 69.°20 1.°1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.53 | +18 33.4 | 2.049 | 2.874 | 12.8 | 20.9 |
| 12 13 | 7 20.05 | +18 44.3 | 1.982 | 2.884 | 9.4 | 20.7 |
| 12 23 | 7 12.55 | +19 0.9 | 1.939 | 2.894 | 5.7 | 20.5 |
| 1 2 | 7 3.75 | +19 21.4 | 1.924 | 2.904 | 1.8 | 20.3 |
| 1 12 | 6 54.67 | +19 43.7 | 1.938 | 2.914 | 2.9 | 20.4 |
| 1 22 | 6 46.34 | +20 5.7 | 1.982 | 2.924 | 6.8 | 20.6 |
| 2 1 | 6 39.65 | +20 26.4 | 2.053 | 2.934 | 10.3 | 20.9 |
| 2 11 | 6 35.24 | +20 44.9 | 2.147 | 2.945 | 13.3 | 21.1 |

**5388** Mottola 1 5.2 25.°00 8.°6/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.22 | +41 42.9 | 1.496 | 2.323 | 16.6 | 17.2 |
| 12 13 | 7 27.00 | +42 39.6 | 1.442 | 2.330 | 13.3 | 17.0 |
| 12 23 | 7 17.13 | +43 21.2 | 1.409 | 2.337 | 10.3 | 16.8 |
| 1 2 | 7 4.91 | +43 38.6 | 1.401 | 2.345 | 8.6 | 16.8 |
| 1 12 | 6 52.30 | +43 26.8 | 1.417 | 2.354 | 9.4 | 16.8 |
| 1 22 | 6 41.30 | +42 47.1 | 1.459 | 2.363 | 12.0 | 17.0 |
| 2 1 | 6 33.43 | +41 45.7 | 1.524 | 2.373 | 15.1 | 17.2 |
| 2 11 | 6 29.48 | +40 31.1 | 1.609 | 2.384 | 17.9 | 17.5 |

**4601** Ludkewycz 1 5.2 298.°32 7.°6/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.24 | + 2 48.9 | 1.813 | 2.601 | 15.7 | 16.8 |
| 12 13 | 7 19.43 | + 2 16.2 | 1.729 | 2.591 | 12.9 | 16.6 |
| 12 23 | 7 12.38 | + 2 1.7 | 1.666 | 2.580 | 10.1 | 16.4 |
| 1 2 | 7 3.76 | + 2 8.6 | 1.629 | 2.570 | 8.0 | 16.3 |
| 1 12 | 6 54.61 | + 2 37.3 | 1.618 | 2.560 | 7.9 | 16.2 |
| 1 22 | 6 46.06 | + 3 25.5 | 1.634 | 2.550 | 10.1 | 16.3 |
| 2 1 | 6 39.16 | + 4 29.0 | 1.674 | 2.541 | 13.1 | 16.5 |
| 2 11 | 6 34.68 | + 5 41.8 | 1.737 | 2.531 | 16.1 | 16.7 |

**315580** 2008 $CL_{75}$ 1 5.2 38.°85 5.°5/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.85 | + 7 44.2 | 1.335 | 2.159 | 18.4 | 20.2 |
| 12 13 | 7 20.96 | + 7 59.7 | 1.283 | 2.176 | 14.3 | 20.0 |
| 12 23 | 7 13.34 | + 8 36.9 | 1.252 | 2.193 | 9.9 | 19.8 |
| 1 2 | 7 3.97 | + 9 34.7 | 1.244 | 2.211 | 6.2 | 19.7 |
| 1 12 | 6 54.29 | +10 48.6 | 1.263 | 2.230 | 6.1 | 19.7 |
| 1 22 | 6 45.73 | +12 12.1 | 1.308 | 2.249 | 9.6 | 20.0 |
| 2 1 | 6 39.46 | +13 38.3 | 1.377 | 2.269 | 13.6 | 20.3 |
| 2 11 | 6 36.23 | +15 1.5 | 1.468 | 2.289 | 17.2 | 20.5 |

**498890** 2008 $YS_{137}$ 1 5.2 348.°77 2.°4/ 6.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.42 | +13 21.5 | 2.232 | 3.046 | 12.3 | 21.3 |
| 12 13 | 7 18.46 | +13 40.9 | 2.152 | 3.045 | 9.3 | 21.1 |
| 12 23 | 7 11.63 | +14 10.4 | 2.096 | 3.044 | 6.0 | 20.9 |
| 1 2 | 7 3.55 | +14 48.5 | 2.068 | 3.043 | 2.9 | 20.7 |
| 1 12 | 6 55.11 | +15 33.0 | 2.070 | 3.042 | 3.4 | 20.7 |
| 1 22 | 6 47.21 | +16 21.1 | 2.101 | 3.042 | 6.6 | 20.9 |
| 2 1 | 6 40.71 | +17 10.0 | 2.161 | 3.041 | 9.9 | 21.1 |
| 2 11 | 6 36.24 | +17 57.6 | 2.244 | 3.041 | 12.8 | 21.3 |

**97910** 2000 $QW_{82}$ 1 5.2 116°.68 0°.1/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.21 | +21 42.9 | 1.792 | 2.616 | 14.3 | 20.4 |
| 12 13 | 7 25.12 | +21 52.8 | 1.731 | 2.634 | 10.5 | 20.2 |
| 12 23 | 7 15.57 | +22 5.8 | 1.695 | 2.652 | 6.2 | 19.9 |
| 1 2 | 7 4.50 | +22 19.1 | 1.687 | 2.669 | 1.5 | 19.7 |
| 1 12 | 6 53.21 | +22 30.2 | 1.709 | 2.685 | 3.2 | 19.8 |
| 1 22 | 6 42.97 | +22 37.8 | 1.760 | 2.701 | 7.6 | 20.1 |
| 2 1 | 6 34.85 | +22 41.9 | 1.838 | 2.716 | 11.5 | 20.4 |
| 2 11 | 6 29.52 | +22 43.3 | 1.939 | 2.731 | 14.7 | 20.6 |

**329344** 2001 $QW_{152}$ 1 5.2 59°.46 3°.9/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.45 | + 9 41.7 | 2.184 | 2.988 | 12.8 | 20.4 |
| 12 13 | 7 18.41 | + 9 44.7 | 2.113 | 2.995 | 9.9 | 20.3 |
| 12 23 | 7 11.55 | + 9 59.7 | 2.065 | 3.003 | 6.8 | 20.1 |
| 1 2 | 7 3.52 | +10 26.5 | 2.045 | 3.011 | 4.3 | 19.9 |
| 1 12 | 6 55.22 | +11 3.4 | 2.055 | 3.019 | 4.4 | 20.0 |
| 1 22 | 6 47.53 | +11 47.8 | 2.093 | 3.027 | 7.0 | 20.1 |
| 2 1 | 6 41.26 | +12 36.6 | 2.159 | 3.036 | 10.1 | 20.3 |
| 2 11 | 6 37.02 | +13 27.0 | 2.249 | 3.044 | 12.8 | 20.5 |

**293417** 2007 $EF_{100}$ 1 5.2 41°.53 0°.4/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.23 | +22 48.3 | 1.820 | 2.654 | 13.8 | 21.5 |
| 12 13 | 7 21.64 | +23 3.0 | 1.749 | 2.657 | 10.1 | 21.3 |
| 12 23 | 7 13.64 | +23 20.6 | 1.701 | 2.660 | 6.0 | 21.0 |
| 1 2 | 7 4.06 | +23 38.2 | 1.681 | 2.663 | 1.5 | 20.8 |
| 1 12 | 6 54.09 | +23 53.0 | 1.690 | 2.666 | 3.2 | 20.9 |
| 1 22 | 6 44.96 | +24 3.4 | 1.727 | 2.670 | 7.6 | 21.2 |
| 2 1 | 6 37.77 | +24 9.1 | 1.791 | 2.673 | 11.5 | 21.4 |
| 2 11 | 6 33.23 | +24 11.0 | 1.877 | 2.677 | 14.8 | 21.6 |

**177428** 2004 $CY_{54}$ 1 5.2 242°.37 3°.1/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.10 | +29 17.2 | 2.019 | 2.846 | 12.9 | 21.0 |
| 12 13 | 7 23.90 | +30 1.3 | 1.932 | 2.834 | 9.7 | 20.7 |
| 12 23 | 7 15.09 | +30 44.4 | 1.868 | 2.821 | 6.1 | 20.5 |
| 1 2 | 7 4.45 | +31 21.3 | 1.834 | 2.809 | 3.2 | 20.3 |
| 1 12 | 6 53.17 | +31 47.6 | 1.829 | 2.795 | 4.5 | 20.3 |
| 1 22 | 6 42.56 | +32 1.0 | 1.852 | 2.782 | 8.2 | 20.5 |
| 2 1 | 6 33.83 | +32 2.2 | 1.903 | 2.768 | 11.8 | 20.7 |
| 2 11 | 6 27.86 | +31 53.7 | 1.976 | 2.753 | 15.0 | 20.9 |

**464259** 2015 $FM_{2}$ 1 5.2 85°.91 1°.7/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.01 | +25 46.3 | 2.302 | 3.128 | 11.5 | 20.9 |
| 12 13 | 7 20.36 | +26 29.0 | 2.234 | 3.138 | 8.4 | 20.7 |
| 12 23 | 7 12.73 | +27 12.5 | 2.191 | 3.148 | 5.0 | 20.5 |
| 1 2 | 7 3.82 | +27 53.1 | 2.178 | 3.157 | 1.9 | 20.3 |
| 1 12 | 6 54.59 | +28 27.6 | 2.195 | 3.167 | 3.2 | 20.4 |
| 1 22 | 6 46.04 | +28 53.9 | 2.241 | 3.176 | 6.6 | 20.7 |
| 2 1 | 6 39.04 | +29 11.7 | 2.316 | 3.186 | 9.8 | 20.9 |
| 2 11 | 6 34.24 | +29 22.1 | 2.413 | 3.195 | 12.5 | 21.1 |

**177747** 2005 $JR_{55}$ 1 5.2 153°.60 1°.9/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.45 | +27 4.4 | 2.243 | 3.063 | 12.0 | 21.5 |
| 12 13 | 7 23.65 | +27 36.0 | 2.172 | 3.072 | 8.8 | 21.3 |
| 12 23 | 7 14.68 | +28 6.8 | 2.126 | 3.080 | 5.3 | 21.1 |
| 1 2 | 7 4.31 | +28 33.0 | 2.109 | 3.088 | 2.2 | 20.9 |
| 1 12 | 6 53.62 | +28 51.7 | 2.124 | 3.095 | 3.5 | 21.0 |
| 1 22 | 6 43.69 | +29 1.5 | 2.168 | 3.101 | 6.9 | 21.3 |
| 2 1 | 6 35.50 | +29 2.9 | 2.240 | 3.106 | 10.2 | 21.5 |
| 2 11 | 6 29.72 | +28 57.7 | 2.336 | 3.111 | 13.0 | 21.7 |

**3591** Vladimirskij 1 5.2 172°.80 0°.4/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.95 | +23 25.5 | 2.784 | 3.602 | 10.0 | 17.9 |
| 12 13 | 7 19.27 | +23 39.7 | 2.704 | 3.604 | 7.3 | 17.7 |
| 12 23 | 7 11.97 | +23 55.2 | 2.650 | 3.606 | 4.3 | 17.5 |
| 1 2 | 7 3.64 | +24 9.9 | 2.626 | 3.607 | 1.1 | 17.2 |
| 1 12 | 6 55.04 | +24 22.2 | 2.633 | 3.608 | 2.3 | 17.4 |
| 1 22 | 6 46.96 | +24 31.1 | 2.671 | 3.609 | 5.5 | 17.6 |
| 2 1 | 6 40.12 | +24 36.3 | 2.738 | 3.610 | 8.4 | 17.8 |
| 2 11 | 6 35.08 | +24 38.2 | 2.830 | 3.610 | 10.8 | 17.9 |

**132308** 2002 $GT_{12}$ 1 5.2 185°.50 0°.4/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | +20 44.2 | 2.062 | 2.881 | 12.9 | 20.9 |
| 12 13 | 7 23.47 | +20 56.6 | 1.981 | 2.882 | 9.6 | 20.7 |
| 12 23 | 7 14.65 | +21 13.1 | 1.926 | 2.881 | 5.7 | 20.5 |
| 1 2 | 7 4.33 | +21 31.1 | 1.899 | 2.880 | 1.5 | 20.2 |
| 1 12 | 6 53.58 | +21 48.2 | 1.902 | 2.878 | 2.9 | 20.3 |
| 1 22 | 6 43.55 | +22 2.9 | 1.936 | 2.876 | 7.1 | 20.5 |
| 2 1 | 6 35.26 | +22 14.4 | 1.997 | 2.873 | 10.8 | 20.8 |
| 2 11 | 6 29.45 | +22 23.1 | 2.082 | 2.869 | 14.0 | 21.0 |

**222324** 2000 $UB_{14}$ 1 5.2 39°.33 4°.6/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.61 | +33 25.8 | 1.585 | 2.422 | 15.3 | 20.1 |
| 12 13 | 7 24.49 | +33 54.7 | 1.530 | 2.435 | 11.5 | 19.9 |
| 12 23 | 7 15.41 | +34 16.0 | 1.497 | 2.448 | 7.6 | 19.7 |
| 1 2 | 7 4.50 | +34 24.2 | 1.491 | 2.461 | 4.8 | 19.5 |
| 1 12 | 6 53.33 | +34 15.8 | 1.512 | 2.475 | 5.9 | 19.6 |
| 1 22 | 6 43.48 | +33 51.4 | 1.560 | 2.490 | 9.4 | 19.9 |
| 2 1 | 6 36.19 | +33 14.5 | 1.632 | 2.504 | 13.0 | 20.1 |
| 2 11 | 6 32.16 | +32 29.9 | 1.726 | 2.520 | 16.2 | 20.4 |

**41777** 2000 $VW_{46}$ 1 5.2 31°.72 4°.8/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.33 | +31 56.6 | 1.364 | 2.209 | 16.8 | 18.7 |
| 12 13 | 7 25.53 | +32 39.3 | 1.304 | 2.214 | 12.7 | 18.5 |
| 12 23 | 7 16.29 | +33 16.7 | 1.267 | 2.220 | 8.3 | 18.2 |
| 1 2 | 7 4.76 | +33 41.1 | 1.254 | 2.227 | 5.0 | 18.1 |
| 1 12 | 6 52.75 | +33 47.4 | 1.268 | 2.233 | 6.4 | 18.1 |
| 1 22 | 6 42.14 | +33 35.0 | 1.307 | 2.241 | 10.5 | 18.4 |
| 2 1 | 6 34.42 | +33 7.3 | 1.371 | 2.248 | 14.6 | 18.7 |
| 2 11 | 6 30.44 | +32 29.7 | 1.453 | 2.256 | 18.2 | 18.9 |

**130692** 2000 $SK_{148}$ 1 5.2 97°.68 0°.8/ 5.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.80 | +24 0.0 | 1.649 | 2.479 | 15.1 | 20.6 |
| 12 13 | 7 25.73 | +24 15.1 | 1.594 | 2.500 | 11.1 | 20.4 |
| 12 23 | 7 15.99 | +24 31.4 | 1.562 | 2.520 | 6.5 | 20.2 |
| 1 2 | 7 4.63 | +24 45.4 | 1.558 | 2.540 | 1.7 | 19.9 |
| 1 12 | 6 53.08 | +24 54.1 | 1.583 | 2.559 | 3.5 | 20.1 |
| 1 22 | 6 42.73 | +24 56.4 | 1.637 | 2.578 | 8.1 | 20.4 |
| 2 1 | 6 34.71 | +24 53.3 | 1.717 | 2.596 | 12.1 | 20.7 |
| 2 11 | 6 29.71 | +24 46.3 | 1.819 | 2.614 | 15.4 | 20.9 |

**460370** 2014 $SQ_{15}$ 1 5.2 92°.01 1°.0/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.74 | +24 10.9 | 1.779 | 2.611 | 14.1 | 21.6 |
| 12 13 | 7 23.45 | +24 32.6 | 1.717 | 2.624 | 10.4 | 21.4 |
| 12 23 | 7 14.67 | +24 55.9 | 1.679 | 2.637 | 6.1 | 21.2 |
| 1 2 | 7 4.32 | +25 17.0 | 1.669 | 2.650 | 1.7 | 20.9 |
| 1 12 | 6 53.69 | +25 33.0 | 1.688 | 2.664 | 3.4 | 21.1 |
| 1 22 | 6 44.05 | +25 42.4 | 1.736 | 2.676 | 7.7 | 21.4 |
| 2 1 | 6 36.49 | +25 45.4 | 1.810 | 2.689 | 11.6 | 21.6 |
| 2 11 | 6 31.71 | +25 43.5 | 1.906 | 2.702 | 14.8 | 21.9 |

**256051** 2006 $UY_{104}$ 1 5.2 259°.77 1°.3/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.14 | +18 3.8 | 1.811 | 2.638 | 14.1 | 21.2 |
| 12 13 | 7 21.66 | +18 14.8 | 1.729 | 2.632 | 10.5 | 21.0 |
| 12 23 | 7 13.74 | +18 33.2 | 1.671 | 2.626 | 6.4 | 20.7 |
| 1 2 | 7 4.14 | +18 57.0 | 1.640 | 2.620 | 2.1 | 20.4 |
| 1 12 | 6 54.02 | +19 23.7 | 1.638 | 2.614 | 3.3 | 20.5 |
| 1 22 | 6 44.60 | +19 50.8 | 1.665 | 2.608 | 7.7 | 20.7 |
| 2 1 | 6 37.03 | +20 16.6 | 1.718 | 2.602 | 11.8 | 21.0 |
| 2 11 | 6 32.10 | +20 40.1 | 1.793 | 2.595 | 15.3 | 21.2 |

**25183** Grantfisher 1 5.2 34°.07 0°.3/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.30 | +22 51.6 | 1.845 | 2.679 | 13.6 | 18.6 |
| 12 13 | 7 20.89 | +23 1.4 | 1.777 | 2.685 | 10.0 | 18.3 |
| 12 23 | 7 13.18 | +23 13.8 | 1.733 | 2.692 | 5.9 | 18.1 |
| 1 2 | 7 3.98 | +23 26.1 | 1.717 | 2.699 | 1.4 | 17.8 |
| 1 12 | 6 54.45 | +23 35.9 | 1.730 | 2.706 | 3.1 | 18.0 |
| 1 22 | 6 45.79 | +23 42.0 | 1.771 | 2.714 | 7.4 | 18.2 |
| 2 1 | 6 39.02 | +23 44.2 | 1.838 | 2.722 | 11.2 | 18.5 |
| 2 11 | 6 34.81 | +23 43.2 | 1.928 | 2.730 | 14.4 | 18.7 |

**254782** 2005 $QM_{54}$ 1 5.2 142°.46 1°.8/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.56 | +16 46.9 | 2.085 | 2.901 | 12.9 | 21.5 |
| 12 13 | 7 21.53 | +16 51.2 | 2.012 | 2.909 | 9.6 | 21.3 |
| 12 23 | 7 13.45 | +17 2.4 | 1.964 | 2.916 | 5.9 | 21.1 |
| 1 2 | 7 4.04 | +17 18.9 | 1.945 | 2.923 | 2.3 | 20.8 |
| 1 12 | 6 54.31 | +17 39.0 | 1.955 | 2.929 | 3.2 | 20.9 |
| 1 22 | 6 45.31 | +18 0.8 | 1.995 | 2.935 | 6.9 | 21.2 |
| 2 1 | 6 37.95 | +18 22.8 | 2.063 | 2.941 | 10.4 | 21.4 |
| 2 11 | 6 32.89 | +18 44.1 | 2.154 | 2.946 | 13.4 | 21.6 |

**516406** 2002 $CZ_{44}$ 1 5.2 158°.52 11°.2/10.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.78 | − 5 24.6 | 1.253 | 2.020 | 22.5 | 21.5 |
| 12 13 | 7 26.52 | − 5 5.8 | 1.184 | 2.025 | 19.0 | 21.3 |
| 12 23 | 7 16.93 | − 4 7.2 | 1.132 | 2.029 | 15.3 | 21.0 |
| 1 2 | 7 4.98 | − 2 24.7 | 1.101 | 2.032 | 12.2 | 20.9 |
| 1 12 | 6 52.27 | − 0 2.0 | 1.096 | 2.035 | 11.2 | 20.8 |
| 1 22 | 6 40.60 | + 2 49.5 | 1.117 | 2.037 | 13.3 | 21.0 |
| 2 1 | 6 31.52 | + 5 54.7 | 1.163 | 2.039 | 16.9 | 21.2 |
| 2 11 | 6 26.05 | + 8 58.6 | 1.232 | 2.040 | 20.6 | 21.4 |

**457103** 2008 $EY_{157}$ 1 5.2 188°.42 5°.3/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.70 | + 5 16.1 | 2.391 | 3.169 | 12.6 | 22.4 |
| 12 13 | 7 19.97 | + 4 59.9 | 2.308 | 3.168 | 10.1 | 22.3 |
| 12 23 | 7 12.47 | + 4 57.0 | 2.248 | 3.167 | 7.6 | 22.1 |
| 1 2 | 7 3.80 | + 5 8.3 | 2.217 | 3.165 | 5.6 | 22.0 |
| 1 12 | 6 54.80 | + 5 33.4 | 2.215 | 3.163 | 5.6 | 22.0 |
| 1 22 | 6 46.31 | + 6 10.5 | 2.242 | 3.160 | 7.6 | 22.1 |
| 2 1 | 6 39.14 | + 6 56.6 | 2.297 | 3.157 | 10.2 | 22.3 |
| 2 11 | 6 33.89 | + 7 48.5 | 2.376 | 3.152 | 12.8 | 22.4 |

**274984** 2009 $TD_{5}$ 1 5.2 37°.88 4°.3/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.09 | +15 19.7 | 1.048 | 1.900 | 20.2 | 20.0 |
| 12 13 | 7 23.93 | +14 43.5 | 1.000 | 1.913 | 15.3 | 19.8 |
| 12 23 | 7 15.31 | +14 20.3 | 0.971 | 1.926 | 9.8 | 19.5 |
| 1 2 | 7 4.52 | +14 10.7 | 0.965 | 1.941 | 4.9 | 19.3 |
| 1 12 | 6 53.44 | +14 13.8 | 0.983 | 1.956 | 5.8 | 19.4 |
| 1 22 | 6 43.90 | +14 27.0 | 1.025 | 1.972 | 10.8 | 19.7 |
| 2 1 | 6 37.35 | +14 47.5 | 1.089 | 1.988 | 15.7 | 20.0 |
| 2 11 | 6 34.55 | +15 11.9 | 1.172 | 2.006 | 19.8 | 20.4 |

**446727** 2015 $OH_{73}$ 1 5.2 130.°33 2.°6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.17 | +14 30.5 | 1.711 | 2.525 | 15.4 | 22.1 |
| 12 13 | 7 25.19 | +14 42.0 | 1.648 | 2.542 | 11.5 | 21.9 |
| 12 23 | 7 15.70 | +15 4.3 | 1.608 | 2.558 | 7.3 | 21.7 |
| 1 2 | 7 4.60 | +15 35.2 | 1.596 | 2.572 | 3.2 | 21.5 |
| 1 12 | 6 53.20 | +16 11.9 | 1.613 | 2.586 | 4.0 | 21.6 |
| 1 22 | 6 42.78 | +16 51.2 | 1.660 | 2.600 | 8.0 | 21.8 |
| 2 1 | 6 34.46 | +17 30.4 | 1.733 | 2.612 | 12.0 | 22.1 |
| 2 11 | 6 28.95 | +18 7.9 | 1.829 | 2.624 | 15.4 | 22.4 |

**313870** 2004 $GV_{18}$ 1 5.2 264.°94 8.°9/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.26 | − 2 54.9 | 2.078 | 2.829 | 15.2 | 20.5 |
| 12 13 | 7 20.05 | − 3 28.5 | 1.982 | 2.809 | 13.0 | 20.3 |
| 12 23 | 7 12.74 | − 3 42.0 | 1.907 | 2.789 | 10.8 | 20.1 |
| 1 2 | 7 3.92 | − 3 31.6 | 1.856 | 2.769 | 9.2 | 20.0 |
| 1 12 | 6 54.51 | − 2 55.9 | 1.832 | 2.748 | 9.1 | 19.9 |
| 1 22 | 6 45.53 | − 1 56.8 | 1.835 | 2.727 | 10.6 | 20.0 |
| 2 1 | 6 37.96 | − 0 38.7 | 1.863 | 2.706 | 13.0 | 20.1 |
| 2 11 | 6 32.58 | + 0 52.2 | 1.914 | 2.684 | 15.6 | 20.2 |

**241181** 2007 $RH_{243}$ 1 5.2 180.°44 1.°5/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.49 | +25 11.4 | 2.036 | 2.858 | 12.9 | 21.3 |
| 12 13 | 7 24.68 | +25 44.3 | 1.958 | 2.860 | 9.6 | 21.1 |
| 12 23 | 7 15.44 | +26 18.5 | 1.905 | 2.861 | 5.7 | 20.8 |
| 1 2 | 7 4.57 | +26 49.8 | 1.881 | 2.861 | 1.9 | 20.6 |
| 1 12 | 6 53.23 | +27 14.6 | 1.887 | 2.860 | 3.5 | 20.7 |
| 1 22 | 6 42.67 | +27 31.1 | 1.923 | 2.859 | 7.4 | 20.9 |
| 2 1 | 6 33.97 | +27 39.3 | 1.987 | 2.857 | 11.1 | 21.2 |
| 2 11 | 6 27.91 | +27 40.7 | 2.074 | 2.855 | 14.2 | 21.4 |

**76137** 2000 $EQ_{12}$ 1 5.2 326.°86 6.°7/ 3.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.48 | +36 38.3 | 1.587 | 2.420 | 15.5 | 18.6 |
| 12 13 | 7 25.67 | +37 43.5 | 1.517 | 2.415 | 12.1 | 18.3 |
| 12 23 | 7 16.46 | +38 41.1 | 1.469 | 2.410 | 8.8 | 18.1 |
| 1 2 | 7 4.88 | +39 22.0 | 1.447 | 2.405 | 6.8 | 18.0 |
| 1 12 | 6 52.58 | +39 40.0 | 1.451 | 2.401 | 7.9 | 18.1 |
| 1 22 | 6 41.41 | +39 33.5 | 1.482 | 2.396 | 11.1 | 18.2 |
| 2 1 | 6 32.93 | +39 5.9 | 1.536 | 2.393 | 14.6 | 18.4 |
| 2 11 | 6 28.12 | +38 23.6 | 1.610 | 2.389 | 17.8 | 18.7 |

**520987** 2015 $AJ_{286}$ 1 5.2 107.°96 3.°9/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.14 | +10 34.3 | 2.348 | 3.149 | 12.1 | 21.7 |
| 12 13 | 7 18.81 | +10 11.9 | 2.273 | 3.155 | 9.4 | 21.5 |
| 12 23 | 7 11.77 | + 9 59.0 | 2.224 | 3.161 | 6.5 | 21.3 |
| 1 2 | 7 3.64 | + 9 56.1 | 2.202 | 3.166 | 4.2 | 21.2 |
| 1 12 | 6 55.26 | +10 2.9 | 2.210 | 3.172 | 4.4 | 21.2 |
| 1 22 | 6 47.47 | +10 18.0 | 2.247 | 3.177 | 6.9 | 21.4 |
| 2 1 | 6 41.04 | +10 39.9 | 2.312 | 3.183 | 9.7 | 21.6 |
| 2 11 | 6 36.52 | +11 6.1 | 2.401 | 3.188 | 12.3 | 21.8 |

**266955** 2010 $UU_{36}$ 1 5.2 14.°73 3.°2/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.03 | +29 34.2 | 1.621 | 2.461 | 14.9 | 20.4 |
| 12 13 | 7 23.40 | +30 4.4 | 1.553 | 2.463 | 11.1 | 20.2 |
| 12 23 | 7 14.88 | +30 31.9 | 1.509 | 2.464 | 6.9 | 20.0 |
| 1 2 | 7 4.47 | +30 51.3 | 1.490 | 2.467 | 3.5 | 19.8 |
| 1 12 | 6 53.59 | +30 58.7 | 1.500 | 2.469 | 4.9 | 19.9 |
| 1 22 | 6 43.77 | +30 53.0 | 1.536 | 2.472 | 8.9 | 20.1 |
| 2 1 | 6 36.30 | +30 36.1 | 1.598 | 2.476 | 12.9 | 20.3 |
| 2 11 | 6 31.97 | +30 11.4 | 1.681 | 2.480 | 16.3 | 20.6 |

**125972** 2001 $YX_{15}$ 1 5.2 95.°32 1.°3/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.54 | +18 11.5 | 1.611 | 2.436 | 15.7 | 20.2 |
| 12 13 | 7 25.48 | +18 23.9 | 1.559 | 2.461 | 11.6 | 20.0 |
| 12 23 | 7 15.85 | +18 43.5 | 1.530 | 2.485 | 6.9 | 19.8 |
| 1 2 | 7 4.66 | +19 7.6 | 1.528 | 2.509 | 2.2 | 19.6 |
| 1 12 | 6 53.29 | +19 33.1 | 1.556 | 2.532 | 3.5 | 19.7 |
| 1 22 | 6 43.11 | +19 57.6 | 1.612 | 2.555 | 8.0 | 20.0 |
| 2 1 | 6 35.20 | +20 19.7 | 1.695 | 2.577 | 12.1 | 20.3 |
| 2 11 | 6 30.24 | +20 39.2 | 1.800 | 2.598 | 15.4 | 20.6 |

**464776** 2003 $UF_{286}$ 1 5.2 58.°33 5.°0/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.89 | + 9 1.4 | 1.978 | 2.783 | 14.0 | 21.5 |
| 12 13 | 7 19.58 | + 8 29.9 | 1.913 | 2.793 | 10.9 | 21.3 |
| 12 23 | 7 12.30 | + 8 10.6 | 1.871 | 2.804 | 7.8 | 21.2 |
| 1 2 | 7 3.79 | + 8 4.8 | 1.856 | 2.816 | 5.3 | 21.0 |
| 1 12 | 6 55.04 | + 8 12.1 | 1.869 | 2.827 | 5.5 | 21.1 |
| 1 22 | 6 47.02 | + 8 30.9 | 1.910 | 2.838 | 8.0 | 21.2 |
| 2 1 | 6 40.62 | + 8 58.8 | 1.977 | 2.850 | 11.1 | 21.4 |
| 2 11 | 6 36.43 | + 9 32.6 | 2.068 | 2.861 | 13.8 | 21.7 |

**186208** 2001 $WX_{26}$ 1 5.2 67.°59 0.°0/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.64 | +21 31.2 | 1.773 | 2.606 | 14.1 | 20.4 |
| 12 13 | 7 22.00 | +21 53.0 | 1.705 | 2.612 | 10.4 | 20.2 |
| 12 23 | 7 13.90 | +22 19.3 | 1.661 | 2.619 | 6.1 | 20.0 |
| 1 2 | 7 4.21 | +22 46.9 | 1.644 | 2.626 | 1.5 | 19.7 |
| 1 12 | 6 54.14 | +23 12.6 | 1.656 | 2.632 | 3.2 | 19.8 |
| 1 22 | 6 44.94 | +23 34.1 | 1.696 | 2.639 | 7.6 | 20.1 |
| 2 1 | 6 37.71 | +23 50.8 | 1.763 | 2.646 | 11.6 | 20.4 |
| 2 11 | 6 33.18 | +24 2.7 | 1.852 | 2.653 | 14.9 | 20.6 |

**457215** 2008 $JS_{33}$ 1 5.2 206.°15 5.°1/ 6.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.54 | + 5 39.2 | 2.556 | 3.332 | 12.0 | 22.4 |
| 12 13 | 7 19.80 | + 5 16.3 | 2.467 | 3.326 | 9.6 | 22.2 |
| 12 23 | 7 12.38 | + 5 5.0 | 2.402 | 3.320 | 7.2 | 22.0 |
| 1 2 | 7 3.84 | + 5 6.7 | 2.365 | 3.313 | 5.4 | 21.9 |
| 1 12 | 6 54.95 | + 5 21.4 | 2.358 | 3.305 | 5.4 | 21.9 |
| 1 22 | 6 46.51 | + 5 47.6 | 2.380 | 3.296 | 7.4 | 22.0 |
| 2 1 | 6 39.29 | + 6 23.2 | 2.431 | 3.287 | 9.9 | 22.2 |
| 2 11 | 6 33.87 | + 7 5.2 | 2.506 | 3.278 | 12.3 | 22.3 |

**379108** 2008 $YY_{40}$ 1 5.2 17.°77 0.°9/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.17 | +20 38.6 | 1.921 | 2.753 | 13.2 | 20.4 |
| 12 13 | 7 19.98 | +20 27.6 | 1.850 | 2.757 | 9.8 | 20.2 |
| 12 23 | 7 12.63 | +20 20.0 | 1.804 | 2.761 | 5.8 | 19.9 |
| 1 2 | 7 3.90 | +20 14.6 | 1.785 | 2.766 | 1.7 | 19.7 |
| 1 12 | 6 54.88 | +20 10.3 | 1.795 | 2.771 | 3.0 | 19.8 |
| 1 22 | 6 46.66 | +20 6.2 | 1.833 | 2.777 | 7.1 | 20.1 |
| 2 1 | 6 40.19 | +20 2.3 | 1.898 | 2.783 | 10.8 | 20.3 |
| 2 11 | 6 36.12 | +19 58.6 | 1.986 | 2.790 | 14.0 | 20.5 |

**23541** 1993 $TU_{29}$ 1 5.2 76.°70 0.°4/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.95 | +20 22.2 | 2.066 | 2.893 | 12.6 | 19.0 |
| 12 13 | 7 20.47 | +20 39.1 | 1.994 | 2.898 | 9.3 | 18.8 |
| 12 23 | 7 12.90 | +21 0.6 | 1.947 | 2.904 | 5.5 | 18.6 |
| 1 2 | 7 3.98 | +21 24.4 | 1.928 | 2.910 | 1.4 | 18.3 |
| 1 12 | 6 54.72 | +21 47.9 | 1.939 | 2.915 | 2.8 | 18.5 |
| 1 22 | 6 46.18 | +22 9.3 | 1.978 | 2.921 | 6.8 | 18.7 |
| 2 1 | 6 39.29 | +22 27.6 | 2.045 | 2.926 | 10.3 | 18.9 |
| 2 11 | 6 34.70 | +22 42.5 | 2.136 | 2.932 | 13.4 | 19.2 |

**285966** 2001 $RZ_{97}$ 1 5.2 186.°64 1.°9/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.70 | +27 12.0 | 2.067 | 2.893 | 12.6 | 21.7 |
| 12 13 | 7 23.36 | +27 34.8 | 1.990 | 2.893 | 9.4 | 21.5 |
| 12 23 | 7 14.67 | +27 56.8 | 1.937 | 2.892 | 5.7 | 21.3 |
| 1 2 | 7 4.43 | +28 14.2 | 1.913 | 2.892 | 2.2 | 21.1 |
| 1 12 | 6 53.77 | +28 24.0 | 1.918 | 2.890 | 3.6 | 21.2 |
| 1 22 | 6 43.90 | +28 25.1 | 1.953 | 2.889 | 7.4 | 21.4 |
| 2 1 | 6 35.85 | +28 18.3 | 2.015 | 2.887 | 10.9 | 21.6 |
| 2 11 | 6 30.38 | +28 5.6 | 2.101 | 2.885 | 14.0 | 21.8 |

**235454** 2003 $YA_{150}$ 1 5.2 329.°53 4.°0/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.35 | +33 26.8 | 2.043 | 2.870 | 12.7 | 20.0 |
| 12 13 | 7 22.53 | +33 53.6 | 1.966 | 2.866 | 9.7 | 19.8 |
| 12 23 | 7 14.24 | +34 14.7 | 1.913 | 2.861 | 6.4 | 19.6 |
| 1 2 | 7 4.33 | +34 25.5 | 1.887 | 2.856 | 4.1 | 19.4 |
| 1 12 | 6 54.00 | +34 22.7 | 1.891 | 2.852 | 5.1 | 19.5 |
| 1 22 | 6 44.50 | +34 6.1 | 1.922 | 2.848 | 8.2 | 19.7 |
| 2 1 | 6 36.96 | +33 37.5 | 1.980 | 2.845 | 11.4 | 19.9 |
| 2 11 | 6 32.11 | +33 0.6 | 2.060 | 2.841 | 14.3 | 20.0 |

**239807** 1996 $PG$ 1 5.2 80.°71 1.°1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.10 | +17 34.9 | 1.502 | 2.335 | 16.2 | 20.5 |
| 12 13 | 7 24.02 | +18 9.8 | 1.445 | 2.351 | 12.0 | 20.3 |
| 12 23 | 7 15.18 | +18 54.7 | 1.411 | 2.368 | 7.2 | 20.0 |
| 1 2 | 7 4.56 | +19 45.5 | 1.403 | 2.384 | 2.2 | 19.8 |
| 1 12 | 6 53.60 | +20 37.3 | 1.424 | 2.400 | 3.6 | 19.9 |
| 1 22 | 6 43.73 | +21 26.1 | 1.472 | 2.416 | 8.4 | 20.2 |
| 2 1 | 6 36.17 | +22 9.4 | 1.546 | 2.432 | 12.7 | 20.5 |
| 2 11 | 6 31.68 | +22 46.2 | 1.642 | 2.448 | 16.3 | 20.8 |

**354953** 2006 $FG_{10}$ 1 5.2 285.°08 1.°4/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.42 | +19 56.6 | 1.536 | 2.372 | 15.7 | 21.0 |
| 12 13 | 7 23.91 | +19 42.4 | 1.445 | 2.353 | 11.9 | 20.7 |
| 12 23 | 7 15.40 | +19 32.8 | 1.376 | 2.333 | 7.2 | 20.4 |
| 1 2 | 7 4.69 | +19 26.5 | 1.333 | 2.314 | 2.3 | 20.0 |
| 1 12 | 6 53.18 | +19 22.0 | 1.319 | 2.295 | 3.9 | 20.1 |
| 1 22 | 6 42.41 | +19 18.3 | 1.331 | 2.276 | 9.1 | 20.3 |
| 2 1 | 6 33.85 | +19 15.3 | 1.368 | 2.256 | 13.9 | 20.5 |
| 2 11 | 6 28.50 | +19 13.2 | 1.426 | 2.237 | 18.1 | 20.8 |

**413603** 2005 $UU_{184}$ 1 5.2 96.°07 2.°5/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.78 | +27 37.4 | 1.909 | 2.740 | 13.3 | 21.5 |
| 12 13 | 7 22.85 | +28 21.8 | 1.840 | 2.746 | 9.8 | 21.3 |
| 12 23 | 7 14.44 | +29 6.0 | 1.796 | 2.751 | 6.0 | 21.0 |
| 1 2 | 7 4.40 | +29 44.9 | 1.780 | 2.757 | 2.8 | 20.8 |
| 1 12 | 6 53.93 | +30 14.4 | 1.793 | 2.762 | 4.2 | 20.9 |
| 1 22 | 6 44.30 | +30 32.6 | 1.834 | 2.768 | 7.9 | 21.2 |
| 2 1 | 6 36.64 | +30 39.7 | 1.902 | 2.773 | 11.5 | 21.4 |
| 2 11 | 6 31.70 | +30 38.0 | 1.992 | 2.779 | 14.6 | 21.6 |

**315543** 2008 $BR_{40}$ 1 5.2 331.°27 3.°0/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.26 | +12 29.1 | 1.500 | 2.330 | 16.4 | 20.3 |
| 12 13 | 7 20.76 | +13 6.6 | 1.419 | 2.321 | 12.5 | 20.0 |
| 12 23 | 7 13.49 | +14 1.7 | 1.360 | 2.312 | 8.1 | 19.8 |
| 1 2 | 7 4.22 | +15 12.2 | 1.327 | 2.304 | 3.8 | 19.5 |
| 1 12 | 6 54.22 | +16 33.2 | 1.322 | 2.296 | 4.3 | 19.5 |
| 1 22 | 6 44.92 | +17 58.4 | 1.343 | 2.289 | 8.9 | 19.7 |
| 2 1 | 6 37.68 | +19 21.9 | 1.391 | 2.283 | 13.4 | 20.0 |
| 2 11 | 6 33.44 | +20 39.5 | 1.459 | 2.277 | 17.4 | 20.2 |

**201295** 2002 $SA_{57}$ 1 5.2 43°.69 3°.3/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.53 | +29 4.5 | 1.727 | 2.564 | 14.2 | 19.2 |
| 12 13 | 7 22.68 | +29 58.8 | 1.681 | 2.589 | 10.5 | 19.1 |
| 12 23 | 7 14.28 | +30 50.6 | 1.659 | 2.614 | 6.5 | 18.9 |
| 1 2 | 7 4.33 | +31 34.2 | 1.665 | 2.640 | 3.5 | 18.8 |
| 1 12 | 6 54.17 | +32 5.1 | 1.699 | 2.666 | 4.8 | 18.9 |
| 1 22 | 6 45.12 | +32 22.0 | 1.761 | 2.693 | 8.3 | 19.2 |
| 2 1 | 6 38.28 | +32 26.1 | 1.848 | 2.719 | 11.8 | 19.4 |
| 2 11 | 6 34.29 | +32 20.2 | 1.957 | 2.746 | 14.7 | 19.7 |

**400830** 2010 $KU_{36}$ 1 5.2 208°.10 0°.9/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.36 | +19 45.4 | 1.979 | 2.799 | 13.4 | 22.1 |
| 12 13 | 7 23.88 | +19 46.1 | 1.893 | 2.793 | 10.0 | 21.9 |
| 12 23 | 7 15.03 | +19 51.2 | 1.832 | 2.787 | 6.0 | 21.6 |
| 1 2 | 7 4.55 | +19 58.9 | 1.800 | 2.780 | 1.8 | 21.3 |
| 1 12 | 6 53.59 | +20 7.3 | 1.797 | 2.773 | 3.1 | 21.4 |
| 1 22 | 6 43.32 | +20 15.1 | 1.824 | 2.765 | 7.4 | 21.6 |
| 2 1 | 6 34.85 | +20 21.7 | 1.878 | 2.756 | 11.3 | 21.9 |
| 2 11 | 6 28.94 | +20 27.2 | 1.956 | 2.747 | 14.6 | 22.1 |

**203072** 2000 $QC_{39}$ 1 5.2 94°.86 0°.8/ 5.1 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.90 | +24 11.3 | 1.634 | 2.463 | 15.3 | 20.7 |
| 12 13 | 7 26.54 | +24 21.0 | 1.581 | 2.487 | 11.2 | 20.5 |
| 12 23 | 7 16.50 | +24 31.4 | 1.552 | 2.510 | 6.6 | 20.3 |
| 1 2 | 7 4.88 | +24 39.2 | 1.551 | 2.532 | 1.7 | 20.0 |
| 1 12 | 6 53.11 | +24 41.8 | 1.579 | 2.555 | 3.5 | 20.2 |
| 1 22 | 6 42.62 | +24 38.4 | 1.635 | 2.576 | 8.0 | 20.5 |
| 2 1 | 6 34.51 | +24 30.3 | 1.718 | 2.597 | 12.1 | 20.8 |
| 2 11 | 6 29.46 | +24 19.2 | 1.823 | 2.618 | 15.4 | 21.0 |

**457773** 2009 $LK_{4}$ 1 5.2 92°.68 3°.5/ 6.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.56 | + 9 17.8 | 1.862 | 2.664 | 14.8 | 21.0 |
| 12 13 | 7 22.42 | +10 0.8 | 1.799 | 2.682 | 11.3 | 20.8 |
| 12 23 | 7 14.07 | +10 59.7 | 1.759 | 2.700 | 7.5 | 20.6 |
| 1 2 | 7 4.30 | +12 12.2 | 1.748 | 2.718 | 4.2 | 20.5 |
| 1 12 | 6 54.21 | +13 33.7 | 1.766 | 2.736 | 4.3 | 20.5 |
| 1 22 | 6 44.93 | +14 58.8 | 1.814 | 2.753 | 7.6 | 20.7 |
| 2 1 | 6 37.44 | +16 22.8 | 1.890 | 2.770 | 11.1 | 21.0 |
| 2 11 | 6 32.42 | +17 41.9 | 1.990 | 2.786 | 14.2 | 21.2 |

**201206** 2002 $PJ_{165}$ 1 5.2 62°.72 0°.5/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.63 | +23 29.3 | 2.037 | 2.866 | 12.7 | 21.0 |
| 12 13 | 7 20.97 | +23 42.5 | 1.970 | 2.876 | 9.3 | 20.8 |
| 12 23 | 7 13.19 | +23 57.5 | 1.929 | 2.887 | 5.5 | 20.6 |
| 1 2 | 7 4.08 | +24 11.6 | 1.915 | 2.897 | 1.4 | 20.3 |
| 1 12 | 6 54.69 | +24 22.6 | 1.932 | 2.908 | 2.9 | 20.4 |
| 1 22 | 6 46.11 | +24 29.2 | 1.977 | 2.918 | 6.8 | 20.7 |
| 2 1 | 6 39.27 | +24 31.4 | 2.049 | 2.929 | 10.4 | 21.0 |
| 2 11 | 6 34.81 | +24 30.1 | 2.145 | 2.940 | 13.4 | 21.2 |

**87597** 2000 $RU_{32}$ 1 5.2 68°.79 0°.8/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.79 | +24 39.6 | 1.828 | 2.660 | 13.8 | 19.0 |
| 12 13 | 7 22.77 | +24 43.3 | 1.761 | 2.668 | 10.1 | 18.8 |
| 12 23 | 7 14.33 | +24 47.5 | 1.718 | 2.676 | 6.0 | 18.6 |
| 1 2 | 7 4.37 | +24 49.3 | 1.703 | 2.684 | 1.6 | 18.3 |
| 1 12 | 6 54.11 | +24 46.8 | 1.717 | 2.692 | 3.2 | 18.4 |
| 1 22 | 6 44.81 | +24 39.4 | 1.759 | 2.701 | 7.5 | 18.7 |
| 2 1 | 6 37.50 | +24 27.8 | 1.828 | 2.709 | 11.4 | 19.0 |
| 2 11 | 6 32.88 | +24 13.6 | 1.919 | 2.717 | 14.6 | 19.2 |

**251206** 2006 $UT_{174}$ 1 5.2 73°.33 6°.9/ 6.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.05 | + 5 53.9 | 1.730 | 2.523 | 16.1 | 19.9 |
| 12 13 | 7 23.33 | + 4 59.0 | 1.686 | 2.554 | 12.8 | 19.7 |
| 12 23 | 7 14.46 | + 4 20.6 | 1.663 | 2.585 | 9.5 | 19.6 |
| 1 2 | 7 4.37 | + 4 1.0 | 1.667 | 2.615 | 7.2 | 19.5 |
| 1 12 | 6 54.23 | + 4 0.4 | 1.699 | 2.645 | 7.3 | 19.6 |
| 1 22 | 6 45.16 | + 4 16.7 | 1.758 | 2.675 | 9.5 | 19.8 |
| 2 1 | 6 38.06 | + 4 46.4 | 1.843 | 2.704 | 12.3 | 20.0 |
| 2 11 | 6 33.50 | + 5 24.7 | 1.949 | 2.733 | 14.9 | 20.3 |

**113577** 2002 $TM_{41}$ 1 5.2 84°.68 6°.6/ 2.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.16 | +39 59.6 | 2.292 | 3.101 | 12.1 | 18.9 |
| 12 13 | 7 24.71 | +41 34.1 | 2.232 | 3.110 | 9.7 | 18.7 |
| 12 23 | 7 15.64 | +43 0.3 | 2.198 | 3.119 | 7.6 | 18.6 |
| 1 2 | 7 4.75 | +44 10.7 | 2.191 | 3.127 | 6.6 | 18.6 |
| 1 12 | 6 53.26 | +45 0.0 | 2.214 | 3.136 | 7.5 | 18.6 |
| 1 22 | 6 42.54 | +45 26.5 | 2.264 | 3.144 | 9.5 | 18.8 |
| 2 1 | 6 33.79 | +45 32.0 | 2.339 | 3.153 | 11.7 | 19.0 |
| 2 11 | 6 27.87 | +45 21.0 | 2.436 | 3.161 | 13.8 | 19.1 |

**40569** 1999 $RH_{128}$ 1 5.2 80°.31 1°.1/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.07 | +19 38.0 | 1.572 | 2.403 | 15.7 | 18.9 |
| 12 13 | 7 24.53 | +19 37.8 | 1.518 | 2.423 | 11.6 | 18.7 |
| 12 23 | 7 15.37 | +19 43.1 | 1.487 | 2.443 | 6.9 | 18.5 |
| 1 2 | 7 4.62 | +19 51.7 | 1.482 | 2.463 | 2.1 | 18.3 |
| 1 12 | 6 53.68 | +20 1.5 | 1.507 | 2.483 | 3.5 | 18.4 |
| 1 22 | 6 43.92 | +20 10.8 | 1.559 | 2.503 | 8.1 | 18.7 |
| 2 1 | 6 36.44 | +20 19.0 | 1.637 | 2.522 | 12.2 | 19.0 |
| 2 11 | 6 31.92 | +20 26.0 | 1.737 | 2.541 | 15.7 | 19.3 |

**468212** 2015 $BP_{64}$ 1 5.2 166°.80 4°.4/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.29 | +36 26.4 | 2.487 | 3.300 | 11.2 | 21.3 |
| 12 13 | 7 22.86 | +36 57.9 | 2.414 | 3.302 | 8.6 | 21.1 |
| 12 23 | 7 14.30 | +37 22.2 | 2.365 | 3.303 | 6.1 | 20.9 |
| 1 2 | 7 4.37 | +37 35.2 | 2.345 | 3.305 | 4.4 | 20.8 |
| 1 12 | 6 54.12 | +37 34.2 | 2.355 | 3.306 | 5.2 | 20.9 |
| 1 22 | 6 44.64 | +37 18.8 | 2.394 | 3.307 | 7.5 | 21.0 |
| 2 1 | 6 36.88 | +36 51.2 | 2.460 | 3.308 | 10.1 | 21.2 |
| 2 11 | 6 31.48 | +36 14.6 | 2.549 | 3.308 | 12.5 | 21.4 |

**144365** 2004 $DN_{47}$ 1 5.2 275°.51 4°.4/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.54 | +11 42.5 | 1.786 | 2.601 | 14.8 | 20.4 |
| 12 13 | 7 21.27 | +11 19.0 | 1.699 | 2.590 | 11.5 | 20.1 |
| 12 23 | 7 13.59 | +11 6.6 | 1.636 | 2.579 | 7.8 | 19.9 |
| 1 2 | 7 4.24 | +11 6.3 | 1.599 | 2.568 | 4.8 | 19.7 |
| 1 12 | 6 54.34 | +11 17.7 | 1.590 | 2.557 | 5.2 | 19.7 |
| 1 22 | 6 45.09 | +11 39.1 | 1.609 | 2.545 | 8.6 | 19.9 |
| 2 1 | 6 37.60 | +12 8.3 | 1.654 | 2.534 | 12.4 | 20.1 |
| 2 11 | 6 32.68 | +12 42.3 | 1.721 | 2.523 | 15.9 | 20.3 |

**228022** 2008 $FM_{54}$ 1 5.2 187°.14 0°.2/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.29 | +20 53.2 | 1.556 | 2.387 | 15.8 | 21.2 |
| 12 13 | 7 25.84 | +21 12.8 | 1.481 | 2.388 | 11.7 | 21.0 |
| 12 23 | 7 16.43 | +21 38.3 | 1.430 | 2.387 | 7.0 | 20.7 |
| 1 2 | 7 4.96 | +22 6.1 | 1.404 | 2.386 | 1.8 | 20.3 |
| 1 12 | 6 52.90 | +22 32.3 | 1.408 | 2.385 | 3.6 | 20.5 |
| 1 22 | 6 41.80 | +22 54.2 | 1.440 | 2.383 | 8.7 | 20.8 |
| 2 1 | 6 33.03 | +23 11.1 | 1.497 | 2.380 | 13.3 | 21.0 |
| 2 11 | 6 27.48 | +23 23.4 | 1.575 | 2.377 | 17.1 | 21.3 |

**212158** 2005 $GL_{5}$ 1 5.2 129°.71 1°.2/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.28 | +18 7.4 | 2.106 | 2.922 | 12.8 | 21.5 |
| 12 13 | 7 22.78 | +18 20.2 | 2.039 | 2.936 | 9.5 | 21.3 |
| 12 23 | 7 14.22 | +18 38.8 | 1.997 | 2.951 | 5.7 | 21.1 |
| 1 2 | 7 4.36 | +19 1.2 | 1.984 | 2.964 | 1.9 | 20.9 |
| 1 12 | 6 54.23 | +19 25.1 | 2.002 | 2.977 | 2.9 | 21.0 |
| 1 22 | 6 44.89 | +19 48.5 | 2.049 | 2.990 | 6.7 | 21.2 |
| 2 1 | 6 37.24 | +20 10.3 | 2.125 | 3.001 | 10.2 | 21.5 |
| 2 11 | 6 31.91 | +20 30.0 | 2.224 | 3.013 | 13.2 | 21.7 |

**184313** 2005 $EO_{283}$ 1 5.2 261°.01 0°.8/ 5.0 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.78 | +22 4.6 | 1.688 | 2.522 | 14.6 | 20.4 |
| 12 13 | 7 23.22 | +22 47.4 | 1.607 | 2.515 | 10.8 | 20.1 |
| 12 23 | 7 14.89 | +23 36.4 | 1.550 | 2.508 | 6.4 | 19.8 |
| 1 2 | 7 4.60 | +24 27.0 | 1.519 | 2.501 | 1.7 | 19.5 |
| 1 12 | 6 53.64 | +25 14.3 | 1.518 | 2.494 | 3.6 | 19.6 |
| 1 22 | 6 43.42 | +25 54.5 | 1.545 | 2.487 | 8.4 | 19.9 |
| 2 1 | 6 35.26 | +26 26.1 | 1.598 | 2.479 | 12.7 | 20.1 |
| 2 11 | 6 30.06 | +26 49.4 | 1.672 | 2.472 | 16.3 | 20.4 |

**153328** 2001 $OP_{40}$ 1 5.2 116°.06 3°.5/ 4.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.29 | +30 32.0 | 1.723 | 2.548 | 14.8 | 20.7 |
| 12 13 | 7 28.43 | +31 9.0 | 1.668 | 2.568 | 11.0 | 20.5 |
| 12 23 | 7 17.72 | +31 41.3 | 1.637 | 2.588 | 7.0 | 20.4 |
| 1 2 | 7 5.24 | +32 3.2 | 1.633 | 2.607 | 3.7 | 20.2 |
| 1 12 | 6 52.53 | +32 10.9 | 1.659 | 2.625 | 5.0 | 20.3 |
| 1 22 | 6 41.10 | +32 3.9 | 1.713 | 2.643 | 8.7 | 20.6 |
| 2 1 | 6 32.18 | +31 45.1 | 1.794 | 2.659 | 12.4 | 20.8 |
| 2 11 | 6 26.48 | +31 18.5 | 1.896 | 2.675 | 15.5 | 21.1 |

**332993** 2011 $GK_{9}$ 1 5.2 277°.70 3°.0/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.74 | +12 19.4 | 2.084 | 2.895 | 13.1 | 20.7 |
| 12 13 | 7 19.68 | +12 34.7 | 1.996 | 2.887 | 10.0 | 20.5 |
| 12 23 | 7 12.55 | +13 1.5 | 1.933 | 2.879 | 6.6 | 20.2 |
| 1 2 | 7 3.99 | +13 39.0 | 1.897 | 2.870 | 3.5 | 20.0 |
| 1 12 | 6 54.96 | +14 24.7 | 1.891 | 2.862 | 3.8 | 20.0 |
| 1 22 | 6 46.45 | +15 15.8 | 1.914 | 2.854 | 7.2 | 20.2 |
| 2 1 | 6 39.43 | +16 9.0 | 1.964 | 2.845 | 10.7 | 20.4 |
| 2 11 | 6 34.61 | +17 1.6 | 2.038 | 2.837 | 13.8 | 20.6 |

**370250** 2002 $PD_{181}$ 1 5.2 50°.14 1°.8/ 4.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.68 | +26 29.0 | 1.850 | 2.685 | 13.5 | 20.9 |
| 12 13 | 7 21.92 | +26 55.7 | 1.794 | 2.701 | 9.9 | 20.7 |
| 12 23 | 7 13.83 | +27 22.0 | 1.761 | 2.719 | 5.9 | 20.5 |
| 1 2 | 7 4.28 | +27 44.0 | 1.756 | 2.736 | 2.2 | 20.3 |
| 1 12 | 6 54.50 | +27 58.7 | 1.780 | 2.754 | 3.6 | 20.4 |
| 1 22 | 6 45.69 | +28 4.8 | 1.833 | 2.771 | 7.5 | 20.7 |
| 2 1 | 6 38.86 | +28 3.2 | 1.911 | 2.790 | 11.1 | 20.9 |
| 2 11 | 6 34.67 | +27 55.6 | 2.013 | 2.808 | 14.1 | 21.2 |

**229395** 2005 $SK_{124}$ 1 5.2 315°.88 1°.4/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.15 | +25 53.4 | 1.288 | 2.137 | 17.4 | 19.9 |
| 12 13 | 7 25.61 | +25 52.8 | 1.214 | 2.129 | 13.0 | 19.6 |
| 12 23 | 7 16.56 | +25 51.7 | 1.161 | 2.122 | 7.8 | 19.3 |
| 1 2 | 7 5.05 | +25 45.9 | 1.133 | 2.115 | 2.3 | 19.0 |
| 1 12 | 6 52.83 | +25 32.3 | 1.131 | 2.108 | 4.4 | 19.1 |
| 1 22 | 6 41.81 | +25 10.7 | 1.155 | 2.101 | 10.0 | 19.4 |
| 2 1 | 6 33.61 | +24 43.4 | 1.203 | 2.095 | 15.1 | 19.6 |
| 2 11 | 6 29.20 | +24 13.5 | 1.270 | 2.089 | 19.4 | 19.9 |

**43461** 2000 $YL_{128}$ 1 5.2 17°.16 1°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.92 | +24 11.2 | 1.954 | 2.785 | 13.0 | 19.1 |
| 12 13 | 7 21.46 | +24 50.4 | 1.879 | 2.786 | 9.6 | 18.9 |
| 12 23 | 7 13.66 | +25 32.5 | 1.829 | 2.786 | 5.7 | 18.7 |
| 1 2 | 7 4.28 | +26 13.3 | 1.806 | 2.787 | 1.8 | 18.4 |
| 1 12 | 6 54.44 | +26 49.0 | 1.813 | 2.788 | 3.4 | 18.5 |
| 1 22 | 6 45.32 | +27 17.0 | 1.849 | 2.789 | 7.4 | 18.8 |
| 2 1 | 6 38.00 | +27 36.8 | 1.912 | 2.790 | 11.1 | 19.0 |
| 2 11 | 6 33.23 | +27 49.1 | 1.998 | 2.791 | 14.3 | 19.2 |

**305604** 2008 $YW_{144}$ 1 5.2 98°.73 0°.9/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.23 | +21 4.5 | 1.591 | 2.423 | 15.5 | 21.2 |
| 12 13 | 7 24.78 | +20 51.7 | 1.526 | 2.432 | 11.5 | 21.0 |
| 12 23 | 7 15.62 | +20 42.3 | 1.485 | 2.442 | 6.8 | 20.7 |
| 1 2 | 7 4.74 | +20 34.6 | 1.470 | 2.451 | 1.9 | 20.4 |
| 1 12 | 6 53.56 | +20 27.2 | 1.484 | 2.461 | 3.5 | 20.5 |
| 1 22 | 6 43.48 | +20 19.4 | 1.526 | 2.470 | 8.2 | 20.9 |
| 2 1 | 6 35.68 | +20 11.6 | 1.594 | 2.479 | 12.5 | 21.1 |
| 2 11 | 6 30.88 | +20 4.3 | 1.683 | 2.487 | 16.1 | 21.4 |

**132960** 2002 $TL_{115}$ 1 5.2 180°.29 1°.1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.24 | +19 33.8 | 2.486 | 3.301 | 11.1 | 19.6 |
| 12 13 | 7 20.37 | +19 19.9 | 2.404 | 3.302 | 8.2 | 19.4 |
| 12 23 | 7 12.76 | +19 8.9 | 2.349 | 3.302 | 5.0 | 19.2 |
| 1 2 | 7 4.02 | +19 0.0 | 2.323 | 3.302 | 1.7 | 18.9 |
| 1 12 | 6 55.01 | +18 52.6 | 2.327 | 3.302 | 2.6 | 19.0 |
| 1 22 | 6 46.59 | +18 46.1 | 2.362 | 3.302 | 6.0 | 19.2 |
| 2 1 | 6 39.56 | +18 40.5 | 2.425 | 3.301 | 9.1 | 19.4 |
| 2 11 | 6 34.48 | +18 35.7 | 2.513 | 3.300 | 11.9 | 19.6 |

**492863** 2014 $QK_{367}$ 1 5.2 114°.53 2°.9/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.02 | +12 41.7 | 2.103 | 2.909 | 13.2 | 22.2 |
| 12 13 | 7 21.80 | +12 50.9 | 2.039 | 2.927 | 10.0 | 22.0 |
| 12 23 | 7 13.63 | +13 10.2 | 2.000 | 2.944 | 6.5 | 21.8 |
| 1 2 | 7 4.23 | +13 38.5 | 1.989 | 2.961 | 3.4 | 21.7 |
| 1 12 | 6 54.60 | +14 13.5 | 2.007 | 2.978 | 3.7 | 21.7 |
| 1 22 | 6 45.72 | +14 52.7 | 2.056 | 2.994 | 6.9 | 22.0 |
| 2 1 | 6 38.46 | +15 33.5 | 2.133 | 3.009 | 10.2 | 22.2 |
| 2 11 | 6 33.42 | +16 13.9 | 2.234 | 3.024 | 13.1 | 22.4 |

**292703** 2006 $UE_{123}$ 1 5.2 169°.07 0°.9/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.53 | +19 6.9 | 1.963 | 2.786 | 13.3 | 21.9 |
| 12 13 | 7 22.50 | +19 16.9 | 1.887 | 2.788 | 9.9 | 21.6 |
| 12 23 | 7 14.20 | +19 32.5 | 1.835 | 2.790 | 6.0 | 21.4 |
| 1 2 | 7 4.41 | +19 51.7 | 1.811 | 2.792 | 1.8 | 21.1 |
| 1 12 | 6 54.21 | +20 12.0 | 1.817 | 2.793 | 3.0 | 21.2 |
| 1 22 | 6 44.75 | +20 31.6 | 1.853 | 2.794 | 7.2 | 21.5 |
| 2 1 | 6 37.07 | +20 49.3 | 1.915 | 2.795 | 11.0 | 21.7 |
| 2 11 | 6 31.86 | +21 4.8 | 2.001 | 2.796 | 14.2 | 21.9 |

**428365** 2007 $RH_{102}$ 1 5.2 19°.51 9°.4/ 7.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.83 | + 0 47.7 | 1.510 | 2.308 | 17.9 | 19.5 |
| 12 13 | 7 17.79 | − 0 8.1 | 1.460 | 2.321 | 14.9 | 19.4 |
| 12 23 | 7 11.46 | − 0 40.6 | 1.429 | 2.337 | 11.9 | 19.2 |
| 1 2 | 7 3.71 | − 0 45.9 | 1.421 | 2.353 | 9.8 | 19.2 |
| 1 12 | 6 55.71 | − 0 23.9 | 1.438 | 2.371 | 9.6 | 19.2 |
| 1 22 | 6 48.63 | + 0 22.0 | 1.478 | 2.390 | 11.3 | 19.3 |
| 2 1 | 6 43.46 | + 1 26.1 | 1.543 | 2.410 | 13.9 | 19.5 |
| 2 11 | 6 40.84 | + 2 41.0 | 1.627 | 2.431 | 16.6 | 19.8 |

**423803** 2006 $HC_{84}$ 1 5.2 165°.95 1°.7/ 4.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.66 | +26 19.9 | 2.544 | 3.365 | 10.7 | 21.6 |
| 12 13 | 7 20.81 | +27 0.7 | 2.467 | 3.368 | 7.9 | 21.5 |
| 12 23 | 7 13.09 | +27 42.1 | 2.416 | 3.371 | 4.7 | 21.3 |
| 1 2 | 7 4.12 | +28 20.5 | 2.394 | 3.373 | 1.9 | 21.1 |
| 1 12 | 6 54.80 | +28 52.8 | 2.404 | 3.375 | 3.1 | 21.2 |
| 1 22 | 6 46.03 | +29 17.4 | 2.444 | 3.377 | 6.2 | 21.4 |
| 2 1 | 6 38.68 | +29 33.8 | 2.512 | 3.379 | 9.2 | 21.6 |
| 2 11 | 6 33.37 | +29 43.0 | 2.605 | 3.380 | 11.8 | 21.7 |

**131493** 2001 $SP_{185}$ 1 5.2 191°.46 0°.3/ 5.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.99 | +20 37.3 | 2.806 | 3.621 | 10.0 | 21.4 |
| 12 13 | 7 19.36 | +20 49.8 | 2.721 | 3.619 | 7.4 | 21.2 |
| 12 23 | 7 12.14 | +21 5.3 | 2.663 | 3.617 | 4.4 | 21.0 |
| 1 2 | 7 3.88 | +21 22.1 | 2.634 | 3.615 | 1.2 | 20.8 |
| 1 12 | 6 55.32 | +21 38.7 | 2.636 | 3.613 | 2.2 | 20.8 |
| 1 22 | 6 47.23 | +21 53.8 | 2.670 | 3.609 | 5.4 | 21.1 |
| 2 1 | 6 40.33 | +22 6.7 | 2.732 | 3.606 | 8.3 | 21.2 |
| 2 11 | 6 35.18 | +22 17.3 | 2.820 | 3.602 | 10.8 | 21.4 |

**317024** 2001 $QC_{224}$ 1 5.2 67°.23 2°.2/ 5.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.66 | +29 26.0 | 1.649 | 2.477 | 15.2 | 20.7 |
| 12 13 | 7 27.68 | +29 17.7 | 1.605 | 2.508 | 11.2 | 20.5 |
| 12 23 | 7 17.08 | +29 4.3 | 1.584 | 2.539 | 6.7 | 20.3 |
| 1 2 | 7 5.05 | +28 42.5 | 1.591 | 2.570 | 2.7 | 20.1 |
| 1 12 | 6 53.12 | +28 11.4 | 1.627 | 2.600 | 4.0 | 20.3 |
| 1 22 | 6 42.68 | +27 32.7 | 1.692 | 2.630 | 8.1 | 20.6 |
| 2 1 | 6 34.78 | +26 49.7 | 1.784 | 2.660 | 11.9 | 20.9 |
| 2 11 | 6 29.97 | +26 5.8 | 1.898 | 2.690 | 15.0 | 21.2 |

**90375** 2003 $UX_{257}$ 1 5.2 142°.41 2°.1/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.29 | +26 58.7 | 2.314 | 3.139 | 11.5 | 19.6 |
| 12 13 | 7 21.45 | +27 45.8 | 2.240 | 3.143 | 8.5 | 19.4 |
| 12 23 | 7 13.54 | +28 33.3 | 2.193 | 3.147 | 5.2 | 19.2 |
| 1 2 | 7 4.25 | +29 17.0 | 2.174 | 3.151 | 2.3 | 19.0 |
| 1 12 | 6 54.58 | +29 53.3 | 2.185 | 3.155 | 3.5 | 19.1 |
| 1 22 | 6 45.54 | +30 20.1 | 2.227 | 3.159 | 6.8 | 19.3 |
| 2 1 | 6 38.08 | +30 37.2 | 2.296 | 3.163 | 10.0 | 19.6 |
| 2 11 | 6 32.87 | +30 45.9 | 2.389 | 3.166 | 12.7 | 19.7 |

**177975** 2006 $QR_{19}$ 1 5.2 76°.56 0°.6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.26 | +16 54.0 | 1.649 | 2.476 | 15.3 | 19.8 |
| 12 13 | 7 23.35 | +17 58.0 | 1.587 | 2.491 | 11.3 | 19.6 |
| 12 23 | 7 14.83 | +19 13.3 | 1.549 | 2.505 | 6.7 | 19.3 |
| 1 2 | 7 4.59 | +20 34.9 | 1.538 | 2.519 | 1.9 | 19.1 |
| 1 12 | 6 53.91 | +21 56.5 | 1.557 | 2.533 | 3.3 | 19.2 |
| 1 22 | 6 44.14 | +23 12.5 | 1.605 | 2.548 | 8.0 | 19.5 |
| 2 1 | 6 36.44 | +24 19.4 | 1.679 | 2.562 | 12.1 | 19.8 |
| 2 11 | 6 31.61 | +25 16.1 | 1.776 | 2.576 | 15.5 | 20.1 |

**309425** 2007 $TH_{394}$ 1 5.2 285°.90 1°.6/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.28 | +18 31.5 | 1.571 | 2.405 | 15.5 | 21.1 |
| 12 13 | 7 23.02 | +18 31.4 | 1.482 | 2.389 | 11.7 | 20.9 |
| 12 23 | 7 14.89 | +18 38.7 | 1.416 | 2.373 | 7.2 | 20.6 |
| 1 2 | 7 4.66 | +18 51.8 | 1.376 | 2.356 | 2.4 | 20.2 |
| 1 12 | 6 53.67 | +19 8.3 | 1.364 | 2.340 | 3.8 | 20.3 |
| 1 22 | 6 43.40 | +19 26.0 | 1.379 | 2.324 | 8.8 | 20.5 |
| 2 1 | 6 35.23 | +19 43.5 | 1.419 | 2.308 | 13.5 | 20.8 |
| 2 11 | 6 30.13 | +20 0.0 | 1.480 | 2.292 | 17.5 | 21.0 |

**83987** 2002 $LR_{32}$ 1 5.2 124°.15 6°.1/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.41 | + 2 32.1 | 2.498 | 3.265 | 12.5 | 19.9 |
| 12 13 | 7 18.93 | + 1 57.8 | 2.429 | 3.276 | 10.2 | 19.8 |
| 12 23 | 7 11.86 | + 1 37.2 | 2.383 | 3.287 | 8.0 | 19.6 |
| 1 2 | 7 3.81 | + 1 32.1 | 2.365 | 3.298 | 6.4 | 19.5 |
| 1 12 | 6 55.55 | + 1 42.6 | 2.375 | 3.308 | 6.3 | 19.6 |
| 1 22 | 6 47.85 | + 2 7.3 | 2.414 | 3.319 | 7.9 | 19.7 |
| 2 1 | 6 41.40 | + 2 43.5 | 2.480 | 3.328 | 10.0 | 19.8 |
| 2 11 | 6 36.74 | + 3 27.8 | 2.569 | 3.338 | 12.1 | 20.0 |

**366044** 2012 $CL_{5}$ 1 5.3 18°.44 5°.2/ 3.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.71 | +30 15.9 | 1.366 | 2.216 | 16.5 | 19.7 |
| 12 13 | 7 23.79 | +31 40.6 | 1.308 | 2.220 | 12.4 | 19.5 |
| 12 23 | 7 15.48 | +33 4.3 | 1.271 | 2.225 | 8.1 | 19.2 |
| 1 2 | 7 4.81 | +34 17.6 | 1.260 | 2.231 | 5.2 | 19.1 |
| 1 12 | 6 53.48 | +35 12.3 | 1.275 | 2.238 | 6.8 | 19.2 |
| 1 22 | 6 43.33 | +35 44.8 | 1.316 | 2.246 | 10.8 | 19.4 |
| 2 1 | 6 35.92 | +35 56.4 | 1.380 | 2.254 | 14.9 | 19.7 |
| 2 11 | 6 32.20 | +35 51.7 | 1.464 | 2.263 | 18.3 | 19.9 |

**81695** 2000 $JU_{15}$ 1 5.3 119°.11 5°.3/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.93 | + 6 25.4 | 2.070 | 2.859 | 14.0 | 19.5 |
| 12 13 | 7 21.05 | + 6 15.5 | 2.003 | 2.872 | 11.1 | 19.3 |
| 12 23 | 7 13.22 | + 6 20.3 | 1.960 | 2.886 | 8.0 | 19.1 |
| 1 2 | 7 4.17 | + 6 40.1 | 1.944 | 2.899 | 5.6 | 19.0 |
| 1 12 | 6 54.86 | + 7 13.9 | 1.957 | 2.912 | 5.6 | 19.0 |
| 1 22 | 6 46.25 | + 7 58.8 | 1.998 | 2.924 | 7.9 | 19.2 |
| 2 1 | 6 39.22 | + 8 51.4 | 2.067 | 2.936 | 10.8 | 19.4 |
| 2 11 | 6 34.38 | + 9 47.8 | 2.160 | 2.947 | 13.5 | 19.6 |

**8042** 1994 $AX_{2}$ 1 5.3 278°.67 1°.2/ 5.1 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.17 | +26 53.2 | 2.208 | 3.033 | 12.0 | 17.6 |
| 12 13 | 7 22.16 | +26 45.8 | 2.119 | 3.022 | 8.9 | 17.3 |
| 12 23 | 7 13.98 | +26 36.2 | 2.056 | 3.012 | 5.3 | 17.1 |
| 1 2 | 7 4.38 | +26 22.3 | 2.021 | 3.002 | 1.7 | 16.8 |
| 1 12 | 6 54.39 | +26 2.6 | 2.017 | 2.992 | 3.0 | 16.9 |
| 1 22 | 6 45.09 | +25 37.4 | 2.042 | 2.981 | 6.8 | 17.1 |
| 2 1 | 6 37.46 | +25 7.9 | 2.095 | 2.971 | 10.4 | 17.3 |
| 2 11 | 6 32.19 | +24 36.2 | 2.172 | 2.961 | 13.4 | 17.5 |

**135367** 2001 $TC_{126}$ 1 5.3 141°.89 4°.4/ 3.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.34 | +38 31.0 | 3.115 | 3.915 | 9.5 | 21.3 |
| 12 13 | 7 22.60 | +39 18.5 | 3.050 | 3.927 | 7.4 | 21.1 |
| 12 23 | 7 14.06 | +39 59.0 | 3.012 | 3.939 | 5.5 | 21.0 |
| 1 2 | 7 4.38 | +40 28.6 | 3.003 | 3.950 | 4.4 | 21.0 |
| 1 12 | 6 54.43 | +40 44.8 | 3.025 | 3.961 | 5.0 | 21.0 |
| 1 22 | 6 45.10 | +40 46.9 | 3.076 | 3.971 | 6.7 | 21.1 |
| 2 1 | 6 37.19 | +40 36.5 | 3.155 | 3.981 | 8.7 | 21.3 |
| 2 11 | 6 31.27 | +40 16.1 | 3.258 | 3.990 | 10.5 | 21.4 |

**436086** 2009 $SQ_{181}$ 1 5.3 129°.67 0°.5/ 5.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.55 | +24 21.2 | 3.725 | 4.539 | 7.7 | 22.4 |
| 12 13 | 7 16.51 | +24 32.2 | 3.651 | 4.550 | 5.6 | 22.3 |
| 12 23 | 7 10.33 | +24 43.4 | 3.604 | 4.560 | 3.3 | 22.1 |
| 1 2 | 7 3.44 | +24 53.6 | 3.588 | 4.569 | 0.9 | 21.9 |
| 1 12 | 6 56.40 | +25 1.6 | 3.604 | 4.579 | 1.8 | 22.0 |
| 1 22 | 6 49.76 | +25 6.8 | 3.651 | 4.588 | 4.2 | 22.2 |
| 2 1 | 6 44.02 | +25 9.2 | 3.728 | 4.597 | 6.4 | 22.4 |
| 2 11 | 6 39.58 | +25 8.9 | 3.830 | 4.606 | 8.3 | 22.5 |

**376257** 2011 $FC_6$ 1 5.3 259°.17 1°.1/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.58 | +24 11.3 | 2.136 | 2.964 | 12.2 | 20.9 |
| 12 13 | 7 21.09 | +24 43.6 | 2.054 | 2.959 | 9.0 | 20.7 |
| 12 23 | 7 13.42 | +25 18.4 | 1.997 | 2.954 | 5.3 | 20.5 |
| 1 2 | 7 4.27 | +25 52.2 | 1.968 | 2.949 | 1.6 | 20.2 |
| 1 12 | 6 54.65 | +26 21.6 | 1.969 | 2.944 | 3.1 | 20.3 |
| 1 22 | 6 45.65 | +26 44.5 | 2.000 | 2.939 | 7.0 | 20.6 |
| 2 1 | 6 38.27 | +27 0.4 | 2.058 | 2.934 | 10.5 | 20.8 |
| 2 11 | 6 33.25 | +27 10.0 | 2.139 | 2.928 | 13.6 | 21.0 |

**69915** 1998 $SU_{165}$ 1 5.3 100°.50 16°.5/13.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.79 | −14 24.6 | 1.172 | 1.901 | 25.7 | 20.0 |
| 12 13 | 7 25.84 | −14 51.6 | 1.119 | 1.913 | 22.9 | 19.8 |
| 12 23 | 7 16.57 | −14 31.7 | 1.079 | 1.925 | 20.0 | 19.7 |
| 1 2 | 7 5.07 | −13 16.9 | 1.056 | 1.937 | 17.6 | 19.6 |
| 1 12 | 6 53.07 | −11 7.1 | 1.055 | 1.948 | 16.5 | 19.5 |
| 1 22 | 6 42.33 | − 8 12.2 | 1.076 | 1.959 | 17.1 | 19.6 |
| 2 1 | 6 34.35 | − 4 48.6 | 1.119 | 1.970 | 19.2 | 19.8 |
| 2 11 | 6 30.02 | − 1 15.2 | 1.183 | 1.980 | 21.9 | 20.0 |

**458293** 2010 $UQ_{83}$ 1 5.3 17°.45 7°.5/ 5.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.10 | +10 31.9 | 1.268 | 2.103 | 18.5 | 20.2 |
| 12 13 | 7 21.32 | + 8 57.2 | 1.214 | 2.111 | 14.6 | 20.0 |
| 12 23 | 7 13.71 | + 7 36.0 | 1.180 | 2.120 | 10.6 | 19.8 |
| 1 2 | 7 4.32 | + 6 33.8 | 1.171 | 2.131 | 7.7 | 19.6 |
| 1 12 | 6 54.66 | + 5 53.7 | 1.186 | 2.143 | 8.2 | 19.7 |
| 1 22 | 6 46.19 | + 5 36.2 | 1.226 | 2.156 | 11.4 | 19.9 |
| 2 1 | 6 40.11 | + 5 38.4 | 1.288 | 2.170 | 15.1 | 20.2 |
| 2 11 | 6 37.14 | + 5 55.4 | 1.370 | 2.186 | 18.5 | 20.4 |

**314215** 2005 $NP_{46}$ 1 5.3 230°.59 1°.7/ 5.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.67 | +17 30.9 | 2.250 | 3.062 | 12.2 | 21.6 |
| 12 13 | 7 22.48 | +17 24.7 | 2.154 | 3.049 | 9.2 | 21.4 |
| 12 23 | 7 14.20 | +17 23.7 | 2.084 | 3.035 | 5.7 | 21.2 |
| 1 2 | 7 4.47 | +17 27.0 | 2.042 | 3.021 | 2.3 | 20.9 |
| 1 12 | 6 54.24 | +17 33.4 | 2.031 | 3.005 | 3.1 | 20.9 |
| 1 22 | 6 44.54 | +17 41.6 | 2.051 | 2.990 | 6.8 | 21.1 |
| 2 1 | 6 36.33 | +17 51.0 | 2.098 | 2.973 | 10.4 | 21.3 |
| 2 11 | 6 30.34 | +18 1.0 | 2.170 | 2.956 | 13.5 | 21.5 |

**160686** 2000 $EO_{155}$ 1 5.3 237°.60 1°.7/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.03 | +28 4.0 | 2.311 | 3.135 | 11.6 | 19.8 |
| 12 13 | 7 21.97 | +28 8.4 | 2.228 | 3.130 | 8.6 | 19.6 |
| 12 23 | 7 13.84 | +28 10.5 | 2.171 | 3.126 | 5.2 | 19.4 |
| 1 2 | 7 4.36 | +28 7.5 | 2.142 | 3.121 | 2.0 | 19.2 |
| 1 12 | 6 54.54 | +27 57.8 | 2.143 | 3.116 | 3.2 | 19.2 |
| 1 22 | 6 45.41 | +27 41.1 | 2.175 | 3.111 | 6.7 | 19.5 |
| 2 1 | 6 37.91 | +27 18.5 | 2.234 | 3.106 | 10.0 | 19.7 |
| 2 11 | 6 32.68 | +26 52.0 | 2.317 | 3.101 | 12.8 | 19.8 |

**419126** 2009 $SK_{231}$ 1 5.3 41°.49 6°.0/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.46 | +38 0.5 | 1.862 | 2.683 | 14.0 | 20.9 |
| 12 13 | 7 25.90 | +38 42.2 | 1.794 | 2.685 | 11.0 | 20.7 |
| 12 23 | 7 16.42 | +39 14.1 | 1.750 | 2.687 | 8.0 | 20.5 |
| 1 2 | 7 5.03 | +39 29.6 | 1.733 | 2.689 | 6.1 | 20.4 |
| 1 12 | 6 53.22 | +39 24.6 | 1.743 | 2.691 | 6.9 | 20.5 |
| 1 22 | 6 42.53 | +38 59.3 | 1.781 | 2.693 | 9.7 | 20.6 |
| 2 1 | 6 34.24 | +38 17.3 | 1.843 | 2.695 | 12.7 | 20.8 |
| 2 11 | 6 29.15 | +37 24.3 | 1.928 | 2.697 | 15.6 | 21.0 |

**14637** 1998 $WN_1$ 1 5.3 125°.63 2°.6/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.61 | +15 57.6 | 1.675 | 2.495 | 15.4 | 18.6 |
| 12 13 | 7 24.91 | +15 47.5 | 1.611 | 2.509 | 11.6 | 18.3 |
| 12 23 | 7 15.68 | +15 46.0 | 1.570 | 2.521 | 7.2 | 18.1 |
| 1 2 | 7 4.83 | +15 51.8 | 1.557 | 2.534 | 3.2 | 17.9 |
| 1 12 | 6 53.69 | +16 3.5 | 1.572 | 2.545 | 4.0 | 18.0 |
| 1 22 | 6 43.55 | +16 19.1 | 1.616 | 2.557 | 8.2 | 18.3 |
| 2 1 | 6 35.53 | +16 37.1 | 1.686 | 2.567 | 12.2 | 18.5 |
| 2 11 | 6 30.34 | +16 56.1 | 1.779 | 2.577 | 15.6 | 18.8 |

**370604** 2003 $WC_{155}$ 1 5.3 62°.29 0°.6/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.65 | +21 38.1 | 1.991 | 2.819 | 12.9 | 20.2 |
| 12 13 | 7 21.12 | +22 26.3 | 1.926 | 2.832 | 9.5 | 20.0 |
| 12 23 | 7 13.41 | +23 19.3 | 1.887 | 2.845 | 5.6 | 19.8 |
| 1 2 | 7 4.27 | +24 13.1 | 1.876 | 2.858 | 1.4 | 19.5 |
| 1 12 | 6 54.79 | +25 3.4 | 1.895 | 2.871 | 3.0 | 19.7 |
| 1 22 | 6 46.07 | +25 47.3 | 1.943 | 2.884 | 7.0 | 20.0 |
| 2 1 | 6 39.08 | +26 23.3 | 2.019 | 2.897 | 10.6 | 20.2 |
| 2 11 | 6 34.51 | +26 51.5 | 2.118 | 2.911 | 13.6 | 20.4 |

**56382** 2000 $ES_{43}$ 1 5.3 297°.74 4°.1/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.16 | +12 40.3 | 1.416 | 2.245 | 17.2 | 19.1 |
| 12 13 | 7 22.98 | +12 33.3 | 1.342 | 2.241 | 13.2 | 18.9 |
| 12 23 | 7 14.86 | +12 40.6 | 1.288 | 2.237 | 8.8 | 18.6 |
| 1 2 | 7 4.69 | +13 2.2 | 1.260 | 2.233 | 4.7 | 18.4 |
| 1 12 | 6 53.88 | +13 36.0 | 1.258 | 2.229 | 5.3 | 18.4 |
| 1 22 | 6 43.96 | +14 18.4 | 1.282 | 2.225 | 9.6 | 18.6 |
| 2 1 | 6 36.30 | +15 5.6 | 1.331 | 2.221 | 14.1 | 18.9 |
| 2 11 | 6 31.81 | +15 53.9 | 1.401 | 2.218 | 18.1 | 19.1 |

**409426** 2005 $LN_{21}$ 1 5.3 97°.77 3°.4/ 4.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.85 | +30 44.4 | 2.104 | 2.922 | 12.7 | 21.3 |
| 12 13 | 7 26.25 | +31 39.5 | 2.056 | 2.952 | 9.5 | 21.1 |
| 12 23 | 7 16.32 | +32 30.4 | 2.033 | 2.981 | 6.0 | 21.0 |
| 1 2 | 7 4.97 | +33 11.9 | 2.039 | 3.010 | 3.6 | 20.9 |
| 1 12 | 6 53.44 | +33 40.0 | 2.075 | 3.038 | 4.6 | 21.0 |
| 1 22 | 6 42.94 | +33 53.8 | 2.142 | 3.065 | 7.6 | 21.2 |
| 2 1 | 6 34.48 | +33 54.8 | 2.235 | 3.091 | 10.7 | 21.5 |
| 2 11 | 6 28.69 | +33 46.2 | 2.352 | 3.117 | 13.2 | 21.7 |

**438889** 2009 $SA_{313}$ 1 5.3 100°.20 2°.2/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.32 | +16 14.0 | 1.466 | 2.290 | 17.0 | 22.3 |
| 12 13 | 7 27.04 | +16 22.5 | 1.415 | 2.315 | 12.6 | 22.1 |
| 12 23 | 7 16.95 | +16 40.9 | 1.387 | 2.340 | 7.8 | 21.9 |
| 1 2 | 7 5.15 | +17 6.9 | 1.384 | 2.363 | 3.0 | 21.7 |
| 1 12 | 6 53.15 | +17 36.9 | 1.411 | 2.386 | 4.0 | 21.8 |
| 1 22 | 6 42.45 | +18 8.0 | 1.466 | 2.408 | 8.6 | 22.1 |
| 2 1 | 6 34.23 | +18 38.1 | 1.546 | 2.429 | 12.9 | 22.4 |
| 2 11 | 6 29.20 | +19 6.0 | 1.648 | 2.450 | 16.4 | 22.7 |

**33690** Noahcain 1 5.3 288°.62 1°.9/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.82 | +27 2.3 | 2.287 | 3.115 | 11.5 | 19.2 |
| 12 13 | 7 20.52 | +27 36.1 | 2.199 | 3.103 | 8.5 | 19.0 |
| 12 23 | 7 13.11 | +28 10.3 | 2.135 | 3.091 | 5.2 | 18.7 |
| 1 2 | 7 4.23 | +28 41.2 | 2.100 | 3.078 | 2.2 | 18.5 |
| 1 12 | 6 54.86 | +29 5.6 | 2.095 | 3.066 | 3.5 | 18.6 |
| 1 22 | 6 46.03 | +29 21.7 | 2.119 | 3.054 | 6.9 | 18.8 |
| 2 1 | 6 38.72 | +29 29.3 | 2.171 | 3.042 | 10.3 | 19.0 |
| 2 11 | 6 33.67 | +29 29.7 | 2.246 | 3.030 | 13.2 | 19.1 |

**33353** Chattopadhyay 1 5.3 275°.46 2°.3/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.46 | +15 38.2 | 1.490 | 2.322 | 16.3 | 18.5 |
| 12 13 | 7 23.21 | +15 55.8 | 1.410 | 2.314 | 12.4 | 18.2 |
| 12 23 | 7 15.03 | +16 25.9 | 1.352 | 2.306 | 7.7 | 17.9 |
| 1 2 | 7 4.76 | +17 6.4 | 1.320 | 2.298 | 3.1 | 17.6 |
| 1 12 | 6 53.76 | +17 53.5 | 1.315 | 2.291 | 4.1 | 17.7 |
| 1 22 | 6 43.55 | +18 43.1 | 1.337 | 2.283 | 9.0 | 17.9 |
| 2 1 | 6 35.53 | +19 31.6 | 1.385 | 2.275 | 13.7 | 18.2 |
| 2 11 | 6 30.65 | +20 16.6 | 1.454 | 2.267 | 17.7 | 18.4 |

**49343** 1998 $WH_3$ 1 5.3 35°.42 1°.9/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.58 | +20 48.0 | 1.472 | 2.310 | 16.2 | 18.1 |
| 12 13 | 7 24.40 | +19 56.3 | 1.410 | 2.318 | 12.1 | 17.9 |
| 12 23 | 7 15.45 | +19 6.6 | 1.371 | 2.328 | 7.3 | 17.7 |
| 1 2 | 7 4.78 | +18 19.5 | 1.358 | 2.337 | 2.6 | 17.4 |
| 1 12 | 6 53.88 | +17 36.0 | 1.372 | 2.348 | 4.0 | 17.5 |
| 1 22 | 6 44.20 | +16 57.6 | 1.415 | 2.359 | 8.7 | 17.8 |
| 2 1 | 6 36.92 | +16 25.5 | 1.482 | 2.370 | 13.1 | 18.1 |
| 2 11 | 6 32.72 | +15 59.9 | 1.571 | 2.382 | 16.7 | 18.4 |

**177879** 2005 $QH_{104}$ 1 5.3 94°.39 1°.4/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.95 | +17 32.5 | 2.624 | 3.438 | 10.6 | 20.7 |
| 12 13 | 7 18.61 | +17 28.7 | 2.553 | 3.449 | 7.9 | 20.6 |
| 12 23 | 7 11.71 | +17 29.4 | 2.507 | 3.459 | 4.8 | 20.4 |
| 1 2 | 7 3.84 | +17 34.0 | 2.491 | 3.469 | 1.9 | 20.2 |
| 1 12 | 6 55.76 | +17 41.2 | 2.505 | 3.480 | 2.6 | 20.3 |
| 1 22 | 6 48.26 | +17 50.2 | 2.550 | 3.490 | 5.6 | 20.5 |
| 2 1 | 6 42.00 | +18 0.0 | 2.623 | 3.500 | 8.5 | 20.7 |
| 2 11 | 6 37.52 | +18 10.1 | 2.720 | 3.509 | 11.0 | 20.9 |

**61620** 2000 $QW_{100}$ 1 5.3 53°.18 3°.0/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.95 | +28 43.5 | 1.823 | 2.656 | 13.7 | 19.5 |
| 12 13 | 7 23.17 | +29 26.8 | 1.754 | 2.660 | 10.2 | 19.3 |
| 12 23 | 7 14.78 | +30 8.9 | 1.709 | 2.663 | 6.4 | 19.1 |
| 1 2 | 7 4.66 | +30 44.5 | 1.691 | 2.667 | 3.2 | 18.9 |
| 1 12 | 6 54.07 | +31 9.3 | 1.702 | 2.671 | 4.5 | 19.0 |
| 1 22 | 6 44.38 | +31 21.5 | 1.742 | 2.675 | 8.3 | 19.2 |
| 2 1 | 6 36.76 | +31 21.9 | 1.807 | 2.679 | 11.9 | 19.4 |
| 2 11 | 6 31.98 | +31 13.2 | 1.894 | 2.683 | 15.1 | 19.7 |

**266847** 2009 $UE_{46}$ 1 5.3 164°.09 0°.9/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.10 | +19 31.3 | 2.166 | 2.987 | 12.3 | 21.0 |
| 12 13 | 7 21.29 | +19 32.2 | 2.089 | 2.989 | 9.1 | 20.8 |
| 12 23 | 7 13.46 | +19 37.5 | 2.036 | 2.991 | 5.5 | 20.6 |
| 1 2 | 7 4.31 | +19 45.5 | 2.012 | 2.993 | 1.7 | 20.3 |
| 1 12 | 6 54.82 | +19 54.6 | 2.018 | 2.994 | 2.8 | 20.4 |
| 1 22 | 6 46.01 | +20 3.6 | 2.054 | 2.996 | 6.6 | 20.6 |
| 2 1 | 6 38.79 | +20 11.8 | 2.118 | 2.997 | 10.1 | 20.9 |
| 2 11 | 6 33.79 | +20 19.1 | 2.205 | 2.998 | 13.1 | 21.1 |

**199024** 2005 $WZ_{103}$ 1 5.3 22°.95 2°.3/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.72 | +17 40.8 | 1.129 | 1.982 | 19.0 | 20.0 |
| 12 13 | 7 23.05 | +17 32.8 | 1.072 | 1.988 | 14.2 | 19.7 |
| 12 23 | 7 15.01 | +17 35.4 | 1.036 | 1.994 | 8.7 | 19.5 |
| 1 2 | 7 4.74 | +17 46.9 | 1.022 | 2.002 | 3.3 | 19.2 |
| 1 12 | 6 53.99 | +18 4.6 | 1.034 | 2.010 | 4.6 | 19.3 |
| 1 22 | 6 44.58 | +18 25.4 | 1.070 | 2.020 | 10.1 | 19.6 |
| 2 1 | 6 37.97 | +18 47.3 | 1.129 | 2.030 | 15.1 | 19.9 |
| 2 11 | 6 35.01 | +19 8.4 | 1.207 | 2.040 | 19.4 | 20.2 |

**29555** MACEK 1 5.3 114°.61 0°.8/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.04 | +17 44.2 | 2.515 | 3.329 | 11.0 | 17.4 |
| 12 13 | 7 19.54 | +18 17.3 | 2.442 | 3.339 | 8.1 | 17.2 |
| 12 23 | 7 12.33 | +18 56.4 | 2.396 | 3.349 | 4.9 | 17.0 |
| 1 2 | 7 4.02 | +19 39.4 | 2.378 | 3.359 | 1.5 | 16.8 |
| 1 12 | 6 55.43 | +20 23.5 | 2.392 | 3.368 | 2.4 | 16.9 |
| 1 22 | 6 47.37 | +21 6.2 | 2.437 | 3.377 | 5.8 | 17.1 |
| 2 1 | 6 40.63 | +21 45.9 | 2.510 | 3.386 | 8.8 | 17.3 |
| 2 11 | 6 35.78 | +22 21.6 | 2.608 | 3.395 | 11.5 | 17.5 |

**169188** 2001 $RF_{18}$ 1 5.3 76°.80 1°.9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.37 | +28 24.7 | 2.229 | 3.054 | 11.9 | 20.1 |
| 12 13 | 7 22.13 | +28 31.9 | 2.166 | 3.068 | 8.8 | 19.9 |
| 12 23 | 7 13.88 | +28 36.5 | 2.128 | 3.083 | 5.3 | 19.7 |
| 1 2 | 7 4.40 | +28 35.6 | 2.118 | 3.097 | 2.2 | 19.5 |
| 1 12 | 6 54.74 | +28 27.7 | 2.139 | 3.111 | 3.3 | 19.6 |
| 1 22 | 6 45.93 | +28 12.6 | 2.189 | 3.126 | 6.7 | 19.9 |
| 2 1 | 6 38.84 | +27 51.6 | 2.267 | 3.140 | 9.8 | 20.1 |
| 2 11 | 6 34.07 | +27 26.8 | 2.369 | 3.154 | 12.6 | 20.3 |

**405924** 2006 $KD_{68}$ 1 5.3 208°.92 0°.2/ 5.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.14 | +19 41.0 | 2.158 | 2.973 | 12.6 | 22.6 |
| 12 13 | 7 23.72 | +20 15.8 | 2.068 | 2.967 | 9.3 | 22.4 |
| 12 23 | 7 15.03 | +20 56.9 | 2.004 | 2.959 | 5.6 | 22.1 |
| 1 2 | 7 4.75 | +21 41.1 | 1.969 | 2.950 | 1.5 | 21.8 |
| 1 12 | 6 53.90 | +22 24.9 | 1.965 | 2.941 | 2.8 | 21.9 |
| 1 22 | 6 43.61 | +23 5.3 | 1.992 | 2.931 | 6.9 | 22.1 |
| 2 1 | 6 34.92 | +23 40.6 | 2.047 | 2.920 | 10.7 | 22.4 |
| 2 11 | 6 28.62 | +24 10.5 | 2.125 | 2.909 | 13.9 | 22.5 |

**229608** 2006 $DQ_{20}$ 1 5.3 280°.02 0°.0/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.52 | +21 34.1 | 2.077 | 2.904 | 12.6 | 20.6 |
| 12 13 | 7 21.17 | +21 47.6 | 1.983 | 2.888 | 9.3 | 20.4 |
| 12 23 | 7 13.57 | +22 4.9 | 1.914 | 2.871 | 5.6 | 20.1 |
| 1 2 | 7 4.39 | +22 23.8 | 1.873 | 2.855 | 1.4 | 19.8 |
| 1 12 | 6 54.65 | +22 41.7 | 1.862 | 2.838 | 2.9 | 19.9 |
| 1 22 | 6 45.45 | +22 56.8 | 1.879 | 2.822 | 7.1 | 20.1 |
| 2 1 | 6 37.86 | +23 8.5 | 1.924 | 2.805 | 10.9 | 20.3 |
| 2 11 | 6 32.64 | +23 16.8 | 1.992 | 2.788 | 14.2 | 20.5 |

**8618** Sethjacobson 1 5.3 48°.26 1°.0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.34 | +19 49.3 | 2.331 | 3.152 | 11.6 | 17.6 |
| 12 13 | 7 19.87 | +19 37.7 | 2.253 | 3.153 | 8.6 | 17.4 |
| 12 23 | 7 12.57 | +19 29.3 | 2.200 | 3.155 | 5.2 | 17.2 |
| 1 2 | 7 4.09 | +19 23.1 | 2.176 | 3.156 | 1.7 | 17.0 |
| 1 12 | 6 55.34 | +19 18.3 | 2.182 | 3.158 | 2.7 | 17.1 |
| 1 22 | 6 47.22 | +19 14.3 | 2.218 | 3.159 | 6.2 | 17.3 |
| 2 1 | 6 40.54 | +19 10.9 | 2.282 | 3.161 | 9.5 | 17.5 |
| 2 11 | 6 35.90 | +19 8.0 | 2.370 | 3.163 | 12.3 | 17.7 |

**429041** 2009 $CB_{52}$ 1 5.3 340°.76 0°.5/ 5.4 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.48 | +20 24.8 | 1.774 | 2.613 | 13.8 | 21.2 |
| 12 13 | 7 19.18 | +20 35.8 | 1.691 | 2.601 | 10.3 | 21.0 |
| 12 23 | 7 12.48 | +20 52.4 | 1.632 | 2.590 | 6.2 | 20.7 |
| 1 2 | 7 4.12 | +21 12.3 | 1.599 | 2.580 | 1.7 | 20.4 |
| 1 12 | 6 55.23 | +21 33.1 | 1.594 | 2.571 | 3.1 | 20.5 |
| 1 22 | 6 47.02 | +21 52.6 | 1.616 | 2.562 | 7.6 | 20.7 |
| 2 1 | 6 40.60 | +22 9.4 | 1.664 | 2.554 | 11.8 | 21.0 |
| 2 11 | 6 36.77 | +22 23.2 | 1.735 | 2.547 | 15.3 | 21.2 |

**38234** 1999 $NA_{59}$ 1 5.3 58°.54 6°.9/ 7.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.08 | + 4 5.4 | 1.748 | 2.540 | 16.0 | 18.4 |
| 12 13 | 7 20.65 | + 3 38.1 | 1.695 | 2.561 | 12.9 | 18.2 |
| 12 23 | 7 13.08 | + 3 29.5 | 1.663 | 2.582 | 9.7 | 18.1 |
| 1 2 | 7 4.22 | + 3 41.0 | 1.657 | 2.604 | 7.3 | 18.0 |
| 1 12 | 6 55.17 | + 4 11.6 | 1.678 | 2.625 | 7.2 | 18.0 |
| 1 22 | 6 47.01 | + 4 58.1 | 1.725 | 2.646 | 9.3 | 18.2 |
| 2 1 | 6 40.65 | + 5 55.7 | 1.799 | 2.668 | 12.2 | 18.4 |
| 2 11 | 6 36.71 | + 6 59.3 | 1.894 | 2.690 | 14.9 | 18.7 |

**471193** 2010 $OC_{74}$ 1 5.3 309°.81 5°.7/ 7.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.77 | + 4 34.6 | 2.361 | 3.143 | 12.7 | 21.4 |
| 12 13 | 7 17.97 | + 4 12.4 | 2.279 | 3.140 | 10.2 | 21.2 |
| 12 23 | 7 11.46 | + 4 3.9 | 2.221 | 3.138 | 7.8 | 21.1 |
| 1 2 | 7 3.84 | + 4 10.2 | 2.190 | 3.135 | 5.9 | 21.0 |
| 1 12 | 6 55.89 | + 4 31.5 | 2.187 | 3.133 | 5.9 | 20.9 |
| 1 22 | 6 48.44 | + 5 5.8 | 2.213 | 3.130 | 7.8 | 21.1 |
| 2 1 | 6 42.26 | + 5 50.5 | 2.265 | 3.128 | 10.3 | 21.2 |
| 2 11 | 6 37.92 | + 6 41.8 | 2.341 | 3.126 | 12.7 | 21.4 |

**452806** 2006 $KE_{66}$ 1 5.3 212°.69 1°.0/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.52 | +23 32.8 | 1.840 | 2.668 | 13.9 | 21.8 |
| 12 13 | 7 24.34 | +24 5.0 | 1.758 | 2.663 | 10.3 | 21.6 |
| 12 23 | 7 15.54 | +24 40.6 | 1.701 | 2.658 | 6.1 | 21.4 |
| 1 2 | 7 4.91 | +25 15.5 | 1.671 | 2.652 | 1.7 | 21.1 |
| 1 12 | 6 53.69 | +25 45.7 | 1.671 | 2.646 | 3.4 | 21.2 |
| 1 22 | 6 43.22 | +26 8.7 | 1.700 | 2.640 | 7.9 | 21.4 |
| 2 1 | 6 34.71 | +26 23.9 | 1.756 | 2.633 | 12.0 | 21.6 |
| 2 11 | 6 29.02 | +26 32.4 | 1.834 | 2.626 | 15.4 | 21.9 |

**82130** 2001 $FX_{99}$ 1 5.3 256°.94 2°.6/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.54 | +25 11.1 | 1.390 | 2.233 | 16.7 | 19.6 |
| 12 13 | 7 25.88 | +26 10.8 | 1.317 | 2.229 | 12.4 | 19.3 |
| 12 23 | 7 16.81 | +27 15.5 | 1.267 | 2.226 | 7.5 | 19.0 |
| 1 2 | 7 5.28 | +28 17.6 | 1.242 | 2.222 | 3.0 | 18.7 |
| 1 12 | 6 52.92 | +29 9.9 | 1.245 | 2.218 | 5.0 | 18.8 |
| 1 22 | 6 41.56 | +29 47.8 | 1.275 | 2.214 | 10.0 | 19.1 |
| 2 1 | 6 32.84 | +30 10.9 | 1.328 | 2.210 | 14.7 | 19.4 |
| 2 11 | 6 27.79 | +30 21.5 | 1.402 | 2.206 | 18.7 | 19.6 |

**29059** 2151 $T\text{-}_3$ 1 5.3 238°.25 6°.5/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.46 | +36 21.7 | 1.505 | 2.336 | 16.3 | 18.9 |
| 12 13 | 7 28.79 | +37 11.7 | 1.435 | 2.333 | 12.7 | 18.7 |
| 12 23 | 7 18.49 | +37 52.7 | 1.387 | 2.330 | 9.0 | 18.5 |
| 1 2 | 7 5.68 | +38 15.9 | 1.365 | 2.327 | 6.6 | 18.3 |
| 1 12 | 6 52.20 | +38 15.2 | 1.369 | 2.323 | 7.7 | 18.4 |
| 1 22 | 6 40.02 | +37 50.5 | 1.400 | 2.320 | 11.1 | 18.5 |
| 2 1 | 6 30.80 | +37 6.2 | 1.454 | 2.316 | 14.9 | 18.8 |
| 2 11 | 6 25.49 | +36 9.6 | 1.529 | 2.313 | 18.3 | 19.0 |

**248556** 2005 $YU_{95}$ 1 5.3 98°.20 1°.2/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.89 | +23 26.9 | 2.090 | 2.914 | 12.6 | 21.0 |
| 12 13 | 7 22.68 | +24 16.4 | 2.028 | 2.931 | 9.2 | 20.8 |
| 12 23 | 7 14.31 | +25 8.8 | 1.992 | 2.948 | 5.4 | 20.6 |
| 1 2 | 7 4.56 | +25 59.6 | 1.984 | 2.965 | 1.7 | 20.4 |
| 1 12 | 6 54.50 | +26 44.9 | 2.007 | 2.982 | 3.2 | 20.5 |
| 1 22 | 6 45.22 | +27 22.2 | 2.060 | 2.998 | 6.9 | 20.8 |
| 2 1 | 6 37.69 | +27 50.6 | 2.141 | 3.014 | 10.3 | 21.0 |
| 2 11 | 6 32.56 | +28 11.0 | 2.245 | 3.029 | 13.2 | 21.2 |

**446828** 2001 $QS_{171}$ 1 5.3 123°.16 1°.8/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.53 | +25 46.1 | 1.755 | 2.580 | 14.6 | 21.7 |
| 12 13 | 7 27.12 | +26 19.2 | 1.696 | 2.599 | 10.7 | 21.5 |
| 12 23 | 7 17.03 | +26 52.6 | 1.660 | 2.616 | 6.4 | 21.3 |
| 1 2 | 7 5.24 | +27 21.3 | 1.653 | 2.633 | 2.2 | 21.0 |
| 1 12 | 6 53.17 | +27 41.5 | 1.676 | 2.649 | 3.8 | 21.2 |
| 1 22 | 6 42.20 | +27 51.8 | 1.727 | 2.664 | 8.0 | 21.5 |
| 2 1 | 6 33.52 | +27 53.1 | 1.806 | 2.679 | 11.9 | 21.7 |
| 2 11 | 6 27.84 | +27 47.7 | 1.907 | 2.692 | 15.1 | 22.0 |

**190329** 1998 $RK_{14}$ 1 5.3 29°.66 1°.0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.94 | +19 9.2 | 1.851 | 2.681 | 13.7 | 20.4 |
| 12 13 | 7 20.74 | +19 16.0 | 1.781 | 2.686 | 10.2 | 20.2 |
| 12 23 | 7 13.27 | +19 28.6 | 1.734 | 2.690 | 6.1 | 19.9 |
| 1 2 | 7 4.32 | +19 45.2 | 1.714 | 2.695 | 1.9 | 19.7 |
| 1 12 | 6 55.01 | +20 3.5 | 1.724 | 2.700 | 3.1 | 19.8 |
| 1 22 | 6 46.49 | +20 21.5 | 1.762 | 2.706 | 7.3 | 20.0 |
| 2 1 | 6 39.77 | +20 38.2 | 1.826 | 2.711 | 11.1 | 20.3 |
| 2 11 | 6 35.54 | +20 52.9 | 1.913 | 2.717 | 14.4 | 20.5 |

**128057** 2003 $NR$ 1 5.3 177°.25 0°.6/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.04 | +24 0.0 | 2.156 | 2.973 | 12.5 | 21.3 |
| 12 13 | 7 25.00 | +24 11.7 | 2.076 | 2.976 | 9.2 | 21.1 |
| 12 23 | 7 15.71 | +24 24.4 | 2.023 | 2.978 | 5.5 | 20.8 |
| 1 2 | 7 4.94 | +24 35.2 | 1.998 | 2.979 | 1.5 | 20.6 |
| 1 12 | 6 53.78 | +24 41.7 | 2.004 | 2.980 | 2.9 | 20.7 |
| 1 22 | 6 43.39 | +24 43.0 | 2.041 | 2.979 | 6.9 | 20.9 |
| 2 1 | 6 34.77 | +24 39.5 | 2.106 | 2.978 | 10.5 | 21.2 |
| 2 11 | 6 28.62 | +24 32.4 | 2.195 | 2.976 | 13.5 | 21.4 |

**150880** 2001 $SR_{234}$ 1 5.3 336°.34 8°.4/ 3.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.37 | +40 4.4 | 1.549 | 2.379 | 15.9 | 19.5 |
| 12 13 | 7 25.99 | +41 22.4 | 1.480 | 2.371 | 12.8 | 19.3 |
| 12 23 | 7 16.98 | +42 30.0 | 1.433 | 2.363 | 10.0 | 19.1 |
| 1 2 | 7 5.34 | +43 17.0 | 1.410 | 2.356 | 8.5 | 19.0 |
| 1 12 | 6 52.88 | +43 36.1 | 1.413 | 2.349 | 9.5 | 19.0 |
| 1 22 | 6 41.59 | +43 25.9 | 1.441 | 2.343 | 12.3 | 19.2 |
| 2 1 | 6 33.19 | +42 50.3 | 1.491 | 2.338 | 15.5 | 19.4 |
| 2 11 | 6 28.70 | +41 56.9 | 1.560 | 2.333 | 18.5 | 19.6 |

**325325** 2008 $JA_{14}$ 1 5.3 306°.93 0°.7/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.19 | +18 41.6 | 1.617 | 2.453 | 15.1 | 20.2 |
| 12 13 | 7 21.59 | +19 10.6 | 1.522 | 2.431 | 11.3 | 19.9 |
| 12 23 | 7 14.17 | +19 49.6 | 1.451 | 2.408 | 6.9 | 19.6 |
| 1 2 | 7 4.64 | +20 35.7 | 1.405 | 2.386 | 2.0 | 19.3 |
| 1 12 | 6 54.23 | +21 24.8 | 1.387 | 2.364 | 3.5 | 19.3 |
| 1 22 | 6 44.37 | +22 12.6 | 1.397 | 2.343 | 8.6 | 19.6 |
| 2 1 | 6 36.46 | +22 56.2 | 1.432 | 2.321 | 13.3 | 19.8 |
| 2 11 | 6 31.53 | +23 34.1 | 1.488 | 2.301 | 17.4 | 20.0 |

**325549** 2009 $SG_{75}$ 1 5.3 223°.56 3°.8/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.73 | +31 25.2 | 2.113 | 2.938 | 12.5 | 21.0 |
| 12 13 | 7 23.65 | +32 19.5 | 2.034 | 2.933 | 9.4 | 20.8 |
| 12 23 | 7 15.09 | +33 11.3 | 1.979 | 2.928 | 6.2 | 20.6 |
| 1 2 | 7 4.82 | +33 55.1 | 1.953 | 2.923 | 3.9 | 20.4 |
| 1 12 | 6 53.98 | +34 26.3 | 1.956 | 2.917 | 5.0 | 20.5 |
| 1 22 | 6 43.84 | +34 42.9 | 1.988 | 2.912 | 8.1 | 20.7 |
| 2 1 | 6 35.53 | +34 45.5 | 2.047 | 2.906 | 11.4 | 20.9 |
| 2 11 | 6 29.88 | +34 37.1 | 2.129 | 2.900 | 14.2 | 21.1 |

**191056** 2002 $CL_{98}$ 1 5.3 260°.94 4°.6/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.12 | + 8 2.7 | 2.111 | 2.908 | 13.4 | 20.0 |
| 12 13 | 7 19.98 | + 8 1.7 | 2.020 | 2.897 | 10.6 | 19.8 |
| 12 23 | 7 12.82 | + 8 14.5 | 1.953 | 2.886 | 7.6 | 19.6 |
| 1 2 | 7 4.24 | + 8 41.6 | 1.913 | 2.874 | 5.0 | 19.4 |
| 1 12 | 6 55.16 | + 9 21.7 | 1.901 | 2.862 | 5.1 | 19.4 |
| 1 22 | 6 46.57 | +10 12.3 | 1.919 | 2.850 | 7.8 | 19.5 |
| 2 1 | 6 39.41 | +11 9.8 | 1.963 | 2.838 | 11.0 | 19.7 |
| 2 11 | 6 34.40 | +12 10.6 | 2.032 | 2.826 | 14.0 | 19.9 |

**335624** 2006 $HW_{26}$ 1 5.3 151°.16 1°.9/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.81 | +14 37.4 | 2.668 | 3.473 | 10.7 | 21.5 |
| 12 13 | 7 19.28 | +14 50.2 | 2.591 | 3.480 | 8.1 | 21.3 |
| 12 23 | 7 12.17 | +15 10.1 | 2.539 | 3.486 | 5.1 | 21.2 |
| 1 2 | 7 4.04 | +15 35.8 | 2.517 | 3.492 | 2.4 | 21.0 |
| 1 12 | 6 55.64 | +16 5.8 | 2.525 | 3.498 | 2.8 | 21.0 |
| 1 22 | 6 47.75 | +16 38.1 | 2.565 | 3.503 | 5.7 | 21.2 |
| 2 1 | 6 41.06 | +17 11.2 | 2.633 | 3.508 | 8.5 | 21.4 |
| 2 11 | 6 36.13 | +17 43.6 | 2.727 | 3.513 | 11.1 | 21.6 |

**500358** 2012 $TA_{25}$ 1 5.3 123°.21 3°.4/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.82 | +11 41.5 | 2.488 | 3.290 | 11.5 | 21.7 |
| 12 13 | 7 18.63 | +11 23.4 | 2.410 | 3.293 | 8.8 | 21.5 |
| 12 23 | 7 11.82 | +11 13.6 | 2.357 | 3.297 | 6.0 | 21.3 |
| 1 2 | 7 3.95 | +11 12.4 | 2.333 | 3.300 | 3.7 | 21.2 |
| 1 12 | 6 55.83 | +11 19.4 | 2.338 | 3.303 | 4.0 | 21.2 |
| 1 22 | 6 48.24 | +11 33.3 | 2.373 | 3.306 | 6.4 | 21.4 |
| 2 1 | 6 41.92 | +11 52.8 | 2.436 | 3.309 | 9.2 | 21.5 |
| 2 11 | 6 37.40 | +12 15.8 | 2.523 | 3.311 | 11.8 | 21.7 |

**324611** 2006 $YV_{22}$ 1 5.3 306°.24 1°.1/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.95 | +25 45.0 | 1.681 | 2.518 | 14.5 | 20.4 |
| 12 13 | 7 23.43 | +25 42.6 | 1.595 | 2.505 | 10.8 | 20.1 |
| 12 23 | 7 15.11 | +25 39.3 | 1.533 | 2.491 | 6.5 | 19.8 |
| 1 2 | 7 4.85 | +25 32.3 | 1.497 | 2.478 | 1.9 | 19.5 |
| 1 12 | 6 53.97 | +25 19.4 | 1.489 | 2.465 | 3.6 | 19.6 |
| 1 22 | 6 43.94 | +25 0.2 | 1.509 | 2.452 | 8.4 | 19.8 |
| 2 1 | 6 36.03 | +24 36.0 | 1.555 | 2.440 | 12.8 | 20.0 |
| 2 11 | 6 31.13 | +24 9.3 | 1.622 | 2.428 | 16.5 | 20.3 |

**161886** 2007 $CO_{58}$ 1 5.3 354°.90 8°.8/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.74 | +42 27.4 | 1.456 | 2.282 | 17.0 | 19.9 |
| 12 13 | 7 27.74 | +43 7.1 | 1.391 | 2.278 | 13.8 | 19.7 |
| 12 23 | 7 17.91 | +43 30.5 | 1.347 | 2.275 | 10.7 | 19.5 |
| 1 2 | 7 5.55 | +43 28.3 | 1.326 | 2.272 | 8.9 | 19.4 |
| 1 12 | 6 52.68 | +42 55.6 | 1.331 | 2.271 | 9.6 | 19.4 |
| 1 22 | 6 41.41 | +41 54.2 | 1.361 | 2.270 | 12.3 | 19.6 |
| 2 1 | 6 33.37 | +40 31.2 | 1.413 | 2.270 | 15.6 | 19.8 |
| 2 11 | 6 29.41 | +38 56.1 | 1.486 | 2.271 | 18.7 | 20.0 |

**129837** 1999 $RR_{16}$ 1 5.3 105°.16 3°.4/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.44 | +12 51.6 | 1.748 | 2.563 | 15.1 | 20.1 |
| 12 13 | 7 23.24 | +12 52.4 | 1.686 | 2.578 | 11.5 | 19.9 |
| 12 23 | 7 14.71 | +13 4.9 | 1.648 | 2.594 | 7.5 | 19.7 |
| 1 2 | 7 4.69 | +13 28.0 | 1.636 | 2.609 | 3.9 | 19.5 |
| 1 12 | 6 54.39 | +13 59.5 | 1.653 | 2.624 | 4.3 | 19.6 |
| 1 22 | 6 45.00 | +14 36.4 | 1.699 | 2.638 | 7.9 | 19.8 |
| 2 1 | 6 37.55 | +15 16.0 | 1.771 | 2.652 | 11.7 | 20.1 |
| 2 11 | 6 32.73 | +15 55.7 | 1.866 | 2.666 | 14.9 | 20.3 |

**293065** 2006 $WS_{156}$ 1 5.3 6°.50 2°.5/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.74 | +15 15.1 | 1.511 | 2.346 | 16.0 | 20.9 |
| 12 13 | 7 21.03 | +15 25.5 | 1.440 | 2.346 | 12.1 | 20.7 |
| 12 23 | 7 13.66 | +15 47.8 | 1.392 | 2.346 | 7.6 | 20.4 |
| 1 2 | 7 4.47 | +16 20.3 | 1.370 | 2.348 | 3.3 | 20.2 |
| 1 12 | 6 54.77 | +16 59.9 | 1.375 | 2.350 | 4.0 | 20.2 |
| 1 22 | 6 45.95 | +17 42.9 | 1.406 | 2.352 | 8.5 | 20.5 |
| 2 1 | 6 39.21 | +18 26.2 | 1.463 | 2.355 | 12.9 | 20.7 |
| 2 11 | 6 35.40 | +19 7.2 | 1.541 | 2.359 | 16.6 | 21.0 |

**109122** 2001 $QZ_{43}$ 1 5.3 118°.24 3°.3/ 4.8 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.21 | +33 28.3 | 2.374 | 3.190 | 11.5 | 19.5 |
| 12 13 | 7 23.52 | +33 35.8 | 2.302 | 3.196 | 8.7 | 19.3 |
| 12 23 | 7 14.75 | +33 37.1 | 2.255 | 3.202 | 5.7 | 19.1 |
| 1 2 | 7 4.69 | +33 28.7 | 2.237 | 3.207 | 3.4 | 19.0 |
| 1 12 | 6 54.41 | +33 9.0 | 2.249 | 3.213 | 4.2 | 19.1 |
| 1 22 | 6 44.98 | +32 38.5 | 2.291 | 3.218 | 7.0 | 19.3 |
| 2 1 | 6 37.31 | +31 59.4 | 2.361 | 3.223 | 9.9 | 19.5 |
| 2 11 | 6 32.01 | +31 14.9 | 2.455 | 3.228 | 12.5 | 19.6 |

**24800** 1994 $PC_{13}$ 1 5.3 127°.10 0°.6/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.72 | +20 36.1 | 1.818 | 2.645 | 14.1 | 19.4 |
| 12 13 | 7 23.54 | +20 42.2 | 1.749 | 2.653 | 10.4 | 19.2 |
| 12 23 | 7 14.94 | +20 52.6 | 1.703 | 2.660 | 6.2 | 19.0 |
| 1 2 | 7 4.77 | +21 5.1 | 1.685 | 2.667 | 1.7 | 18.7 |
| 1 12 | 6 54.25 | +21 17.2 | 1.697 | 2.673 | 3.1 | 18.8 |
| 1 22 | 6 44.62 | +21 27.6 | 1.737 | 2.680 | 7.5 | 19.1 |
| 2 1 | 6 36.94 | +21 35.6 | 1.804 | 2.686 | 11.4 | 19.3 |
| 2 11 | 6 31.93 | +21 41.5 | 1.894 | 2.692 | 14.8 | 19.6 |

**92920** 2000 $RA_{19}$ 1 5.3 83°.04 1°.0/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.62 | +20 48.6 | 1.511 | 2.343 | 16.1 | 19.3 |
| 12 13 | 7 25.85 | +20 33.3 | 1.455 | 2.361 | 11.9 | 19.1 |
| 12 23 | 7 16.31 | +20 21.8 | 1.422 | 2.379 | 7.1 | 18.9 |
| 1 2 | 7 5.10 | +20 12.4 | 1.416 | 2.397 | 2.1 | 18.6 |
| 1 12 | 6 53.70 | +20 3.9 | 1.438 | 2.415 | 3.6 | 18.7 |
| 1 22 | 6 43.55 | +19 55.6 | 1.488 | 2.432 | 8.4 | 19.1 |
| 2 1 | 6 35.82 | +19 47.9 | 1.564 | 2.449 | 12.7 | 19.4 |
| 2 11 | 6 31.19 | +19 41.1 | 1.661 | 2.466 | 16.2 | 19.6 |

**32248** 2000 $OV_{44}$ 1 5.3 264°.16 2°.9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.85 | +31 2.9 | 1.999 | 2.823 | 13.1 | 17.5 |
| 12 13 | 7 25.26 | +31 6.9 | 1.909 | 2.809 | 9.9 | 17.3 |
| 12 23 | 7 16.06 | +31 5.5 | 1.843 | 2.795 | 6.3 | 17.0 |
| 1 2 | 7 5.09 | +30 55.0 | 1.805 | 2.781 | 3.1 | 16.8 |
| 1 12 | 6 53.59 | +30 32.9 | 1.797 | 2.766 | 4.3 | 16.9 |
| 1 22 | 6 42.91 | +29 59.5 | 1.817 | 2.751 | 8.0 | 17.1 |
| 2 1 | 6 34.22 | +29 17.1 | 1.865 | 2.736 | 11.7 | 17.3 |
| 2 11 | 6 28.35 | +28 29.7 | 1.936 | 2.721 | 15.0 | 17.4 |

**129310** 2005 $SC_{202}$ 1 5.3 157°.29 0°.1/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.88 | +22 39.9 | 2.113 | 2.934 | 12.6 | 20.4 |
| 12 13 | 7 23.38 | +22 33.3 | 2.037 | 2.938 | 9.3 | 20.2 |
| 12 23 | 7 14.74 | +22 28.0 | 1.987 | 2.943 | 5.5 | 20.0 |
| 1 2 | 7 4.72 | +22 22.2 | 1.966 | 2.947 | 1.4 | 19.7 |
| 1 12 | 6 54.41 | +22 14.6 | 1.975 | 2.951 | 2.8 | 19.8 |
| 1 22 | 6 44.88 | +22 4.7 | 2.014 | 2.954 | 6.8 | 20.1 |
| 2 1 | 6 37.09 | +21 53.2 | 2.080 | 2.957 | 10.4 | 20.3 |
| 2 11 | 6 31.69 | +21 40.7 | 2.171 | 2.960 | 13.4 | 20.5 |

**502703** 2015 $DY_{18}$ 1 5.3 32°.50 0°.8/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.61 | +23 48.0 | 2.033 | 2.865 | 12.6 | 20.8 |
| 12 13 | 7 20.39 | +24 10.5 | 1.964 | 2.871 | 9.3 | 20.6 |
| 12 23 | 7 13.03 | +24 35.0 | 1.920 | 2.877 | 5.5 | 20.4 |
| 1 2 | 7 4.30 | +24 58.5 | 1.903 | 2.884 | 1.5 | 20.1 |
| 1 12 | 6 55.24 | +25 18.4 | 1.916 | 2.892 | 3.0 | 20.2 |
| 1 22 | 6 46.93 | +25 32.9 | 1.958 | 2.899 | 6.9 | 20.5 |
| 2 1 | 6 40.31 | +25 41.8 | 2.026 | 2.907 | 10.4 | 20.7 |
| 2 11 | 6 36.06 | +25 45.7 | 2.118 | 2.915 | 13.4 | 20.9 |

**176185** 2001 $OF_{23}$ 1 5.3 51°.36 3°.3/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.24 | +15 35.9 | 2.004 | 2.819 | 13.4 | 19.5 |
| 12 13 | 7 21.98 | +14 40.8 | 1.947 | 2.840 | 10.1 | 19.4 |
| 12 23 | 7 13.78 | +13 51.6 | 1.914 | 2.860 | 6.6 | 19.2 |
| 1 2 | 7 4.45 | +13 9.6 | 1.909 | 2.881 | 3.6 | 19.0 |
| 1 12 | 6 55.03 | +12 35.8 | 1.935 | 2.903 | 4.2 | 19.1 |
| 1 22 | 6 46.52 | +12 10.4 | 1.989 | 2.924 | 7.3 | 19.4 |
| 2 1 | 6 39.73 | +11 53.1 | 2.071 | 2.945 | 10.5 | 19.6 |
| 2 11 | 6 35.22 | +11 42.9 | 2.176 | 2.967 | 13.3 | 19.8 |

**28673** Valholmes 1 5.3 125°.26 1°.8/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.49 | +17 27.9 | 1.653 | 2.477 | 15.4 | 18.8 |
| 12 13 | 7 24.96 | +17 29.7 | 1.588 | 2.489 | 11.5 | 18.6 |
| 12 23 | 7 15.82 | +17 39.2 | 1.546 | 2.500 | 7.0 | 18.4 |
| 1 2 | 7 5.01 | +17 54.5 | 1.532 | 2.511 | 2.6 | 18.1 |
| 1 12 | 6 53.86 | +18 13.3 | 1.546 | 2.522 | 3.6 | 18.2 |
| 1 22 | 6 43.70 | +18 33.3 | 1.589 | 2.532 | 8.1 | 18.5 |
| 2 1 | 6 35.69 | +18 53.1 | 1.658 | 2.541 | 12.2 | 18.8 |
| 2 11 | 6 30.57 | +19 11.9 | 1.749 | 2.550 | 15.7 | 19.0 |

**184145** 2004 $JC_{32}$ 1 5.3 259°.81 1°.2/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.68 | +23 42.0 | 1.952 | 2.781 | 13.2 | 20.8 |
| 12 13 | 7 23.01 | +24 24.3 | 1.861 | 2.767 | 9.8 | 20.6 |
| 12 23 | 7 14.82 | +25 10.8 | 1.795 | 2.752 | 5.8 | 20.3 |
| 1 2 | 7 4.82 | +25 57.3 | 1.757 | 2.738 | 1.8 | 20.0 |
| 1 12 | 6 54.12 | +26 39.3 | 1.748 | 2.723 | 3.5 | 20.1 |
| 1 22 | 6 44.00 | +27 13.7 | 1.769 | 2.708 | 7.7 | 20.4 |
| 2 1 | 6 35.64 | +27 39.4 | 1.816 | 2.692 | 11.7 | 20.6 |
| 2 11 | 6 29.93 | +27 56.9 | 1.886 | 2.677 | 15.1 | 20.8 |

**450989** 2008 $SD_{309}$ 1 5.3 179°.17 3°.4/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.36 | +30 5.9 | 1.692 | 2.521 | 14.9 | 22.2 |
| 12 13 | 7 27.41 | +30 37.3 | 1.619 | 2.522 | 11.1 | 21.9 |
| 12 23 | 7 17.45 | +31 5.3 | 1.570 | 2.523 | 7.0 | 21.7 |
| 1 2 | 7 5.46 | +31 24.2 | 1.548 | 2.523 | 3.6 | 21.5 |
| 1 12 | 6 52.94 | +31 29.6 | 1.555 | 2.523 | 5.0 | 21.6 |
| 1 22 | 6 41.49 | +31 20.7 | 1.590 | 2.523 | 9.0 | 21.8 |
| 2 1 | 6 32.46 | +30 59.8 | 1.651 | 2.521 | 13.0 | 22.1 |
| 2 11 | 6 26.71 | +30 31.0 | 1.733 | 2.520 | 16.4 | 22.3 |

**462984** 2011 $FW$ 1 5.3 331°.35 8°.6/ 3.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.15 | +43 48.7 | 1.853 | 2.663 | 14.5 | 20.3 |
| 12 13 | 7 26.91 | +44 55.4 | 1.784 | 2.657 | 12.0 | 20.1 |
| 12 23 | 7 17.33 | +45 48.9 | 1.737 | 2.652 | 9.7 | 20.0 |
| 1 2 | 7 5.46 | +46 20.5 | 1.716 | 2.646 | 8.6 | 19.9 |
| 1 12 | 6 52.94 | +46 24.7 | 1.721 | 2.642 | 9.3 | 19.9 |
| 1 22 | 6 41.56 | +46 1.1 | 1.752 | 2.637 | 11.5 | 20.0 |
| 2 1 | 6 32.85 | +45 14.0 | 1.806 | 2.633 | 14.1 | 20.2 |
| 2 11 | 6 27.73 | +44 10.7 | 1.880 | 2.629 | 16.6 | 20.4 |

**389620** 2011 $HN_{82}$ 1 5.3 218°.76 1°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.38 | +16 49.2 | 1.740 | 2.560 | 14.9 | 22.0 |
| 12 13 | 7 25.09 | +17 4.4 | 1.653 | 2.552 | 11.2 | 21.7 |
| 12 23 | 7 16.09 | +17 28.8 | 1.590 | 2.543 | 6.9 | 21.4 |
| 1 2 | 7 5.15 | +18 0.3 | 1.554 | 2.533 | 2.6 | 21.2 |
| 1 12 | 6 53.53 | +18 35.9 | 1.547 | 2.523 | 3.6 | 21.2 |
| 1 22 | 6 42.59 | +19 12.3 | 1.570 | 2.512 | 8.2 | 21.5 |
| 2 1 | 6 33.62 | +19 47.4 | 1.619 | 2.500 | 12.6 | 21.7 |
| 2 11 | 6 27.53 | +20 19.9 | 1.690 | 2.487 | 16.3 | 21.9 |

**188008** 2001 $TP_{27}$ 1 5.3 206°.49 6°.3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.96 | + 6 32.0 | 2.006 | 2.797 | 14.3 | 20.3 |
| 12 13 | 7 21.31 | + 5 41.0 | 1.927 | 2.795 | 11.5 | 20.1 |
| 12 23 | 7 13.58 | + 5 2.7 | 1.871 | 2.793 | 8.6 | 19.9 |
| 1 2 | 7 4.48 | + 4 39.7 | 1.842 | 2.791 | 6.5 | 19.8 |
| 1 12 | 6 54.98 | + 4 33.0 | 1.841 | 2.788 | 6.7 | 19.8 |
| 1 22 | 6 46.13 | + 4 41.8 | 1.868 | 2.785 | 9.0 | 19.9 |
| 2 1 | 6 38.86 | + 5 4.0 | 1.921 | 2.782 | 11.9 | 20.1 |
| 2 11 | 6 33.84 | + 5 35.9 | 1.996 | 2.779 | 14.7 | 20.2 |

**433932** 2015 $CQ_{22}$ 1 5.3 13°.58 4°.6/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.42 | +35 20.3 | 1.992 | 2.817 | 13.1 | 20.2 |
| 12 13 | 7 23.43 | +35 43.0 | 1.923 | 2.819 | 10.0 | 20.0 |
| 12 23 | 7 14.92 | +35 57.9 | 1.877 | 2.822 | 6.9 | 19.8 |
| 1 2 | 7 4.81 | +36 0.3 | 1.859 | 2.824 | 4.7 | 19.7 |
| 1 12 | 6 54.37 | +35 47.4 | 1.869 | 2.827 | 5.5 | 19.8 |
| 1 22 | 6 44.91 | +35 19.4 | 1.908 | 2.831 | 8.4 | 19.9 |
| 2 1 | 6 37.52 | +34 39.2 | 1.972 | 2.835 | 11.5 | 20.1 |
| 2 11 | 6 32.90 | +33 51.0 | 2.059 | 2.839 | 14.3 | 20.3 |

**456794** 2007 $TC_{210}$ 1 5.3 75°.01 1°.5/ 5.0 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.74 | +24 55.2 | 1.500 | 2.336 | 16.0 | 21.8 |
| 12 13 | 7 26.07 | +25 22.3 | 1.449 | 2.358 | 11.7 | 21.6 |
| 12 23 | 7 16.52 | +25 50.5 | 1.422 | 2.380 | 6.9 | 21.4 |
| 1 2 | 7 5.20 | +26 15.0 | 1.421 | 2.402 | 2.2 | 21.1 |
| 1 12 | 6 53.67 | +26 31.9 | 1.448 | 2.423 | 3.9 | 21.3 |
| 1 22 | 6 43.44 | +26 39.9 | 1.503 | 2.445 | 8.6 | 21.6 |
| 2 1 | 6 35.74 | +26 39.9 | 1.584 | 2.466 | 12.7 | 21.9 |
| 2 11 | 6 31.25 | +26 34.0 | 1.686 | 2.487 | 16.2 | 22.2 |

**271991** 2005 $CL_{26}$ 1 5.3 112°.65 0°.7/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.86 | +17 58.2 | 2.179 | 2.999 | 12.3 | 20.4 |
| 12 13 | 7 20.48 | +18 35.6 | 2.102 | 3.002 | 9.1 | 20.2 |
| 12 23 | 7 13.10 | +19 20.4 | 2.050 | 3.005 | 5.5 | 20.0 |
| 1 2 | 7 4.36 | +20 9.8 | 2.026 | 3.007 | 1.6 | 19.7 |
| 1 12 | 6 55.23 | +21 0.4 | 2.033 | 3.010 | 2.7 | 19.8 |
| 1 22 | 6 46.68 | +21 49.1 | 2.070 | 3.012 | 6.5 | 20.1 |
| 2 1 | 6 39.63 | +22 33.8 | 2.135 | 3.015 | 10.0 | 20.3 |
| 2 11 | 6 34.76 | +23 13.3 | 2.223 | 3.017 | 13.0 | 20.5 |

**257335** 2009 $JZ$ 1 5.3 171°.74 1°.9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.33 | +15 59.8 | 2.200 | 3.011 | 12.5 | 21.4 |
| 12 13 | 7 22.20 | +16 5.2 | 2.121 | 3.014 | 9.4 | 21.3 |
| 12 23 | 7 14.06 | +16 17.8 | 2.067 | 3.017 | 5.9 | 21.0 |
| 1 2 | 7 4.60 | +16 36.3 | 2.042 | 3.019 | 2.5 | 20.8 |
| 1 12 | 6 54.78 | +16 58.8 | 2.047 | 3.021 | 3.2 | 20.9 |
| 1 22 | 6 45.59 | +17 23.5 | 2.083 | 3.022 | 6.7 | 21.1 |
| 2 1 | 6 37.95 | +17 48.8 | 2.146 | 3.023 | 10.1 | 21.3 |
| 2 11 | 6 32.50 | +18 13.5 | 2.233 | 3.023 | 13.1 | 21.5 |

**141024** 2001 $WA_{52}$ 1 5.3 174°.46 2°.0/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.39 | +28 10.2 | 2.503 | 3.326 | 10.8 | 20.2 |
| 12 13 | 7 20.72 | +28 37.5 | 2.425 | 3.327 | 8.0 | 20.0 |
| 12 23 | 7 13.17 | +29 3.5 | 2.373 | 3.327 | 4.9 | 19.8 |
| 1 2 | 7 4.37 | +29 25.2 | 2.350 | 3.328 | 2.2 | 19.6 |
| 1 12 | 6 55.24 | +29 39.9 | 2.358 | 3.328 | 3.3 | 19.7 |
| 1 22 | 6 46.71 | +29 46.5 | 2.395 | 3.328 | 6.3 | 19.9 |
| 2 1 | 6 39.63 | +29 45.5 | 2.460 | 3.328 | 9.3 | 20.1 |
| 2 11 | 6 34.63 | +29 38.1 | 2.549 | 3.328 | 11.9 | 20.3 |

**62847** 2000 $UL_{68}$ 1 5.3 60°.08 4°.0/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.62 | +31 5.8 | 1.399 | 2.240 | 16.7 | 19.5 |
| 12 13 | 7 27.12 | +31 32.1 | 1.344 | 2.253 | 12.5 | 19.3 |
| 12 23 | 7 17.32 | +31 52.7 | 1.312 | 2.266 | 7.9 | 19.0 |
| 1 2 | 7 5.43 | +32 1.5 | 1.305 | 2.280 | 4.3 | 18.8 |
| 1 12 | 6 53.25 | +31 54.6 | 1.325 | 2.293 | 5.6 | 19.0 |
| 1 22 | 6 42.53 | +31 32.4 | 1.371 | 2.307 | 9.8 | 19.2 |
| 2 1 | 6 34.68 | +30 58.6 | 1.442 | 2.321 | 13.9 | 19.5 |
| 2 11 | 6 30.42 | +30 18.1 | 1.533 | 2.335 | 17.5 | 19.8 |

**411320** 2010 $UC_{6}$ 1 5.3 105°.11 7°.3/ 7.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.06 | + 2 11.0 | 2.043 | 2.813 | 14.7 | 21.3 |
| 12 13 | 7 21.88 | + 1 24.4 | 1.984 | 2.833 | 12.1 | 21.2 |
| 12 23 | 7 13.78 | + 0 54.6 | 1.949 | 2.853 | 9.4 | 21.0 |
| 1 2 | 7 4.51 | + 0 43.9 | 1.939 | 2.872 | 7.6 | 21.0 |
| 1 12 | 6 55.05 | + 0 52.7 | 1.958 | 2.890 | 7.5 | 21.0 |
| 1 22 | 6 46.37 | + 1 19.1 | 2.004 | 2.908 | 9.2 | 21.1 |
| 2 1 | 6 39.30 | + 1 59.5 | 2.076 | 2.926 | 11.6 | 21.3 |
| 2 11 | 6 34.43 | + 2 49.2 | 2.171 | 2.943 | 14.0 | 21.5 |

**447388** 2006 $BV_{52}$ 1 5.3 14°.10 1°.4/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.53 | +17 38.3 | 1.238 | 2.086 | 18.0 | 21.0 |
| 12 13 | 7 22.88 | +18 1.3 | 1.175 | 2.088 | 13.5 | 20.7 |
| 12 23 | 7 15.01 | +18 36.4 | 1.132 | 2.091 | 8.2 | 20.4 |
| 1 2 | 7 4.91 | +19 20.1 | 1.113 | 2.094 | 2.6 | 20.1 |
| 1 12 | 6 54.20 | +20 7.4 | 1.120 | 2.098 | 4.0 | 20.2 |
| 1 22 | 6 44.60 | +20 53.7 | 1.153 | 2.102 | 9.6 | 20.6 |
| 2 1 | 6 37.60 | +21 35.7 | 1.209 | 2.107 | 14.6 | 20.9 |
| 2 11 | 6 34.11 | +22 11.9 | 1.286 | 2.113 | 18.8 | 21.1 |

**307874** 2004 $BP_{57}$ 1 5.3 45°.91 2°.9/ 5.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.47 | +17 12.3 | 1.242 | 2.083 | 18.4 | 18.9 |
| 12 13 | 7 25.15 | +16 42.3 | 1.204 | 2.113 | 13.7 | 18.7 |
| 12 23 | 7 15.91 | +16 21.7 | 1.188 | 2.143 | 8.4 | 18.5 |
| 1 2 | 7 5.04 | +16 10.0 | 1.196 | 2.174 | 3.6 | 18.3 |
| 1 12 | 6 54.18 | +16 5.9 | 1.231 | 2.206 | 4.6 | 18.5 |
| 1 22 | 6 44.88 | +16 8.0 | 1.292 | 2.237 | 9.2 | 18.8 |
| 2 1 | 6 38.27 | +16 14.8 | 1.377 | 2.269 | 13.6 | 19.2 |
| 2 11 | 6 34.93 | +16 24.5 | 1.483 | 2.302 | 17.1 | 19.5 |

**16466** Piyashiriyama 1 5.3 327°.87 7°.7/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.98 | + 5 25.8 | 1.642 | 2.446 | 16.4 | 16.7 |
| 12 13 | 7 20.32 | + 4 27.1 | 1.563 | 2.437 | 13.4 | 16.5 |
| 12 23 | 7 13.22 | + 3 44.2 | 1.506 | 2.428 | 10.3 | 16.3 |
| 1 2 | 7 4.45 | + 3 21.0 | 1.472 | 2.420 | 8.0 | 16.1 |
| 1 12 | 6 55.14 | + 3 19.4 | 1.465 | 2.412 | 8.2 | 16.1 |
| 1 22 | 6 46.52 | + 3 38.3 | 1.484 | 2.404 | 10.6 | 16.2 |
| 2 1 | 6 39.72 | + 4 14.5 | 1.527 | 2.397 | 13.9 | 16.4 |
| 2 11 | 6 35.55 | + 5 2.7 | 1.590 | 2.391 | 17.0 | 16.6 |

**2664** Everhart 1 5.3 68°.01 2°.2/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.86 | +16 45.6 | 1.397 | 2.231 | 17.1 | 17.3 |
| 12 13 | 7 24.72 | +16 50.0 | 1.346 | 2.251 | 12.8 | 17.1 |
| 12 23 | 7 15.76 | +17 4.4 | 1.317 | 2.272 | 7.8 | 16.8 |
| 1 2 | 7 5.05 | +17 26.5 | 1.313 | 2.292 | 3.0 | 16.6 |
| 1 12 | 6 54.10 | +17 53.1 | 1.337 | 2.313 | 4.0 | 16.7 |
| 1 22 | 6 44.40 | +18 21.3 | 1.388 | 2.334 | 8.7 | 17.0 |
| 2 1 | 6 37.16 | +18 49.0 | 1.464 | 2.354 | 13.1 | 17.4 |
| 2 11 | 6 33.06 | +19 14.8 | 1.562 | 2.375 | 16.7 | 17.6 |

**411429** 2010 $WO_{2}$ 1 5.3 351°.64 3°.6/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.69 | +28 18.4 | 1.637 | 2.477 | 14.7 | 20.5 |
| 12 13 | 7 23.44 | +29 27.5 | 1.566 | 2.475 | 11.0 | 20.2 |
| 12 23 | 7 15.25 | +30 37.8 | 1.518 | 2.473 | 6.9 | 20.0 |
| 1 2 | 7 4.99 | +31 42.1 | 1.497 | 2.472 | 3.8 | 19.8 |
| 1 12 | 6 54.06 | +32 33.9 | 1.504 | 2.471 | 5.3 | 19.9 |
| 1 22 | 6 43.99 | +33 9.6 | 1.538 | 2.470 | 9.3 | 20.1 |
| 2 1 | 6 36.16 | +33 29.1 | 1.597 | 2.470 | 13.2 | 20.4 |
| 2 11 | 6 31.49 | +33 35.1 | 1.677 | 2.470 | 16.6 | 20.6 |

**368043** 2012 $HK_{21}$ 1 5.3 105°.45 1°.8/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.72 | +25 46.8 | 1.987 | 2.816 | 13.0 | 20.6 |
| 12 13 | 7 22.80 | +26 28.0 | 1.919 | 2.824 | 9.6 | 20.4 |
| 12 23 | 7 14.56 | +27 10.4 | 1.875 | 2.831 | 5.7 | 20.2 |
| 1 2 | 7 4.77 | +27 49.6 | 1.859 | 2.838 | 2.2 | 20.0 |
| 1 12 | 6 54.58 | +28 21.6 | 1.873 | 2.846 | 3.6 | 20.1 |
| 1 22 | 6 45.19 | +28 44.4 | 1.916 | 2.853 | 7.4 | 20.3 |
| 2 1 | 6 37.64 | +28 57.8 | 1.986 | 2.860 | 11.0 | 20.6 |
| 2 11 | 6 32.65 | +29 3.4 | 2.079 | 2.866 | 14.0 | 20.8 |

**322467** 2011 $UF_{129}$ 1 5.3 99°.64 2°.9/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.95 | +12 24.5 | 2.821 | 3.621 | 10.3 | 20.8 |
| 12 13 | 7 17.83 | +12 8.0 | 2.748 | 3.631 | 7.9 | 20.7 |
| 12 23 | 7 11.32 | +11 58.4 | 2.700 | 3.640 | 5.3 | 20.5 |
| 1 2 | 7 3.93 | +11 55.9 | 2.682 | 3.650 | 3.2 | 20.4 |
| 1 12 | 6 56.35 | +12 0.1 | 2.694 | 3.659 | 3.4 | 20.4 |
| 1 22 | 6 49.26 | +12 9.9 | 2.736 | 3.669 | 5.7 | 20.6 |
| 2 1 | 6 43.29 | +12 24.2 | 2.806 | 3.678 | 8.2 | 20.7 |
| 2 11 | 6 38.91 | +12 41.5 | 2.902 | 3.687 | 10.5 | 20.9 |

**282190** 2001 $TG_{198}$ 1 5.3 94°.11 0°.6/ 5.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.40 | +22 3.3 | 1.521 | 2.353 | 16.1 | 21.6 |
| 12 13 | 7 26.55 | +22 37.1 | 1.467 | 2.374 | 11.8 | 21.4 |
| 12 23 | 7 16.85 | +23 15.4 | 1.437 | 2.395 | 6.9 | 21.2 |
| 1 2 | 7 5.35 | +23 53.4 | 1.433 | 2.415 | 1.8 | 20.9 |
| 1 12 | 6 53.57 | +24 26.6 | 1.459 | 2.435 | 3.6 | 21.1 |
| 1 22 | 6 43.02 | +24 52.4 | 1.512 | 2.454 | 8.4 | 21.4 |
| 2 1 | 6 34.93 | +25 10.5 | 1.591 | 2.473 | 12.7 | 21.7 |
| 2 11 | 6 30.02 | +25 22.1 | 1.692 | 2.492 | 16.2 | 22.0 |

**79271** Bellagio 1 5.3 144°.26 2°.4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.70 | +28 6.0 | 1.749 | 2.574 | 14.6 | 20.2 |
| 12 13 | 7 28.14 | +28 29.3 | 1.683 | 2.585 | 10.9 | 20.0 |
| 12 23 | 7 17.77 | +28 50.3 | 1.642 | 2.596 | 6.6 | 19.7 |
| 1 2 | 7 5.59 | +29 4.1 | 1.628 | 2.606 | 2.8 | 19.5 |
| 1 12 | 6 53.06 | +29 7.4 | 1.644 | 2.615 | 4.2 | 19.6 |
| 1 22 | 6 41.66 | +28 59.6 | 1.688 | 2.624 | 8.3 | 19.9 |
| 2 1 | 6 32.62 | +28 42.5 | 1.760 | 2.631 | 12.2 | 20.2 |
| 2 11 | 6 26.70 | +28 19.5 | 1.853 | 2.638 | 15.5 | 20.4 |

**66430** 1999 $NX_{41}$ 1 5.3 108°.27 0°.9/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.61 | +17 48.6 | 1.896 | 2.712 | 14.0 | 19.4 |
| 12 13 | 7 24.75 | +18 24.5 | 1.837 | 2.735 | 10.3 | 19.2 |
| 12 23 | 7 15.60 | +19 7.8 | 1.804 | 2.758 | 6.2 | 19.0 |
| 1 2 | 7 5.03 | +19 55.0 | 1.799 | 2.780 | 1.9 | 18.7 |
| 1 12 | 6 54.19 | +20 42.4 | 1.824 | 2.801 | 3.0 | 18.8 |
| 1 22 | 6 44.27 | +21 26.6 | 1.880 | 2.821 | 7.1 | 19.1 |
| 2 1 | 6 36.27 | +22 6.0 | 1.963 | 2.841 | 10.9 | 19.4 |
| 2 11 | 6 30.86 | +22 39.8 | 2.070 | 2.860 | 13.9 | 19.7 |

**80980** 2000 $EV_{9}$ 1 5.3 180°.87 0°.6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.91 | +20 32.6 | 1.848 | 2.675 | 13.9 | 20.2 |
| 12 13 | 7 23.03 | +20 38.5 | 1.771 | 2.675 | 10.3 | 19.9 |
| 12 23 | 7 14.74 | +20 48.9 | 1.719 | 2.676 | 6.1 | 19.7 |
| 1 2 | 7 4.85 | +21 1.6 | 1.694 | 2.676 | 1.7 | 19.4 |
| 1 12 | 6 54.51 | +21 14.3 | 1.699 | 2.675 | 3.1 | 19.5 |
| 1 22 | 6 44.97 | +21 25.3 | 1.732 | 2.675 | 7.5 | 19.8 |
| 2 1 | 6 37.30 | +21 34.1 | 1.792 | 2.675 | 11.5 | 20.0 |
| 2 11 | 6 32.27 | +21 40.8 | 1.874 | 2.674 | 14.8 | 20.2 |

**230964** 2004 $XK_{191}$ 1 5.3 213°.72 0°.6/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.91 | +24 28.3 | 2.543 | 3.362 | 10.8 | 20.6 |
| 12 13 | 7 21.06 | +24 34.5 | 2.457 | 3.357 | 7.9 | 20.4 |
| 12 23 | 7 13.37 | +24 41.1 | 2.396 | 3.352 | 4.7 | 20.2 |
| 1 2 | 7 4.48 | +24 46.0 | 2.366 | 3.347 | 1.3 | 20.0 |
| 1 12 | 6 55.25 | +24 47.6 | 2.366 | 3.341 | 2.5 | 20.1 |
| 1 22 | 6 46.58 | +24 45.2 | 2.396 | 3.335 | 6.0 | 20.3 |
| 2 1 | 6 39.29 | +24 39.0 | 2.455 | 3.329 | 9.1 | 20.5 |
| 2 11 | 6 34.00 | +24 29.8 | 2.538 | 3.322 | 11.8 | 20.6 |

**350220** 2012 $SV_{22}$ 1 5.3 58°.46 0°.9/ 5.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.66 | +21 53.3 | 1.167 | 2.015 | 18.9 | 21.0 |
| 12 13 | 7 27.24 | +21 31.3 | 1.118 | 2.031 | 14.0 | 20.8 |
| 12 23 | 7 17.41 | +21 13.0 | 1.089 | 2.049 | 8.3 | 20.5 |
| 1 2 | 7 5.50 | +20 56.3 | 1.085 | 2.066 | 2.3 | 20.2 |
| 1 12 | 6 53.39 | +20 39.9 | 1.107 | 2.084 | 4.1 | 20.4 |
| 1 22 | 6 42.91 | +20 23.8 | 1.155 | 2.102 | 9.8 | 20.8 |
| 2 1 | 6 35.44 | +20 8.8 | 1.226 | 2.121 | 14.7 | 21.1 |
| 2 11 | 6 31.70 | +19 55.8 | 1.317 | 2.139 | 18.7 | 21.4 |

**274133** 2008 $EA_{139}$ 1 5.3 158°.76 0°.6/ 5.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.93 | +23 37.1 | 1.464 | 2.299 | 16.4 | 21.6 |
| 12 13 | 7 27.28 | +23 45.3 | 1.395 | 2.303 | 12.2 | 21.4 |
| 12 23 | 7 17.48 | +23 55.7 | 1.348 | 2.306 | 7.2 | 21.1 |
| 1 2 | 7 5.57 | +24 4.5 | 1.328 | 2.309 | 1.9 | 20.8 |
| 1 12 | 6 53.15 | +24 8.5 | 1.336 | 2.312 | 3.8 | 20.9 |
| 1 22 | 6 41.88 | +24 6.5 | 1.371 | 2.314 | 9.0 | 21.2 |
| 2 1 | 6 33.18 | +23 59.3 | 1.431 | 2.316 | 13.7 | 21.5 |
| 2 11 | 6 27.90 | +23 48.9 | 1.513 | 2.318 | 17.5 | 21.7 |

**258272** 2001 $TN_{258}$ 1 5.3 70°.84 2°.7/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.62 | +26 15.0 | 1.723 | 2.557 | 14.4 | 19.9 |
| 12 13 | 7 24.46 | +27 25.5 | 1.669 | 2.575 | 10.6 | 19.7 |
| 12 23 | 7 15.64 | +28 37.3 | 1.638 | 2.594 | 6.4 | 19.5 |
| 1 2 | 7 5.08 | +29 43.9 | 1.635 | 2.613 | 3.0 | 19.4 |
| 1 12 | 6 54.14 | +30 39.4 | 1.662 | 2.632 | 4.5 | 19.5 |
| 1 22 | 6 44.19 | +31 20.6 | 1.717 | 2.650 | 8.4 | 19.8 |
| 2 1 | 6 36.44 | +31 47.5 | 1.798 | 2.669 | 12.0 | 20.0 |
| 2 11 | 6 31.62 | +32 2.3 | 1.901 | 2.687 | 15.1 | 20.3 |

**344814** 2004 $CW_{15}$ 1 5.3 38°.63 1°.9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.82 | +16 5.1 | 1.959 | 2.783 | 13.3 | 20.7 |
| 12 13 | 7 19.81 | +16 17.0 | 1.892 | 2.792 | 10.0 | 20.5 |
| 12 23 | 7 12.73 | +16 37.2 | 1.849 | 2.801 | 6.2 | 20.3 |
| 1 2 | 7 4.33 | +17 4.2 | 1.833 | 2.811 | 2.5 | 20.0 |
| 1 12 | 6 55.62 | +17 35.5 | 1.847 | 2.822 | 3.2 | 20.1 |
| 1 22 | 6 47.63 | +18 8.7 | 1.889 | 2.832 | 6.9 | 20.4 |
| 2 1 | 6 41.29 | +18 41.6 | 1.958 | 2.843 | 10.5 | 20.6 |
| 2 11 | 6 37.24 | +19 12.8 | 2.050 | 2.854 | 13.6 | 20.8 |

**306218** 2011 $QR_{37}$ 1 5.3 146°.65 3°.3/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.44 | +13 37.9 | 1.809 | 2.621 | 14.7 | 21.1 |
| 12 13 | 7 24.04 | +13 27.1 | 1.739 | 2.630 | 11.2 | 20.9 |
| 12 23 | 7 15.28 | +13 26.3 | 1.692 | 2.638 | 7.3 | 20.7 |
| 1 2 | 7 4.98 | +13 35.0 | 1.672 | 2.645 | 3.8 | 20.5 |
| 1 12 | 6 54.32 | +13 51.9 | 1.682 | 2.652 | 4.3 | 20.5 |
| 1 22 | 6 44.51 | +14 14.9 | 1.720 | 2.659 | 8.0 | 20.8 |
| 2 1 | 6 36.59 | +14 41.8 | 1.785 | 2.664 | 11.7 | 21.0 |
| 2 11 | 6 31.29 | +15 10.6 | 1.874 | 2.669 | 15.0 | 21.2 |

**457104** 2008 $EV_{160}$ 1 5.3 221°.85 0°.7/ 5.5 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.38 | +19 56.9 | 2.151 | 2.970 | 12.5 | 22.4 |
| 12 13 | 7 22.43 | +20 2.4 | 2.063 | 2.963 | 9.3 | 22.1 |
| 12 23 | 7 14.33 | +20 12.2 | 2.000 | 2.955 | 5.6 | 21.9 |
| 1 2 | 7 4.76 | +20 24.5 | 1.966 | 2.947 | 1.6 | 21.6 |
| 1 12 | 6 54.73 | +20 37.3 | 1.962 | 2.938 | 2.8 | 21.7 |
| 1 22 | 6 45.29 | +20 49.2 | 1.988 | 2.929 | 6.8 | 21.9 |
| 2 1 | 6 37.44 | +20 59.5 | 2.041 | 2.920 | 10.5 | 22.1 |
| 2 11 | 6 31.90 | +21 8.0 | 2.118 | 2.910 | 13.6 | 22.3 |

**364983** 2008 $HP_{65}$ 1 5.3 227°.15 5°.1/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.64 | + 7 19.4 | 2.335 | 3.120 | 12.7 | 21.8 |
| 12 13 | 7 20.94 | + 6 48.7 | 2.242 | 3.110 | 10.1 | 21.6 |
| 12 23 | 7 13.37 | + 6 29.2 | 2.174 | 3.099 | 7.4 | 21.4 |
| 1 2 | 7 4.51 | + 6 22.2 | 2.134 | 3.087 | 5.4 | 21.2 |
| 1 12 | 6 55.23 | + 6 28.2 | 2.123 | 3.075 | 5.5 | 21.2 |
| 1 22 | 6 46.41 | + 6 46.1 | 2.141 | 3.062 | 7.8 | 21.3 |
| 2 1 | 6 38.93 | + 7 13.9 | 2.187 | 3.049 | 10.6 | 21.5 |
| 2 11 | 6 33.42 | + 7 48.8 | 2.256 | 3.035 | 13.3 | 21.7 |

**184897** 2005 $UV_{260}$ 1 5.3 129°.84 1°.4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.08 | +25 3.9 | 2.094 | 2.919 | 12.5 | 21.0 |
| 12 13 | 7 22.95 | +25 38.6 | 2.024 | 2.928 | 9.2 | 20.8 |
| 12 23 | 7 14.61 | +26 14.5 | 1.980 | 2.936 | 5.5 | 20.6 |
| 1 2 | 7 4.82 | +26 47.9 | 1.964 | 2.944 | 1.9 | 20.3 |
| 1 12 | 6 54.67 | +27 15.4 | 1.978 | 2.951 | 3.3 | 20.5 |
| 1 22 | 6 45.27 | +27 35.0 | 2.021 | 2.959 | 7.0 | 20.7 |
| 2 1 | 6 37.63 | +27 46.8 | 2.092 | 2.966 | 10.5 | 20.9 |
| 2 11 | 6 32.43 | +27 51.9 | 2.186 | 2.972 | 13.4 | 21.1 |

**217594** 2008 $FZ_{55}$ 1 5.3 143°.65 0°.9/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.29 | +18 36.9 | 2.127 | 2.945 | 12.6 | 20.9 |
| 12 13 | 7 22.27 | +18 57.4 | 2.054 | 2.952 | 9.4 | 20.7 |
| 12 23 | 7 14.16 | +19 23.8 | 2.006 | 2.960 | 5.6 | 20.5 |
| 1 2 | 7 4.71 | +19 53.9 | 1.986 | 2.967 | 1.7 | 20.3 |
| 1 12 | 6 54.90 | +20 24.9 | 1.997 | 2.974 | 2.8 | 20.4 |
| 1 22 | 6 45.79 | +20 54.6 | 2.038 | 2.980 | 6.7 | 20.6 |
| 2 1 | 6 38.29 | +21 21.7 | 2.107 | 2.986 | 10.2 | 20.8 |
| 2 11 | 6 33.08 | +21 45.4 | 2.200 | 2.991 | 13.2 | 21.1 |

**271352** 2003 $WE_{160}$ 1 5.3 137°.00 2°.3/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.17 | +28 30.4 | 2.538 | 3.356 | 10.8 | 20.8 |
| 12 13 | 7 22.01 | +29 12.2 | 2.467 | 3.366 | 8.0 | 20.7 |
| 12 23 | 7 13.95 | +29 52.8 | 2.424 | 3.376 | 4.9 | 20.5 |
| 1 2 | 7 4.65 | +30 28.3 | 2.409 | 3.385 | 2.5 | 20.3 |
| 1 12 | 6 55.04 | +30 55.9 | 2.426 | 3.394 | 3.5 | 20.4 |
| 1 22 | 6 46.05 | +31 13.9 | 2.473 | 3.402 | 6.4 | 20.6 |
| 2 1 | 6 38.55 | +31 22.6 | 2.548 | 3.410 | 9.3 | 20.8 |
| 2 11 | 6 33.15 | +31 23.6 | 2.647 | 3.418 | 11.8 | 21.0 |

**190840** 2001 $SA_{105}$ 1 5.3 30°.89 4°.2/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.90 | +16 7.6 | 1.092 | 1.943 | 19.6 | 19.2 |
| 12 13 | 7 23.87 | +15 20.0 | 1.042 | 1.955 | 14.9 | 19.0 |
| 12 23 | 7 15.52 | +14 43.2 | 1.013 | 1.968 | 9.5 | 18.7 |
| 1 2 | 7 5.07 | +14 18.6 | 1.006 | 1.982 | 4.8 | 18.5 |
| 1 12 | 6 54.33 | +14 6.2 | 1.024 | 1.997 | 5.7 | 18.6 |
| 1 22 | 6 45.08 | +14 4.7 | 1.066 | 2.013 | 10.5 | 18.9 |
| 2 1 | 6 38.67 | +14 12.2 | 1.130 | 2.029 | 15.3 | 19.2 |
| 2 11 | 6 35.86 | +14 25.8 | 1.214 | 2.047 | 19.3 | 19.6 |

**17481** 1991 $PE_{11}$ 1 5.3 92°.75 2°.1/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.08 | +27 57.2 | 1.952 | 2.779 | 13.3 | 18.4 |
| 12 13 | 7 24.44 | +28 17.4 | 1.893 | 2.796 | 9.8 | 18.3 |
| 12 23 | 7 15.45 | +28 35.5 | 1.858 | 2.813 | 5.9 | 18.1 |
| 1 2 | 7 5.02 | +28 47.6 | 1.852 | 2.830 | 2.5 | 17.9 |
| 1 12 | 6 54.37 | +28 51.3 | 1.875 | 2.847 | 3.7 | 18.0 |
| 1 22 | 6 44.72 | +28 46.0 | 1.927 | 2.863 | 7.4 | 18.2 |
| 2 1 | 6 37.07 | +28 32.9 | 2.006 | 2.879 | 10.9 | 18.5 |
| 2 11 | 6 32.07 | +28 14.4 | 2.108 | 2.895 | 13.8 | 18.7 |

**18537** 1996 $XH_{18}$ 1 5.3 29°.37 2°.2/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.75 | +14 31.9 | 1.553 | 2.385 | 15.8 | 17.4 |
| 12 13 | 7 20.97 | +15 5.8 | 1.490 | 2.394 | 11.9 | 17.2 |
| 12 23 | 7 13.63 | +15 53.0 | 1.450 | 2.403 | 7.4 | 16.9 |
| 1 2 | 7 4.61 | +16 50.6 | 1.435 | 2.414 | 3.0 | 16.7 |
| 1 12 | 6 55.15 | +17 54.0 | 1.449 | 2.425 | 3.7 | 16.8 |
| 1 22 | 6 46.59 | +18 58.2 | 1.490 | 2.436 | 8.1 | 17.1 |
| 2 1 | 6 40.07 | +19 59.3 | 1.557 | 2.448 | 12.3 | 17.3 |
| 2 11 | 6 36.35 | +20 54.6 | 1.645 | 2.461 | 15.9 | 17.6 |

**459330** 2012 $HY_{22}$ 1 5.3 301°.41 0°.8/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.70 | +17 7.9 | 1.754 | 2.582 | 14.4 | 20.1 |
| 12 13 | 7 21.79 | +17 59.6 | 1.663 | 2.567 | 10.8 | 19.8 |
| 12 23 | 7 14.26 | +19 3.6 | 1.596 | 2.552 | 6.6 | 19.5 |
| 1 2 | 7 4.82 | +20 16.2 | 1.556 | 2.537 | 1.9 | 19.2 |
| 1 12 | 6 54.59 | +21 32.3 | 1.545 | 2.522 | 3.3 | 19.3 |
| 1 22 | 6 44.89 | +22 46.3 | 1.563 | 2.508 | 8.0 | 19.5 |
| 2 1 | 6 36.99 | +23 54.3 | 1.608 | 2.493 | 12.4 | 19.8 |
| 2 11 | 6 31.83 | +24 54.0 | 1.675 | 2.479 | 16.1 | 20.0 |

**401993** 2003 $AB_{94}$ 1 5.3 9°.51 10°.9/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.66 | +44 17.8 | 1.094 | 1.938 | 20.1 | 19.8 |
| 12 13 | 7 27.02 | +44 58.2 | 1.046 | 1.941 | 16.5 | 19.6 |
| 12 23 | 7 17.79 | +45 15.5 | 1.017 | 1.947 | 13.1 | 19.4 |
| 1 2 | 7 5.67 | +44 59.1 | 1.009 | 1.954 | 11.0 | 19.4 |
| 1 12 | 6 53.25 | +44 4.5 | 1.023 | 1.964 | 11.5 | 19.4 |
| 1 22 | 6 43.06 | +42 36.4 | 1.059 | 1.975 | 14.2 | 19.6 |
| 2 1 | 6 36.80 | +40 45.6 | 1.116 | 1.988 | 17.7 | 19.9 |
| 2 11 | 6 35.14 | +38 44.5 | 1.191 | 2.003 | 20.9 | 20.1 |

**459315** 2012 $GA_{40}$ 1 5.3 201.°50 0.°0/ 5.4 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.42 | +20 35.4 | 2.446 | 3.262 | 11.2 | 21.8 |
| 12 13 | 7 21.53 | +21 4.9 | 2.359 | 3.258 | 8.3 | 21.6 |
| 12 23 | 7 13.73 | +21 38.9 | 2.299 | 3.254 | 4.9 | 21.4 |
| 1 2 | 7 4.62 | +22 14.7 | 2.268 | 3.249 | 1.3 | 21.1 |
| 1 12 | 6 55.09 | +22 49.7 | 2.268 | 3.244 | 2.5 | 21.2 |
| 1 22 | 6 46.07 | +23 21.6 | 2.298 | 3.238 | 6.1 | 21.4 |
| 2 1 | 6 38.42 | +23 49.2 | 2.357 | 3.232 | 9.4 | 21.6 |
| 2 11 | 6 32.81 | +24 12.2 | 2.441 | 3.225 | 12.3 | 21.8 |

**460692** 2014 $UJ_{191}$ 1 5.3 125.°45 5.°4/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.15 | + 6 40.2 | 2.224 | 3.009 | 13.2 | 21.8 |
| 12 13 | 7 21.19 | + 6 7.0 | 2.156 | 3.022 | 10.5 | 21.6 |
| 12 23 | 7 13.42 | + 5 46.2 | 2.112 | 3.034 | 7.7 | 21.5 |
| 1 2 | 7 4.52 | + 5 39.3 | 2.096 | 3.047 | 5.7 | 21.4 |
| 1 12 | 6 55.38 | + 5 46.3 | 2.109 | 3.058 | 5.7 | 21.4 |
| 1 22 | 6 46.91 | + 6 5.5 | 2.150 | 3.070 | 7.8 | 21.6 |
| 2 1 | 6 39.91 | + 6 34.7 | 2.219 | 3.081 | 10.5 | 21.7 |
| 2 11 | 6 34.96 | + 7 10.6 | 2.312 | 3.091 | 13.0 | 21.9 |

**136403** 2004 $YS_{20}$ 1 5.3 246.°24 0.°0/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.73 | +22 14.6 | 1.912 | 2.736 | 13.6 | 20.8 |
| 12 13 | 7 24.52 | +22 18.1 | 1.819 | 2.721 | 10.1 | 20.5 |
| 12 23 | 7 15.76 | +22 24.3 | 1.750 | 2.706 | 6.1 | 20.3 |
| 1 2 | 7 5.18 | +22 30.8 | 1.708 | 2.690 | 1.6 | 19.9 |
| 1 12 | 6 53.97 | +22 35.3 | 1.697 | 2.674 | 3.1 | 20.0 |
| 1 22 | 6 43.40 | +22 36.5 | 1.715 | 2.657 | 7.7 | 20.2 |
| 2 1 | 6 34.67 | +22 34.3 | 1.760 | 2.639 | 11.8 | 20.5 |
| 2 11 | 6 28.65 | +22 29.8 | 1.827 | 2.621 | 15.4 | 20.6 |

**83844** 2001 $US_{36}$ 1 5.3 175.°21 0.°7/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.46 | +23 33.5 | 2.813 | 3.629 | 9.9 | 19.9 |
| 12 13 | 7 19.87 | +24 2.5 | 2.731 | 3.631 | 7.3 | 19.7 |
| 12 23 | 7 12.64 | +24 33.4 | 2.677 | 3.633 | 4.3 | 19.5 |
| 1 2 | 7 4.34 | +25 3.6 | 2.653 | 3.634 | 1.2 | 19.3 |
| 1 12 | 6 55.72 | +25 30.8 | 2.659 | 3.634 | 2.4 | 19.4 |
| 1 22 | 6 47.58 | +25 53.6 | 2.697 | 3.635 | 5.5 | 19.6 |
| 2 1 | 6 40.66 | +26 11.2 | 2.764 | 3.635 | 8.3 | 19.8 |
| 2 11 | 6 35.50 | +26 23.9 | 2.856 | 3.635 | 10.8 | 20.0 |

**179912** 2002 $VZ_{28}$ 1 5.3 39.°04 1.°0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.38 | +19 55.0 | 1.423 | 2.265 | 16.4 | 19.9 |
| 12 13 | 7 23.03 | +19 55.2 | 1.366 | 2.277 | 12.2 | 19.7 |
| 12 23 | 7 14.87 | +20 1.5 | 1.332 | 2.290 | 7.3 | 19.5 |
| 1 2 | 7 4.92 | +20 11.8 | 1.322 | 2.303 | 2.2 | 19.2 |
| 1 12 | 6 54.65 | +20 23.5 | 1.340 | 2.317 | 3.6 | 19.3 |
| 1 22 | 6 45.54 | +20 34.7 | 1.384 | 2.331 | 8.5 | 19.6 |
| 2 1 | 6 38.79 | +20 44.5 | 1.453 | 2.346 | 13.0 | 19.9 |
| 2 11 | 6 35.13 | +20 52.7 | 1.544 | 2.361 | 16.6 | 20.2 |

**312116** 2007 $TF_{193}$ 1 5.3 100.°42 1.°2/ 5.6 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.70 | +18 49.6 | 1.774 | 2.596 | 14.6 | 22.3 |
| 12 13 | 7 24.90 | +18 54.4 | 1.717 | 2.618 | 10.8 | 22.1 |
| 12 23 | 7 15.73 | +19 5.1 | 1.684 | 2.639 | 6.5 | 21.9 |
| 1 2 | 7 5.11 | +19 19.4 | 1.679 | 2.659 | 2.1 | 21.7 |
| 1 12 | 6 54.29 | +19 34.9 | 1.703 | 2.679 | 3.2 | 21.8 |
| 1 22 | 6 44.49 | +19 50.1 | 1.757 | 2.699 | 7.5 | 22.1 |
| 2 1 | 6 36.75 | +20 4.0 | 1.837 | 2.718 | 11.3 | 22.4 |
| 2 11 | 6 31.70 | +20 16.2 | 1.940 | 2.737 | 14.5 | 22.6 |

**447452** 2006 $GE_{32}$ 1 5.3 318.°00 2.°8/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.95 | +26 6.1 | 1.289 | 2.143 | 17.1 | 20.8 |
| 12 13 | 7 23.68 | +26 49.9 | 1.207 | 2.124 | 12.8 | 20.5 |
| 12 23 | 7 15.84 | +27 37.9 | 1.145 | 2.105 | 7.9 | 20.2 |
| 1 2 | 7 5.30 | +28 23.4 | 1.107 | 2.087 | 3.2 | 19.8 |
| 1 12 | 6 53.68 | +28 59.6 | 1.096 | 2.070 | 5.2 | 19.9 |
| 1 22 | 6 42.92 | +29 22.1 | 1.109 | 2.053 | 10.6 | 20.2 |
| 2 1 | 6 34.82 | +29 30.7 | 1.146 | 2.037 | 15.8 | 20.4 |
| 2 11 | 6 30.59 | +29 28.0 | 1.201 | 2.022 | 20.2 | 20.6 |

**360799** 2005 $GT_{131}$ 1 5.3 97.°18 2.°4/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.15 | +26 55.0 | 1.715 | 2.548 | 14.5 | 21.0 |
| 12 13 | 7 24.91 | +27 36.1 | 1.652 | 2.558 | 10.7 | 20.8 |
| 12 23 | 7 15.95 | +28 17.2 | 1.612 | 2.569 | 6.5 | 20.6 |
| 1 2 | 7 5.21 | +28 53.0 | 1.600 | 2.579 | 2.7 | 20.4 |
| 1 12 | 6 54.06 | +29 19.3 | 1.617 | 2.589 | 4.2 | 20.5 |
| 1 22 | 6 43.93 | +29 34.0 | 1.662 | 2.599 | 8.3 | 20.8 |
| 2 1 | 6 36.01 | +29 37.8 | 1.733 | 2.609 | 12.2 | 21.0 |
| 2 11 | 6 31.07 | +29 33.3 | 1.826 | 2.618 | 15.5 | 21.2 |

**172385** 2003 $AN_{21}$ 1 5.3 295.°87 1.°1/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.68 | +24 55.3 | 2.307 | 3.134 | 11.5 | 20.4 |
| 12 13 | 7 20.39 | +25 16.2 | 2.224 | 3.128 | 8.5 | 20.2 |
| 12 23 | 7 13.11 | +25 38.3 | 2.166 | 3.123 | 5.0 | 20.0 |
| 1 2 | 7 4.49 | +25 58.6 | 2.137 | 3.118 | 1.6 | 19.7 |
| 1 12 | 6 55.47 | +26 14.8 | 2.138 | 3.112 | 2.9 | 19.8 |
| 1 22 | 6 47.03 | +26 25.4 | 2.168 | 3.107 | 6.5 | 20.0 |
| 2 1 | 6 40.08 | +26 30.2 | 2.226 | 3.102 | 9.8 | 20.2 |
| 2 11 | 6 35.29 | +26 30.1 | 2.307 | 3.097 | 12.7 | 20.4 |

**302912** 2003 $ST_{51}$ 1 5.3 142.°85 0.°9/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.15 | +23 19.6 | 1.847 | 2.674 | 13.9 | 21.1 |
| 12 13 | 7 24.72 | +23 52.0 | 1.778 | 2.682 | 10.2 | 20.8 |
| 12 23 | 7 15.78 | +24 27.5 | 1.732 | 2.689 | 6.1 | 20.6 |
| 1 2 | 7 5.18 | +25 1.9 | 1.715 | 2.696 | 1.7 | 20.3 |
| 1 12 | 6 54.15 | +25 31.5 | 1.728 | 2.703 | 3.3 | 20.5 |
| 1 22 | 6 43.99 | +25 54.0 | 1.769 | 2.709 | 7.6 | 20.7 |
| 2 1 | 6 35.83 | +26 9.1 | 1.838 | 2.715 | 11.5 | 21.0 |
| 2 11 | 6 30.42 | +26 17.7 | 1.929 | 2.720 | 14.8 | 21.2 |

**326098** 2011 $BJ_{101}$ 1 5.3 170.°85 0.°4/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.21 | +20 1.7 | 2.063 | 2.887 | 12.7 | 21.2 |
| 12 13 | 7 21.62 | +20 24.6 | 1.986 | 2.888 | 9.4 | 21.0 |
| 12 23 | 7 13.88 | +20 52.9 | 1.933 | 2.889 | 5.6 | 20.8 |
| 1 2 | 7 4.69 | +21 23.9 | 1.908 | 2.889 | 1.5 | 20.5 |
| 1 12 | 6 55.09 | +21 54.8 | 1.913 | 2.890 | 2.8 | 20.6 |
| 1 22 | 6 46.14 | +22 23.2 | 1.948 | 2.890 | 6.8 | 20.9 |
| 2 1 | 6 38.83 | +22 47.9 | 2.010 | 2.890 | 10.5 | 21.1 |
| 2 11 | 6 33.87 | +23 8.5 | 2.095 | 2.891 | 13.6 | 21.3 |

**398191** 2010 $LO_{110}$ 1 5.3 182.°10 0.°4/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.07 | +22 19.3 | 1.983 | 2.805 | 13.3 | 22.2 |
| 12 13 | 7 24.57 | +22 42.1 | 1.904 | 2.806 | 9.8 | 22.0 |
| 12 23 | 7 15.67 | +23 8.3 | 1.850 | 2.806 | 5.8 | 21.7 |
| 1 2 | 7 5.16 | +23 34.6 | 1.825 | 2.806 | 1.5 | 21.4 |
| 1 12 | 6 54.18 | +23 57.9 | 1.829 | 2.805 | 3.0 | 21.6 |
| 1 22 | 6 43.94 | +24 16.3 | 1.864 | 2.804 | 7.3 | 21.8 |
| 2 1 | 6 35.53 | +24 29.3 | 1.925 | 2.802 | 11.1 | 22.1 |
| 2 11 | 6 29.72 | +24 37.4 | 2.010 | 2.799 | 14.4 | 22.3 |

**419216** 2009 $UY_{134}$ 1 5.3 85.°85 4.°2/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.43 | + 9 19.4 | 2.123 | 2.917 | 13.5 | 22.0 |
| 12 13 | 7 22.07 | + 9 10.3 | 2.071 | 2.947 | 10.4 | 21.9 |
| 12 23 | 7 13.89 | + 9 13.2 | 2.043 | 2.977 | 7.2 | 21.7 |
| 1 2 | 7 4.65 | + 9 27.9 | 2.043 | 3.006 | 4.6 | 21.6 |
| 1 12 | 6 55.30 | + 9 52.9 | 2.073 | 3.035 | 4.7 | 21.7 |
| 1 22 | 6 46.76 | +10 25.9 | 2.133 | 3.063 | 7.2 | 21.9 |
| 2 1 | 6 39.84 | +11 4.1 | 2.220 | 3.091 | 10.1 | 22.1 |
| 2 11 | 6 35.05 | +11 44.8 | 2.331 | 3.118 | 12.7 | 22.4 |

**383368** 2006 $SZ_{114}$ 1 5.3 228.°84 1.°3/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.94 | +26 12.1 | 2.596 | 3.418 | 10.5 | 21.8 |
| 12 13 | 7 20.39 | +26 31.4 | 2.511 | 3.413 | 7.8 | 21.6 |
| 12 23 | 7 13.04 | +26 50.6 | 2.452 | 3.407 | 4.7 | 21.4 |
| 1 2 | 7 4.48 | +27 7.1 | 2.422 | 3.402 | 1.7 | 21.2 |
| 1 12 | 6 55.56 | +27 18.7 | 2.423 | 3.397 | 2.8 | 21.3 |
| 1 22 | 6 47.18 | +27 24.5 | 2.454 | 3.391 | 6.0 | 21.5 |
| 2 1 | 6 40.15 | +27 24.3 | 2.513 | 3.385 | 9.0 | 21.7 |
| 2 11 | 6 35.07 | +27 19.3 | 2.597 | 3.379 | 11.7 | 21.8 |

**52586** 1997 $PB$ 1 5.3 160.°31 0.°6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.51 | +19 31.5 | 1.748 | 2.572 | 14.7 | 18.7 |
| 12 13 | 7 25.09 | +19 54.0 | 1.675 | 2.577 | 10.9 | 18.5 |
| 12 23 | 7 16.05 | +20 23.2 | 1.626 | 2.582 | 6.5 | 18.2 |
| 1 2 | 7 5.27 | +20 55.7 | 1.605 | 2.586 | 1.8 | 17.9 |
| 1 12 | 6 54.01 | +21 28.2 | 1.613 | 2.590 | 3.2 | 18.0 |
| 1 22 | 6 43.61 | +21 57.7 | 1.650 | 2.593 | 7.8 | 18.3 |
| 2 1 | 6 35.25 | +22 23.1 | 1.714 | 2.595 | 12.0 | 18.6 |
| 2 11 | 6 29.73 | +22 44.0 | 1.801 | 2.597 | 15.5 | 18.8 |

**13756** 1998 $ST_{72}$ 1 5.3 43.°25 0.°3/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.63 | +22 3.6 | 1.918 | 2.749 | 13.3 | 18.9 |
| 12 13 | 7 21.30 | +22 25.7 | 1.849 | 2.755 | 9.8 | 18.7 |
| 12 23 | 7 13.71 | +22 51.5 | 1.804 | 2.762 | 5.8 | 18.4 |
| 1 2 | 7 4.66 | +23 18.0 | 1.787 | 2.769 | 1.5 | 18.2 |
| 1 12 | 6 55.25 | +23 42.4 | 1.799 | 2.776 | 3.0 | 18.3 |
| 1 22 | 6 46.62 | +24 2.6 | 1.840 | 2.783 | 7.1 | 18.6 |
| 2 1 | 6 39.77 | +24 17.8 | 1.908 | 2.791 | 10.9 | 18.8 |
| 2 11 | 6 35.40 | +24 28.4 | 1.998 | 2.799 | 14.0 | 19.0 |

**344571** 2002 $XP_{119}$ 1 5.3 115.°79 2.°8/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.62 | +29 36.6 | 2.374 | 3.197 | 11.3 | 20.6 |
| 12 13 | 7 21.81 | +30 25.3 | 2.303 | 3.203 | 8.4 | 20.4 |
| 12 23 | 7 13.94 | +31 12.3 | 2.258 | 3.209 | 5.3 | 20.2 |
| 1 2 | 7 4.72 | +31 53.4 | 2.242 | 3.215 | 3.0 | 20.1 |
| 1 12 | 6 55.12 | +32 25.0 | 2.256 | 3.221 | 4.0 | 20.2 |
| 1 22 | 6 46.17 | +32 45.4 | 2.299 | 3.227 | 6.9 | 20.4 |
| 2 1 | 6 38.80 | +32 54.8 | 2.370 | 3.232 | 9.9 | 20.6 |
| 2 11 | 6 33.66 | +32 55.1 | 2.465 | 3.238 | 12.5 | 20.8 |

**503206** 2015 $HJ_{25}$ 1 5.3 171.°49 6.°3/ 7.5 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.67 | − 0 32.7 | 2.892 | 3.641 | 11.3 | 21.9 |
| 12 13 | 7 16.95 | − 1 7.8 | 2.812 | 3.641 | 9.5 | 21.8 |
| 12 23 | 7 10.88 | − 1 29.4 | 2.756 | 3.642 | 7.8 | 21.7 |
| 1 2 | 7 3.92 | − 1 35.7 | 2.727 | 3.642 | 6.5 | 21.6 |
| 1 12 | 6 56.73 | − 1 26.4 | 2.726 | 3.643 | 6.5 | 21.6 |
| 1 22 | 6 49.94 | − 1 2.3 | 2.753 | 3.643 | 7.6 | 21.7 |
| 2 1 | 6 44.16 | − 0 25.8 | 2.806 | 3.643 | 9.3 | 21.8 |
| 2 11 | 6 39.87 | + 0 19.9 | 2.884 | 3.643 | 11.2 | 21.9 |

**190764** 2001 $QN_{137}$ 1 5.3 87°.17 2°.7/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.76 | +28 49.9 | 1.467 | 2.301 | 16.4 | 19.5 |
| 12 13 | 7 28.47 | +29 5.6 | 1.414 | 2.320 | 12.2 | 19.3 |
| 12 23 | 7 18.06 | +29 17.5 | 1.383 | 2.339 | 7.4 | 19.1 |
| 1 2 | 7 5.76 | +29 20.5 | 1.380 | 2.358 | 3.2 | 18.9 |
| 1 12 | 6 53.25 | +29 11.7 | 1.404 | 2.376 | 4.6 | 19.0 |
| 1 22 | 6 42.22 | +28 51.3 | 1.455 | 2.394 | 9.1 | 19.3 |
| 2 1 | 6 33.94 | +28 22.6 | 1.532 | 2.412 | 13.3 | 19.6 |
| 2 11 | 6 29.12 | +27 49.3 | 1.631 | 2.429 | 16.7 | 19.9 |

**43707** 2050 $T\text{-}_2$ 1 5.3 162°.99 1°.0/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.77 | +19 3.1 | 2.076 | 2.891 | 13.0 | 20.3 |
| 12 13 | 7 24.15 | +19 11.8 | 2.000 | 2.898 | 9.7 | 20.0 |
| 12 23 | 7 15.33 | +19 25.5 | 1.950 | 2.903 | 5.8 | 19.8 |
| 1 2 | 7 5.08 | +19 42.4 | 1.928 | 2.909 | 1.8 | 19.6 |
| 1 12 | 6 54.47 | +20 0.1 | 1.937 | 2.913 | 2.9 | 19.7 |
| 1 22 | 6 44.60 | +20 17.1 | 1.976 | 2.917 | 6.9 | 19.9 |
| 2 1 | 6 36.45 | +20 32.3 | 2.042 | 2.919 | 10.5 | 20.1 |
| 2 11 | 6 30.71 | +20 45.6 | 2.133 | 2.922 | 13.6 | 20.4 |

**407057** 2009 $SA_{145}$ 1 5.3 127°.12 4°.5/ 6.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.08 | + 9 29.7 | 1.958 | 2.762 | 14.1 | 21.2 |
| 12 13 | 7 20.78 | + 9 20.8 | 1.882 | 2.764 | 11.0 | 21.0 |
| 12 23 | 7 13.38 | + 9 24.8 | 1.830 | 2.766 | 7.7 | 20.8 |
| 1 2 | 7 4.60 | + 9 42.2 | 1.804 | 2.768 | 4.9 | 20.6 |
| 1 12 | 6 55.42 | +10 11.7 | 1.807 | 2.770 | 5.0 | 20.6 |
| 1 22 | 6 46.91 | +10 50.9 | 1.838 | 2.772 | 7.9 | 20.8 |
| 2 1 | 6 40.00 | +11 36.4 | 1.897 | 2.774 | 11.2 | 21.0 |
| 2 11 | 6 35.38 | +12 25.1 | 1.978 | 2.776 | 14.2 | 21.2 |

**379126** 2009 $BN_{31}$ 1 5.3 17°.09 0°.0/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.39 | +20 57.2 | 1.608 | 2.450 | 14.8 | 19.8 |
| 12 13 | 7 19.97 | +21 21.0 | 1.547 | 2.459 | 10.9 | 19.6 |
| 12 23 | 7 13.05 | +21 50.6 | 1.508 | 2.468 | 6.4 | 19.3 |
| 1 2 | 7 4.53 | +22 22.7 | 1.496 | 2.478 | 1.6 | 19.1 |
| 1 12 | 6 55.63 | +22 53.7 | 1.512 | 2.489 | 3.2 | 19.2 |
| 1 22 | 6 47.66 | +23 21.0 | 1.555 | 2.502 | 7.8 | 19.5 |
| 2 1 | 6 41.69 | +23 43.2 | 1.623 | 2.515 | 11.9 | 19.8 |
| 2 11 | 6 38.46 | +24 0.2 | 1.713 | 2.529 | 15.3 | 20.0 |

**406121** 2006 $VB_{60}$ 1 5.3 23°.31 0°.7/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.72 | +22 26.5 | 1.498 | 2.341 | 15.7 | 20.6 |
| 12 13 | 7 22.68 | +22 59.9 | 1.433 | 2.345 | 11.6 | 20.3 |
| 12 23 | 7 14.79 | +23 38.4 | 1.391 | 2.350 | 6.9 | 20.1 |
| 1 2 | 7 4.99 | +24 17.8 | 1.374 | 2.356 | 1.8 | 19.8 |
| 1 12 | 6 54.70 | +24 53.3 | 1.385 | 2.362 | 3.6 | 19.9 |
| 1 22 | 6 45.40 | +25 21.8 | 1.423 | 2.368 | 8.6 | 20.2 |
| 2 1 | 6 38.37 | +25 42.5 | 1.486 | 2.375 | 13.0 | 20.5 |
| 2 11 | 6 34.44 | +25 55.9 | 1.570 | 2.383 | 16.6 | 20.8 |

**17775** 1998 $FH$ 1 5.3 74°.63 7°.0/ 7.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.24 | + 4 16.9 | 1.867 | 2.656 | 15.3 | 18.8 |
| 12 13 | 7 20.86 | + 3 37.1 | 1.803 | 2.667 | 12.4 | 18.6 |
| 12 23 | 7 13.39 | + 3 13.9 | 1.761 | 2.677 | 9.4 | 18.5 |
| 1 2 | 7 4.60 | + 3 9.6 | 1.744 | 2.688 | 7.3 | 18.4 |
| 1 12 | 6 55.51 | + 3 24.3 | 1.755 | 2.699 | 7.3 | 18.4 |
| 1 22 | 6 47.19 | + 3 55.9 | 1.793 | 2.710 | 9.3 | 18.6 |
| 2 1 | 6 40.55 | + 4 40.6 | 1.856 | 2.721 | 12.1 | 18.7 |
| 2 11 | 6 36.22 | + 5 33.6 | 1.942 | 2.731 | 14.8 | 18.9 |

**144186** 2004 $BQ_{119}$ 1 5.3 219°.98 6°.1/ 3.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.92 | +37 43.2 | 2.127 | 2.938 | 12.8 | 20.2 |
| 12 13 | 7 27.12 | +38 59.1 | 2.047 | 2.931 | 10.1 | 20.0 |
| 12 23 | 7 17.45 | +40 8.5 | 1.992 | 2.923 | 7.6 | 19.9 |
| 1 2 | 7 5.71 | +41 3.8 | 1.965 | 2.914 | 6.1 | 19.8 |
| 1 12 | 6 53.22 | +41 39.3 | 1.967 | 2.905 | 7.1 | 19.8 |
| 1 22 | 6 41.44 | +41 52.7 | 1.997 | 2.895 | 9.6 | 19.9 |
| 2 1 | 6 31.75 | +41 45.9 | 2.053 | 2.885 | 12.4 | 20.1 |
| 2 11 | 6 25.08 | +41 23.6 | 2.130 | 2.875 | 15.0 | 20.3 |

**79818** 1998 $VR_{45}$ 1 5.3 350°.06 3°.0/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.49 | +17 24.7 | 1.137 | 1.998 | 18.4 | 18.6 |
| 12 13 | 7 19.49 | +17 0.1 | 1.067 | 1.985 | 13.9 | 18.3 |
| 12 23 | 7 13.23 | +16 45.0 | 1.016 | 1.975 | 8.8 | 18.0 |
| 1 2 | 7 4.66 | +16 39.6 | 0.987 | 1.966 | 3.8 | 17.7 |
| 1 12 | 6 55.35 | +16 43.1 | 0.983 | 1.959 | 4.9 | 17.7 |
| 1 22 | 6 47.07 | +16 53.4 | 1.003 | 1.954 | 10.2 | 18.0 |
| 2 1 | 6 41.36 | +17 8.6 | 1.044 | 1.951 | 15.5 | 18.3 |
| 2 11 | 6 39.21 | +17 26.2 | 1.104 | 1.950 | 19.9 | 18.6 |

**254031** 2004 $FS_{134}$ 1 5.3 346°.73 8°.9/ 3.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.16 | +42 44.0 | 1.598 | 2.416 | 16.1 | 20.1 |
| 12 13 | 7 28.77 | +43 44.8 | 1.532 | 2.413 | 13.1 | 19.9 |
| 12 23 | 7 18.66 | +44 31.3 | 1.489 | 2.411 | 10.4 | 19.7 |
| 1 2 | 7 6.01 | +44 53.8 | 1.470 | 2.409 | 8.9 | 19.6 |
| 1 12 | 6 52.74 | +44 46.3 | 1.476 | 2.407 | 9.7 | 19.7 |
| 1 22 | 6 40.88 | +44 9.3 | 1.508 | 2.405 | 12.2 | 19.8 |
| 2 1 | 6 32.08 | +43 8.4 | 1.562 | 2.404 | 15.2 | 20.0 |
| 2 11 | 6 27.26 | +41 52.4 | 1.637 | 2.403 | 18.0 | 20.2 |

**496992** 2002 $RQ_{265}$ 1 5.4 59°.82 2°.9/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.86 | +32 31.7 | 2.802 | 3.619 | 9.9 | 21.3 |
| 12 13 | 7 20.13 | +32 58.8 | 2.746 | 3.641 | 7.4 | 21.1 |
| 12 23 | 7 12.77 | +33 21.6 | 2.716 | 3.663 | 4.8 | 21.0 |
| 1 2 | 7 4.42 | +33 37.0 | 2.716 | 3.685 | 3.0 | 20.9 |
| 1 12 | 6 55.93 | +33 43.4 | 2.746 | 3.707 | 3.7 | 21.0 |
| 1 22 | 6 48.11 | +33 40.2 | 2.806 | 3.729 | 6.0 | 21.2 |
| 2 1 | 6 41.67 | +33 28.4 | 2.894 | 3.752 | 8.4 | 21.4 |
| 2 11 | 6 37.14 | +33 10.1 | 3.006 | 3.774 | 10.6 | 21.5 |

**78762** 2002 $UV_{22}$ 1 5.4 9°.51 0°.1/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.97 | +21 40.4 | 1.820 | 2.656 | 13.6 | 18.6 |
| 12 13 | 7 20.23 | +21 59.6 | 1.749 | 2.658 | 10.1 | 18.4 |
| 12 23 | 7 13.17 | +22 23.2 | 1.702 | 2.661 | 6.0 | 18.1 |
| 1 2 | 7 4.58 | +22 48.3 | 1.682 | 2.664 | 1.5 | 17.9 |
| 1 12 | 6 55.59 | +23 12.1 | 1.690 | 2.667 | 3.0 | 18.0 |
| 1 22 | 6 47.37 | +23 32.4 | 1.727 | 2.672 | 7.3 | 18.3 |
| 2 1 | 6 40.96 | +23 48.2 | 1.789 | 2.677 | 11.2 | 18.5 |
| 2 11 | 6 37.09 | +23 59.6 | 1.874 | 2.682 | 14.5 | 18.7 |

**268479** 2005 $XJ_{61}$ 1 5.4 31°.25 0°.9/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.35 | +24 27.9 | 1.793 | 2.627 | 13.9 | 21.4 |
| 12 13 | 7 22.74 | +24 37.6 | 1.722 | 2.630 | 10.3 | 21.1 |
| 12 23 | 7 14.66 | +24 48.5 | 1.675 | 2.633 | 6.1 | 20.9 |
| 1 2 | 7 4.96 | +24 57.5 | 1.656 | 2.637 | 1.7 | 20.6 |
| 1 12 | 6 54.87 | +25 2.2 | 1.665 | 2.641 | 3.3 | 20.7 |
| 1 22 | 6 45.67 | +25 1.4 | 1.702 | 2.645 | 7.6 | 21.0 |
| 2 1 | 6 38.44 | +24 55.6 | 1.765 | 2.649 | 11.6 | 21.3 |
| 2 11 | 6 33.93 | +24 46.1 | 1.851 | 2.653 | 14.9 | 21.5 |

**231709** 1998 $UK_{41}$ 1 5.4 60°.86 1°.4/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.74 | +23 4.5 | 1.196 | 2.042 | 18.7 | 19.5 |
| 12 13 | 7 27.99 | +23 50.7 | 1.158 | 2.072 | 13.6 | 19.3 |
| 12 23 | 7 17.88 | +24 41.0 | 1.142 | 2.102 | 8.0 | 19.1 |
| 1 2 | 7 5.76 | +25 28.4 | 1.151 | 2.132 | 2.3 | 18.8 |
| 1 12 | 6 53.51 | +26 7.1 | 1.186 | 2.162 | 4.3 | 19.0 |
| 1 22 | 6 42.96 | +26 34.1 | 1.248 | 2.192 | 9.6 | 19.4 |
| 2 1 | 6 35.43 | +26 50.2 | 1.333 | 2.222 | 14.2 | 19.8 |
| 2 11 | 6 31.61 | +26 57.5 | 1.439 | 2.252 | 17.9 | 20.1 |

**416612** 2004 $RQ_{44}$ 1 5.4 78°.24 0°.9/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.12 | +24 53.9 | 1.913 | 2.740 | 13.4 | 21.7 |
| 12 13 | 7 23.74 | +25 3.1 | 1.855 | 2.759 | 9.9 | 21.5 |
| 12 23 | 7 15.08 | +25 12.6 | 1.822 | 2.778 | 5.8 | 21.3 |
| 1 2 | 7 5.04 | +25 19.4 | 1.816 | 2.797 | 1.7 | 21.0 |
| 1 12 | 6 54.81 | +25 21.4 | 1.841 | 2.816 | 3.1 | 21.2 |
| 1 22 | 6 45.56 | +25 17.9 | 1.894 | 2.835 | 7.1 | 21.5 |
| 2 1 | 6 38.27 | +25 9.7 | 1.974 | 2.853 | 10.7 | 21.7 |
| 2 11 | 6 33.55 | +24 58.2 | 2.078 | 2.872 | 13.8 | 22.0 |

**494123** 2016 $CL_{138}$ 1 5.4 151°.53 0°.3/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.80 | +22 38.3 | 2.261 | 3.075 | 12.1 | 21.2 |
| 12 13 | 7 24.69 | +22 23.4 | 2.187 | 3.084 | 8.9 | 21.0 |
| 12 23 | 7 15.56 | +22 9.1 | 2.139 | 3.093 | 5.3 | 20.8 |
| 1 2 | 7 5.17 | +21 54.0 | 2.120 | 3.101 | 1.4 | 20.6 |
| 1 12 | 6 54.55 | +21 37.4 | 2.132 | 3.109 | 2.6 | 20.7 |
| 1 22 | 6 44.72 | +21 19.2 | 2.176 | 3.115 | 6.4 | 20.9 |
| 2 1 | 6 36.58 | +21 0.3 | 2.248 | 3.122 | 9.8 | 21.2 |
| 2 11 | 6 30.74 | +20 41.5 | 2.344 | 3.127 | 12.7 | 21.4 |

**236919** 2007 $TT_{144}$ 1 5.4 111°.56 0°.3/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.31 | +20 52.7 | 2.512 | 3.329 | 10.9 | 21.2 |
| 12 13 | 7 20.55 | +21 5.8 | 2.444 | 3.343 | 8.0 | 21.0 |
| 12 23 | 7 13.08 | +21 21.8 | 2.401 | 3.356 | 4.8 | 20.8 |
| 1 2 | 7 4.55 | +21 39.1 | 2.388 | 3.369 | 1.3 | 20.6 |
| 1 12 | 6 55.79 | +21 55.6 | 2.405 | 3.382 | 2.3 | 20.7 |
| 1 22 | 6 47.65 | +22 10.2 | 2.454 | 3.394 | 5.7 | 21.0 |
| 2 1 | 6 40.88 | +22 22.3 | 2.530 | 3.407 | 8.8 | 21.2 |
| 2 11 | 6 36.04 | +22 31.7 | 2.631 | 3.419 | 11.4 | 21.4 |

**275811** 2001 $RT$ 1 5.4 156°.42 3°.8/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.53 | + 8 1.5 | 3.324 | 4.097 | 9.5 | 21.0 |
| 12 13 | 7 19.54 | + 7 24.0 | 3.246 | 4.106 | 7.5 | 20.9 |
| 12 23 | 7 12.32 | + 6 53.8 | 3.194 | 4.114 | 5.5 | 20.7 |
| 1 2 | 7 4.34 | + 6 31.8 | 3.172 | 4.122 | 4.0 | 20.6 |
| 1 12 | 6 56.19 | + 6 18.6 | 3.181 | 4.129 | 4.1 | 20.7 |
| 1 22 | 6 48.47 | + 6 13.7 | 3.222 | 4.136 | 5.7 | 20.8 |
| 2 1 | 6 41.72 | + 6 16.3 | 3.292 | 4.142 | 7.7 | 20.9 |
| 2 11 | 6 36.38 | + 6 24.9 | 3.387 | 4.148 | 9.6 | 21.1 |

**240221** 2002 $SU_{67}$ 1 5.4 53°.05 7°.8/ 7.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.78 | − 0 36.0 | 2.140 | 2.903 | 14.4 | 21.0 |
| 12 13 | 7 18.90 | − 1 9.2 | 2.070 | 2.909 | 12.0 | 20.8 |
| 12 23 | 7 12.21 | − 1 24.1 | 2.022 | 2.915 | 9.7 | 20.7 |
| 1 2 | 7 4.34 | − 1 18.2 | 1.999 | 2.922 | 8.1 | 20.6 |
| 1 12 | 6 56.18 | − 0 51.4 | 2.003 | 2.928 | 7.9 | 20.6 |
| 1 22 | 6 48.61 | − 0 5.9 | 2.034 | 2.934 | 9.3 | 20.7 |
| 2 1 | 6 42.44 | + 0 54.2 | 2.090 | 2.941 | 11.5 | 20.8 |
| 2 11 | 6 38.29 | + 2 3.8 | 2.170 | 2.948 | 13.8 | 21.0 |

**8758** Perdix 1 5.4 332°.46 2°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 23.86 | +15 57.5 | 2.096 | 2.918 | 12.6 | 18.7 |
| 12 13 | 7 19.18 | +16 3.5 | 2.012 | 2.911 | 9.5 | 18.5 |
| 12 23 | 7 12.49 | +16 17.5 | 1.953 | 2.904 | 6.0 | 18.2 |
| 1 2 | 7 4.44 | +16 38.3 | 1.920 | 2.898 | 2.6 | 18.0 |
| 1 12 | 6 55.96 | +17 4.2 | 1.917 | 2.892 | 3.2 | 18.0 |
| 1 22 | 6 48.04 | +17 32.9 | 1.943 | 2.886 | 6.8 | 18.3 |
| 2 1 | 6 41.59 | +18 2.6 | 1.996 | 2.881 | 10.4 | 18.5 |
| 2 11 | 6 37.31 | +18 31.8 | 2.072 | 2.876 | 13.5 | 18.7 |

**278060** 2006 $XO_{70}$ 1 5.4 194°.32 1°.1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.08 | +20 0.1 | 1.761 | 2.583 | 14.7 | 21.1 |
| 12 13 | 7 26.29 | +19 53.4 | 1.681 | 2.581 | 11.0 | 20.9 |
| 12 23 | 7 16.83 | +19 50.9 | 1.624 | 2.579 | 6.6 | 20.6 |
| 1 2 | 7 5.56 | +19 50.9 | 1.595 | 2.576 | 2.1 | 20.3 |
| 1 12 | 6 53.77 | +19 51.6 | 1.596 | 2.572 | 3.4 | 20.4 |
| 1 22 | 6 42.84 | +19 51.8 | 1.625 | 2.567 | 8.0 | 20.7 |
| 2 1 | 6 33.97 | +19 51.6 | 1.682 | 2.562 | 12.2 | 20.9 |
| 2 11 | 6 27.98 | +19 51.2 | 1.761 | 2.556 | 15.8 | 21.1 |

**198783** 2005 $ES_{118}$ 1 5.4 316°.55 3°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.79 | +14 51.4 | 2.129 | 2.944 | 12.7 | 19.7 |
| 12 13 | 7 20.48 | +14 24.4 | 2.047 | 2.940 | 9.7 | 19.5 |
| 12 23 | 7 13.20 | +14 4.2 | 1.991 | 2.937 | 6.3 | 19.3 |
| 1 2 | 7 4.62 | +13 51.0 | 1.961 | 2.935 | 3.4 | 19.1 |
| 1 12 | 6 55.68 | +13 44.7 | 1.962 | 2.932 | 3.9 | 19.2 |
| 1 22 | 6 47.36 | +13 44.6 | 1.991 | 2.929 | 7.1 | 19.4 |
| 2 1 | 6 40.56 | +13 49.7 | 2.047 | 2.926 | 10.4 | 19.6 |
| 2 11 | 6 35.90 | +13 58.7 | 2.127 | 2.924 | 13.4 | 19.7 |

**117003** 2004 $HZ_{59}$ 1 5.4 316°.51 7°.7/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.31 | + 8 14.9 | 1.183 | 2.018 | 19.6 | 19.1 |
| 12 13 | 7 21.66 | + 7 30.9 | 1.099 | 1.996 | 15.8 | 18.8 |
| 12 23 | 7 14.67 | + 7 5.6 | 1.034 | 1.974 | 11.6 | 18.5 |
| 1 2 | 7 5.13 | + 7 3.5 | 0.990 | 1.953 | 8.2 | 18.2 |
| 1 12 | 6 54.51 | + 7 26.5 | 0.971 | 1.933 | 8.5 | 18.1 |
| 1 22 | 6 44.59 | + 8 12.2 | 0.974 | 1.914 | 12.3 | 18.3 |
| 2 1 | 6 37.08 | + 9 15.2 | 0.999 | 1.895 | 17.1 | 18.5 |
| 2 11 | 6 33.19 | +10 28.3 | 1.042 | 1.878 | 21.6 | 18.7 |

**435287** 2007 $TO_{382}$ 1 5.4 91°.80 0°.4/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.54 | +21 51.0 | 2.376 | 3.199 | 11.3 | 20.9 |
| 12 13 | 7 20.21 | +22 27.7 | 2.301 | 3.203 | 8.3 | 20.7 |
| 12 23 | 7 13.01 | +23 8.2 | 2.252 | 3.208 | 4.9 | 20.5 |
| 1 2 | 7 4.57 | +23 49.6 | 2.231 | 3.212 | 1.3 | 20.3 |
| 1 12 | 6 55.78 | +24 28.7 | 2.241 | 3.217 | 2.6 | 20.4 |
| 1 22 | 6 47.55 | +25 3.3 | 2.281 | 3.221 | 6.1 | 20.6 |
| 2 1 | 6 40.74 | +25 32.2 | 2.349 | 3.226 | 9.4 | 20.8 |
| 2 11 | 6 35.96 | +25 55.4 | 2.442 | 3.230 | 12.1 | 21.0 |

**61228** 2000 $OX_{13}$ 1 5.4 285°.75 1°.5/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.00 | +26 19.3 | 1.473 | 2.313 | 16.1 | 18.8 |
| 12 13 | 7 26.21 | +26 20.9 | 1.389 | 2.299 | 12.1 | 18.5 |
| 12 23 | 7 17.13 | +26 21.5 | 1.326 | 2.285 | 7.3 | 18.2 |
| 1 2 | 7 5.71 | +26 17.1 | 1.289 | 2.270 | 2.3 | 17.9 |
| 1 12 | 6 53.50 | +26 4.6 | 1.280 | 2.256 | 4.1 | 18.0 |
| 1 22 | 6 42.24 | +25 43.5 | 1.298 | 2.241 | 9.4 | 18.2 |
| 2 1 | 6 33.47 | +25 15.9 | 1.340 | 2.227 | 14.2 | 18.5 |
| 2 11 | 6 28.21 | +24 44.9 | 1.403 | 2.213 | 18.4 | 18.7 |

**200582** 2001 $QT_{155}$ 1 5.4 75°.08 1°.6/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.26 | +18 9.7 | 1.382 | 2.213 | 17.4 | 21.1 |
| 12 13 | 7 27.19 | +18 13.5 | 1.338 | 2.243 | 12.9 | 20.9 |
| 12 23 | 7 17.25 | +18 25.4 | 1.316 | 2.272 | 7.8 | 20.7 |
| 1 2 | 7 5.63 | +18 42.7 | 1.321 | 2.301 | 2.6 | 20.5 |
| 1 12 | 6 53.91 | +19 2.2 | 1.353 | 2.329 | 3.8 | 20.6 |
| 1 22 | 6 43.62 | +19 21.7 | 1.413 | 2.357 | 8.7 | 21.0 |
| 2 1 | 6 35.94 | +19 39.9 | 1.498 | 2.385 | 13.0 | 21.3 |
| 2 11 | 6 31.50 | +19 56.2 | 1.604 | 2.412 | 16.5 | 21.6 |

**186682** 2003 $YT_{141}$ 1 5.4 234°.18 3°.7/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.45 | +28 58.4 | 1.557 | 2.390 | 15.7 | 20.2 |
| 12 13 | 7 28.05 | +29 48.9 | 1.475 | 2.381 | 11.8 | 19.9 |
| 12 23 | 7 18.27 | +30 39.3 | 1.417 | 2.371 | 7.5 | 19.7 |
| 1 2 | 7 6.02 | +31 22.3 | 1.385 | 2.360 | 3.9 | 19.4 |
| 1 12 | 6 52.88 | +31 51.5 | 1.381 | 2.349 | 5.4 | 19.5 |
| 1 22 | 6 40.65 | +32 4.1 | 1.404 | 2.337 | 9.9 | 19.7 |
| 2 1 | 6 30.94 | +32 1.1 | 1.452 | 2.325 | 14.3 | 20.0 |
| 2 11 | 6 24.82 | +31 46.7 | 1.522 | 2.313 | 18.1 | 20.2 |

**92531** 2000 $OD_{14}$ 1 5.4 130°.68 1°.8/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.93 | +16 4.7 | 1.743 | 2.562 | 14.9 | 20.1 |
| 12 13 | 7 24.59 | +16 27.0 | 1.676 | 2.574 | 11.2 | 19.9 |
| 12 23 | 7 15.76 | +16 59.1 | 1.632 | 2.585 | 6.9 | 19.6 |
| 1 2 | 7 5.30 | +17 38.3 | 1.616 | 2.595 | 2.6 | 19.4 |
| 1 12 | 6 54.43 | +18 21.2 | 1.629 | 2.605 | 3.4 | 19.5 |
| 1 22 | 6 44.43 | +19 4.4 | 1.671 | 2.614 | 7.7 | 19.8 |
| 2 1 | 6 36.43 | +19 45.3 | 1.741 | 2.623 | 11.8 | 20.0 |
| 2 11 | 6 31.17 | +20 22.7 | 1.832 | 2.631 | 15.2 | 20.3 |

**15777** 1993 $LF$ 1 5.4 156°.30 2°.1/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.74 | +13 41.8 | 1.987 | 2.797 | 13.7 | 17.0 |
| 12 13 | 7 22.82 | +14 18.8 | 1.910 | 2.802 | 10.3 | 16.8 |
| 12 23 | 7 14.68 | +15 7.6 | 1.858 | 2.807 | 6.5 | 16.6 |
| 1 2 | 7 5.03 | +16 5.7 | 1.834 | 2.811 | 2.8 | 16.4 |
| 1 12 | 6 54.92 | +17 9.2 | 1.840 | 2.814 | 3.3 | 16.4 |
| 1 22 | 6 45.46 | +18 14.1 | 1.876 | 2.818 | 7.1 | 16.6 |
| 2 1 | 6 37.66 | +19 16.8 | 1.940 | 2.820 | 10.8 | 16.9 |
| 2 11 | 6 32.25 | +20 15.1 | 2.028 | 2.823 | 14.0 | 17.1 |

**148727** 2001 $TS_{75}$ 1 5.4 30°.19 7°.6/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.43 | + 6 27.2 | 1.543 | 2.352 | 17.0 | 19.4 |
| 12 13 | 7 21.38 | + 5 22.9 | 1.482 | 2.360 | 13.7 | 19.2 |
| 12 23 | 7 13.88 | + 4 35.1 | 1.442 | 2.368 | 10.3 | 19.0 |
| 1 2 | 7 4.81 | + 4 7.4 | 1.427 | 2.377 | 7.9 | 18.9 |
| 1 12 | 6 55.41 | + 4 1.2 | 1.438 | 2.387 | 8.0 | 18.9 |
| 1 22 | 6 46.92 | + 4 15.0 | 1.474 | 2.397 | 10.5 | 19.1 |
| 2 1 | 6 40.43 | + 4 45.2 | 1.535 | 2.407 | 13.7 | 19.3 |
| 2 11 | 6 36.65 | + 5 26.6 | 1.616 | 2.418 | 16.7 | 19.6 |

**461113** 2015 $CR_{35}$ 1 5.4 199°.37 4°.5/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.62 | +35 33.3 | 2.351 | 3.168 | 11.6 | 21.0 |
| 12 13 | 7 23.48 | +36 18.8 | 2.276 | 3.167 | 9.0 | 20.8 |
| 12 23 | 7 15.06 | +36 58.3 | 2.226 | 3.166 | 6.3 | 20.6 |
| 1 2 | 7 5.12 | +37 26.9 | 2.204 | 3.164 | 4.6 | 20.5 |
| 1 12 | 6 54.75 | +37 40.9 | 2.212 | 3.163 | 5.4 | 20.6 |
| 1 22 | 6 45.09 | +37 39.5 | 2.248 | 3.161 | 7.9 | 20.7 |
| 2 1 | 6 37.19 | +37 24.2 | 2.311 | 3.160 | 10.6 | 20.9 |
| 2 11 | 6 31.76 | +36 58.3 | 2.397 | 3.158 | 13.1 | 21.1 |

**436749** 2011 $WC_{114}$ 1 5.4 28°.41 11°.7/30.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.45 | +31 47.3 | 0.884 | 1.748 | 22.0 | 20.0 |
| 12 13 | 7 32.85 | +35 58.4 | 0.836 | 1.752 | 17.2 | 19.7 |
| 12 23 | 7 22.54 | +40 16.0 | 0.811 | 1.756 | 13.1 | 19.5 |
| 1 2 | 7 7.38 | +44 9.6 | 0.810 | 1.762 | 11.8 | 19.5 |
| 1 12 | 6 50.00 | +47 11.0 | 0.833 | 1.768 | 14.5 | 19.7 |
| 1 22 | 6 34.05 | +49 8.3 | 0.878 | 1.774 | 18.7 | 19.9 |
| 2 1 | 6 22.87 | +50 7.2 | 0.941 | 1.782 | 22.9 | 20.2 |
| 2 11 | 6 18.25 | +50 23.2 | 1.017 | 1.789 | 26.3 | 20.5 |

**486945** 2014 $MO_{49}$ 1 5.4 213°.19 0°.8/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.82 | +23 16.8 | 1.947 | 2.769 | 13.4 | 22.1 |
| 12 13 | 7 25.35 | +23 45.9 | 1.860 | 2.762 | 10.0 | 21.9 |
| 12 23 | 7 16.31 | +24 18.3 | 1.798 | 2.754 | 6.0 | 21.6 |
| 1 2 | 7 5.48 | +24 50.2 | 1.765 | 2.746 | 1.7 | 21.3 |
| 1 12 | 6 54.03 | +25 17.9 | 1.761 | 2.737 | 3.2 | 21.4 |
| 1 22 | 6 43.25 | +25 39.0 | 1.787 | 2.727 | 7.6 | 21.7 |
| 2 1 | 6 34.33 | +25 53.0 | 1.841 | 2.716 | 11.6 | 21.9 |
| 2 11 | 6 28.13 | +26 0.9 | 1.917 | 2.705 | 15.0 | 22.1 |

**430535** 2002 $CS_{289}$ 1 5.4 71°.19 19°.3/ 8.7 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 8 14.48 | +61 37.0 | 1.053 | 1.814 | 26.2 | 20.6 |
| 12 13 | 8 1.31 | +62 37.0 | 1.013 | 1.824 | 23.7 | 20.4 |
| 12 23 | 7 38.78 | +62 52.7 | 0.986 | 1.835 | 21.3 | 20.3 |
| 1 2 | 7 10.98 | +62 0.1 | 0.976 | 1.846 | 19.7 | 20.3 |
| 1 12 | 6 44.65 | +59 50.8 | 0.986 | 1.857 | 19.4 | 20.3 |
| 1 22 | 6 25.02 | +56 39.1 | 1.016 | 1.868 | 20.6 | 20.4 |
| 2 1 | 6 13.89 | +52 51.7 | 1.067 | 1.880 | 22.7 | 20.6 |
| 2 11 | 6 10.51 | +48 55.0 | 1.135 | 1.891 | 25.0 | 20.8 |

**26901** 1995 $WN_{20}$ 1 5.4 254°.89 0°.7/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.55 | +19 33.8 | 1.500 | 2.334 | 16.1 | 19.4 |
| 12 13 | 7 24.95 | +19 51.5 | 1.419 | 2.326 | 12.1 | 19.1 |
| 12 23 | 7 16.32 | +20 17.2 | 1.361 | 2.318 | 7.3 | 18.8 |
| 1 2 | 7 5.52 | +20 47.7 | 1.329 | 2.310 | 2.1 | 18.5 |
| 1 12 | 6 53.97 | +21 19.2 | 1.324 | 2.301 | 3.6 | 18.6 |
| 1 22 | 6 43.25 | +21 48.4 | 1.347 | 2.293 | 8.9 | 18.9 |
| 2 1 | 6 34.80 | +22 13.7 | 1.395 | 2.284 | 13.7 | 19.1 |
| 2 11 | 6 29.60 | +22 34.7 | 1.464 | 2.275 | 17.7 | 19.3 |

**339458** 2005 $EW_{206}$ 1 5.4 226°.08 5°.9/ 3.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.86 | +42 9.0 | 2.695 | 3.490 | 10.9 | 21.1 |
| 12 13 | 7 25.10 | +42 58.0 | 2.614 | 3.482 | 8.8 | 21.0 |
| 12 23 | 7 16.03 | +43 37.8 | 2.558 | 3.473 | 6.9 | 20.9 |
| 1 2 | 7 5.40 | +44 3.0 | 2.530 | 3.464 | 5.9 | 20.8 |
| 1 12 | 6 54.28 | +44 10.0 | 2.531 | 3.455 | 6.5 | 20.8 |
| 1 22 | 6 43.85 | +43 58.3 | 2.561 | 3.446 | 8.3 | 20.9 |
| 2 1 | 6 35.16 | +43 30.0 | 2.617 | 3.436 | 10.5 | 21.0 |
| 2 11 | 6 28.95 | +42 49.2 | 2.696 | 3.426 | 12.5 | 21.2 |

**338224** 2002 $TB_{42}$ 1 5.4 92°.97 3°.6/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.93 | +28 56.2 | 1.440 | 2.274 | 16.7 | 20.9 |
| 12 13 | 7 29.50 | +29 47.3 | 1.392 | 2.297 | 12.4 | 20.7 |
| 12 23 | 7 18.81 | +30 35.7 | 1.366 | 2.320 | 7.7 | 20.5 |
| 1 2 | 7 6.09 | +31 13.9 | 1.366 | 2.342 | 3.9 | 20.3 |
| 1 12 | 6 53.09 | +31 36.7 | 1.395 | 2.364 | 5.3 | 20.4 |
| 1 22 | 6 41.59 | +31 42.9 | 1.451 | 2.385 | 9.6 | 20.7 |
| 2 1 | 6 32.93 | +31 35.2 | 1.532 | 2.406 | 13.6 | 21.0 |
| 2 11 | 6 27.87 | +31 18.0 | 1.634 | 2.426 | 17.0 | 21.3 |

**290601** 2005 $UL_{193}$ 1 5.4 64°.05 1°.2/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.02 | +24 32.3 | 1.765 | 2.599 | 14.1 | 20.9 |
| 12 13 | 7 23.29 | +24 59.3 | 1.699 | 2.607 | 10.4 | 20.7 |
| 12 23 | 7 15.04 | +25 28.2 | 1.658 | 2.615 | 6.2 | 20.5 |
| 1 2 | 7 5.15 | +25 55.1 | 1.643 | 2.624 | 1.9 | 20.2 |
| 1 12 | 6 54.87 | +26 16.3 | 1.657 | 2.633 | 3.5 | 20.3 |
| 1 22 | 6 45.51 | +26 30.1 | 1.700 | 2.641 | 7.7 | 20.6 |
| 2 1 | 6 38.18 | +26 36.5 | 1.769 | 2.650 | 11.7 | 20.9 |
| 2 11 | 6 33.62 | +26 36.8 | 1.860 | 2.659 | 14.9 | 21.1 |

**421081** 2013 $QJ_{40}$ 1 5.4 152°.20 0°.8/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.85 | +20 3.3 | 2.082 | 2.904 | 12.7 | 21.8 |
| 12 13 | 7 22.07 | +20 1.9 | 2.005 | 2.906 | 9.4 | 21.6 |
| 12 23 | 7 14.18 | +20 4.4 | 1.954 | 2.909 | 5.7 | 21.3 |
| 1 2 | 7 4.92 | +20 9.3 | 1.930 | 2.911 | 1.7 | 21.1 |
| 1 12 | 6 55.30 | +20 15.0 | 1.936 | 2.913 | 2.8 | 21.2 |
| 1 22 | 6 46.40 | +20 20.4 | 1.972 | 2.915 | 6.8 | 21.4 |
| 2 1 | 6 39.13 | +20 24.9 | 2.035 | 2.916 | 10.4 | 21.6 |
| 2 11 | 6 34.19 | +20 28.5 | 2.122 | 2.918 | 13.5 | 21.8 |

**428460** 2007 $TZ_{451}$ 1 5.4 117°.52 2°.8/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.21 | +30 18.5 | 2.614 | 3.431 | 10.6 | 21.1 |
| 12 13 | 7 22.09 | +31 6.2 | 2.548 | 3.445 | 7.9 | 21.0 |
| 12 23 | 7 14.09 | +31 51.6 | 2.509 | 3.458 | 5.0 | 20.8 |
| 1 2 | 7 4.89 | +32 30.6 | 2.499 | 3.471 | 2.9 | 20.7 |
| 1 12 | 6 55.39 | +33 0.2 | 2.521 | 3.484 | 3.8 | 20.8 |
| 1 22 | 6 46.51 | +33 19.0 | 2.572 | 3.496 | 6.4 | 21.0 |
| 2 1 | 6 39.11 | +33 27.3 | 2.651 | 3.509 | 9.1 | 21.2 |
| 2 11 | 6 33.77 | +33 26.9 | 2.755 | 3.520 | 11.5 | 21.3 |

**165663** 2001 $MT_{29}$ 1 5.4 117°.38 3°.9/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.40 | +10 36.0 | 2.466 | 3.263 | 11.8 | 19.8 |
| 12 13 | 7 19.87 | +10 4.8 | 2.393 | 3.271 | 9.1 | 19.7 |
| 12 23 | 7 12.71 | + 9 42.2 | 2.345 | 3.279 | 6.4 | 19.5 |
| 1 2 | 7 4.53 | + 9 29.1 | 2.325 | 3.287 | 4.2 | 19.4 |
| 1 12 | 6 56.11 | + 9 25.4 | 2.335 | 3.295 | 4.4 | 19.4 |
| 1 22 | 6 48.27 | + 9 30.4 | 2.375 | 3.303 | 6.7 | 19.6 |
| 2 1 | 6 41.73 | + 9 42.6 | 2.442 | 3.310 | 9.4 | 19.8 |
| 2 11 | 6 37.02 | +10 0.1 | 2.533 | 3.318 | 11.9 | 19.9 |

**496251** 2012 $JP$ 1 5.4 312°.45 19°.4/ 7.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.04 | −28 27.4 | 1.929 | 2.509 | 20.9 | 20.6 |
| 12 13 | 7 20.55 | −30 38.5 | 1.865 | 2.493 | 20.3 | 20.4 |
| 12 23 | 7 13.60 | −32 16.8 | 1.814 | 2.477 | 19.7 | 20.4 |
| 1 2 | 7 4.84 | −33 13.5 | 1.777 | 2.462 | 19.4 | 20.3 |
| 1 12 | 6 55.37 | −33 23.2 | 1.755 | 2.447 | 19.4 | 20.2 |
| 1 22 | 6 46.42 | −32 44.8 | 1.748 | 2.432 | 19.7 | 20.2 |
| 2 1 | 6 39.17 | −31 22.0 | 1.754 | 2.418 | 20.4 | 20.2 |
| 2 11 | 6 34.53 | −29 22.8 | 1.775 | 2.404 | 21.2 | 20.3 |

**54314** 2000 $JS_{75}$ 1 5.4 305°.10 2°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.98 | +16 38.2 | 1.342 | 2.183 | 17.3 | 19.3 |
| 12 13 | 7 23.39 | +16 54.6 | 1.259 | 2.168 | 13.1 | 19.0 |
| 12 23 | 7 15.59 | +17 23.8 | 1.198 | 2.154 | 8.2 | 18.7 |
| 1 2 | 7 5.40 | +18 3.7 | 1.161 | 2.140 | 3.0 | 18.4 |
| 1 12 | 6 54.28 | +18 50.1 | 1.150 | 2.127 | 4.2 | 18.4 |
| 1 22 | 6 43.94 | +19 38.5 | 1.165 | 2.114 | 9.6 | 18.7 |
| 2 1 | 6 35.96 | +20 25.3 | 1.205 | 2.101 | 14.8 | 18.9 |
| 2 11 | 6 31.42 | +21 8.0 | 1.264 | 2.088 | 19.2 | 19.2 |

**202717** 2007 $HC_{20}$ 1 5.4 217°.11 2°.9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.93 | +15 6.2 | 1.817 | 2.631 | 14.6 | 21.5 |
| 12 13 | 7 24.69 | +14 53.9 | 1.731 | 2.624 | 11.1 | 21.3 |
| 12 23 | 7 15.94 | +14 50.1 | 1.668 | 2.616 | 7.2 | 21.0 |
| 1 2 | 7 5.42 | +14 54.3 | 1.632 | 2.608 | 3.5 | 20.8 |
| 1 12 | 6 54.33 | +15 5.4 | 1.626 | 2.599 | 4.1 | 20.8 |
| 1 22 | 6 43.92 | +15 21.6 | 1.649 | 2.589 | 8.1 | 21.0 |
| 2 1 | 6 35.37 | +15 41.5 | 1.699 | 2.578 | 12.2 | 21.2 |
| 2 11 | 6 29.51 | +16 3.3 | 1.771 | 2.567 | 15.7 | 21.4 |

**109422** 2001 $QZ_{192}$ 1 5.4 122°.42 0°.8/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.48 | +20 49.7 | 2.554 | 3.369 | 10.9 | 19.3 |
| 12 13 | 7 21.36 | +20 30.1 | 2.481 | 3.378 | 8.0 | 19.1 |
| 12 23 | 7 13.57 | +20 12.3 | 2.434 | 3.387 | 4.8 | 18.9 |
| 1 2 | 7 4.75 | +19 55.6 | 2.416 | 3.396 | 1.5 | 18.7 |
| 1 12 | 6 55.74 | +19 39.5 | 2.430 | 3.405 | 2.4 | 18.8 |
| 1 22 | 6 47.37 | +19 23.9 | 2.474 | 3.414 | 5.7 | 19.0 |
| 2 1 | 6 40.39 | +19 9.0 | 2.547 | 3.422 | 8.8 | 19.2 |
| 2 11 | 6 35.32 | +18 55.3 | 2.644 | 3.431 | 11.4 | 19.4 |

**462921** 2011 $BF_{5}$ 1 5.4 274°.37 0°.4/ 5.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.39 | +24 17.7 | 2.045 | 2.871 | 12.8 | 21.6 |
| 12 13 | 7 23.48 | +24 12.3 | 1.949 | 2.852 | 9.5 | 21.4 |
| 12 23 | 7 15.20 | +24 6.9 | 1.877 | 2.834 | 5.7 | 21.1 |
| 1 2 | 7 5.24 | +23 59.5 | 1.834 | 2.815 | 1.5 | 20.8 |
| 1 12 | 6 54.72 | +23 48.4 | 1.820 | 2.796 | 3.0 | 20.8 |
| 1 22 | 6 44.80 | +23 33.1 | 1.835 | 2.777 | 7.3 | 21.1 |
| 2 1 | 6 36.61 | +23 14.5 | 1.878 | 2.758 | 11.2 | 21.3 |
| 2 11 | 6 30.93 | +22 53.9 | 1.944 | 2.739 | 14.6 | 21.5 |

**489190** 2006 $HM_{63}$ 1 5.4 220°.30 3°.9/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.28 | +31 3.5 | 1.980 | 2.802 | 13.3 | 22.2 |
| 12 13 | 7 26.64 | +31 59.7 | 1.895 | 2.793 | 10.1 | 22.0 |
| 12 23 | 7 17.21 | +32 54.1 | 1.835 | 2.784 | 6.6 | 21.7 |
| 1 2 | 7 5.78 | +33 40.1 | 1.804 | 2.774 | 4.0 | 21.6 |
| 1 12 | 6 53.64 | +34 12.6 | 1.802 | 2.764 | 5.2 | 21.6 |
| 1 22 | 6 42.21 | +34 29.0 | 1.828 | 2.753 | 8.6 | 21.8 |
| 2 1 | 6 32.78 | +34 30.3 | 1.882 | 2.741 | 12.2 | 22.0 |
| 2 11 | 6 26.29 | +34 19.8 | 1.958 | 2.729 | 15.3 | 22.2 |

**293599** 2007 $JT_{38}$ 1 5.4 329°.40 0°.4/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.12 | +21 30.2 | 1.736 | 2.571 | 14.3 | 20.8 |
| 12 13 | 7 22.02 | +21 30.5 | 1.656 | 2.564 | 10.6 | 20.5 |
| 12 23 | 7 14.39 | +21 34.4 | 1.599 | 2.557 | 6.3 | 20.2 |
| 1 2 | 7 5.04 | +21 40.1 | 1.569 | 2.551 | 1.7 | 19.9 |
| 1 12 | 6 55.16 | +21 45.2 | 1.568 | 2.545 | 3.2 | 20.0 |
| 1 22 | 6 46.06 | +21 48.6 | 1.594 | 2.539 | 7.8 | 20.3 |
| 2 1 | 6 38.88 | +21 49.9 | 1.646 | 2.534 | 12.0 | 20.5 |
| 2 11 | 6 34.44 | +21 49.3 | 1.720 | 2.529 | 15.6 | 20.7 |

**159885** 2004 $SK_{16}$ 1 5.4 131°.69 1°.4/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.70 | +23 46.1 | 1.711 | 2.539 | 14.7 | 20.4 |
| 12 13 | 7 26.11 | +24 30.8 | 1.645 | 2.550 | 10.9 | 20.2 |
| 12 23 | 7 16.78 | +25 18.8 | 1.604 | 2.560 | 6.5 | 20.0 |
| 1 2 | 7 5.64 | +26 5.0 | 1.589 | 2.570 | 2.0 | 19.7 |
| 1 12 | 6 54.03 | +26 44.6 | 1.605 | 2.580 | 3.7 | 19.8 |
| 1 22 | 6 43.39 | +27 14.7 | 1.649 | 2.588 | 8.1 | 20.1 |
| 2 1 | 6 34.94 | +27 35.0 | 1.720 | 2.597 | 12.2 | 20.4 |
| 2 11 | 6 29.47 | +27 46.9 | 1.812 | 2.605 | 15.6 | 20.6 |

**474575** 2004 $FF_{18}$ 1 5.4 258°.97 7°.2/ 7.8 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.54 | − 7 2.0 | 3.375 | 4.073 | 10.8 | 23.4 |
| 12 13 | 7 18.35 | − 7 34.9 | 3.264 | 4.045 | 9.5 | 23.2 |
| 12 23 | 7 11.82 | − 7 53.6 | 3.176 | 4.016 | 8.2 | 23.1 |
| 1 2 | 7 4.35 | − 7 55.7 | 3.114 | 3.987 | 7.3 | 23.0 |
| 1 12 | 6 56.50 | − 7 40.0 | 3.079 | 3.957 | 7.3 | 23.0 |
| 1 22 | 6 48.87 | − 7 7.2 | 3.073 | 3.927 | 8.1 | 23.0 |
| 2 1 | 6 42.05 | − 6 19.2 | 3.093 | 3.895 | 9.5 | 23.0 |
| 2 11 | 6 36.55 | − 5 19.3 | 3.138 | 3.864 | 11.0 | 23.1 |

**12771** Kimshin 1 5.4 166°.93 0°.9/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.30 | +23 6.2 | 1.763 | 2.588 | 14.5 | 18.5 |
| 12 13 | 7 26.54 | +23 40.9 | 1.690 | 2.593 | 10.7 | 18.3 |
| 12 23 | 7 17.06 | +24 19.3 | 1.641 | 2.597 | 6.4 | 18.0 |
| 1 2 | 7 5.73 | +24 56.9 | 1.620 | 2.601 | 1.8 | 17.7 |
| 1 12 | 6 53.87 | +25 29.4 | 1.628 | 2.604 | 3.5 | 17.9 |
| 1 22 | 6 42.90 | +25 54.3 | 1.666 | 2.606 | 8.0 | 18.2 |
| 2 1 | 6 34.05 | +26 11.0 | 1.730 | 2.607 | 12.1 | 18.4 |
| 2 11 | 6 28.15 | +26 20.9 | 1.817 | 2.608 | 15.6 | 18.6 |

**237612** 2001 $QZ_{230}$ 1 5.4 59°.84 8°.4/ 8.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.72 | − 3 41.3 | 2.197 | 2.942 | 14.6 | 20.2 |
| 12 13 | 7 18.82 | − 4 13.0 | 2.133 | 2.955 | 12.4 | 20.0 |
| 12 23 | 7 12.17 | − 4 24.5 | 2.091 | 2.967 | 10.3 | 19.9 |
| 1 2 | 7 4.42 | − 4 13.5 | 2.073 | 2.980 | 8.8 | 19.9 |
| 1 12 | 6 56.44 | − 3 39.8 | 2.082 | 2.993 | 8.5 | 19.9 |
| 1 22 | 6 49.06 | − 2 46.2 | 2.117 | 3.006 | 9.6 | 20.0 |
| 2 1 | 6 43.06 | − 1 37.0 | 2.178 | 3.019 | 11.5 | 20.1 |
| 2 11 | 6 39.01 | − 0 17.8 | 2.262 | 3.032 | 13.5 | 20.3 |

**93645** 2000 $UF_{90}$ 1 5.4 89°.09 1°.4/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.54 | +17 10.4 | 1.941 | 2.762 | 13.5 | 19.8 |
| 12 13 | 7 21.94 | +17 30.7 | 1.873 | 2.773 | 10.1 | 19.6 |
| 12 23 | 7 14.15 | +17 58.7 | 1.830 | 2.783 | 6.1 | 19.4 |
| 1 2 | 7 4.95 | +18 32.3 | 1.814 | 2.793 | 2.2 | 19.2 |
| 1 12 | 6 55.41 | +19 8.6 | 1.827 | 2.803 | 3.0 | 19.3 |
| 1 22 | 6 46.63 | +19 44.7 | 1.870 | 2.814 | 7.0 | 19.5 |
| 2 1 | 6 39.57 | +20 18.8 | 1.940 | 2.824 | 10.7 | 19.8 |
| 2 11 | 6 34.90 | +20 49.6 | 2.034 | 2.834 | 13.8 | 20.0 |

**456600** 2007 $ED_{146}$ 1 5.4 116°.75 2°.5/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.71 | +14 31.9 | 1.977 | 2.794 | 13.5 | 21.9 |
| 12 13 | 7 21.32 | +14 39.0 | 1.902 | 2.797 | 10.2 | 21.7 |
| 12 23 | 7 13.81 | +14 55.5 | 1.850 | 2.799 | 6.5 | 21.5 |
| 1 2 | 7 4.88 | +15 20.3 | 1.826 | 2.802 | 3.1 | 21.3 |
| 1 12 | 6 55.55 | +15 51.4 | 1.832 | 2.805 | 3.6 | 21.3 |
| 1 22 | 6 46.89 | +16 26.1 | 1.866 | 2.808 | 7.2 | 21.5 |
| 2 1 | 6 39.87 | +17 2.2 | 1.927 | 2.810 | 10.8 | 21.7 |
| 2 11 | 6 35.17 | +17 37.7 | 2.012 | 2.813 | 13.9 | 22.0 |

**142567** 2002 $TQ_{78}$ 1 5.4 20°.48 14°.4/ 9.8 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.94 | −11 15.8 | 1.594 | 2.321 | 19.9 | 19.5 |
| 12 13 | 7 20.37 | −12 41.8 | 1.535 | 2.324 | 17.9 | 19.4 |
| 12 23 | 7 13.39 | −13 37.1 | 1.494 | 2.328 | 16.1 | 19.3 |
| 1 2 | 7 4.78 | −13 54.9 | 1.472 | 2.332 | 14.8 | 19.2 |
| 1 12 | 6 55.74 | −13 32.0 | 1.471 | 2.337 | 14.4 | 19.2 |
| 1 22 | 6 47.49 | −12 31.1 | 1.492 | 2.343 | 15.2 | 19.3 |
| 2 1 | 6 41.13 | −10 58.8 | 1.534 | 2.348 | 16.8 | 19.4 |
| 2 11 | 6 37.42 | − 9 5.1 | 1.595 | 2.355 | 18.7 | 19.5 |

**419087** 2009 $SK_{128}$ 1 5.4 78°.32 1°.1/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.16 | +19 25.6 | 1.900 | 2.726 | 13.6 | 21.5 |
| 12 13 | 7 22.41 | +19 21.7 | 1.832 | 2.734 | 10.1 | 21.2 |
| 12 23 | 7 14.43 | +19 22.6 | 1.788 | 2.743 | 6.1 | 21.0 |
| 1 2 | 7 5.03 | +19 26.8 | 1.771 | 2.751 | 2.0 | 20.8 |
| 1 12 | 6 55.32 | +19 32.7 | 1.784 | 2.760 | 3.0 | 20.9 |
| 1 22 | 6 46.43 | +19 39.0 | 1.825 | 2.769 | 7.1 | 21.1 |
| 2 1 | 6 39.35 | +19 45.1 | 1.893 | 2.777 | 10.9 | 21.4 |
| 2 11 | 6 34.74 | +19 50.6 | 1.985 | 2.786 | 14.1 | 21.6 |

**405585** 2005 $SF_{9}$ 1 5.4 47°.70 6°.8/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.51 | +35 59.4 | 1.437 | 2.273 | 16.7 | 20.0 |
| 12 13 | 7 27.92 | +37 18.8 | 1.402 | 2.301 | 12.8 | 19.8 |
| 12 23 | 7 17.97 | +38 27.8 | 1.389 | 2.330 | 9.1 | 19.7 |
| 1 2 | 7 5.94 | +39 17.1 | 1.401 | 2.359 | 6.9 | 19.6 |
| 1 12 | 6 53.70 | +39 41.2 | 1.439 | 2.389 | 7.9 | 19.7 |
| 1 22 | 6 43.07 | +39 40.1 | 1.504 | 2.419 | 10.9 | 20.0 |
| 2 1 | 6 35.41 | +39 18.6 | 1.592 | 2.449 | 14.1 | 20.3 |
| 2 11 | 6 31.42 | +38 43.3 | 1.700 | 2.479 | 17.0 | 20.5 |

**429048** 2009 $DR_{4}$ 1 5.4 20°.72 0°.9/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.36 | +21 12.3 | 1.795 | 2.629 | 13.9 | 20.6 |
| 12 13 | 7 21.19 | +20 53.3 | 1.729 | 2.636 | 10.3 | 20.4 |
| 12 23 | 7 13.74 | +20 37.2 | 1.687 | 2.644 | 6.2 | 20.1 |
| 1 2 | 7 4.86 | +20 22.9 | 1.671 | 2.652 | 1.8 | 19.9 |
| 1 12 | 6 55.70 | +20 9.6 | 1.685 | 2.662 | 3.1 | 20.0 |
| 1 22 | 6 47.43 | +19 57.0 | 1.726 | 2.671 | 7.3 | 20.3 |
| 2 1 | 6 41.03 | +19 45.3 | 1.794 | 2.682 | 11.2 | 20.5 |
| 2 11 | 6 37.15 | +19 34.7 | 1.884 | 2.693 | 14.4 | 20.7 |

**522587** 2016 $EV_{246}$ 1 5.4 201°.74 1°.4/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.47 | +26 11.1 | 2.616 | 3.434 | 10.5 | 22.7 |
| 12 13 | 7 21.59 | +26 35.7 | 2.531 | 3.431 | 7.8 | 22.5 |
| 12 23 | 7 13.87 | +27 0.2 | 2.472 | 3.427 | 4.7 | 22.3 |
| 1 2 | 7 4.92 | +27 22.1 | 2.443 | 3.423 | 1.7 | 22.1 |
| 1 12 | 6 55.60 | +27 38.7 | 2.445 | 3.418 | 2.8 | 22.2 |
| 1 22 | 6 46.80 | +27 49.0 | 2.477 | 3.413 | 6.0 | 22.4 |
| 2 1 | 6 39.37 | +27 52.8 | 2.538 | 3.408 | 9.0 | 22.6 |
| 2 11 | 6 33.91 | +27 51.2 | 2.623 | 3.402 | 11.6 | 22.8 |

**483598** 2004 $PO_{96}$ 1 5.4 193°.79 2°.5/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.03 | +29 5.2 | 1.675 | 2.503 | 15.0 | 21.4 |
| 12 13 | 7 28.02 | +29 12.7 | 1.599 | 2.502 | 11.2 | 21.2 |
| 12 23 | 7 18.02 | +29 16.3 | 1.546 | 2.501 | 6.9 | 21.0 |
| 1 2 | 7 6.02 | +29 11.7 | 1.521 | 2.499 | 3.0 | 20.7 |
| 1 12 | 6 53.52 | +28 55.9 | 1.524 | 2.497 | 4.3 | 20.8 |
| 1 22 | 6 42.10 | +28 29.0 | 1.556 | 2.494 | 8.7 | 21.0 |
| 2 1 | 6 33.09 | +27 53.9 | 1.614 | 2.491 | 12.9 | 21.3 |
| 2 11 | 6 27.33 | +27 14.5 | 1.694 | 2.487 | 16.4 | 21.5 |

**116813** 2004 $EA_{80}$ 1 5.4 243°.18 2°.2/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.02 | +14 51.7 | 2.002 | 2.816 | 13.5 | 20.5 |
| 12 13 | 7 22.46 | +15 9.6 | 1.910 | 2.804 | 10.2 | 20.3 |
| 12 23 | 7 14.62 | +15 37.6 | 1.843 | 2.793 | 6.5 | 20.1 |
| 1 2 | 7 5.16 | +16 14.3 | 1.804 | 2.781 | 2.8 | 19.8 |
| 1 12 | 6 55.10 | +16 56.8 | 1.794 | 2.768 | 3.4 | 19.8 |
| 1 22 | 6 45.57 | +17 42.2 | 1.814 | 2.755 | 7.3 | 20.0 |
| 2 1 | 6 37.63 | +18 27.8 | 1.861 | 2.742 | 11.2 | 20.2 |
| 2 11 | 6 32.08 | +19 11.4 | 1.932 | 2.729 | 14.5 | 20.4 |

**34687** 2001 $FU_{74}$ 1 5.4 176°.73 4°.1/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.23 | + 9 42.6 | 2.182 | 2.976 | 13.2 | 19.4 |
| 12 13 | 7 22.25 | + 9 33.2 | 2.102 | 2.979 | 10.3 | 19.2 |
| 12 23 | 7 14.30 | + 9 35.3 | 2.046 | 2.980 | 7.1 | 19.0 |
| 1 2 | 7 5.04 | + 9 49.0 | 2.017 | 2.981 | 4.5 | 18.9 |
| 1 12 | 6 55.41 | +10 13.4 | 2.019 | 2.982 | 4.7 | 18.9 |
| 1 22 | 6 46.37 | +10 46.4 | 2.050 | 2.982 | 7.4 | 19.1 |
| 2 1 | 6 38.82 | +11 25.4 | 2.109 | 2.981 | 10.5 | 19.3 |
| 2 11 | 6 33.40 | +12 7.6 | 2.192 | 2.980 | 13.4 | 19.5 |

**355980** 2009 $AA_{39}$ 1 5.4 78°.86 1°.7/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.52 | +17 43.0 | 1.503 | 2.335 | 16.2 | 20.9 |
| 12 13 | 7 24.60 | +17 49.9 | 1.443 | 2.348 | 12.1 | 20.7 |
| 12 23 | 7 15.92 | +18 5.4 | 1.405 | 2.361 | 7.4 | 20.4 |
| 1 2 | 7 5.47 | +18 27.1 | 1.394 | 2.374 | 2.6 | 20.2 |
| 1 12 | 6 54.66 | +18 52.1 | 1.410 | 2.386 | 3.7 | 20.3 |
| 1 22 | 6 44.92 | +19 17.7 | 1.454 | 2.399 | 8.4 | 20.6 |
| 2 1 | 6 37.46 | +19 42.1 | 1.523 | 2.412 | 12.7 | 20.9 |
| 2 11 | 6 33.03 | +20 4.3 | 1.614 | 2.424 | 16.3 | 21.1 |

**467670** 2008 $UJ_{120}$ 1 5.4 337°.22 0°.8/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.50 | +21 17.4 | 2.093 | 2.917 | 12.6 | 21.1 |
| 12 13 | 7 21.85 | +20 59.6 | 2.013 | 2.916 | 9.3 | 20.9 |
| 12 23 | 7 14.10 | +20 43.9 | 1.958 | 2.914 | 5.6 | 20.6 |
| 1 2 | 7 4.99 | +20 29.3 | 1.932 | 2.913 | 1.7 | 20.4 |
| 1 12 | 6 55.54 | +20 14.9 | 1.935 | 2.911 | 2.8 | 20.4 |
| 1 22 | 6 46.80 | +20 0.7 | 1.967 | 2.910 | 6.8 | 20.7 |
| 2 1 | 6 39.70 | +19 46.8 | 2.027 | 2.909 | 10.4 | 20.9 |
| 2 11 | 6 34.90 | +19 33.8 | 2.110 | 2.908 | 13.5 | 21.1 |

**95009** 2002 $AJ_{1}$ 1 5.4 42°.94 3°.5/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.57 | +11 53.0 | 1.393 | 2.221 | 17.5 | 19.4 |
| 12 13 | 7 23.45 | +12 21.1 | 1.326 | 2.225 | 13.4 | 19.1 |
| 12 23 | 7 15.42 | +13 7.1 | 1.280 | 2.230 | 8.7 | 18.9 |
| 1 2 | 7 5.38 | +14 8.8 | 1.259 | 2.234 | 4.3 | 18.6 |
| 1 12 | 6 54.76 | +15 21.2 | 1.266 | 2.240 | 4.7 | 18.7 |
| 1 22 | 6 45.06 | +16 38.2 | 1.299 | 2.245 | 9.1 | 18.9 |
| 2 1 | 6 37.65 | +17 54.2 | 1.357 | 2.250 | 13.7 | 19.2 |
| 2 11 | 6 33.40 | +19 5.1 | 1.437 | 2.256 | 17.6 | 19.5 |

**76697** 2000 $HG_{83}$ 1 5.4 132°.86 3°.5/ 7.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.87 | + 8 8.8 | 2.766 | 3.549 | 11.0 | 19.6 |
| 12 13 | 7 19.40 | + 8 23.9 | 2.691 | 3.561 | 8.6 | 19.5 |
| 12 23 | 7 12.46 | + 8 49.8 | 2.642 | 3.572 | 6.0 | 19.3 |
| 1 2 | 7 4.57 | + 9 26.1 | 2.621 | 3.583 | 3.9 | 19.2 |
| 1 12 | 6 56.43 | +10 10.9 | 2.632 | 3.593 | 3.9 | 19.2 |
| 1 22 | 6 48.77 | +11 2.0 | 2.673 | 3.603 | 5.9 | 19.4 |
| 2 1 | 6 42.24 | +11 56.7 | 2.743 | 3.613 | 8.4 | 19.6 |
| 2 11 | 6 37.35 | +12 52.3 | 2.839 | 3.622 | 10.7 | 19.7 |

**421768** 2014 $QS$ 1 5.4 181°.81 2°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.93 | +15 53.8 | 1.872 | 2.689 | 14.1 | 21.6 |
| 12 13 | 7 23.82 | +15 39.4 | 1.794 | 2.689 | 10.7 | 21.4 |
| 12 23 | 7 15.37 | +15 32.3 | 1.740 | 2.690 | 6.8 | 21.2 |
| 1 2 | 7 5.36 | +15 32.2 | 1.713 | 2.689 | 3.2 | 20.9 |
| 1 12 | 6 54.91 | +15 37.9 | 1.716 | 2.689 | 3.8 | 21.0 |
| 1 22 | 6 45.22 | +15 48.1 | 1.748 | 2.688 | 7.7 | 21.2 |
| 2 1 | 6 37.34 | +16 1.5 | 1.806 | 2.687 | 11.5 | 21.4 |
| 2 11 | 6 32.02 | +16 16.8 | 1.888 | 2.685 | 14.8 | 21.7 |

**381636** 2008 $YQ_{63}$ 1 5.4 292°.64 2°.0/ 6.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.48 | +15 30.8 | 2.276 | 3.092 | 12.0 | 21.3 |
| 12 13 | 7 19.58 | +15 37.3 | 2.187 | 3.082 | 9.1 | 21.1 |
| 12 23 | 7 12.78 | +15 51.5 | 2.123 | 3.073 | 5.7 | 20.8 |
| 1 2 | 7 4.69 | +16 12.4 | 2.086 | 3.063 | 2.6 | 20.6 |
| 1 12 | 6 56.16 | +16 38.3 | 2.080 | 3.054 | 3.1 | 20.6 |
| 1 22 | 6 48.12 | +17 7.2 | 2.103 | 3.044 | 6.5 | 20.8 |
| 2 1 | 6 41.43 | +17 37.4 | 2.153 | 3.035 | 9.9 | 21.0 |
| 2 11 | 6 36.77 | +18 7.2 | 2.228 | 3.026 | 12.8 | 21.2 |

**230206** 2001 $SL_{291}$ 1 5.4 185°.57 6°.8/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.60 | +47 54.2 | 2.843 | 3.612 | 11.1 | 20.2 |
| 12 13 | 7 29.18 | +48 21.7 | 2.770 | 3.611 | 9.3 | 20.1 |
| 12 23 | 7 18.37 | +48 35.3 | 2.721 | 3.611 | 7.7 | 20.0 |
| 1 2 | 7 6.09 | +48 30.1 | 2.699 | 3.610 | 6.8 | 20.0 |
| 1 12 | 6 53.59 | +48 3.6 | 2.706 | 3.609 | 7.2 | 20.0 |
| 1 22 | 6 42.12 | +47 16.7 | 2.742 | 3.607 | 8.6 | 20.1 |
| 2 1 | 6 32.72 | +46 13.0 | 2.804 | 3.605 | 10.4 | 20.2 |
| 2 11 | 6 26.03 | +44 58.0 | 2.890 | 3.603 | 12.1 | 20.3 |

**194141** 2001 $SB_{324}$ 1 5.4 355°.78 0°.0/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.48 | +23 43.3 | 1.300 | 2.146 | 17.4 | 19.7 |
| 12 13 | 7 25.89 | +23 24.5 | 1.231 | 2.144 | 13.0 | 19.5 |
| 12 23 | 7 16.97 | +23 6.4 | 1.183 | 2.143 | 7.8 | 19.2 |
| 1 2 | 7 5.81 | +22 46.8 | 1.160 | 2.142 | 2.0 | 18.8 |
| 1 12 | 6 54.09 | +22 24.1 | 1.164 | 2.142 | 3.9 | 18.9 |
| 1 22 | 6 43.60 | +21 58.8 | 1.194 | 2.142 | 9.5 | 19.3 |
| 2 1 | 6 35.81 | +21 32.7 | 1.247 | 2.142 | 14.5 | 19.6 |
| 2 11 | 6 31.62 | +21 7.5 | 1.321 | 2.143 | 18.7 | 19.8 |

**519011** 2010 $JV_{98}$ 1 5.4 122°.00 3°.9/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.56 | +33 45.2 | 2.305 | 3.125 | 11.7 | 20.9 |
| 12 13 | 7 23.42 | +34 20.9 | 2.234 | 3.129 | 8.9 | 20.7 |
| 12 23 | 7 15.06 | +34 51.3 | 2.188 | 3.133 | 6.0 | 20.6 |
| 1 2 | 7 5.27 | +35 12.0 | 2.171 | 3.137 | 4.0 | 20.4 |
| 1 12 | 6 55.13 | +35 19.9 | 2.183 | 3.141 | 4.8 | 20.5 |
| 1 22 | 6 45.74 | +35 14.3 | 2.224 | 3.145 | 7.5 | 20.7 |
| 2 1 | 6 38.11 | +34 56.7 | 2.291 | 3.149 | 10.4 | 20.9 |
| 2 11 | 6 32.91 | +34 30.3 | 2.382 | 3.152 | 12.9 | 21.0 |

**328617** 2009 $SP_{142}$ 1 5.4 17°.89 3°.6/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.45 | +13 5.9 | 1.832 | 2.649 | 14.4 | 20.7 |
| 12 13 | 7 21.29 | +12 49.7 | 1.757 | 2.650 | 11.0 | 20.5 |
| 12 23 | 7 13.88 | +12 43.6 | 1.706 | 2.652 | 7.3 | 20.3 |
| 1 2 | 7 4.98 | +12 48.0 | 1.681 | 2.653 | 4.1 | 20.1 |
| 1 12 | 6 55.68 | +13 1.7 | 1.685 | 2.655 | 4.4 | 20.1 |
| 1 22 | 6 47.11 | +13 22.9 | 1.717 | 2.656 | 7.9 | 20.4 |
| 2 1 | 6 40.27 | +13 49.5 | 1.775 | 2.658 | 11.5 | 20.6 |
| 2 11 | 6 35.87 | +14 19.0 | 1.855 | 2.660 | 14.8 | 20.8 |

**367253** 2007 $RO_{62}$ 1 5.4 68°.64 3°.9/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.91 | +10 6.2 | 2.157 | 2.960 | 13.0 | 20.7 |
| 12 13 | 7 19.80 | +10 4.6 | 2.087 | 2.969 | 10.1 | 20.5 |
| 12 23 | 7 12.84 | +10 14.7 | 2.040 | 2.978 | 6.9 | 20.3 |
| 1 2 | 7 4.70 | +10 36.3 | 2.021 | 2.987 | 4.3 | 20.2 |
| 1 12 | 6 56.26 | +11 7.9 | 2.031 | 2.996 | 4.4 | 20.2 |
| 1 22 | 6 48.44 | +11 47.0 | 2.070 | 3.005 | 7.0 | 20.4 |
| 2 1 | 6 42.07 | +12 30.9 | 2.136 | 3.015 | 10.1 | 20.6 |
| 2 11 | 6 37.74 | +13 16.7 | 2.227 | 3.024 | 12.9 | 20.8 |

**278490** 2007 $VL_{118}$ 1 5.4 70°.62 2°.7/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.43 | +28 48.2 | 2.259 | 3.085 | 11.7 | 20.5 |
| 12 13 | 7 21.84 | +29 36.5 | 2.190 | 3.092 | 8.7 | 20.3 |
| 12 23 | 7 14.14 | +30 23.8 | 2.147 | 3.100 | 5.4 | 20.2 |
| 1 2 | 7 5.05 | +31 5.6 | 2.133 | 3.108 | 2.9 | 20.0 |
| 1 12 | 6 55.59 | +31 38.2 | 2.148 | 3.115 | 3.9 | 20.1 |
| 1 22 | 6 46.81 | +32 0.0 | 2.193 | 3.123 | 7.0 | 20.3 |
| 2 1 | 6 39.64 | +32 11.0 | 2.264 | 3.131 | 10.1 | 20.5 |
| 2 11 | 6 34.78 | +32 12.8 | 2.360 | 3.138 | 12.8 | 20.7 |

**309470** 2007 $VY_{73}$ 1 5.4 177°.54 3°.8/ 4.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.99 | +30 28.6 | 1.765 | 2.593 | 14.3 | 21.4 |
| 12 13 | 7 26.55 | +31 17.0 | 1.692 | 2.595 | 10.8 | 21.2 |
| 12 23 | 7 17.21 | +32 3.0 | 1.644 | 2.595 | 6.9 | 21.0 |
| 1 2 | 7 5.88 | +32 40.1 | 1.623 | 2.596 | 4.0 | 20.8 |
| 1 12 | 6 53.98 | +33 3.3 | 1.630 | 2.596 | 5.2 | 20.9 |
| 1 22 | 6 43.01 | +33 10.8 | 1.666 | 2.596 | 8.9 | 21.1 |
| 2 1 | 6 34.30 | +33 4.2 | 1.728 | 2.595 | 12.7 | 21.3 |
| 2 11 | 6 28.72 | +32 47.0 | 1.811 | 2.594 | 15.9 | 21.5 |

**225306** 1996 $EZ_9$ 1 5.4 79°.02 0°.6/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.99 | +19 46.8 | 2.036 | 2.860 | 12.9 | 20.5 |
| 12 13 | 7 21.54 | +20 1.2 | 1.963 | 2.865 | 9.5 | 20.3 |
| 12 23 | 7 13.97 | +20 20.7 | 1.915 | 2.870 | 5.7 | 20.1 |
| 1 2 | 7 5.01 | +20 43.1 | 1.895 | 2.876 | 1.6 | 19.8 |
| 1 12 | 6 55.69 | +21 5.9 | 1.904 | 2.881 | 2.8 | 19.9 |
| 1 22 | 6 47.07 | +21 27.3 | 1.943 | 2.886 | 6.8 | 20.2 |
| 2 1 | 6 40.11 | +21 46.2 | 2.008 | 2.891 | 10.4 | 20.4 |
| 2 11 | 6 35.46 | +22 2.0 | 2.098 | 2.897 | 13.5 | 20.6 |

**336884** 2011 $GF_{55}$ 1 5.4 188°.44 0°.0/ 5.3 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.32 | +21 39.0 | 2.729 | 3.543 | 10.3 | 22.0 |
| 12 13 | 7 20.64 | +21 56.6 | 2.644 | 3.542 | 7.6 | 21.8 |
| 12 23 | 7 13.28 | +22 16.7 | 2.586 | 3.541 | 4.5 | 21.6 |
| 1 2 | 7 4.82 | +22 37.6 | 2.558 | 3.539 | 1.2 | 21.4 |
| 1 12 | 6 56.04 | +22 57.2 | 2.561 | 3.537 | 2.2 | 21.4 |
| 1 22 | 6 47.73 | +23 14.2 | 2.595 | 3.535 | 5.5 | 21.7 |
| 2 1 | 6 40.66 | +23 28.0 | 2.658 | 3.532 | 8.5 | 21.8 |
| 2 11 | 6 35.40 | +23 38.5 | 2.746 | 3.529 | 11.1 | 22.0 |

**502085** 2015 $AW_{238}$ 1 5.4 0°.99 3°.9/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.04 | +33 3.5 | 1.960 | 2.789 | 13.1 | 20.4 |
| 12 13 | 7 23.35 | +33 27.0 | 1.888 | 2.788 | 10.0 | 20.2 |
| 12 23 | 7 15.16 | +33 44.7 | 1.839 | 2.788 | 6.6 | 19.9 |
| 1 2 | 7 5.33 | +33 52.1 | 1.818 | 2.788 | 4.1 | 19.8 |
| 1 12 | 6 55.11 | +33 46.2 | 1.825 | 2.788 | 5.0 | 19.9 |
| 1 22 | 6 45.77 | +33 26.7 | 1.860 | 2.789 | 8.2 | 20.0 |
| 2 1 | 6 38.44 | +32 55.9 | 1.921 | 2.790 | 11.5 | 20.3 |
| 2 11 | 6 33.85 | +32 17.4 | 2.005 | 2.792 | 14.5 | 20.5 |

**228161** 2009 $SF_{138}$ 1 5.4 101°.54 0°.8/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.20 | +19 44.8 | 2.004 | 2.827 | 13.1 | 21.6 |
| 12 13 | 7 22.40 | +19 49.9 | 1.935 | 2.836 | 9.7 | 21.4 |
| 12 23 | 7 14.46 | +19 59.6 | 1.890 | 2.845 | 5.8 | 21.2 |
| 1 2 | 7 5.13 | +20 12.1 | 1.873 | 2.853 | 1.8 | 21.0 |
| 1 12 | 6 55.50 | +20 25.3 | 1.885 | 2.862 | 2.8 | 21.1 |
| 1 22 | 6 46.62 | +20 37.9 | 1.927 | 2.870 | 6.8 | 21.3 |
| 2 1 | 6 39.47 | +20 48.9 | 1.996 | 2.878 | 10.5 | 21.6 |
| 2 11 | 6 34.69 | +20 58.2 | 2.088 | 2.886 | 13.6 | 21.8 |

**79910** 1999 $BE_{30}$ 1 5.4 167°.02 1°.3/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.74 | +16 0.7 | 2.383 | 3.189 | 11.8 | 20.5 |
| 12 13 | 7 22.58 | +16 32.5 | 2.303 | 3.194 | 8.8 | 20.3 |
| 12 23 | 7 14.50 | +17 12.1 | 2.249 | 3.199 | 5.4 | 20.1 |
| 1 2 | 7 5.16 | +17 57.2 | 2.224 | 3.203 | 2.0 | 19.9 |
| 1 12 | 6 55.43 | +18 45.1 | 2.231 | 3.206 | 2.7 | 20.0 |
| 1 22 | 6 46.25 | +19 32.7 | 2.269 | 3.209 | 6.2 | 20.2 |
| 2 1 | 6 38.47 | +20 18.1 | 2.335 | 3.211 | 9.5 | 20.4 |
| 2 11 | 6 32.74 | +20 59.7 | 2.427 | 3.212 | 12.3 | 20.6 |

**222454** 2001 $QM_{279}$ 1 5.4 138°.54 2°.4/ 4.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.95 | +33 31.0 | 3.971 | 4.778 | 7.5 | 21.7 |
| 12 13 | 7 18.52 | +33 59.3 | 3.901 | 4.789 | 5.6 | 21.6 |
| 12 23 | 7 11.87 | +34 24.1 | 3.858 | 4.800 | 3.8 | 21.5 |
| 1 2 | 7 4.45 | +34 43.3 | 3.845 | 4.810 | 2.5 | 21.4 |
| 1 12 | 6 56.85 | +34 55.2 | 3.863 | 4.820 | 3.0 | 21.5 |
| 1 22 | 6 49.65 | +34 59.4 | 3.913 | 4.829 | 4.7 | 21.6 |
| 2 1 | 6 43.39 | +34 56.2 | 3.991 | 4.839 | 6.6 | 21.7 |
| 2 11 | 6 38.50 | +34 46.8 | 4.095 | 4.848 | 8.2 | 21.9 |

**453281** 2008 $TZ_{72}$ 1 5.4 175°.01 3°.9/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.48 | +12 31.2 | 1.902 | 2.707 | 14.4 | 22.5 |
| 12 13 | 7 24.90 | +12 7.9 | 1.825 | 2.710 | 11.1 | 22.3 |
| 12 23 | 7 16.01 | +11 54.3 | 1.771 | 2.713 | 7.4 | 22.0 |
| 1 2 | 7 5.57 | +11 50.8 | 1.745 | 2.714 | 4.3 | 21.9 |
| 1 12 | 6 54.71 | +11 56.8 | 1.748 | 2.715 | 4.7 | 21.9 |
| 1 22 | 6 44.61 | +12 11.0 | 1.781 | 2.715 | 8.0 | 22.1 |
| 2 1 | 6 36.31 | +12 31.5 | 1.840 | 2.715 | 11.6 | 22.3 |
| 2 11 | 6 30.53 | +12 56.0 | 1.923 | 2.714 | 14.9 | 22.5 |

**40349** 1999 $NF_{11}$ 1 5.4 161°.31 0°.3/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.61 | +22 9.6 | 2.086 | 2.904 | 12.8 | 19.7 |
| 12 13 | 7 24.93 | +22 34.3 | 2.011 | 2.911 | 9.5 | 19.5 |
| 12 23 | 7 15.99 | +23 2.2 | 1.962 | 2.917 | 5.6 | 19.2 |
| 1 2 | 7 5.56 | +23 30.1 | 1.941 | 2.923 | 1.5 | 19.0 |
| 1 12 | 6 54.73 | +23 55.1 | 1.951 | 2.928 | 2.9 | 19.1 |
| 1 22 | 6 44.65 | +24 15.2 | 1.992 | 2.932 | 6.9 | 19.3 |
| 2 1 | 6 36.32 | +24 29.9 | 2.060 | 2.935 | 10.6 | 19.6 |
| 2 11 | 6 30.45 | +24 39.8 | 2.152 | 2.938 | 13.6 | 19.8 |

**66748** 1999 $TJ_{149}$ 1 5.4 214°.64 3°.8/ 6.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.13 | +10 16.6 | 2.414 | 3.209 | 12.0 | 19.8 |
| 12 13 | 7 20.64 | +10 6.1 | 2.325 | 3.203 | 9.4 | 19.6 |
| 12 23 | 7 13.37 | +10 5.6 | 2.261 | 3.196 | 6.5 | 19.4 |
| 1 2 | 7 4.88 | +10 15.3 | 2.225 | 3.189 | 4.1 | 19.2 |
| 1 12 | 6 56.01 | +10 34.4 | 2.219 | 3.182 | 4.3 | 19.2 |
| 1 22 | 6 47.60 | +11 1.4 | 2.242 | 3.174 | 6.8 | 19.4 |
| 2 1 | 6 40.49 | +11 34.2 | 2.294 | 3.166 | 9.8 | 19.5 |
| 2 11 | 6 35.27 | +12 10.4 | 2.370 | 3.157 | 12.5 | 19.7 |

**11622** Samuele 1 5.4 154°.01 4°.9/ 3.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.68 | +35 43.2 | 2.290 | 3.103 | 12.0 | 18.7 |
| 12 13 | 7 25.88 | +36 45.9 | 2.222 | 3.109 | 9.3 | 18.5 |
| 12 23 | 7 16.63 | +37 42.6 | 2.179 | 3.115 | 6.6 | 18.4 |
| 1 2 | 7 5.74 | +38 27.3 | 2.164 | 3.121 | 5.0 | 18.3 |
| 1 12 | 6 54.39 | +38 55.7 | 2.180 | 3.127 | 5.8 | 18.3 |
| 1 22 | 6 43.80 | +39 6.4 | 2.224 | 3.132 | 8.3 | 18.5 |
| 2 1 | 6 35.09 | +39 1.1 | 2.295 | 3.136 | 11.0 | 18.7 |
| 2 11 | 6 29.02 | +38 43.3 | 2.388 | 3.140 | 13.4 | 18.9 |

**194656** 2001 $XK_{180}$ 1 5.4 1°.39 2°.5/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.56 | +16 18.5 | 1.190 | 2.040 | 18.5 | 19.3 |
| 12 13 | 7 22.44 | +16 25.1 | 1.125 | 2.038 | 13.9 | 19.0 |
| 12 23 | 7 15.06 | +16 44.8 | 1.079 | 2.037 | 8.7 | 18.7 |
| 1 2 | 7 5.40 | +17 15.8 | 1.058 | 2.037 | 3.5 | 18.4 |
| 1 12 | 6 55.07 | +17 54.4 | 1.061 | 2.038 | 4.4 | 18.5 |
| 1 22 | 6 45.81 | +18 36.1 | 1.089 | 2.040 | 9.8 | 18.8 |
| 2 1 | 6 39.15 | +19 17.3 | 1.141 | 2.043 | 14.9 | 19.1 |
| 2 11 | 6 36.02 | +19 55.4 | 1.211 | 2.046 | 19.2 | 19.3 |

**325937** 2010 $VF_{33}$ 1 5.4 50°.79 1°.0/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.57 | +18 56.3 | 1.563 | 2.397 | 15.6 | 20.6 |
| 12 13 | 7 23.12 | +19 11.9 | 1.504 | 2.411 | 11.5 | 20.4 |
| 12 23 | 7 15.06 | +19 34.9 | 1.469 | 2.426 | 6.9 | 20.2 |
| 1 2 | 7 5.33 | +20 2.5 | 1.459 | 2.440 | 2.1 | 19.9 |
| 1 12 | 6 55.27 | +20 31.4 | 1.478 | 2.455 | 3.3 | 20.0 |
| 1 22 | 6 46.22 | +20 58.8 | 1.524 | 2.470 | 8.0 | 20.3 |
| 2 1 | 6 39.33 | +21 23.1 | 1.596 | 2.486 | 12.2 | 20.6 |
| 2 11 | 6 35.31 | +21 43.8 | 1.690 | 2.501 | 15.7 | 20.9 |

**448453** 2010 $ES_{44}$ 1 5.4 278°.73 2°.7/ 4.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.13 | +25 34.0 | 1.482 | 2.323 | 16.0 | 20.9 |
| 12 13 | 7 25.69 | +26 35.2 | 1.405 | 2.315 | 11.9 | 20.6 |
| 12 23 | 7 17.00 | +27 41.0 | 1.350 | 2.308 | 7.3 | 20.3 |
| 1 2 | 7 5.93 | +28 44.5 | 1.322 | 2.301 | 3.1 | 20.0 |
| 1 12 | 6 53.98 | +29 38.5 | 1.321 | 2.293 | 4.8 | 20.1 |
| 1 22 | 6 42.88 | +30 18.5 | 1.347 | 2.286 | 9.7 | 20.4 |
| 2 1 | 6 34.21 | +30 43.5 | 1.398 | 2.278 | 14.2 | 20.6 |
| 2 11 | 6 29.02 | +30 55.9 | 1.469 | 2.271 | 18.1 | 20.9 |

**378501** 2007 $TE_{393}$ 1 5.4 281°.04 1°.6/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.46 | +25 30.1 | 2.291 | 3.116 | 11.6 | 20.2 |
| 12 13 | 7 21.16 | +26 8.1 | 2.208 | 3.111 | 8.6 | 20.0 |
| 12 23 | 7 13.79 | +26 47.7 | 2.150 | 3.106 | 5.2 | 19.8 |
| 1 2 | 7 5.02 | +27 25.2 | 2.121 | 3.101 | 1.9 | 19.5 |
| 1 12 | 6 55.78 | +27 57.5 | 2.122 | 3.095 | 3.2 | 19.6 |
| 1 22 | 6 47.10 | +28 22.3 | 2.153 | 3.090 | 6.7 | 19.8 |
| 2 1 | 6 39.91 | +28 39.0 | 2.211 | 3.085 | 10.0 | 20.0 |
| 2 11 | 6 34.93 | +28 48.6 | 2.293 | 3.080 | 12.9 | 20.2 |

**206390** 2003 $SY_{12}$ 1 5.4 108°.71 0°.5/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.68 | +22 57.2 | 1.778 | 2.604 | 14.4 | 21.1 |
| 12 13 | 7 25.88 | +23 13.7 | 1.718 | 2.621 | 10.6 | 20.9 |
| 12 23 | 7 16.58 | +23 32.7 | 1.682 | 2.638 | 6.3 | 20.7 |
| 1 2 | 7 5.72 | +23 50.7 | 1.674 | 2.655 | 1.6 | 20.4 |
| 1 12 | 6 54.58 | +24 4.9 | 1.695 | 2.671 | 3.2 | 20.6 |
| 1 22 | 6 44.46 | +24 13.8 | 1.745 | 2.687 | 7.6 | 20.9 |
| 2 1 | 6 36.46 | +24 17.5 | 1.823 | 2.703 | 11.5 | 21.2 |
| 2 11 | 6 31.26 | +24 17.3 | 1.923 | 2.717 | 14.7 | 21.4 |

**419870** 2011 $AP_{27}$ 1 5.4 237°.92 0°.8/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.80 | +25 21.7 | 1.971 | 2.798 | 13.1 | 21.1 |
| 12 13 | 7 23.76 | +25 18.7 | 1.892 | 2.796 | 9.7 | 20.9 |
| 12 23 | 7 15.36 | +25 15.1 | 1.838 | 2.795 | 5.8 | 20.6 |
| 1 2 | 7 5.42 | +25 8.5 | 1.812 | 2.793 | 1.7 | 20.3 |
| 1 12 | 6 55.09 | +24 57.3 | 1.816 | 2.792 | 3.1 | 20.4 |
| 1 22 | 6 45.57 | +24 41.0 | 1.848 | 2.790 | 7.2 | 20.7 |
| 2 1 | 6 37.89 | +24 20.9 | 1.908 | 2.788 | 11.0 | 20.9 |
| 2 11 | 6 32.79 | +23 58.6 | 1.990 | 2.786 | 14.2 | 21.1 |

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| **174439** 2002 $XF_{39}$ | | 1 5.4 175°.24 0°.7/ 5.6 18 | | | | |
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.92 | +20 17.3 | 2.099 | 2.917 | 12.8 | 20.4 |
| 12 13 | 7 23.66 | +20 17.2 | 2.021 | 2.919 | 9.5 | 20.2 |
| 12 23 | 7 15.24 | +20 20.7 | 1.967 | 2.921 | 5.7 | 20.0 |
| 1 2 | 7 5.39 | +20 26.2 | 1.942 | 2.922 | 1.7 | 19.7 |
| 1 12 | 6 55.17 | +20 32.0 | 1.947 | 2.923 | 2.8 | 19.8 |
| 1 22 | 6 45.65 | +20 36.9 | 1.981 | 2.923 | 6.8 | 20.0 |
| 2 1 | 6 37.81 | +20 40.5 | 2.044 | 2.923 | 10.4 | 20.2 |
| 2 11 | 6 32.33 | +20 43.0 | 2.130 | 2.922 | 13.5 | 20.5 |
| **238775** 2005 $JV_{127}$ | | 1 5.4 248°.48 4°.4/ 6.6 18 | | | | |
| 12 3 | 7 24.43 | + 8 43.1 | 2.466 | 3.258 | 11.9 | 20.6 |
| 12 13 | 7 19.36 | + 8 18.6 | 2.378 | 3.251 | 9.4 | 20.5 |
| 12 23 | 7 12.60 | + 8 4.2 | 2.314 | 3.244 | 6.7 | 20.3 |
| 1 2 | 7 4.71 | + 8 0.7 | 2.278 | 3.236 | 4.7 | 20.1 |
| 1 12 | 6 56.46 | + 8 8.3 | 2.272 | 3.229 | 4.8 | 20.1 |
| 1 22 | 6 48.67 | + 8 25.7 | 2.295 | 3.221 | 7.0 | 20.3 |
| 2 1 | 6 42.10 | + 8 51.2 | 2.345 | 3.214 | 9.7 | 20.4 |
| 2 11 | 6 37.34 | + 9 22.3 | 2.420 | 3.206 | 12.3 | 20.6 |
| **494153** 2016 $CU_{259}$ | | 1 5.4 65°.17 2°.9/ 6.1 18 | | | | |
| 12 3 | 7 25.94 | +14 35.1 | 2.189 | 3.002 | 12.5 | 20.5 |
| 12 13 | 7 20.58 | +14 13.1 | 2.114 | 3.006 | 9.5 | 20.3 |
| 12 23 | 7 13.34 | +13 58.2 | 2.064 | 3.010 | 6.2 | 20.1 |
| 1 2 | 7 4.89 | +13 50.5 | 2.041 | 3.014 | 3.3 | 20.0 |
| 1 12 | 6 56.15 | +13 49.5 | 2.048 | 3.018 | 3.7 | 20.0 |
| 1 22 | 6 48.04 | +13 54.3 | 2.085 | 3.023 | 6.8 | 20.2 |
| 2 1 | 6 41.41 | +14 3.8 | 2.148 | 3.027 | 10.0 | 20.4 |
| 2 11 | 6 36.86 | +14 16.4 | 2.235 | 3.031 | 12.9 | 20.6 |
| **437774** 2015 $BL_{63}$ | | 1 5.4 208°.57 2°.2/ 4.7 17 | | | | |
| 12 3 | 7 27.49 | +28 45.2 | 2.556 | 3.375 | 10.7 | 21.7 |
| 12 13 | 7 21.72 | +29 14.6 | 2.473 | 3.372 | 8.0 | 21.5 |
| 12 23 | 7 14.04 | +29 42.5 | 2.417 | 3.369 | 4.9 | 21.3 |
| 1 2 | 7 5.09 | +30 5.7 | 2.389 | 3.365 | 2.4 | 21.1 |
| 1 12 | 6 55.75 | +30 21.5 | 2.392 | 3.361 | 3.4 | 21.2 |
| 1 22 | 6 46.97 | +30 28.8 | 2.426 | 3.357 | 6.4 | 21.3 |
| 2 1 | 6 39.61 | +30 27.7 | 2.487 | 3.353 | 9.3 | 21.5 |
| 2 11 | 6 34.31 | +30 19.9 | 2.572 | 3.349 | 11.9 | 21.7 |
| **356342** 2010 $KX_{117}$ | | 1 5.4 199°.14 0°.7/ 5.2 18 | | | | |
| 12 3 | 7 31.48 | +22 32.2 | 1.992 | 2.813 | 13.2 | 21.6 |
| 12 13 | 7 25.10 | +23 9.6 | 1.909 | 2.810 | 9.8 | 21.4 |
| 12 23 | 7 16.26 | +23 51.3 | 1.851 | 2.807 | 5.8 | 21.1 |
| 1 2 | 7 5.70 | +24 33.3 | 1.821 | 2.802 | 1.6 | 20.8 |
| 1 12 | 6 54.57 | +25 11.6 | 1.821 | 2.797 | 3.1 | 20.9 |
| 1 22 | 6 44.09 | +25 43.5 | 1.852 | 2.791 | 7.4 | 21.2 |
| 2 1 | 6 35.40 | +26 7.8 | 1.910 | 2.785 | 11.2 | 21.4 |
| 2 11 | 6 29.33 | +26 25.2 | 1.991 | 2.778 | 14.5 | 21.6 |
| **25122** Kaitlingus | | 1 5.4 102°.83 2°.3/ 6.1 18 | | | | |
| 12 3 | 7 28.74 | +15 22.9 | 1.746 | 2.568 | 14.8 | 19.0 |
| 12 13 | 7 23.09 | +15 32.7 | 1.677 | 2.575 | 11.1 | 18.8 |
| 12 23 | 7 15.02 | +15 52.4 | 1.630 | 2.582 | 7.0 | 18.5 |
| 1 2 | 7 5.36 | +16 20.3 | 1.611 | 2.589 | 3.0 | 18.3 |
| 1 12 | 6 55.29 | +16 53.9 | 1.621 | 2.595 | 3.6 | 18.4 |
| 1 22 | 6 46.03 | +17 30.2 | 1.659 | 2.602 | 7.7 | 18.6 |
| 2 1 | 6 38.67 | +18 6.6 | 1.723 | 2.609 | 11.7 | 18.9 |
| 2 11 | 6 33.95 | +18 41.3 | 1.810 | 2.615 | 15.1 | 19.1 |
| **427845** 2005 $LH_{52}$ | | 1 5.4 240°.68 1°.4/ 5.2 17 | | | | |
| 12 3 | 7 30.61 | +29 6.4 | 2.903 | 3.711 | 9.9 | 21.6 |
| 12 13 | 7 23.75 | +28 51.7 | 2.803 | 3.697 | 7.4 | 21.4 |
| 12 23 | 7 15.13 | +28 33.1 | 2.730 | 3.682 | 4.5 | 21.2 |
| 1 2 | 7 5.37 | +28 8.7 | 2.688 | 3.667 | 1.8 | 21.0 |
| 1 12 | 6 55.30 | +27 37.7 | 2.678 | 3.651 | 2.7 | 21.0 |
| 1 22 | 6 45.78 | +27 0.6 | 2.700 | 3.635 | 5.6 | 21.2 |
| 2 1 | 6 37.59 | +26 19.0 | 2.752 | 3.618 | 8.5 | 21.4 |
| 2 11 | 6 31.32 | +25 35.0 | 2.830 | 3.601 | 11.1 | 21.5 |
| **196783** 2003 $SY_{184}$ | | 1 5.4 152°.74 2°.8/ 4.6 18 | | | | |
| 12 3 | 7 29.19 | +29 49.1 | 2.220 | 3.044 | 12.0 | 20.5 |
| 12 13 | 7 23.21 | +30 23.4 | 2.146 | 3.046 | 8.9 | 20.3 |
| 12 23 | 7 15.02 | +30 55.3 | 2.097 | 3.049 | 5.6 | 20.1 |
| 1 2 | 7 5.37 | +31 20.8 | 2.077 | 3.051 | 3.0 | 19.9 |
| 1 12 | 6 55.33 | +31 36.6 | 2.086 | 3.053 | 4.0 | 20.0 |
| 1 22 | 6 46.00 | +31 41.5 | 2.124 | 3.055 | 7.2 | 20.2 |
| 2 1 | 6 38.37 | +31 36.2 | 2.190 | 3.057 | 10.4 | 20.4 |
| 2 11 | 6 33.16 | +31 23.1 | 2.279 | 3.059 | 13.2 | 20.6 |
| **387435** 2013 $WV_{32}$ | | 1 5.4 330°.32 3°.2/ 4.3 18 | | | | |
| 12 3 | 7 27.09 | +29 24.4 | 2.077 | 2.907 | 12.4 | 20.3 |
| 12 13 | 7 21.94 | +30 20.5 | 1.998 | 2.901 | 9.3 | 20.1 |
| 12 23 | 7 14.43 | +31 16.1 | 1.943 | 2.895 | 6.0 | 19.9 |
| 1 2 | 7 5.27 | +32 6.1 | 1.916 | 2.890 | 3.4 | 19.7 |
| 1 12 | 6 55.54 | +32 45.8 | 1.919 | 2.885 | 4.5 | 19.8 |
| 1 22 | 6 46.44 | +33 12.8 | 1.950 | 2.880 | 7.8 | 20.0 |
| 2 1 | 6 39.07 | +33 26.8 | 2.008 | 2.875 | 11.2 | 20.2 |
| 2 11 | 6 34.21 | +33 29.8 | 2.088 | 2.870 | 14.1 | 20.4 |

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| **354555** 2004 $TV_{36}$ | | 1 5.4 118°.95 1°.5/ 5.1 15 | | | | |
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.63 | +25 27.9 | 1.805 | 2.628 | 14.3 | 21.6 |
| 12 13 | 7 27.35 | +25 54.2 | 1.745 | 2.647 | 10.5 | 21.4 |
| 12 23 | 7 17.50 | +26 20.8 | 1.710 | 2.665 | 6.3 | 21.2 |
| 1 2 | 7 6.02 | +26 43.3 | 1.703 | 2.683 | 2.1 | 20.9 |
| 1 12 | 6 54.26 | +26 58.4 | 1.725 | 2.700 | 3.5 | 21.1 |
| 1 22 | 6 43.57 | +27 4.9 | 1.777 | 2.716 | 7.7 | 21.4 |
| 2 1 | 6 35.07 | +27 3.6 | 1.856 | 2.731 | 11.5 | 21.6 |
| 2 11 | 6 29.46 | +26 56.5 | 1.958 | 2.746 | 14.7 | 21.9 |
| **380669** 2005 $EV_{281}$ | | 1 5.4 223°.79 0°.9/ 5.8 18 | | | | |
| 12 3 | 7 25.63 | +18 1.1 | 2.483 | 3.297 | 11.1 | 21.0 |
| 12 13 | 7 20.34 | +18 25.9 | 2.396 | 3.292 | 8.3 | 20.8 |
| 12 23 | 7 13.25 | +18 56.8 | 2.334 | 3.287 | 5.0 | 20.5 |
| 1 2 | 7 4.94 | +19 31.9 | 2.302 | 3.282 | 1.6 | 20.3 |
| 1 12 | 6 56.22 | +20 8.7 | 2.300 | 3.276 | 2.5 | 20.4 |
| 1 22 | 6 47.96 | +20 44.9 | 2.329 | 3.271 | 5.9 | 20.6 |
| 2 1 | 6 40.99 | +21 19.0 | 2.386 | 3.265 | 9.1 | 20.8 |
| 2 11 | 6 35.92 | +21 49.9 | 2.468 | 3.259 | 11.9 | 20.9 |
| **47696** 2000 $CK_{100}$ | | 1 5.4 209°.70 2°.6/ 6.4 18 | | | | |
| 12 3 | 7 25.58 | +13 2.3 | 2.300 | 3.107 | 12.2 | 19.8 |
| 12 13 | 7 20.37 | +13 16.7 | 2.216 | 3.105 | 9.3 | 19.6 |
| 12 23 | 7 13.29 | +13 40.7 | 2.158 | 3.103 | 6.0 | 19.4 |
| 1 2 | 7 4.96 | +14 13.4 | 2.127 | 3.100 | 3.1 | 19.2 |
| 1 12 | 6 56.24 | +14 52.8 | 2.126 | 3.098 | 3.4 | 19.2 |
| 1 22 | 6 48.02 | +15 36.3 | 2.156 | 3.095 | 6.5 | 19.4 |
| 2 1 | 6 41.15 | +16 21.4 | 2.213 | 3.093 | 9.7 | 19.6 |
| 2 11 | 6 36.28 | +17 6.0 | 2.295 | 3.090 | 12.6 | 19.8 |
| **452276** 2015 $TB_{169}$ | | 1 5.4 56°.94 1°.6/ 5.2 16 | | | | |
| 12 3 | 7 32.90 | +24 48.8 | 1.300 | 2.145 | 17.5 | 21.4 |
| 12 13 | 7 26.74 | +25 15.7 | 1.253 | 2.166 | 12.9 | 21.2 |
| 12 23 | 7 17.37 | +25 44.2 | 1.227 | 2.187 | 7.6 | 21.0 |
| 1 2 | 7 6.01 | +26 9.0 | 1.227 | 2.208 | 2.4 | 20.7 |
| 1 12 | 6 54.41 | +26 25.9 | 1.254 | 2.230 | 4.2 | 20.9 |
| 1 22 | 6 44.26 | +26 33.2 | 1.307 | 2.251 | 9.2 | 21.3 |
| 2 1 | 6 36.90 | +26 32.0 | 1.384 | 2.273 | 13.7 | 21.6 |
| 2 11 | 6 33.04 | +26 24.7 | 1.482 | 2.295 | 17.4 | 21.9 |
| **233867** 2008 $WK_{13}$ | | 1 5.4 355°.20 0°.4/ 5.5 18 | | | | |
| 12 3 | 7 25.49 | +20 37.4 | 1.792 | 2.627 | 13.9 | 20.1 |
| 12 13 | 7 20.81 | +20 50.0 | 1.717 | 2.624 | 10.3 | 19.8 |
| 12 23 | 7 13.75 | +21 7.8 | 1.664 | 2.622 | 6.2 | 19.6 |
| 1 2 | 7 5.10 | +21 28.4 | 1.639 | 2.620 | 1.7 | 19.3 |
| 1 12 | 6 55.98 | +21 49.3 | 1.642 | 2.619 | 3.0 | 19.4 |
| 1 22 | 6 47.60 | +22 8.2 | 1.672 | 2.618 | 7.4 | 19.6 |
| 2 1 | 6 41.02 | +22 24.1 | 1.729 | 2.618 | 11.4 | 19.9 |
| 2 11 | 6 37.01 | +22 36.7 | 1.808 | 2.619 | 14.9 | 20.1 |
| **322730** 2000 $ST_{149}$ | | 1 5.4 107°.61 4°.3/ 6.7 18 | | | | |
| 12 3 | 7 28.05 | + 9 17.8 | 2.194 | 2.988 | 13.1 | 21.1 |
| 12 13 | 7 22.01 | + 8 59.3 | 2.132 | 3.007 | 10.2 | 20.9 |
| 12 23 | 7 14.14 | + 8 52.1 | 2.093 | 3.025 | 7.1 | 20.7 |
| 1 2 | 7 5.15 | + 8 56.6 | 2.082 | 3.044 | 4.7 | 20.6 |
| 1 12 | 6 55.96 | + 9 12.0 | 2.101 | 3.062 | 4.8 | 20.7 |
| 1 22 | 6 47.48 | + 9 36.4 | 2.150 | 3.079 | 7.2 | 20.8 |
| 2 1 | 6 40.51 | +10 7.6 | 2.226 | 3.096 | 10.1 | 21.0 |
| 2 11 | 6 35.62 | +10 42.7 | 2.325 | 3.112 | 12.7 | 21.2 |
| **134948** 2001 $BL_{82}$ | | 1 5.4 14°.62 0°.5/ 5.6 18 | | | | |
| 12 3 | 7 27.00 | +20 6.7 | 1.940 | 2.768 | 13.3 | 20.2 |
| 12 13 | 7 21.74 | +20 22.9 | 1.864 | 2.768 | 9.9 | 20.0 |
| 12 23 | 7 14.23 | +20 44.5 | 1.813 | 2.769 | 5.9 | 19.8 |
| 1 2 | 7 5.22 | +21 8.9 | 1.789 | 2.770 | 1.7 | 19.5 |
| 1 12 | 6 55.79 | +21 33.6 | 1.794 | 2.771 | 2.9 | 19.6 |
| 1 22 | 6 47.05 | +21 56.4 | 1.828 | 2.772 | 7.1 | 19.8 |
| 2 1 | 6 40.03 | +22 16.0 | 1.889 | 2.773 | 10.9 | 20.1 |
| 2 11 | 6 35.44 | +22 32.3 | 1.973 | 2.775 | 14.1 | 20.3 |
| **516164** 2016 $NC_{58}$ | | 1 5.4 135°.89 19°.3/10.3 18 | | | | |
| 12 3 | 7 32.08 | −14 42.3 | 1.218 | 1.940 | 25.2 | 21.6 |
| 12 13 | 7 26.36 | −16 50.3 | 1.168 | 1.947 | 23.1 | 21.5 |
| 12 23 | 7 17.35 | −18 18.6 | 1.133 | 1.953 | 21.1 | 21.4 |
| 1 2 | 7 6.08 | −18 55.6 | 1.115 | 1.958 | 19.7 | 21.3 |
| 1 12 | 6 54.18 | −18 35.7 | 1.115 | 1.964 | 19.3 | 21.3 |
| 1 22 | 6 43.40 | −17 21.5 | 1.133 | 1.968 | 20.1 | 21.3 |
| 2 1 | 6 35.23 | −15 23.1 | 1.169 | 1.973 | 21.6 | 21.5 |
| 2 11 | 6 30.63 | −12 55.5 | 1.221 | 1.977 | 23.6 | 21.6 |
| **432125** 2009 $BG_{37}$ | | 1 5.4 218°.09 2°.8/ 4.7 17 | | | | |
| 12 3 | 7 28.58 | +32 47.2 | 2.918 | 3.729 | 9.8 | 22.2 |
| 12 13 | 7 22.37 | +33 2.5 | 2.830 | 3.722 | 7.4 | 22.0 |
| 12 23 | 7 14.38 | +33 13.3 | 2.769 | 3.714 | 4.8 | 21.9 |
| 1 2 | 7 5.24 | +33 16.9 | 2.737 | 3.707 | 2.9 | 21.7 |
| 1 12 | 6 55.79 | +33 11.1 | 2.736 | 3.699 | 3.6 | 21.8 |
| 1 22 | 6 46.88 | +32 55.9 | 2.766 | 3.690 | 6.0 | 21.9 |
| 2 1 | 6 39.30 | +32 32.1 | 2.824 | 3.681 | 8.6 | 22.1 |
| 2 11 | 6 33.66 | +32 2.1 | 2.907 | 3.672 | 10.9 | 22.2 |

**423377** 2005 $JP_{80}$ 1 5.4 281°.25 7°.1/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 23.72 | + 0 19.0 | 2.361 | 3.122 | 13.3 | 21.0 |
| 12 13 | 7 19.01 | − 0 7.6 | 2.267 | 3.107 | 11.1 | 20.8 |
| 12 23 | 7 12.52 | − 0 18.0 | 2.196 | 3.092 | 8.9 | 20.7 |
| 1 2 | 7 4.79 | − 0 10.0 | 2.150 | 3.077 | 7.3 | 20.5 |
| 1 12 | 6 56.62 | + 0 17.0 | 2.132 | 3.061 | 7.2 | 20.5 |
| 1 22 | 6 48.84 | + 1 1.5 | 2.142 | 3.046 | 8.7 | 20.6 |
| 2 1 | 6 42.27 | + 2 0.0 | 2.178 | 3.031 | 11.0 | 20.7 |
| 2 11 | 6 37.56 | + 3 8.2 | 2.238 | 3.015 | 13.4 | 20.8 |

**350583** 2001 $PL_{15}$ 1 5.4 139°.19 3°.6/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.29 | +29 18.5 | 1.673 | 2.500 | 15.0 | 21.1 |
| 12 13 | 7 28.33 | +30 13.6 | 1.608 | 2.510 | 11.3 | 20.9 |
| 12 23 | 7 18.34 | +31 7.0 | 1.568 | 2.520 | 7.1 | 20.7 |
| 1 2 | 7 6.33 | +31 51.9 | 1.554 | 2.529 | 3.8 | 20.5 |
| 1 12 | 6 53.80 | +32 22.7 | 1.570 | 2.537 | 5.1 | 20.6 |
| 1 22 | 6 42.34 | +32 37.3 | 1.614 | 2.545 | 9.0 | 20.9 |
| 2 1 | 6 33.32 | +32 37.3 | 1.684 | 2.552 | 12.9 | 21.1 |
| 2 11 | 6 27.56 | +32 26.4 | 1.775 | 2.558 | 16.2 | 21.4 |

**61104** 2000 $LU_{30}$ 1 5.4 108°.10 3°.6/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.41 | +13 34.1 | 1.655 | 2.471 | 15.7 | 19.3 |
| 12 13 | 7 25.03 | +13 16.8 | 1.593 | 2.486 | 12.0 | 19.1 |
| 12 23 | 7 16.17 | +13 10.2 | 1.554 | 2.500 | 7.8 | 18.9 |
| 1 2 | 7 5.73 | +13 14.1 | 1.542 | 2.515 | 4.2 | 18.7 |
| 1 12 | 6 54.99 | +13 27.2 | 1.558 | 2.528 | 4.6 | 18.8 |
| 1 22 | 6 45.23 | +13 47.3 | 1.602 | 2.542 | 8.3 | 19.0 |
| 2 1 | 6 37.54 | +14 12.1 | 1.673 | 2.555 | 12.2 | 19.3 |
| 2 11 | 6 32.62 | +14 39.5 | 1.766 | 2.568 | 15.5 | 19.5 |

**121139** 1999 $JF_{34}$ 1 5.5 277°.21 2°.3/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.44 | +27 22.0 | 1.597 | 2.432 | 15.3 | 19.8 |
| 12 13 | 7 26.61 | +27 40.9 | 1.505 | 2.413 | 11.5 | 19.5 |
| 12 23 | 7 17.58 | +27 59.3 | 1.437 | 2.393 | 7.1 | 19.2 |
| 1 2 | 7 6.21 | +28 12.3 | 1.394 | 2.373 | 2.8 | 18.9 |
| 1 12 | 6 53.94 | +28 15.7 | 1.380 | 2.354 | 4.4 | 18.9 |
| 1 22 | 6 42.44 | +28 7.7 | 1.393 | 2.333 | 9.2 | 19.2 |
| 2 1 | 6 33.24 | +27 49.8 | 1.431 | 2.313 | 13.9 | 19.4 |
| 2 11 | 6 27.41 | +27 25.2 | 1.491 | 2.293 | 17.9 | 19.6 |

**384593** 2010 $LV_{87}$ 1 5.5 120°.06 1°.7/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.26 | +25 31.1 | 2.473 | 3.294 | 11.0 | 20.4 |
| 12 13 | 7 21.60 | +26 22.9 | 2.400 | 3.301 | 8.1 | 20.3 |
| 12 23 | 7 14.03 | +27 16.3 | 2.353 | 3.308 | 4.9 | 20.1 |
| 1 2 | 7 5.19 | +28 7.2 | 2.336 | 3.315 | 2.0 | 19.9 |
| 1 12 | 6 55.97 | +28 52.2 | 2.350 | 3.322 | 3.1 | 20.0 |
| 1 22 | 6 47.31 | +29 28.9 | 2.394 | 3.328 | 6.3 | 20.2 |
| 2 1 | 6 40.07 | +29 56.5 | 2.466 | 3.335 | 9.3 | 20.4 |
| 2 11 | 6 34.88 | +30 15.8 | 2.563 | 3.341 | 11.9 | 20.6 |

**78717** 2002 $TJ_{211}$ 1 5.5 68°.38 2°.0/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.84 | +26 5.1 | 2.116 | 2.943 | 12.3 | 18.9 |
| 12 13 | 7 22.28 | +26 56.6 | 2.049 | 2.953 | 9.1 | 18.7 |
| 12 23 | 7 14.53 | +27 49.3 | 2.007 | 2.962 | 5.5 | 18.5 |
| 1 2 | 7 5.33 | +28 38.7 | 1.993 | 2.972 | 2.3 | 18.3 |
| 1 12 | 6 55.74 | +29 20.7 | 2.010 | 2.981 | 3.6 | 18.4 |
| 1 22 | 6 46.85 | +29 52.9 | 2.055 | 2.991 | 7.1 | 18.7 |
| 2 1 | 6 39.65 | +30 14.9 | 2.128 | 3.000 | 10.4 | 18.9 |
| 2 11 | 6 34.83 | +30 27.7 | 2.224 | 3.010 | 13.2 | 19.1 |

**296555** 2009 $QZ_{16}$ 1 5.5 118°.86 0°.8/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.90 | +18 38.2 | 3.659 | 4.466 | 8.0 | 21.8 |
| 12 13 | 7 17.03 | +18 45.0 | 3.586 | 4.479 | 5.9 | 21.7 |
| 12 23 | 7 11.05 | +18 54.7 | 3.540 | 4.492 | 3.6 | 21.5 |
| 1 2 | 7 4.38 | +19 6.6 | 3.525 | 4.504 | 1.2 | 21.4 |
| 1 12 | 6 57.56 | +19 19.5 | 3.541 | 4.517 | 1.8 | 21.4 |
| 1 22 | 6 51.11 | +19 32.6 | 3.589 | 4.529 | 4.1 | 21.6 |
| 2 1 | 6 45.53 | +19 45.4 | 3.666 | 4.541 | 6.4 | 21.8 |
| 2 11 | 6 41.20 | +19 57.2 | 3.770 | 4.553 | 8.3 | 21.9 |

**56896** 2000 $QN_{155}$ 1 5.5 229°.21 5°.6/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.88 | + 5 46.6 | 2.254 | 3.035 | 13.2 | 19.7 |
| 12 13 | 7 21.38 | + 5 19.2 | 2.163 | 3.025 | 10.7 | 19.6 |
| 12 23 | 7 13.95 | + 5 4.6 | 2.096 | 3.015 | 8.0 | 19.4 |
| 1 2 | 7 5.19 | + 5 4.7 | 2.055 | 3.004 | 6.0 | 19.2 |
| 1 12 | 6 55.98 | + 5 19.5 | 2.044 | 2.993 | 6.0 | 19.2 |
| 1 22 | 6 47.23 | + 5 47.8 | 2.061 | 2.981 | 8.1 | 19.3 |
| 2 1 | 6 39.84 | + 6 26.8 | 2.106 | 2.969 | 10.9 | 19.5 |
| 2 11 | 6 34.47 | + 7 13.2 | 2.174 | 2.956 | 13.6 | 19.6 |

**233140** 2005 $UY_{131}$ 1 5.5 119°.10 2°.5/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.70 | +14 22.8 | 1.669 | 2.484 | 15.7 | 20.7 |
| 12 13 | 7 26.02 | +14 40.2 | 1.607 | 2.501 | 11.8 | 20.5 |
| 12 23 | 7 16.79 | +15 9.1 | 1.569 | 2.518 | 7.4 | 20.3 |
| 1 2 | 7 5.92 | +15 47.1 | 1.557 | 2.534 | 3.3 | 20.1 |
| 1 12 | 6 54.70 | +16 30.8 | 1.575 | 2.549 | 3.8 | 20.2 |
| 1 22 | 6 44.46 | +17 16.5 | 1.622 | 2.564 | 8.0 | 20.5 |
| 2 1 | 6 36.31 | +18 1.3 | 1.696 | 2.578 | 12.0 | 20.7 |
| 2 11 | 6 30.99 | +18 43.4 | 1.792 | 2.592 | 15.4 | 21.0 |

**301568** 2009 $HU_{39}$ 1 5.5 99°.47 6°.4/ 7.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 22.28 | − 1 3.6 | 2.862 | 3.607 | 11.5 | 20.9 |
| 12 13 | 7 17.55 | − 1 34.8 | 2.789 | 3.615 | 9.7 | 20.8 |
| 12 23 | 7 11.45 | − 1 51.9 | 2.739 | 3.622 | 7.9 | 20.6 |
| 1 2 | 7 4.50 | − 1 53.2 | 2.716 | 3.630 | 6.6 | 20.6 |
| 1 12 | 6 57.34 | − 1 38.5 | 2.721 | 3.637 | 6.5 | 20.6 |
| 1 22 | 6 50.60 | − 1 9.2 | 2.754 | 3.644 | 7.6 | 20.7 |
| 2 1 | 6 44.89 | − 0 27.6 | 2.813 | 3.651 | 9.3 | 20.8 |
| 2 11 | 6 40.69 | + 0 22.7 | 2.897 | 3.659 | 11.1 | 20.9 |

**296543** 2009 $PA_{1}$ 1 5.5 122°.36 4°.0/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.66 | +35 23.5 | 2.504 | 3.309 | 11.4 | 21.4 |
| 12 13 | 7 26.92 | +35 56.6 | 2.445 | 3.330 | 8.7 | 21.2 |
| 12 23 | 7 17.08 | +36 22.5 | 2.413 | 3.351 | 5.9 | 21.1 |
| 1 2 | 7 5.96 | +36 37.1 | 2.410 | 3.371 | 4.1 | 21.0 |
| 1 12 | 6 54.66 | +36 37.9 | 2.437 | 3.391 | 4.8 | 21.1 |
| 1 22 | 6 44.26 | +36 24.7 | 2.495 | 3.409 | 7.2 | 21.3 |
| 2 1 | 6 35.69 | +36 0.0 | 2.581 | 3.427 | 9.7 | 21.5 |
| 2 11 | 6 29.53 | +35 27.1 | 2.691 | 3.444 | 12.0 | 21.7 |

**166080** 2002 $CX_{102}$ 1 5.5 320°.31 0°.2/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.16 | +20 29.0 | 1.358 | 2.203 | 16.8 | 20.0 |
| 12 13 | 7 23.62 | +20 50.9 | 1.278 | 2.191 | 12.6 | 19.7 |
| 12 23 | 7 15.87 | +21 21.2 | 1.221 | 2.180 | 7.6 | 19.4 |
| 1 2 | 7 5.78 | +21 56.2 | 1.188 | 2.169 | 2.0 | 19.0 |
| 1 12 | 6 54.84 | +22 31.4 | 1.181 | 2.159 | 3.8 | 19.1 |
| 1 22 | 6 44.76 | +23 3.0 | 1.201 | 2.149 | 9.4 | 19.4 |
| 2 1 | 6 37.07 | +23 29.1 | 1.244 | 2.140 | 14.4 | 19.6 |
| 2 11 | 6 32.83 | +23 49.4 | 1.308 | 2.131 | 18.7 | 19.9 |

**55165** 2001 $QC_{242}$ 1 5.5 2°.74 8°.0/ 7.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.67 | + 4 22.2 | 1.476 | 2.284 | 17.7 | 18.5 |
| 12 13 | 7 20.45 | + 3 42.5 | 1.408 | 2.283 | 14.4 | 18.2 |
| 12 23 | 7 13.67 | + 3 23.3 | 1.359 | 2.283 | 11.1 | 18.0 |
| 1 2 | 7 5.15 | + 3 27.8 | 1.334 | 2.283 | 8.5 | 17.9 |
| 1 12 | 6 56.12 | + 3 56.4 | 1.335 | 2.285 | 8.4 | 17.9 |
| 1 22 | 6 47.90 | + 4 45.8 | 1.360 | 2.287 | 10.8 | 18.0 |
| 2 1 | 6 41.66 | + 5 50.6 | 1.409 | 2.290 | 14.1 | 18.2 |
| 2 11 | 6 38.20 | + 7 4.1 | 1.479 | 2.293 | 17.4 | 18.5 |

**280456** 2004 $EG_{49}$ 1 5.5 167°.90 1°.5/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.61 | +23 50.4 | 1.631 | 2.461 | 15.3 | 20.8 |
| 12 13 | 7 27.12 | +24 35.8 | 1.559 | 2.464 | 11.3 | 20.5 |
| 12 23 | 7 17.69 | +25 25.4 | 1.511 | 2.467 | 6.8 | 20.3 |
| 1 2 | 7 6.21 | +26 13.5 | 1.489 | 2.470 | 2.2 | 20.0 |
| 1 12 | 6 54.11 | +26 54.9 | 1.497 | 2.472 | 3.9 | 20.1 |
| 1 22 | 6 42.93 | +27 26.2 | 1.533 | 2.473 | 8.6 | 20.4 |
| 2 1 | 6 34.03 | +27 46.8 | 1.595 | 2.474 | 12.9 | 20.6 |
| 2 11 | 6 28.31 | +27 58.6 | 1.679 | 2.474 | 16.5 | 20.9 |

**217454** 2005 $TC_{175}$ 1 5.5 119°.44 3°.3/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.24 | +10 50.7 | 2.141 | 2.940 | 13.2 | 20.9 |
| 12 13 | 7 22.30 | +11 4.8 | 2.073 | 2.955 | 10.1 | 20.7 |
| 12 23 | 7 14.42 | +11 30.6 | 2.029 | 2.969 | 6.8 | 20.5 |
| 1 2 | 7 5.30 | +12 7.1 | 2.013 | 2.983 | 3.8 | 20.3 |
| 1 12 | 6 55.88 | +12 51.8 | 2.028 | 2.996 | 4.0 | 20.4 |
| 1 22 | 6 47.14 | +13 41.9 | 2.072 | 3.009 | 6.9 | 20.6 |
| 2 1 | 6 39.93 | +14 34.1 | 2.144 | 3.022 | 10.1 | 20.8 |
| 2 11 | 6 34.88 | +15 25.8 | 2.241 | 3.034 | 12.9 | 21.0 |

**31791** 1999 $LT_{3}$ 1 5.5 231°.60 0°.7/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.12 | +16 9.8 | 2.426 | 3.235 | 11.6 | 18.7 |
| 12 13 | 7 21.55 | +17 13.4 | 2.339 | 3.233 | 8.6 | 18.5 |
| 12 23 | 7 14.07 | +18 26.5 | 2.278 | 3.230 | 5.2 | 18.3 |
| 1 2 | 7 5.25 | +19 45.8 | 2.247 | 3.228 | 1.6 | 18.0 |
| 1 12 | 6 55.93 | +21 7.1 | 2.248 | 3.225 | 2.5 | 18.1 |
| 1 22 | 6 47.02 | +22 26.0 | 2.281 | 3.222 | 6.1 | 18.3 |
| 2 1 | 6 39.41 | +23 39.4 | 2.343 | 3.219 | 9.4 | 18.5 |
| 2 11 | 6 33.79 | +24 45.4 | 2.431 | 3.217 | 12.3 | 18.7 |

**302944** 2003 $TU_{3}$ 1 5.5 30°.22 20°.5/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.75 | − 8 2.8 | 0.963 | 1.747 | 26.6 | 20.2 |
| 12 13 | 7 25.84 | −11 20.8 | 0.921 | 1.751 | 24.1 | 20.1 |
| 12 23 | 7 17.24 | −14 1.4 | 0.895 | 1.756 | 21.9 | 19.9 |
| 1 2 | 7 6.13 | −15 48.5 | 0.886 | 1.762 | 20.6 | 19.9 |
| 1 12 | 6 54.37 | −16 32.8 | 0.895 | 1.769 | 20.6 | 19.9 |
| 1 22 | 6 43.97 | −16 15.2 | 0.920 | 1.776 | 21.9 | 20.0 |
| 2 1 | 6 36.57 | −15 5.6 | 0.960 | 1.783 | 23.9 | 20.2 |
| 2 11 | 6 33.16 | −13 19.9 | 1.014 | 1.792 | 26.1 | 20.4 |

**13969** 1991 $RK_{26}$ 1 5.5 130°.14 4°.3/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.17 | +32 4.8 | 1.734 | 2.557 | 14.8 | 19.2 |
| 12 13 | 7 29.60 | +32 53.3 | 1.674 | 2.572 | 11.2 | 19.0 |
| 12 23 | 7 19.04 | +33 36.6 | 1.638 | 2.586 | 7.3 | 18.8 |
| 1 2 | 7 6.54 | +34 8.0 | 1.629 | 2.599 | 4.5 | 18.6 |
| 1 12 | 6 53.64 | +34 22.8 | 1.649 | 2.612 | 5.6 | 18.7 |
| 1 22 | 6 41.94 | +34 20.2 | 1.698 | 2.624 | 9.1 | 19.0 |
| 2 1 | 6 32.73 | +34 2.8 | 1.773 | 2.635 | 12.7 | 19.2 |
| 2 11 | 6 26.81 | +33 35.5 | 1.869 | 2.646 | 15.7 | 19.4 |

**286491** 2002 $AK_{206}$ 1 5.5 25°.03 9°.7/ 8.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 23.50 | − 5 41.0 | 2.204 | 2.938 | 14.8 | 20.5 |
| 12 13 | 7 18.83 | − 6 43.0 | 2.135 | 2.942 | 12.9 | 20.3 |
| 12 23 | 7 12.38 | − 7 25.0 | 2.088 | 2.946 | 11.1 | 20.2 |
| 1 2 | 7 4.79 | − 7 43.1 | 2.064 | 2.951 | 9.9 | 20.2 |
| 1 12 | 6 56.88 | − 7 35.9 | 2.066 | 2.955 | 9.7 | 20.2 |
| 1 22 | 6 49.52 | − 7 4.8 | 2.093 | 2.960 | 10.7 | 20.2 |
| 2 1 | 6 43.52 | − 6 13.4 | 2.144 | 2.965 | 12.4 | 20.4 |
| 2 11 | 6 39.45 | − 5 7.2 | 2.216 | 2.971 | 14.2 | 20.5 |

**238103** 2003 $HH_{40}$ 1 5.5 154°.44 8°.4/ 2.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 41.91 | +44 49.3 | 2.200 | 2.984 | 13.4 | 20.9 |
| 12 13 | 7 33.39 | +46 32.0 | 2.141 | 2.995 | 11.1 | 20.7 |
| 12 23 | 7 21.52 | +48 2.1 | 2.108 | 3.005 | 9.2 | 20.6 |
| 1 2 | 7 7.25 | +49 10.0 | 2.102 | 3.014 | 8.4 | 20.6 |
| 1 12 | 6 52.19 | +49 49.6 | 2.124 | 3.022 | 9.1 | 20.6 |
| 1 22 | 6 38.13 | +49 59.7 | 2.174 | 3.029 | 10.9 | 20.8 |
| 2 1 | 6 26.62 | +49 44.3 | 2.248 | 3.036 | 13.0 | 20.9 |
| 2 11 | 6 18.67 | +49 10.3 | 2.343 | 3.041 | 15.0 | 21.1 |

**362694** 2011 $UW_{138}$ 1 5.5 29°.76 4°.3/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.92 | +13 51.5 | 1.438 | 2.268 | 17.0 | 20.9 |
| 12 13 | 7 23.64 | +13 17.0 | 1.372 | 2.271 | 13.0 | 20.6 |
| 12 23 | 7 15.57 | +12 53.5 | 1.327 | 2.276 | 8.6 | 20.4 |
| 1 2 | 7 5.66 | +12 41.9 | 1.308 | 2.280 | 4.8 | 20.2 |
| 1 12 | 6 55.30 | +12 41.9 | 1.315 | 2.285 | 5.3 | 20.2 |
| 1 22 | 6 45.94 | +12 52.1 | 1.349 | 2.291 | 9.3 | 20.5 |
| 2 1 | 6 38.81 | +13 10.1 | 1.407 | 2.296 | 13.5 | 20.7 |
| 2 11 | 6 34.71 | +13 33.2 | 1.486 | 2.302 | 17.2 | 21.0 |

**165413** 2000 $YD_{30}$ 1 5.5 342°.12 3°.2/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.29 | +26 28.8 | 1.393 | 2.240 | 16.4 | 19.0 |
| 12 13 | 7 24.51 | +27 30.1 | 1.321 | 2.235 | 12.3 | 18.7 |
| 12 23 | 7 16.42 | +28 34.8 | 1.272 | 2.230 | 7.6 | 18.4 |
| 1 2 | 7 5.95 | +29 35.8 | 1.248 | 2.226 | 3.5 | 18.2 |
| 1 12 | 6 54.66 | +30 25.8 | 1.250 | 2.222 | 5.2 | 18.2 |
| 1 22 | 6 44.33 | +31 0.5 | 1.279 | 2.219 | 9.9 | 18.5 |
| 2 1 | 6 36.53 | +31 19.5 | 1.332 | 2.216 | 14.5 | 18.8 |
| 2 11 | 6 32.29 | +31 25.3 | 1.404 | 2.214 | 18.4 | 19.0 |

**412428** 2014 $EN_{4}$ 1 5.5 143°.15 12°.9/ 2.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 50.84 | +54 33.8 | 1.804 | 2.562 | 16.9 | 21.1 |
| 12 13 | 7 41.44 | +56 24.8 | 1.757 | 2.572 | 14.9 | 21.0 |
| 12 23 | 7 26.92 | +57 52.8 | 1.732 | 2.582 | 13.5 | 20.9 |
| 1 2 | 7 8.72 | +58 44.8 | 1.730 | 2.591 | 12.9 | 20.9 |
| 1 12 | 6 49.59 | +58 53.1 | 1.752 | 2.599 | 13.4 | 21.0 |
| 1 22 | 6 32.54 | +58 19.2 | 1.796 | 2.607 | 14.8 | 21.1 |
| 2 1 | 6 19.86 | +57 11.8 | 1.861 | 2.614 | 16.6 | 21.2 |
| 2 11 | 6 12.57 | +55 43.1 | 1.945 | 2.621 | 18.3 | 21.4 |

**154048** 2002 $CL_{119}$ 1 5.5 227°.58 1°.7/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.59 | +27 38.6 | 2.188 | 3.009 | 12.2 | 20.3 |
| 12 13 | 7 24.30 | +27 44.7 | 2.102 | 3.002 | 9.1 | 20.1 |
| 12 23 | 7 15.75 | +27 48.7 | 2.041 | 2.995 | 5.5 | 19.9 |
| 1 2 | 7 5.70 | +27 47.7 | 2.009 | 2.988 | 2.1 | 19.6 |
| 1 12 | 6 55.21 | +27 39.8 | 2.007 | 2.980 | 3.3 | 19.7 |
| 1 22 | 6 45.42 | +27 24.3 | 2.035 | 2.972 | 7.0 | 19.9 |
| 2 1 | 6 37.35 | +27 2.6 | 2.090 | 2.964 | 10.5 | 20.1 |
| 2 11 | 6 31.70 | +26 36.8 | 2.169 | 2.956 | 13.5 | 20.3 |

**485429** 2011 $QP_{31}$ 1 5.5 176°.00 0°.1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.44 | +22 48.6 | 1.648 | 2.476 | 15.2 | 21.7 |
| 12 13 | 7 26.83 | +22 38.1 | 1.574 | 2.478 | 11.3 | 21.5 |
| 12 23 | 7 17.42 | +22 29.3 | 1.522 | 2.479 | 6.8 | 21.2 |
| 1 2 | 7 6.15 | +22 19.7 | 1.498 | 2.480 | 1.8 | 20.9 |
| 1 12 | 6 54.41 | +22 7.9 | 1.503 | 2.480 | 3.3 | 21.0 |
| 1 22 | 6 43.66 | +21 53.3 | 1.536 | 2.480 | 8.2 | 21.3 |
| 2 1 | 6 35.15 | +21 37.1 | 1.596 | 2.480 | 12.6 | 21.5 |
| 2 11 | 6 29.69 | +21 20.6 | 1.677 | 2.479 | 16.2 | 21.8 |

**495097** 2011 $SJ_{195}$ 1 5.5 199°.34 1°.8/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.12 | +26 45.4 | 1.838 | 2.662 | 14.1 | 22.1 |
| 12 13 | 7 27.27 | +27 2.0 | 1.757 | 2.659 | 10.5 | 21.9 |
| 12 23 | 7 17.68 | +27 17.7 | 1.700 | 2.655 | 6.4 | 21.7 |
| 1 2 | 7 6.23 | +27 28.6 | 1.672 | 2.651 | 2.3 | 21.4 |
| 1 12 | 6 54.22 | +27 31.3 | 1.673 | 2.646 | 3.7 | 21.5 |
| 1 22 | 6 43.08 | +27 25.0 | 1.703 | 2.641 | 8.0 | 21.7 |
| 2 1 | 6 34.05 | +27 10.7 | 1.760 | 2.635 | 12.0 | 22.0 |
| 2 11 | 6 27.95 | +26 51.2 | 1.839 | 2.628 | 15.5 | 22.2 |

**376640** 2013 $PE_{71}$ 1 5.5 171°.95 3°.2/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.02 | +11 13.7 | 2.460 | 3.256 | 11.8 | 22.2 |
| 12 13 | 7 21.29 | +11 16.1 | 2.379 | 3.259 | 9.1 | 22.1 |
| 12 23 | 7 13.81 | +11 28.2 | 2.323 | 3.262 | 6.1 | 21.9 |
| 1 2 | 7 5.18 | +11 49.5 | 2.296 | 3.264 | 3.6 | 21.7 |
| 1 12 | 6 56.21 | +12 18.6 | 2.299 | 3.265 | 3.8 | 21.7 |
| 1 22 | 6 47.77 | +12 53.5 | 2.332 | 3.267 | 6.4 | 21.9 |
| 2 1 | 6 40.61 | +13 32.0 | 2.394 | 3.267 | 9.3 | 22.1 |
| 2 11 | 6 35.35 | +14 12.0 | 2.480 | 3.267 | 12.0 | 22.3 |

**220562** 2004 $HM_{18}$ 1 5.5 182°.34 2°.2/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.31 | +28 38.0 | 2.360 | 3.176 | 11.6 | 21.4 |
| 12 13 | 7 24.68 | +29 1.7 | 2.280 | 3.177 | 8.6 | 21.2 |
| 12 23 | 7 15.91 | +29 23.5 | 2.225 | 3.177 | 5.3 | 21.0 |
| 1 2 | 7 5.74 | +29 39.7 | 2.200 | 3.177 | 2.4 | 20.8 |
| 1 12 | 6 55.18 | +29 47.7 | 2.206 | 3.176 | 3.5 | 20.9 |
| 1 22 | 6 45.29 | +29 46.6 | 2.242 | 3.175 | 6.7 | 21.1 |
| 2 1 | 6 37.04 | +29 37.3 | 2.306 | 3.173 | 9.9 | 21.3 |
| 2 11 | 6 31.11 | +29 21.6 | 2.394 | 3.170 | 12.7 | 21.5 |

**83230** 2001 $RW_{37}$ 1 5.5 37°.18 4°.3/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.74 | + 9 31.3 | 2.210 | 3.010 | 12.8 | 19.9 |
| 12 13 | 7 19.76 | + 9 11.7 | 2.133 | 3.012 | 10.0 | 19.7 |
| 12 23 | 7 12.96 | + 9 3.0 | 2.080 | 3.014 | 7.1 | 19.5 |
| 1 2 | 7 4.96 | + 9 6.0 | 2.055 | 3.017 | 4.7 | 19.4 |
| 1 12 | 6 56.64 | + 9 20.3 | 2.058 | 3.019 | 4.8 | 19.4 |
| 1 22 | 6 48.89 | + 9 44.1 | 2.090 | 3.022 | 7.2 | 19.5 |
| 2 1 | 6 42.52 | +10 15.2 | 2.149 | 3.024 | 10.2 | 19.7 |
| 2 11 | 6 38.15 | +10 50.9 | 2.232 | 3.027 | 12.9 | 19.9 |

**353430** 2011 $QQ_{50}$ 1 5.5 132°.68 0°.6/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.92 | +18 45.6 | 1.713 | 2.537 | 14.9 | 21.2 |
| 12 13 | 7 25.58 | +19 18.6 | 1.646 | 2.547 | 11.1 | 21.0 |
| 12 23 | 7 16.64 | +19 59.5 | 1.602 | 2.557 | 6.7 | 20.8 |
| 1 2 | 7 5.95 | +20 44.6 | 1.585 | 2.566 | 1.9 | 20.5 |
| 1 12 | 6 54.81 | +21 29.8 | 1.598 | 2.575 | 3.2 | 20.6 |
| 1 22 | 6 44.56 | +22 11.6 | 1.640 | 2.583 | 7.8 | 20.9 |
| 2 1 | 6 36.36 | +22 47.9 | 1.708 | 2.591 | 11.9 | 21.2 |
| 2 11 | 6 31.00 | +23 18.5 | 1.800 | 2.599 | 15.4 | 21.4 |

**200920** 2002 $AK_{106}$ 1 5.5 359°.87 1°.2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.26 | +24 15.9 | 1.161 | 2.019 | 18.2 | 20.3 |
| 12 13 | 7 23.99 | +24 30.4 | 1.097 | 2.017 | 13.6 | 20.0 |
| 12 23 | 7 16.17 | +24 48.2 | 1.053 | 2.015 | 8.1 | 19.7 |
| 1 2 | 7 5.89 | +25 4.6 | 1.033 | 2.014 | 2.4 | 19.4 |
| 1 12 | 6 54.93 | +25 15.3 | 1.038 | 2.015 | 4.3 | 19.5 |
| 1 22 | 6 45.21 | +25 18.1 | 1.067 | 2.016 | 10.1 | 19.8 |
| 2 1 | 6 38.35 | +25 13.7 | 1.118 | 2.019 | 15.3 | 20.1 |
| 2 11 | 6 35.28 | +25 3.9 | 1.189 | 2.023 | 19.6 | 20.4 |

**276246** 2002 $RJ_{155}$ 1 5.5 128°.55 4°.2/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.41 | + 8 36.1 | 2.416 | 3.207 | 12.1 | 20.8 |
| 12 13 | 7 20.08 | + 8 21.7 | 2.342 | 3.215 | 9.5 | 20.6 |
| 12 23 | 7 13.07 | + 8 18.2 | 2.292 | 3.222 | 6.8 | 20.4 |
| 1 2 | 7 4.99 | + 8 26.1 | 2.270 | 3.229 | 4.6 | 20.3 |
| 1 12 | 6 56.63 | + 8 44.6 | 2.277 | 3.236 | 4.6 | 20.3 |
| 1 22 | 6 48.83 | + 9 12.2 | 2.314 | 3.243 | 6.8 | 20.5 |
| 2 1 | 6 42.31 | + 9 46.5 | 2.379 | 3.249 | 9.5 | 20.7 |
| 2 11 | 6 37.64 | +10 24.9 | 2.468 | 3.256 | 12.0 | 20.9 |

**247607** 2002 $TP_{268}$ 1 5.5 105°.33 1°.4/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.47 | +18 58.1 | 1.870 | 2.690 | 14.0 | 20.8 |
| 12 13 | 7 24.88 | +18 49.2 | 1.809 | 2.707 | 10.4 | 20.6 |
| 12 23 | 7 16.02 | +18 45.3 | 1.771 | 2.724 | 6.3 | 20.4 |
| 1 2 | 7 5.76 | +18 44.9 | 1.761 | 2.741 | 2.2 | 20.2 |
| 1 12 | 6 55.26 | +18 46.5 | 1.781 | 2.757 | 3.1 | 20.3 |
| 1 22 | 6 45.70 | +18 49.2 | 1.830 | 2.772 | 7.2 | 20.6 |
| 2 1 | 6 38.06 | +18 52.5 | 1.906 | 2.788 | 11.0 | 20.8 |
| 2 11 | 6 32.98 | +18 56.1 | 2.006 | 2.803 | 14.1 | 21.1 |

**463833** 2014 $TD_{62}$ 1 5.5 6°.55 11°.0/ 8.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 22.02 | + 0 47.5 | 1.226 | 2.039 | 20.3 | 20.0 |
| 12 13 | 7 18.85 | − 0 19.1 | 1.169 | 2.039 | 17.1 | 19.8 |
| 12 23 | 7 12.86 | − 0 59.0 | 1.129 | 2.042 | 13.9 | 19.6 |
| 1 2 | 7 5.00 | − 1 6.2 | 1.110 | 2.046 | 11.5 | 19.5 |
| 1 12 | 6 56.63 | − 0 39.1 | 1.114 | 2.052 | 11.2 | 19.5 |
| 1 22 | 6 49.23 | + 0 18.4 | 1.140 | 2.059 | 13.2 | 19.6 |
| 2 1 | 6 44.04 | + 1 38.9 | 1.187 | 2.068 | 16.2 | 19.8 |
| 2 11 | 6 41.90 | + 3 12.5 | 1.254 | 2.078 | 19.3 | 20.1 |

**449097** 2012 $UT_{68}$ 1 5.5 24°.89 1°.0/ 4.0 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 10.21 | +36 34.7 | 13.373 | 14.177 | 2.4 | 21.3 |
| 12 13 | 7 8.08 | +36 44.8 | 13.307 | 14.189 | 1.8 | 21.2 |
| 12 23 | 7 5.64 | +36 53.4 | 13.269 | 14.202 | 1.3 | 21.2 |
| 1 2 | 7 3.02 | +37 0.2 | 13.260 | 14.214 | 1.0 | 21.1 |
| 1 12 | 7 0.35 | +37 4.8 | 13.282 | 14.227 | 1.1 | 21.1 |
| 1 22 | 6 57.77 | +37 7.2 | 13.334 | 14.239 | 1.6 | 21.2 |
| 2 1 | 6 55.42 | +37 7.3 | 13.415 | 14.252 | 2.1 | 21.3 |
| 2 11 | 6 53.41 | +37 5.2 | 13.522 | 14.265 | 2.7 | 21.3 |

**316095** 2009 $MX_{4}$ 1 5.5 219°.91 2°.2/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.61 | +13 32.7 | 2.183 | 2.988 | 12.8 | 21.4 |
| 12 13 | 7 22.83 | +14 1.6 | 2.092 | 2.980 | 9.7 | 21.2 |
| 12 23 | 7 14.92 | +14 41.5 | 2.025 | 2.972 | 6.2 | 21.0 |
| 1 2 | 7 5.53 | +15 30.5 | 1.987 | 2.963 | 2.9 | 20.7 |
| 1 12 | 6 55.58 | +16 25.8 | 1.980 | 2.953 | 3.3 | 20.8 |
| 1 22 | 6 46.11 | +17 23.9 | 2.003 | 2.943 | 6.8 | 21.0 |
| 2 1 | 6 38.08 | +18 21.6 | 2.054 | 2.933 | 10.4 | 21.2 |
| 2 11 | 6 32.25 | +19 16.6 | 2.130 | 2.922 | 13.6 | 21.4 |

**439276** 2012 $UB_{42}$ 1 5.5 141°.95 3°.7/ 4.6 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 37.67 | +30 16.0 | 1.744 | 2.565 | 14.8 | 22.5 |
| 12 13 | 7 29.98 | +31 7.0 | 1.681 | 2.579 | 11.1 | 22.3 |
| 12 23 | 7 19.31 | +31 54.8 | 1.642 | 2.592 | 7.1 | 22.1 |
| 1 2 | 7 6.66 | +32 32.7 | 1.631 | 2.604 | 3.9 | 21.9 |
| 1 12 | 6 53.57 | +32 55.7 | 1.649 | 2.615 | 5.2 | 22.0 |
| 1 22 | 6 41.61 | +33 2.2 | 1.697 | 2.625 | 8.9 | 22.2 |
| 2 1 | 6 32.09 | +32 54.5 | 1.770 | 2.634 | 12.6 | 22.5 |
| 2 11 | 6 25.83 | +32 36.7 | 1.866 | 2.642 | 15.8 | 22.7 |

**377297** 2004 $FX_{82}$ 1 5.5 343°.80 8°.2/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.89 | + 5 5.1 | 1.713 | 2.515 | 15.9 | 19.6 |
| 12 13 | 7 19.67 | + 3 44.6 | 1.633 | 2.503 | 13.1 | 19.4 |
| 12 23 | 7 13.16 | + 2 38.0 | 1.575 | 2.492 | 10.3 | 19.2 |
| 1 2 | 7 5.08 | + 1 50.2 | 1.542 | 2.482 | 8.4 | 19.1 |
| 1 12 | 6 56.48 | + 1 24.0 | 1.534 | 2.473 | 8.6 | 19.1 |
| 1 22 | 6 48.52 | + 1 20.0 | 1.552 | 2.465 | 10.7 | 19.2 |
| 2 1 | 6 42.25 | + 1 35.8 | 1.593 | 2.458 | 13.7 | 19.4 |
| 2 11 | 6 38.44 | + 2 6.9 | 1.656 | 2.452 | 16.6 | 19.5 |

**217419** 2005 $QV_{83}$ 1 5.5 148°.30 5°.0/ 4.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.52 | +38 17.4 | 2.434 | 3.236 | 11.7 | 21.5 |
| 12 13 | 7 27.82 | +38 55.2 | 2.368 | 3.247 | 9.2 | 21.3 |
| 12 23 | 7 17.77 | +39 24.2 | 2.327 | 3.257 | 6.7 | 21.2 |
| 1 2 | 7 6.24 | +39 39.2 | 2.315 | 3.267 | 5.1 | 21.1 |
| 1 12 | 6 54.41 | +39 37.5 | 2.332 | 3.276 | 5.7 | 21.2 |
| 1 22 | 6 43.50 | +39 18.8 | 2.379 | 3.285 | 7.9 | 21.3 |
| 2 1 | 6 34.53 | +38 46.1 | 2.454 | 3.292 | 10.4 | 21.5 |
| 2 11 | 6 28.17 | +38 3.5 | 2.552 | 3.299 | 12.7 | 21.7 |

**180852** 2005 $GA_{167}$ 1 5.5 187°.49 1°.8/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.69 | +25 9.8 | 1.573 | 2.404 | 15.7 | 20.5 |
| 12 13 | 7 28.09 | +25 44.0 | 1.498 | 2.404 | 11.7 | 20.3 |
| 12 23 | 7 18.37 | +26 20.4 | 1.447 | 2.403 | 7.0 | 20.0 |
| 1 2 | 7 6.47 | +26 53.7 | 1.422 | 2.402 | 2.4 | 19.7 |
| 1 12 | 6 53.91 | +27 19.0 | 1.426 | 2.400 | 4.1 | 19.8 |
| 1 22 | 6 42.32 | +27 33.7 | 1.458 | 2.398 | 8.9 | 20.1 |
| 2 1 | 6 33.14 | +27 38.3 | 1.515 | 2.395 | 13.4 | 20.4 |
| 2 11 | 6 27.31 | +27 35.2 | 1.594 | 2.392 | 17.1 | 20.6 |

**196908** 2003 $TU_{21}$ 1 5.5 214°.88 0°.8/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.00 | +19 29.7 | 2.178 | 2.998 | 12.3 | 20.4 |
| 12 13 | 7 21.58 | +19 40.2 | 2.097 | 2.997 | 9.1 | 20.2 |
| 12 23 | 7 14.12 | +19 55.6 | 2.040 | 2.995 | 5.5 | 20.0 |
| 1 2 | 7 5.31 | +20 14.0 | 2.013 | 2.993 | 1.7 | 19.7 |
| 1 12 | 6 56.09 | +20 33.5 | 2.014 | 2.991 | 2.7 | 19.8 |
| 1 22 | 6 47.48 | +20 52.1 | 2.046 | 2.989 | 6.5 | 20.0 |
| 2 1 | 6 40.37 | +21 9.0 | 2.105 | 2.987 | 10.0 | 20.2 |
| 2 11 | 6 35.46 | +21 23.6 | 2.188 | 2.985 | 13.1 | 20.4 |

**347349** 2012 $QP_{20}$ 1 5.5 92°.57 0°.4/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.54 | +22 46.4 | 1.391 | 2.225 | 17.2 | 21.3 |
| 12 13 | 7 29.23 | +23 0.2 | 1.341 | 2.248 | 12.7 | 21.0 |
| 12 23 | 7 18.82 | +23 17.2 | 1.314 | 2.271 | 7.5 | 20.8 |
| 1 2 | 7 6.52 | +23 33.1 | 1.312 | 2.294 | 2.0 | 20.5 |
| 1 12 | 6 54.01 | +23 44.4 | 1.339 | 2.316 | 3.7 | 20.7 |
| 1 22 | 6 42.94 | +23 49.8 | 1.393 | 2.337 | 8.8 | 21.1 |
| 2 1 | 6 34.60 | +23 49.9 | 1.472 | 2.358 | 13.3 | 21.4 |
| 2 11 | 6 29.69 | +23 46.4 | 1.573 | 2.378 | 17.0 | 21.7 |

**114004** 2002 $UF_{36}$ 1 5.5 1°.40 0°.9/ 5.7 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.70 | +19 51.3 | 1.137 | 1.992 | 18.8 | 20.1 |
| 12 13 | 7 24.30 | +19 58.2 | 1.073 | 1.990 | 14.1 | 19.8 |
| 12 23 | 7 16.38 | +20 14.0 | 1.029 | 1.989 | 8.5 | 19.5 |
| 1 2 | 7 5.99 | +20 35.5 | 1.008 | 1.989 | 2.5 | 19.2 |
| 1 12 | 6 54.89 | +20 58.8 | 1.012 | 1.990 | 4.1 | 19.3 |
| 1 22 | 6 45.00 | +21 20.7 | 1.041 | 1.992 | 10.1 | 19.6 |
| 2 1 | 6 37.92 | +21 39.3 | 1.092 | 1.994 | 15.4 | 19.9 |
| 2 11 | 6 34.62 | +21 54.4 | 1.162 | 1.997 | 19.8 | 20.2 |

**91348** 1999 $JF_{45}$ 1 5.5 240°.45 2°.4/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.52 | +28 20.4 | 2.322 | 3.141 | 11.7 | 20.7 |
| 12 13 | 7 24.36 | +28 59.5 | 2.227 | 3.126 | 8.7 | 20.5 |
| 12 23 | 7 15.91 | +29 38.2 | 2.158 | 3.110 | 5.5 | 20.3 |
| 1 2 | 7 5.83 | +30 12.5 | 2.118 | 3.094 | 2.7 | 20.1 |
| 1 12 | 6 55.14 | +30 38.4 | 2.108 | 3.077 | 3.8 | 20.1 |
| 1 22 | 6 44.95 | +30 54.1 | 2.128 | 3.060 | 7.1 | 20.3 |
| 2 1 | 6 36.32 | +30 59.5 | 2.177 | 3.042 | 10.5 | 20.5 |
| 2 11 | 6 30.06 | +30 56.4 | 2.248 | 3.024 | 13.4 | 20.6 |

**485464** 2011 $SD_{2}$ 1 5.5 214°.43 3°.6/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.76 | +30 42.0 | 1.677 | 2.506 | 15.0 | 21.6 |
| 12 13 | 7 28.10 | +31 9.0 | 1.600 | 2.502 | 11.3 | 21.4 |
| 12 23 | 7 18.35 | +31 32.1 | 1.545 | 2.497 | 7.2 | 21.2 |
| 1 2 | 7 6.48 | +31 45.5 | 1.518 | 2.493 | 3.8 | 20.9 |
| 1 12 | 6 54.00 | +31 45.0 | 1.519 | 2.488 | 5.0 | 21.0 |
| 1 22 | 6 42.52 | +31 29.7 | 1.549 | 2.482 | 9.1 | 21.2 |
| 2 1 | 6 33.45 | +31 2.3 | 1.603 | 2.477 | 13.1 | 21.5 |
| 2 11 | 6 27.69 | +30 26.9 | 1.680 | 2.471 | 16.7 | 21.7 |

**340939** 2007 $EP_{39}$ 1 5.5 11°.13 5°.8/ 4.3 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.41 | +31 46.6 | 1.201 | 2.053 | 18.2 | 20.2 |
| 12 13 | 7 27.32 | +32 52.1 | 1.141 | 2.054 | 13.9 | 19.9 |
| 12 23 | 7 18.30 | +33 54.3 | 1.102 | 2.055 | 9.2 | 19.7 |
| 1 2 | 7 6.52 | +34 42.9 | 1.086 | 2.057 | 5.9 | 19.5 |
| 1 12 | 6 53.96 | +35 10.0 | 1.096 | 2.060 | 7.4 | 19.6 |
| 1 22 | 6 42.79 | +35 13.4 | 1.129 | 2.063 | 11.7 | 19.8 |
| 2 1 | 6 34.82 | +34 56.1 | 1.185 | 2.067 | 16.2 | 20.1 |
| 2 11 | 6 31.03 | +34 24.7 | 1.260 | 2.071 | 20.0 | 20.4 |

**15790** Keizan 1 5.5 119°.45 10°.8/ 2.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 49.82 | +52 16.5 | 2.042 | 2.800 | 15.2 | 18.1 |
| 12 13 | 7 39.70 | +53 54.7 | 2.003 | 2.824 | 13.1 | 18.0 |
| 12 23 | 7 25.40 | +55 12.0 | 1.986 | 2.846 | 11.5 | 18.0 |
| 1 2 | 7 8.32 | +55 57.8 | 1.994 | 2.868 | 10.8 | 18.0 |
| 1 12 | 6 50.71 | +56 6.7 | 2.029 | 2.889 | 11.3 | 18.0 |
| 1 22 | 6 34.92 | +55 40.4 | 2.088 | 2.909 | 12.6 | 18.2 |
| 2 1 | 6 22.76 | +54 46.0 | 2.170 | 2.928 | 14.3 | 18.3 |
| 2 11 | 6 15.08 | +53 33.5 | 2.271 | 2.946 | 16.0 | 18.5 |

**216689** 2004 $HM_{1}$ 1 5.5 110°.22 1°.1/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.22 | +17 39.4 | 2.871 | 3.668 | 10.2 | 22.7 |
| 12 13 | 7 23.23 | +17 50.8 | 2.813 | 3.700 | 7.6 | 22.5 |
| 12 23 | 7 14.78 | +18 6.1 | 2.782 | 3.732 | 4.6 | 22.4 |
| 1 2 | 7 5.45 | +18 24.1 | 2.783 | 3.762 | 1.7 | 22.2 |
| 1 12 | 6 56.02 | +18 43.1 | 2.816 | 3.791 | 2.2 | 22.3 |
| 1 22 | 6 47.22 | +19 1.9 | 2.881 | 3.819 | 5.1 | 22.5 |
| 2 1 | 6 39.71 | +19 19.6 | 2.976 | 3.846 | 7.8 | 22.7 |
| 2 11 | 6 33.96 | +19 35.9 | 3.097 | 3.873 | 10.1 | 22.9 |

**38990** 2000 $UZ_{17}$ 1 5.5 45°.22 0°.6/ 5.7 18 R

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.66 | +19 11.9 | 1.831 | 2.659 | 13.9 | 19.7 |
| 12 13 | 7 22.38 | +19 37.1 | 1.759 | 2.663 | 10.4 | 19.5 |
| 12 23 | 7 14.74 | +20 9.2 | 1.710 | 2.666 | 6.2 | 19.3 |
| 1 2 | 7 5.51 | +20 45.4 | 1.689 | 2.670 | 1.8 | 19.0 |
| 1 12 | 6 55.84 | +21 22.3 | 1.697 | 2.674 | 3.0 | 19.1 |
| 1 22 | 6 46.91 | +21 57.0 | 1.734 | 2.678 | 7.3 | 19.4 |
| 2 1 | 6 39.79 | +22 27.7 | 1.797 | 2.683 | 11.3 | 19.6 |
| 2 11 | 6 35.23 | +22 53.9 | 1.883 | 2.687 | 14.6 | 19.8 |

**242114** 2002 $VO_{105}$ 1 5.5 66°.29 5°.4/ 3.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.01 | +36 51.6 | 2.102 | 2.918 | 12.8 | 19.9 |
| 12 13 | 7 25.47 | +37 49.5 | 2.052 | 2.940 | 9.9 | 19.7 |
| 12 23 | 7 16.48 | +38 39.2 | 2.027 | 2.962 | 7.1 | 19.6 |
| 1 2 | 7 5.94 | +39 14.7 | 2.030 | 2.985 | 5.4 | 19.6 |
| 1 12 | 6 55.13 | +39 32.3 | 2.061 | 3.007 | 6.2 | 19.6 |
| 1 22 | 6 45.32 | +39 31.7 | 2.120 | 3.029 | 8.6 | 19.8 |
| 2 1 | 6 37.59 | +39 15.3 | 2.205 | 3.051 | 11.2 | 20.0 |
| 2 11 | 6 32.59 | +38 47.3 | 2.313 | 3.073 | 13.6 | 20.2 |

**421084** 2013 $QS_{43}$ 1 5.5 37°.67 2°.5/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.78 | +28 34.5 | 1.653 | 2.490 | 14.7 | 21.0 |
| 12 13 | 7 24.06 | +28 49.7 | 1.598 | 2.506 | 10.9 | 20.8 |
| 12 23 | 7 15.71 | +29 2.1 | 1.567 | 2.523 | 6.7 | 20.6 |
| 1 2 | 7 5.74 | +29 7.7 | 1.563 | 2.541 | 2.9 | 20.4 |
| 1 12 | 6 55.54 | +29 3.8 | 1.586 | 2.559 | 4.1 | 20.5 |
| 1 22 | 6 46.47 | +28 50.3 | 1.637 | 2.577 | 8.1 | 20.8 |
| 2 1 | 6 39.65 | +28 28.9 | 1.714 | 2.596 | 11.9 | 21.1 |
| 2 11 | 6 35.74 | +28 2.6 | 1.812 | 2.616 | 15.1 | 21.3 |

**310194** 2011 $SO_{116}$ 1 5.5 93°.62 4°.5/ 4.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.41 | +31 49.3 | 1.576 | 2.407 | 15.7 | 21.2 |
| 12 13 | 7 28.54 | +32 40.4 | 1.521 | 2.423 | 11.8 | 20.9 |
| 12 23 | 7 18.53 | +33 26.5 | 1.489 | 2.438 | 7.7 | 20.8 |
| 1 2 | 7 6.51 | +34 0.4 | 1.483 | 2.454 | 4.7 | 20.6 |
| 1 12 | 6 54.10 | +34 17.1 | 1.505 | 2.469 | 5.9 | 20.7 |
| 1 22 | 6 42.97 | +34 15.7 | 1.555 | 2.484 | 9.5 | 21.0 |
| 2 1 | 6 34.48 | +33 59.0 | 1.630 | 2.498 | 13.2 | 21.2 |
| 2 11 | 6 29.40 | +33 31.9 | 1.726 | 2.513 | 16.4 | 21.5 |

**218751** 2005 $UH_{513}$ 1 5.5 60°.20 3°.1/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.29 | +29 51.6 | 1.746 | 2.578 | 14.3 | 20.5 |
| 12 13 | 7 25.20 | +30 17.5 | 1.684 | 2.589 | 10.7 | 20.3 |
| 12 23 | 7 16.43 | +30 40.0 | 1.646 | 2.600 | 6.7 | 20.1 |
| 1 2 | 7 5.95 | +30 54.2 | 1.635 | 2.610 | 3.4 | 19.9 |
| 1 12 | 6 55.13 | +30 57.0 | 1.652 | 2.621 | 4.5 | 20.0 |
| 1 22 | 6 45.36 | +30 47.6 | 1.697 | 2.633 | 8.3 | 20.2 |
| 2 1 | 6 37.81 | +30 28.2 | 1.768 | 2.644 | 12.0 | 20.5 |
| 2 11 | 6 33.19 | +30 1.8 | 1.861 | 2.655 | 15.1 | 20.7 |

**499959** 2011 $JN_{16}$ 1 5.5 183°.99 5°.5/ 7.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.29 | + 1 38.6 | 2.876 | 3.631 | 11.3 | 21.9 |
| 12 13 | 7 19.09 | + 1 22.4 | 2.792 | 3.631 | 9.3 | 21.7 |
| 12 23 | 7 12.46 | + 1 19.3 | 2.732 | 3.631 | 7.3 | 21.6 |
| 1 2 | 7 4.89 | + 1 30.5 | 2.700 | 3.630 | 5.8 | 21.5 |
| 1 12 | 6 57.04 | + 1 55.7 | 2.696 | 3.629 | 5.7 | 21.5 |
| 1 22 | 6 49.59 | + 2 33.3 | 2.722 | 3.628 | 7.0 | 21.6 |
| 2 1 | 6 43.17 | + 3 20.9 | 2.776 | 3.626 | 9.0 | 21.7 |
| 2 11 | 6 38.29 | + 4 15.2 | 2.855 | 3.623 | 11.0 | 21.9 |

**244984** 2004 $BO_{98}$ 1 5.5 71°.08 3°.3/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.32 | +32 21.2 | 2.266 | 3.088 | 11.8 | 20.4 |
| 12 13 | 7 23.29 | +32 44.6 | 2.198 | 3.095 | 8.9 | 20.3 |
| 12 23 | 7 15.12 | +33 3.3 | 2.155 | 3.103 | 5.8 | 20.1 |
| 1 2 | 7 5.59 | +33 13.2 | 2.140 | 3.111 | 3.5 | 20.0 |
| 1 12 | 6 55.77 | +33 12.1 | 2.155 | 3.119 | 4.3 | 20.0 |
| 1 22 | 6 46.75 | +32 59.6 | 2.198 | 3.126 | 7.2 | 20.2 |
| 2 1 | 6 39.46 | +32 37.2 | 2.269 | 3.134 | 10.1 | 20.4 |
| 2 11 | 6 34.55 | +32 7.7 | 2.364 | 3.142 | 12.8 | 20.6 |

**165491** 2001 $BA_{31}$ 1 5.5 13°.50 1°.2/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.29 | +18 16.0 | 1.399 | 2.240 | 16.7 | 19.3 |
| 12 13 | 7 23.45 | +18 36.7 | 1.332 | 2.241 | 12.5 | 19.0 |
| 12 23 | 7 15.64 | +19 7.3 | 1.286 | 2.243 | 7.6 | 18.7 |
| 1 2 | 7 5.80 | +19 44.8 | 1.265 | 2.246 | 2.4 | 18.4 |
| 1 12 | 6 55.37 | +20 24.9 | 1.271 | 2.249 | 3.6 | 18.5 |
| 1 22 | 6 45.90 | +21 3.8 | 1.304 | 2.252 | 8.8 | 18.8 |
| 2 1 | 6 38.76 | +21 38.9 | 1.361 | 2.256 | 13.5 | 19.1 |
| 2 11 | 6 34.81 | +22 9.1 | 1.439 | 2.260 | 17.4 | 19.4 |

**484580** 2008 $QA_{26}$ 1 5.5 188°.32 2°.1/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.80 | +27 39.4 | 1.852 | 2.673 | 14.1 | 21.9 |
| 12 13 | 7 28.52 | +27 59.3 | 1.773 | 2.673 | 10.5 | 21.6 |
| 12 23 | 7 18.46 | +28 17.7 | 1.718 | 2.672 | 6.4 | 21.4 |
| 1 2 | 7 6.52 | +28 30.0 | 1.691 | 2.670 | 2.6 | 21.2 |
| 1 12 | 6 54.04 | +28 32.8 | 1.694 | 2.667 | 3.9 | 21.2 |
| 1 22 | 6 42.47 | +28 25.1 | 1.727 | 2.663 | 8.1 | 21.5 |
| 2 1 | 6 33.06 | +28 8.6 | 1.787 | 2.659 | 12.1 | 21.7 |
| 2 11 | 6 26.65 | +27 46.2 | 1.869 | 2.654 | 15.4 | 21.9 |

**282451** 2004 $BH_{151}$ 1 5.5 324°.14 4°.9/ 7.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.49 | + 6 4.6 | 2.131 | 2.922 | 13.6 | 20.0 |
| 12 13 | 7 19.76 | + 6 15.5 | 2.046 | 2.917 | 10.8 | 19.8 |
| 12 23 | 7 13.09 | + 6 42.2 | 1.985 | 2.912 | 7.8 | 19.6 |
| 1 2 | 7 5.09 | + 7 25.1 | 1.950 | 2.907 | 5.4 | 19.4 |
| 1 12 | 6 56.65 | + 8 22.3 | 1.944 | 2.903 | 5.3 | 19.4 |
| 1 22 | 6 48.71 | + 9 30.3 | 1.967 | 2.899 | 7.6 | 19.5 |
| 2 1 | 6 42.15 | +10 44.8 | 2.017 | 2.895 | 10.6 | 19.7 |
| 2 11 | 6 37.65 | +12 1.4 | 2.092 | 2.891 | 13.5 | 19.9 |

**231018** 2005 $ER_{85}$ 1 5.5 311°.52 3°.1/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.20 | +11 57.3 | 2.131 | 2.939 | 12.9 | 19.9 |
| 12 13 | 7 20.29 | +12 8.4 | 2.048 | 2.936 | 9.9 | 19.7 |
| 12 23 | 7 13.40 | +12 30.8 | 1.989 | 2.932 | 6.6 | 19.5 |
| 1 2 | 7 5.17 | +13 3.6 | 1.957 | 2.929 | 3.6 | 19.3 |
| 1 12 | 6 56.51 | +13 45.0 | 1.955 | 2.925 | 3.8 | 19.3 |
| 1 22 | 6 48.38 | +14 32.0 | 1.982 | 2.922 | 6.9 | 19.5 |
| 2 1 | 6 41.68 | +15 21.7 | 2.037 | 2.919 | 10.3 | 19.7 |
| 2 11 | 6 37.10 | +16 11.4 | 2.115 | 2.916 | 13.3 | 19.9 |

**375120** 2007 $TU_{446}$ 1 5.5 108°.89 3°.9/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.64 | +33 18.1 | 2.455 | 3.271 | 11.2 | 20.7 |
| 12 13 | 7 23.49 | +34 13.7 | 2.390 | 3.283 | 8.5 | 20.6 |
| 12 23 | 7 15.26 | +35 5.1 | 2.351 | 3.294 | 5.8 | 20.4 |
| 1 2 | 7 5.65 | +35 47.4 | 2.341 | 3.306 | 4.0 | 20.3 |
| 1 12 | 6 55.68 | +36 17.0 | 2.362 | 3.317 | 4.8 | 20.4 |
| 1 22 | 6 46.39 | +36 32.6 | 2.411 | 3.328 | 7.3 | 20.6 |
| 2 1 | 6 38.73 | +36 35.0 | 2.488 | 3.338 | 9.9 | 20.7 |
| 2 11 | 6 33.35 | +36 26.9 | 2.588 | 3.349 | 12.3 | 20.9 |

**48440** 1989 $YO_{2}$ 1 5.5 29°.73 0°.6/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.01 | +18 6.8 | 1.098 | 1.952 | 19.4 | 17.8 |
| 12 13 | 7 24.52 | +18 51.6 | 1.043 | 1.960 | 14.4 | 17.6 |
| 12 23 | 7 16.49 | +19 50.1 | 1.009 | 1.969 | 8.7 | 17.3 |
| 1 2 | 7 6.04 | +20 56.8 | 0.997 | 1.979 | 2.4 | 16.9 |
| 1 12 | 6 54.98 | +22 4.2 | 1.011 | 1.989 | 4.1 | 17.1 |
| 1 22 | 6 45.21 | +23 5.8 | 1.050 | 2.001 | 10.0 | 17.5 |
| 2 1 | 6 38.34 | +23 57.8 | 1.111 | 2.013 | 15.3 | 17.8 |
| 2 11 | 6 35.27 | +24 39.3 | 1.192 | 2.025 | 19.6 | 18.1 |

**372979** 2011 $CB_{49}$ 1 5.5 228°.34 1°.3/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.47 | +26 45.7 | 2.189 | 3.011 | 12.2 | 21.1 |
| 12 13 | 7 24.21 | +26 45.3 | 2.104 | 3.004 | 9.1 | 20.9 |
| 12 23 | 7 15.74 | +26 43.2 | 2.043 | 2.998 | 5.5 | 20.7 |
| 1 2 | 7 5.79 | +26 36.9 | 2.012 | 2.992 | 1.8 | 20.4 |
| 1 12 | 6 55.43 | +26 24.7 | 2.010 | 2.985 | 3.0 | 20.5 |
| 1 22 | 6 45.77 | +26 6.3 | 2.038 | 2.978 | 6.8 | 20.7 |
| 2 1 | 6 37.80 | +25 42.9 | 2.094 | 2.970 | 10.4 | 20.9 |
| 2 11 | 6 32.23 | +25 16.5 | 2.174 | 2.963 | 13.4 | 21.1 |

**151050** 2001 $UW_{222}$ 1 5.5 276°.83 2°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.33 | +16 16.6 | 1.924 | 2.743 | 13.7 | 20.2 |
| 12 13 | 7 22.88 | +15 53.5 | 1.831 | 2.727 | 10.5 | 20.0 |
| 12 23 | 7 15.09 | +15 36.6 | 1.762 | 2.712 | 6.7 | 19.7 |
| 1 2 | 7 5.65 | +15 26.0 | 1.720 | 2.696 | 3.2 | 19.4 |
| 1 12 | 6 55.63 | +15 21.1 | 1.707 | 2.680 | 3.8 | 19.5 |
| 1 22 | 6 46.19 | +15 21.3 | 1.723 | 2.664 | 7.7 | 19.7 |
| 2 1 | 6 38.42 | +15 25.8 | 1.766 | 2.648 | 11.6 | 19.9 |
| 2 11 | 6 33.12 | +15 33.5 | 1.831 | 2.632 | 15.1 | 20.1 |

**392557** 2011 $SW_{67}$ 1 5.5 138°.60 1°.5/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.93 | +17 58.1 | 1.991 | 2.803 | 13.6 | 22.0 |
| 12 13 | 7 25.91 | +17 56.5 | 1.923 | 2.817 | 10.2 | 21.8 |
| 12 23 | 7 16.67 | +18 0.5 | 1.880 | 2.832 | 6.2 | 21.6 |
| 1 2 | 7 6.02 | +18 8.5 | 1.866 | 2.845 | 2.3 | 21.4 |
| 1 12 | 6 55.08 | +18 18.9 | 1.882 | 2.857 | 3.1 | 21.5 |
| 1 22 | 6 44.99 | +18 30.2 | 1.928 | 2.869 | 7.0 | 21.7 |
| 2 1 | 6 36.74 | +18 41.5 | 2.002 | 2.880 | 10.7 | 22.0 |
| 2 11 | 6 30.97 | +18 52.5 | 2.100 | 2.890 | 13.8 | 22.2 |

**422911** 2002 $RC_{244}$ 1 5.5 59°.44 3°.5/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.55 | +12 22.9 | 1.944 | 2.754 | 13.9 | 21.1 |
| 12 13 | 7 21.85 | +12 11.3 | 1.892 | 2.781 | 10.6 | 21.0 |
| 12 23 | 7 14.19 | +12 10.1 | 1.864 | 2.807 | 7.0 | 20.8 |
| 1 2 | 7 5.35 | +12 19.1 | 1.863 | 2.833 | 4.0 | 20.7 |
| 1 12 | 6 56.36 | +12 36.8 | 1.891 | 2.859 | 4.2 | 20.7 |
| 1 22 | 6 48.23 | +13 1.0 | 1.947 | 2.886 | 7.2 | 21.0 |
| 2 1 | 6 41.78 | +13 29.5 | 2.031 | 2.912 | 10.4 | 21.2 |
| 2 11 | 6 37.59 | +14 0.0 | 2.138 | 2.938 | 13.2 | 21.5 |

**428257** 2007 $BW_{72}$ 1 5.5 315°.46 13°.7/12.2 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.09 | − 9 26.7 | 1.038 | 1.809 | 25.9 | 20.7 |
| 12 13 | 7 25.80 | − 8 58.3 | 0.960 | 1.798 | 22.7 | 20.5 |
| 12 23 | 7 17.67 | − 7 35.4 | 0.896 | 1.787 | 18.9 | 20.2 |
| 1 2 | 7 6.50 | − 5 8.5 | 0.850 | 1.777 | 15.3 | 19.9 |
| 1 12 | 6 53.97 | − 1 38.7 | 0.827 | 1.767 | 13.6 | 19.8 |
| 1 22 | 6 42.17 | + 2 38.4 | 0.828 | 1.758 | 15.3 | 19.9 |
| 2 1 | 6 33.13 | + 7 17.4 | 0.855 | 1.750 | 19.3 | 20.1 |
| 2 11 | 6 28.27 | +11 51.9 | 0.903 | 1.742 | 23.8 | 20.3 |

**368401** 2002 $TP_{50}$ 1 5.5 33°.97 6°.2/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.32 | + 7 45.3 | 1.554 | 2.367 | 16.7 | 19.3 |
| 12 13 | 7 21.27 | + 7 9.7 | 1.511 | 2.394 | 13.1 | 19.2 |
| 12 23 | 7 13.95 | + 6 51.1 | 1.490 | 2.423 | 9.5 | 19.0 |
| 1 2 | 7 5.30 | + 6 50.9 | 1.494 | 2.452 | 6.6 | 18.9 |
| 1 12 | 6 56.52 | + 7 8.1 | 1.524 | 2.482 | 6.6 | 19.0 |
| 1 22 | 6 48.78 | + 7 39.5 | 1.580 | 2.512 | 9.1 | 19.2 |
| 2 1 | 6 43.02 | + 8 21.2 | 1.662 | 2.543 | 12.3 | 19.5 |
| 2 11 | 6 39.80 | + 9 8.2 | 1.765 | 2.575 | 15.2 | 19.7 |

**82814** 2001 $QQ_{36}$ 1 5.5 43°.90 1°.9/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.79 | +28 13.8 | 1.879 | 2.709 | 13.5 | 18.7 |
| 12 13 | 7 23.78 | +28 14.7 | 1.821 | 2.726 | 10.0 | 18.5 |
| 12 23 | 7 15.44 | +28 12.7 | 1.787 | 2.743 | 6.0 | 18.3 |
| 1 2 | 7 5.70 | +28 4.9 | 1.781 | 2.760 | 2.4 | 18.1 |
| 1 12 | 6 55.77 | +27 49.7 | 1.804 | 2.778 | 3.5 | 18.2 |
| 1 22 | 6 46.87 | +27 27.4 | 1.855 | 2.796 | 7.3 | 18.5 |
| 2 1 | 6 39.96 | +26 59.8 | 1.934 | 2.814 | 10.9 | 18.8 |
| 2 11 | 6 35.67 | +26 29.1 | 2.035 | 2.833 | 13.9 | 19.0 |

**455386** 2002 $VY_{123}$ 1 5.5 69°.96 2°.3/ 4.9 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.24 | +26 41.3 | 1.629 | 2.458 | 15.3 | 20.8 |
| 12 13 | 7 27.92 | +27 22.9 | 1.588 | 2.493 | 11.2 | 20.6 |
| 12 23 | 7 17.91 | +28 3.4 | 1.572 | 2.527 | 6.8 | 20.4 |
| 1 2 | 7 6.33 | +28 37.2 | 1.583 | 2.561 | 2.7 | 20.2 |
| 1 12 | 6 54.67 | +29 0.5 | 1.623 | 2.595 | 4.1 | 20.4 |
| 1 22 | 6 44.33 | +29 12.0 | 1.691 | 2.629 | 8.1 | 20.7 |
| 2 1 | 6 36.43 | +29 13.1 | 1.786 | 2.662 | 11.9 | 21.0 |
| 2 11 | 6 31.59 | +29 6.7 | 1.903 | 2.694 | 15.0 | 21.3 |

**294637** 2008 $AW_{51}$ 1 5.5 285°.25 0°.0/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.01 | +21 12.4 | 1.697 | 2.530 | 14.6 | 20.8 |
| 12 13 | 7 23.80 | +21 36.2 | 1.609 | 2.515 | 11.0 | 20.5 |
| 12 23 | 7 15.85 | +22 6.2 | 1.543 | 2.501 | 6.6 | 20.2 |
| 1 2 | 7 5.91 | +22 39.0 | 1.505 | 2.486 | 1.7 | 19.9 |
| 1 12 | 6 55.21 | +23 10.8 | 1.495 | 2.472 | 3.3 | 20.0 |
| 1 22 | 6 45.15 | +23 38.6 | 1.513 | 2.457 | 8.2 | 20.2 |
| 2 1 | 6 37.05 | +24 1.0 | 1.556 | 2.443 | 12.6 | 20.4 |
| 2 11 | 6 31.85 | +24 18.0 | 1.622 | 2.429 | 16.5 | 20.7 |

**274727** 2008 $UW_{182}$ 1 5.5 151°.50 0°.7/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.78 | +23 36.7 | 2.297 | 3.118 | 11.7 | 21.0 |
| 12 13 | 7 22.10 | +23 59.3 | 2.220 | 3.122 | 8.6 | 20.8 |
| 12 23 | 7 14.44 | +24 23.9 | 2.169 | 3.125 | 5.1 | 20.6 |
| 1 2 | 7 5.46 | +24 47.7 | 2.146 | 3.127 | 1.5 | 20.3 |
| 1 12 | 6 56.13 | +25 8.1 | 2.154 | 3.130 | 2.7 | 20.4 |
| 1 22 | 6 47.41 | +25 23.6 | 2.192 | 3.133 | 6.3 | 20.7 |
| 2 1 | 6 40.21 | +25 33.7 | 2.258 | 3.135 | 9.7 | 20.9 |
| 2 11 | 6 35.16 | +25 39.1 | 2.347 | 3.137 | 12.5 | 21.1 |

**422826** 2002 $CA_{112}$ 1 5.5 317°.57 19°.2/13.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.86 | −15 38.8 | 1.080 | 1.818 | 27.0 | 19.9 |
| 12 13 | 7 23.88 | −16 35.5 | 1.014 | 1.810 | 24.7 | 19.7 |
| 12 23 | 7 16.32 | −16 43.9 | 0.960 | 1.802 | 22.3 | 19.5 |
| 1 2 | 7 6.10 | −15 51.4 | 0.921 | 1.795 | 20.2 | 19.3 |
| 1 12 | 6 54.85 | −13 52.3 | 0.900 | 1.788 | 19.2 | 19.2 |
| 1 22 | 6 44.49 | −10 52.0 | 0.899 | 1.782 | 19.8 | 19.2 |
| 2 1 | 6 36.81 | − 7 6.4 | 0.917 | 1.776 | 21.8 | 19.3 |
| 2 11 | 6 32.99 | − 2 57.9 | 0.954 | 1.771 | 24.6 | 19.5 |

**84624** 2002 $VR_{45}$ 1 5.5 45°.71 2°.5/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.41 | +30 0.2 | 2.096 | 2.921 | 12.5 | 19.6 |
| 12 13 | 7 23.46 | +30 9.4 | 2.026 | 2.928 | 9.3 | 19.4 |
| 12 23 | 7 15.27 | +30 14.8 | 1.981 | 2.934 | 5.8 | 19.2 |
| 1 2 | 7 5.68 | +30 13.2 | 1.964 | 2.941 | 2.8 | 19.0 |
| 1 12 | 6 55.79 | +30 2.5 | 1.977 | 2.947 | 3.8 | 19.1 |
| 1 22 | 6 46.76 | +29 42.7 | 2.018 | 2.954 | 7.1 | 19.3 |
| 2 1 | 6 39.54 | +29 15.5 | 2.087 | 2.961 | 10.5 | 19.5 |
| 2 11 | 6 34.80 | +28 43.5 | 2.179 | 2.968 | 13.4 | 19.7 |

**143062** 2002 $WK_{11}$ 1 5.5 306°.31 4°.7/ 3.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.99 | +29 49.4 | 1.613 | 2.451 | 15.0 | 19.6 |
| 12 13 | 7 25.02 | +31 11.7 | 1.528 | 2.435 | 11.4 | 19.4 |
| 12 23 | 7 16.85 | +32 36.2 | 1.467 | 2.419 | 7.5 | 19.1 |
| 1 2 | 7 6.23 | +33 54.6 | 1.432 | 2.403 | 4.8 | 18.9 |
| 1 12 | 6 54.58 | +34 58.5 | 1.425 | 2.387 | 6.3 | 18.9 |
| 1 22 | 6 43.57 | +35 43.0 | 1.445 | 2.372 | 10.2 | 19.1 |
| 2 1 | 6 34.81 | +36 7.5 | 1.489 | 2.357 | 14.3 | 19.3 |
| 2 11 | 6 29.46 | +36 15.0 | 1.554 | 2.343 | 17.9 | 19.5 |

**494802** 2007 $BS_{17}$ 1 5.5 312°.85 0°.2/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.07 | +17 52.0 | 1.615 | 2.448 | 15.2 | 20.2 |
| 12 13 | 7 22.65 | +18 54.6 | 1.517 | 2.424 | 11.5 | 19.9 |
| 12 23 | 7 15.36 | +20 11.8 | 1.443 | 2.401 | 7.0 | 19.6 |
| 1 2 | 7 5.84 | +21 39.2 | 1.396 | 2.377 | 1.9 | 19.2 |
| 1 12 | 6 55.27 | +23 10.2 | 1.377 | 2.354 | 3.4 | 19.3 |
| 1 22 | 6 45.11 | +24 37.9 | 1.386 | 2.332 | 8.7 | 19.5 |
| 2 1 | 6 36.83 | +25 57.2 | 1.421 | 2.310 | 13.5 | 19.8 |
| 2 11 | 6 31.56 | +27 5.4 | 1.478 | 2.289 | 17.6 | 20.0 |

**242594** 2005 $JJ_{17}$ 1 5.5 251°.41 2°.6/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.88 | +28 32.1 | 2.395 | 3.217 | 11.3 | 20.6 |
| 12 13 | 7 22.34 | +29 21.6 | 2.309 | 3.209 | 8.4 | 20.4 |
| 12 23 | 7 14.69 | +30 10.9 | 2.249 | 3.201 | 5.3 | 20.2 |
| 1 2 | 7 5.58 | +30 55.9 | 2.218 | 3.193 | 2.8 | 20.0 |
| 1 12 | 6 55.94 | +31 32.8 | 2.217 | 3.185 | 3.8 | 20.1 |
| 1 22 | 6 46.80 | +31 59.2 | 2.246 | 3.176 | 6.9 | 20.3 |
| 2 1 | 6 39.15 | +32 14.8 | 2.303 | 3.168 | 10.0 | 20.5 |
| 2 11 | 6 33.70 | +32 21.1 | 2.383 | 3.159 | 12.8 | 20.6 |

**32450** 2000 $SH_{25}$ 1 5.5 82°.34 9°.3/ 9.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.96 | − 9 4.9 | 2.457 | 3.162 | 14.2 | 18.6 |
| 12 13 | 7 19.03 | − 9 36.8 | 2.390 | 3.172 | 12.5 | 18.4 |
| 12 23 | 7 12.50 | − 9 47.5 | 2.345 | 3.183 | 10.8 | 18.3 |
| 1 2 | 7 4.96 | − 9 34.3 | 2.322 | 3.193 | 9.6 | 18.3 |
| 1 12 | 6 57.16 | − 8 56.7 | 2.326 | 3.203 | 9.3 | 18.3 |
| 1 22 | 6 49.90 | − 7 57.1 | 2.355 | 3.214 | 10.0 | 18.3 |
| 2 1 | 6 43.87 | − 6 39.7 | 2.409 | 3.224 | 11.4 | 18.5 |
| 2 11 | 6 39.62 | − 5 10.3 | 2.487 | 3.234 | 13.0 | 18.6 |

**279860** 2001 $FU_{6}$ 1 5.5 226°.33 0°.7/ 5.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.36 | +23 13.0 | 1.924 | 2.742 | 13.7 | 23.2 |
| 12 13 | 7 27.54 | +23 37.2 | 1.830 | 2.729 | 10.3 | 22.9 |
| 12 23 | 7 18.01 | +24 4.6 | 1.759 | 2.714 | 6.2 | 22.7 |
| 1 2 | 7 6.50 | +24 31.5 | 1.718 | 2.699 | 1.7 | 22.3 |
| 1 12 | 6 54.23 | +24 54.3 | 1.707 | 2.682 | 3.3 | 22.4 |
| 1 22 | 6 42.56 | +25 10.6 | 1.725 | 2.665 | 7.8 | 22.7 |
| 2 1 | 6 32.79 | +25 19.9 | 1.771 | 2.646 | 12.0 | 22.9 |
| 2 11 | 6 25.83 | +25 23.6 | 1.840 | 2.627 | 15.6 | 23.1 |

**33343** Madorobin 1 5.5 281°.49 1°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.53 | +16 43.4 | 1.491 | 2.324 | 16.3 | 19.1 |
| 12 13 | 7 24.40 | +17 9.9 | 1.411 | 2.315 | 12.3 | 18.8 |
| 12 23 | 7 16.31 | +17 48.4 | 1.352 | 2.307 | 7.6 | 18.5 |
| 1 2 | 7 6.07 | +18 36.2 | 1.319 | 2.299 | 2.7 | 18.2 |
| 1 12 | 6 55.04 | +19 28.8 | 1.314 | 2.291 | 3.7 | 18.2 |
| 1 22 | 6 44.75 | +20 21.7 | 1.336 | 2.283 | 8.8 | 18.5 |
| 2 1 | 6 36.64 | +21 11.2 | 1.383 | 2.275 | 13.6 | 18.8 |
| 2 11 | 6 31.69 | +21 55.6 | 1.451 | 2.267 | 17.6 | 19.0 |

**325104** 2008 $EZ_{15}$ 1 5.5 48°.74 8°.1/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.50 | +40 30.6 | 1.555 | 2.378 | 16.2 | 20.1 |
| 12 13 | 7 29.01 | +41 38.0 | 1.505 | 2.392 | 12.9 | 19.9 |
| 12 23 | 7 19.01 | +42 32.2 | 1.477 | 2.406 | 9.9 | 19.8 |
| 1 2 | 7 6.72 | +43 3.9 | 1.474 | 2.420 | 8.2 | 19.7 |
| 1 12 | 6 54.02 | +43 7.8 | 1.497 | 2.435 | 8.9 | 19.8 |
| 1 22 | 6 42.81 | +42 44.5 | 1.546 | 2.450 | 11.5 | 20.0 |
| 2 1 | 6 34.59 | +41 59.3 | 1.618 | 2.465 | 14.5 | 20.2 |
| 2 11 | 6 30.15 | +41 0.0 | 1.710 | 2.480 | 17.2 | 20.4 |

**503954** 2004 $EL_{27}$ 1 5.5 154°.66 3°.6/ 4.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.84 | +36 12.0 | 2.903 | 3.707 | 10.0 | 22.4 |
| 12 13 | 7 24.05 | +36 28.0 | 2.829 | 3.713 | 7.7 | 22.3 |
| 12 23 | 7 15.45 | +36 37.3 | 2.781 | 3.719 | 5.3 | 22.1 |
| 1 2 | 7 5.73 | +36 36.6 | 2.763 | 3.724 | 3.7 | 22.0 |
| 1 12 | 6 55.79 | +36 24.3 | 2.776 | 3.729 | 4.3 | 22.1 |
| 1 22 | 6 46.55 | +36 0.3 | 2.819 | 3.734 | 6.4 | 22.2 |
| 2 1 | 6 38.79 | +35 26.7 | 2.890 | 3.739 | 8.7 | 22.4 |
| 2 11 | 6 33.07 | +34 46.1 | 2.986 | 3.743 | 10.9 | 22.5 |

**22956** 1999 $TK_{253}$ 1 5.5 168°.70 0°.6/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.60 | +19 21.1 | 1.729 | 2.550 | 14.9 | 19.5 |
| 12 13 | 7 26.94 | +19 47.3 | 1.654 | 2.554 | 11.1 | 19.2 |
| 12 23 | 7 17.57 | +20 20.6 | 1.604 | 2.558 | 6.7 | 19.0 |
| 1 2 | 7 6.35 | +20 57.6 | 1.581 | 2.562 | 1.9 | 18.7 |
| 1 12 | 6 54.59 | +21 34.3 | 1.587 | 2.564 | 3.2 | 18.8 |
| 1 22 | 6 43.67 | +22 7.8 | 1.623 | 2.566 | 7.9 | 19.1 |
| 2 1 | 6 34.83 | +22 36.4 | 1.686 | 2.567 | 12.2 | 19.3 |
| 2 11 | 6 28.90 | +23 0.1 | 1.771 | 2.567 | 15.7 | 19.5 |

**91528** 1999 $RV_{191}$ 1 5.5 274°.33 12°.1/ 2.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 46.38 | +56 56.8 | 2.067 | 2.811 | 15.4 | 19.1 |
| 12 13 | 7 37.72 | +58 9.9 | 2.002 | 2.803 | 13.9 | 18.9 |
| 12 23 | 7 24.54 | +59 1.4 | 1.957 | 2.795 | 12.6 | 18.8 |
| 1 2 | 7 8.23 | +59 20.5 | 1.935 | 2.788 | 12.1 | 18.8 |
| 1 12 | 6 51.20 | +59 1.2 | 1.937 | 2.780 | 12.5 | 18.8 |
| 1 22 | 6 36.02 | +58 4.4 | 1.962 | 2.772 | 13.8 | 18.9 |
| 2 1 | 6 24.66 | +56 37.1 | 2.009 | 2.764 | 15.4 | 19.0 |
| 2 11 | 6 18.06 | +54 49.7 | 2.074 | 2.756 | 17.2 | 19.1 |

**148221** 2000 $DO_{51}$ 1 5.5 309°.11 2°.3/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.01 | +16 21.6 | 1.523 | 2.358 | 15.9 | 20.1 |
| 12 13 | 7 22.60 | +16 27.6 | 1.430 | 2.336 | 12.1 | 19.8 |
| 12 23 | 7 15.30 | +16 44.5 | 1.359 | 2.314 | 7.7 | 19.5 |
| 1 2 | 7 5.83 | +17 11.2 | 1.313 | 2.292 | 3.1 | 19.2 |
| 1 12 | 6 55.45 | +17 45.0 | 1.294 | 2.271 | 4.0 | 19.2 |
| 1 22 | 6 45.63 | +18 22.6 | 1.302 | 2.250 | 8.9 | 19.4 |
| 2 1 | 6 37.83 | +19 1.0 | 1.335 | 2.229 | 13.8 | 19.7 |
| 2 11 | 6 33.08 | +19 37.9 | 1.389 | 2.209 | 18.0 | 19.9 |

**203638** 2002 $GL_{45}$ 1 5.5 291°.45 1°.0/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.47 | +23 56.9 | 1.525 | 2.364 | 15.7 | 20.3 |
| 12 13 | 7 25.20 | +24 14.2 | 1.439 | 2.349 | 11.7 | 20.1 |
| 12 23 | 7 16.84 | +24 34.7 | 1.376 | 2.334 | 7.1 | 19.8 |
| 1 2 | 7 6.22 | +24 54.5 | 1.339 | 2.320 | 2.0 | 19.4 |
| 1 12 | 6 54.77 | +25 9.5 | 1.329 | 2.305 | 3.8 | 19.5 |
| 1 22 | 6 44.11 | +25 17.5 | 1.346 | 2.291 | 9.0 | 19.8 |
| 2 1 | 6 35.72 | +25 18.5 | 1.388 | 2.277 | 13.7 | 20.0 |
| 2 11 | 6 30.62 | +25 14.0 | 1.451 | 2.263 | 17.8 | 20.2 |

**78388** 2002 $PT_{156}$ 1 5.5 18°.07 0°.6/ 5.6 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.31 | +20 30.7 | 1.695 | 2.532 | 14.5 | 19.5 |
| 12 13 | 7 21.52 | +20 38.1 | 1.629 | 2.537 | 10.7 | 19.3 |
| 12 23 | 7 14.29 | +20 50.6 | 1.585 | 2.543 | 6.4 | 19.0 |
| 1 2 | 7 5.47 | +21 6.0 | 1.568 | 2.549 | 1.8 | 18.7 |
| 1 12 | 6 56.27 | +21 21.9 | 1.579 | 2.557 | 3.1 | 18.8 |
| 1 22 | 6 47.92 | +21 36.3 | 1.618 | 2.564 | 7.6 | 19.1 |
| 2 1 | 6 41.50 | +21 48.2 | 1.682 | 2.573 | 11.6 | 19.4 |
| 2 11 | 6 37.73 | +21 57.5 | 1.769 | 2.582 | 15.0 | 19.6 |

**375666** 2009 $EU_{3}$ 1 5.5 68°.60 18°.3/13.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.37 | −15 51.3 | 1.224 | 1.944 | 25.2 | 20.3 |
| 12 13 | 7 24.41 | −17 9.3 | 1.172 | 1.951 | 23.0 | 20.2 |
| 12 23 | 7 16.30 | −17 44.1 | 1.134 | 1.958 | 20.8 | 20.1 |
| 1 2 | 7 6.05 | −17 26.0 | 1.112 | 1.965 | 19.0 | 20.0 |
| 1 12 | 6 55.23 | −16 11.7 | 1.108 | 1.972 | 18.3 | 19.9 |
| 1 22 | 6 45.49 | −14 6.4 | 1.124 | 1.980 | 18.8 | 20.0 |
| 2 1 | 6 38.26 | −11 22.4 | 1.160 | 1.987 | 20.3 | 20.1 |
| 2 11 | 6 34.45 | − 8 16.2 | 1.214 | 1.995 | 22.3 | 20.3 |

**180229** 2003 $UZ_{143}$ 1 5.5 56°.25 4°.2/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.32 | +29 18.4 | 1.123 | 1.975 | 19.2 | 20.1 |
| 12 13 | 7 29.29 | +30 1.7 | 1.075 | 1.989 | 14.3 | 19.9 |
| 12 23 | 7 19.33 | +30 42.0 | 1.047 | 2.004 | 9.0 | 19.6 |
| 1 2 | 7 6.83 | +31 11.0 | 1.042 | 2.019 | 4.5 | 19.4 |
| 1 12 | 6 53.91 | +31 22.6 | 1.063 | 2.034 | 6.0 | 19.5 |
| 1 22 | 6 42.71 | +31 16.0 | 1.109 | 2.050 | 11.0 | 19.9 |
| 2 1 | 6 34.87 | +30 54.8 | 1.177 | 2.065 | 15.7 | 20.2 |
| 2 11 | 6 31.20 | +30 24.6 | 1.264 | 2.081 | 19.6 | 20.5 |

**105608** 2000 $RY_{96}$ 1 5.5 98°.38 5°.4/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | + 8 7.7 | 2.125 | 2.912 | 13.7 | 19.4 |
| 12 13 | 7 23.52 | + 7 18.0 | 2.066 | 2.935 | 10.8 | 19.3 |
| 12 23 | 7 15.15 | + 6 39.8 | 2.032 | 2.957 | 7.8 | 19.1 |
| 1 2 | 7 5.66 | + 6 15.0 | 2.025 | 2.978 | 5.7 | 19.1 |
| 1 12 | 6 56.02 | + 6 3.9 | 2.048 | 3.000 | 5.8 | 19.1 |
| 1 22 | 6 47.17 | + 6 5.8 | 2.100 | 3.020 | 7.9 | 19.3 |
| 2 1 | 6 39.93 | + 6 18.5 | 2.179 | 3.041 | 10.7 | 19.5 |
| 2 11 | 6 34.83 | + 6 39.2 | 2.282 | 3.061 | 13.2 | 19.7 |

**127598** 2003 $BH_{16}$ 1 5.5 307°.63 2°.2/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.46 | +25 13.7 | 1.329 | 2.176 | 17.0 | 20.3 |
| 12 13 | 7 25.63 | +25 51.1 | 1.249 | 2.163 | 12.8 | 20.0 |
| 12 23 | 7 17.31 | +26 32.5 | 1.192 | 2.151 | 7.8 | 19.7 |
| 1 2 | 7 6.39 | +27 11.9 | 1.158 | 2.139 | 2.8 | 19.4 |
| 1 12 | 6 54.52 | +27 43.3 | 1.152 | 2.127 | 4.6 | 19.4 |
| 1 22 | 6 43.55 | +28 3.1 | 1.170 | 2.115 | 10.1 | 19.7 |
| 2 1 | 6 35.19 | +28 10.9 | 1.213 | 2.104 | 15.1 | 20.0 |
| 2 11 | 6 30.58 | +28 9.1 | 1.275 | 2.093 | 19.4 | 20.2 |

**200918** 2002 $AS_{104}$ 1 5.5 334.°48 0.°9/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.99 | +24 8.7 | 1.411 | 2.254 | 16.5 | 20.1 |
| 12 13 | 7 25.60 | +24 19.5 | 1.338 | 2.250 | 12.3 | 19.8 |
| 12 23 | 7 17.04 | +24 32.6 | 1.288 | 2.247 | 7.4 | 19.5 |
| 1 2 | 7 6.27 | +24 44.2 | 1.262 | 2.244 | 2.1 | 19.2 |
| 1 12 | 6 54.85 | +24 50.8 | 1.264 | 2.241 | 3.8 | 19.3 |
| 1 22 | 6 44.47 | +24 50.6 | 1.292 | 2.239 | 9.1 | 19.6 |
| 2 1 | 6 36.57 | +24 44.4 | 1.345 | 2.236 | 13.9 | 19.9 |
| 2 11 | 6 32.09 | +24 33.9 | 1.418 | 2.235 | 17.9 | 20.1 |

**522417** 2016 $CH_{312}$ 1 5.5 54.°76 3.°3/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.04 | +13 20.4 | 1.940 | 2.754 | 13.8 | 21.6 |
| 12 13 | 7 21.77 | +13 6.6 | 1.864 | 2.756 | 10.6 | 21.4 |
| 12 23 | 7 14.34 | +13 2.4 | 1.812 | 2.757 | 7.0 | 21.2 |
| 1 2 | 7 5.50 | +13 7.7 | 1.787 | 2.759 | 3.8 | 21.0 |
| 1 12 | 6 56.27 | +13 21.6 | 1.791 | 2.761 | 4.2 | 21.0 |
| 1 22 | 6 47.71 | +13 42.2 | 1.823 | 2.763 | 7.5 | 21.3 |
| 2 1 | 6 40.79 | +14 7.5 | 1.882 | 2.765 | 11.0 | 21.5 |
| 2 11 | 6 36.21 | +14 35.3 | 1.964 | 2.767 | 14.2 | 21.7 |

**298799** 2004 $QC_{19}$ 1 5.5 116.°49 1.°6/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.27 | +17 47.5 | 1.757 | 2.575 | 14.9 | 21.5 |
| 12 13 | 7 26.39 | +17 49.4 | 1.696 | 2.593 | 11.1 | 21.3 |
| 12 23 | 7 17.07 | +17 58.2 | 1.659 | 2.611 | 6.8 | 21.1 |
| 1 2 | 7 6.20 | +18 11.8 | 1.649 | 2.629 | 2.5 | 20.9 |
| 1 12 | 6 55.06 | +18 28.1 | 1.670 | 2.645 | 3.3 | 21.0 |
| 1 22 | 6 44.91 | +18 45.1 | 1.719 | 2.661 | 7.6 | 21.2 |
| 2 1 | 6 36.82 | +19 1.7 | 1.795 | 2.677 | 11.5 | 21.5 |
| 2 11 | 6 31.48 | +19 17.2 | 1.894 | 2.691 | 14.8 | 21.8 |

**138716** 2000 $SU_{130}$ 1 5.5 200.°69 2.°0/ 6.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.91 | +15 37.2 | 3.013 | 3.812 | 9.8 | 20.1 |
| 12 13 | 7 20.27 | +15 15.8 | 2.923 | 3.809 | 7.4 | 20.0 |
| 12 23 | 7 13.19 | +14 58.6 | 2.860 | 3.804 | 4.8 | 19.8 |
| 1 2 | 7 5.17 | +14 45.6 | 2.826 | 3.800 | 2.4 | 19.6 |
| 1 12 | 6 56.89 | +14 36.7 | 2.824 | 3.795 | 2.8 | 19.6 |
| 1 22 | 6 49.04 | +14 31.4 | 2.854 | 3.790 | 5.3 | 19.8 |
| 2 1 | 6 42.25 | +14 29.4 | 2.912 | 3.784 | 7.9 | 20.0 |
| 2 11 | 6 37.02 | +14 29.9 | 2.996 | 3.778 | 10.3 | 20.1 |

**40944** 1999 $TJ_{216}$ 1 5.5 145.°27 0.°2/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.27 | +22 4.2 | 2.164 | 2.986 | 12.3 | 19.4 |
| 12 13 | 7 22.57 | +22 25.4 | 2.088 | 2.990 | 9.1 | 19.2 |
| 12 23 | 7 14.79 | +22 49.9 | 2.038 | 2.993 | 5.4 | 19.0 |
| 1 2 | 7 5.62 | +23 14.9 | 2.015 | 2.997 | 1.4 | 18.7 |
| 1 12 | 6 56.07 | +23 37.9 | 2.023 | 3.000 | 2.7 | 18.8 |
| 1 22 | 6 47.18 | +23 57.1 | 2.061 | 3.003 | 6.6 | 19.1 |
| 2 1 | 6 39.88 | +24 11.6 | 2.126 | 3.006 | 10.1 | 19.3 |
| 2 11 | 6 34.85 | +24 21.8 | 2.216 | 3.009 | 13.1 | 19.5 |

**454135** 2013 $CN_{192}$ 1 5.5 290.°10 0.°5/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.10 | +20 56.2 | 1.500 | 2.338 | 16.0 | 21.6 |
| 12 13 | 7 24.91 | +21 2.5 | 1.415 | 2.324 | 12.0 | 21.3 |
| 12 23 | 7 16.67 | +21 14.4 | 1.352 | 2.310 | 7.3 | 21.0 |
| 1 2 | 7 6.20 | +21 29.4 | 1.315 | 2.296 | 2.0 | 20.6 |
| 1 12 | 6 54.93 | +21 44.3 | 1.304 | 2.282 | 3.6 | 20.7 |
| 1 22 | 6 44.42 | +21 56.8 | 1.321 | 2.268 | 8.9 | 21.0 |
| 2 1 | 6 36.15 | +22 6.1 | 1.363 | 2.255 | 13.7 | 21.2 |
| 2 11 | 6 31.11 | +22 12.5 | 1.426 | 2.241 | 17.9 | 21.5 |

**4658** Gavrilov 1 5.5 76.°57 0.°4/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.59 | +20 35.9 | 2.251 | 3.070 | 12.0 | 17.8 |
| 12 13 | 7 21.82 | +20 46.8 | 2.191 | 3.090 | 8.8 | 17.7 |
| 12 23 | 7 14.20 | +21 1.2 | 2.156 | 3.110 | 5.2 | 17.5 |
| 1 2 | 7 5.44 | +21 17.2 | 2.149 | 3.130 | 1.5 | 17.2 |
| 1 12 | 6 56.49 | +21 32.8 | 2.173 | 3.150 | 2.5 | 17.3 |
| 1 22 | 6 48.26 | +21 46.6 | 2.227 | 3.170 | 6.1 | 17.6 |
| 2 1 | 6 41.57 | +21 57.9 | 2.309 | 3.189 | 9.3 | 17.9 |
| 2 11 | 6 36.98 | +22 6.8 | 2.415 | 3.209 | 12.1 | 18.1 |

**47284** 1999 $VO_{173}$ 1 5.5 298.°50 1.°7/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.48 | +26 2.0 | 1.567 | 2.406 | 15.3 | 19.1 |
| 12 13 | 7 25.19 | +26 17.5 | 1.481 | 2.390 | 11.5 | 18.9 |
| 12 23 | 7 16.83 | +26 33.8 | 1.417 | 2.374 | 7.0 | 18.6 |
| 1 2 | 7 6.25 | +26 46.4 | 1.379 | 2.359 | 2.4 | 18.2 |
| 1 12 | 6 54.88 | +26 51.7 | 1.368 | 2.344 | 4.0 | 18.3 |
| 1 22 | 6 44.30 | +26 48.0 | 1.385 | 2.329 | 8.9 | 18.5 |
| 2 1 | 6 35.97 | +26 36.1 | 1.427 | 2.314 | 13.6 | 18.8 |
| 2 11 | 6 30.90 | +26 18.4 | 1.490 | 2.299 | 17.5 | 19.0 |

**493648** 2015 $RX_{16}$ 1 5.5 67.°57 0.°2/ 5.5 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.41 | +23 10.8 | 1.321 | 2.162 | 17.6 | 22.1 |
| 12 13 | 7 27.85 | +23 8.9 | 1.271 | 2.181 | 12.9 | 21.9 |
| 12 23 | 7 18.15 | +23 9.5 | 1.242 | 2.200 | 7.7 | 21.6 |
| 1 2 | 7 6.51 | +23 9.2 | 1.238 | 2.220 | 2.0 | 21.3 |
| 1 12 | 6 54.64 | +23 5.6 | 1.262 | 2.240 | 3.7 | 21.5 |
| 1 22 | 6 44.23 | +22 58.0 | 1.313 | 2.259 | 9.0 | 21.9 |
| 2 1 | 6 36.56 | +22 47.4 | 1.388 | 2.279 | 13.6 | 22.2 |
| 2 11 | 6 32.34 | +22 35.4 | 1.484 | 2.298 | 17.3 | 22.5 |

**34080** Clarakeng 1 5.5 133.°10 1.°2/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.17 | +24 59.2 | 2.042 | 2.866 | 12.8 | 19.8 |
| 12 13 | 7 24.08 | +25 23.0 | 1.970 | 2.873 | 9.5 | 19.6 |
| 12 23 | 7 15.73 | +25 47.9 | 1.924 | 2.880 | 5.7 | 19.4 |
| 1 2 | 7 5.89 | +26 10.4 | 1.905 | 2.886 | 1.8 | 19.1 |
| 1 12 | 6 55.67 | +26 27.4 | 1.917 | 2.892 | 3.1 | 19.2 |
| 1 22 | 6 46.21 | +26 37.7 | 1.958 | 2.898 | 7.0 | 19.5 |
| 2 1 | 6 38.55 | +26 41.1 | 2.026 | 2.903 | 10.6 | 19.7 |
| 2 11 | 6 33.36 | +26 39.1 | 2.117 | 2.908 | 13.7 | 19.9 |

**246125** 2007 $JO_{42}$ 1 5.5 197.°74 7.°0/ 8.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.42 | + 1 30.2 | 1.301 | 2.091 | 20.6 | 20.0 |
| 12 13 | 7 28.34 | + 2 28.0 | 1.222 | 2.090 | 16.7 | 19.7 |
| 12 23 | 7 18.86 | + 4 1.3 | 1.162 | 2.088 | 12.3 | 19.5 |
| 1 2 | 7 6.84 | + 6 9.9 | 1.127 | 2.086 | 8.2 | 19.2 |
| 1 12 | 6 53.80 | + 8 46.7 | 1.120 | 2.083 | 7.4 | 19.2 |
| 1 22 | 6 41.56 | +11 38.6 | 1.141 | 2.081 | 10.9 | 19.4 |
| 2 1 | 6 31.77 | +14 31.6 | 1.189 | 2.077 | 15.6 | 19.6 |
| 2 11 | 6 25.58 | +17 14.3 | 1.260 | 2.073 | 19.9 | 19.9 |

**64175** 2001 $TT_{61}$ 1 5.5 297.°99 2.°6/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.05 | +27 52.3 | 1.761 | 2.595 | 14.1 | 19.3 |
| 12 13 | 7 24.54 | +28 22.5 | 1.681 | 2.587 | 10.6 | 19.1 |
| 12 23 | 7 16.28 | +28 52.1 | 1.624 | 2.579 | 6.6 | 18.8 |
| 1 2 | 7 6.10 | +29 16.6 | 1.593 | 2.571 | 2.9 | 18.6 |
| 1 12 | 6 55.29 | +29 31.6 | 1.592 | 2.564 | 4.2 | 18.6 |
| 1 22 | 6 45.27 | +29 35.6 | 1.618 | 2.556 | 8.4 | 18.9 |
| 2 1 | 6 37.31 | +29 29.2 | 1.670 | 2.549 | 12.4 | 19.1 |
| 2 11 | 6 32.30 | +29 14.8 | 1.743 | 2.542 | 15.8 | 19.3 |

**311049** 2004 $BU_{141}$ 1 5.5 58.°63 1.°9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.19 | +16 53.2 | 1.564 | 2.394 | 15.8 | 21.2 |
| 12 13 | 7 23.76 | +17 3.8 | 1.501 | 2.404 | 11.8 | 21.0 |
| 12 23 | 7 15.70 | +17 23.8 | 1.460 | 2.414 | 7.3 | 20.8 |
| 1 2 | 7 5.91 | +17 51.2 | 1.445 | 2.425 | 2.8 | 20.5 |
| 1 12 | 6 55.71 | +18 22.8 | 1.459 | 2.435 | 3.6 | 20.6 |
| 1 22 | 6 46.45 | +18 55.5 | 1.500 | 2.446 | 8.1 | 20.9 |
| 2 1 | 6 39.31 | +19 27.2 | 1.566 | 2.456 | 12.3 | 21.2 |
| 2 11 | 6 35.05 | +19 56.2 | 1.654 | 2.467 | 15.9 | 21.4 |

**83832** 2001 $UQ_{23}$ 1 5.5 10.°53 6.°7/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.59 | + 5 12.2 | 2.122 | 2.908 | 13.8 | 18.8 |
| 12 13 | 7 20.49 | + 4 6.2 | 2.048 | 2.909 | 11.2 | 18.7 |
| 12 23 | 7 13.51 | + 3 12.8 | 1.997 | 2.910 | 8.7 | 18.5 |
| 1 2 | 7 5.31 | + 2 34.9 | 1.972 | 2.912 | 6.9 | 18.4 |
| 1 12 | 6 56.78 | + 2 14.2 | 1.975 | 2.914 | 7.0 | 18.4 |
| 1 22 | 6 48.86 | + 2 10.6 | 2.006 | 2.916 | 8.9 | 18.5 |
| 2 1 | 6 42.37 | + 2 22.0 | 2.062 | 2.919 | 11.4 | 18.7 |
| 2 11 | 6 37.93 | + 2 45.0 | 2.141 | 2.921 | 13.9 | 18.9 |

**282079** 2000 $HS_{33}$ 1 5.5 290.°14 5.°8/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.44 | + 6 44.0 | 2.185 | 2.975 | 13.3 | 20.0 |
| 12 13 | 7 20.46 | + 5 58.3 | 2.095 | 2.963 | 10.7 | 19.8 |
| 12 23 | 7 13.56 | + 5 24.1 | 2.029 | 2.951 | 8.1 | 19.7 |
| 1 2 | 7 5.34 | + 5 3.7 | 1.990 | 2.939 | 6.1 | 19.5 |
| 1 12 | 6 56.68 | + 4 58.1 | 1.979 | 2.927 | 6.2 | 19.5 |
| 1 22 | 6 48.50 | + 5 6.8 | 1.996 | 2.915 | 8.3 | 19.6 |
| 2 1 | 6 41.67 | + 5 27.8 | 2.039 | 2.903 | 11.1 | 19.8 |
| 2 11 | 6 36.88 | + 5 58.1 | 2.105 | 2.892 | 13.9 | 19.9 |

**125934** 2001 $XP_{239}$ 1 5.5 312.°43 1.°4/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.75 | +25 21.5 | 1.290 | 2.141 | 17.3 | 19.1 |
| 12 13 | 7 25.38 | +25 27.0 | 1.197 | 2.112 | 13.1 | 18.8 |
| 12 23 | 7 17.36 | +25 33.6 | 1.124 | 2.084 | 8.0 | 18.4 |
| 1 2 | 7 6.51 | +25 37.2 | 1.076 | 2.057 | 2.5 | 18.0 |
| 1 12 | 6 54.42 | +25 33.6 | 1.053 | 2.030 | 4.4 | 18.0 |
| 1 22 | 6 43.06 | +25 21.1 | 1.055 | 2.003 | 10.4 | 18.3 |
| 2 1 | 6 34.31 | +25 0.9 | 1.080 | 1.978 | 16.0 | 18.5 |
| 2 11 | 6 29.45 | +24 35.9 | 1.124 | 1.953 | 20.8 | 18.7 |

**143080** 2002 $XQ_{3}$ 1 5.5 72.°22 3.°4/ 4.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.56 | +30 39.8 | 1.647 | 2.474 | 15.3 | 20.5 |
| 12 13 | 7 28.97 | +31 7.8 | 1.604 | 2.505 | 11.4 | 20.3 |
| 12 23 | 7 18.60 | +31 30.4 | 1.585 | 2.537 | 7.1 | 20.1 |
| 1 2 | 7 6.63 | +31 42.5 | 1.593 | 2.568 | 3.7 | 20.0 |
| 1 12 | 6 54.60 | +31 40.9 | 1.630 | 2.599 | 4.8 | 20.1 |
| 1 22 | 6 43.99 | +31 26.2 | 1.695 | 2.629 | 8.5 | 20.4 |
| 2 1 | 6 35.92 | +31 1.2 | 1.787 | 2.659 | 12.1 | 20.7 |
| 2 11 | 6 31.00 | +30 30.0 | 1.900 | 2.688 | 15.1 | 21.0 |

**522139** 2016 $AJ_{247}$ 1 5.5 134.°57 1.°2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.05 | +25 11.0 | 1.724 | 2.556 | 14.5 | 21.2 |
| 12 13 | 7 25.15 | +25 21.3 | 1.650 | 2.556 | 10.8 | 21.0 |
| 12 23 | 7 16.56 | +25 32.3 | 1.599 | 2.556 | 6.5 | 20.7 |
| 1 2 | 7 6.18 | +25 40.4 | 1.575 | 2.556 | 2.0 | 20.5 |
| 1 12 | 6 55.31 | +25 42.9 | 1.580 | 2.556 | 3.4 | 20.6 |
| 1 22 | 6 45.35 | +25 38.7 | 1.613 | 2.556 | 8.0 | 20.8 |
| 2 1 | 6 37.48 | +25 28.6 | 1.673 | 2.556 | 12.1 | 21.1 |
| 2 11 | 6 32.52 | +25 14.4 | 1.754 | 2.556 | 15.6 | 21.3 |

**96676** 1999 $JL_{40}$ 1 5.5 108°.68 0°.5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.96 | +20 11.0 | 1.756 | 2.579 | 14.7 | 19.2 |
| 12 13 | 7 26.25 | +20 28.3 | 1.697 | 2.598 | 10.9 | 19.0 |
| 12 23 | 7 17.05 | +20 50.8 | 1.661 | 2.616 | 6.5 | 18.8 |
| 1 2 | 7 6.28 | +21 15.5 | 1.653 | 2.634 | 1.8 | 18.5 |
| 1 12 | 6 55.22 | +21 39.2 | 1.674 | 2.651 | 3.0 | 18.6 |
| 1 22 | 6 45.15 | +21 59.9 | 1.725 | 2.668 | 7.5 | 19.0 |
| 2 1 | 6 37.16 | +22 16.7 | 1.802 | 2.684 | 11.4 | 19.2 |
| 2 11 | 6 31.93 | +22 29.8 | 1.902 | 2.700 | 14.7 | 19.5 |

**82557** 2001 $OO_{75}$ 1 5.5 80°.07 4°.1/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.26 | +33 53.4 | 2.236 | 3.055 | 12.0 | 19.7 |
| 12 13 | 7 24.13 | +34 36.6 | 2.174 | 3.068 | 9.2 | 19.5 |
| 12 23 | 7 15.75 | +35 14.4 | 2.137 | 3.080 | 6.2 | 19.4 |
| 1 2 | 7 5.94 | +35 42.0 | 2.128 | 3.093 | 4.2 | 19.3 |
| 1 12 | 6 55.81 | +35 56.0 | 2.148 | 3.105 | 5.0 | 19.3 |
| 1 22 | 6 46.50 | +35 55.7 | 2.197 | 3.118 | 7.6 | 19.5 |
| 2 1 | 6 39.00 | +35 42.7 | 2.273 | 3.130 | 10.5 | 19.7 |
| 2 11 | 6 33.97 | +35 20.0 | 2.372 | 3.142 | 13.0 | 19.9 |

**327970** 2007 $FD_{7}$ 1 5.5 60°.63 3°.3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.16 | +13 9.4 | 1.922 | 2.736 | 13.9 | 21.4 |
| 12 13 | 7 21.91 | +13 1.7 | 1.846 | 2.737 | 10.7 | 21.2 |
| 12 23 | 7 14.49 | +13 4.2 | 1.793 | 2.739 | 7.0 | 21.0 |
| 1 2 | 7 5.63 | +13 16.6 | 1.768 | 2.740 | 3.8 | 20.8 |
| 1 12 | 6 56.35 | +13 37.6 | 1.771 | 2.741 | 4.1 | 20.8 |
| 1 22 | 6 47.74 | +14 4.9 | 1.802 | 2.743 | 7.5 | 21.0 |
| 2 1 | 6 40.78 | +14 36.3 | 1.861 | 2.744 | 11.1 | 21.2 |
| 2 11 | 6 36.17 | +15 9.5 | 1.942 | 2.746 | 14.2 | 21.4 |

**427186** 2014 $VA_{12}$ 1 5.5 71°.24 3°.7/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.77 | +12 48.2 | 1.822 | 2.633 | 14.7 | 21.2 |
| 12 13 | 7 23.64 | +12 27.3 | 1.770 | 2.659 | 11.2 | 21.1 |
| 12 23 | 7 15.37 | +12 16.8 | 1.741 | 2.684 | 7.4 | 20.9 |
| 1 2 | 7 5.83 | +12 16.8 | 1.739 | 2.709 | 4.2 | 20.7 |
| 1 12 | 6 56.13 | +12 26.0 | 1.765 | 2.734 | 4.5 | 20.8 |
| 1 22 | 6 47.37 | +12 42.8 | 1.821 | 2.759 | 7.6 | 21.1 |
| 2 1 | 6 40.46 | +13 4.8 | 1.903 | 2.783 | 11.0 | 21.3 |
| 2 11 | 6 35.99 | +13 29.9 | 2.008 | 2.807 | 14.0 | 21.6 |

**41431** 2000 $GY_{6}$ 1 5.5 110°.74 0°.6/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.90 | +22 56.7 | 1.652 | 2.478 | 15.3 | 19.6 |
| 12 13 | 7 27.84 | +23 17.4 | 1.594 | 2.497 | 11.3 | 19.4 |
| 12 23 | 7 18.06 | +23 40.9 | 1.560 | 2.516 | 6.7 | 19.2 |
| 1 2 | 7 6.57 | +24 3.2 | 1.553 | 2.534 | 1.8 | 18.9 |
| 1 12 | 6 54.78 | +24 21.0 | 1.575 | 2.551 | 3.3 | 19.0 |
| 1 22 | 6 44.11 | +24 32.5 | 1.626 | 2.568 | 7.9 | 19.4 |
| 2 1 | 6 35.75 | +24 38.0 | 1.703 | 2.584 | 12.1 | 19.6 |
| 2 11 | 6 30.40 | +24 38.8 | 1.803 | 2.600 | 15.4 | 19.9 |

**415396** 2013 $NV_{16}$ 1 5.5 271°.05 0°.3/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.07 | +22 58.6 | 1.889 | 2.714 | 13.7 | 21.1 |
| 12 13 | 7 25.05 | +22 39.7 | 1.798 | 2.701 | 10.2 | 20.9 |
| 12 23 | 7 16.50 | +22 21.3 | 1.731 | 2.687 | 6.2 | 20.6 |
| 1 2 | 7 6.20 | +22 1.8 | 1.691 | 2.672 | 1.7 | 20.3 |
| 1 12 | 6 55.34 | +21 40.2 | 1.681 | 2.658 | 3.0 | 20.4 |
| 1 22 | 6 45.17 | +21 16.6 | 1.700 | 2.644 | 7.6 | 20.6 |
| 2 1 | 6 36.87 | +20 52.1 | 1.746 | 2.629 | 11.7 | 20.8 |
| 2 11 | 6 31.25 | +20 28.0 | 1.815 | 2.615 | 15.2 | 21.0 |

**22465** Karelanděl 1 5.5 35°.81 1°.9/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.80 | +25 27.1 | 1.232 | 2.083 | 17.8 | 18.6 |
| 12 13 | 7 25.59 | +25 53.8 | 1.181 | 2.097 | 13.2 | 18.3 |
| 12 23 | 7 17.04 | +26 22.0 | 1.152 | 2.112 | 7.9 | 18.1 |
| 1 2 | 7 6.33 | +26 46.1 | 1.147 | 2.127 | 2.7 | 17.8 |
| 1 12 | 6 55.26 | +27 1.6 | 1.167 | 2.143 | 4.4 | 18.0 |
| 1 22 | 6 45.59 | +27 6.8 | 1.214 | 2.160 | 9.5 | 18.3 |
| 2 1 | 6 38.73 | +27 2.7 | 1.284 | 2.178 | 14.2 | 18.6 |
| 2 11 | 6 35.46 | +26 52.0 | 1.373 | 2.196 | 18.1 | 18.9 |

**448772** 2011 $SL_{78}$ 1 5.5 8°.10 4°.6/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.82 | +13 56.0 | 1.064 | 1.919 | 19.8 | 20.1 |
| 12 13 | 7 21.45 | +13 30.3 | 1.006 | 1.920 | 15.2 | 19.9 |
| 12 23 | 7 14.75 | +13 20.1 | 0.968 | 1.922 | 10.0 | 19.6 |
| 1 2 | 7 5.78 | +13 26.1 | 0.952 | 1.927 | 5.4 | 19.4 |
| 1 12 | 6 56.23 | +13 46.8 | 0.959 | 1.932 | 5.8 | 19.4 |
| 1 22 | 6 47.87 | +14 18.5 | 0.989 | 1.940 | 10.6 | 19.7 |
| 2 1 | 6 42.21 | +14 56.9 | 1.042 | 1.949 | 15.5 | 20.0 |
| 2 11 | 6 40.12 | +15 37.5 | 1.113 | 1.959 | 19.8 | 20.3 |

**155677** 2000 $JE_{2}$ 1 5.5 115°.74 1°.2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.96 | +24 7.5 | 1.782 | 2.604 | 14.5 | 20.5 |
| 12 13 | 7 27.77 | +24 39.3 | 1.723 | 2.624 | 10.7 | 20.4 |
| 12 23 | 7 17.99 | +25 12.8 | 1.689 | 2.644 | 6.3 | 20.1 |
| 1 2 | 7 6.57 | +25 43.7 | 1.682 | 2.663 | 1.9 | 19.9 |
| 1 12 | 6 54.85 | +26 8.2 | 1.706 | 2.681 | 3.4 | 20.0 |
| 1 22 | 6 44.17 | +26 24.4 | 1.759 | 2.699 | 7.7 | 20.3 |
| 2 1 | 6 35.68 | +26 32.7 | 1.839 | 2.716 | 11.5 | 20.6 |
| 2 11 | 6 30.06 | +26 34.7 | 1.942 | 2.732 | 14.7 | 20.8 |

**190729** 2001 $PD_{3}$ 1 5.5 145°.72 1°.8/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.06 | +18 36.3 | 1.762 | 2.579 | 14.8 | 20.4 |
| 12 13 | 7 27.10 | +18 19.1 | 1.692 | 2.589 | 11.1 | 20.2 |
| 12 23 | 7 17.60 | +18 6.9 | 1.646 | 2.598 | 6.8 | 20.0 |
| 1 2 | 7 6.48 | +17 58.8 | 1.628 | 2.607 | 2.6 | 19.7 |
| 1 12 | 6 55.00 | +17 53.5 | 1.639 | 2.614 | 3.5 | 19.8 |
| 1 22 | 6 44.47 | +17 50.4 | 1.680 | 2.622 | 7.8 | 20.1 |
| 2 1 | 6 36.01 | +17 49.0 | 1.747 | 2.628 | 11.8 | 20.3 |
| 2 11 | 6 30.35 | +17 49.2 | 1.837 | 2.634 | 15.2 | 20.6 |

**343616** 2010 $GC_{127}$ 1 5.5 49°.72 4°.4/ 7.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.32 | + 8 14.3 | 2.321 | 3.115 | 12.5 | 21.0 |
| 12 13 | 7 19.48 | + 8 3.4 | 2.245 | 3.119 | 9.8 | 20.9 |
| 12 23 | 7 12.91 | + 8 4.3 | 2.193 | 3.123 | 7.0 | 20.7 |
| 1 2 | 7 5.23 | + 8 17.6 | 2.169 | 3.128 | 4.8 | 20.6 |
| 1 12 | 6 57.23 | + 8 42.3 | 2.173 | 3.132 | 4.8 | 20.6 |
| 1 22 | 6 49.77 | + 9 16.4 | 2.207 | 3.137 | 7.0 | 20.7 |
| 2 1 | 6 43.61 | + 9 57.4 | 2.267 | 3.142 | 9.8 | 20.9 |
| 2 11 | 6 39.32 | +10 42.3 | 2.352 | 3.146 | 12.4 | 21.1 |

**433175** 2012 $TF_{298}$ 1 5.5 175°.37 3°.9/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.62 | + 8 30.5 | 2.719 | 3.505 | 11.1 | 21.9 |
| 12 13 | 7 19.49 | + 8 19.5 | 2.637 | 3.506 | 8.7 | 21.7 |
| 12 23 | 7 12.84 | + 8 18.4 | 2.579 | 3.507 | 6.2 | 21.6 |
| 1 2 | 7 5.21 | + 8 27.6 | 2.550 | 3.508 | 4.2 | 21.4 |
| 1 12 | 6 57.29 | + 8 46.4 | 2.551 | 3.509 | 4.2 | 21.4 |
| 1 22 | 6 49.81 | + 9 13.4 | 2.581 | 3.509 | 6.2 | 21.6 |
| 2 1 | 6 43.43 | + 9 46.6 | 2.640 | 3.509 | 8.8 | 21.7 |
| 2 11 | 6 38.70 | +10 23.7 | 2.724 | 3.509 | 11.1 | 21.9 |

**343238** 2009 $WX_{162}$ 1 5.5 198°.64 2°.4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.31 | +26 0.2 | 1.536 | 2.369 | 15.9 | 21.5 |
| 12 13 | 7 28.04 | +26 43.5 | 1.461 | 2.368 | 11.9 | 21.2 |
| 12 23 | 7 18.57 | +27 29.0 | 1.409 | 2.366 | 7.2 | 20.9 |
| 1 2 | 7 6.82 | +28 10.6 | 1.384 | 2.363 | 2.9 | 20.7 |
| 1 12 | 6 54.34 | +28 42.7 | 1.387 | 2.360 | 4.4 | 20.8 |
| 1 22 | 6 42.81 | +29 2.2 | 1.418 | 2.357 | 9.2 | 21.0 |
| 2 1 | 6 33.73 | +29 9.4 | 1.474 | 2.353 | 13.7 | 21.3 |
| 2 11 | 6 28.06 | +29 7.2 | 1.551 | 2.349 | 17.5 | 21.5 |

**29010** 4100 $P–L$ 1 5.5 257°.30 6°.8/ 4.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.08 | +39 56.8 | 1.912 | 2.724 | 14.1 | 19.0 |
| 12 13 | 7 29.26 | +40 44.9 | 1.830 | 2.712 | 11.3 | 18.8 |
| 12 23 | 7 19.25 | +41 22.8 | 1.772 | 2.700 | 8.5 | 18.6 |
| 1 2 | 7 7.00 | +41 42.7 | 1.739 | 2.687 | 6.9 | 18.5 |
| 1 12 | 6 54.03 | +41 39.4 | 1.735 | 2.675 | 7.7 | 18.5 |
| 1 22 | 6 42.03 | +41 12.4 | 1.757 | 2.662 | 10.3 | 18.6 |
| 2 1 | 6 32.46 | +40 25.3 | 1.805 | 2.649 | 13.3 | 18.8 |
| 2 11 | 6 26.29 | +39 24.6 | 1.874 | 2.636 | 16.2 | 18.9 |

**454353** 2014 $LD_{28}$ 1 5.5 165°.65 0°.6/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.19 | +19 28.5 | 2.086 | 2.899 | 13.0 | 22.5 |
| 12 13 | 7 25.54 | +19 49.8 | 2.009 | 2.905 | 9.7 | 22.3 |
| 12 23 | 7 16.64 | +20 16.5 | 1.957 | 2.911 | 5.8 | 22.0 |
| 1 2 | 7 6.25 | +20 46.0 | 1.934 | 2.915 | 1.7 | 21.8 |
| 1 12 | 6 55.43 | +21 15.3 | 1.942 | 2.919 | 2.8 | 21.9 |
| 1 22 | 6 45.31 | +21 42.2 | 1.981 | 2.922 | 6.8 | 22.1 |
| 2 1 | 6 36.90 | +22 5.5 | 2.047 | 2.925 | 10.5 | 22.4 |
| 2 11 | 6 30.91 | +22 25.1 | 2.138 | 2.926 | 13.6 | 22.6 |

**137127** 1999 $CV_{22}$ 1 5.5 8°.70 6°.6/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.09 | +37 45.7 | 1.375 | 2.212 | 17.2 | 18.7 |
| 12 13 | 7 28.22 | +38 3.5 | 1.313 | 2.213 | 13.4 | 18.5 |
| 12 23 | 7 18.70 | +38 8.0 | 1.272 | 2.215 | 9.5 | 18.3 |
| 1 2 | 7 6.81 | +37 52.0 | 1.255 | 2.218 | 6.8 | 18.1 |
| 1 12 | 6 54.51 | +37 11.9 | 1.264 | 2.222 | 7.5 | 18.2 |
| 1 22 | 6 43.76 | +36 10.0 | 1.298 | 2.227 | 11.0 | 18.4 |
| 2 1 | 6 36.08 | +34 52.8 | 1.356 | 2.233 | 14.8 | 18.6 |
| 2 11 | 6 32.27 | +33 28.4 | 1.434 | 2.239 | 18.3 | 18.9 |

**7043** Godart 1 5.5 166°.67 3°.0/ 6.3 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.31 | +13 46.2 | 1.832 | 2.641 | 14.7 | 17.4 |
| 12 13 | 7 25.82 | +13 47.7 | 1.757 | 2.646 | 11.2 | 17.2 |
| 12 23 | 7 16.89 | +13 59.6 | 1.705 | 2.651 | 7.3 | 17.0 |
| 1 2 | 7 6.33 | +14 21.0 | 1.680 | 2.655 | 3.6 | 16.8 |
| 1 12 | 6 55.30 | +14 49.7 | 1.686 | 2.658 | 4.0 | 16.8 |
| 1 22 | 6 45.03 | +15 23.2 | 1.720 | 2.660 | 7.8 | 17.1 |
| 2 1 | 6 36.64 | +15 58.8 | 1.782 | 2.662 | 11.7 | 17.3 |
| 2 11 | 6 30.87 | +16 34.6 | 1.866 | 2.662 | 15.0 | 17.5 |

**228654** 2002 $EQ_{146}$ 1 5.5 239°.37 0°.5/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.44 | +22 49.4 | 2.119 | 2.942 | 12.5 | 20.8 |
| 12 13 | 7 22.88 | +23 10.3 | 2.035 | 2.937 | 9.2 | 20.6 |
| 12 23 | 7 15.13 | +23 34.2 | 1.975 | 2.931 | 5.5 | 20.4 |
| 1 2 | 7 5.86 | +23 58.2 | 1.944 | 2.925 | 1.5 | 20.1 |
| 1 12 | 6 56.11 | +24 19.6 | 1.943 | 2.919 | 2.8 | 20.2 |
| 1 22 | 6 46.97 | +24 36.5 | 1.971 | 2.913 | 6.8 | 20.4 |
| 2 1 | 6 39.42 | +24 48.3 | 2.027 | 2.907 | 10.5 | 20.6 |
| 2 11 | 6 34.22 | +24 55.4 | 2.106 | 2.901 | 13.6 | 20.8 |

**96467** 1998 $HE_{80}$ 1 5.5 243.°46 1.°2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.01 | +24 45.9 | 1.884 | 2.709 | 13.7 | 20.2 |
| 12 13 | 7 25.90 | +25 6.7 | 1.794 | 2.696 | 10.2 | 20.0 |
| 12 23 | 7 17.12 | +25 29.2 | 1.727 | 2.683 | 6.2 | 19.7 |
| 1 2 | 7 6.44 | +25 49.8 | 1.688 | 2.669 | 1.9 | 19.4 |
| 1 12 | 6 55.06 | +26 4.9 | 1.679 | 2.655 | 3.4 | 19.5 |
| 1 22 | 6 44.34 | +26 12.8 | 1.699 | 2.640 | 7.8 | 19.7 |
| 2 1 | 6 35.52 | +26 13.3 | 1.745 | 2.624 | 11.9 | 19.9 |
| 2 11 | 6 29.49 | +26 8.2 | 1.815 | 2.608 | 15.5 | 20.1 |

**447739** 2007 $GM_{25}$ 1 5.5 241.°21 2.°9/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.70 | +28 29.9 | 1.750 | 2.577 | 14.6 | 21.7 |
| 12 13 | 7 28.20 | +29 3.8 | 1.661 | 2.563 | 11.0 | 21.4 |
| 12 23 | 7 18.65 | +29 37.1 | 1.595 | 2.548 | 6.9 | 21.2 |
| 1 2 | 7 6.87 | +30 4.1 | 1.556 | 2.533 | 3.2 | 20.9 |
| 1 12 | 6 54.26 | +30 19.9 | 1.546 | 2.517 | 4.6 | 20.9 |
| 1 22 | 6 42.38 | +30 22.3 | 1.565 | 2.500 | 8.9 | 21.2 |
| 2 1 | 6 32.70 | +30 12.5 | 1.610 | 2.483 | 13.1 | 21.4 |
| 2 11 | 6 26.22 | +29 53.8 | 1.676 | 2.465 | 16.8 | 21.6 |

**110759** 2001 $UR_{18}$ 1 5.5 46.°78 7.°9/ 3.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.81 | +39 7.2 | 1.520 | 2.348 | 16.3 | 18.9 |
| 12 13 | 7 28.61 | +40 26.8 | 1.472 | 2.363 | 12.9 | 18.8 |
| 12 23 | 7 18.90 | +41 34.5 | 1.447 | 2.379 | 9.7 | 18.6 |
| 1 2 | 7 6.89 | +42 20.8 | 1.447 | 2.396 | 8.0 | 18.6 |
| 1 12 | 6 54.42 | +42 39.6 | 1.473 | 2.413 | 8.9 | 18.7 |
| 1 22 | 6 43.39 | +42 30.8 | 1.525 | 2.430 | 11.5 | 18.8 |
| 2 1 | 6 35.30 | +41 59.1 | 1.599 | 2.447 | 14.5 | 19.1 |
| 2 11 | 6 30.99 | +41 12.0 | 1.694 | 2.465 | 17.3 | 19.3 |

**307242** 2002 $JF_{92}$ 1 5.5 240.°75 1.°2/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.04 | +24 34.3 | 1.892 | 2.716 | 13.7 | 21.5 |
| 12 13 | 7 25.91 | +24 57.0 | 1.801 | 2.704 | 10.2 | 21.3 |
| 12 23 | 7 17.13 | +25 21.8 | 1.735 | 2.691 | 6.2 | 21.0 |
| 1 2 | 7 6.45 | +25 44.9 | 1.696 | 2.677 | 1.9 | 20.7 |
| 1 12 | 6 55.08 | +26 2.7 | 1.687 | 2.663 | 3.4 | 20.8 |
| 1 22 | 6 44.35 | +26 13.2 | 1.708 | 2.648 | 7.8 | 21.0 |
| 2 1 | 6 35.50 | +26 16.4 | 1.755 | 2.633 | 11.9 | 21.2 |
| 2 11 | 6 29.44 | +26 13.7 | 1.824 | 2.618 | 15.4 | 21.4 |

**411198** 2010 $KD_{116}$ 1 5.6 121.°17 4.°3/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.34 | +11 31.4 | 1.914 | 2.718 | 14.4 | 21.8 |
| 12 13 | 7 24.13 | +10 58.5 | 1.847 | 2.730 | 11.1 | 21.6 |
| 12 23 | 7 15.76 | +10 35.9 | 1.803 | 2.741 | 7.6 | 21.4 |
| 1 2 | 7 6.02 | +10 24.5 | 1.786 | 2.752 | 4.8 | 21.3 |
| 1 12 | 6 55.99 | +10 24.1 | 1.799 | 2.763 | 5.0 | 21.3 |
| 1 22 | 6 46.75 | +10 33.5 | 1.840 | 2.774 | 7.9 | 21.5 |
| 2 1 | 6 39.27 | +10 50.7 | 1.909 | 2.784 | 11.3 | 21.7 |
| 2 11 | 6 34.18 | +11 13.3 | 2.000 | 2.793 | 14.3 | 21.9 |

**124716** 2001 $SG_{157}$ 1 5.6 16.°53 2.°4/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.59 | +28 4.9 | 1.321 | 2.165 | 17.3 | 19.4 |
| 12 13 | 7 27.72 | +28 7.3 | 1.255 | 2.167 | 13.0 | 19.1 |
| 12 23 | 7 18.41 | +28 6.6 | 1.210 | 2.168 | 7.9 | 18.9 |
| 1 2 | 7 6.79 | +27 58.1 | 1.191 | 2.170 | 3.0 | 18.6 |
| 1 12 | 6 54.63 | +27 38.9 | 1.198 | 2.173 | 4.5 | 18.7 |
| 1 22 | 6 43.78 | +27 9.5 | 1.231 | 2.176 | 9.6 | 19.0 |
| 2 1 | 6 35.77 | +26 32.8 | 1.288 | 2.179 | 14.4 | 19.3 |
| 2 11 | 6 31.44 | +25 53.0 | 1.365 | 2.182 | 18.5 | 19.5 |

**98130** 2000 $SD_{28}$ 1 5.6 261.°45 0.°0/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.53 | +23 25.1 | 1.576 | 2.409 | 15.6 | 19.4 |
| 12 13 | 7 26.51 | +23 15.3 | 1.496 | 2.403 | 11.6 | 19.2 |
| 12 23 | 7 17.55 | +23 6.8 | 1.440 | 2.397 | 7.0 | 18.9 |
| 1 2 | 7 6.56 | +22 57.0 | 1.410 | 2.391 | 1.9 | 18.6 |
| 1 12 | 6 54.98 | +22 44.1 | 1.408 | 2.385 | 3.4 | 18.7 |
| 1 22 | 6 44.33 | +22 27.8 | 1.434 | 2.379 | 8.5 | 18.9 |
| 2 1 | 6 35.95 | +22 9.0 | 1.486 | 2.373 | 13.1 | 19.2 |
| 2 11 | 6 30.73 | +21 49.6 | 1.559 | 2.367 | 16.9 | 19.4 |

**520845** 2014 $UA_{238}$ 1 5.6 64.°98 2.°7/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.81 | +14 35.7 | 1.829 | 2.648 | 14.3 | 21.2 |
| 12 13 | 7 22.52 | +14 37.7 | 1.756 | 2.651 | 10.9 | 21.0 |
| 12 23 | 7 14.94 | +14 49.7 | 1.706 | 2.655 | 7.0 | 20.8 |
| 1 2 | 7 5.84 | +15 10.5 | 1.683 | 2.658 | 3.3 | 20.6 |
| 1 12 | 6 56.30 | +15 38.2 | 1.688 | 2.662 | 3.7 | 20.6 |
| 1 22 | 6 47.49 | +16 10.2 | 1.722 | 2.665 | 7.5 | 20.9 |
| 2 1 | 6 40.43 | +16 44.1 | 1.783 | 2.669 | 11.3 | 21.1 |
| 2 11 | 6 35.85 | +17 17.9 | 1.866 | 2.673 | 14.6 | 21.3 |

**33257** 1998 $HS_{37}$ 1 5.6 333.°48 0.°5/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.58 | +21 1.5 | 1.855 | 2.683 | 13.8 | 18.1 |
| 12 13 | 7 23.16 | +21 2.0 | 1.777 | 2.681 | 10.2 | 17.8 |
| 12 23 | 7 15.36 | +21 6.4 | 1.723 | 2.679 | 6.2 | 17.6 |
| 1 2 | 7 5.96 | +21 12.7 | 1.696 | 2.677 | 1.8 | 17.3 |
| 1 12 | 6 56.10 | +21 18.9 | 1.699 | 2.676 | 2.9 | 17.4 |
| 1 22 | 6 46.98 | +21 23.7 | 1.729 | 2.674 | 7.3 | 17.7 |
| 2 1 | 6 39.68 | +21 26.7 | 1.787 | 2.673 | 11.3 | 17.9 |
| 2 11 | 6 34.96 | +21 28.1 | 1.867 | 2.672 | 14.7 | 18.1 |

**218032** 2002 $AU_9$ 1 5.6 20.°32 2.°5/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.21 | +29 34.0 | 1.367 | 2.213 | 16.7 | 19.3 |
| 12 13 | 7 25.69 | +29 21.4 | 1.309 | 2.221 | 12.5 | 19.1 |
| 12 23 | 7 17.02 | +29 3.3 | 1.273 | 2.230 | 7.7 | 18.8 |
| 1 2 | 7 6.38 | +28 36.1 | 1.262 | 2.241 | 3.1 | 18.6 |
| 1 12 | 6 55.46 | +27 58.6 | 1.277 | 2.252 | 4.4 | 18.7 |
| 1 22 | 6 45.91 | +27 12.6 | 1.319 | 2.264 | 9.1 | 19.0 |
| 2 1 | 6 39.04 | +26 21.7 | 1.386 | 2.278 | 13.5 | 19.3 |
| 2 11 | 6 35.57 | +25 29.9 | 1.473 | 2.292 | 17.2 | 19.6 |

**276070** 2002 $CX_{179}$ 1 5.6 100.°37 2.°0/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.79 | +15 42.7 | 1.952 | 2.770 | 13.6 | 20.4 |
| 12 13 | 7 22.40 | +15 56.7 | 1.878 | 2.774 | 10.2 | 20.2 |
| 12 23 | 7 14.84 | +16 19.6 | 1.828 | 2.779 | 6.4 | 20.0 |
| 1 2 | 7 5.81 | +16 49.8 | 1.806 | 2.783 | 2.7 | 19.8 |
| 1 12 | 6 56.38 | +17 24.7 | 1.813 | 2.788 | 3.2 | 19.8 |
| 1 22 | 6 47.62 | +18 1.6 | 1.849 | 2.792 | 7.0 | 20.1 |
| 2 1 | 6 40.53 | +18 38.2 | 1.912 | 2.797 | 10.7 | 20.3 |
| 2 11 | 6 35.79 | +19 12.8 | 1.998 | 2.801 | 13.9 | 20.5 |

**330901** 2009 $SH_{53}$ 1 5.6 27.°21 5.°2/ 6.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.96 | +10 15.0 | 1.691 | 2.505 | 15.5 | 20.3 |
| 12 13 | 7 21.96 | + 9 37.8 | 1.623 | 2.510 | 12.2 | 20.1 |
| 12 23 | 7 14.62 | + 9 13.3 | 1.578 | 2.515 | 8.6 | 19.9 |
| 1 2 | 7 5.76 | + 9 3.1 | 1.558 | 2.521 | 5.7 | 19.7 |
| 1 12 | 6 56.52 | + 9 7.2 | 1.565 | 2.527 | 5.8 | 19.7 |
| 1 22 | 6 48.08 | + 9 24.1 | 1.599 | 2.534 | 8.8 | 19.9 |
| 2 1 | 6 41.47 | + 9 50.9 | 1.659 | 2.541 | 12.3 | 20.2 |
| 2 11 | 6 37.40 | +10 24.1 | 1.740 | 2.548 | 15.5 | 20.4 |

**231274** 2006 $AY_{68}$ 1 5.6 251.°53 0.°3/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.91 | +19 25.9 | 1.518 | 2.351 | 16.0 | 20.2 |
| 12 13 | 7 25.47 | +20 3.1 | 1.440 | 2.347 | 12.0 | 20.0 |
| 12 23 | 7 17.05 | +20 49.7 | 1.385 | 2.342 | 7.2 | 19.7 |
| 1 2 | 7 6.48 | +21 41.7 | 1.357 | 2.338 | 2.0 | 19.3 |
| 1 12 | 6 55.16 | +22 33.8 | 1.356 | 2.334 | 3.5 | 19.4 |
| 1 22 | 6 44.64 | +23 21.6 | 1.383 | 2.329 | 8.7 | 19.7 |
| 2 1 | 6 36.33 | +24 2.4 | 1.435 | 2.324 | 13.4 | 20.0 |
| 2 11 | 6 31.21 | +24 35.7 | 1.509 | 2.320 | 17.3 | 20.2 |

**17796** 1998 $FM_{62}$ 1 5.6 82.°35 9.°0/ 8.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.09 | − 2 22.8 | 1.982 | 2.735 | 15.7 | 17.5 |
| 12 13 | 7 21.66 | − 3 16.5 | 1.922 | 2.750 | 13.3 | 17.4 |
| 12 23 | 7 14.27 | − 3 49.8 | 1.884 | 2.765 | 11.0 | 17.3 |
| 1 2 | 7 5.65 | − 3 59.3 | 1.870 | 2.780 | 9.4 | 17.2 |
| 1 12 | 6 56.76 | − 3 44.3 | 1.883 | 2.795 | 9.1 | 17.2 |
| 1 22 | 6 48.59 | − 3 7.0 | 1.921 | 2.810 | 10.4 | 17.3 |
| 2 1 | 6 41.99 | − 2 11.7 | 1.984 | 2.825 | 12.5 | 17.5 |
| 2 11 | 6 37.57 | − 1 4.5 | 2.070 | 2.840 | 14.6 | 17.7 |

**268057** Michaelkaschke 1 5.6 70.°50 0.°4/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.16 | +21 19.2 | 1.897 | 2.723 | 13.6 | 20.0 |
| 12 13 | 7 23.44 | +21 18.4 | 1.828 | 2.731 | 10.1 | 19.8 |
| 12 23 | 7 15.44 | +21 20.9 | 1.784 | 2.739 | 6.0 | 19.6 |
| 1 2 | 7 5.98 | +21 24.8 | 1.767 | 2.748 | 1.7 | 19.3 |
| 1 12 | 6 56.19 | +21 28.2 | 1.779 | 2.756 | 2.8 | 19.4 |
| 1 22 | 6 47.22 | +21 30.2 | 1.820 | 2.765 | 7.1 | 19.7 |
| 2 1 | 6 40.07 | +21 30.4 | 1.888 | 2.773 | 10.9 | 20.0 |
| 2 11 | 6 35.43 | +21 29.2 | 1.979 | 2.781 | 14.1 | 20.2 |

**117241** 2004 $SS_{20}$ 1 5.6 85.°10 1.°2/ 5.3 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.74 | +24 8.7 | 1.526 | 2.358 | 16.0 | 20.5 |
| 12 13 | 7 27.90 | +24 34.1 | 1.474 | 2.380 | 11.8 | 20.3 |
| 12 23 | 7 18.20 | +25 1.5 | 1.445 | 2.402 | 7.0 | 20.1 |
| 1 2 | 7 6.71 | +25 26.1 | 1.444 | 2.424 | 2.1 | 19.9 |
| 1 12 | 6 54.97 | +25 44.2 | 1.470 | 2.446 | 3.6 | 20.0 |
| 1 22 | 6 44.49 | +25 54.2 | 1.525 | 2.468 | 8.3 | 20.4 |
| 2 1 | 6 36.48 | +25 56.6 | 1.605 | 2.488 | 12.5 | 20.7 |
| 2 11 | 6 31.65 | +25 53.5 | 1.707 | 2.509 | 16.0 | 20.9 |

**26380** 1999 $JY_{65}$ 1 5.6 107.°47 5.°5/ 7.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.82 | + 5 1.4 | 2.351 | 3.123 | 13.0 | 18.3 |
| 12 13 | 7 22.59 | + 4 33.0 | 2.292 | 3.147 | 10.4 | 18.2 |
| 12 23 | 7 14.68 | + 4 17.8 | 2.257 | 3.171 | 7.8 | 18.0 |
| 1 2 | 7 5.75 | + 4 17.1 | 2.249 | 3.194 | 5.8 | 17.9 |
| 1 12 | 6 56.66 | + 4 30.3 | 2.271 | 3.217 | 5.8 | 18.0 |
| 1 22 | 6 48.25 | + 4 55.8 | 2.323 | 3.238 | 7.5 | 18.1 |
| 2 1 | 6 41.24 | + 5 30.8 | 2.402 | 3.260 | 9.9 | 18.3 |
| 2 11 | 6 36.17 | + 6 12.1 | 2.505 | 3.280 | 12.2 | 18.5 |

**293257** 2007 $CK_{13}$ 1 5.6 21.°65 0.°0/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.32 | +24 4.1 | 1.517 | 2.355 | 15.8 | 20.1 |
| 12 13 | 7 25.52 | +23 36.4 | 1.450 | 2.359 | 11.7 | 19.9 |
| 12 23 | 7 16.87 | +23 8.4 | 1.405 | 2.363 | 7.0 | 19.6 |
| 1 2 | 7 6.39 | +22 38.5 | 1.387 | 2.368 | 1.9 | 19.3 |
| 1 12 | 6 55.54 | +22 6.4 | 1.396 | 2.374 | 3.4 | 19.4 |
| 1 22 | 6 45.81 | +21 32.8 | 1.433 | 2.380 | 8.3 | 19.7 |
| 2 1 | 6 38.42 | +20 59.6 | 1.495 | 2.386 | 12.8 | 20.0 |
| 2 11 | 6 34.12 | +20 28.5 | 1.579 | 2.393 | 16.5 | 20.3 |

**170831** 2004 $EK_{67}$ 1 5.6 111°.87 3°.4/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.12 | +10 58.6 | 2.451 | 3.249 | 11.8 | 20.5 |
| 12 13 | 7 20.02 | +10 52.1 | 2.375 | 3.255 | 9.1 | 20.4 |
| 12 23 | 7 13.25 | +10 55.1 | 2.323 | 3.261 | 6.2 | 20.2 |
| 1 2 | 7 5.41 | +11 7.6 | 2.300 | 3.266 | 3.8 | 20.0 |
| 1 12 | 6 57.28 | +11 28.5 | 2.306 | 3.272 | 3.9 | 20.0 |
| 1 22 | 6 49.67 | +11 56.1 | 2.342 | 3.277 | 6.4 | 20.2 |
| 2 1 | 6 43.32 | +12 28.3 | 2.406 | 3.282 | 9.2 | 20.4 |
| 2 11 | 6 38.78 | +13 3.0 | 2.494 | 3.287 | 11.8 | 20.6 |

**66360** 1999 $JQ_{89}$ 1 5.6 129°.73 6°.1/ 2.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.37 | +42 8.9 | 2.834 | 3.625 | 10.5 | 19.0 |
| 12 13 | 7 26.48 | +43 34.4 | 2.774 | 3.636 | 8.6 | 18.9 |
| 12 23 | 7 17.29 | +44 51.2 | 2.740 | 3.648 | 6.9 | 18.8 |
| 1 2 | 7 6.53 | +45 53.3 | 2.735 | 3.659 | 6.1 | 18.8 |
| 1 12 | 6 55.22 | +46 36.6 | 2.759 | 3.670 | 6.7 | 18.8 |
| 1 22 | 6 44.51 | +46 59.7 | 2.812 | 3.680 | 8.3 | 18.9 |
| 2 1 | 6 35.43 | +47 4.2 | 2.892 | 3.690 | 10.1 | 19.1 |
| 2 11 | 6 28.75 | +46 53.9 | 2.993 | 3.700 | 11.9 | 19.2 |

**24586** 4230 $T$-$_2$ 1 5.6 114°.77 0°.4/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.38 | +22 28.5 | 2.214 | 3.035 | 12.1 | 19.5 |
| 12 13 | 7 22.66 | +22 50.5 | 2.142 | 3.043 | 8.9 | 19.3 |
| 12 23 | 7 14.92 | +23 15.4 | 2.096 | 3.051 | 5.3 | 19.1 |
| 1 2 | 7 5.87 | +23 40.3 | 2.078 | 3.059 | 1.4 | 18.8 |
| 1 12 | 6 56.49 | +24 2.8 | 2.090 | 3.067 | 2.6 | 18.9 |
| 1 22 | 6 47.77 | +24 21.0 | 2.133 | 3.075 | 6.4 | 19.2 |
| 2 1 | 6 40.61 | +24 34.5 | 2.203 | 3.082 | 9.8 | 19.4 |
| 2 11 | 6 35.67 | +24 43.5 | 2.297 | 3.089 | 12.7 | 19.6 |

**375415** 2008 $SZ_{286}$ 1 5.6 49°.91 0°.9/ 5.4 18 R

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.10 | +25 49.0 | 1.890 | 2.719 | 13.5 | 20.4 |
| 12 13 | 7 24.12 | +25 42.5 | 1.826 | 2.731 | 10.0 | 20.2 |
| 12 23 | 7 15.83 | +25 35.0 | 1.786 | 2.743 | 6.0 | 20.0 |
| 1 2 | 7 6.10 | +25 24.3 | 1.774 | 2.755 | 1.8 | 19.8 |
| 1 12 | 6 56.14 | +25 8.8 | 1.792 | 2.768 | 3.0 | 19.9 |
| 1 22 | 6 47.11 | +24 48.7 | 1.838 | 2.781 | 7.1 | 20.2 |
| 2 1 | 6 40.02 | +24 25.2 | 1.911 | 2.794 | 10.8 | 20.4 |
| 2 11 | 6 35.50 | +24 0.1 | 2.007 | 2.807 | 14.0 | 20.7 |

**382204** 2012 $PF_{8}$ 1 5.6 107°.95 0°.9/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.53 | +20 49.1 | 2.356 | 3.172 | 11.6 | 20.8 |
| 12 13 | 7 22.57 | +20 27.1 | 2.280 | 3.178 | 8.6 | 20.6 |
| 12 23 | 7 14.78 | +20 7.1 | 2.231 | 3.184 | 5.2 | 20.4 |
| 1 2 | 7 5.83 | +19 48.3 | 2.210 | 3.190 | 1.7 | 20.2 |
| 1 12 | 6 56.63 | +19 30.3 | 2.220 | 3.196 | 2.5 | 20.2 |
| 1 22 | 6 48.10 | +19 13.0 | 2.260 | 3.202 | 6.1 | 20.5 |
| 2 1 | 6 41.04 | +18 56.8 | 2.328 | 3.207 | 9.3 | 20.7 |
| 2 11 | 6 36.04 | +18 42.0 | 2.421 | 3.213 | 12.1 | 20.9 |

**462624** 2009 $QS_{17}$ 1 5.6 116°.35 2°.1/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.07 | +28 50.2 | 2.129 | 2.947 | 12.6 | 21.7 |
| 12 13 | 7 26.12 | +28 57.9 | 2.064 | 2.962 | 9.3 | 21.6 |
| 12 23 | 7 16.95 | +29 2.3 | 2.024 | 2.976 | 5.7 | 21.4 |
| 1 2 | 7 6.41 | +29 0.4 | 2.012 | 2.990 | 2.4 | 21.2 |
| 1 12 | 6 55.64 | +28 50.1 | 2.031 | 3.003 | 3.4 | 21.3 |
| 1 22 | 6 45.78 | +28 31.7 | 2.080 | 3.016 | 6.9 | 21.5 |
| 2 1 | 6 37.81 | +28 6.6 | 2.157 | 3.029 | 10.3 | 21.7 |
| 2 11 | 6 32.33 | +27 37.5 | 2.257 | 3.041 | 13.1 | 21.9 |

**448061** 2008 $FX_{137}$ 1 5.6 170°.35 2°.3/ 6.0 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.07 | +16 26.6 | 1.807 | 2.619 | 14.8 | 22.7 |
| 12 13 | 7 27.19 | +16 18.3 | 1.731 | 2.624 | 11.2 | 22.5 |
| 12 23 | 7 17.78 | +16 17.3 | 1.678 | 2.628 | 7.0 | 22.2 |
| 1 2 | 7 6.68 | +16 22.8 | 1.654 | 2.631 | 3.0 | 22.0 |
| 1 12 | 6 55.11 | +16 32.9 | 1.659 | 2.633 | 3.7 | 22.0 |
| 1 22 | 6 44.37 | +16 46.2 | 1.694 | 2.635 | 7.8 | 22.3 |
| 2 1 | 6 35.60 | +17 1.4 | 1.755 | 2.635 | 11.8 | 22.5 |
| 2 11 | 6 29.56 | +17 17.4 | 1.840 | 2.635 | 15.3 | 22.8 |

**158329** Stevekent 1 5.6 210°.18 2°.4/ 4.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.28 | +26 25.0 | 1.890 | 2.712 | 13.8 | 21.5 |
| 12 13 | 7 27.67 | +27 17.0 | 1.805 | 2.706 | 10.3 | 21.3 |
| 12 23 | 7 18.27 | +28 11.1 | 1.745 | 2.699 | 6.4 | 21.1 |
| 1 2 | 7 6.86 | +29 1.6 | 1.713 | 2.691 | 2.7 | 20.8 |
| 1 12 | 6 54.70 | +29 43.2 | 1.711 | 2.682 | 4.1 | 20.9 |
| 1 22 | 6 43.22 | +30 12.7 | 1.738 | 2.673 | 8.2 | 21.1 |
| 2 1 | 6 33.72 | +30 29.8 | 1.793 | 2.662 | 12.1 | 21.3 |
| 2 11 | 6 27.13 | +30 36.6 | 1.869 | 2.652 | 15.5 | 21.5 |

**364982** 2008 $HN_{62}$ 1 5.6 349°.74 10°.8/30.4 16

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.21 | +38 45.7 | 1.456 | 2.285 | 16.8 | 19.6 |
| 12 13 | 7 30.98 | +42 8.1 | 1.393 | 2.280 | 13.8 | 19.4 |
| 12 23 | 7 21.34 | +45 27.7 | 1.355 | 2.275 | 11.4 | 19.2 |
| 1 2 | 7 7.92 | +48 25.9 | 1.344 | 2.270 | 10.9 | 19.2 |
| 1 12 | 6 52.49 | +50 46.2 | 1.361 | 2.267 | 12.5 | 19.3 |
| 1 22 | 6 37.57 | +52 20.9 | 1.403 | 2.265 | 15.3 | 19.5 |
| 2 1 | 6 25.73 | +53 12.2 | 1.465 | 2.263 | 18.3 | 19.6 |
| 2 11 | 6 18.73 | +53 29.4 | 1.545 | 2.262 | 20.9 | 19.8 |

**76711** 2000 $JY_{2}$ 1 5.6 120°.26 1°.1/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 26.40 | +16 54.2 | 2.267 | 3.082 | 12.0 | 19.3 |
| 12 13 | 7 21.21 | +17 23.9 | 2.187 | 3.083 | 9.0 | 19.2 |
| 12 23 | 7 14.09 | +18 1.3 | 2.133 | 3.085 | 5.5 | 18.9 |
| 1 2 | 7 5.69 | +18 44.1 | 2.107 | 3.087 | 2.0 | 18.7 |
| 1 12 | 6 56.87 | +19 29.5 | 2.112 | 3.088 | 2.6 | 18.8 |
| 1 22 | 6 48.59 | +20 14.6 | 2.146 | 3.090 | 6.2 | 19.0 |
| 2 1 | 6 41.71 | +20 57.3 | 2.209 | 3.091 | 9.6 | 19.2 |
| 2 11 | 6 36.89 | +21 36.2 | 2.296 | 3.093 | 12.5 | 19.4 |

**496525** 2014 $WD_{51}$ 1 5.6 75°.85 0°.3/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.52 | +21 44.9 | 1.889 | 2.715 | 13.6 | 21.3 |
| 12 13 | 7 23.75 | +21 45.5 | 1.820 | 2.723 | 10.1 | 21.1 |
| 12 23 | 7 15.67 | +21 49.2 | 1.775 | 2.731 | 6.0 | 20.9 |
| 1 2 | 7 6.10 | +21 53.8 | 1.758 | 2.739 | 1.6 | 20.6 |
| 1 12 | 6 56.20 | +21 57.5 | 1.770 | 2.747 | 2.8 | 20.7 |
| 1 22 | 6 47.12 | +21 59.0 | 1.810 | 2.755 | 7.1 | 21.0 |
| 2 1 | 6 39.89 | +21 58.4 | 1.878 | 2.763 | 10.9 | 21.3 |
| 2 11 | 6 35.19 | +21 56.1 | 1.969 | 2.771 | 14.1 | 21.5 |

**311703** 2006 $SB_{193}$ 1 5.6 244°.69 7°.7/ 3.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.27 | +40 52.2 | 1.866 | 2.677 | 14.4 | 20.6 |
| 12 13 | 7 29.63 | +42 3.5 | 1.791 | 2.669 | 11.7 | 20.4 |
| 12 23 | 7 19.64 | +43 4.8 | 1.739 | 2.661 | 9.1 | 20.2 |
| 1 2 | 7 7.25 | +43 47.1 | 1.712 | 2.653 | 7.7 | 20.1 |
| 1 12 | 6 54.05 | +44 4.2 | 1.714 | 2.645 | 8.5 | 20.2 |
| 1 22 | 6 41.82 | +43 54.6 | 1.742 | 2.636 | 11.0 | 20.3 |
| 2 1 | 6 32.12 | +43 21.7 | 1.794 | 2.627 | 13.9 | 20.5 |
| 2 11 | 6 25.96 | +42 32.4 | 1.866 | 2.618 | 16.6 | 20.6 |

**201960** 2004 $NX_{14}$ 1 5.6 109°.88 0°.9/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.67 | +19 37.0 | 1.737 | 2.556 | 15.0 | 21.7 |
| 12 13 | 7 27.52 | +19 44.4 | 1.680 | 2.579 | 11.1 | 21.5 |
| 12 23 | 7 17.87 | +19 57.0 | 1.646 | 2.600 | 6.7 | 21.3 |
| 1 2 | 7 6.68 | +20 12.4 | 1.641 | 2.621 | 2.0 | 21.0 |
| 1 12 | 6 55.24 | +20 27.8 | 1.665 | 2.641 | 3.1 | 21.1 |
| 1 22 | 6 44.87 | +20 41.7 | 1.718 | 2.661 | 7.5 | 21.4 |
| 2 1 | 6 36.63 | +20 53.3 | 1.798 | 2.680 | 11.5 | 21.7 |
| 2 11 | 6 31.21 | +21 2.7 | 1.901 | 2.698 | 14.8 | 22.0 |

**132449** 2002 $HP_{1}$ 1 5.6 7°.15 1°.3/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.99 | +16 33.9 | 1.195 | 2.044 | 18.4 | 18.8 |
| 12 13 | 7 23.04 | +17 18.1 | 1.131 | 2.045 | 13.8 | 18.5 |
| 12 23 | 7 15.80 | +18 18.0 | 1.087 | 2.046 | 8.5 | 18.2 |
| 1 2 | 7 6.23 | +19 29.2 | 1.067 | 2.048 | 2.7 | 17.9 |
| 1 12 | 6 55.92 | +20 44.6 | 1.073 | 2.051 | 3.9 | 18.0 |
| 1 22 | 6 46.64 | +21 57.4 | 1.104 | 2.056 | 9.6 | 18.3 |
| 2 1 | 6 39.92 | +23 2.5 | 1.159 | 2.061 | 14.7 | 18.6 |
| 2 11 | 6 36.76 | +23 57.5 | 1.233 | 2.067 | 19.0 | 18.9 |

**155238** 2005 $WY_{18}$ 1 5.6 268°.45 0°.3/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.67 | +21 20.2 | 1.982 | 2.807 | 13.1 | 20.4 |
| 12 13 | 7 23.21 | +21 26.7 | 1.896 | 2.799 | 9.8 | 20.2 |
| 12 23 | 7 15.44 | +21 37.0 | 1.835 | 2.790 | 5.9 | 19.9 |
| 1 2 | 7 6.08 | +21 48.8 | 1.801 | 2.782 | 1.6 | 19.6 |
| 1 12 | 6 56.19 | +22 0.0 | 1.797 | 2.774 | 2.8 | 19.7 |
| 1 22 | 6 46.94 | +22 9.0 | 1.821 | 2.766 | 7.1 | 19.9 |
| 2 1 | 6 39.38 | +22 15.3 | 1.873 | 2.757 | 11.0 | 20.2 |
| 2 11 | 6 34.28 | +22 19.1 | 1.948 | 2.749 | 14.3 | 20.4 |

**466372** 2013 $RA_{89}$ 1 5.6 67°.58 5°.2/ 4.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.72 | +37 7.1 | 2.051 | 2.868 | 13.1 | 21.4 |
| 12 13 | 7 26.24 | +37 42.1 | 1.989 | 2.877 | 10.2 | 21.2 |
| 12 23 | 7 17.19 | +38 8.3 | 1.950 | 2.887 | 7.2 | 21.1 |
| 1 2 | 7 6.51 | +38 20.4 | 1.938 | 2.896 | 5.3 | 21.0 |
| 1 12 | 6 55.51 | +38 15.2 | 1.955 | 2.906 | 6.0 | 21.0 |
| 1 22 | 6 45.52 | +37 52.8 | 2.000 | 2.916 | 8.6 | 21.2 |
| 2 1 | 6 37.64 | +37 16.2 | 2.071 | 2.925 | 11.4 | 21.4 |
| 2 11 | 6 32.58 | +36 29.9 | 2.165 | 2.935 | 14.1 | 21.6 |

**213153** 2000 $ON_{68}$ 1 5.6 263°.68 1°.6/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.87 | +15 12.8 | 2.537 | 3.344 | 11.2 | 20.2 |
| 12 13 | 7 20.76 | +15 37.4 | 2.437 | 3.328 | 8.5 | 20.0 |
| 12 23 | 7 13.85 | +16 10.2 | 2.363 | 3.311 | 5.3 | 19.8 |
| 1 2 | 7 5.66 | +16 49.8 | 2.317 | 3.295 | 2.3 | 19.6 |
| 1 12 | 6 56.96 | +17 33.9 | 2.303 | 3.278 | 2.7 | 19.6 |
| 1 22 | 6 48.62 | +18 20.1 | 2.319 | 3.260 | 5.9 | 19.8 |
| 2 1 | 6 41.44 | +19 5.9 | 2.363 | 3.243 | 9.2 | 19.9 |
| 2 11 | 6 36.11 | +19 49.7 | 2.433 | 3.225 | 12.1 | 20.1 |

**64423** 2001 $UV_{217}$ 1 5.6 333°.19 1°.1/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.84 | +19 21.0 | 1.801 | 2.628 | 14.2 | 19.9 |
| 12 13 | 7 23.43 | +19 19.7 | 1.724 | 2.627 | 10.6 | 19.7 |
| 12 23 | 7 15.60 | +19 23.9 | 1.671 | 2.626 | 6.5 | 19.4 |
| 1 2 | 7 6.13 | +19 32.0 | 1.644 | 2.624 | 2.1 | 19.1 |
| 1 12 | 6 56.19 | +19 41.9 | 1.646 | 2.623 | 3.1 | 19.2 |
| 1 22 | 6 46.99 | +19 52.1 | 1.677 | 2.622 | 7.5 | 19.5 |
| 2 1 | 6 39.65 | +20 1.8 | 1.734 | 2.621 | 11.5 | 19.7 |
| 2 11 | 6 34.92 | +20 10.4 | 1.814 | 2.621 | 15.0 | 19.9 |

**503253** 2015 $KB_{28}$ 1 5.6 163°.67 1°.6/ 6.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 21.74 | +14 41.7 | 4.050 | 4.844 | 7.6 | 22.6 |
| 12 13 | 7 17.00 | +14 33.0 | 3.966 | 4.849 | 5.7 | 22.5 |
| 12 23 | 7 11.27 | +14 28.2 | 3.910 | 4.853 | 3.7 | 22.3 |
| 1 2 | 7 4.91 | +14 27.2 | 3.884 | 4.857 | 1.9 | 22.2 |
| 1 12 | 6 58.39 | +14 29.5 | 3.890 | 4.860 | 2.1 | 22.2 |
| 1 22 | 6 52.18 | +14 34.6 | 3.928 | 4.864 | 4.0 | 22.4 |
| 2 1 | 6 46.70 | +14 41.8 | 3.995 | 4.867 | 6.0 | 22.5 |
| 2 11 | 6 42.33 | +14 50.4 | 4.089 | 4.869 | 7.8 | 22.6 |

**436380** 2010 $PB_{70}$ 1 5.6 79°.34 0°.9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.34 | +18 20.0 | 3.181 | 3.990 | 9.1 | 21.2 |
| 12 13 | 7 18.37 | +18 25.0 | 3.116 | 4.009 | 6.7 | 21.1 |
| 12 23 | 7 12.14 | +18 33.5 | 3.076 | 4.028 | 4.1 | 20.9 |
| 1 2 | 7 5.15 | +18 44.6 | 3.067 | 4.046 | 1.5 | 20.8 |
| 1 12 | 6 58.00 | +18 57.2 | 3.089 | 4.065 | 2.0 | 20.8 |
| 1 22 | 6 51.30 | +19 10.3 | 3.142 | 4.083 | 4.6 | 21.0 |
| 2 1 | 6 45.61 | +19 23.1 | 3.224 | 4.102 | 7.0 | 21.2 |
| 2 11 | 6 41.36 | +19 35.1 | 3.331 | 4.120 | 9.2 | 21.4 |

**148383** 2000 $SA_{352}$ 1 5.6 205°.85 1°.8/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | +26 14.7 | 2.017 | 2.842 | 12.9 | 20.6 |
| 12 13 | 7 24.23 | +26 47.0 | 1.938 | 2.841 | 9.6 | 20.3 |
| 12 23 | 7 16.06 | +27 20.0 | 1.884 | 2.839 | 5.8 | 20.1 |
| 1 2 | 7 6.26 | +27 49.7 | 1.858 | 2.837 | 2.3 | 19.9 |
| 1 12 | 6 55.96 | +28 12.5 | 1.862 | 2.835 | 3.5 | 19.9 |
| 1 22 | 6 46.36 | +28 26.6 | 1.895 | 2.833 | 7.3 | 20.2 |
| 2 1 | 6 38.54 | +28 32.0 | 1.955 | 2.831 | 11.0 | 20.4 |
| 2 11 | 6 33.27 | +28 30.2 | 2.038 | 2.829 | 14.1 | 20.6 |

**465278** 2007 $TV_{178}$ 1 5.6 135°.64 3°.9/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.42 | + 9 25.4 | 2.522 | 3.313 | 11.7 | 21.6 |
| 12 13 | 7 20.20 | + 9 8.9 | 2.445 | 3.319 | 9.1 | 21.5 |
| 12 23 | 7 13.37 | + 9 2.1 | 2.393 | 3.324 | 6.4 | 21.3 |
| 1 2 | 7 5.50 | + 9 5.6 | 2.369 | 3.330 | 4.3 | 21.2 |
| 1 12 | 6 57.35 | + 9 18.8 | 2.375 | 3.335 | 4.3 | 21.2 |
| 1 22 | 6 49.71 | + 9 40.4 | 2.410 | 3.340 | 6.5 | 21.3 |
| 2 1 | 6 43.29 | +10 8.3 | 2.473 | 3.344 | 9.2 | 21.5 |
| 2 11 | 6 38.64 | +10 40.4 | 2.561 | 3.349 | 11.6 | 21.7 |

**143368** 2003 $BT_{8}$ 1 5.6 334°.93 2°.8/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.73 | +14 25.4 | 2.021 | 2.839 | 13.2 | 19.9 |
| 12 13 | 7 20.20 | +14 17.1 | 1.936 | 2.831 | 10.1 | 19.6 |
| 12 23 | 7 13.61 | +14 17.4 | 1.875 | 2.823 | 6.6 | 19.4 |
| 1 2 | 7 5.60 | +14 26.1 | 1.841 | 2.815 | 3.4 | 19.2 |
| 1 12 | 6 57.14 | +14 42.1 | 1.836 | 2.808 | 3.7 | 19.2 |
| 1 22 | 6 49.24 | +15 3.7 | 1.859 | 2.801 | 7.1 | 19.4 |
| 2 1 | 6 42.83 | +15 29.0 | 1.909 | 2.795 | 10.7 | 19.6 |
| 2 11 | 6 38.62 | +15 55.9 | 1.982 | 2.789 | 13.8 | 19.8 |

**165913** 2001 $TF_{8}$ 1 5.6 49°.46 4°.6/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.91 | +11 19.3 | 2.001 | 2.806 | 13.8 | 18.9 |
| 12 13 | 7 22.20 | +10 28.3 | 1.945 | 2.827 | 10.7 | 18.8 |
| 12 23 | 7 14.57 | + 9 47.0 | 1.913 | 2.849 | 7.4 | 18.6 |
| 1 2 | 7 5.81 | + 9 17.0 | 1.909 | 2.871 | 4.9 | 18.5 |
| 1 12 | 6 56.90 | + 8 59.0 | 1.933 | 2.894 | 5.1 | 18.6 |
| 1 22 | 6 48.81 | + 8 52.2 | 1.986 | 2.916 | 7.6 | 18.8 |
| 2 1 | 6 42.35 | + 8 55.2 | 2.066 | 2.939 | 10.6 | 19.0 |
| 2 11 | 6 38.08 | + 9 5.6 | 2.168 | 2.962 | 13.3 | 19.2 |

**459711** 2013 $PY_{36}$ 1 5.6 200°.79 2°.0/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.07 | +25 13.3 | 2.070 | 2.894 | 12.7 | 20.8 |
| 12 13 | 7 24.30 | +26 15.6 | 1.990 | 2.892 | 9.4 | 20.6 |
| 12 23 | 7 16.15 | +27 21.0 | 1.936 | 2.890 | 5.7 | 20.4 |
| 1 2 | 7 6.31 | +28 24.6 | 1.910 | 2.889 | 2.4 | 20.2 |
| 1 12 | 6 55.88 | +29 21.1 | 1.915 | 2.887 | 3.7 | 20.3 |
| 1 22 | 6 46.03 | +30 7.2 | 1.949 | 2.884 | 7.4 | 20.5 |
| 2 1 | 6 37.88 | +30 41.5 | 2.011 | 2.882 | 11.0 | 20.7 |
| 2 11 | 6 32.24 | +31 5.2 | 2.096 | 2.879 | 14.0 | 20.9 |

**518589** 2007 $UJ_{143}$ 1 5.6 128°.77 2°.8/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.52 | +13 46.9 | 2.506 | 3.309 | 11.4 | 20.9 |
| 12 13 | 7 21.01 | +13 26.0 | 2.431 | 3.316 | 8.7 | 20.7 |
| 12 23 | 7 13.85 | +13 11.8 | 2.380 | 3.323 | 5.7 | 20.5 |
| 1 2 | 7 5.64 | +13 4.4 | 2.359 | 3.329 | 3.2 | 20.4 |
| 1 12 | 6 57.17 | +13 3.5 | 2.367 | 3.336 | 3.5 | 20.4 |
| 1 22 | 6 49.26 | +13 8.2 | 2.406 | 3.342 | 6.1 | 20.6 |
| 2 1 | 6 42.62 | +13 17.4 | 2.473 | 3.348 | 9.0 | 20.8 |
| 2 11 | 6 37.82 | +13 29.8 | 2.564 | 3.354 | 11.6 | 21.0 |

**326282** 1996 $VN_{25}$ 1 5.6 273°.30 2°.3/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.83 | +27 3.2 | 1.932 | 2.761 | 13.3 | 21.0 |
| 12 13 | 7 24.32 | +27 43.2 | 1.847 | 2.751 | 9.9 | 20.8 |
| 12 23 | 7 16.25 | +28 24.3 | 1.786 | 2.740 | 6.1 | 20.5 |
| 1 2 | 7 6.36 | +29 1.7 | 1.752 | 2.730 | 2.7 | 20.3 |
| 1 12 | 6 55.81 | +29 31.0 | 1.748 | 2.719 | 4.0 | 20.3 |
| 1 22 | 6 45.90 | +29 49.8 | 1.772 | 2.709 | 7.9 | 20.6 |
| 2 1 | 6 37.83 | +29 57.9 | 1.823 | 2.698 | 11.7 | 20.8 |
| 2 11 | 6 32.46 | +29 57.2 | 1.896 | 2.688 | 15.0 | 21.0 |

**341339** 2007 $TW_{40}$ 1 5.6 330°.20 6°.9/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 24.80 | + 2 46.2 | 2.245 | 3.019 | 13.5 | 20.6 |
| 12 13 | 7 19.97 | + 1 54.6 | 2.165 | 3.015 | 11.2 | 20.5 |
| 12 23 | 7 13.35 | + 1 17.1 | 2.108 | 3.012 | 8.8 | 20.3 |
| 1 2 | 7 5.53 | + 0 56.4 | 2.077 | 3.009 | 7.2 | 20.2 |
| 1 12 | 6 57.35 | + 0 53.6 | 2.073 | 3.006 | 7.2 | 20.2 |
| 1 22 | 6 49.67 | + 1 8.0 | 2.097 | 3.003 | 8.8 | 20.3 |
| 2 1 | 6 43.30 | + 1 37.1 | 2.147 | 3.000 | 11.1 | 20.4 |
| 2 11 | 6 38.86 | + 2 17.1 | 2.219 | 2.998 | 13.5 | 20.6 |

**113415** Rauracia 1 5.6 55°.04 4°.0/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.24 | + 7 52.3 | 2.766 | 3.551 | 10.9 | 19.5 |
| 12 13 | 7 18.39 | + 7 33.1 | 2.706 | 3.574 | 8.6 | 19.4 |
| 12 23 | 7 12.19 | + 7 23.8 | 2.671 | 3.597 | 6.2 | 19.3 |
| 1 2 | 7 5.18 | + 7 24.8 | 2.665 | 3.619 | 4.3 | 19.2 |
| 1 12 | 6 58.03 | + 7 35.8 | 2.688 | 3.642 | 4.3 | 19.2 |
| 1 22 | 6 51.39 | + 7 55.2 | 2.740 | 3.665 | 6.1 | 19.4 |
| 2 1 | 6 45.86 | + 8 21.3 | 2.821 | 3.688 | 8.3 | 19.6 |
| 2 11 | 6 41.88 | + 8 51.8 | 2.926 | 3.711 | 10.4 | 19.7 |

**117388** Jamiemoore 1 5.6 58°.32 0°.8/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.97 | +19 8.3 | 1.355 | 2.193 | 17.3 | 20.1 |
| 12 13 | 7 26.09 | +19 28.8 | 1.306 | 2.214 | 12.8 | 19.9 |
| 12 23 | 7 17.26 | +19 57.5 | 1.279 | 2.236 | 7.7 | 19.6 |
| 1 2 | 7 6.58 | +20 30.6 | 1.277 | 2.258 | 2.3 | 19.4 |
| 1 12 | 6 55.61 | +21 4.0 | 1.303 | 2.281 | 3.5 | 19.5 |
| 1 22 | 6 45.92 | +21 34.3 | 1.355 | 2.303 | 8.6 | 19.9 |
| 2 1 | 6 38.75 | +22 0.0 | 1.433 | 2.326 | 13.1 | 20.2 |
| 2 11 | 6 34.80 | +22 20.9 | 1.531 | 2.348 | 16.8 | 20.5 |

**328532** 2009 $RD_{12}$ 1 5.6 147°.29 3°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.62 | +30 49.7 | 2.045 | 2.869 | 12.9 | 21.4 |
| 12 13 | 7 25.40 | +31 23.3 | 1.973 | 2.872 | 9.7 | 21.2 |
| 12 23 | 7 16.74 | +31 53.7 | 1.925 | 2.875 | 6.2 | 21.0 |
| 1 2 | 7 6.46 | +32 15.9 | 1.905 | 2.878 | 3.5 | 20.8 |
| 1 12 | 6 55.74 | +32 26.6 | 1.915 | 2.881 | 4.5 | 20.9 |
| 1 22 | 6 45.83 | +32 24.8 | 1.953 | 2.884 | 7.7 | 21.1 |
| 2 1 | 6 37.83 | +32 11.7 | 2.018 | 2.886 | 11.1 | 21.3 |
| 2 11 | 6 32.49 | +31 50.3 | 2.106 | 2.888 | 14.0 | 21.5 |

**214270** 2005 $GO_{45}$ 1 5.6 182°.12 4°.4/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.16 | + 8 59.9 | 2.277 | 3.065 | 12.9 | 21.3 |
| 12 13 | 7 23.15 | + 8 41.1 | 2.194 | 3.066 | 10.1 | 21.1 |
| 12 23 | 7 15.23 | + 8 33.2 | 2.136 | 3.066 | 7.2 | 20.9 |
| 1 2 | 7 6.04 | + 8 37.0 | 2.106 | 3.066 | 4.8 | 20.8 |
| 1 12 | 6 56.47 | + 8 52.0 | 2.106 | 3.065 | 4.9 | 20.8 |
| 1 22 | 6 47.45 | + 9 16.6 | 2.135 | 3.064 | 7.3 | 20.9 |
| 2 1 | 6 39.83 | + 9 48.6 | 2.192 | 3.061 | 10.3 | 21.1 |
| 2 11 | 6 34.27 | +10 25.2 | 2.274 | 3.058 | 13.0 | 21.3 |

**186594** 2003 $BP_{35}$ 1 5.6 252°.28 2°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.23 | +26 6.3 | 1.912 | 2.741 | 13.4 | 19.9 |
| 12 13 | 7 24.63 | +26 59.2 | 1.830 | 2.734 | 10.0 | 19.6 |
| 12 23 | 7 16.45 | +27 54.6 | 1.773 | 2.728 | 6.1 | 19.4 |
| 1 2 | 7 6.43 | +28 47.2 | 1.743 | 2.721 | 2.6 | 19.2 |
| 1 12 | 6 55.74 | +29 32.1 | 1.743 | 2.714 | 4.0 | 19.2 |
| 1 22 | 6 45.69 | +30 6.0 | 1.771 | 2.708 | 7.9 | 19.5 |
| 2 1 | 6 37.49 | +30 28.2 | 1.826 | 2.701 | 11.7 | 19.7 |
| 2 11 | 6 32.02 | +30 40.1 | 1.904 | 2.694 | 15.0 | 19.9 |

**303981** 2006 $BK_{80}$ 1 5.6 211°.97 2°.5/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.93 | +26 51.2 | 1.635 | 2.468 | 15.1 | 20.7 |
| 12 13 | 7 26.93 | +27 31.0 | 1.560 | 2.465 | 11.3 | 20.4 |
| 12 23 | 7 17.93 | +28 11.8 | 1.507 | 2.463 | 6.9 | 20.2 |
| 1 2 | 7 6.83 | +28 47.9 | 1.482 | 2.460 | 2.9 | 19.9 |
| 1 12 | 6 55.06 | +29 14.3 | 1.485 | 2.457 | 4.3 | 20.0 |
| 1 22 | 6 44.18 | +29 28.6 | 1.515 | 2.454 | 8.8 | 20.2 |
| 2 1 | 6 35.57 | +29 31.3 | 1.572 | 2.451 | 13.0 | 20.5 |
| 2 11 | 6 30.16 | +29 24.9 | 1.650 | 2.447 | 16.6 | 20.7 |

**466589** 2014 $UA_{114}$ 1 5.6 352°.87 4°.6/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.86 | +10 59.0 | 1.917 | 2.724 | 14.2 | 21.3 |
| 12 13 | 7 22.49 | +10 23.4 | 1.840 | 2.724 | 11.1 | 21.1 |
| 12 23 | 7 14.96 | + 9 58.3 | 1.786 | 2.723 | 7.8 | 20.9 |
| 1 2 | 7 5.99 | + 9 44.9 | 1.759 | 2.723 | 5.0 | 20.7 |
| 1 12 | 6 56.61 | + 9 43.5 | 1.760 | 2.723 | 5.2 | 20.7 |
| 1 22 | 6 47.90 | + 9 53.0 | 1.790 | 2.723 | 8.1 | 20.9 |
| 2 1 | 6 40.83 | +10 11.4 | 1.846 | 2.723 | 11.5 | 21.1 |
| 2 11 | 6 36.10 | +10 36.0 | 1.924 | 2.723 | 14.5 | 21.3 |

**502956** 2015 $ES_{65}$ 1 5.6 269°.83 0°.8/ 5.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.37 | +24 21.1 | 2.353 | 3.175 | 11.4 | 21.8 |
| 12 13 | 7 22.03 | +24 39.0 | 2.262 | 3.164 | 8.5 | 21.6 |
| 12 23 | 7 14.67 | +24 58.5 | 2.197 | 3.152 | 5.1 | 21.3 |
| 1 2 | 7 5.92 | +25 16.9 | 2.160 | 3.140 | 1.5 | 21.1 |
| 1 12 | 6 56.70 | +25 31.8 | 2.153 | 3.129 | 2.7 | 21.1 |
| 1 22 | 6 47.98 | +25 41.7 | 2.176 | 3.117 | 6.3 | 21.3 |
| 2 1 | 6 40.69 | +25 46.3 | 2.227 | 3.105 | 9.7 | 21.5 |
| 2 11 | 6 35.51 | +25 46.3 | 2.301 | 3.093 | 12.7 | 21.7 |

**411383** 2010 $VF_{70}$ 1 5.6 92°.01 1°.5/ 5.2 14 C

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.32 | +25 40.8 | 2.004 | 2.822 | 13.3 | 22.0 |
| 12 13 | 7 27.03 | +26 8.6 | 1.954 | 2.853 | 9.7 | 21.9 |
| 12 23 | 7 17.50 | +26 36.0 | 1.929 | 2.883 | 5.8 | 21.7 |
| 1 2 | 7 6.62 | +26 59.2 | 1.933 | 2.912 | 2.0 | 21.5 |
| 1 12 | 6 55.60 | +27 15.4 | 1.967 | 2.941 | 3.2 | 21.6 |
| 1 22 | 6 45.60 | +27 23.4 | 2.031 | 2.969 | 7.0 | 21.9 |
| 2 1 | 6 37.58 | +27 24.0 | 2.123 | 2.997 | 10.4 | 22.2 |
| 2 11 | 6 32.14 | +27 19.0 | 2.239 | 3.023 | 13.2 | 22.4 |

**163444** 2002 $RJ_{103}$ 1 5.6 70°.75 4°.7/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.19 | +35 36.7 | 2.154 | 2.972 | 12.5 | 19.8 |
| 12 13 | 7 25.05 | +36 18.5 | 2.089 | 2.980 | 9.6 | 19.6 |
| 12 23 | 7 16.51 | +36 53.6 | 2.048 | 2.988 | 6.7 | 19.4 |
| 1 2 | 7 6.40 | +37 16.6 | 2.035 | 2.996 | 4.8 | 19.3 |
| 1 12 | 6 55.93 | +37 24.1 | 2.051 | 3.004 | 5.6 | 19.4 |
| 1 22 | 6 46.32 | +37 15.7 | 2.095 | 3.012 | 8.1 | 19.6 |
| 2 1 | 6 38.63 | +36 53.3 | 2.166 | 3.020 | 11.0 | 19.8 |
| 2 11 | 6 33.58 | +36 20.8 | 2.259 | 3.029 | 13.6 | 20.0 |

**308143** 2005 $AY_2$ 1 5.6 253°.06 4°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 45.06 | +33 18.8 | 1.092 | 1.932 | 20.5 | 20.1 |
| 12 13 | 7 37.29 | +32 48.0 | 1.017 | 1.923 | 15.8 | 19.8 |
| 12 23 | 7 24.69 | +32 2.0 | 0.961 | 1.915 | 10.2 | 19.5 |
| 1 2 | 7 8.71 | +30 53.8 | 0.929 | 1.906 | 4.8 | 19.1 |
| 1 12 | 6 51.90 | +29 21.7 | 0.923 | 1.897 | 5.9 | 19.2 |
| 1 22 | 6 36.99 | +27 32.0 | 0.943 | 1.888 | 11.9 | 19.5 |
| 2 1 | 6 26.09 | +25 36.3 | 0.987 | 1.878 | 17.7 | 19.8 |
| 2 11 | 6 20.20 | +23 45.5 | 1.049 | 1.869 | 22.6 | 20.0 |

**59623** 1999 $JE_{73}$ 1 5.6 135°.88 2°.9/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.81 | +29 13.8 | 2.313 | 3.130 | 11.8 | 19.9 |
| 12 13 | 7 25.29 | +30 9.4 | 2.245 | 3.142 | 8.8 | 19.7 |
| 12 23 | 7 16.58 | +31 3.6 | 2.203 | 3.153 | 5.6 | 19.6 |
| 1 2 | 7 6.43 | +31 51.5 | 2.191 | 3.164 | 3.1 | 19.4 |
| 1 12 | 6 55.87 | +32 29.2 | 2.209 | 3.175 | 4.0 | 19.5 |
| 1 22 | 6 46.00 | +32 54.5 | 2.257 | 3.185 | 7.1 | 19.7 |
| 2 1 | 6 37.79 | +33 7.9 | 2.334 | 3.194 | 10.1 | 19.9 |
| 2 11 | 6 31.95 | +33 11.4 | 2.433 | 3.203 | 12.7 | 20.1 |

**490648** 2010 $EC_{133}$ 1 5.6 243°.49 3°.3/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.26 | +14 29.0 | 1.787 | 2.601 | 14.8 | 22.3 |
| 12 13 | 7 25.38 | +14 12.2 | 1.695 | 2.587 | 11.4 | 22.0 |
| 12 23 | 7 16.91 | +14 4.4 | 1.627 | 2.573 | 7.5 | 21.7 |
| 1 2 | 7 6.58 | +14 5.5 | 1.585 | 2.559 | 3.9 | 21.5 |
| 1 12 | 6 55.54 | +14 14.7 | 1.572 | 2.543 | 4.3 | 21.5 |
| 1 22 | 6 45.11 | +14 30.4 | 1.587 | 2.528 | 8.3 | 21.7 |
| 2 1 | 6 36.48 | +14 50.9 | 1.629 | 2.511 | 12.4 | 21.9 |
| 2 11 | 6 30.56 | +15 14.3 | 1.693 | 2.494 | 16.1 | 22.1 |

**471350** 2011 $QY_{63}$ 1 5.6 38°.43 6°.3/ 7.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 23.44 | + 2 11.1 | 2.389 | 3.158 | 12.9 | 21.6 |
| 12 13 | 7 18.84 | + 1 44.3 | 2.317 | 3.165 | 10.6 | 21.5 |
| 12 23 | 7 12.62 | + 1 32.5 | 2.268 | 3.172 | 8.3 | 21.4 |
| 1 2 | 7 5.35 | + 1 37.2 | 2.245 | 3.179 | 6.6 | 21.3 |
| 1 12 | 6 57.81 | + 1 58.3 | 2.250 | 3.186 | 6.5 | 21.3 |
| 1 22 | 6 50.78 | + 2 34.1 | 2.283 | 3.194 | 7.9 | 21.4 |
| 2 1 | 6 44.98 | + 3 21.4 | 2.343 | 3.202 | 10.1 | 21.5 |
| 2 11 | 6 40.95 | + 4 16.3 | 2.426 | 3.209 | 12.3 | 21.7 |

**493102** 2014 $SX_{338}$ 1 5.6 162°.24 2°.0/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.62 | +15 24.0 | 2.261 | 3.067 | 12.4 | 21.9 |
| 12 13 | 7 23.52 | +15 30.6 | 2.184 | 3.073 | 9.3 | 21.8 |
| 12 23 | 7 15.47 | +15 44.6 | 2.131 | 3.078 | 5.9 | 21.6 |
| 1 2 | 7 6.13 | +16 4.8 | 2.107 | 3.083 | 2.6 | 21.3 |
| 1 12 | 6 56.43 | +16 29.5 | 2.114 | 3.087 | 3.1 | 21.4 |
| 1 22 | 6 47.34 | +16 56.6 | 2.151 | 3.091 | 6.4 | 21.6 |
| 2 1 | 6 39.72 | +17 24.5 | 2.216 | 3.094 | 9.8 | 21.8 |
| 2 11 | 6 34.22 | +17 51.8 | 2.306 | 3.097 | 12.7 | 22.0 |

**283184** 2009 $WA_{33}$ 1 5.6 255°.79 2°.2/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.41 | +25 14.2 | 1.486 | 2.322 | 16.2 | 21.1 |
| 12 13 | 7 27.70 | +25 59.0 | 1.403 | 2.311 | 12.1 | 20.8 |
| 12 23 | 7 18.65 | +26 48.0 | 1.342 | 2.299 | 7.4 | 20.5 |
| 1 2 | 7 7.11 | +27 35.0 | 1.308 | 2.287 | 2.8 | 20.2 |
| 1 12 | 6 54.62 | +28 13.7 | 1.301 | 2.275 | 4.5 | 20.2 |
| 1 22 | 6 42.92 | +28 40.3 | 1.321 | 2.262 | 9.5 | 20.5 |
| 2 1 | 6 33.64 | +28 54.4 | 1.366 | 2.250 | 14.3 | 20.7 |
| 2 11 | 6 27.89 | +28 58.1 | 1.432 | 2.236 | 18.4 | 21.0 |

**268699** 2006 $HW_4$ 1 5.6 43°.68 1°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.51 | +19 3.5 | 2.069 | 2.891 | 12.8 | 20.7 |
| 12 13 | 7 22.21 | +19 11.7 | 1.992 | 2.891 | 9.5 | 20.5 |
| 12 23 | 7 14.79 | +19 25.4 | 1.938 | 2.892 | 5.8 | 20.3 |
| 1 2 | 7 5.97 | +19 42.7 | 1.912 | 2.893 | 1.9 | 20.0 |
| 1 12 | 6 56.74 | +20 1.6 | 1.916 | 2.893 | 2.7 | 20.1 |
| 1 22 | 6 48.15 | +20 20.2 | 1.950 | 2.894 | 6.7 | 20.4 |
| 2 1 | 6 41.14 | +20 37.4 | 2.010 | 2.895 | 10.3 | 20.6 |
| 2 11 | 6 36.41 | +20 52.7 | 2.094 | 2.895 | 13.4 | 20.8 |

**482091** 2010 $JS_{57}$ 1 5.6 241°.23 0°.5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.01 | +19 49.4 | 1.656 | 2.483 | 15.2 | 21.7 |
| 12 13 | 7 26.20 | +20 9.9 | 1.569 | 2.472 | 11.4 | 21.4 |
| 12 23 | 7 17.53 | +20 37.8 | 1.506 | 2.461 | 6.9 | 21.2 |
| 1 2 | 7 6.78 | +21 9.8 | 1.469 | 2.450 | 2.0 | 20.8 |
| 1 12 | 6 55.24 | +21 42.3 | 1.461 | 2.438 | 3.3 | 20.9 |
| 1 22 | 6 44.40 | +22 12.1 | 1.481 | 2.426 | 8.3 | 21.2 |
| 2 1 | 6 35.59 | +22 37.6 | 1.528 | 2.414 | 12.9 | 21.4 |
| 2 11 | 6 29.80 | +22 58.4 | 1.596 | 2.401 | 16.8 | 21.6 |

**457911** 2009 $UT_{17}$ 1 5.6 130°.70 4°.7/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.68 | +37 30.1 | 2.423 | 3.226 | 11.8 | 21.8 |
| 12 13 | 7 28.04 | +38 0.4 | 2.360 | 3.241 | 9.1 | 21.6 |
| 12 23 | 7 18.14 | +38 22.2 | 2.323 | 3.256 | 6.5 | 21.5 |
| 1 2 | 7 6.84 | +38 30.7 | 2.314 | 3.270 | 4.8 | 21.4 |
| 1 12 | 6 55.31 | +38 23.4 | 2.335 | 3.284 | 5.4 | 21.5 |
| 1 22 | 6 44.72 | +38 0.7 | 2.386 | 3.297 | 7.6 | 21.6 |
| 2 1 | 6 36.04 | +37 25.1 | 2.465 | 3.309 | 10.2 | 21.8 |
| 2 11 | 6 29.92 | +36 40.8 | 2.567 | 3.321 | 12.5 | 22.0 |

**293566** 2007 $HN_{57}$ 1 5.6 258°.53 2°.0/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.96 | +16 46.2 | 1.564 | 2.390 | 16.0 | 21.4 |
| 12 13 | 7 25.52 | +16 54.2 | 1.478 | 2.379 | 12.1 | 21.2 |
| 12 23 | 7 17.17 | +17 12.1 | 1.414 | 2.367 | 7.6 | 20.9 |
| 1 2 | 7 6.69 | +17 38.5 | 1.377 | 2.355 | 3.0 | 20.6 |
| 1 12 | 6 55.42 | +18 10.1 | 1.367 | 2.343 | 3.8 | 20.6 |
| 1 22 | 6 44.83 | +18 44.0 | 1.385 | 2.331 | 8.7 | 20.8 |
| 2 1 | 6 36.32 | +19 17.5 | 1.428 | 2.318 | 13.4 | 21.1 |
| 2 11 | 6 30.88 | +19 49.0 | 1.493 | 2.305 | 17.4 | 21.3 |

**245262** 2005 $AA_{26}$ 1 5.6 54°.17 1°.4/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.58 | +17 7.3 | 1.361 | 2.198 | 17.3 | 20.0 |
| 12 13 | 7 25.17 | +17 35.4 | 1.307 | 2.213 | 12.9 | 19.8 |
| 12 23 | 7 16.81 | +18 14.8 | 1.274 | 2.230 | 7.9 | 19.5 |
| 1 2 | 7 6.53 | +19 1.8 | 1.266 | 2.246 | 2.7 | 19.3 |
| 1 12 | 6 55.85 | +19 51.4 | 1.285 | 2.263 | 3.6 | 19.4 |
| 1 22 | 6 46.29 | +20 39.1 | 1.331 | 2.280 | 8.7 | 19.7 |
| 2 1 | 6 39.17 | +21 22.2 | 1.402 | 2.297 | 13.2 | 20.0 |
| 2 11 | 6 35.24 | +21 59.2 | 1.495 | 2.314 | 17.0 | 20.3 |

**449183** 2013 $CW_1$ 1 5.6 276°.59 4°.4/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.29 | +11 44.4 | 1.542 | 2.361 | 16.5 | 21.0 |
| 12 13 | 7 24.16 | +11 32.8 | 1.462 | 2.355 | 12.8 | 20.7 |
| 12 23 | 7 16.26 | +11 35.0 | 1.405 | 2.349 | 8.7 | 20.5 |
| 1 2 | 7 6.43 | +11 51.6 | 1.372 | 2.343 | 5.0 | 20.3 |
| 1 12 | 6 55.93 | +12 21.0 | 1.367 | 2.337 | 5.3 | 20.3 |
| 1 22 | 6 46.16 | +13 0.3 | 1.389 | 2.330 | 9.1 | 20.5 |
| 2 1 | 6 38.43 | +13 45.9 | 1.436 | 2.324 | 13.4 | 20.7 |
| 2 11 | 6 33.63 | +14 33.8 | 1.504 | 2.318 | 17.2 | 20.9 |

**193875** 2001 $QW_{161}$ 1 5.6 63°.71 2°.7/ 5.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.08 | +26 50.1 | 1.278 | 2.122 | 17.8 | 20.3 |
| 12 13 | 7 28.74 | +27 28.1 | 1.231 | 2.142 | 13.2 | 20.1 |
| 12 23 | 7 19.00 | +28 5.8 | 1.204 | 2.162 | 8.0 | 19.8 |
| 1 2 | 7 7.11 | +28 36.5 | 1.203 | 2.182 | 3.3 | 19.6 |
| 1 12 | 6 54.91 | +28 55.3 | 1.229 | 2.203 | 4.8 | 19.8 |
| 1 22 | 6 44.21 | +29 0.5 | 1.281 | 2.224 | 9.6 | 20.1 |
| 2 1 | 6 36.44 | +28 54.2 | 1.357 | 2.244 | 14.1 | 20.4 |
| 2 11 | 6 32.34 | +28 40.0 | 1.454 | 2.265 | 17.8 | 20.7 |

**468726** 2010 $JO_{38}$ 1 5.6 263°.30 11°.4/ 8.5 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.77 | −15 11.0 | 2.613 | 3.270 | 14.5 | 22.0 |
| 12 13 | 7 19.90 | −16 25.3 | 2.529 | 3.256 | 13.3 | 21.9 |
| 12 23 | 7 13.34 | −17 18.7 | 2.465 | 3.243 | 12.2 | 21.7 |
| 1 2 | 7 5.60 | −17 46.6 | 2.422 | 3.229 | 11.5 | 21.7 |
| 1 12 | 6 57.42 | −17 46.2 | 2.402 | 3.215 | 11.4 | 21.6 |
| 1 22 | 6 49.60 | −17 17.9 | 2.405 | 3.201 | 12.0 | 21.7 |
| 2 1 | 6 42.91 | −16 24.3 | 2.431 | 3.186 | 13.1 | 21.7 |
| 2 11 | 6 37.95 | −15 10.7 | 2.477 | 3.172 | 14.4 | 21.8 |

**2881** Meiden 1 5.6 333°.41 4°.3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.66 | +13 53.4 | 1.138 | 1.986 | 19.2 | 15.8 |
| 12 13 | 7 23.05 | +13 36.8 | 1.063 | 1.973 | 14.9 | 15.5 |
| 12 23 | 7 16.01 | +13 35.3 | 1.008 | 1.961 | 9.9 | 15.2 |
| 1 2 | 7 6.43 | +13 49.8 | 0.975 | 1.950 | 5.2 | 14.9 |
| 1 12 | 6 55.92 | +14 18.5 | 0.966 | 1.940 | 5.6 | 14.9 |
| 1 22 | 6 46.30 | +14 57.8 | 0.981 | 1.931 | 10.7 | 15.2 |
| 2 1 | 6 39.26 | +15 43.3 | 1.018 | 1.923 | 16.0 | 15.4 |
| 2 11 | 6 35.93 | +16 30.4 | 1.074 | 1.916 | 20.6 | 15.7 |

**17760** 1998 $DU_{33}$ 1 5.6 349°.54 1°.6/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.85 | +24 27.1 | 1.252 | 2.105 | 17.5 | 17.8 |
| 12 13 | 7 24.53 | +24 53.6 | 1.183 | 2.099 | 13.1 | 17.5 |
| 12 23 | 7 16.79 | +25 23.9 | 1.134 | 2.095 | 7.9 | 17.2 |
| 1 2 | 7 6.61 | +25 53.1 | 1.110 | 2.091 | 2.5 | 16.9 |
| 1 12 | 6 55.66 | +26 15.7 | 1.111 | 2.088 | 4.3 | 17.0 |
| 1 22 | 6 45.78 | +26 29.1 | 1.137 | 2.085 | 9.8 | 17.3 |
| 2 1 | 6 38.57 | +26 33.0 | 1.187 | 2.084 | 14.8 | 17.6 |
| 2 11 | 6 35.02 | +26 29.4 | 1.255 | 2.084 | 19.1 | 17.9 |

**255525** 2006 $DU_{215}$ 1 5.6 109°.20 2°.5/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.36 | +32 21.4 | 3.366 | 4.177 | 8.6 | 20.6 |
| 12 13 | 7 19.99 | +32 47.2 | 3.296 | 4.187 | 6.4 | 20.5 |
| 12 23 | 7 13.20 | +33 9.7 | 3.252 | 4.197 | 4.2 | 20.4 |
| 1 2 | 7 5.53 | +33 26.4 | 3.238 | 4.207 | 2.6 | 20.3 |
| 1 12 | 6 57.63 | +33 35.5 | 3.255 | 4.216 | 3.2 | 20.3 |
| 1 22 | 6 50.21 | +33 36.4 | 3.303 | 4.226 | 5.2 | 20.5 |
| 2 1 | 6 43.88 | +33 29.7 | 3.379 | 4.235 | 7.4 | 20.6 |
| 2 11 | 6 39.13 | +33 16.6 | 3.480 | 4.244 | 9.3 | 20.8 |

**454191** 2013 $GC_{96}$ 1 5.6 324°.48 10°.4/ 3.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.92 | +43 10.5 | 1.354 | 2.181 | 18.0 | 20.6 |
| 12 13 | 7 30.58 | +44 24.5 | 1.283 | 2.168 | 14.9 | 20.3 |
| 12 23 | 7 20.81 | +45 24.0 | 1.232 | 2.154 | 12.0 | 20.1 |
| 1 2 | 7 7.76 | +45 56.4 | 1.203 | 2.142 | 10.5 | 20.0 |
| 1 12 | 6 53.62 | +45 52.9 | 1.199 | 2.130 | 11.3 | 20.0 |
| 1 22 | 6 40.92 | +45 12.7 | 1.218 | 2.119 | 14.1 | 20.2 |
| 2 1 | 6 31.75 | +44 2.3 | 1.258 | 2.109 | 17.5 | 20.3 |
| 2 11 | 6 27.27 | +42 32.6 | 1.316 | 2.099 | 20.8 | 20.5 |

**451236** 2010 $EM_{76}$ 1 5.6 229°.95 0°.2/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.99 | +21 8.2 | 1.632 | 2.461 | 15.3 | 21.4 |
| 12 13 | 7 26.20 | +21 37.7 | 1.551 | 2.456 | 11.4 | 21.1 |
| 12 23 | 7 17.53 | +22 13.8 | 1.493 | 2.449 | 6.9 | 20.8 |
| 1 2 | 7 6.79 | +22 52.5 | 1.461 | 2.443 | 1.9 | 20.5 |
| 1 12 | 6 55.33 | +23 29.5 | 1.458 | 2.436 | 3.3 | 20.6 |
| 1 22 | 6 44.61 | +24 1.3 | 1.484 | 2.428 | 8.3 | 20.9 |
| 2 1 | 6 36.02 | +24 26.5 | 1.535 | 2.421 | 12.8 | 21.1 |
| 2 11 | 6 30.47 | +24 45.4 | 1.608 | 2.413 | 16.7 | 21.3 |

**111121** 2001 $VV_{89}$ 1 5.6 263°.42 4°.9/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.44 | + 8 44.3 | 2.424 | 3.213 | 12.2 | 19.1 |
| 12 13 | 7 21.13 | + 7 57.1 | 2.333 | 3.203 | 9.7 | 18.9 |
| 12 23 | 7 14.06 | + 7 18.8 | 2.266 | 3.192 | 7.1 | 18.7 |
| 1 2 | 7 5.79 | + 6 51.1 | 2.228 | 3.182 | 5.1 | 18.6 |
| 1 12 | 6 57.14 | + 6 35.1 | 2.219 | 3.171 | 5.3 | 18.6 |
| 1 22 | 6 48.94 | + 6 30.5 | 2.239 | 3.160 | 7.4 | 18.7 |
| 2 1 | 6 41.99 | + 6 36.3 | 2.286 | 3.150 | 10.1 | 18.8 |
| 2 11 | 6 36.90 | + 6 50.4 | 2.357 | 3.139 | 12.7 | 19.0 |

**455349** 2002 $RH_{112}$ 1 5.6 57°.03 3°.9/ 4.8 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.49 | +29 38.9 | 1.426 | 2.263 | 16.7 | 21.1 |
| 12 13 | 7 28.70 | +30 30.1 | 1.388 | 2.294 | 12.4 | 21.0 |
| 12 23 | 7 18.80 | +31 17.4 | 1.371 | 2.325 | 7.8 | 20.8 |
| 1 2 | 7 7.04 | +31 53.7 | 1.381 | 2.356 | 4.1 | 20.6 |
| 1 12 | 6 55.13 | +32 14.3 | 1.419 | 2.387 | 5.3 | 20.8 |
| 1 22 | 6 44.72 | +32 18.4 | 1.483 | 2.418 | 9.3 | 21.1 |
| 2 1 | 6 37.07 | +32 8.7 | 1.572 | 2.449 | 13.1 | 21.4 |
| 2 11 | 6 32.84 | +31 49.6 | 1.682 | 2.480 | 16.4 | 21.7 |

**104860** 2000 $HV_{78}$ 1 5.6 243°.37 0°.6/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.28 | +20 40.0 | 1.963 | 2.785 | 13.4 | 20.3 |
| 12 13 | 7 24.62 | +21 37.0 | 1.874 | 2.775 | 10.0 | 20.0 |
| 12 23 | 7 16.47 | +22 41.9 | 1.810 | 2.765 | 6.0 | 19.8 |
| 1 2 | 7 6.51 | +23 50.2 | 1.774 | 2.755 | 1.6 | 19.5 |
| 1 12 | 6 55.81 | +24 56.8 | 1.768 | 2.745 | 3.1 | 19.5 |
| 1 22 | 6 45.62 | +25 57.2 | 1.792 | 2.734 | 7.4 | 19.8 |
| 2 1 | 6 37.11 | +26 48.8 | 1.844 | 2.723 | 11.4 | 20.0 |
| 2 11 | 6 31.18 | +27 31.1 | 1.919 | 2.711 | 14.8 | 20.2 |

**359187** 2009 $CN_{48}$ 1 5.6 297°.74 3°.7/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.06 | +29 41.2 | 1.534 | 2.372 | 15.6 | 21.3 |
| 12 13 | 7 26.64 | +30 20.5 | 1.454 | 2.361 | 11.8 | 21.0 |
| 12 23 | 7 17.97 | +30 58.4 | 1.396 | 2.350 | 7.6 | 20.7 |
| 1 2 | 7 6.94 | +31 28.4 | 1.363 | 2.339 | 4.0 | 20.5 |
| 1 12 | 6 55.08 | +31 44.8 | 1.359 | 2.328 | 5.3 | 20.5 |
| 1 22 | 6 44.12 | +31 45.6 | 1.380 | 2.317 | 9.7 | 20.8 |
| 2 1 | 6 35.59 | +31 32.2 | 1.427 | 2.307 | 14.0 | 21.0 |
| 2 11 | 6 30.52 | +31 8.4 | 1.494 | 2.297 | 17.8 | 21.2 |

**108707** 2001 $OW_{19}$ 1 5.6 78°.07 1°.1/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.99 | +17 59.2 | 2.213 | 3.030 | 12.2 | 19.6 |
| 12 13 | 7 21.61 | +18 12.0 | 2.145 | 3.043 | 9.1 | 19.4 |
| 12 23 | 7 14.34 | +18 30.6 | 2.102 | 3.055 | 5.5 | 19.2 |
| 1 2 | 7 5.86 | +18 53.4 | 2.087 | 3.067 | 1.9 | 19.0 |
| 1 12 | 6 57.09 | +19 18.2 | 2.102 | 3.079 | 2.6 | 19.0 |
| 1 22 | 6 48.96 | +19 43.1 | 2.147 | 3.091 | 6.2 | 19.3 |
| 2 1 | 6 42.33 | +20 6.6 | 2.219 | 3.103 | 9.5 | 19.5 |
| 2 11 | 6 37.78 | +20 28.1 | 2.316 | 3.114 | 12.4 | 19.7 |

**135430** 2001 $UT_{122}$ 1 5.6 92°.77 1°.8/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.37 | +16 30.3 | 2.460 | 3.270 | 11.4 | 20.1 |
| 12 13 | 7 20.95 | +16 27.6 | 2.391 | 3.283 | 8.5 | 20.0 |
| 12 23 | 7 13.86 | +16 30.6 | 2.347 | 3.296 | 5.3 | 19.8 |
| 1 2 | 7 5.72 | +16 38.4 | 2.332 | 3.309 | 2.3 | 19.6 |
| 1 12 | 6 57.35 | +16 49.9 | 2.347 | 3.321 | 2.7 | 19.6 |
| 1 22 | 6 49.56 | +17 3.8 | 2.392 | 3.334 | 5.8 | 19.9 |
| 2 1 | 6 43.10 | +17 18.8 | 2.466 | 3.346 | 8.8 | 20.1 |
| 2 11 | 6 38.50 | +17 34.2 | 2.564 | 3.358 | 11.5 | 20.3 |

**18699** Quigley 1 5.6 322°.55 1°.6/ 5.3 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.06 | +26 20.2 | 1.875 | 2.704 | 13.6 | 18.7 |
| 12 13 | 7 24.40 | +26 34.2 | 1.797 | 2.702 | 10.1 | 18.5 |
| 12 23 | 7 16.25 | +26 48.0 | 1.744 | 2.700 | 6.1 | 18.2 |
| 1 2 | 7 6.41 | +26 58.0 | 1.718 | 2.698 | 2.2 | 18.0 |
| 1 12 | 6 56.10 | +27 1.6 | 1.721 | 2.696 | 3.4 | 18.1 |
| 1 22 | 6 46.58 | +26 57.5 | 1.753 | 2.694 | 7.6 | 18.3 |
| 2 1 | 6 38.97 | +26 46.7 | 1.811 | 2.693 | 11.4 | 18.5 |
| 2 11 | 6 34.06 | +26 31.0 | 1.892 | 2.691 | 14.7 | 18.8 |

**246081** 2006 $XN_{5}$ 1 5.6 75°.76 3°.1/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.11 | +31 28.9 | 1.704 | 2.527 | 15.0 | 19.5 |
| 12 13 | 7 29.46 | +31 27.6 | 1.651 | 2.551 | 11.2 | 19.3 |
| 12 23 | 7 19.07 | +31 19.7 | 1.623 | 2.574 | 7.0 | 19.1 |
| 1 2 | 7 7.10 | +31 1.1 | 1.621 | 2.597 | 3.5 | 19.0 |
| 1 12 | 6 55.06 | +30 30.4 | 1.649 | 2.620 | 4.4 | 19.1 |
| 1 22 | 6 44.39 | +29 49.2 | 1.706 | 2.642 | 8.2 | 19.3 |
| 2 1 | 6 36.20 | +29 1.1 | 1.789 | 2.665 | 11.9 | 19.6 |
| 2 11 | 6 31.11 | +28 10.4 | 1.895 | 2.687 | 15.0 | 19.9 |

**724** Hapag 1 5.6 33°.53 10°.6/ 8.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.84 | + 2 38.0 | 1.127 | 1.943 | 21.5 | 16.5 |
| 12 13 | 7 23.23 | + 1 21.7 | 1.087 | 1.963 | 17.7 | 16.4 |
| 12 23 | 7 15.64 | + 0 32.9 | 1.066 | 1.985 | 13.9 | 16.2 |
| 1 2 | 7 6.23 | + 0 16.8 | 1.066 | 2.007 | 11.1 | 16.1 |
| 1 12 | 6 56.58 | + 0 33.8 | 1.088 | 2.031 | 10.8 | 16.2 |
| 1 22 | 6 48.25 | + 1 19.4 | 1.134 | 2.056 | 12.9 | 16.4 |
| 2 1 | 6 42.46 | + 2 25.7 | 1.201 | 2.081 | 16.1 | 16.7 |
| 2 11 | 6 39.89 | + 3 43.1 | 1.287 | 2.107 | 19.2 | 16.9 |

**239898** 2000 $ST_{62}$ 1 5.6 46°.51 1°.7/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.22 | +18 17.9 | 1.239 | 2.082 | 18.3 | 20.4 |
| 12 13 | 7 25.77 | +18 17.7 | 1.190 | 2.100 | 13.6 | 20.2 |
| 12 23 | 7 17.20 | +18 26.8 | 1.162 | 2.119 | 8.3 | 19.9 |
| 1 2 | 7 6.66 | +18 42.7 | 1.158 | 2.138 | 2.9 | 19.7 |
| 1 12 | 6 55.83 | +19 2.1 | 1.180 | 2.158 | 3.9 | 19.8 |
| 1 22 | 6 46.33 | +19 22.4 | 1.229 | 2.178 | 9.1 | 20.1 |
| 2 1 | 6 39.48 | +19 41.8 | 1.301 | 2.199 | 13.8 | 20.5 |
| 2 11 | 6 36.02 | +19 59.3 | 1.394 | 2.220 | 17.7 | 20.8 |

**323411** 2004 $CQ_{110}$ 1 5.6 4°.70 20°.5/16.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.28 | −19 10.4 | 1.030 | 1.755 | 28.8 | 20.2 |
| 12 13 | 7 23.60 | −19 59.6 | 0.974 | 1.754 | 26.6 | 20.0 |
| 12 23 | 7 16.36 | −19 54.7 | 0.928 | 1.754 | 24.2 | 19.8 |
| 1 2 | 7 6.54 | −18 42.9 | 0.896 | 1.754 | 22.0 | 19.6 |
| 1 12 | 6 55.88 | −16 19.6 | 0.880 | 1.756 | 20.7 | 19.6 |
| 1 22 | 6 46.30 | −12 52.3 | 0.882 | 1.759 | 20.7 | 19.6 |
| 2 1 | 6 39.49 | − 8 39.2 | 0.905 | 1.762 | 22.2 | 19.7 |
| 2 11 | 6 36.55 | − 4 5.4 | 0.947 | 1.767 | 24.5 | 19.9 |

**114468** 2003 $AO_{38}$ 1 5.6 306°.06 4°.2/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.02 | + 9 38.2 | 1.706 | 2.518 | 15.5 | 19.4 |
| 12 13 | 7 22.35 | + 9 58.1 | 1.619 | 2.506 | 12.2 | 19.2 |
| 12 23 | 7 15.17 | +10 35.2 | 1.554 | 2.495 | 8.3 | 18.9 |
| 1 2 | 7 6.18 | +11 29.1 | 1.514 | 2.484 | 4.9 | 18.7 |
| 1 12 | 6 56.49 | +12 36.9 | 1.503 | 2.473 | 4.8 | 18.7 |
| 1 22 | 6 47.34 | +13 53.6 | 1.520 | 2.462 | 8.4 | 18.8 |
| 2 1 | 6 39.93 | +15 13.9 | 1.563 | 2.452 | 12.5 | 19.1 |
| 2 11 | 6 35.16 | +16 33.0 | 1.628 | 2.441 | 16.1 | 19.3 |

**184567** 2005 $QF_{79}$ 1 5.6 133°.11 0°.2/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.64 | +22 36.2 | 1.990 | 2.813 | 13.2 | 20.8 |
| 12 13 | 7 24.57 | +22 45.9 | 1.918 | 2.820 | 9.8 | 20.6 |
| 12 23 | 7 16.23 | +22 58.1 | 1.871 | 2.826 | 5.8 | 20.4 |
| 1 2 | 7 6.41 | +23 10.2 | 1.851 | 2.832 | 1.6 | 20.1 |
| 1 12 | 6 56.21 | +23 19.9 | 1.861 | 2.838 | 2.8 | 20.2 |
| 1 22 | 6 46.79 | +23 25.9 | 1.901 | 2.844 | 6.9 | 20.5 |
| 2 1 | 6 39.15 | +23 28.1 | 1.968 | 2.849 | 10.7 | 20.7 |
| 2 11 | 6 34.00 | +23 27.2 | 2.058 | 2.854 | 13.8 | 20.9 |

**280754** 2005 $QB_{29}$ 1 5.6 224°.14 1°.4/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.87 | +17 45.9 | 1.663 | 2.485 | 15.4 | 21.4 |
| 12 13 | 7 26.80 | +17 59.4 | 1.577 | 2.476 | 11.6 | 21.2 |
| 12 23 | 7 17.89 | +18 21.6 | 1.514 | 2.467 | 7.2 | 20.9 |
| 1 2 | 7 6.93 | +18 50.3 | 1.478 | 2.458 | 2.5 | 20.6 |
| 1 12 | 6 55.21 | +19 22.1 | 1.471 | 2.447 | 3.5 | 20.6 |
| 1 22 | 6 44.19 | +19 53.9 | 1.492 | 2.437 | 8.3 | 20.9 |
| 2 1 | 6 35.20 | +20 23.9 | 1.540 | 2.425 | 12.8 | 21.1 |
| 2 11 | 6 29.19 | +20 50.9 | 1.609 | 2.413 | 16.7 | 21.3 |

**280821** 2005 $UM_{53}$ 1 5.6 123°.05 3°.6/ 4.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.63 | +29 1.2 | 1.619 | 2.447 | 15.5 | 20.9 |
| 12 13 | 7 29.59 | +29 58.4 | 1.559 | 2.461 | 11.6 | 20.7 |
| 12 23 | 7 19.48 | +30 54.1 | 1.522 | 2.475 | 7.3 | 20.5 |
| 1 2 | 7 7.31 | +31 41.1 | 1.513 | 2.488 | 3.9 | 20.3 |
| 1 12 | 6 54.65 | +32 13.7 | 1.533 | 2.500 | 5.1 | 20.4 |
| 1 22 | 6 43.13 | +32 29.9 | 1.580 | 2.512 | 9.1 | 20.7 |
| 2 1 | 6 34.11 | +32 31.1 | 1.653 | 2.524 | 13.0 | 21.0 |
| 2 11 | 6 28.43 | +32 21.2 | 1.748 | 2.534 | 16.3 | 21.2 |

**65801** 1996 $AJ_7$ 1 5.6 181°.40 0°.8/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.73 | +23 37.3 | 2.111 | 2.935 | 12.5 | 20.3 |
| 12 13 | 7 23.16 | +24 1.0 | 2.033 | 2.936 | 9.2 | 20.1 |
| 12 23 | 7 15.42 | +24 27.0 | 1.980 | 2.936 | 5.5 | 19.9 |
| 1 2 | 7 6.21 | +24 52.3 | 1.955 | 2.936 | 1.6 | 19.6 |
| 1 12 | 6 56.55 | +25 14.1 | 1.959 | 2.936 | 2.8 | 19.7 |
| 1 22 | 6 47.55 | +25 30.4 | 1.994 | 2.935 | 6.8 | 19.9 |
| 2 1 | 6 40.18 | +25 40.9 | 2.055 | 2.935 | 10.3 | 20.2 |
| 2 11 | 6 35.15 | +25 46.2 | 2.140 | 2.935 | 13.4 | 20.4 |

**197300** 2003 $WN_{128}$ 1 5.6 256°.42 3°.0/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.51 | +14 35.9 | 2.165 | 2.975 | 12.7 | 20.2 |
| 12 13 | 7 22.07 | +14 7.5 | 2.084 | 2.974 | 9.7 | 20.0 |
| 12 23 | 7 14.68 | +13 45.7 | 2.027 | 2.972 | 6.4 | 19.8 |
| 1 2 | 7 5.99 | +13 31.1 | 1.999 | 2.971 | 3.5 | 19.6 |
| 1 12 | 6 56.95 | +13 23.5 | 2.000 | 2.970 | 3.8 | 19.6 |
| 1 22 | 6 48.50 | +13 22.3 | 2.030 | 2.968 | 6.9 | 19.8 |
| 2 1 | 6 41.54 | +13 26.5 | 2.088 | 2.967 | 10.2 | 20.0 |
| 2 11 | 6 36.70 | +13 34.8 | 2.169 | 2.966 | 13.2 | 20.2 |

**238016** 2002 $TJ_{381}$ 1 5.6 27°.22 2°.1/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.49 | +16 27.6 | 1.935 | 2.757 | 13.5 | 20.5 |
| 12 13 | 7 21.51 | +16 21.2 | 1.864 | 2.762 | 10.2 | 20.3 |
| 12 23 | 7 14.41 | +16 22.2 | 1.816 | 2.768 | 6.4 | 20.1 |
| 1 2 | 7 5.92 | +16 29.7 | 1.796 | 2.773 | 2.8 | 19.9 |
| 1 12 | 6 57.09 | +16 42.2 | 1.805 | 2.779 | 3.3 | 19.9 |
| 1 22 | 6 48.95 | +16 58.2 | 1.842 | 2.786 | 7.0 | 20.2 |
| 2 1 | 6 42.47 | +17 16.0 | 1.905 | 2.793 | 10.7 | 20.4 |
| 2 11 | 6 38.29 | +17 34.3 | 1.992 | 2.800 | 13.8 | 20.6 |

**136010** 2002 $VJ_{63}$ 1 5.6 117°.67 2°.6/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.55 | +29 1.0 | 1.928 | 2.751 | 13.5 | 19.9 |
| 12 13 | 7 26.83 | +29 27.2 | 1.863 | 2.763 | 10.1 | 19.7 |
| 12 23 | 7 17.61 | +29 50.9 | 1.823 | 2.776 | 6.3 | 19.5 |
| 1 2 | 7 6.79 | +30 7.4 | 1.811 | 2.788 | 3.0 | 19.3 |
| 1 12 | 6 55.62 | +30 13.8 | 1.829 | 2.799 | 4.0 | 19.4 |
| 1 22 | 6 45.42 | +30 9.2 | 1.875 | 2.810 | 7.7 | 19.7 |
| 2 1 | 6 37.26 | +29 55.2 | 1.949 | 2.821 | 11.2 | 19.9 |
| 2 11 | 6 31.86 | +29 34.6 | 2.045 | 2.831 | 14.2 | 20.1 |

**312900** 2011 $UM_{297}$ 1 5.6 150°.96 1°.5/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.65 | +24 58.0 | 1.942 | 2.763 | 13.5 | 21.8 |
| 12 13 | 7 26.92 | +25 32.5 | 1.872 | 2.772 | 10.0 | 21.6 |
| 12 23 | 7 17.71 | +26 8.6 | 1.825 | 2.780 | 6.0 | 21.4 |
| 1 2 | 7 6.83 | +26 41.9 | 1.808 | 2.788 | 2.1 | 21.2 |
| 1 12 | 6 55.51 | +27 8.5 | 1.820 | 2.795 | 3.4 | 21.3 |
| 1 22 | 6 45.01 | +27 26.6 | 1.862 | 2.801 | 7.4 | 21.5 |
| 2 1 | 6 36.46 | +27 36.0 | 1.932 | 2.807 | 11.2 | 21.8 |
| 2 11 | 6 30.60 | +27 38.4 | 2.024 | 2.812 | 14.3 | 22.0 |

**453846** 2011 $UP_{14}$ 1 5.6 109°.94 1°.7/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.19 | +18 37.7 | 1.710 | 2.531 | 15.1 | 21.6 |
| 12 13 | 7 26.58 | +18 23.4 | 1.647 | 2.546 | 11.3 | 21.4 |
| 12 23 | 7 17.45 | +18 14.6 | 1.607 | 2.560 | 6.9 | 21.2 |
| 1 2 | 7 6.74 | +18 10.2 | 1.595 | 2.574 | 2.6 | 20.9 |
| 1 12 | 6 55.73 | +18 8.7 | 1.612 | 2.587 | 3.4 | 21.0 |
| 1 22 | 6 45.72 | +18 9.2 | 1.657 | 2.601 | 7.7 | 21.3 |
| 2 1 | 6 37.80 | +18 11.2 | 1.729 | 2.613 | 11.7 | 21.6 |
| 2 11 | 6 32.66 | +18 14.2 | 1.824 | 2.626 | 15.1 | 21.8 |

**459179** 2012 $DY_{34}$ 1 5.6 312°.82 0°.1/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.08 | +21 26.4 | 1.716 | 2.548 | 14.5 | 21.5 |
| 12 13 | 7 23.89 | +21 50.8 | 1.637 | 2.543 | 10.8 | 21.3 |
| 12 23 | 7 16.08 | +22 20.7 | 1.582 | 2.539 | 6.5 | 21.0 |
| 1 2 | 7 6.43 | +22 52.8 | 1.553 | 2.534 | 1.8 | 20.7 |
| 1 12 | 6 56.17 | +23 23.3 | 1.553 | 2.530 | 3.1 | 20.8 |
| 1 22 | 6 46.65 | +23 49.6 | 1.580 | 2.526 | 7.8 | 21.1 |
| 2 1 | 6 39.08 | +24 10.3 | 1.634 | 2.522 | 12.1 | 21.3 |
| 2 11 | 6 34.30 | +24 25.5 | 1.710 | 2.518 | 15.7 | 21.5 |

**302002** 2000 $QU_{185}$ 1 5.6 62°.82 3°.0/ 5.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.33 | +27 47.0 | 1.328 | 2.168 | 17.5 | 20.4 |
| 12 13 | 7 29.47 | +28 26.0 | 1.287 | 2.196 | 12.9 | 20.2 |
| 12 23 | 7 19.33 | +29 3.1 | 1.268 | 2.224 | 7.9 | 20.0 |
| 1 2 | 7 7.23 | +29 31.6 | 1.274 | 2.252 | 3.5 | 19.8 |
| 1 12 | 6 54.97 | +29 46.9 | 1.308 | 2.280 | 4.8 | 20.0 |
| 1 22 | 6 44.29 | +29 48.2 | 1.368 | 2.308 | 9.4 | 20.3 |
| 2 1 | 6 36.51 | +29 37.9 | 1.453 | 2.336 | 13.6 | 20.6 |
| 2 11 | 6 32.30 | +29 20.0 | 1.558 | 2.364 | 17.1 | 20.9 |

**345094** 2005 $MV_{35}$ 1 5.6 168°.02 0°.8/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.96 | +23 27.1 | 1.620 | 2.447 | 15.5 | 21.9 |
| 12 13 | 7 28.31 | +23 46.8 | 1.547 | 2.451 | 11.5 | 21.7 |
| 12 23 | 7 18.72 | +24 9.5 | 1.498 | 2.454 | 6.9 | 21.4 |
| 1 2 | 7 7.13 | +24 31.0 | 1.475 | 2.457 | 2.0 | 21.1 |
| 1 12 | 6 54.98 | +24 47.5 | 1.482 | 2.459 | 3.5 | 21.2 |
| 1 22 | 6 43.80 | +24 57.2 | 1.517 | 2.460 | 8.4 | 21.5 |
| 2 1 | 6 34.92 | +25 0.3 | 1.578 | 2.461 | 12.7 | 21.8 |
| 2 11 | 6 29.19 | +24 58.2 | 1.661 | 2.461 | 16.4 | 22.0 |

**110295** Elcalafate 1 5.6 16°.65 1°.1/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.93 | +19 40.4 | 1.651 | 2.483 | 15.0 | 19.1 |
| 12 13 | 7 23.70 | +19 37.8 | 1.579 | 2.484 | 11.2 | 18.9 |
| 12 23 | 7 15.89 | +19 40.8 | 1.531 | 2.486 | 6.8 | 18.6 |
| 1 2 | 7 6.36 | +19 47.7 | 1.508 | 2.489 | 2.2 | 18.3 |
| 1 12 | 6 56.36 | +19 56.4 | 1.514 | 2.491 | 3.2 | 18.4 |
| 1 22 | 6 47.21 | +20 5.2 | 1.548 | 2.494 | 7.8 | 18.7 |
| 2 1 | 6 40.07 | +20 13.3 | 1.607 | 2.497 | 12.1 | 18.9 |
| 2 11 | 6 35.72 | +20 20.4 | 1.688 | 2.501 | 15.6 | 19.2 |

**337364** 2001 $PC_{36}$ 1 5.6 140°.61 7°.2/ 9.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.84 | − 6 14.5 | 3.082 | 3.788 | 11.6 | 21.9 |
| 12 13 | 7 19.54 | − 6 43.3 | 3.012 | 3.800 | 10.0 | 21.8 |
| 12 23 | 7 12.94 | − 6 56.4 | 2.964 | 3.812 | 8.5 | 21.7 |
| 1 2 | 7 5.52 | − 6 51.8 | 2.942 | 3.824 | 7.4 | 21.7 |
| 1 12 | 6 57.89 | − 6 29.4 | 2.947 | 3.834 | 7.2 | 21.7 |
| 1 22 | 6 50.69 | − 5 50.5 | 2.981 | 3.845 | 8.0 | 21.8 |
| 2 1 | 6 44.47 | − 4 57.9 | 3.041 | 3.855 | 9.3 | 21.9 |
| 2 11 | 6 39.70 | − 3 55.6 | 3.125 | 3.864 | 10.8 | 22.0 |

**494759** 2006 $BH_{279}$ 1 5.6 264°.75 1°.3/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.09 | +18 29.1 | 1.636 | 2.463 | 15.4 | 22.3 |
| 12 13 | 7 25.61 | +18 39.4 | 1.545 | 2.448 | 11.6 | 22.0 |
| 12 23 | 7 17.27 | +18 57.8 | 1.477 | 2.432 | 7.2 | 21.7 |
| 1 2 | 7 6.81 | +19 22.2 | 1.436 | 2.416 | 2.4 | 21.4 |
| 1 12 | 6 55.52 | +19 49.5 | 1.422 | 2.399 | 3.4 | 21.4 |
| 1 22 | 6 44.84 | +20 16.8 | 1.437 | 2.382 | 8.4 | 21.7 |
| 2 1 | 6 36.17 | +20 42.3 | 1.477 | 2.365 | 13.1 | 21.9 |
| 2 11 | 6 30.49 | +21 5.2 | 1.539 | 2.348 | 17.1 | 22.1 |

**333247** 2012 $HO_{77}$ 1 5.6 220°.25 2°.0/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.04 | +26 55.8 | 2.212 | 3.033 | 12.1 | 21.4 |
| 12 13 | 7 24.18 | +27 30.9 | 2.127 | 3.028 | 9.0 | 21.2 |
| 12 23 | 7 16.09 | +28 6.4 | 2.068 | 3.022 | 5.5 | 20.9 |
| 1 2 | 7 6.44 | +28 38.2 | 2.038 | 3.016 | 2.3 | 20.7 |
| 1 12 | 6 56.27 | +29 3.0 | 2.038 | 3.010 | 3.4 | 20.8 |
| 1 22 | 6 46.70 | +29 18.9 | 2.067 | 3.003 | 7.0 | 21.0 |
| 2 1 | 6 38.74 | +29 25.8 | 2.124 | 2.997 | 10.4 | 21.2 |
| 2 11 | 6 33.15 | +29 25.1 | 2.205 | 2.989 | 13.4 | 21.4 |

**252400** 2001 $TB_{46}$ 1 5.6 185°.43 4°.2/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.81 | +11 16.9 | 2.164 | 2.961 | 13.2 | 20.9 |
| 12 13 | 7 23.76 | +10 40.3 | 2.082 | 2.961 | 10.3 | 20.7 |
| 12 23 | 7 15.70 | +10 12.5 | 2.025 | 2.960 | 7.1 | 20.5 |
| 1 2 | 7 6.31 | + 9 54.6 | 1.996 | 2.960 | 4.6 | 20.4 |
| 1 12 | 6 56.55 | + 9 47.0 | 1.996 | 2.958 | 4.8 | 20.4 |
| 1 22 | 6 47.39 | + 9 48.9 | 2.026 | 2.957 | 7.5 | 20.5 |
| 2 1 | 6 39.73 | + 9 59.0 | 2.083 | 2.954 | 10.6 | 20.7 |
| 2 11 | 6 34.24 | +10 15.3 | 2.164 | 2.952 | 13.5 | 20.9 |

**429971** 2013 $AH_{60}$ 1 5.6 5°.19 13°.3/10.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.19 | −20 5.7 | 2.387 | 3.015 | 16.3 | 20.3 |
| 12 13 | 7 19.60 | −21 24.2 | 2.323 | 3.015 | 15.2 | 20.2 |
| 12 23 | 7 13.22 | −22 16.9 | 2.275 | 3.015 | 14.2 | 20.1 |
| 1 2 | 7 5.66 | −22 38.7 | 2.247 | 3.016 | 13.5 | 20.0 |
| 1 12 | 6 57.73 | −22 27.1 | 2.240 | 3.016 | 13.3 | 20.0 |
| 1 22 | 6 50.29 | −21 43.0 | 2.253 | 3.017 | 13.6 | 20.0 |
| 2 1 | 6 44.15 | −20 30.3 | 2.286 | 3.019 | 14.4 | 20.1 |
| 2 11 | 6 39.92 | −18 55.6 | 2.338 | 3.020 | 15.4 | 20.2 |

**313431** 2002 $QX_{97}$ 1 5.6 47°.47 1°.0/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.34 | +24 17.4 | 1.489 | 2.328 | 16.0 | 21.1 |
| 12 13 | 7 25.72 | +24 32.5 | 1.428 | 2.337 | 11.8 | 20.8 |
| 12 23 | 7 17.19 | +24 49.7 | 1.389 | 2.347 | 7.1 | 20.6 |
| 1 2 | 7 6.75 | +25 4.9 | 1.376 | 2.357 | 2.1 | 20.3 |
| 1 12 | 6 55.89 | +25 14.8 | 1.390 | 2.367 | 3.6 | 20.4 |
| 1 22 | 6 46.13 | +25 18.0 | 1.432 | 2.378 | 8.5 | 20.7 |
| 2 1 | 6 38.75 | +25 14.8 | 1.499 | 2.388 | 12.8 | 21.0 |
| 2 11 | 6 34.52 | +25 7.1 | 1.587 | 2.399 | 16.5 | 21.3 |

**106558** 2000 $WW_{80}$ 1 5.6 257°.45 2°.7/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.37 | +26 39.6 | 1.321 | 2.163 | 17.4 | 19.4 |
| 12 13 | 7 28.64 | +27 16.6 | 1.249 | 2.160 | 13.1 | 19.1 |
| 12 23 | 7 19.32 | +27 55.1 | 1.200 | 2.157 | 8.0 | 18.8 |
| 1 2 | 7 7.41 | +28 28.6 | 1.175 | 2.154 | 3.3 | 18.5 |
| 1 12 | 6 54.68 | +28 50.9 | 1.176 | 2.150 | 4.9 | 18.6 |
| 1 22 | 6 43.05 | +28 59.4 | 1.204 | 2.147 | 10.1 | 18.9 |
| 2 1 | 6 34.23 | +28 55.3 | 1.256 | 2.143 | 15.0 | 19.2 |
| 2 11 | 6 29.23 | +28 42.0 | 1.327 | 2.140 | 19.1 | 19.4 |

**346956** 2010 $AB_{113}$ 1 5.6 136°.03 5°.9/ 8.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.42 | − 0 7.7 | 2.835 | 3.582 | 11.6 | 21.3 |
| 12 13 | 7 19.38 | − 0 19.2 | 2.760 | 3.590 | 9.6 | 21.2 |
| 12 23 | 7 12.92 | − 0 16.2 | 2.708 | 3.598 | 7.7 | 21.1 |
| 1 2 | 7 5.57 | + 0 2.3 | 2.683 | 3.606 | 6.2 | 21.0 |
| 1 12 | 6 57.97 | + 0 35.9 | 2.687 | 3.614 | 6.0 | 21.0 |
| 1 22 | 6 50.80 | + 1 22.6 | 2.719 | 3.621 | 7.2 | 21.1 |
| 2 1 | 6 44.68 | + 2 19.6 | 2.780 | 3.629 | 9.0 | 21.2 |
| 2 11 | 6 40.10 | + 3 23.0 | 2.866 | 3.636 | 11.0 | 21.4 |

**421329** 2013 $TV_{71}$ 1 5.6 234.°37 2.°9/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.48 | +13 51.6 | 2.141 | 2.950 | 12.9 | 21.6 |
| 12 13 | 7 22.17 | +13 44.2 | 2.056 | 2.945 | 9.9 | 21.4 |
| 12 23 | 7 14.84 | +13 45.3 | 1.995 | 2.940 | 6.5 | 21.1 |
| 1 2 | 7 6.12 | +13 54.7 | 1.962 | 2.935 | 3.4 | 20.9 |
| 1 12 | 6 56.97 | +14 11.3 | 1.958 | 2.929 | 3.7 | 20.9 |
| 1 22 | 6 48.36 | +14 33.2 | 1.983 | 2.924 | 6.9 | 21.1 |
| 2 1 | 6 41.21 | +14 58.8 | 2.036 | 2.918 | 10.4 | 21.3 |
| 2 11 | 6 36.21 | +15 26.2 | 2.113 | 2.912 | 13.4 | 21.5 |

**29270** 1993 $FF_{28}$ 1 5.6 178.°29 3.°3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.25 | +13 22.5 | 1.925 | 2.730 | 14.3 | 19.7 |
| 12 13 | 7 25.82 | +13 10.9 | 1.846 | 2.732 | 11.0 | 19.5 |
| 12 23 | 7 17.07 | +13 8.8 | 1.790 | 2.734 | 7.2 | 19.3 |
| 1 2 | 7 6.74 | +13 16.1 | 1.763 | 2.735 | 3.9 | 19.1 |
| 1 12 | 6 55.94 | +13 31.5 | 1.764 | 2.735 | 4.2 | 19.1 |
| 1 22 | 6 45.85 | +13 53.2 | 1.796 | 2.734 | 7.7 | 19.3 |
| 2 1 | 6 37.51 | +14 19.1 | 1.854 | 2.733 | 11.4 | 19.5 |
| 2 11 | 6 31.66 | +14 47.2 | 1.936 | 2.730 | 14.6 | 19.7 |

**301987** 2000 $NS$ 1 5.6 172.°75 0.°5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.46 | +20 41.0 | 2.032 | 2.845 | 13.3 | 22.1 |
| 12 13 | 7 26.67 | +20 48.7 | 1.953 | 2.850 | 9.9 | 21.9 |
| 12 23 | 7 17.54 | +21 0.2 | 1.900 | 2.853 | 6.0 | 21.6 |
| 1 2 | 7 6.86 | +21 13.1 | 1.875 | 2.856 | 1.7 | 21.4 |
| 1 12 | 6 55.74 | +21 25.4 | 1.880 | 2.857 | 2.8 | 21.4 |
| 1 22 | 6 45.36 | +21 35.3 | 1.916 | 2.858 | 7.0 | 21.7 |
| 2 1 | 6 36.77 | +21 42.6 | 1.980 | 2.858 | 10.8 | 21.9 |
| 2 11 | 6 30.68 | +21 47.5 | 2.067 | 2.858 | 14.0 | 22.2 |

**162424** 2000 $EE_{113}$ 1 5.6 157.°89 2.°4/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.88 | +31 0.5 | 2.909 | 3.719 | 9.8 | 21.1 |
| 12 13 | 7 23.51 | +31 22.3 | 2.834 | 3.726 | 7.3 | 21.0 |
| 12 23 | 7 15.43 | +31 40.8 | 2.785 | 3.732 | 4.7 | 20.8 |
| 1 2 | 7 6.25 | +31 53.1 | 2.766 | 3.738 | 2.6 | 20.7 |
| 1 12 | 6 56.82 | +31 57.3 | 2.778 | 3.744 | 3.3 | 20.7 |
| 1 22 | 6 47.95 | +31 52.6 | 2.822 | 3.749 | 5.8 | 20.9 |
| 2 1 | 6 40.41 | +31 40.1 | 2.894 | 3.754 | 8.3 | 21.1 |
| 2 11 | 6 34.77 | +31 21.4 | 2.991 | 3.758 | 10.6 | 21.2 |

**324104** 2005 $XD_{23}$ 1 5.6 200.°15 1.°1/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.27 | +19 6.8 | 2.248 | 3.062 | 12.2 | 21.6 |
| 12 13 | 7 23.41 | +19 3.0 | 2.164 | 3.060 | 9.1 | 21.4 |
| 12 23 | 7 15.54 | +19 3.5 | 2.105 | 3.057 | 5.6 | 21.2 |
| 1 2 | 7 6.31 | +19 7.0 | 2.074 | 3.053 | 1.9 | 20.9 |
| 1 12 | 6 56.68 | +19 12.0 | 2.074 | 3.050 | 2.7 | 21.0 |
| 1 22 | 6 47.64 | +19 17.6 | 2.103 | 3.046 | 6.4 | 21.2 |
| 2 1 | 6 40.09 | +19 23.1 | 2.161 | 3.041 | 9.9 | 21.4 |
| 2 11 | 6 34.70 | +19 28.2 | 2.243 | 3.037 | 12.9 | 21.6 |

**14051** 1995 $YY_{1}$ 1 5.6 230.°03 0.°0/ 5.5 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.43 | +20 18.8 | 1.685 | 2.511 | 15.0 | 18.6 |
| 12 13 | 7 26.54 | +20 51.2 | 1.600 | 2.503 | 11.3 | 18.3 |
| 12 23 | 7 17.81 | +21 31.0 | 1.538 | 2.494 | 6.8 | 18.0 |
| 1 2 | 7 7.01 | +22 14.6 | 1.503 | 2.485 | 1.9 | 17.7 |
| 1 12 | 6 55.43 | +22 57.5 | 1.498 | 2.475 | 3.3 | 17.8 |
| 1 22 | 6 44.53 | +23 35.9 | 1.520 | 2.465 | 8.2 | 18.0 |
| 2 1 | 6 35.65 | +24 7.9 | 1.570 | 2.454 | 12.7 | 18.3 |
| 2 11 | 6 29.76 | +24 33.4 | 1.641 | 2.443 | 16.5 | 18.5 |

**506805** 2007 $JL_{46}$ 1 5.6 192.°63 1.°2/ 6.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 21.75 | +16 1.6 | 3.983 | 4.782 | 7.6 | 22.3 |
| 12 13 | 7 17.16 | +16 9.4 | 3.894 | 4.780 | 5.7 | 22.2 |
| 12 23 | 7 11.52 | +16 21.2 | 3.831 | 4.778 | 3.6 | 22.1 |
| 1 2 | 7 5.20 | +16 36.3 | 3.799 | 4.775 | 1.6 | 21.9 |
| 1 12 | 6 58.67 | +16 53.9 | 3.798 | 4.772 | 1.8 | 21.9 |
| 1 22 | 6 52.42 | +17 13.1 | 3.829 | 4.769 | 3.9 | 22.1 |
| 2 1 | 6 46.90 | +17 32.8 | 3.890 | 4.766 | 6.0 | 22.2 |
| 2 11 | 6 42.49 | +17 52.5 | 3.978 | 4.762 | 7.9 | 22.3 |

**350850** 2002 $GF_{103}$ 1 5.6 300.°24 0.°7/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.92 | +20 12.9 | 1.477 | 2.315 | 16.2 | 21.2 |
| 12 13 | 7 24.99 | +20 18.9 | 1.392 | 2.301 | 12.2 | 21.0 |
| 12 23 | 7 17.02 | +20 31.7 | 1.330 | 2.287 | 7.4 | 20.7 |
| 1 2 | 7 6.82 | +20 48.6 | 1.292 | 2.273 | 2.2 | 20.3 |
| 1 12 | 6 55.78 | +21 6.7 | 1.282 | 2.259 | 3.5 | 20.3 |
| 1 22 | 6 45.49 | +21 23.3 | 1.298 | 2.246 | 8.9 | 20.6 |
| 2 1 | 6 37.41 | +21 37.3 | 1.339 | 2.233 | 13.8 | 20.9 |
| 2 11 | 6 32.55 | +21 48.5 | 1.401 | 2.220 | 17.9 | 21.1 |

**388040** 2005 $SE_{162}$ 1 5.6 165.°19 1.°2/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.35 | +24 40.8 | 1.697 | 2.522 | 15.0 | 21.7 |
| 12 13 | 7 28.52 | +24 58.7 | 1.624 | 2.527 | 11.1 | 21.5 |
| 12 23 | 7 18.84 | +25 18.0 | 1.575 | 2.531 | 6.7 | 21.2 |
| 1 2 | 7 7.25 | +25 34.6 | 1.554 | 2.534 | 2.1 | 20.9 |
| 1 12 | 6 55.14 | +25 45.0 | 1.561 | 2.537 | 3.5 | 21.0 |
| 1 22 | 6 43.99 | +25 47.7 | 1.598 | 2.539 | 8.1 | 21.3 |
| 2 1 | 6 35.08 | +25 43.4 | 1.661 | 2.541 | 12.3 | 21.6 |
| 2 11 | 6 29.23 | +25 34.2 | 1.746 | 2.542 | 15.9 | 21.8 |

**281337** 2007 $TN_{391}$ 1 5.6 167.°03 4.°1/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 25.69 | + 7 58.7 | 2.752 | 3.533 | 11.1 | 21.6 |
| 12 13 | 7 20.37 | + 7 39.1 | 2.671 | 3.536 | 8.8 | 21.5 |
| 12 23 | 7 13.56 | + 7 29.2 | 2.615 | 3.539 | 6.3 | 21.3 |
| 1 2 | 7 5.77 | + 7 29.6 | 2.587 | 3.542 | 4.4 | 21.2 |
| 1 12 | 6 57.70 | + 7 40.2 | 2.590 | 3.545 | 4.4 | 21.2 |
| 1 22 | 6 50.08 | + 7 59.7 | 2.622 | 3.547 | 6.3 | 21.3 |
| 2 1 | 6 43.57 | + 8 26.3 | 2.683 | 3.548 | 8.7 | 21.5 |
| 2 11 | 6 38.69 | + 8 57.7 | 2.768 | 3.550 | 11.0 | 21.6 |

**182126** 2000 $RJ_{38}$ 1 5.6 108.°52 4.°2/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.35 | + 9 45.1 | 2.080 | 2.877 | 13.6 | 20.6 |
| 12 13 | 7 22.68 | + 9 36.5 | 2.012 | 2.890 | 10.6 | 20.4 |
| 12 23 | 7 15.06 | + 9 39.9 | 1.968 | 2.903 | 7.3 | 20.2 |
| 1 2 | 7 6.18 | + 9 55.4 | 1.952 | 2.916 | 4.6 | 20.1 |
| 1 12 | 6 57.01 | +10 21.7 | 1.965 | 2.928 | 4.7 | 20.1 |
| 1 22 | 6 48.52 | +10 56.4 | 2.006 | 2.941 | 7.3 | 20.3 |
| 2 1 | 6 41.57 | +11 36.7 | 2.076 | 2.953 | 10.4 | 20.5 |
| 2 11 | 6 36.78 | +12 19.7 | 2.169 | 2.964 | 13.2 | 20.7 |

**324580** 2006 $WT_{204}$ 1 5.6 122.°60 1.°1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.91 | +26 40.0 | 2.033 | 2.852 | 13.1 | 20.9 |
| 12 13 | 7 26.89 | +26 27.8 | 1.963 | 2.862 | 9.7 | 20.7 |
| 12 23 | 7 17.59 | +26 13.4 | 1.918 | 2.873 | 5.8 | 20.5 |
| 1 2 | 7 6.86 | +25 54.4 | 1.902 | 2.883 | 1.8 | 20.2 |
| 1 12 | 6 55.89 | +25 29.7 | 1.917 | 2.892 | 3.0 | 20.3 |
| 1 22 | 6 45.84 | +25 0.0 | 1.961 | 2.902 | 6.9 | 20.6 |
| 2 1 | 6 37.73 | +24 26.9 | 2.033 | 2.911 | 10.5 | 20.8 |
| 2 11 | 6 32.18 | +23 52.8 | 2.129 | 2.920 | 13.6 | 21.1 |

**95500** 2002 $EJ_{41}$ 1 5.6 337.°09 3.°6/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.67 | +14 49.5 | 1.498 | 2.332 | 16.1 | 19.1 |
| 12 13 | 7 21.65 | +14 24.4 | 1.416 | 2.319 | 12.4 | 18.8 |
| 12 23 | 7 14.90 | +14 9.2 | 1.355 | 2.306 | 8.2 | 18.5 |
| 1 2 | 7 6.22 | +14 4.5 | 1.319 | 2.294 | 4.3 | 18.3 |
| 1 12 | 6 56.86 | +14 10.0 | 1.310 | 2.283 | 4.7 | 18.3 |
| 1 22 | 6 48.22 | +14 24.0 | 1.326 | 2.272 | 9.0 | 18.5 |
| 2 1 | 6 41.56 | +14 44.3 | 1.367 | 2.263 | 13.4 | 18.7 |
| 2 11 | 6 37.82 | +15 8.6 | 1.429 | 2.255 | 17.3 | 19.0 |

**283967** 2004 $RG_{58}$ 1 5.6 59.°12 4.°9/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.05 | +10 11.9 | 1.290 | 2.112 | 18.9 | 20.2 |
| 12 13 | 7 26.14 | +10 12.9 | 1.246 | 2.139 | 14.6 | 20.0 |
| 12 23 | 7 17.36 | +10 32.4 | 1.223 | 2.167 | 9.8 | 19.9 |
| 1 2 | 7 6.81 | +11 9.2 | 1.224 | 2.194 | 5.7 | 19.7 |
| 1 12 | 6 56.06 | +11 59.5 | 1.252 | 2.221 | 5.6 | 19.8 |
| 1 22 | 6 46.60 | +12 57.9 | 1.306 | 2.249 | 9.4 | 20.1 |
| 2 1 | 6 39.63 | +13 59.3 | 1.384 | 2.276 | 13.5 | 20.4 |
| 2 11 | 6 35.83 | +14 59.2 | 1.484 | 2.304 | 17.1 | 20.7 |

**279974** 2001 $TB_{84}$ 1 5.6 30.°25 8.°9/ 7.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.28 | + 1 28.0 | 1.702 | 2.483 | 16.8 | 20.0 |
| 12 13 | 7 22.31 | + 0 24.3 | 1.634 | 2.487 | 14.0 | 19.8 |
| 12 23 | 7 15.03 | − 0 20.2 | 1.587 | 2.490 | 11.2 | 19.7 |
| 1 2 | 7 6.22 | − 0 41.2 | 1.565 | 2.494 | 9.3 | 19.6 |
| 1 12 | 6 56.98 | − 0 37.2 | 1.568 | 2.499 | 9.2 | 19.6 |
| 1 22 | 6 48.48 | − 0 9.7 | 1.596 | 2.503 | 11.0 | 19.7 |
| 2 1 | 6 41.74 | + 0 37.0 | 1.649 | 2.508 | 13.6 | 19.9 |
| 2 11 | 6 37.51 | + 1 36.7 | 1.723 | 2.513 | 16.3 | 20.1 |

**309473** 2007 $VD_{96}$ 1 5.6 76.°35 4.°9/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.13 | +10 45.2 | 1.579 | 2.392 | 16.5 | 21.5 |
| 12 13 | 7 24.51 | +10 19.8 | 1.516 | 2.404 | 12.8 | 21.3 |
| 12 23 | 7 16.36 | +10 8.1 | 1.476 | 2.416 | 8.8 | 21.1 |
| 1 2 | 7 6.57 | +10 11.1 | 1.461 | 2.428 | 5.5 | 20.9 |
| 1 12 | 6 56.41 | +10 27.7 | 1.474 | 2.440 | 5.6 | 20.9 |
| 1 22 | 6 47.18 | +10 55.5 | 1.514 | 2.451 | 8.9 | 21.1 |
| 2 1 | 6 39.99 | +11 31.1 | 1.579 | 2.463 | 12.6 | 21.4 |
| 2 11 | 6 35.57 | +12 10.9 | 1.666 | 2.475 | 16.0 | 21.6 |

**348675** 2006 $BU_{61}$ 1 5.6 350.°80 14.°1/ 7.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 54.51 | +54 10.8 | 1.211 | 1.999 | 22.0 | 19.5 |
| 12 13 | 7 45.07 | +54 24.7 | 1.146 | 1.993 | 19.1 | 19.3 |
| 12 23 | 7 29.46 | +54 3.8 | 1.098 | 1.988 | 16.4 | 19.1 |
| 1 2 | 7 10.09 | +52 52.0 | 1.071 | 1.984 | 14.4 | 18.9 |
| 1 12 | 6 50.78 | +50 43.3 | 1.067 | 1.980 | 14.4 | 18.9 |
| 1 22 | 6 35.01 | +47 46.6 | 1.086 | 1.979 | 16.3 | 19.0 |
| 2 1 | 6 24.79 | +44 21.0 | 1.128 | 1.978 | 19.2 | 19.2 |
| 2 11 | 6 20.48 | +40 47.6 | 1.191 | 1.978 | 22.4 | 19.4 |

**258452** 2001 $YA_{12}$ 1 5.6 27.°48 8.°4/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.50 | + 5 7.5 | 1.597 | 2.395 | 17.0 | 19.8 |
| 12 13 | 7 23.28 | + 3 42.1 | 1.533 | 2.401 | 13.9 | 19.6 |
| 12 23 | 7 15.62 | + 2 32.5 | 1.491 | 2.407 | 10.8 | 19.5 |
| 1 2 | 7 6.38 | + 1 43.7 | 1.473 | 2.414 | 8.7 | 19.3 |
| 1 12 | 6 56.76 | + 1 18.5 | 1.481 | 2.421 | 8.8 | 19.4 |
| 1 22 | 6 47.99 | + 1 16.3 | 1.516 | 2.429 | 11.0 | 19.5 |
| 2 1 | 6 41.14 | + 1 34.3 | 1.574 | 2.437 | 13.9 | 19.7 |
| 2 11 | 6 36.95 | + 2 7.0 | 1.652 | 2.446 | 16.8 | 19.9 |

**155079** 2005 $SM_{112}$ 1 5.6 27°.89 3°.9/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.40 | +31 52.5 | 1.392 | 2.234 | 16.7 | 19.5 |
| 12 13 | 7 26.74 | +32 2.6 | 1.338 | 2.246 | 12.6 | 19.2 |
| 12 23 | 7 17.86 | +32 5.9 | 1.305 | 2.259 | 8.0 | 19.0 |
| 1 2 | 7 6.98 | +31 57.1 | 1.298 | 2.273 | 4.3 | 18.8 |
| 1 12 | 6 55.81 | +31 33.5 | 1.317 | 2.287 | 5.3 | 18.9 |
| 1 22 | 6 46.05 | +30 56.4 | 1.362 | 2.302 | 9.4 | 19.2 |
| 2 1 | 6 39.02 | +30 9.7 | 1.432 | 2.318 | 13.6 | 19.5 |
| 2 11 | 6 35.43 | +29 18.2 | 1.523 | 2.335 | 17.1 | 19.8 |

**409232** 2004 $AB_{26}$ 1 5.6 260°.58 4°.6/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.76 | +34 38.3 | 1.771 | 2.593 | 14.6 | 20.5 |
| 12 13 | 7 29.02 | +34 54.1 | 1.690 | 2.586 | 11.2 | 20.3 |
| 12 23 | 7 19.24 | +35 1.8 | 1.634 | 2.579 | 7.6 | 20.1 |
| 1 2 | 7 7.39 | +34 55.6 | 1.604 | 2.572 | 4.8 | 19.9 |
| 1 12 | 6 54.99 | +34 32.0 | 1.602 | 2.565 | 5.7 | 19.9 |
| 1 22 | 6 43.62 | +33 51.5 | 1.628 | 2.558 | 9.1 | 20.1 |
| 2 1 | 6 34.66 | +32 57.9 | 1.681 | 2.550 | 12.8 | 20.3 |
| 2 11 | 6 28.95 | +31 56.9 | 1.755 | 2.543 | 16.2 | 20.5 |

**455399** 2003 $BS_{12}$ 1 5.6 340°.91 1°.5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.36 | +22 27.8 | 1.381 | 2.224 | 16.8 | 20.4 |
| 12 13 | 7 25.32 | +21 30.8 | 1.302 | 2.213 | 12.6 | 20.1 |
| 12 23 | 7 17.16 | +20 32.4 | 1.244 | 2.202 | 7.7 | 19.8 |
| 1 2 | 7 6.85 | +19 33.1 | 1.212 | 2.193 | 2.6 | 19.5 |
| 1 12 | 6 55.92 | +18 34.5 | 1.207 | 2.184 | 3.9 | 19.6 |
| 1 22 | 6 46.00 | +17 39.1 | 1.228 | 2.176 | 9.2 | 19.9 |
| 2 1 | 6 38.51 | +16 49.8 | 1.274 | 2.170 | 14.2 | 20.1 |
| 2 11 | 6 34.34 | +16 7.9 | 1.340 | 2.164 | 18.3 | 20.4 |

**27749** 1991 $BJ_{2}$ 1 5.6 348°.96 2°.9/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.33 | +27 13.7 | 1.338 | 2.190 | 16.7 | 17.5 |
| 12 13 | 7 24.12 | +27 47.7 | 1.267 | 2.182 | 12.5 | 17.3 |
| 12 23 | 7 16.60 | +28 22.5 | 1.217 | 2.176 | 7.8 | 17.0 |
| 1 2 | 7 6.74 | +28 52.3 | 1.192 | 2.171 | 3.3 | 16.7 |
| 1 12 | 6 56.12 | +29 11.8 | 1.192 | 2.166 | 4.8 | 16.8 |
| 1 22 | 6 46.51 | +29 18.4 | 1.218 | 2.163 | 9.7 | 17.0 |
| 2 1 | 6 39.45 | +29 12.9 | 1.268 | 2.161 | 14.4 | 17.3 |
| 2 11 | 6 35.92 | +28 58.2 | 1.337 | 2.159 | 18.5 | 17.6 |

**263142** 2007 $VF_{197}$ 1 5.6 43°.12 2°.8/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.25 | +26 6.5 | 1.608 | 2.444 | 15.2 | 20.2 |
| 12 13 | 7 25.78 | +27 9.5 | 1.540 | 2.447 | 11.3 | 20.0 |
| 12 23 | 7 17.38 | +28 15.4 | 1.494 | 2.450 | 6.9 | 19.7 |
| 1 2 | 7 6.92 | +29 17.7 | 1.476 | 2.454 | 3.1 | 19.5 |
| 1 12 | 6 55.81 | +30 9.8 | 1.486 | 2.457 | 4.6 | 19.6 |
| 1 22 | 6 45.57 | +30 48.2 | 1.523 | 2.461 | 8.8 | 19.9 |
| 2 1 | 6 37.57 | +31 12.3 | 1.586 | 2.465 | 12.9 | 20.1 |
| 2 11 | 6 32.70 | +31 24.1 | 1.670 | 2.468 | 16.4 | 20.4 |

**414488** 2009 $QS_{57}$ 1 5.6 20°.61 7°.5/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.60 | +40 0.0 | 1.458 | 2.287 | 16.8 | 19.7 |
| 12 13 | 7 28.62 | +40 31.1 | 1.403 | 2.295 | 13.3 | 19.5 |
| 12 23 | 7 19.10 | +40 47.7 | 1.369 | 2.304 | 9.9 | 19.3 |
| 1 2 | 7 7.34 | +40 42.1 | 1.359 | 2.314 | 7.6 | 19.2 |
| 1 12 | 6 55.25 | +40 10.7 | 1.375 | 2.324 | 8.3 | 19.3 |
| 1 22 | 6 44.73 | +39 15.6 | 1.416 | 2.336 | 11.1 | 19.5 |
| 2 1 | 6 37.22 | +38 2.9 | 1.482 | 2.348 | 14.5 | 19.7 |
| 2 11 | 6 33.45 | +36 40.9 | 1.567 | 2.361 | 17.5 | 20.0 |

**97137** 1999 $VW_{121}$ 1 5.7 270°.95 1°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.97 | +19 4.5 | 2.053 | 2.874 | 12.9 | 20.3 |
| 12 13 | 7 22.65 | +19 10.9 | 1.973 | 2.873 | 9.6 | 20.1 |
| 12 23 | 7 15.18 | +19 22.7 | 1.918 | 2.872 | 5.9 | 19.9 |
| 1 2 | 7 6.28 | +19 38.2 | 1.891 | 2.871 | 1.9 | 19.6 |
| 1 12 | 6 56.95 | +19 55.3 | 1.893 | 2.870 | 2.8 | 19.7 |
| 1 22 | 6 48.24 | +20 12.3 | 1.924 | 2.869 | 6.7 | 19.9 |
| 2 1 | 6 41.13 | +20 28.2 | 1.983 | 2.868 | 10.4 | 20.1 |
| 2 11 | 6 36.32 | +20 42.3 | 2.065 | 2.867 | 13.6 | 20.3 |

**193217** 2000 $RM_{8}$ 1 5.7 191°.28 17°.8/10.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.23 | −13 53.0 | 1.334 | 2.051 | 23.6 | 20.0 |
| 12 13 | 7 26.71 | −15 39.0 | 1.273 | 2.051 | 21.5 | 19.8 |
| 12 23 | 7 18.04 | −16 48.9 | 1.227 | 2.050 | 19.6 | 19.7 |
| 1 2 | 7 7.13 | −17 12.1 | 1.199 | 2.049 | 18.2 | 19.6 |
| 1 12 | 6 55.46 | −16 43.0 | 1.190 | 2.047 | 17.8 | 19.6 |
| 1 22 | 6 44.66 | −15 23.8 | 1.201 | 2.044 | 18.6 | 19.6 |
| 2 1 | 6 36.22 | −13 23.1 | 1.231 | 2.042 | 20.3 | 19.7 |
| 2 11 | 6 31.12 | −10 54.8 | 1.278 | 2.038 | 22.5 | 19.9 |

**428380** 2007 $RK_{280}$ 1 5.7 68°.85 3°.1/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.29 | +15 0.3 | 2.160 | 2.967 | 12.8 | 20.7 |
| 12 13 | 7 23.23 | +14 18.0 | 2.098 | 2.986 | 9.7 | 20.5 |
| 12 23 | 7 15.31 | +13 42.0 | 2.061 | 3.005 | 6.4 | 20.3 |
| 1 2 | 7 6.28 | +13 12.9 | 2.053 | 3.024 | 3.5 | 20.2 |
| 1 12 | 6 57.08 | +12 51.2 | 2.074 | 3.043 | 3.9 | 20.3 |
| 1 22 | 6 48.66 | +12 36.7 | 2.126 | 3.062 | 6.8 | 20.5 |
| 2 1 | 6 41.80 | +12 28.7 | 2.204 | 3.081 | 9.9 | 20.7 |
| 2 11 | 6 37.07 | +12 26.1 | 2.307 | 3.100 | 12.6 | 20.9 |

**21994** 1999 $XU_{26}$ 1 5.7 220°.47 0°.0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.77 | +21 22.8 | 1.620 | 2.447 | 15.5 | 19.2 |
| 12 13 | 7 27.63 | +21 43.0 | 1.537 | 2.441 | 11.6 | 19.0 |
| 12 23 | 7 18.51 | +22 8.7 | 1.478 | 2.434 | 7.0 | 18.7 |
| 1 2 | 7 7.26 | +22 36.5 | 1.445 | 2.426 | 1.9 | 18.4 |
| 1 12 | 6 55.26 | +23 2.4 | 1.440 | 2.418 | 3.3 | 18.4 |
| 1 22 | 6 44.03 | +23 23.6 | 1.464 | 2.409 | 8.4 | 18.7 |
| 2 1 | 6 34.97 | +23 39.3 | 1.514 | 2.399 | 13.0 | 19.0 |
| 2 11 | 6 29.05 | +23 50.0 | 1.586 | 2.389 | 16.9 | 19.2 |

**81939** 2000 $OQ_{33}$ 1 5.7 154°.14 3°.3/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.47 | +11 6.2 | 2.584 | 3.379 | 11.3 | 20.0 |
| 12 13 | 7 20.35 | +10 56.1 | 2.504 | 3.382 | 8.8 | 19.8 |
| 12 23 | 7 13.62 | +10 54.7 | 2.449 | 3.385 | 6.0 | 19.7 |
| 1 2 | 7 5.85 | +11 2.2 | 2.422 | 3.388 | 3.7 | 19.5 |
| 1 12 | 6 57.79 | +11 17.8 | 2.425 | 3.391 | 3.8 | 19.5 |
| 1 22 | 6 50.20 | +11 40.0 | 2.459 | 3.393 | 6.1 | 19.7 |
| 2 1 | 6 43.79 | +12 7.1 | 2.520 | 3.395 | 8.9 | 19.9 |
| 2 11 | 6 39.11 | +12 37.1 | 2.606 | 3.397 | 11.4 | 20.0 |

**217309** 2004 $NR_{19}$ 1 5.7 78°.14 3°.2/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.13 | +13 15.6 | 1.466 | 2.284 | 17.3 | 20.6 |
| 12 13 | 7 27.45 | +13 29.2 | 1.420 | 2.314 | 13.1 | 20.4 |
| 12 23 | 7 18.07 | +13 56.4 | 1.395 | 2.343 | 8.4 | 20.3 |
| 1 2 | 7 7.05 | +14 34.6 | 1.397 | 2.372 | 4.0 | 20.1 |
| 1 12 | 6 55.84 | +15 20.2 | 1.427 | 2.400 | 4.3 | 20.2 |
| 1 22 | 6 45.84 | +16 8.8 | 1.484 | 2.428 | 8.4 | 20.5 |
| 2 1 | 6 38.19 | +16 57.0 | 1.568 | 2.456 | 12.5 | 20.8 |
| 2 11 | 6 33.55 | +17 42.4 | 1.674 | 2.482 | 15.9 | 21.1 |

**223735** 2004 $RR_{149}$ 1 5.7 156°.66 0°.6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.90 | +23 32.1 | 2.132 | 2.954 | 12.5 | 21.1 |
| 12 13 | 7 24.02 | +23 46.9 | 2.056 | 2.957 | 9.2 | 20.9 |
| 12 23 | 7 15.98 | +24 3.5 | 2.005 | 2.960 | 5.5 | 20.7 |
| 1 2 | 7 6.52 | +24 19.2 | 1.982 | 2.963 | 1.6 | 20.4 |
| 1 12 | 6 56.66 | +24 31.7 | 1.988 | 2.965 | 2.7 | 20.5 |
| 1 22 | 6 47.48 | +24 39.5 | 2.025 | 2.967 | 6.6 | 20.8 |
| 2 1 | 6 39.95 | +24 42.6 | 2.089 | 2.969 | 10.2 | 21.0 |
| 2 11 | 6 34.76 | +24 41.7 | 2.177 | 2.971 | 13.2 | 21.2 |

**280201** 2002 $TG_{130}$ 1 5.7 87°.50 1°.4/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.96 | +24 10.5 | 1.738 | 2.566 | 14.6 | 20.7 |
| 12 13 | 7 26.57 | +24 52.7 | 1.682 | 2.586 | 10.7 | 20.5 |
| 12 23 | 7 17.58 | +25 37.4 | 1.650 | 2.606 | 6.4 | 20.3 |
| 1 2 | 7 6.95 | +26 19.5 | 1.645 | 2.625 | 2.1 | 20.0 |
| 1 12 | 6 55.98 | +26 54.8 | 1.670 | 2.645 | 3.5 | 20.2 |
| 1 22 | 6 46.01 | +27 20.8 | 1.723 | 2.664 | 7.7 | 20.5 |
| 2 1 | 6 38.17 | +27 37.3 | 1.803 | 2.683 | 11.6 | 20.7 |
| 2 11 | 6 33.17 | +27 45.9 | 1.906 | 2.701 | 14.8 | 21.0 |

**350711** 2001 $XW_{74}$ 1 5.7 38°.65 2°.0/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.48 | +23 5.1 | 1.307 | 2.152 | 17.4 | 20.3 |
| 12 13 | 7 26.37 | +24 11.7 | 1.246 | 2.159 | 12.9 | 20.0 |
| 12 23 | 7 17.92 | +25 25.6 | 1.206 | 2.165 | 7.8 | 19.7 |
| 1 2 | 7 7.12 | +26 39.3 | 1.192 | 2.173 | 2.7 | 19.5 |
| 1 12 | 6 55.62 | +27 45.0 | 1.205 | 2.180 | 4.5 | 19.6 |
| 1 22 | 6 45.21 | +28 37.1 | 1.244 | 2.188 | 9.6 | 19.9 |
| 2 1 | 6 37.44 | +29 14.4 | 1.307 | 2.197 | 14.4 | 20.2 |
| 2 11 | 6 33.26 | +29 38.2 | 1.391 | 2.205 | 18.3 | 20.5 |

**80741** 2000 $CV_{36}$ 1 5.7 251°.21 5°.6/ 7.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.53 | + 5 52.2 | 2.161 | 2.942 | 13.7 | 20.1 |
| 12 13 | 7 23.07 | + 5 36.1 | 2.061 | 2.924 | 11.1 | 19.9 |
| 12 23 | 7 15.51 | + 5 34.1 | 1.983 | 2.904 | 8.3 | 19.7 |
| 1 2 | 7 6.43 | + 5 47.8 | 1.933 | 2.885 | 6.0 | 19.5 |
| 1 12 | 6 56.73 | + 6 17.1 | 1.911 | 2.864 | 5.9 | 19.5 |
| 1 22 | 6 47.41 | + 7 0.0 | 1.919 | 2.843 | 8.3 | 19.6 |
| 2 1 | 6 39.45 | + 7 53.2 | 1.953 | 2.822 | 11.4 | 19.7 |
| 2 11 | 6 33.62 | + 8 53.0 | 2.012 | 2.800 | 14.4 | 19.9 |

**426417** 2013 $QB_{9}$ 1 5.7 55°.48 0°.2/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.83 | +21 28.1 | 1.896 | 2.723 | 13.6 | 21.0 |
| 12 13 | 7 23.34 | +21 35.3 | 1.831 | 2.734 | 10.0 | 20.8 |
| 12 23 | 7 15.59 | +21 46.1 | 1.790 | 2.746 | 6.0 | 20.6 |
| 1 2 | 7 6.41 | +21 58.2 | 1.776 | 2.757 | 1.7 | 20.4 |
| 1 12 | 6 56.90 | +22 9.4 | 1.791 | 2.769 | 2.8 | 20.5 |
| 1 22 | 6 48.21 | +22 18.2 | 1.835 | 2.780 | 7.0 | 20.8 |
| 2 1 | 6 41.32 | +22 24.2 | 1.906 | 2.792 | 10.7 | 21.0 |
| 2 11 | 6 36.90 | +22 27.6 | 2.000 | 2.804 | 13.9 | 21.2 |

**74177** 1998 $RZ_{18}$ 1 5.7 17°.11 3°.9/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.36 | +28 58.0 | 1.324 | 2.173 | 17.0 | 17.9 |
| 12 13 | 7 25.59 | +29 48.2 | 1.264 | 2.177 | 12.7 | 17.7 |
| 12 23 | 7 17.44 | +30 37.5 | 1.226 | 2.182 | 8.1 | 17.4 |
| 1 2 | 7 6.98 | +31 18.5 | 1.212 | 2.188 | 4.2 | 17.2 |
| 1 12 | 6 55.91 | +31 45.0 | 1.224 | 2.194 | 5.6 | 17.3 |
| 1 22 | 6 46.04 | +31 54.7 | 1.262 | 2.202 | 10.0 | 17.6 |
| 2 1 | 6 38.86 | +31 49.1 | 1.323 | 2.210 | 14.4 | 17.8 |
| 2 11 | 6 35.30 | +31 32.2 | 1.404 | 2.219 | 18.2 | 18.1 |

**236785** Hilendarski 1 5.7 139°.29 1°.8/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.95 | +15 51.3 | 1.828 | 2.642 | 14.5 | 21.3 |
| 12 13 | 7 25.73 | +16 12.3 | 1.758 | 2.652 | 10.9 | 21.1 |
| 12 23 | 7 17.09 | +16 42.9 | 1.711 | 2.662 | 6.8 | 20.9 |
| 1 2 | 7 6.84 | +17 20.8 | 1.693 | 2.671 | 2.7 | 20.7 |
| 1 12 | 6 56.15 | +18 2.7 | 1.703 | 2.679 | 3.3 | 20.7 |
| 1 22 | 6 46.25 | +18 45.2 | 1.743 | 2.687 | 7.4 | 21.0 |
| 2 1 | 6 38.21 | +19 26.0 | 1.811 | 2.694 | 11.3 | 21.2 |
| 2 11 | 6 32.78 | +20 3.4 | 1.901 | 2.701 | 14.7 | 21.5 |

**407371** 2010 $RK_{136}$ 1 5.7 10°.30 9°.0/ 3.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.54 | +39 33.7 | 1.359 | 2.196 | 17.3 | 20.4 |
| 12 13 | 7 27.69 | +41 2.5 | 1.303 | 2.198 | 13.9 | 20.2 |
| 12 23 | 7 18.94 | +42 19.9 | 1.268 | 2.201 | 10.8 | 20.0 |
| 1 2 | 7 7.43 | +43 14.7 | 1.257 | 2.205 | 9.1 | 19.9 |
| 1 12 | 6 55.15 | +43 38.8 | 1.271 | 2.210 | 10.0 | 20.0 |
| 1 22 | 6 44.25 | +43 31.2 | 1.308 | 2.215 | 12.9 | 20.2 |
| 2 1 | 6 36.50 | +42 56.6 | 1.367 | 2.222 | 16.2 | 20.4 |
| 2 11 | 6 32.88 | +42 3.3 | 1.445 | 2.230 | 19.2 | 20.6 |

**489929** 2008 $RQ_{17}$ 1 5.7 80°.94 5°.5/ 6.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.88 | + 9 52.2 | 1.427 | 2.242 | 17.8 | 21.9 |
| 12 13 | 7 25.98 | + 9 26.7 | 1.370 | 2.258 | 13.9 | 21.6 |
| 12 23 | 7 17.33 | + 9 17.4 | 1.335 | 2.274 | 9.7 | 21.4 |
| 1 2 | 7 6.91 | + 9 25.3 | 1.325 | 2.290 | 6.1 | 21.3 |
| 1 12 | 6 56.14 | + 9 48.9 | 1.341 | 2.306 | 6.2 | 21.3 |
| 1 22 | 6 46.46 | +10 24.9 | 1.384 | 2.322 | 9.5 | 21.6 |
| 2 1 | 6 39.05 | +11 9.2 | 1.452 | 2.337 | 13.4 | 21.8 |
| 2 11 | 6 34.65 | +11 57.4 | 1.541 | 2.353 | 16.9 | 22.1 |

**447245** 2005 $UV_{212}$ 1 5.7 111°.54 1°.0/ 5.9 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.41 | +19 11.4 | 1.577 | 2.402 | 16.0 | 22.5 |
| 12 13 | 7 27.77 | +19 22.4 | 1.517 | 2.418 | 11.9 | 22.2 |
| 12 23 | 7 18.37 | +19 40.1 | 1.479 | 2.434 | 7.2 | 22.0 |
| 1 2 | 7 7.19 | +20 1.6 | 1.468 | 2.449 | 2.2 | 21.7 |
| 1 12 | 6 55.65 | +20 23.8 | 1.486 | 2.464 | 3.3 | 21.8 |
| 1 22 | 6 45.17 | +20 44.4 | 1.533 | 2.478 | 8.1 | 22.2 |
| 2 1 | 6 36.97 | +21 2.2 | 1.605 | 2.492 | 12.3 | 22.4 |
| 2 11 | 6 31.79 | +21 17.2 | 1.700 | 2.505 | 15.9 | 22.7 |

**418493** 2008 $RV_{129}$ 1 5.7 89°.16 0°.5/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.63 | +19 55.1 | 2.105 | 2.925 | 12.7 | 21.2 |
| 12 13 | 7 23.01 | +20 10.3 | 2.037 | 2.937 | 9.4 | 21.0 |
| 12 23 | 7 15.34 | +20 30.4 | 1.994 | 2.949 | 5.6 | 20.8 |
| 1 2 | 7 6.36 | +20 52.9 | 1.980 | 2.960 | 1.7 | 20.6 |
| 1 12 | 6 57.06 | +21 15.6 | 1.995 | 2.972 | 2.6 | 20.6 |
| 1 22 | 6 48.47 | +21 36.5 | 2.040 | 2.984 | 6.5 | 20.9 |
| 2 1 | 6 41.49 | +21 54.6 | 2.112 | 2.995 | 10.0 | 21.2 |
| 2 11 | 6 36.75 | +22 9.6 | 2.208 | 3.007 | 12.9 | 21.4 |

**184176** 2004 $NK_{30}$ 1 5.7 213°.47 3°.7/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.48 | +31 30.5 | 2.405 | 3.218 | 11.5 | 20.7 |
| 12 13 | 7 26.08 | +32 33.3 | 2.318 | 3.211 | 8.7 | 20.6 |
| 12 23 | 7 17.36 | +33 34.5 | 2.258 | 3.203 | 5.8 | 20.4 |
| 1 2 | 7 6.97 | +34 28.6 | 2.227 | 3.194 | 3.8 | 20.2 |
| 1 12 | 6 55.93 | +35 10.8 | 2.226 | 3.185 | 4.7 | 20.3 |
| 1 22 | 6 45.40 | +35 38.8 | 2.256 | 3.176 | 7.5 | 20.4 |
| 2 1 | 6 36.45 | +35 52.7 | 2.313 | 3.165 | 10.5 | 20.6 |
| 2 11 | 6 29.88 | +35 54.7 | 2.394 | 3.155 | 13.1 | 20.8 |

**235650** 2004 $RP_{148}$ 1 5.7 79°.38 3°.7/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.09 | +12 38.1 | 1.472 | 2.293 | 17.1 | 19.8 |
| 12 13 | 7 25.46 | +12 42.6 | 1.411 | 2.306 | 13.0 | 19.6 |
| 12 23 | 7 17.07 | +13 1.4 | 1.372 | 2.319 | 8.6 | 19.4 |
| 1 2 | 7 6.88 | +13 33.5 | 1.358 | 2.331 | 4.4 | 19.2 |
| 1 12 | 6 56.25 | +14 15.5 | 1.371 | 2.344 | 4.6 | 19.2 |
| 1 22 | 6 46.62 | +15 3.6 | 1.412 | 2.357 | 8.7 | 19.5 |
| 2 1 | 6 39.19 | +15 53.7 | 1.479 | 2.369 | 12.9 | 19.8 |
| 2 11 | 6 34.76 | +16 42.7 | 1.566 | 2.382 | 16.6 | 20.0 |

**245434** 2005 $JL_{120}$ 1 5.7 130°.71 0°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.66 | +19 15.7 | 2.606 | 3.418 | 10.7 | 20.7 |
| 12 13 | 7 21.27 | +19 33.3 | 2.531 | 3.426 | 8.0 | 20.6 |
| 12 23 | 7 14.21 | +19 55.3 | 2.481 | 3.433 | 4.8 | 20.4 |
| 1 2 | 7 6.07 | +20 20.0 | 2.460 | 3.441 | 1.5 | 20.1 |
| 1 12 | 6 57.63 | +20 45.2 | 2.471 | 3.448 | 2.2 | 20.2 |
| 1 22 | 6 49.71 | +21 9.3 | 2.512 | 3.454 | 5.5 | 20.4 |
| 2 1 | 6 43.04 | +21 31.3 | 2.581 | 3.461 | 8.5 | 20.6 |
| 2 11 | 6 38.18 | +21 50.7 | 2.676 | 3.467 | 11.1 | 20.8 |

**254400** 2004 $TZ_{244}$ 1 5.7 329°.91 4°.3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.67 | +13 45.0 | 1.406 | 2.235 | 17.3 | 20.0 |
| 12 13 | 7 24.72 | +13 15.5 | 1.331 | 2.231 | 13.4 | 19.7 |
| 12 23 | 7 16.82 | +12 57.5 | 1.278 | 2.226 | 8.9 | 19.5 |
| 1 2 | 7 6.86 | +12 51.9 | 1.249 | 2.222 | 4.9 | 19.2 |
| 1 12 | 6 56.25 | +12 58.2 | 1.247 | 2.218 | 5.3 | 19.2 |
| 1 22 | 6 46.51 | +13 14.7 | 1.271 | 2.215 | 9.5 | 19.5 |
| 2 1 | 6 39.00 | +13 38.7 | 1.319 | 2.211 | 14.0 | 19.7 |
| 2 11 | 6 34.63 | +14 7.4 | 1.387 | 2.209 | 18.0 | 20.0 |

**291392** 2006 $CJ_{46}$ 1 5.7 158°.39 1°.5/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.68 | +25 31.8 | 1.879 | 2.700 | 13.9 | 21.8 |
| 12 13 | 7 27.84 | +25 54.1 | 1.806 | 2.706 | 10.3 | 21.6 |
| 12 23 | 7 18.41 | +26 16.9 | 1.758 | 2.713 | 6.2 | 21.4 |
| 1 2 | 7 7.26 | +26 36.3 | 1.738 | 2.718 | 2.1 | 21.1 |
| 1 12 | 6 55.66 | +26 48.8 | 1.748 | 2.723 | 3.4 | 21.2 |
| 1 22 | 6 44.93 | +26 53.2 | 1.787 | 2.727 | 7.6 | 21.5 |
| 2 1 | 6 36.23 | +26 50.0 | 1.854 | 2.731 | 11.5 | 21.7 |
| 2 11 | 6 30.33 | +26 41.2 | 1.943 | 2.734 | 14.7 | 21.9 |

**483376** 2016 $TK_{6}$ 1 5.7 115°.33 16°.5/ 8.6 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.79 | − 8 35.2 | 1.250 | 1.998 | 23.4 | 21.7 |
| 12 13 | 7 28.50 | −10 49.3 | 1.202 | 2.010 | 20.8 | 21.5 |
| 12 23 | 7 19.04 | −12 30.0 | 1.171 | 2.022 | 18.4 | 21.4 |
| 1 2 | 7 7.46 | −13 26.7 | 1.159 | 2.034 | 16.8 | 21.4 |
| 1 12 | 6 55.37 | −13 34.1 | 1.168 | 2.045 | 16.6 | 21.4 |
| 1 22 | 6 44.44 | −12 54.6 | 1.198 | 2.055 | 17.7 | 21.5 |
| 2 1 | 6 36.08 | −11 36.9 | 1.247 | 2.065 | 19.7 | 21.6 |
| 2 11 | 6 31.17 | − 9 53.4 | 1.313 | 2.074 | 21.9 | 21.8 |

**144898** 2004 $VD_{17}$ 1 5.7 94°.74 3°.5/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 8 6.33 | +14 14.2 | 1.025 | 1.817 | 24.8 | 21.3 |
| 12 13 | 7 51.15 | +14 21.7 | 0.998 | 1.879 | 18.4 | 21.1 |
| 12 23 | 7 31.89 | +14 42.8 | 0.993 | 1.938 | 11.4 | 20.9 |
| 1 2 | 7 10.71 | +15 12.2 | 1.016 | 1.992 | 4.7 | 20.7 |
| 1 12 | 6 50.38 | +15 44.4 | 1.069 | 2.042 | 5.4 | 20.9 |
| 1 22 | 6 33.27 | +16 16.1 | 1.152 | 2.089 | 11.1 | 21.4 |
| 2 1 | 6 20.74 | +16 46.0 | 1.260 | 2.132 | 16.1 | 21.8 |
| 2 11 | 6 13.14 | +17 13.8 | 1.389 | 2.172 | 19.9 | 22.2 |

**449573** 2014 $JZ_{15}$ 1 5.7 180°.56 2°.2/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.20 | +16 39.8 | 1.793 | 2.608 | 14.8 | 22.1 |
| 12 13 | 7 26.77 | +16 33.2 | 1.715 | 2.610 | 11.2 | 21.8 |
| 12 23 | 7 17.81 | +16 34.2 | 1.660 | 2.610 | 7.0 | 21.6 |
| 1 2 | 7 7.11 | +16 41.6 | 1.633 | 2.611 | 3.0 | 21.4 |
| 1 12 | 6 55.91 | +16 53.7 | 1.635 | 2.610 | 3.6 | 21.4 |
| 1 22 | 6 45.48 | +17 8.7 | 1.666 | 2.609 | 7.8 | 21.6 |
| 2 1 | 6 36.96 | +17 25.2 | 1.724 | 2.607 | 11.8 | 21.9 |
| 2 11 | 6 31.17 | +17 42.2 | 1.805 | 2.605 | 15.3 | 22.1 |

**189296** 2005 $UT_{407}$ 1 5.7 112°.31 0°.3/ 5.6 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.04 | +21 38.5 | 1.697 | 2.518 | 15.2 | 20.4 |
| 12 13 | 7 28.83 | +22 9.7 | 1.640 | 2.540 | 11.2 | 20.2 |
| 12 23 | 7 18.96 | +22 45.2 | 1.607 | 2.562 | 6.7 | 20.0 |
| 1 2 | 7 7.40 | +23 20.8 | 1.601 | 2.583 | 1.8 | 19.7 |
| 1 12 | 6 55.52 | +23 52.4 | 1.626 | 2.603 | 3.1 | 19.8 |
| 1 22 | 6 44.72 | +24 17.7 | 1.680 | 2.622 | 7.7 | 20.2 |
| 2 1 | 6 36.15 | +24 36.1 | 1.760 | 2.641 | 11.8 | 20.5 |
| 2 11 | 6 30.53 | +24 48.5 | 1.863 | 2.658 | 15.1 | 20.7 |

**46542** 1987 $AD$ 1 5.7 28°.51 1°.7/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 46.04 | +27 23.9 | 1.271 | 2.098 | 18.9 | 17.4 |
| 12 13 | 7 36.48 | +25 3.5 | 1.208 | 2.111 | 14.1 | 17.1 |
| 12 23 | 7 23.47 | +22 30.3 | 1.170 | 2.125 | 8.5 | 16.9 |
| 1 2 | 7 8.56 | +19 49.1 | 1.160 | 2.140 | 2.7 | 16.6 |
| 1 12 | 6 53.81 | +17 9.5 | 1.180 | 2.156 | 4.5 | 16.7 |
| 1 22 | 6 41.09 | +14 42.3 | 1.231 | 2.173 | 10.0 | 17.1 |
| 2 1 | 6 31.68 | +12 35.7 | 1.309 | 2.191 | 14.9 | 17.4 |
| 2 11 | 6 26.15 | +10 52.5 | 1.408 | 2.209 | 18.8 | 17.7 |

**108861** 2001 $OD_{97}$ 1 5.7 52°.49 2°.5/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.08 | +29 0.5 | 1.991 | 2.818 | 13.0 | 18.9 |
| 12 13 | 7 24.25 | +29 23.3 | 1.933 | 2.835 | 9.7 | 18.7 |
| 12 23 | 7 16.15 | +29 43.6 | 1.899 | 2.852 | 6.0 | 18.5 |
| 1 2 | 7 6.63 | +29 57.4 | 1.893 | 2.870 | 2.8 | 18.4 |
| 1 12 | 6 56.87 | +30 2.2 | 1.917 | 2.888 | 3.8 | 18.5 |
| 1 22 | 6 48.00 | +29 57.4 | 1.969 | 2.906 | 7.2 | 18.7 |
| 2 1 | 6 41.02 | +29 44.2 | 2.047 | 2.924 | 10.6 | 19.0 |
| 2 11 | 6 36.55 | +29 24.8 | 2.149 | 2.942 | 13.4 | 19.2 |

**297879** 2002 $CX_{135}$ 1 5.7 5°.98 1°.1/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.92 | +20 31.5 | 1.162 | 2.016 | 18.5 | 20.6 |
| 12 13 | 7 24.66 | +20 21.9 | 1.100 | 2.016 | 13.9 | 20.3 |
| 12 23 | 7 16.97 | +20 18.8 | 1.057 | 2.017 | 8.5 | 20.0 |
| 1 2 | 7 6.95 | +20 20.2 | 1.037 | 2.018 | 2.6 | 19.7 |
| 1 12 | 6 56.30 | +20 23.5 | 1.043 | 2.021 | 3.9 | 19.8 |
| 1 22 | 6 46.83 | +20 27.0 | 1.073 | 2.025 | 9.7 | 20.1 |
| 2 1 | 6 40.09 | +20 30.0 | 1.126 | 2.030 | 14.9 | 20.4 |
| 2 11 | 6 36.98 | +20 32.3 | 1.199 | 2.036 | 19.2 | 20.7 |

**413991** 2007 $EW_{108}$ 1 5.7 8°.73 5°.9/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.82 | +34 22.5 | 1.495 | 2.335 | 15.9 | 20.3 |
| 12 13 | 7 25.87 | +35 21.6 | 1.433 | 2.336 | 12.3 | 20.1 |
| 12 23 | 7 17.63 | +36 14.6 | 1.392 | 2.338 | 8.5 | 19.8 |
| 1 2 | 7 7.13 | +36 53.3 | 1.376 | 2.341 | 6.1 | 19.7 |
| 1 12 | 6 56.00 | +37 11.8 | 1.387 | 2.345 | 7.1 | 19.8 |
| 1 22 | 6 45.99 | +37 8.5 | 1.423 | 2.349 | 10.5 | 20.0 |
| 2 1 | 6 38.59 | +36 46.3 | 1.483 | 2.354 | 14.1 | 20.2 |
| 2 11 | 6 34.68 | +36 10.7 | 1.564 | 2.361 | 17.4 | 20.5 |

**495604** 2015 $BW_{21}$ 1 5.7 307°.75 0°.1/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.39 | +23 31.5 | 2.174 | 2.997 | 12.2 | 20.6 |
| 12 13 | 7 22.95 | +23 23.9 | 2.089 | 2.990 | 9.1 | 20.4 |
| 12 23 | 7 15.41 | +23 17.1 | 2.028 | 2.984 | 5.4 | 20.2 |
| 1 2 | 7 6.47 | +23 9.4 | 1.996 | 2.977 | 1.5 | 19.9 |
| 1 12 | 6 57.12 | +22 59.4 | 1.994 | 2.971 | 2.6 | 19.9 |
| 1 22 | 6 48.39 | +22 46.9 | 2.021 | 2.965 | 6.5 | 20.2 |
| 2 1 | 6 41.22 | +22 32.1 | 2.076 | 2.959 | 10.1 | 20.4 |
| 2 11 | 6 36.30 | +22 16.1 | 2.154 | 2.953 | 13.2 | 20.6 |

**356372** 2010 $NR_{4}$ 1 5.7 184°.74 0°.7/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.53 | +19 6.1 | 2.043 | 2.857 | 13.2 | 21.8 |
| 12 13 | 7 25.36 | +19 26.1 | 1.961 | 2.858 | 9.9 | 21.6 |
| 12 23 | 7 16.91 | +19 52.3 | 1.905 | 2.857 | 6.0 | 21.3 |
| 1 2 | 7 6.90 | +20 22.0 | 1.876 | 2.857 | 1.8 | 21.1 |
| 1 12 | 6 56.38 | +20 52.4 | 1.878 | 2.855 | 2.8 | 21.1 |
| 1 22 | 6 46.50 | +21 21.0 | 1.910 | 2.853 | 6.9 | 21.4 |
| 2 1 | 6 38.29 | +21 46.5 | 1.970 | 2.851 | 10.7 | 21.6 |
| 2 11 | 6 32.51 | +22 8.4 | 2.053 | 2.848 | 13.9 | 21.8 |

**20634** Marichardson 1 5.7 298°.27 2°.9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.08 | +26 52.4 | 1.534 | 2.373 | 15.6 | 18.0 |
| 12 13 | 7 26.08 | +27 39.9 | 1.448 | 2.357 | 11.7 | 17.7 |
| 12 23 | 7 17.87 | +28 30.1 | 1.385 | 2.342 | 7.3 | 17.4 |
| 1 2 | 7 7.26 | +29 17.0 | 1.348 | 2.326 | 3.3 | 17.1 |
| 1 12 | 6 55.69 | +29 54.1 | 1.338 | 2.311 | 4.8 | 17.2 |
| 1 22 | 6 44.83 | +30 17.8 | 1.355 | 2.295 | 9.5 | 17.4 |
| 2 1 | 6 36.26 | +30 27.8 | 1.397 | 2.280 | 14.0 | 17.6 |
| 2 11 | 6 31.06 | +30 26.6 | 1.459 | 2.266 | 18.0 | 17.8 |

**42814** 1999 $LR_{13}$ 1 5.7 134°.23 3°.1/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.99 | +13 30.0 | 1.960 | 2.764 | 14.1 | 19.9 |
| 12 13 | 7 25.55 | +13 25.1 | 1.891 | 2.778 | 10.7 | 19.7 |
| 12 23 | 7 16.93 | +13 29.8 | 1.847 | 2.791 | 7.0 | 19.5 |
| 1 2 | 7 6.89 | +13 43.4 | 1.831 | 2.803 | 3.6 | 19.3 |
| 1 12 | 6 56.52 | +14 4.2 | 1.844 | 2.815 | 3.9 | 19.3 |
| 1 22 | 6 46.92 | +14 30.3 | 1.887 | 2.826 | 7.3 | 19.6 |
| 2 1 | 6 39.07 | +14 59.3 | 1.957 | 2.837 | 10.8 | 19.8 |
| 2 11 | 6 33.62 | +15 29.4 | 2.051 | 2.847 | 13.9 | 20.0 |

**450493** 2005 $YL_{125}$ 1 5.7 356°.19 1°.9/ 5.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.66 | +25 2.5 | 1.043 | 1.908 | 19.3 | 21.3 |
| 12 13 | 7 24.26 | +25 25.0 | 0.980 | 1.903 | 14.4 | 21.0 |
| 12 23 | 7 17.02 | +25 50.9 | 0.936 | 1.899 | 8.8 | 20.6 |
| 1 2 | 7 7.04 | +26 14.6 | 0.915 | 1.896 | 2.9 | 20.3 |
| 1 12 | 6 56.22 | +26 30.5 | 0.917 | 1.895 | 4.7 | 20.4 |
| 1 22 | 6 46.67 | +26 35.9 | 0.943 | 1.895 | 10.7 | 20.7 |
| 2 1 | 6 40.17 | +26 31.3 | 0.990 | 1.896 | 16.2 | 21.0 |
| 2 11 | 6 37.75 | +26 19.2 | 1.055 | 1.900 | 20.8 | 21.3 |

**305815** 2009 $DT_{109}$ 1 5.7 268°.60 1°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.46 | +20 0.2 | 1.748 | 2.573 | 14.6 | 21.0 |
| 12 13 | 7 25.84 | +19 56.8 | 1.654 | 2.555 | 11.0 | 20.7 |
| 12 23 | 7 17.48 | +19 58.4 | 1.582 | 2.537 | 6.8 | 20.4 |
| 1 2 | 7 7.12 | +20 3.1 | 1.538 | 2.519 | 2.2 | 20.1 |
| 1 12 | 6 55.99 | +20 8.9 | 1.523 | 2.500 | 3.2 | 20.1 |
| 1 22 | 6 45.46 | +20 14.4 | 1.536 | 2.481 | 8.0 | 20.4 |
| 2 1 | 6 36.82 | +20 18.8 | 1.575 | 2.462 | 12.5 | 20.6 |
| 2 11 | 6 31.02 | +20 22.3 | 1.636 | 2.442 | 16.4 | 20.8 |

**412281** 2013 $JP_{11}$ 1 5.7 199°.22 1°.6/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.08 | +25 38.1 | 2.007 | 2.829 | 13.1 | 22.0 |
| 12 13 | 7 25.94 | +26 9.5 | 1.926 | 2.827 | 9.8 | 21.8 |
| 12 23 | 7 17.34 | +26 42.1 | 1.870 | 2.824 | 5.9 | 21.6 |
| 1 2 | 7 7.04 | +27 11.9 | 1.841 | 2.821 | 2.2 | 21.3 |
| 1 12 | 6 56.20 | +27 35.2 | 1.843 | 2.817 | 3.4 | 21.4 |
| 1 22 | 6 46.04 | +27 50.0 | 1.874 | 2.813 | 7.3 | 21.6 |
| 2 1 | 6 37.68 | +27 56.3 | 1.933 | 2.809 | 11.1 | 21.9 |
| 2 11 | 6 31.92 | +27 55.7 | 2.014 | 2.804 | 14.3 | 22.1 |

**399517** 2002 $VO_{131}$ 1 5.7 53°.31 2°.7/ 6.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.21 | +16 41.6 | 1.427 | 2.257 | 17.0 | 20.8 |
| 12 13 | 7 26.13 | +16 23.2 | 1.382 | 2.284 | 12.7 | 20.6 |
| 12 23 | 7 17.36 | +16 13.9 | 1.358 | 2.310 | 8.0 | 20.4 |
| 1 2 | 7 6.99 | +16 12.7 | 1.360 | 2.337 | 3.5 | 20.2 |
| 1 12 | 6 56.48 | +16 18.0 | 1.390 | 2.365 | 4.0 | 20.4 |
| 1 22 | 6 47.21 | +16 28.0 | 1.446 | 2.392 | 8.4 | 20.7 |
| 2 1 | 6 40.30 | +16 40.9 | 1.528 | 2.419 | 12.5 | 21.0 |
| 2 11 | 6 36.37 | +16 55.3 | 1.631 | 2.447 | 16.0 | 21.3 |

**488607** 2002 $RS_{189}$ 1 5.7 57°.47 2°.9/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.40 | +11 28.5 | 2.769 | 3.564 | 10.6 | 20.7 |
| 12 13 | 7 19.38 | +11 21.4 | 2.713 | 3.591 | 8.1 | 20.6 |
| 12 23 | 7 12.99 | +11 22.4 | 2.682 | 3.619 | 5.5 | 20.5 |
| 1 2 | 7 5.78 | +11 31.1 | 2.679 | 3.646 | 3.3 | 20.4 |
| 1 12 | 6 58.45 | +11 46.7 | 2.707 | 3.673 | 3.4 | 20.4 |
| 1 22 | 6 51.65 | +12 7.7 | 2.765 | 3.700 | 5.5 | 20.6 |
| 2 1 | 6 45.99 | +12 32.5 | 2.851 | 3.727 | 7.9 | 20.8 |
| 2 11 | 6 41.90 | +12 59.3 | 2.963 | 3.754 | 10.1 | 21.0 |

**410585** 2008 $GU_{123}$ 1 5.7 137°.93 5°.2/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.39 | +35 24.7 | 1.884 | 2.704 | 13.9 | 21.1 |
| 12 13 | 7 27.92 | +36 6.4 | 1.814 | 2.707 | 10.8 | 20.9 |
| 12 23 | 7 18.62 | +36 40.9 | 1.768 | 2.709 | 7.5 | 20.7 |
| 1 2 | 7 7.40 | +37 1.9 | 1.748 | 2.711 | 5.3 | 20.6 |
| 1 12 | 6 55.68 | +37 5.1 | 1.758 | 2.713 | 6.1 | 20.7 |
| 1 22 | 6 44.94 | +36 50.2 | 1.795 | 2.715 | 9.0 | 20.8 |
| 2 1 | 6 36.44 | +36 19.7 | 1.857 | 2.717 | 12.3 | 21.1 |
| 2 11 | 6 31.01 | +35 38.5 | 1.942 | 2.719 | 15.2 | 21.3 |

**200424** 2000 $ST_{236}$ 1 5.7 141°.69 0°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.32 | +19 53.8 | 1.896 | 2.712 | 14.0 | 21.2 |
| 12 13 | 7 26.71 | +20 6.6 | 1.826 | 2.724 | 10.4 | 20.9 |
| 12 23 | 7 17.70 | +20 24.5 | 1.781 | 2.734 | 6.3 | 20.7 |
| 1 2 | 7 7.13 | +20 44.9 | 1.763 | 2.744 | 1.9 | 20.5 |
| 1 12 | 6 56.16 | +21 5.2 | 1.776 | 2.753 | 2.9 | 20.5 |
| 1 22 | 6 46.03 | +21 23.3 | 1.819 | 2.762 | 7.2 | 20.8 |
| 2 1 | 6 37.78 | +21 38.4 | 1.888 | 2.770 | 11.0 | 21.1 |
| 2 11 | 6 32.15 | +21 50.6 | 1.981 | 2.777 | 14.3 | 21.3 |

**411772** 2012 $BY_{141}$ 1 5.7 341°.06 5°.7/ 7.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.33 | + 7 3.2 | 1.582 | 2.389 | 16.7 | 21.3 |
| 12 13 | 7 22.74 | + 7 8.0 | 1.504 | 2.385 | 13.3 | 21.0 |
| 12 23 | 7 15.58 | + 7 32.6 | 1.448 | 2.382 | 9.5 | 20.8 |
| 1 2 | 7 6.60 | + 8 17.4 | 1.417 | 2.379 | 6.3 | 20.6 |
| 1 12 | 6 56.99 | + 9 20.1 | 1.412 | 2.376 | 6.1 | 20.6 |
| 1 22 | 6 48.06 | +10 35.8 | 1.435 | 2.374 | 9.2 | 20.8 |
| 2 1 | 6 41.01 | +11 58.7 | 1.483 | 2.372 | 13.0 | 21.0 |
| 2 11 | 6 36.70 | +13 22.7 | 1.553 | 2.370 | 16.6 | 21.2 |

**65781** 1995 $TT_{1}$ 1 5.7 233°.14 4°.2/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.29 | +31 5.2 | 1.584 | 2.413 | 15.7 | 19.2 |
| 12 13 | 7 29.88 | +31 47.4 | 1.504 | 2.405 | 11.9 | 18.9 |
| 12 23 | 7 20.09 | +32 26.8 | 1.447 | 2.397 | 7.8 | 18.7 |
| 1 2 | 7 7.88 | +32 55.9 | 1.416 | 2.388 | 4.5 | 18.4 |
| 1 12 | 6 54.82 | +33 9.2 | 1.413 | 2.379 | 5.7 | 18.5 |
| 1 22 | 6 42.70 | +33 4.6 | 1.437 | 2.370 | 9.8 | 18.7 |
| 2 1 | 6 33.12 | +32 44.5 | 1.486 | 2.360 | 14.0 | 18.9 |
| 2 11 | 6 27.09 | +32 13.6 | 1.557 | 2.349 | 17.7 | 19.1 |

**313868** 2004 $FC_{144}$ 1 5.7 347°.10 2°.0/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.06 | +18 7.2 | 1.426 | 2.266 | 16.5 | 20.6 |
| 12 13 | 7 23.58 | +17 57.2 | 1.352 | 2.260 | 12.5 | 20.4 |
| 12 23 | 7 16.19 | +17 55.2 | 1.299 | 2.255 | 7.8 | 20.1 |
| 1 2 | 7 6.78 | +18 0.1 | 1.271 | 2.251 | 3.0 | 19.8 |
| 1 12 | 6 56.72 | +18 9.9 | 1.270 | 2.247 | 3.8 | 19.8 |
| 1 22 | 6 47.54 | +18 22.6 | 1.295 | 2.244 | 8.8 | 20.1 |
| 2 1 | 6 40.56 | +18 36.8 | 1.344 | 2.242 | 13.4 | 20.4 |
| 2 11 | 6 36.69 | +18 51.2 | 1.415 | 2.240 | 17.4 | 20.6 |

**457712** 2009 $FX_{36}$ 1 5.7 318°.55 8°.1/ 7.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.13 | + 3 26.9 | 1.521 | 2.319 | 17.7 | 21.2 |
| 12 13 | 7 22.70 | + 2 57.6 | 1.442 | 2.311 | 14.6 | 20.9 |
| 12 23 | 7 15.61 | + 2 49.7 | 1.383 | 2.302 | 11.2 | 20.7 |
| 1 2 | 7 6.62 | + 3 6.4 | 1.347 | 2.294 | 8.6 | 20.5 |
| 1 12 | 6 56.95 | + 3 48.1 | 1.337 | 2.287 | 8.4 | 20.5 |
| 1 22 | 6 47.93 | + 4 51.2 | 1.352 | 2.279 | 10.8 | 20.6 |
| 2 1 | 6 40.83 | + 6 10.0 | 1.392 | 2.272 | 14.3 | 20.8 |
| 2 11 | 6 36.53 | + 7 37.0 | 1.452 | 2.266 | 17.7 | 21.0 |

**320836** 2008 $FE_{61}$ 1 5.7 207°.12 4°.5/ 7.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.30 | + 7 57.0 | 2.281 | 3.067 | 12.9 | 22.2 |
| 12 13 | 7 22.74 | + 7 50.9 | 2.192 | 3.062 | 10.2 | 22.0 |
| 12 23 | 7 15.27 | + 7 57.3 | 2.128 | 3.056 | 7.3 | 21.8 |
| 1 2 | 7 6.48 | + 8 16.8 | 2.091 | 3.050 | 4.9 | 21.6 |
| 1 12 | 6 57.24 | + 8 48.2 | 2.084 | 3.044 | 4.9 | 21.6 |
| 1 22 | 6 48.47 | + 9 29.5 | 2.107 | 3.037 | 7.3 | 21.8 |
| 2 1 | 6 41.03 | +10 17.7 | 2.157 | 3.030 | 10.3 | 21.9 |
| 2 11 | 6 35.61 | +11 9.5 | 2.232 | 3.022 | 13.1 | 22.1 |

**243126** 2007 $RU_{245}$ 1 5.7 57°.13 6°.7/ 8.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.49 | + 1 19.3 | 2.146 | 2.914 | 14.2 | 20.2 |
| 12 13 | 7 20.64 | + 1 9.9 | 2.077 | 2.924 | 11.7 | 20.0 |
| 12 23 | 7 13.96 | + 1 18.6 | 2.029 | 2.934 | 9.1 | 19.9 |
| 1 2 | 7 6.10 | + 1 46.4 | 2.008 | 2.944 | 7.1 | 19.8 |
| 1 12 | 6 57.93 | + 2 32.6 | 2.014 | 2.954 | 6.8 | 19.8 |
| 1 22 | 6 50.33 | + 3 33.8 | 2.048 | 2.964 | 8.4 | 19.9 |
| 2 1 | 6 44.12 | + 4 45.9 | 2.109 | 2.975 | 10.8 | 20.1 |
| 2 11 | 6 39.91 | + 6 3.5 | 2.194 | 2.985 | 13.2 | 20.3 |

**30493** 2000 $QM_{48}$ 1 5.7 247°.85 3°.1/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.34 | +11 33.0 | 2.497 | 3.296 | 11.6 | 18.7 |
| 12 13 | 7 20.44 | +11 33.1 | 2.410 | 3.291 | 8.9 | 18.5 |
| 12 23 | 7 13.83 | +11 42.5 | 2.347 | 3.286 | 6.1 | 18.3 |
| 1 2 | 7 6.08 | +12 1.0 | 2.312 | 3.280 | 3.5 | 18.1 |
| 1 12 | 6 57.95 | +12 27.5 | 2.307 | 3.275 | 3.6 | 18.1 |
| 1 22 | 6 50.25 | +13 0.1 | 2.332 | 3.269 | 6.2 | 18.3 |
| 2 1 | 6 43.74 | +13 36.6 | 2.385 | 3.264 | 9.2 | 18.5 |
| 2 11 | 6 39.02 | +14 14.9 | 2.463 | 3.258 | 11.8 | 18.6 |

**260797** 2005 $NT_{84}$ 1 5.7 72°.16 0°.2/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.45 | +22 12.5 | 1.712 | 2.539 | 14.8 | 21.0 |
| 12 13 | 7 26.13 | +22 7.8 | 1.655 | 2.558 | 10.9 | 20.8 |
| 12 23 | 7 17.34 | +22 5.8 | 1.622 | 2.577 | 6.5 | 20.6 |
| 1 2 | 7 7.02 | +22 4.1 | 1.615 | 2.597 | 1.8 | 20.3 |
| 1 12 | 6 56.47 | +22 1.1 | 1.638 | 2.616 | 3.0 | 20.5 |
| 1 22 | 6 46.97 | +21 55.9 | 1.689 | 2.635 | 7.4 | 20.8 |
| 2 1 | 6 39.57 | +21 49.0 | 1.767 | 2.654 | 11.4 | 21.1 |
| 2 11 | 6 34.92 | +21 41.0 | 1.868 | 2.672 | 14.7 | 21.3 |

**453045** 2007 $TY_{50}$ 1 5.7 153°.32 1°.3/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.18 | +25 23.4 | 2.029 | 2.847 | 13.2 | 22.1 |
| 12 13 | 7 27.32 | +25 46.4 | 1.957 | 2.856 | 9.8 | 21.9 |
| 12 23 | 7 18.07 | +26 9.9 | 1.910 | 2.864 | 5.9 | 21.7 |
| 1 2 | 7 7.25 | +26 30.1 | 1.891 | 2.871 | 2.0 | 21.4 |
| 1 12 | 6 56.03 | +26 44.2 | 1.903 | 2.878 | 3.2 | 21.5 |
| 1 22 | 6 45.62 | +26 50.5 | 1.945 | 2.884 | 7.1 | 21.8 |
| 2 1 | 6 37.08 | +26 49.8 | 2.015 | 2.890 | 10.8 | 22.0 |
| 2 11 | 6 31.14 | +26 43.5 | 2.108 | 2.894 | 13.8 | 22.2 |

**58689** 1998 $BY_{9}$ 1 5.7 32°.68 0°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.18 | +20 26.8 | 1.601 | 2.435 | 15.3 | 19.3 |
| 12 13 | 7 24.13 | +21 3.9 | 1.534 | 2.441 | 11.3 | 19.1 |
| 12 23 | 7 16.39 | +21 48.3 | 1.489 | 2.447 | 6.8 | 18.8 |
| 1 2 | 7 6.83 | +22 35.9 | 1.472 | 2.453 | 1.9 | 18.5 |
| 1 12 | 6 56.73 | +23 22.0 | 1.482 | 2.459 | 3.2 | 18.6 |
| 1 22 | 6 47.48 | +24 3.0 | 1.520 | 2.466 | 8.0 | 18.9 |
| 2 1 | 6 40.31 | +24 36.9 | 1.583 | 2.474 | 12.2 | 19.2 |
| 2 11 | 6 36.02 | +25 3.5 | 1.669 | 2.481 | 15.8 | 19.4 |

**424145** 2007 $GY_{14}$ 1 5.7 316°.15 6°.4/ 6.5 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.60 | + 9 10.9 | 1.617 | 2.431 | 16.1 | 20.7 |
| 12 13 | 7 22.33 | + 8 19.5 | 1.522 | 2.407 | 12.9 | 20.5 |
| 12 23 | 7 15.44 | + 7 40.1 | 1.449 | 2.384 | 9.5 | 20.2 |
| 1 2 | 7 6.62 | + 7 16.2 | 1.401 | 2.361 | 6.8 | 20.0 |
| 1 12 | 6 57.00 | + 7 9.5 | 1.379 | 2.338 | 7.0 | 20.0 |
| 1 22 | 6 47.89 | + 7 19.8 | 1.383 | 2.316 | 10.0 | 20.1 |
| 2 1 | 6 40.55 | + 7 44.8 | 1.412 | 2.295 | 13.9 | 20.2 |
| 2 11 | 6 35.94 | + 8 20.6 | 1.461 | 2.274 | 17.6 | 20.4 |

**4072** Yayoi 1 5.7 320°.60 2°.0/ 5.3 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.88 | +25 15.5 | 1.210 | 2.059 | 18.2 | 16.3 |
| 12 13 | 7 27.87 | +25 42.7 | 1.139 | 2.053 | 13.7 | 16.0 |
| 12 23 | 7 19.13 | +26 13.0 | 1.088 | 2.047 | 8.4 | 15.7 |
| 1 2 | 7 7.67 | +26 40.5 | 1.061 | 2.042 | 2.9 | 15.4 |
| 1 12 | 6 55.31 | +26 59.4 | 1.061 | 2.037 | 4.6 | 15.5 |
| 1 22 | 6 44.07 | +27 7.0 | 1.085 | 2.032 | 10.3 | 15.8 |
| 2 1 | 6 35.73 | +27 3.9 | 1.132 | 2.028 | 15.6 | 16.1 |
| 2 11 | 6 31.35 | +26 53.0 | 1.198 | 2.024 | 20.0 | 16.3 |

**409429** 2005 $MX_{35}$ 1 5.7 91°.26 2°.8/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.76 | +30 47.8 | 1.848 | 2.670 | 14.1 | 21.0 |
| 12 13 | 7 28.57 | +30 49.6 | 1.787 | 2.686 | 10.5 | 20.8 |
| 12 23 | 7 18.79 | +30 45.9 | 1.750 | 2.701 | 6.6 | 20.6 |
| 1 2 | 7 7.43 | +30 33.0 | 1.741 | 2.717 | 3.2 | 20.4 |
| 1 12 | 6 55.87 | +30 9.1 | 1.761 | 2.732 | 4.1 | 20.5 |
| 1 22 | 6 45.45 | +29 35.0 | 1.811 | 2.748 | 7.8 | 20.7 |
| 2 1 | 6 37.27 | +28 53.7 | 1.887 | 2.763 | 11.4 | 21.0 |
| 2 11 | 6 31.97 | +28 8.8 | 1.987 | 2.777 | 14.4 | 21.2 |

**164791** Nicinski 1 5.7 167°.50 1°.3/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.78 | +18 19.8 | 1.963 | 2.776 | 13.7 | 21.7 |
| 12 13 | 7 26.31 | +18 26.7 | 1.886 | 2.781 | 10.3 | 21.5 |
| 12 23 | 7 17.50 | +18 39.8 | 1.833 | 2.785 | 6.3 | 21.2 |
| 1 2 | 7 7.12 | +18 57.0 | 1.809 | 2.789 | 2.2 | 21.0 |
| 1 12 | 6 56.30 | +19 16.2 | 1.815 | 2.792 | 3.0 | 21.0 |
| 1 22 | 6 46.20 | +19 35.2 | 1.851 | 2.794 | 7.1 | 21.3 |
| 2 1 | 6 37.88 | +19 53.0 | 1.914 | 2.795 | 10.9 | 21.5 |
| 2 11 | 6 32.07 | +20 9.2 | 2.001 | 2.796 | 14.2 | 21.7 |

**352182** 2007 $RM_{165}$ 1 5.7 252°.45 1°.0/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.95 | +24 36.9 | 1.643 | 2.474 | 15.1 | 21.1 |
| 12 13 | 7 27.07 | +24 47.5 | 1.561 | 2.466 | 11.3 | 20.8 |
| 12 23 | 7 18.26 | +24 59.7 | 1.501 | 2.458 | 6.9 | 20.5 |
| 1 2 | 7 7.39 | +25 9.6 | 1.469 | 2.450 | 2.1 | 20.2 |
| 1 12 | 6 55.83 | +25 14.2 | 1.465 | 2.441 | 3.5 | 20.3 |
| 1 22 | 6 45.10 | +25 12.0 | 1.489 | 2.433 | 8.4 | 20.6 |
| 2 1 | 6 36.54 | +25 3.6 | 1.538 | 2.424 | 12.8 | 20.8 |
| 2 11 | 6 31.08 | +24 50.8 | 1.610 | 2.415 | 16.6 | 21.0 |

**517604** 2014 $WL_{467}$ 1 5.7 63°.60 2°.9/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.14 | +31 49.0 | 2.274 | 3.092 | 11.9 | 20.8 |
| 12 13 | 7 24.94 | +31 55.3 | 2.199 | 3.095 | 9.0 | 20.6 |
| 12 23 | 7 16.58 | +31 56.6 | 2.149 | 3.098 | 5.8 | 20.4 |
| 1 2 | 7 6.85 | +31 49.6 | 2.127 | 3.101 | 3.1 | 20.2 |
| 1 12 | 6 56.82 | +31 32.5 | 2.136 | 3.103 | 3.9 | 20.3 |
| 1 22 | 6 47.56 | +31 5.5 | 2.173 | 3.106 | 6.9 | 20.5 |
| 2 1 | 6 40.03 | +30 30.3 | 2.239 | 3.109 | 10.0 | 20.7 |
| 2 11 | 6 34.87 | +29 50.1 | 2.328 | 3.112 | 12.8 | 20.9 |

**242944** 2006 $RP_{32}$ 1 5.7 75°.04 5°.4/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.19 | + 8 48.0 | 1.676 | 2.481 | 16.1 | 21.1 |
| 12 13 | 7 24.43 | + 8 23.8 | 1.620 | 2.499 | 12.6 | 20.9 |
| 12 23 | 7 16.34 | + 8 14.6 | 1.585 | 2.518 | 8.9 | 20.7 |
| 1 2 | 7 6.79 | + 8 21.3 | 1.576 | 2.537 | 5.9 | 20.6 |
| 1 12 | 6 56.96 | + 8 42.8 | 1.595 | 2.556 | 5.9 | 20.6 |
| 1 22 | 6 48.05 | + 9 16.3 | 1.641 | 2.575 | 8.7 | 20.8 |
| 2 1 | 6 41.06 | + 9 58.1 | 1.713 | 2.593 | 12.0 | 21.1 |
| 2 11 | 6 36.65 | +10 44.3 | 1.808 | 2.612 | 15.1 | 21.3 |

**129538** 1996 $NM$ 1 5.7 104°.01 0°.0/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.61 | +20 54.4 | 2.498 | 3.311 | 11.1 | 20.2 |
| 12 13 | 7 22.76 | +21 21.7 | 2.433 | 3.329 | 8.2 | 20.0 |
| 12 23 | 7 15.16 | +21 52.4 | 2.394 | 3.348 | 4.9 | 19.8 |
| 1 2 | 7 6.46 | +22 24.1 | 2.385 | 3.366 | 1.3 | 19.6 |
| 1 12 | 6 57.51 | +22 54.4 | 2.407 | 3.384 | 2.2 | 19.7 |
| 1 22 | 6 49.16 | +23 21.3 | 2.459 | 3.401 | 5.6 | 20.0 |
| 2 1 | 6 42.19 | +23 44.1 | 2.540 | 3.418 | 8.7 | 20.2 |
| 2 11 | 6 37.16 | +24 2.5 | 2.646 | 3.435 | 11.3 | 20.4 |

**357010** 1999 $TS_{161}$ 1 5.7 74°.88 2°.6/ 6.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.20 | +15 15.8 | 1.569 | 2.389 | 16.3 | 21.0 |
| 12 13 | 7 26.73 | +15 16.8 | 1.520 | 2.417 | 12.2 | 20.9 |
| 12 23 | 7 17.71 | +15 28.2 | 1.494 | 2.444 | 7.7 | 20.7 |
| 1 2 | 7 7.16 | +15 48.1 | 1.494 | 2.471 | 3.4 | 20.5 |
| 1 12 | 6 56.42 | +16 13.8 | 1.523 | 2.498 | 3.8 | 20.6 |
| 1 22 | 6 46.80 | +16 42.6 | 1.580 | 2.524 | 8.0 | 20.9 |
| 2 1 | 6 39.38 | +17 12.2 | 1.663 | 2.551 | 11.9 | 21.2 |
| 2 11 | 6 34.81 | +17 40.8 | 1.768 | 2.576 | 15.3 | 21.4 |

**426792** 2013 $TQ_{131}$ 1 5.7 61°.06 7°.0/ 7.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.22 | + 2 36.9 | 2.149 | 2.922 | 14.0 | 20.8 |
| 12 13 | 7 21.19 | + 1 49.5 | 2.079 | 2.929 | 11.6 | 20.6 |
| 12 23 | 7 14.32 | + 1 17.4 | 2.031 | 2.936 | 9.1 | 20.5 |
| 1 2 | 7 6.26 | + 1 3.1 | 2.010 | 2.942 | 7.3 | 20.4 |
| 1 12 | 6 57.88 | + 1 7.4 | 2.015 | 2.950 | 7.2 | 20.4 |
| 1 22 | 6 50.09 | + 1 28.8 | 2.048 | 2.957 | 8.8 | 20.5 |
| 2 1 | 6 43.71 | + 2 4.5 | 2.107 | 2.964 | 11.2 | 20.7 |
| 2 11 | 6 39.32 | + 2 50.3 | 2.189 | 2.971 | 13.6 | 20.8 |

**423388** 2005 $JA_{135}$ 1 5.7 193°.28 4°.1/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.97 | + 9 50.6 | 2.409 | 3.203 | 12.1 | 21.1 |
| 12 13 | 7 20.91 | + 9 26.6 | 2.328 | 3.203 | 9.5 | 20.9 |
| 12 23 | 7 14.12 | + 9 12.2 | 2.271 | 3.203 | 6.7 | 20.7 |
| 1 2 | 7 6.21 | + 9 8.2 | 2.241 | 3.202 | 4.4 | 20.6 |
| 1 12 | 6 57.96 | + 9 14.5 | 2.241 | 3.202 | 4.5 | 20.6 |
| 1 22 | 6 50.20 | + 9 29.7 | 2.270 | 3.201 | 6.8 | 20.7 |
| 2 1 | 6 43.71 | + 9 52.3 | 2.327 | 3.201 | 9.6 | 20.9 |
| 2 11 | 6 39.05 | +10 19.8 | 2.408 | 3.200 | 12.2 | 21.1 |

**200932** 2002 $AA_{162}$ 1 5.7 335°.60 3°.0/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.56 | +14 53.4 | 1.270 | 2.111 | 18.0 | 19.6 |
| 12 13 | 7 23.60 | +15 1.5 | 1.194 | 2.101 | 13.8 | 19.3 |
| 12 23 | 7 16.45 | +15 24.3 | 1.138 | 2.092 | 8.9 | 19.0 |
| 1 2 | 7 6.96 | +16 0.7 | 1.106 | 2.084 | 4.0 | 18.7 |
| 1 12 | 6 56.62 | +16 47.1 | 1.100 | 2.076 | 4.5 | 18.7 |
| 1 22 | 6 47.09 | +17 38.7 | 1.119 | 2.070 | 9.6 | 19.0 |
| 2 1 | 6 39.93 | +18 31.1 | 1.162 | 2.064 | 14.7 | 19.2 |
| 2 11 | 6 36.20 | +19 20.8 | 1.224 | 2.058 | 19.1 | 19.5 |

**34450** 2000 $SZ_{80}$ 1 5.7 235°.99 0°.7/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.02 | +22 43.9 | 1.872 | 2.694 | 13.9 | 19.5 |
| 12 13 | 7 26.92 | +23 11.9 | 1.780 | 2.681 | 10.4 | 19.3 |
| 12 23 | 7 18.14 | +23 44.1 | 1.713 | 2.668 | 6.3 | 19.0 |
| 1 2 | 7 7.41 | +24 17.0 | 1.673 | 2.654 | 1.8 | 18.7 |
| 1 12 | 6 55.91 | +24 46.4 | 1.663 | 2.640 | 3.2 | 18.7 |
| 1 22 | 6 45.00 | +25 9.9 | 1.682 | 2.624 | 7.7 | 19.0 |
| 2 1 | 6 35.94 | +25 26.3 | 1.728 | 2.609 | 12.0 | 19.2 |
| 2 11 | 6 29.65 | +25 36.6 | 1.797 | 2.592 | 15.6 | 19.4 |

**270972** 2002 $VM_{107}$ 1 5.7 57°.35 2°.2/ 6.1 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.38 | +18 15.2 | 1.507 | 2.336 | 16.3 | 20.7 |
| 12 13 | 7 26.27 | +17 49.2 | 1.454 | 2.357 | 12.2 | 20.5 |
| 12 23 | 7 17.51 | +17 29.7 | 1.424 | 2.378 | 7.6 | 20.3 |
| 1 2 | 7 7.14 | +17 16.2 | 1.420 | 2.399 | 3.1 | 20.1 |
| 1 12 | 6 56.56 | +17 7.6 | 1.444 | 2.420 | 3.8 | 20.2 |
| 1 22 | 6 47.15 | +17 3.2 | 1.496 | 2.441 | 8.2 | 20.5 |
| 2 1 | 6 40.01 | +17 2.3 | 1.573 | 2.463 | 12.3 | 20.8 |
| 2 11 | 6 35.80 | +17 3.9 | 1.671 | 2.485 | 15.8 | 21.1 |

**210778** 2001 $BJ_{37}$ 1 5.7 23°.60 1°.2/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.52 | +18 42.5 | 1.164 | 2.016 | 18.6 | 19.6 |
| 12 13 | 7 24.27 | +18 56.7 | 1.110 | 2.025 | 13.9 | 19.4 |
| 12 23 | 7 16.73 | +19 21.2 | 1.076 | 2.035 | 8.5 | 19.1 |
| 1 2 | 7 6.99 | +19 52.9 | 1.065 | 2.046 | 2.7 | 18.8 |
| 1 12 | 6 56.75 | +20 27.1 | 1.080 | 2.058 | 3.8 | 18.9 |
| 1 22 | 6 47.74 | +21 0.0 | 1.120 | 2.072 | 9.4 | 19.2 |
| 2 1 | 6 41.39 | +21 29.1 | 1.182 | 2.086 | 14.4 | 19.6 |
| 2 11 | 6 38.55 | +21 53.4 | 1.265 | 2.101 | 18.5 | 19.9 |

**124782** 2001 $SU_{253}$ 1 5.7 284.°05 0.°9/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.05 | +19 7.0 | 1.464 | 2.299 | 16.4 | 19.4 |
| 12 13 | 7 25.95 | +19 23.6 | 1.382 | 2.289 | 12.4 | 19.1 |
| 12 23 | 7 17.77 | +19 49.0 | 1.322 | 2.279 | 7.6 | 18.8 |
| 1 2 | 7 7.34 | +20 20.4 | 1.288 | 2.268 | 2.4 | 18.5 |
| 1 12 | 6 56.07 | +20 53.8 | 1.281 | 2.258 | 3.5 | 18.5 |
| 1 22 | 6 45.56 | +21 25.8 | 1.300 | 2.248 | 8.9 | 18.8 |
| 2 1 | 6 37.28 | +21 54.2 | 1.345 | 2.238 | 13.7 | 19.1 |
| 2 11 | 6 32.26 | +22 18.2 | 1.411 | 2.229 | 17.9 | 19.3 |

**400144** 2006 $UE_{232}$ 1 5.7 87.°00 4.°9/ 6.8 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.86 | + 9 53.6 | 1.898 | 2.693 | 14.8 | 22.0 |
| 12 13 | 7 26.04 | + 9 13.7 | 1.847 | 2.722 | 11.5 | 21.8 |
| 12 23 | 7 17.14 | + 8 45.7 | 1.820 | 2.751 | 8.1 | 21.7 |
| 1 2 | 7 7.02 | + 8 30.8 | 1.819 | 2.780 | 5.3 | 21.6 |
| 1 12 | 6 56.79 | + 8 28.7 | 1.848 | 2.808 | 5.4 | 21.6 |
| 1 22 | 6 47.49 | + 8 38.0 | 1.906 | 2.836 | 8.0 | 21.8 |
| 2 1 | 6 40.03 | + 8 56.4 | 1.991 | 2.862 | 11.1 | 22.1 |
| 2 11 | 6 34.95 | + 9 20.9 | 2.099 | 2.889 | 13.8 | 22.3 |

**475844** 2007 $BT_{44}$ 1 5.7 190.°45 5.°5/ 5.7 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 47.13 | +35 33.6 | 1.265 | 2.090 | 19.1 | 21.6 |
| 12 13 | 7 38.50 | +35 31.7 | 1.193 | 2.090 | 14.8 | 21.3 |
| 12 23 | 7 25.45 | +35 16.1 | 1.143 | 2.089 | 10.0 | 21.0 |
| 1 2 | 7 9.43 | +34 38.2 | 1.117 | 2.087 | 5.9 | 20.8 |
| 1 12 | 6 52.79 | +33 34.5 | 1.118 | 2.085 | 6.7 | 20.8 |
| 1 22 | 6 38.02 | +32 9.0 | 1.147 | 2.082 | 11.3 | 21.1 |
| 2 1 | 6 27.01 | +30 31.3 | 1.200 | 2.079 | 16.2 | 21.4 |
| 2 11 | 6 20.64 | +28 51.7 | 1.273 | 2.075 | 20.4 | 21.6 |

**412127** 2013 $GQ_{42}$ 1 5.7 171.°51 2.°0/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.00 | +27 36.5 | 2.313 | 3.127 | 11.9 | 22.1 |
| 12 13 | 7 26.34 | +28 8.6 | 2.235 | 3.131 | 8.8 | 21.9 |
| 12 23 | 7 17.49 | +28 39.9 | 2.183 | 3.135 | 5.5 | 21.7 |
| 1 2 | 7 7.18 | +29 6.6 | 2.160 | 3.138 | 2.4 | 21.5 |
| 1 12 | 6 56.44 | +29 25.4 | 2.168 | 3.140 | 3.4 | 21.6 |
| 1 22 | 6 46.36 | +29 35.0 | 2.207 | 3.141 | 6.7 | 21.8 |
| 2 1 | 6 37.92 | +29 35.7 | 2.273 | 3.142 | 10.0 | 22.0 |
| 2 11 | 6 31.82 | +29 29.3 | 2.364 | 3.142 | 12.8 | 22.2 |

**265340** 2004 $PR_{72}$ 1 5.7 79.°09 1.°4/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.08 | +17 9.2 | 1.892 | 2.712 | 13.9 | 20.6 |
| 12 13 | 7 23.62 | +17 27.0 | 1.824 | 2.723 | 10.4 | 20.4 |
| 12 23 | 7 15.92 | +17 52.8 | 1.781 | 2.733 | 6.4 | 20.2 |
| 1 2 | 7 6.75 | +18 24.5 | 1.764 | 2.743 | 2.3 | 20.0 |
| 1 12 | 6 57.19 | +18 59.1 | 1.777 | 2.754 | 3.0 | 20.1 |
| 1 22 | 6 48.38 | +19 33.8 | 1.819 | 2.764 | 7.0 | 20.3 |
| 2 1 | 6 41.31 | +20 6.7 | 1.888 | 2.775 | 10.8 | 20.6 |
| 2 11 | 6 36.66 | +20 36.5 | 1.980 | 2.785 | 14.0 | 20.8 |

**312926** 2011 $WN_{55}$ 1 5.7 73.°06 2.°9/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.59 | +26 51.2 | 1.507 | 2.343 | 16.0 | 20.4 |
| 12 13 | 7 27.62 | +27 45.1 | 1.449 | 2.356 | 11.9 | 20.2 |
| 12 23 | 7 18.58 | +28 40.0 | 1.414 | 2.370 | 7.3 | 20.0 |
| 1 2 | 7 7.51 | +29 29.1 | 1.405 | 2.383 | 3.3 | 19.7 |
| 1 12 | 6 55.94 | +30 6.7 | 1.425 | 2.397 | 4.6 | 19.9 |
| 1 22 | 6 45.48 | +30 29.9 | 1.471 | 2.410 | 9.0 | 20.2 |
| 2 1 | 6 37.49 | +30 39.6 | 1.543 | 2.423 | 13.1 | 20.4 |
| 2 11 | 6 32.80 | +30 38.6 | 1.635 | 2.437 | 16.6 | 20.7 |

**421664** 2014 $OR_{374}$ 1 5.7 196.°74 1.°6/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.82 | +17 10.1 | 1.871 | 2.687 | 14.2 | 21.7 |
| 12 13 | 7 25.81 | +17 19.8 | 1.789 | 2.685 | 10.7 | 21.5 |
| 12 23 | 7 17.34 | +17 37.4 | 1.731 | 2.682 | 6.7 | 21.2 |
| 1 2 | 7 7.17 | +18 1.0 | 1.701 | 2.679 | 2.5 | 21.0 |
| 1 12 | 6 56.44 | +18 28.1 | 1.700 | 2.676 | 3.2 | 21.0 |
| 1 22 | 6 46.38 | +18 56.1 | 1.728 | 2.672 | 7.4 | 21.3 |
| 2 1 | 6 38.10 | +19 23.4 | 1.783 | 2.667 | 11.4 | 21.5 |
| 2 11 | 6 32.42 | +19 48.8 | 1.861 | 2.662 | 14.9 | 21.7 |

**375398** 2008 $ST_{249}$ 1 5.7 141.°62 3.°5/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.87 | +12 26.6 | 2.214 | 3.017 | 12.7 | 21.2 |
| 12 13 | 7 22.43 | +12 2.8 | 2.136 | 3.020 | 9.8 | 21.0 |
| 12 23 | 7 15.09 | +11 47.5 | 2.083 | 3.023 | 6.6 | 20.8 |
| 1 2 | 7 6.51 | +11 41.1 | 2.058 | 3.026 | 4.0 | 20.6 |
| 1 12 | 6 57.60 | +11 43.4 | 2.062 | 3.029 | 4.1 | 20.7 |
| 1 22 | 6 49.27 | +11 53.2 | 2.095 | 3.032 | 6.9 | 20.8 |
| 2 1 | 6 42.37 | +12 9.0 | 2.156 | 3.034 | 10.0 | 21.0 |
| 2 11 | 6 37.52 | +12 28.9 | 2.241 | 3.037 | 12.9 | 21.2 |

**145372** 2005 $MZ_{44}$ 1 5.7 197.°47 1.°8/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.63 | +16 59.6 | 2.161 | 2.970 | 12.8 | 21.4 |
| 12 13 | 7 24.62 | +16 58.3 | 2.075 | 2.968 | 9.6 | 21.2 |
| 12 23 | 7 16.49 | +17 3.4 | 2.015 | 2.964 | 6.0 | 21.0 |
| 1 2 | 7 6.92 | +17 13.6 | 1.983 | 2.961 | 2.5 | 20.7 |
| 1 12 | 6 56.89 | +17 27.3 | 1.981 | 2.956 | 3.0 | 20.7 |
| 1 22 | 6 47.44 | +17 43.1 | 2.009 | 2.951 | 6.7 | 21.0 |
| 2 1 | 6 39.53 | +17 59.6 | 2.065 | 2.946 | 10.3 | 21.2 |
| 2 11 | 6 33.85 | +18 16.1 | 2.146 | 2.940 | 13.4 | 21.4 |

**242459** 2004 $RU_{184}$ 1 5.7 234.°67 2.°0/ 5.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.34 | +30 16.4 | 3.102 | 3.912 | 9.3 | 20.5 |
| 12 13 | 7 22.49 | +30 23.6 | 3.008 | 3.901 | 6.9 | 20.4 |
| 12 23 | 7 15.02 | +30 27.7 | 2.942 | 3.891 | 4.4 | 20.2 |
| 1 2 | 7 6.49 | +30 26.6 | 2.905 | 3.879 | 2.2 | 20.0 |
| 1 12 | 6 57.64 | +30 18.8 | 2.899 | 3.868 | 2.8 | 20.0 |
| 1 22 | 6 49.23 | +30 3.9 | 2.924 | 3.856 | 5.4 | 20.2 |
| 2 1 | 6 42.00 | +29 42.6 | 2.979 | 3.845 | 8.0 | 20.4 |
| 2 11 | 6 36.49 | +29 16.6 | 3.059 | 3.832 | 10.3 | 20.5 |

**143036** 2002 $VT_{121}$ 1 5.7 10.°33 1.°4/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.57 | +27 13.6 | 1.443 | 2.283 | 16.3 | 19.3 |
| 12 13 | 7 26.92 | +26 55.8 | 1.375 | 2.284 | 12.2 | 19.0 |
| 12 23 | 7 18.17 | +26 34.7 | 1.329 | 2.286 | 7.4 | 18.7 |
| 1 2 | 7 7.40 | +26 7.6 | 1.308 | 2.289 | 2.4 | 18.4 |
| 1 12 | 6 56.18 | +25 33.2 | 1.315 | 2.292 | 3.7 | 18.5 |
| 1 22 | 6 46.14 | +24 52.7 | 1.349 | 2.296 | 8.7 | 18.8 |
| 2 1 | 6 38.60 | +24 8.9 | 1.408 | 2.300 | 13.3 | 19.1 |
| 2 11 | 6 34.39 | +23 25.1 | 1.488 | 2.306 | 17.2 | 19.4 |

**462328** 2008 $JY_{11}$ 1 5.7 189.°77 0.°1/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.99 | +21 32.1 | 2.304 | 3.120 | 11.9 | 22.0 |
| 12 13 | 7 24.09 | +21 55.5 | 2.221 | 3.119 | 8.8 | 21.8 |
| 12 23 | 7 16.16 | +22 22.5 | 2.163 | 3.117 | 5.3 | 21.6 |
| 1 2 | 7 6.83 | +22 50.7 | 2.134 | 3.115 | 1.5 | 21.3 |
| 1 12 | 6 57.06 | +23 17.2 | 2.136 | 3.113 | 2.5 | 21.4 |
| 1 22 | 6 47.84 | +23 40.2 | 2.168 | 3.111 | 6.3 | 21.6 |
| 2 1 | 6 40.09 | +23 58.7 | 2.229 | 3.107 | 9.7 | 21.8 |
| 2 11 | 6 34.50 | +24 12.8 | 2.314 | 3.104 | 12.7 | 22.0 |

**189164** 2002 $TF_{4}$ 1 5.7 86.°41 3.°0/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.45 | +14 38.7 | 1.386 | 2.210 | 17.8 | 20.7 |
| 12 13 | 7 28.04 | +14 43.7 | 1.334 | 2.232 | 13.4 | 20.4 |
| 12 23 | 7 18.71 | +15 1.3 | 1.303 | 2.253 | 8.5 | 20.2 |
| 1 2 | 7 7.52 | +15 29.5 | 1.297 | 2.274 | 3.9 | 20.0 |
| 1 12 | 6 56.02 | +16 4.8 | 1.320 | 2.294 | 4.3 | 20.1 |
| 1 22 | 6 45.73 | +16 43.4 | 1.369 | 2.315 | 8.8 | 20.4 |
| 2 1 | 6 37.90 | +17 22.4 | 1.444 | 2.334 | 13.2 | 20.7 |
| 2 11 | 6 33.27 | +17 59.4 | 1.540 | 2.354 | 16.8 | 21.0 |

**341709** 2007 $VE_{183}$ 1 5.7 138.°54 2.°7/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.37 | +12 26.6 | 2.748 | 3.542 | 10.7 | 21.8 |
| 12 13 | 7 20.99 | +12 20.2 | 2.672 | 3.551 | 8.2 | 21.7 |
| 12 23 | 7 14.09 | +12 21.3 | 2.621 | 3.560 | 5.5 | 21.5 |
| 1 2 | 7 6.23 | +12 29.6 | 2.600 | 3.569 | 3.1 | 21.4 |
| 1 12 | 6 58.13 | +12 44.3 | 2.609 | 3.577 | 3.3 | 21.4 |
| 1 22 | 6 50.50 | +13 4.1 | 2.649 | 3.585 | 5.6 | 21.5 |
| 2 1 | 6 44.01 | +13 27.4 | 2.718 | 3.593 | 8.3 | 21.7 |
| 2 11 | 6 39.17 | +13 52.6 | 2.812 | 3.600 | 10.7 | 21.9 |

**85846** 1998 $YP_{20}$ 1 5.7 97.°69 0.°3/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.92 | +20 41.3 | 1.523 | 2.353 | 16.2 | 19.5 |
| 12 13 | 7 27.71 | +21 26.1 | 1.463 | 2.368 | 12.0 | 19.3 |
| 12 23 | 7 18.58 | +22 18.1 | 1.426 | 2.383 | 7.2 | 19.1 |
| 1 2 | 7 7.53 | +23 12.0 | 1.416 | 2.398 | 2.0 | 18.8 |
| 1 12 | 6 55.99 | +24 2.5 | 1.435 | 2.412 | 3.4 | 18.9 |
| 1 22 | 6 45.49 | +24 45.7 | 1.481 | 2.426 | 8.3 | 19.3 |
| 2 1 | 6 37.33 | +25 19.9 | 1.553 | 2.440 | 12.7 | 19.5 |
| 2 11 | 6 32.31 | +25 45.6 | 1.647 | 2.453 | 16.3 | 19.8 |

**278642** 2008 $RH_{17}$ 1 5.7 37.°06 6.°0/ 7.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.58 | + 5 44.4 | 2.036 | 2.824 | 14.2 | 21.0 |
| 12 13 | 7 21.62 | + 5 11.3 | 1.960 | 2.826 | 11.4 | 20.8 |
| 12 23 | 7 14.68 | + 4 52.5 | 1.908 | 2.828 | 8.6 | 20.6 |
| 1 2 | 7 6.43 | + 4 49.9 | 1.881 | 2.830 | 6.4 | 20.5 |
| 1 12 | 6 57.79 | + 5 3.5 | 1.883 | 2.833 | 6.3 | 20.5 |
| 1 22 | 6 49.75 | + 5 31.6 | 1.912 | 2.835 | 8.4 | 20.7 |
| 2 1 | 6 43.18 | + 6 11.2 | 1.967 | 2.838 | 11.2 | 20.8 |
| 2 11 | 6 38.74 | + 6 58.3 | 2.046 | 2.840 | 13.9 | 21.0 |

**47991** 2000 $YK_{73}$ 1 5.7 85.°12 2.°0/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.00 | +16 10.5 | 1.964 | 2.780 | 13.6 | 19.7 |
| 12 13 | 7 23.46 | +16 12.0 | 1.897 | 2.791 | 10.2 | 19.5 |
| 12 23 | 7 15.78 | +16 21.3 | 1.853 | 2.803 | 6.4 | 19.3 |
| 1 2 | 7 6.73 | +16 37.1 | 1.837 | 2.814 | 2.8 | 19.1 |
| 1 12 | 6 57.34 | +16 57.5 | 1.850 | 2.825 | 3.2 | 19.1 |
| 1 22 | 6 48.69 | +17 20.4 | 1.893 | 2.836 | 6.9 | 19.4 |
| 2 1 | 6 41.71 | +17 44.3 | 1.962 | 2.847 | 10.5 | 19.6 |
| 2 11 | 6 37.06 | +18 7.6 | 2.055 | 2.858 | 13.6 | 19.8 |

**455921** 2005 $UE_{262}$ 1 5.7 49.°22 2.°2/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.74 | +26 14.4 | 1.702 | 2.536 | 14.6 | 21.2 |
| 12 13 | 7 25.24 | +26 52.8 | 1.638 | 2.544 | 10.8 | 21.0 |
| 12 23 | 7 17.07 | +27 32.1 | 1.596 | 2.552 | 6.6 | 20.7 |
| 1 2 | 7 7.11 | +28 7.5 | 1.582 | 2.561 | 2.6 | 20.5 |
| 1 12 | 6 56.69 | +28 34.7 | 1.597 | 2.570 | 3.9 | 20.6 |
| 1 22 | 6 47.18 | +28 51.4 | 1.639 | 2.579 | 8.0 | 20.9 |
| 2 1 | 6 39.77 | +28 57.9 | 1.707 | 2.589 | 12.0 | 21.1 |
| 2 11 | 6 35.25 | +28 56.1 | 1.797 | 2.598 | 15.3 | 21.4 |

**68222** 2001 $CQ_{47}$ 1 5.7 147°.19 4°.7/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.28 | +36 31.2 | 2.208 | 3.019 | 12.5 | 19.1 |
| 12 13 | 7 27.49 | +36 58.6 | 2.136 | 3.023 | 9.7 | 18.9 |
| 12 23 | 7 18.25 | +37 17.9 | 2.089 | 3.027 | 6.8 | 18.7 |
| 1 2 | 7 7.41 | +37 24.4 | 2.070 | 3.030 | 4.8 | 18.6 |
| 1 12 | 6 56.21 | +37 15.1 | 2.080 | 3.034 | 5.5 | 18.6 |
| 1 22 | 6 45.91 | +36 49.9 | 2.119 | 3.037 | 8.0 | 18.8 |
| 2 1 | 6 37.56 | +36 11.7 | 2.185 | 3.040 | 10.9 | 19.0 |
| 2 11 | 6 31.90 | +35 24.6 | 2.274 | 3.043 | 13.5 | 19.2 |

**29981** 1999 $TD_{10}$ 1 5.7 7°.79 0°.2/ 6.4 09 CR

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 6.86 | +16 29.5 | 30.538 | 31.338 | 1.1 | 23.8 |
| 12 13 | 7 5.88 | +16 30.2 | 30.481 | 31.368 | 0.8 | 23.7 |
| 12 23 | 7 4.80 | +16 31.3 | 30.452 | 31.398 | 0.5 | 23.7 |
| 1 2 | 7 3.66 | +16 32.8 | 30.453 | 31.428 | 0.2 | 23.7 |
| 1 12 | 7 2.50 | +16 34.7 | 30.484 | 31.457 | 0.3 | 23.7 |
| 1 22 | 7 1.37 | +16 36.9 | 30.547 | 31.487 | 0.5 | 23.7 |
| 2 1 | 7 0.32 | +16 39.4 | 30.639 | 31.517 | 0.8 | 23.8 |
| 2 11 | 6 59.38 | +16 41.9 | 30.759 | 31.547 | 1.1 | 23.8 |

**522195** 2016 $AX_{260}$ 1 5.7 274°.32 3°.1/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.83 | +28 54.2 | 2.004 | 2.830 | 13.0 | 21.0 |
| 12 13 | 7 25.31 | +29 42.5 | 1.914 | 2.815 | 9.8 | 20.8 |
| 12 23 | 7 17.20 | +30 30.9 | 1.848 | 2.800 | 6.3 | 20.6 |
| 1 2 | 7 7.20 | +31 14.3 | 1.810 | 2.785 | 3.3 | 20.3 |
| 1 12 | 6 56.46 | +31 47.7 | 1.801 | 2.769 | 4.4 | 20.4 |
| 1 22 | 6 46.27 | +32 8.5 | 1.821 | 2.754 | 8.0 | 20.6 |
| 2 1 | 6 37.86 | +32 16.6 | 1.867 | 2.738 | 11.7 | 20.8 |
| 2 11 | 6 32.14 | +32 14.0 | 1.936 | 2.723 | 14.9 | 20.9 |

**136552** 1047 $T\text{-}_2$ 1 5.7 150°.89 3°.2/ 4.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.52 | +33 42.9 | 2.898 | 3.705 | 9.9 | 20.9 |
| 12 13 | 7 24.17 | +34 9.2 | 2.825 | 3.713 | 7.5 | 20.7 |
| 12 23 | 7 16.05 | +34 30.8 | 2.778 | 3.720 | 5.1 | 20.6 |
| 1 2 | 7 6.79 | +34 44.3 | 2.761 | 3.727 | 3.3 | 20.5 |
| 1 12 | 6 57.26 | +34 47.6 | 2.775 | 3.734 | 3.9 | 20.5 |
| 1 22 | 6 48.32 | +34 40.3 | 2.819 | 3.740 | 6.1 | 20.7 |
| 2 1 | 6 40.77 | +34 23.5 | 2.891 | 3.745 | 8.5 | 20.9 |
| 2 11 | 6 35.16 | +33 59.3 | 2.988 | 3.751 | 10.7 | 21.0 |

**330450** 2007 $EZ_5$ 1 5.7 6°.75 2°.6/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.97 | +28 23.6 | 1.654 | 2.490 | 14.8 | 20.6 |
| 12 13 | 7 25.57 | +28 44.2 | 1.583 | 2.490 | 11.1 | 20.4 |
| 12 23 | 7 17.34 | +29 3.1 | 1.536 | 2.491 | 6.9 | 20.1 |
| 1 2 | 7 7.22 | +29 15.5 | 1.514 | 2.492 | 3.1 | 19.9 |
| 1 12 | 6 56.58 | +29 18.2 | 1.520 | 2.493 | 4.2 | 20.0 |
| 1 22 | 6 46.88 | +29 9.9 | 1.554 | 2.495 | 8.4 | 20.2 |
| 2 1 | 6 39.38 | +28 52.3 | 1.613 | 2.497 | 12.4 | 20.5 |
| 2 11 | 6 34.90 | +28 28.1 | 1.694 | 2.500 | 15.9 | 20.7 |

**413652** 2005 $VW_{19}$ 1 5.7 95°.71 3°.1/ 6.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.71 | +13 38.6 | 1.956 | 2.765 | 13.9 | 21.4 |
| 12 13 | 7 23.93 | +13 26.3 | 1.890 | 2.779 | 10.6 | 21.2 |
| 12 23 | 7 16.04 | +13 23.2 | 1.849 | 2.793 | 7.0 | 21.0 |
| 1 2 | 7 6.81 | +13 29.2 | 1.834 | 2.806 | 3.7 | 20.8 |
| 1 12 | 6 57.29 | +13 42.8 | 1.849 | 2.820 | 3.9 | 20.8 |
| 1 22 | 6 48.52 | +14 2.3 | 1.893 | 2.833 | 7.2 | 21.1 |
| 2 1 | 6 41.44 | +14 25.8 | 1.964 | 2.846 | 10.6 | 21.3 |
| 2 11 | 6 36.67 | +14 51.3 | 2.058 | 2.859 | 13.6 | 21.5 |

**252454** 2001 $TM_{213}$ 1 5.7 59°.91 1°.4/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.03 | +20 6.1 | 1.644 | 2.472 | 15.3 | 20.1 |
| 12 13 | 7 25.95 | +19 40.9 | 1.584 | 2.487 | 11.4 | 19.9 |
| 12 23 | 7 17.35 | +19 19.7 | 1.548 | 2.502 | 6.9 | 19.7 |
| 1 2 | 7 7.17 | +19 1.6 | 1.538 | 2.518 | 2.4 | 19.4 |
| 1 12 | 6 56.74 | +18 45.9 | 1.557 | 2.534 | 3.3 | 19.5 |
| 1 22 | 6 47.35 | +18 32.4 | 1.604 | 2.549 | 7.7 | 19.8 |
| 2 1 | 6 40.08 | +18 21.2 | 1.677 | 2.565 | 11.8 | 20.1 |
| 2 11 | 6 35.59 | +18 12.3 | 1.772 | 2.581 | 15.2 | 20.3 |

**223244** 2003 $FO_{28}$ 1 5.7 309°.35 8°.4/ 8.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.23 | + 0 39.1 | 1.775 | 2.552 | 16.4 | 20.2 |
| 12 13 | 7 21.78 | + 0 9.4 | 1.690 | 2.540 | 13.7 | 20.0 |
| 12 23 | 7 15.01 | + 0 0.5 | 1.625 | 2.529 | 11.0 | 19.8 |
| 1 2 | 7 6.59 | + 0 15.9 | 1.585 | 2.518 | 8.9 | 19.6 |
| 1 12 | 6 57.56 | + 0 56.1 | 1.570 | 2.507 | 8.6 | 19.6 |
| 1 22 | 6 49.05 | + 1 58.4 | 1.581 | 2.497 | 10.4 | 19.6 |
| 2 1 | 6 42.15 | + 3 17.7 | 1.618 | 2.487 | 13.3 | 19.8 |
| 2 11 | 6 37.68 | + 4 47.1 | 1.676 | 2.477 | 16.3 | 20.0 |

**124197** 2001 $OQ_{74}$ 1 5.7 47°.26 15°.6/ 8.7 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 8 4.31 | +58 5.5 | 1.206 | 1.973 | 23.2 | 18.1 |
| 12 13 | 7 52.06 | +58 40.0 | 1.174 | 1.997 | 20.3 | 18.0 |
| 12 23 | 7 33.31 | +58 36.0 | 1.158 | 2.022 | 17.7 | 17.9 |
| 1 2 | 7 11.33 | +57 38.3 | 1.162 | 2.047 | 16.0 | 17.8 |
| 1 12 | 6 50.63 | +55 44.3 | 1.188 | 2.073 | 15.7 | 17.9 |
| 1 22 | 6 34.64 | +53 6.0 | 1.237 | 2.100 | 16.9 | 18.1 |
| 2 1 | 6 24.83 | +50 2.5 | 1.308 | 2.127 | 18.9 | 18.3 |
| 2 11 | 6 21.06 | +46 52.6 | 1.399 | 2.154 | 21.1 | 18.5 |

**207675** 2007 $PC_{33}$ 1 5.7 92°.00 0°.4/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 34.12 | +20 40.0 | 1.635 | 2.460 | 15.5 | 20.8 |
| 12 13 | 7 27.53 | +20 50.5 | 1.579 | 2.481 | 11.5 | 20.6 |
| 12 23 | 7 18.32 | +21 5.8 | 1.546 | 2.501 | 6.9 | 20.3 |
| 1 2 | 7 7.46 | +21 23.1 | 1.540 | 2.521 | 2.0 | 20.1 |
| 1 12 | 6 56.31 | +21 39.3 | 1.563 | 2.540 | 3.1 | 20.2 |
| 1 22 | 6 46.24 | +21 52.8 | 1.614 | 2.559 | 7.7 | 20.5 |
| 2 1 | 6 38.37 | +22 2.9 | 1.692 | 2.578 | 11.8 | 20.8 |
| 2 11 | 6 33.41 | +22 10.0 | 1.792 | 2.596 | 15.2 | 21.1 |

**459911** 2014 $MO_{21}$ 1 5.7 136°.04 2°.0/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.79 | +25 45.1 | 2.011 | 2.828 | 13.3 | 22.0 |
| 12 13 | 7 27.90 | +26 38.5 | 1.945 | 2.843 | 9.8 | 21.9 |
| 12 23 | 7 18.54 | +27 33.2 | 1.904 | 2.857 | 6.0 | 21.6 |
| 1 2 | 7 7.54 | +28 24.1 | 1.892 | 2.870 | 2.4 | 21.4 |
| 1 12 | 6 56.10 | +29 6.5 | 1.910 | 2.882 | 3.6 | 21.5 |
| 1 22 | 6 45.46 | +29 37.8 | 1.958 | 2.894 | 7.4 | 21.8 |
| 2 1 | 6 36.73 | +29 58.0 | 2.034 | 2.905 | 10.9 | 22.0 |
| 2 11 | 6 30.64 | +30 8.7 | 2.134 | 2.915 | 13.9 | 22.3 |

**154767** 2004 $PZ_{22}$ 1 5.7 158°.16 0°.8/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.14 | +24 33.6 | 2.364 | 3.179 | 11.6 | 21.4 |
| 12 13 | 7 24.85 | +24 48.0 | 2.288 | 3.186 | 8.6 | 21.2 |
| 12 23 | 7 16.56 | +25 3.1 | 2.238 | 3.191 | 5.2 | 21.0 |
| 1 2 | 7 6.98 | +25 16.3 | 2.216 | 3.197 | 1.6 | 20.8 |
| 1 12 | 6 57.05 | +25 25.4 | 2.226 | 3.201 | 2.6 | 20.8 |
| 1 22 | 6 47.77 | +25 29.4 | 2.265 | 3.206 | 6.2 | 21.1 |
| 2 1 | 6 40.01 | +25 28.3 | 2.334 | 3.210 | 9.5 | 21.3 |
| 2 11 | 6 34.42 | +25 23.2 | 2.426 | 3.213 | 12.3 | 21.5 |

**351768** 2006 $EA_{21}$ 1 5.7 37°.69 6°.9/ 5.2 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.09 | +36 5.3 | 1.105 | 1.953 | 19.7 | 20.1 |
| 12 13 | 7 31.08 | +36 40.9 | 1.063 | 1.970 | 15.2 | 19.8 |
| 12 23 | 7 20.93 | +37 3.8 | 1.041 | 1.988 | 10.5 | 19.6 |
| 1 2 | 7 8.20 | +37 4.9 | 1.041 | 2.008 | 7.2 | 19.5 |
| 1 12 | 6 55.24 | +36 39.9 | 1.066 | 2.028 | 8.0 | 19.6 |
| 1 22 | 6 44.30 | +35 51.4 | 1.115 | 2.048 | 11.8 | 19.9 |
| 2 1 | 6 36.96 | +34 46.9 | 1.186 | 2.070 | 16.0 | 20.2 |
| 2 11 | 6 33.90 | +33 34.9 | 1.276 | 2.092 | 19.6 | 20.5 |

**242058** 2002 $SS_{19}$ 1 5.7 120°.15 6°.3/ 8.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.14 | + 2 25.7 | 2.058 | 2.825 | 14.8 | 21.3 |
| 12 13 | 7 24.13 | + 2 24.7 | 1.992 | 2.841 | 12.0 | 21.2 |
| 12 23 | 7 16.14 | + 2 41.8 | 1.948 | 2.857 | 9.1 | 21.0 |
| 1 2 | 7 6.87 | + 3 17.9 | 1.930 | 2.873 | 6.8 | 20.9 |
| 1 12 | 6 57.28 | + 4 11.2 | 1.942 | 2.888 | 6.5 | 20.9 |
| 1 22 | 6 48.38 | + 5 18.2 | 1.982 | 2.902 | 8.3 | 21.1 |
| 2 1 | 6 41.03 | + 6 33.9 | 2.050 | 2.916 | 11.0 | 21.3 |
| 2 11 | 6 35.87 | + 7 53.4 | 2.142 | 2.929 | 13.6 | 21.5 |

**380696** 2005 $JB_{82}$ 1 5.7 202°.41 0°.4/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.37 | +21 49.1 | 2.652 | 3.466 | 10.5 | 21.3 |
| 12 13 | 7 22.00 | +22 23.4 | 2.566 | 3.463 | 7.8 | 21.1 |
| 12 23 | 7 14.86 | +23 1.3 | 2.506 | 3.460 | 4.7 | 20.9 |
| 1 2 | 7 6.53 | +23 40.1 | 2.476 | 3.457 | 1.3 | 20.6 |
| 1 12 | 6 57.79 | +24 17.2 | 2.477 | 3.454 | 2.3 | 20.7 |
| 1 22 | 6 49.48 | +24 50.5 | 2.509 | 3.450 | 5.6 | 20.9 |
| 2 1 | 6 42.38 | +25 18.7 | 2.570 | 3.446 | 8.7 | 21.1 |
| 2 11 | 6 37.12 | +25 41.6 | 2.655 | 3.442 | 11.3 | 21.3 |

**443560** 2014 $KY_{26}$ 1 5.7 61°.34 1°.9/ 6.3 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.85 | +15 37.4 | 1.306 | 2.140 | 18.1 | 20.5 |
| 12 13 | 7 26.48 | +16 10.2 | 1.248 | 2.153 | 13.6 | 20.2 |
| 12 23 | 7 18.01 | +16 57.2 | 1.212 | 2.166 | 8.4 | 20.0 |
| 1 2 | 7 7.44 | +17 54.4 | 1.200 | 2.179 | 3.2 | 19.7 |
| 1 12 | 6 56.35 | +18 56.2 | 1.215 | 2.193 | 3.8 | 19.8 |
| 1 22 | 6 46.37 | +19 57.1 | 1.257 | 2.206 | 9.0 | 20.1 |
| 2 1 | 6 38.89 | +20 53.0 | 1.324 | 2.220 | 13.7 | 20.4 |
| 2 11 | 6 34.75 | +21 41.9 | 1.412 | 2.234 | 17.7 | 20.7 |

**442627** 2012 $SC_{26}$ 1 5.7 160°.54 3°.2/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.15 | +15 32.3 | 1.406 | 2.234 | 17.4 | 22.0 |
| 12 13 | 7 27.37 | +15 15.5 | 1.336 | 2.235 | 13.3 | 21.7 |
| 12 23 | 7 18.53 | +15 9.0 | 1.286 | 2.237 | 8.5 | 21.5 |
| 1 2 | 7 7.60 | +15 12.4 | 1.262 | 2.238 | 4.0 | 21.2 |
| 1 12 | 6 56.05 | +15 24.1 | 1.265 | 2.239 | 4.5 | 21.3 |
| 1 22 | 6 45.47 | +15 42.0 | 1.295 | 2.240 | 9.2 | 21.5 |
| 2 1 | 6 37.26 | +16 3.8 | 1.349 | 2.241 | 13.8 | 21.8 |
| 2 11 | 6 32.30 | +16 27.6 | 1.425 | 2.241 | 17.8 | 22.1 |

**87827** 2000 $SB_{170}$ 1 5.7 77°.18 3°.3/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.35 | +30 26.4 | 1.879 | 2.705 | 13.7 | 18.8 |
| 12 13 | 7 26.28 | +30 59.2 | 1.814 | 2.715 | 10.3 | 18.6 |
| 12 23 | 7 17.63 | +31 28.7 | 1.773 | 2.724 | 6.6 | 18.4 |
| 1 2 | 7 7.30 | +31 49.9 | 1.760 | 2.734 | 3.6 | 18.3 |
| 1 12 | 6 56.58 | +31 59.3 | 1.775 | 2.743 | 4.5 | 18.3 |
| 1 22 | 6 46.79 | +31 55.9 | 1.819 | 2.753 | 8.0 | 18.6 |
| 2 1 | 6 39.04 | +31 41.3 | 1.889 | 2.762 | 11.5 | 18.8 |
| 2 11 | 6 34.09 | +31 18.7 | 1.982 | 2.771 | 14.5 | 19.0 |

**456450** 2006 $VN_{101}$ 1 5.7 30°.67 1°.9/ 5.3 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.03 | +23 27.3 | 1.122 | 1.979 | 18.8 | 20.7 |
| 12 13 | 7 25.42 | +24 22.6 | 1.084 | 2.003 | 13.8 | 20.5 |
| 12 23 | 7 17.40 | +25 22.8 | 1.067 | 2.027 | 8.2 | 20.2 |
| 1 2 | 7 7.25 | +26 20.4 | 1.073 | 2.053 | 2.7 | 20.0 |
| 1 12 | 6 56.79 | +27 8.5 | 1.104 | 2.080 | 4.4 | 20.2 |
| 1 22 | 6 47.83 | +27 43.4 | 1.160 | 2.109 | 9.6 | 20.6 |
| 2 1 | 6 41.74 | +28 5.0 | 1.240 | 2.138 | 14.3 | 20.9 |
| 2 11 | 6 39.25 | +28 15.3 | 1.339 | 2.168 | 18.1 | 21.3 |

**471148** 2010 $FL_{26}$ 1 5.7 224°.73 6°.0/ 8.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.64 | − 2 35.7 | 3.364 | 4.087 | 10.4 | 22.9 |
| 12 13 | 7 19.60 | − 2 55.3 | 3.265 | 4.074 | 8.8 | 22.7 |
| 12 23 | 7 13.28 | − 3 2.0 | 3.190 | 4.061 | 7.3 | 22.6 |
| 1 2 | 7 6.09 | − 2 54.1 | 3.142 | 4.047 | 6.2 | 22.5 |
| 1 12 | 6 58.59 | − 2 31.5 | 3.123 | 4.032 | 6.0 | 22.5 |
| 1 22 | 6 51.35 | − 1 55.0 | 3.133 | 4.017 | 7.0 | 22.5 |
| 2 1 | 6 44.93 | − 1 6.9 | 3.171 | 4.002 | 8.5 | 22.6 |
| 2 11 | 6 39.82 | − 0 10.3 | 3.234 | 3.986 | 10.2 | 22.7 |

**148929** 2001 $XN_{89}$ 1 5.7 3°.12 0°.1/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.18 | +22 29.3 | 1.735 | 2.565 | 14.5 | 19.9 |
| 12 13 | 7 24.78 | +22 34.3 | 1.660 | 2.565 | 10.8 | 19.6 |
| 12 23 | 7 16.82 | +22 42.4 | 1.609 | 2.565 | 6.5 | 19.4 |
| 1 2 | 7 7.12 | +22 51.0 | 1.584 | 2.565 | 1.8 | 19.1 |
| 1 12 | 6 56.92 | +22 57.6 | 1.588 | 2.566 | 3.0 | 19.2 |
| 1 22 | 6 47.53 | +23 0.8 | 1.620 | 2.566 | 7.6 | 19.4 |
| 2 1 | 6 40.11 | +23 0.6 | 1.678 | 2.567 | 11.8 | 19.7 |
| 2 11 | 6 35.44 | +22 57.5 | 1.759 | 2.568 | 15.3 | 19.9 |

**356641** 2011 $UE_{45}$ 1 5.7 73°.97 3°.6/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.26 | +14 43.6 | 1.506 | 2.329 | 16.7 | 20.6 |
| 12 13 | 7 26.30 | +14 16.8 | 1.447 | 2.343 | 12.7 | 20.4 |
| 12 23 | 7 17.67 | +14 0.2 | 1.410 | 2.358 | 8.3 | 20.2 |
| 1 2 | 7 7.32 | +13 53.9 | 1.399 | 2.373 | 4.3 | 20.0 |
| 1 12 | 6 56.65 | +13 56.8 | 1.416 | 2.388 | 4.6 | 20.0 |
| 1 22 | 6 47.03 | +14 7.3 | 1.460 | 2.403 | 8.6 | 20.3 |
| 2 1 | 6 39.62 | +14 23.5 | 1.529 | 2.418 | 12.7 | 20.6 |
| 2 11 | 6 35.15 | +14 43.1 | 1.620 | 2.432 | 16.2 | 20.9 |

**313386** 2002 $NG_{22}$ 1 5.7 83°.90 3°.1/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.40 | +11 14.4 | 1.817 | 2.617 | 15.2 | 20.8 |
| 12 13 | 7 26.64 | +11 47.2 | 1.767 | 2.650 | 11.5 | 20.7 |
| 12 23 | 7 17.65 | +12 33.4 | 1.740 | 2.682 | 7.5 | 20.5 |
| 1 2 | 7 7.29 | +13 30.3 | 1.741 | 2.714 | 3.8 | 20.3 |
| 1 12 | 6 56.73 | +14 33.9 | 1.772 | 2.745 | 3.9 | 20.4 |
| 1 22 | 6 47.11 | +15 39.8 | 1.834 | 2.775 | 7.3 | 20.7 |
| 2 1 | 6 39.40 | +16 44.1 | 1.923 | 2.805 | 10.8 | 20.9 |
| 2 11 | 6 34.22 | +17 44.1 | 2.036 | 2.834 | 13.9 | 21.2 |

**283949** 2004 $PG_{94}$ 1 5.7 147°.65 0°.4/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.08 | +23 12.3 | 1.783 | 2.605 | 14.5 | 21.7 |
| 12 13 | 7 28.27 | +23 21.3 | 1.713 | 2.613 | 10.8 | 21.4 |
| 12 23 | 7 18.83 | +23 32.4 | 1.667 | 2.622 | 6.5 | 21.2 |
| 1 2 | 7 7.66 | +23 42.5 | 1.648 | 2.629 | 1.8 | 20.9 |
| 1 12 | 6 56.07 | +23 48.8 | 1.659 | 2.636 | 3.1 | 21.0 |
| 1 22 | 6 45.40 | +23 50.2 | 1.699 | 2.642 | 7.6 | 21.3 |
| 2 1 | 6 36.83 | +23 47.0 | 1.766 | 2.648 | 11.7 | 21.6 |
| 2 11 | 6 31.10 | +23 40.6 | 1.856 | 2.653 | 15.1 | 21.8 |

**265500** 2005 $JZ$ 1 5.7 215°.99 5°.1/ 3.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.74 | +38 7.3 | 2.752 | 3.554 | 10.5 | 21.0 |
| 12 13 | 7 25.53 | +39 13.1 | 2.670 | 3.548 | 8.3 | 20.9 |
| 12 23 | 7 17.15 | +40 13.1 | 2.615 | 3.541 | 6.2 | 20.7 |
| 1 2 | 7 7.22 | +41 2.0 | 2.588 | 3.534 | 5.1 | 20.6 |
| 1 12 | 6 56.72 | +41 35.8 | 2.592 | 3.527 | 5.7 | 20.7 |
| 1 22 | 6 46.69 | +41 52.7 | 2.624 | 3.520 | 7.7 | 20.8 |
| 2 1 | 6 38.15 | +41 53.7 | 2.684 | 3.512 | 10.0 | 20.9 |
| 2 11 | 6 31.86 | +41 41.6 | 2.766 | 3.504 | 12.1 | 21.1 |

**229191** 2004 $TD_{241}$ 1 5.7 33°.36 2°.6/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.45 | +17 32.2 | 1.535 | 2.367 | 16.0 | 19.5 |
| 12 13 | 7 24.19 | +16 59.4 | 1.478 | 2.381 | 12.0 | 19.3 |
| 12 23 | 7 16.37 | +16 33.6 | 1.444 | 2.397 | 7.5 | 19.0 |
| 1 2 | 7 6.96 | +16 14.7 | 1.436 | 2.413 | 3.4 | 18.8 |
| 1 12 | 6 57.29 | +16 2.3 | 1.455 | 2.430 | 3.9 | 18.9 |
| 1 22 | 6 48.65 | +15 55.8 | 1.501 | 2.447 | 8.1 | 19.2 |
| 2 1 | 6 42.13 | +15 54.2 | 1.573 | 2.465 | 12.2 | 19.5 |
| 2 11 | 6 38.40 | +15 56.4 | 1.666 | 2.484 | 15.6 | 19.7 |

**106132** 2000 $TT_{40}$ 1 5.7 132°.23 3°.4/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | +33 41.2 | 2.892 | 3.700 | 9.9 | 20.6 |
| 12 13 | 7 23.87 | +34 23.7 | 2.824 | 3.711 | 7.5 | 20.4 |
| 12 23 | 7 15.93 | +35 2.0 | 2.782 | 3.723 | 5.1 | 20.3 |
| 1 2 | 7 6.84 | +35 32.2 | 2.770 | 3.734 | 3.5 | 20.2 |
| 1 12 | 6 57.44 | +35 51.8 | 2.789 | 3.745 | 4.1 | 20.3 |
| 1 22 | 6 48.60 | +35 59.7 | 2.838 | 3.755 | 6.3 | 20.4 |
| 2 1 | 6 41.13 | +35 56.8 | 2.915 | 3.765 | 8.6 | 20.6 |
| 2 11 | 6 35.60 | +35 45.1 | 3.016 | 3.775 | 10.7 | 20.8 |

**41072** 1999 $VX_{38}$ 1 5.7 86°.88 0°.9/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.90 | +24 8.0 | 2.039 | 2.863 | 12.9 | 19.3 |
| 12 13 | 7 24.21 | +24 30.5 | 1.970 | 2.872 | 9.5 | 19.1 |
| 12 23 | 7 16.31 | +24 54.7 | 1.926 | 2.881 | 5.7 | 18.9 |
| 1 2 | 7 6.96 | +25 17.4 | 1.909 | 2.890 | 1.7 | 18.6 |
| 1 12 | 6 57.24 | +25 35.9 | 1.923 | 2.899 | 2.9 | 18.7 |
| 1 22 | 6 48.27 | +25 48.5 | 1.965 | 2.908 | 6.8 | 19.0 |
| 2 1 | 6 41.01 | +25 55.0 | 2.035 | 2.916 | 10.4 | 19.2 |
| 2 11 | 6 36.16 | +25 56.4 | 2.128 | 2.925 | 13.4 | 19.4 |

**3467** Bernheim 1 5.7 6°.46 0°.0/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.26 | +20 18.2 | 1.196 | 2.048 | 18.2 | 16.2 |
| 12 13 | 7 24.27 | +20 49.0 | 1.132 | 2.048 | 13.6 | 15.9 |
| 12 23 | 7 16.93 | +21 29.5 | 1.089 | 2.049 | 8.2 | 15.6 |
| 1 2 | 7 7.22 | +22 15.2 | 1.070 | 2.051 | 2.3 | 15.3 |
| 1 12 | 6 56.79 | +23 0.4 | 1.076 | 2.055 | 3.8 | 15.4 |
| 1 22 | 6 47.43 | +23 40.4 | 1.107 | 2.059 | 9.5 | 15.7 |
| 2 1 | 6 40.70 | +24 12.7 | 1.161 | 2.064 | 14.7 | 16.0 |
| 2 11 | 6 37.56 | +24 37.0 | 1.235 | 2.070 | 18.9 | 16.3 |

**413893** 2006 $VV_{135}$ 1 5.7 332°.34 0°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.62 | +22 22.3 | 1.466 | 2.308 | 16.0 | 20.9 |
| 12 13 | 7 24.18 | +22 27.7 | 1.385 | 2.297 | 12.0 | 20.6 |
| 12 23 | 7 16.74 | +22 37.2 | 1.327 | 2.285 | 7.3 | 20.3 |
| 1 2 | 7 7.16 | +22 48.1 | 1.293 | 2.275 | 2.0 | 20.0 |
| 1 12 | 6 56.84 | +22 57.3 | 1.287 | 2.265 | 3.4 | 20.1 |
| 1 22 | 6 47.32 | +23 3.0 | 1.307 | 2.256 | 8.7 | 20.3 |
| 2 1 | 6 40.02 | +23 4.7 | 1.351 | 2.248 | 13.5 | 20.6 |
| 2 11 | 6 35.89 | +23 3.0 | 1.416 | 2.240 | 17.5 | 20.8 |

**90545** 2004 $FG_{97}$ 1 5.8 197°.26 1°.6/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.31 | +24 41.5 | 1.844 | 2.665 | 14.2 | 20.4 |
| 12 13 | 7 28.66 | +25 22.1 | 1.762 | 2.662 | 10.6 | 20.1 |
| 12 23 | 7 19.24 | +26 5.7 | 1.704 | 2.658 | 6.4 | 19.9 |
| 1 2 | 7 7.84 | +26 47.3 | 1.674 | 2.654 | 2.3 | 19.6 |
| 1 12 | 6 55.75 | +27 22.1 | 1.674 | 2.649 | 3.6 | 19.7 |
| 1 22 | 6 44.37 | +27 47.2 | 1.704 | 2.643 | 7.9 | 19.9 |
| 2 1 | 6 35.00 | +28 2.4 | 1.761 | 2.636 | 12.0 | 20.2 |
| 2 11 | 6 28.53 | +28 9.2 | 1.840 | 2.629 | 15.5 | 20.4 |

**35761** 1999 $HC_2$ 1 5.8 145°.46 3°.5/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.16 | +11 10.9 | 2.138 | 2.931 | 13.5 | 20.0 |
| 12 13 | 7 25.63 | +11 9.6 | 2.067 | 2.944 | 10.4 | 19.8 |
| 12 23 | 7 17.06 | +11 19.2 | 2.019 | 2.957 | 7.0 | 19.6 |
| 1 2 | 7 7.17 | +11 39.0 | 2.000 | 2.968 | 4.1 | 19.4 |
| 1 12 | 6 56.94 | +12 7.6 | 2.012 | 2.979 | 4.1 | 19.5 |
| 1 22 | 6 47.39 | +12 42.4 | 2.053 | 2.989 | 7.0 | 19.7 |
| 2 1 | 6 39.42 | +13 21.1 | 2.123 | 2.998 | 10.3 | 19.9 |
| 2 11 | 6 33.67 | +14 1.1 | 2.217 | 3.006 | 13.2 | 20.1 |

**324441** 2006 $TB_{38}$ 1 5.8 14°.33 0°.2/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.89 | +22 20.2 | 1.349 | 2.196 | 16.9 | 21.0 |
| 12 13 | 7 24.36 | +22 31.1 | 1.286 | 2.199 | 12.5 | 20.7 |
| 12 23 | 7 16.79 | +22 46.7 | 1.244 | 2.204 | 7.5 | 20.4 |
| 1 2 | 7 7.15 | +23 3.6 | 1.228 | 2.209 | 2.1 | 20.1 |
| 1 12 | 6 56.98 | +23 18.4 | 1.237 | 2.215 | 3.5 | 20.2 |
| 1 22 | 6 47.87 | +23 28.7 | 1.273 | 2.223 | 8.8 | 20.6 |
| 2 1 | 6 41.19 | +23 34.2 | 1.333 | 2.231 | 13.5 | 20.8 |
| 2 11 | 6 37.77 | +23 35.6 | 1.413 | 2.240 | 17.4 | 21.1 |

**109590** 2001 $QF_{279}$ 1 5.8 111°.38 4°.1/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.20 | +34 39.2 | 2.462 | 3.275 | 11.3 | 20.1 |
| 12 13 | 7 25.04 | +35 24.0 | 2.396 | 3.285 | 8.6 | 20.0 |
| 12 23 | 7 16.75 | +36 3.4 | 2.355 | 3.295 | 6.0 | 19.8 |
| 1 2 | 7 7.09 | +36 32.8 | 2.343 | 3.305 | 4.2 | 19.7 |
| 1 12 | 6 57.08 | +36 49.1 | 2.361 | 3.315 | 4.9 | 19.8 |
| 1 22 | 6 47.77 | +36 51.4 | 2.408 | 3.325 | 7.2 | 19.9 |
| 2 1 | 6 40.09 | +36 40.9 | 2.482 | 3.334 | 9.9 | 20.1 |
| 2 11 | 6 34.72 | +36 20.5 | 2.580 | 3.343 | 12.2 | 20.3 |

**132005** Scottmcgregor 1 5.8 185°.71 1°.8/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.47 | +16 8.1 | 1.792 | 2.608 | 14.7 | 20.0 |
| 12 13 | 7 25.68 | +16 26.8 | 1.713 | 2.609 | 11.1 | 19.7 |
| 12 23 | 7 17.37 | +16 55.3 | 1.658 | 2.608 | 7.0 | 19.5 |
| 1 2 | 7 7.31 | +17 31.5 | 1.629 | 2.608 | 2.7 | 19.2 |
| 1 12 | 6 56.68 | +18 12.2 | 1.630 | 2.607 | 3.3 | 19.3 |
| 1 22 | 6 46.73 | +18 53.9 | 1.660 | 2.605 | 7.6 | 19.5 |
| 2 1 | 6 38.62 | +19 34.3 | 1.717 | 2.603 | 11.7 | 19.8 |
| 2 11 | 6 33.18 | +20 11.5 | 1.797 | 2.601 | 15.2 | 20.0 |

**271388** 2004 $BW_{55}$ 1 5.8 49°.25 0°.4/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.81 | +20 15.9 | 1.200 | 2.045 | 18.6 | 20.8 |
| 12 13 | 7 27.54 | +20 33.6 | 1.141 | 2.053 | 13.9 | 20.5 |
| 12 23 | 7 18.81 | +20 59.7 | 1.103 | 2.061 | 8.4 | 20.3 |
| 1 2 | 7 7.74 | +21 30.0 | 1.089 | 2.070 | 2.4 | 19.9 |
| 1 12 | 6 56.08 | +21 59.8 | 1.101 | 2.079 | 3.8 | 20.1 |
| 1 22 | 6 45.66 | +22 25.7 | 1.138 | 2.088 | 9.5 | 20.4 |
| 2 1 | 6 38.03 | +22 46.2 | 1.199 | 2.098 | 14.6 | 20.7 |
| 2 11 | 6 34.09 | +23 1.4 | 1.280 | 2.107 | 18.8 | 21.0 |

**243186** 2007 $TH_{230}$ 1 5.8 16.°92 5.°9/ 3.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.97 | +35 36.8 | 1.851 | 2.679 | 13.8 | 19.8 |
| 12 13 | 7 24.89 | +36 52.3 | 1.789 | 2.684 | 10.7 | 19.6 |
| 12 23 | 7 17.02 | +38 2.0 | 1.751 | 2.690 | 7.7 | 19.4 |
| 1 2 | 7 7.23 | +38 58.4 | 1.739 | 2.696 | 6.0 | 19.3 |
| 1 12 | 6 56.87 | +39 35.8 | 1.755 | 2.703 | 6.9 | 19.4 |
| 1 22 | 6 47.36 | +39 52.3 | 1.798 | 2.711 | 9.5 | 19.6 |
| 2 1 | 6 39.98 | +39 49.5 | 1.865 | 2.719 | 12.5 | 19.8 |
| 2 11 | 6 35.58 | +39 31.6 | 1.954 | 2.728 | 15.2 | 20.0 |

**440637** 2005 $WJ_{82}$ 1 5.8 91.°77 1.°7/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.09 | +18 3.5 | 1.501 | 2.324 | 16.7 | 21.4 |
| 12 13 | 7 29.08 | +18 3.2 | 1.450 | 2.349 | 12.5 | 21.2 |
| 12 23 | 7 19.29 | +18 10.5 | 1.421 | 2.373 | 7.6 | 21.0 |
| 1 2 | 7 7.80 | +18 23.2 | 1.418 | 2.398 | 2.8 | 20.7 |
| 1 12 | 6 56.07 | +18 38.6 | 1.444 | 2.421 | 3.5 | 20.9 |
| 1 22 | 6 45.58 | +18 54.6 | 1.499 | 2.444 | 8.2 | 21.2 |
| 2 1 | 6 37.48 | +19 10.0 | 1.579 | 2.466 | 12.4 | 21.5 |
| 2 11 | 6 32.48 | +19 24.3 | 1.681 | 2.488 | 16.0 | 21.8 |

**284636** 2007 $VQ_{278}$ 1 5.8 186.°98 7.°9/ 7.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.12 | − 2 29.5 | 2.657 | 3.389 | 12.6 | 21.1 |
| 12 13 | 7 21.65 | − 3 44.1 | 2.578 | 3.389 | 10.8 | 21.0 |
| 12 23 | 7 14.60 | − 4 44.7 | 2.522 | 3.388 | 9.2 | 20.9 |
| 1 2 | 7 6.51 | − 5 27.7 | 2.493 | 3.388 | 8.1 | 20.8 |
| 1 12 | 6 58.09 | − 5 51.3 | 2.492 | 3.387 | 8.0 | 20.8 |
| 1 22 | 6 50.10 | − 5 55.4 | 2.517 | 3.386 | 9.1 | 20.9 |
| 2 1 | 6 43.24 | − 5 41.9 | 2.569 | 3.384 | 10.8 | 21.0 |
| 2 11 | 6 38.07 | − 5 14.3 | 2.643 | 3.383 | 12.5 | 21.1 |

**191927** 2005 $SV_{89}$ 1 5.8 183.°87 1.°8/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.27 | +26 10.3 | 1.836 | 2.655 | 14.2 | 21.4 |
| 12 13 | 7 29.32 | +26 38.3 | 1.757 | 2.656 | 10.6 | 21.2 |
| 12 23 | 7 19.59 | +27 6.8 | 1.703 | 2.657 | 6.5 | 21.0 |
| 1 2 | 7 7.95 | +27 31.1 | 1.677 | 2.656 | 2.4 | 20.7 |
| 1 12 | 6 55.71 | +27 47.4 | 1.680 | 2.654 | 3.7 | 20.8 |
| 1 22 | 6 44.31 | +27 53.8 | 1.713 | 2.652 | 7.9 | 21.0 |
| 2 1 | 6 35.00 | +27 51.0 | 1.773 | 2.649 | 11.9 | 21.3 |
| 2 11 | 6 28.63 | +27 41.5 | 1.856 | 2.645 | 15.4 | 21.5 |

**499472** 2010 $HL_{77}$ 1 5.8 264.°63 3.°7/ 7.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.71 | + 9 36.3 | 2.521 | 3.312 | 11.7 | 21.6 |
| 12 13 | 7 20.84 | + 9 32.1 | 2.423 | 3.298 | 9.2 | 21.4 |
| 12 23 | 7 14.24 | + 9 38.2 | 2.351 | 3.284 | 6.4 | 21.2 |
| 1 2 | 7 6.44 | + 9 55.0 | 2.306 | 3.269 | 4.1 | 21.1 |
| 1 12 | 6 58.19 | +10 21.6 | 2.291 | 3.254 | 4.1 | 21.0 |
| 1 22 | 6 50.30 | +10 56.3 | 2.306 | 3.240 | 6.5 | 21.2 |
| 2 1 | 6 43.55 | +11 36.8 | 2.349 | 3.225 | 9.4 | 21.3 |
| 2 11 | 6 38.58 | +12 20.5 | 2.416 | 3.209 | 12.1 | 21.5 |

**502297** 2015 $BC_{146}$ 1 5.8 198.°01 1.°9/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.27 | +14 6.0 | 2.871 | 3.669 | 10.2 | 22.0 |
| 12 13 | 7 21.03 | +14 25.6 | 2.782 | 3.666 | 7.8 | 21.8 |
| 12 23 | 7 14.24 | +14 52.7 | 2.718 | 3.663 | 5.0 | 21.6 |
| 1 2 | 7 6.42 | +15 26.0 | 2.684 | 3.659 | 2.4 | 21.4 |
| 1 12 | 6 58.25 | +16 3.7 | 2.682 | 3.655 | 2.6 | 21.4 |
| 1 22 | 6 50.44 | +16 43.9 | 2.710 | 3.651 | 5.3 | 21.6 |
| 2 1 | 6 43.68 | +17 24.6 | 2.768 | 3.646 | 8.1 | 21.8 |
| 2 11 | 6 38.52 | +18 4.3 | 2.852 | 3.641 | 10.5 | 22.0 |

**323880** 2005 $SL_{206}$ 1 5.8 44.°53 4.°6/ 7.3 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.67 | + 9 44.0 | 1.425 | 2.243 | 17.7 | 19.8 |
| 12 13 | 7 24.37 | + 9 52.7 | 1.381 | 2.271 | 13.6 | 19.7 |
| 12 23 | 7 16.49 | +10 19.1 | 1.358 | 2.299 | 9.2 | 19.5 |
| 1 2 | 7 7.03 | +11 1.9 | 1.359 | 2.328 | 5.4 | 19.3 |
| 1 12 | 6 57.36 | +11 57.1 | 1.388 | 2.358 | 5.2 | 19.4 |
| 1 22 | 6 48.80 | +12 59.7 | 1.444 | 2.387 | 8.7 | 19.7 |
| 2 1 | 6 42.43 | +14 4.5 | 1.525 | 2.417 | 12.5 | 20.0 |
| 2 11 | 6 38.89 | +15 7.3 | 1.628 | 2.447 | 15.8 | 20.3 |

**227519** 2005 $YV_{39}$ 1 5.8 114.°27 0.°2/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.41 | +20 6.8 | 2.071 | 2.890 | 12.9 | 20.9 |
| 12 13 | 7 23.84 | +20 33.8 | 1.998 | 2.897 | 9.5 | 20.7 |
| 12 23 | 7 16.11 | +21 6.1 | 1.950 | 2.904 | 5.7 | 20.5 |
| 1 2 | 7 6.96 | +21 40.9 | 1.930 | 2.911 | 1.6 | 20.3 |
| 1 12 | 6 57.39 | +22 15.2 | 1.940 | 2.917 | 2.6 | 20.3 |
| 1 22 | 6 48.48 | +22 46.5 | 1.979 | 2.924 | 6.6 | 20.6 |
| 2 1 | 6 41.19 | +23 13.5 | 2.047 | 2.930 | 10.2 | 20.8 |
| 2 11 | 6 36.21 | +23 35.7 | 2.138 | 2.936 | 13.3 | 21.1 |

**128361** 2004 $HP_{18}$ 1 5.8 106.°67 1.°5/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.93 | +19 2.0 | 1.587 | 2.408 | 16.0 | 20.0 |
| 12 13 | 7 28.93 | +18 52.0 | 1.529 | 2.428 | 12.0 | 19.8 |
| 12 23 | 7 19.21 | +18 47.9 | 1.494 | 2.447 | 7.3 | 19.5 |
| 1 2 | 7 7.80 | +18 47.8 | 1.485 | 2.465 | 2.6 | 19.3 |
| 1 12 | 6 56.10 | +18 49.9 | 1.506 | 2.483 | 3.4 | 19.4 |
| 1 22 | 6 45.54 | +18 52.9 | 1.555 | 2.500 | 8.0 | 19.7 |
| 2 1 | 6 37.27 | +18 56.5 | 1.630 | 2.516 | 12.2 | 20.0 |
| 2 11 | 6 32.00 | +19 0.3 | 1.728 | 2.532 | 15.7 | 20.3 |

**207651** 2007 $MV_{13}$ 1 5.8 168.°62 2.°7/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.65 | +14 32.1 | 1.710 | 2.526 | 15.3 | 20.7 |
| 12 13 | 7 25.86 | +14 40.0 | 1.635 | 2.528 | 11.7 | 20.5 |
| 12 23 | 7 17.50 | +14 58.9 | 1.582 | 2.530 | 7.5 | 20.3 |
| 1 2 | 7 7.37 | +15 27.5 | 1.556 | 2.532 | 3.5 | 20.0 |
| 1 12 | 6 56.70 | +16 3.0 | 1.559 | 2.533 | 3.8 | 20.0 |
| 1 22 | 6 46.77 | +16 42.3 | 1.590 | 2.534 | 7.9 | 20.3 |
| 2 1 | 6 38.76 | +17 22.6 | 1.648 | 2.535 | 12.0 | 20.5 |
| 2 11 | 6 33.48 | +18 1.7 | 1.728 | 2.535 | 15.6 | 20.8 |

**32012** 2000 $HE_{57}$ 1 5.8 179.°05 7.°1/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.62 | + 1 49.3 | 2.196 | 2.959 | 14.1 | 19.5 |
| 12 13 | 7 23.05 | + 1 8.7 | 2.117 | 2.960 | 11.7 | 19.3 |
| 12 23 | 7 15.57 | + 0 43.7 | 2.061 | 2.961 | 9.2 | 19.1 |
| 1 2 | 7 6.81 | + 0 36.9 | 2.031 | 2.961 | 7.4 | 19.0 |
| 1 12 | 6 57.65 | + 0 49.0 | 2.029 | 2.961 | 7.3 | 19.0 |
| 1 22 | 6 49.02 | + 1 18.3 | 2.054 | 2.961 | 8.9 | 19.1 |
| 2 1 | 6 41.79 | + 2 1.9 | 2.107 | 2.960 | 11.3 | 19.3 |
| 2 11 | 6 36.60 | + 2 55.4 | 2.182 | 2.959 | 13.8 | 19.4 |

**122910** 2000 $SR_{167}$ 1 5.8 168.°89 4.°8/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.92 | +33 45.0 | 1.681 | 2.505 | 15.2 | 19.6 |
| 12 13 | 7 30.14 | +34 18.5 | 1.610 | 2.506 | 11.6 | 19.3 |
| 12 23 | 7 20.21 | +34 45.3 | 1.562 | 2.508 | 7.8 | 19.1 |
| 1 2 | 7 8.13 | +34 58.9 | 1.541 | 2.509 | 5.0 | 19.0 |
| 1 12 | 6 55.50 | +34 54.9 | 1.548 | 2.510 | 5.9 | 19.0 |
| 1 22 | 6 43.97 | +34 32.7 | 1.582 | 2.511 | 9.4 | 19.2 |
| 2 1 | 6 34.94 | +33 55.9 | 1.642 | 2.511 | 13.1 | 19.4 |
| 2 11 | 6 29.30 | +33 9.8 | 1.724 | 2.511 | 16.4 | 19.7 |

**258175** 2001 $SO_{146}$ 1 5.8 18.°98 8.°3/ 8.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.47 | + 1 1.8 | 1.794 | 2.569 | 16.3 | 20.3 |
| 12 13 | 7 22.58 | + 0 21.1 | 1.721 | 2.570 | 13.6 | 20.1 |
| 12 23 | 7 15.45 | + 0 0.1 | 1.668 | 2.571 | 10.8 | 19.9 |
| 1 2 | 7 6.79 | + 0 2.2 | 1.640 | 2.572 | 8.8 | 19.8 |
| 1 12 | 6 57.67 | + 0 27.9 | 1.638 | 2.573 | 8.5 | 19.8 |
| 1 22 | 6 49.19 | + 1 14.9 | 1.662 | 2.574 | 10.3 | 19.9 |
| 2 1 | 6 42.37 | + 2 18.4 | 1.711 | 2.575 | 13.0 | 20.1 |
| 2 11 | 6 37.94 | + 3 32.2 | 1.783 | 2.577 | 15.7 | 20.3 |

**408810** 2000 $TO_{17}$ 1 5.8 37.°81 5.°5/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.26 | + 9 50.0 | 1.492 | 2.310 | 17.0 | 20.3 |
| 12 13 | 7 23.32 | + 9 19.3 | 1.440 | 2.328 | 13.3 | 20.1 |
| 12 23 | 7 15.89 | + 9 4.2 | 1.408 | 2.347 | 9.3 | 19.9 |
| 1 2 | 7 6.89 | + 9 5.7 | 1.402 | 2.366 | 6.1 | 19.8 |
| 1 12 | 6 57.62 | + 9 22.8 | 1.422 | 2.386 | 6.0 | 19.8 |
| 1 22 | 6 49.33 | + 9 52.7 | 1.468 | 2.406 | 9.0 | 20.0 |
| 2 1 | 6 43.09 | +10 31.6 | 1.539 | 2.427 | 12.7 | 20.3 |
| 2 11 | 6 39.58 | +11 15.1 | 1.632 | 2.449 | 15.9 | 20.6 |

**83209** 2001 $RV_{16}$ 1 5.8 358.°82 3.°1/ 4.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.98 | +30 10.3 | 2.027 | 2.855 | 12.8 | 19.2 |
| 12 13 | 7 23.77 | +30 42.0 | 1.952 | 2.854 | 9.6 | 19.0 |
| 12 23 | 7 16.19 | +31 11.3 | 1.902 | 2.853 | 6.1 | 18.8 |
| 1 2 | 7 7.01 | +31 33.7 | 1.879 | 2.853 | 3.3 | 18.6 |
| 1 12 | 6 57.36 | +31 45.8 | 1.885 | 2.853 | 4.2 | 18.6 |
| 1 22 | 6 48.44 | +31 46.4 | 1.919 | 2.853 | 7.6 | 18.8 |
| 2 1 | 6 41.31 | +31 36.4 | 1.979 | 2.854 | 11.0 | 19.0 |
| 2 11 | 6 36.71 | +31 18.2 | 2.063 | 2.855 | 13.9 | 19.2 |

**88275** 2001 $MA_{6}$ 1 5.8 131.°74 4.°5/ 4.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.84 | +31 38.5 | 1.653 | 2.477 | 15.4 | 19.8 |
| 12 13 | 7 30.78 | +32 32.4 | 1.591 | 2.489 | 11.6 | 19.6 |
| 12 23 | 7 20.56 | +33 22.3 | 1.552 | 2.499 | 7.7 | 19.4 |
| 1 2 | 7 8.24 | +34 0.7 | 1.540 | 2.510 | 4.7 | 19.2 |
| 1 12 | 6 55.38 | +34 22.2 | 1.556 | 2.520 | 5.7 | 19.3 |
| 1 22 | 6 43.66 | +34 25.4 | 1.601 | 2.529 | 9.3 | 19.6 |
| 2 1 | 6 34.46 | +34 12.6 | 1.671 | 2.538 | 13.1 | 19.8 |
| 2 11 | 6 28.65 | +33 48.7 | 1.763 | 2.546 | 16.3 | 20.0 |

**52361** 1993 $FT_{30}$ 1 5.8 256.°01 0.°5/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.54 | +21 6.6 | 1.669 | 2.495 | 15.2 | 20.2 |
| 12 13 | 7 27.64 | +21 9.1 | 1.576 | 2.478 | 11.5 | 20.0 |
| 12 23 | 7 18.81 | +21 16.2 | 1.506 | 2.461 | 7.0 | 19.7 |
| 1 2 | 7 7.81 | +21 25.3 | 1.463 | 2.444 | 2.1 | 19.3 |
| 1 12 | 6 55.96 | +21 33.8 | 1.448 | 2.426 | 3.3 | 19.4 |
| 1 22 | 6 44.75 | +21 39.8 | 1.462 | 2.408 | 8.3 | 19.6 |
| 2 1 | 6 35.57 | +21 43.1 | 1.502 | 2.389 | 13.0 | 19.8 |
| 2 11 | 6 29.43 | +21 44.0 | 1.563 | 2.369 | 17.0 | 20.0 |

**358188** 2006 $SN_{96}$ 1 5.8 214.°06 2.°0/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.80 | +26 49.4 | 2.090 | 2.910 | 12.8 | 21.9 |
| 12 13 | 7 26.56 | +27 20.2 | 2.005 | 2.903 | 9.5 | 21.7 |
| 12 23 | 7 17.88 | +27 51.2 | 1.944 | 2.897 | 5.9 | 21.4 |
| 1 2 | 7 7.50 | +28 18.4 | 1.911 | 2.889 | 2.4 | 21.2 |
| 1 12 | 6 56.53 | +28 38.1 | 1.909 | 2.882 | 3.5 | 21.2 |
| 1 22 | 6 46.19 | +28 48.5 | 1.936 | 2.873 | 7.3 | 21.5 |
| 2 1 | 6 37.60 | +28 49.9 | 1.991 | 2.864 | 10.9 | 21.7 |
| 2 11 | 6 31.55 | +28 44.0 | 2.069 | 2.855 | 14.1 | 21.9 |

**132130** 2002 $CH_{245}$ 1 5.8 212.°94 4.°0/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.16 | +10 49.4 | 2.113 | 2.908 | 13.5 | 20.7 |
| 12 13 | 7 25.13 | +10 35.8 | 2.023 | 2.900 | 10.6 | 20.5 |
| 12 23 | 7 16.94 | +10 32.8 | 1.956 | 2.891 | 7.3 | 20.3 |
| 1 2 | 7 7.23 | +10 40.9 | 1.916 | 2.882 | 4.5 | 20.1 |
| 1 12 | 6 56.98 | +10 59.3 | 1.907 | 2.872 | 4.6 | 20.1 |
| 1 22 | 6 47.23 | +11 26.3 | 1.927 | 2.862 | 7.5 | 20.2 |
| 2 1 | 6 38.98 | +11 59.5 | 1.975 | 2.850 | 10.9 | 20.4 |
| 2 11 | 6 32.98 | +12 36.3 | 2.047 | 2.838 | 14.0 | 20.6 |

**460447** 2014 $ST_{208}$ 1 5.8 72.°71 1.°8/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.93 | +16 1.3 | 1.863 | 2.682 | 14.1 | 20.5 |
| 12 13 | 7 23.63 | +16 19.2 | 1.792 | 2.689 | 10.6 | 20.3 |
| 12 23 | 7 16.06 | +16 46.4 | 1.745 | 2.696 | 6.6 | 20.1 |
| 1 2 | 7 6.97 | +17 20.8 | 1.725 | 2.703 | 2.7 | 19.8 |
| 1 12 | 6 57.45 | +17 59.6 | 1.734 | 2.711 | 3.1 | 19.9 |
| 1 22 | 6 48.64 | +18 39.7 | 1.773 | 2.718 | 7.1 | 20.1 |
| 2 1 | 6 41.56 | +19 18.6 | 1.838 | 2.726 | 10.9 | 20.4 |
| 2 11 | 6 36.93 | +19 54.6 | 1.926 | 2.733 | 14.2 | 20.6 |

**473479** 2015 $XE_{80}$ 1 5.8 323.°67 0.°4/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.29 | +21 58.0 | 1.362 | 2.207 | 16.8 | 21.0 |
| 12 13 | 7 24.97 | +22 20.6 | 1.281 | 2.194 | 12.6 | 20.7 |
| 12 23 | 7 17.41 | +22 50.0 | 1.222 | 2.181 | 7.7 | 20.4 |
| 1 2 | 7 7.45 | +23 22.2 | 1.188 | 2.169 | 2.2 | 20.0 |
| 1 12 | 6 56.58 | +23 52.5 | 1.180 | 2.158 | 3.7 | 20.1 |
| 1 22 | 6 46.52 | +24 17.4 | 1.198 | 2.147 | 9.3 | 20.4 |
| 2 1 | 6 38.82 | +24 35.5 | 1.239 | 2.137 | 14.3 | 20.6 |
| 2 11 | 6 34.58 | +24 47.0 | 1.301 | 2.127 | 18.7 | 20.9 |

**193367** 2000 $UC_{71}$ 1 5.8 71.°36 1.°8/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.42 | +18 21.8 | 1.447 | 2.275 | 16.9 | 19.9 |
| 12 13 | 7 27.93 | +18 12.0 | 1.397 | 2.299 | 12.6 | 19.7 |
| 12 23 | 7 18.65 | +18 9.5 | 1.369 | 2.323 | 7.7 | 19.5 |
| 1 2 | 7 7.66 | +18 12.5 | 1.368 | 2.347 | 2.9 | 19.2 |
| 1 12 | 6 56.46 | +18 19.0 | 1.394 | 2.370 | 3.6 | 19.3 |
| 1 22 | 6 46.50 | +18 27.3 | 1.447 | 2.394 | 8.3 | 19.7 |
| 2 1 | 6 38.96 | +18 36.5 | 1.527 | 2.417 | 12.6 | 20.0 |
| 2 11 | 6 34.51 | +18 45.8 | 1.628 | 2.440 | 16.1 | 20.3 |

**413017** 2000 $QG_{231}$ 1 5.8 94.°77 0.°7/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.29 | +24 0.2 | 1.986 | 2.807 | 13.3 | 21.5 |
| 12 13 | 7 25.92 | +24 14.0 | 1.925 | 2.826 | 9.8 | 21.3 |
| 12 23 | 7 17.31 | +24 29.1 | 1.889 | 2.844 | 5.8 | 21.1 |
| 1 2 | 7 7.29 | +24 42.5 | 1.881 | 2.862 | 1.7 | 20.9 |
| 1 12 | 6 57.01 | +24 51.8 | 1.903 | 2.880 | 2.8 | 21.0 |
| 1 22 | 6 47.61 | +24 55.8 | 1.954 | 2.897 | 6.8 | 21.3 |
| 2 1 | 6 40.05 | +24 54.8 | 2.033 | 2.914 | 10.4 | 21.5 |
| 2 11 | 6 34.98 | +24 50.0 | 2.135 | 2.931 | 13.4 | 21.8 |

**244436** 2002 $RT_{7}$ 1 5.8 6.°65 12.°8/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.60 | +47 33.2 | 1.061 | 1.904 | 20.7 | 17.4 |
| 12 13 | 7 25.75 | +48 24.1 | 1.020 | 1.908 | 17.5 | 17.2 |
| 12 23 | 7 18.19 | +48 48.1 | 0.996 | 1.915 | 14.6 | 17.0 |
| 1 2 | 7 7.60 | +48 34.2 | 0.991 | 1.924 | 12.9 | 17.0 |
| 1 12 | 6 56.67 | +47 38.0 | 1.008 | 1.937 | 13.2 | 17.0 |
| 1 22 | 6 47.90 | +46 4.3 | 1.045 | 1.953 | 15.3 | 17.2 |
| 2 1 | 6 43.02 | +44 4.3 | 1.102 | 1.971 | 18.1 | 17.4 |
| 2 11 | 6 42.62 | +41 50.9 | 1.178 | 1.992 | 21.0 | 17.7 |

**313124** 2001 $AL_{2}$ 1 5.8 25.°71 4.°4/ 5.2 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 43.64 | +23 33.5 | 0.914 | 1.765 | 22.6 | 19.4 |
| 12 13 | 7 36.09 | +21 2.9 | 0.855 | 1.769 | 17.1 | 19.1 |
| 12 23 | 7 24.07 | +18 22.0 | 0.817 | 1.774 | 10.8 | 18.8 |
| 1 2 | 7 9.22 | +15 38.3 | 0.802 | 1.780 | 5.0 | 18.5 |
| 1 12 | 6 54.05 | +13 4.0 | 0.813 | 1.786 | 6.8 | 18.6 |
| 1 22 | 6 41.04 | +10 51.5 | 0.850 | 1.794 | 12.9 | 19.0 |
| 2 1 | 6 31.92 | + 9 7.8 | 0.908 | 1.802 | 18.6 | 19.3 |
| 2 11 | 6 27.47 | + 7 53.1 | 0.983 | 1.810 | 23.3 | 19.7 |

**319926** 2006 $YH_{20}$ 1 5.8 14.°60 2.°7/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.06 | +15 40.8 | 1.613 | 2.440 | 15.6 | 20.7 |
| 12 13 | 7 24.05 | +15 31.9 | 1.541 | 2.441 | 11.8 | 20.5 |
| 12 23 | 7 16.46 | +15 32.6 | 1.492 | 2.443 | 7.6 | 20.3 |
| 1 2 | 7 7.12 | +15 42.1 | 1.468 | 2.444 | 3.5 | 20.0 |
| 1 12 | 6 57.28 | +15 58.7 | 1.472 | 2.447 | 3.9 | 20.0 |
| 1 22 | 6 48.24 | +16 20.1 | 1.503 | 2.449 | 8.1 | 20.3 |
| 2 1 | 6 41.17 | +16 44.3 | 1.560 | 2.452 | 12.3 | 20.5 |
| 2 11 | 6 36.86 | +17 9.3 | 1.639 | 2.455 | 15.9 | 20.8 |

**96714** 1999 $KH_{6}$ 1 5.8 139.°70 1.°5/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.01 | +23 55.0 | 1.788 | 2.611 | 14.4 | 19.8 |
| 12 13 | 7 27.63 | +24 41.0 | 1.719 | 2.620 | 10.7 | 19.5 |
| 12 23 | 7 18.58 | +25 30.4 | 1.674 | 2.629 | 6.4 | 19.3 |
| 1 2 | 7 7.71 | +26 18.2 | 1.657 | 2.637 | 2.2 | 19.1 |
| 1 12 | 6 56.32 | +26 59.6 | 1.669 | 2.644 | 3.5 | 19.2 |
| 1 22 | 6 45.76 | +27 31.6 | 1.711 | 2.651 | 7.8 | 19.4 |
| 2 1 | 6 37.25 | +27 53.5 | 1.779 | 2.658 | 11.8 | 19.7 |
| 2 11 | 6 31.60 | +28 6.7 | 1.870 | 2.664 | 15.1 | 19.9 |

**384462** 2010 $BX_{20}$ 1 5.8 190.°31 5.°1/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.63 | + 9 4.7 | 2.469 | 3.252 | 12.1 | 20.2 |
| 12 13 | 7 23.58 | + 7 54.4 | 2.386 | 3.252 | 9.7 | 20.0 |
| 12 23 | 7 15.80 | + 6 51.6 | 2.329 | 3.251 | 7.1 | 19.8 |
| 1 2 | 7 6.89 | + 5 58.9 | 2.300 | 3.251 | 5.3 | 19.7 |
| 1 12 | 6 57.68 | + 5 18.0 | 2.302 | 3.250 | 5.5 | 19.7 |
| 1 22 | 6 49.00 | + 4 49.6 | 2.333 | 3.249 | 7.5 | 19.8 |
| 2 1 | 6 41.61 | + 4 33.3 | 2.393 | 3.249 | 10.0 | 20.0 |
| 2 11 | 6 36.11 | + 4 27.3 | 2.476 | 3.248 | 12.4 | 20.2 |

**274549** 2008 $SK_{255}$ 1 5.8 87.°55 3.°6/ 7.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.53 | +10 42.7 | 2.171 | 2.971 | 13.0 | 20.7 |
| 12 13 | 7 22.23 | +10 45.1 | 2.103 | 2.983 | 10.1 | 20.5 |
| 12 23 | 7 15.06 | +10 58.7 | 2.058 | 2.996 | 6.9 | 20.4 |
| 1 2 | 7 6.69 | +11 23.1 | 2.042 | 3.009 | 4.1 | 20.2 |
| 1 12 | 6 58.02 | +11 56.6 | 2.054 | 3.022 | 4.1 | 20.2 |
| 1 22 | 6 49.96 | +12 36.7 | 2.096 | 3.034 | 6.8 | 20.4 |
| 2 1 | 6 43.34 | +13 20.5 | 2.166 | 3.047 | 9.9 | 20.6 |
| 2 11 | 6 38.77 | +14 5.4 | 2.260 | 3.059 | 12.6 | 20.8 |

**117005** 2004 $HU_{60}$ 1 5.8 67.°23 7.°4/ 8.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.72 | + 3 3.7 | 1.765 | 2.548 | 16.2 | 18.9 |
| 12 13 | 7 23.35 | + 2 31.4 | 1.707 | 2.566 | 13.2 | 18.8 |
| 12 23 | 7 15.82 | + 2 18.3 | 1.672 | 2.584 | 10.2 | 18.6 |
| 1 2 | 7 6.90 | + 2 26.2 | 1.660 | 2.602 | 7.8 | 18.5 |
| 1 12 | 6 57.70 | + 2 54.7 | 1.676 | 2.620 | 7.6 | 18.6 |
| 1 22 | 6 49.32 | + 3 40.7 | 1.719 | 2.638 | 9.5 | 18.7 |
| 2 1 | 6 42.68 | + 4 39.4 | 1.787 | 2.656 | 12.2 | 18.9 |
| 2 11 | 6 38.45 | + 5 45.3 | 1.878 | 2.674 | 14.9 | 19.1 |

**226851** 2004 $SO_{50}$ 1 5.8 133.°10 1.°8/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.14 | +26 55.9 | 2.156 | 2.977 | 12.4 | 20.7 |
| 12 13 | 7 25.13 | +27 22.6 | 2.084 | 2.984 | 9.2 | 20.5 |
| 12 23 | 7 16.90 | +27 48.8 | 2.037 | 2.990 | 5.6 | 20.3 |
| 1 2 | 7 7.22 | +28 10.9 | 2.018 | 2.996 | 2.3 | 20.1 |
| 1 12 | 6 57.15 | +28 26.1 | 2.029 | 3.002 | 3.3 | 20.1 |
| 1 22 | 6 47.79 | +28 32.9 | 2.070 | 3.008 | 6.8 | 20.4 |
| 2 1 | 6 40.13 | +28 31.7 | 2.138 | 3.014 | 10.2 | 20.6 |
| 2 11 | 6 34.86 | +28 24.3 | 2.230 | 3.019 | 13.1 | 20.8 |

**39892** 1998 $FQ_{5}$ 1 5.8 191.°14 4.°9/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.44 | +34 52.7 | 2.146 | 2.956 | 12.8 | 19.9 |
| 12 13 | 7 29.42 | +35 53.1 | 2.068 | 2.955 | 9.9 | 19.7 |
| 12 23 | 7 19.69 | +36 48.5 | 2.015 | 2.953 | 7.0 | 19.5 |
| 1 2 | 7 8.04 | +37 32.1 | 1.990 | 2.950 | 5.0 | 19.4 |
| 1 12 | 6 55.74 | +37 59.0 | 1.995 | 2.947 | 5.9 | 19.4 |
| 1 22 | 6 44.18 | +38 7.4 | 2.029 | 2.942 | 8.6 | 19.6 |
| 2 1 | 6 34.59 | +37 58.9 | 2.090 | 2.938 | 11.6 | 19.8 |
| 2 11 | 6 27.84 | +37 37.6 | 2.173 | 2.932 | 14.4 | 19.9 |

**258644** 2002 $EB_{42}$ 1 5.8 359.°98 1.°9/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.47 | +18 23.1 | 1.368 | 2.213 | 16.8 | 19.8 |
| 12 13 | 7 22.56 | +18 13.4 | 1.299 | 2.210 | 12.7 | 19.5 |
| 12 23 | 7 15.76 | +18 11.9 | 1.251 | 2.208 | 7.9 | 19.3 |
| 1 2 | 7 6.96 | +18 17.3 | 1.228 | 2.207 | 3.0 | 19.0 |
| 1 12 | 6 57.57 | +18 27.6 | 1.230 | 2.208 | 3.7 | 19.0 |
| 1 22 | 6 49.10 | +18 40.7 | 1.259 | 2.210 | 8.7 | 19.3 |
| 2 1 | 6 42.86 | +18 55.1 | 1.311 | 2.213 | 13.4 | 19.6 |
| 2 11 | 6 39.72 | +19 9.3 | 1.384 | 2.217 | 17.4 | 19.8 |

**16581** 1992 $JF_{3}$ 1 5.8 215.°99 1.°1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.18 | +24 33.0 | 1.961 | 2.780 | 13.5 | 18.9 |
| 12 13 | 7 27.70 | +24 52.5 | 1.873 | 2.772 | 10.1 | 18.6 |
| 12 23 | 7 18.64 | +25 13.6 | 1.809 | 2.764 | 6.1 | 18.4 |
| 1 2 | 7 7.76 | +25 32.8 | 1.774 | 2.754 | 1.9 | 18.1 |
| 1 12 | 6 56.23 | +25 46.8 | 1.769 | 2.745 | 3.1 | 18.1 |
| 1 22 | 6 45.37 | +25 53.8 | 1.793 | 2.734 | 7.4 | 18.4 |
| 2 1 | 6 36.34 | +25 53.9 | 1.845 | 2.723 | 11.4 | 18.6 |
| 2 11 | 6 30.02 | +25 48.7 | 1.919 | 2.711 | 14.8 | 18.8 |

**170032** 2002 $VF_{21}$ 1 5.8 25.°15 1.°0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.76 | +20 33.7 | 2.046 | 2.868 | 12.9 | 19.6 |
| 12 13 | 7 23.34 | +20 15.8 | 1.971 | 2.871 | 9.6 | 19.4 |
| 12 23 | 7 15.81 | +20 0.9 | 1.920 | 2.874 | 5.9 | 19.2 |
| 1 2 | 7 6.92 | +19 47.9 | 1.898 | 2.878 | 1.9 | 18.9 |
| 1 12 | 6 57.69 | +19 36.2 | 1.904 | 2.881 | 2.7 | 19.0 |
| 1 22 | 6 49.16 | +19 25.2 | 1.940 | 2.885 | 6.6 | 19.2 |
| 2 1 | 6 42.27 | +19 15.0 | 2.003 | 2.889 | 10.3 | 19.5 |
| 2 11 | 6 37.66 | +19 5.9 | 2.090 | 2.894 | 13.4 | 19.7 |

**400846** 2010 $MR_{2}$ 1 5.8 71.°02 0.°8/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 44.16 | +24 49.8 | 1.699 | 2.509 | 15.7 | 19.8 |
| 12 13 | 7 34.40 | +23 35.9 | 1.649 | 2.543 | 11.6 | 19.6 |
| 12 23 | 7 22.14 | +22 18.9 | 1.624 | 2.576 | 6.9 | 19.4 |
| 1 2 | 7 8.57 | +20 59.6 | 1.629 | 2.609 | 2.0 | 19.2 |
| 1 12 | 6 55.22 | +19 40.4 | 1.665 | 2.642 | 3.2 | 19.3 |
| 1 22 | 6 43.45 | +18 25.3 | 1.733 | 2.674 | 7.7 | 19.7 |
| 2 1 | 6 34.25 | +17 17.4 | 1.830 | 2.706 | 11.6 | 20.0 |
| 2 11 | 6 28.13 | +16 18.8 | 1.950 | 2.738 | 14.8 | 20.3 |

**63987** 2001 $SP_{106}$ 1 5.8 46°.08 11°.4/ 7.8 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.48 | − 5 23.4 | 1.863 | 2.603 | 17.0 | 18.9 |
| 12 13 | 7 23.26 | − 6 57.2 | 1.795 | 2.605 | 14.9 | 18.8 |
| 12 23 | 7 15.85 | − 8 9.5 | 1.748 | 2.607 | 12.9 | 18.7 |
| 1 2 | 7 6.96 | − 8 54.3 | 1.724 | 2.609 | 11.6 | 18.6 |
| 1 12 | 6 57.62 | − 9 8.4 | 1.724 | 2.611 | 11.5 | 18.6 |
| 1 22 | 6 48.92 | − 8 52.6 | 1.749 | 2.613 | 12.6 | 18.6 |
| 2 1 | 6 41.84 | − 8 10.5 | 1.796 | 2.615 | 14.5 | 18.8 |
| 2 11 | 6 37.11 | − 7 9.1 | 1.864 | 2.618 | 16.6 | 18.9 |

**268140** 2004 $TD_{199}$ 1 5.8 346°.77 2°.1/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.43 | +26 36.3 | 1.754 | 2.588 | 14.2 | 20.5 |
| 12 13 | 7 24.41 | +27 8.0 | 1.678 | 2.585 | 10.6 | 20.3 |
| 12 23 | 7 16.74 | +27 40.6 | 1.625 | 2.581 | 6.5 | 20.0 |
| 1 2 | 7 7.23 | +28 9.6 | 1.600 | 2.578 | 2.6 | 19.8 |
| 1 12 | 6 57.15 | +28 30.9 | 1.602 | 2.576 | 3.8 | 19.8 |
| 1 22 | 6 47.82 | +28 42.4 | 1.632 | 2.574 | 8.0 | 20.1 |
| 2 1 | 6 40.48 | +28 44.3 | 1.688 | 2.572 | 12.0 | 20.3 |
| 2 11 | 6 35.96 | +28 38.3 | 1.766 | 2.571 | 15.4 | 20.5 |

**4262** DeVorkin 1 5.8 136°.41 1°.7/ 6.3 18 R

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.98 | +16 10.1 | 1.859 | 2.669 | 14.5 | 17.1 |
| 12 13 | 7 27.33 | +16 31.1 | 1.791 | 2.683 | 10.9 | 16.9 |
| 12 23 | 7 18.26 | +17 1.1 | 1.748 | 2.697 | 6.8 | 16.7 |
| 1 2 | 7 7.62 | +17 37.6 | 1.732 | 2.710 | 2.6 | 16.4 |
| 1 12 | 6 56.57 | +18 17.4 | 1.746 | 2.722 | 3.1 | 16.5 |
| 1 22 | 6 46.33 | +18 57.3 | 1.790 | 2.733 | 7.3 | 16.8 |
| 2 1 | 6 37.97 | +19 35.1 | 1.862 | 2.744 | 11.1 | 17.0 |
| 2 11 | 6 32.22 | +20 9.5 | 1.957 | 2.754 | 14.4 | 17.3 |

**330503** 2007 $LH_{17}$ 1 5.8 97°.57 2°.1/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.90 | +27 11.5 | 2.163 | 2.985 | 12.3 | 20.8 |
| 12 13 | 7 24.91 | +27 48.6 | 2.099 | 2.998 | 9.1 | 20.6 |
| 12 23 | 7 16.75 | +28 25.4 | 2.059 | 3.012 | 5.6 | 20.4 |
| 1 2 | 7 7.19 | +28 57.7 | 2.048 | 3.025 | 2.4 | 20.2 |
| 1 12 | 6 57.28 | +29 22.2 | 2.067 | 3.039 | 3.4 | 20.3 |
| 1 22 | 6 48.12 | +29 37.4 | 2.115 | 3.052 | 6.8 | 20.6 |
| 2 1 | 6 40.65 | +29 43.5 | 2.191 | 3.064 | 10.1 | 20.8 |
| 2 11 | 6 35.55 | +29 42.1 | 2.290 | 3.077 | 12.9 | 21.0 |

**86456** 2000 $CM_{41}$ 1 5.8 181°.32 3°.5/ 6.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.56 | +12 26.2 | 1.719 | 2.527 | 15.6 | 19.9 |
| 12 13 | 7 26.56 | +12 29.0 | 1.641 | 2.528 | 12.0 | 19.7 |
| 12 23 | 7 17.97 | +12 44.5 | 1.585 | 2.529 | 8.0 | 19.5 |
| 1 2 | 7 7.58 | +13 12.0 | 1.557 | 2.529 | 4.2 | 19.3 |
| 1 12 | 6 56.61 | +13 49.1 | 1.557 | 2.528 | 4.4 | 19.3 |
| 1 22 | 6 46.36 | +14 32.7 | 1.586 | 2.527 | 8.2 | 19.5 |
| 2 1 | 6 38.02 | +15 19.4 | 1.641 | 2.526 | 12.2 | 19.7 |
| 2 11 | 6 32.41 | +16 6.1 | 1.719 | 2.523 | 15.8 | 19.9 |

**344539** 2002 $TN_{385}$ 1 5.8 21°.89 5°.2/ 4.9 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.53 | +30 46.1 | 1.127 | 1.981 | 19.0 | 20.9 |
| 12 13 | 7 28.66 | +31 39.1 | 1.071 | 1.985 | 14.4 | 20.6 |
| 12 23 | 7 19.79 | +32 28.8 | 1.035 | 1.990 | 9.4 | 20.4 |
| 1 2 | 7 8.14 | +33 6.1 | 1.022 | 1.996 | 5.5 | 20.2 |
| 1 12 | 6 55.77 | +33 23.5 | 1.034 | 2.003 | 6.8 | 20.3 |
| 1 22 | 6 44.89 | +33 19.4 | 1.070 | 2.010 | 11.4 | 20.6 |
| 2 1 | 6 37.27 | +32 57.2 | 1.128 | 2.018 | 16.1 | 20.9 |
| 2 11 | 6 33.85 | +32 22.9 | 1.205 | 2.027 | 20.1 | 21.1 |

**415970** 2001 $XW_{224}$ 1 5.8 110°.48 6°.2/ 6.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.78 | + 6 45.9 | 2.175 | 2.949 | 13.9 | 21.0 |
| 12 13 | 7 26.65 | + 5 26.7 | 2.112 | 2.968 | 11.1 | 20.9 |
| 12 23 | 7 17.61 | + 4 18.6 | 2.074 | 2.988 | 8.4 | 20.7 |
| 1 2 | 7 7.40 | + 3 24.7 | 2.064 | 3.006 | 6.5 | 20.7 |
| 1 12 | 6 57.01 | + 2 46.9 | 2.084 | 3.024 | 6.6 | 20.7 |
| 1 22 | 6 47.39 | + 2 25.5 | 2.134 | 3.042 | 8.5 | 20.8 |
| 2 1 | 6 39.37 | + 2 19.1 | 2.211 | 3.059 | 11.1 | 21.0 |
| 2 11 | 6 33.53 | + 2 24.6 | 2.311 | 3.076 | 13.4 | 21.2 |

**215480** 2002 $RR_{230}$ 1 5.8 95°.43 1°.0/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.19 | +23 48.7 | 1.765 | 2.591 | 14.5 | 21.0 |
| 12 13 | 7 26.90 | +24 15.7 | 1.704 | 2.607 | 10.7 | 20.8 |
| 12 23 | 7 18.05 | +24 45.1 | 1.667 | 2.623 | 6.4 | 20.6 |
| 1 2 | 7 7.57 | +25 12.8 | 1.658 | 2.638 | 1.9 | 20.3 |
| 1 12 | 6 56.72 | +25 35.2 | 1.677 | 2.654 | 3.2 | 20.5 |
| 1 22 | 6 46.83 | +25 50.6 | 1.726 | 2.669 | 7.5 | 20.8 |
| 2 1 | 6 39.00 | +25 58.8 | 1.801 | 2.684 | 11.4 | 21.0 |
| 2 11 | 6 33.96 | +26 1.1 | 1.899 | 2.698 | 14.7 | 21.3 |

**279934** 2001 $SD_{42}$ 1 5.8 99°.68 0°.4/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.24 | +20 33.8 | 2.477 | 3.291 | 11.2 | 21.4 |
| 12 13 | 7 22.60 | +20 44.8 | 2.410 | 3.306 | 8.3 | 21.2 |
| 12 23 | 7 15.22 | +20 59.1 | 2.368 | 3.321 | 5.0 | 21.0 |
| 1 2 | 7 6.76 | +21 14.8 | 2.355 | 3.336 | 1.5 | 20.8 |
| 1 12 | 6 58.04 | +21 30.3 | 2.373 | 3.351 | 2.2 | 20.9 |
| 1 22 | 6 49.93 | +21 44.2 | 2.422 | 3.365 | 5.6 | 21.1 |
| 2 1 | 6 43.18 | +21 55.8 | 2.499 | 3.379 | 8.7 | 21.3 |
| 2 11 | 6 38.36 | +22 4.9 | 2.600 | 3.393 | 11.3 | 21.5 |

**35179** 1993 $TK_{28}$ 1 5.8 150°.19 1°.2/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.10 | +24 33.6 | 2.000 | 2.816 | 13.4 | 19.5 |
| 12 13 | 7 28.15 | +25 2.7 | 1.929 | 2.827 | 9.9 | 19.3 |
| 12 23 | 7 18.77 | +25 33.3 | 1.883 | 2.837 | 6.0 | 19.1 |
| 1 2 | 7 7.78 | +26 1.5 | 1.866 | 2.846 | 1.9 | 18.9 |
| 1 12 | 6 56.37 | +26 23.7 | 1.879 | 2.854 | 3.1 | 19.0 |
| 1 22 | 6 45.77 | +26 38.2 | 1.922 | 2.862 | 7.1 | 19.2 |
| 2 1 | 6 37.06 | +26 45.1 | 1.993 | 2.869 | 10.8 | 19.5 |
| 2 11 | 6 30.98 | +26 45.9 | 2.087 | 2.875 | 14.0 | 19.7 |

**417108** 2005 $UX_{425}$ 1 5.8 309°.51 5°.9/ 3.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.63 | +34 12.1 | 1.682 | 2.514 | 14.8 | 20.7 |
| 12 13 | 7 26.71 | +35 21.8 | 1.593 | 2.492 | 11.5 | 20.4 |
| 12 23 | 7 18.53 | +36 28.6 | 1.527 | 2.471 | 8.2 | 20.2 |
| 1 2 | 7 7.85 | +37 24.4 | 1.487 | 2.450 | 6.0 | 20.0 |
| 1 12 | 6 56.11 | +38 1.7 | 1.474 | 2.429 | 7.1 | 20.0 |
| 1 22 | 6 45.00 | +38 17.0 | 1.488 | 2.409 | 10.5 | 20.1 |
| 2 1 | 6 36.15 | +38 11.0 | 1.525 | 2.389 | 14.3 | 20.3 |
| 2 11 | 6 30.73 | +37 48.5 | 1.583 | 2.369 | 17.7 | 20.5 |

**132458** 2002 $HJ_{6}$ 1 5.8 233°.89 1°.2/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.07 | +19 54.7 | 1.867 | 2.685 | 14.1 | 20.3 |
| 12 13 | 7 26.91 | +19 41.6 | 1.778 | 2.675 | 10.6 | 20.1 |
| 12 23 | 7 18.18 | +19 32.3 | 1.712 | 2.665 | 6.6 | 19.8 |
| 1 2 | 7 7.67 | +19 25.5 | 1.674 | 2.654 | 2.2 | 19.5 |
| 1 12 | 6 56.53 | +19 19.9 | 1.665 | 2.642 | 3.1 | 19.5 |
| 1 22 | 6 46.05 | +19 14.7 | 1.686 | 2.630 | 7.6 | 19.8 |
| 2 1 | 6 37.40 | +19 9.7 | 1.733 | 2.617 | 11.7 | 20.0 |
| 2 11 | 6 31.43 | +19 5.4 | 1.804 | 2.604 | 15.3 | 20.2 |

**412543** 2014 $MJ_{64}$ 1 5.8 62°.03 5°.6/ 8.1 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.67 | + 5 34.1 | 1.580 | 2.376 | 17.2 | 20.9 |
| 12 13 | 7 25.01 | + 5 58.8 | 1.527 | 2.401 | 13.6 | 20.7 |
| 12 23 | 7 16.90 | + 6 44.6 | 1.496 | 2.425 | 9.7 | 20.5 |
| 1 2 | 7 7.26 | + 7 50.2 | 1.490 | 2.450 | 6.3 | 20.4 |
| 1 12 | 6 57.31 | + 9 11.3 | 1.512 | 2.475 | 5.9 | 20.4 |
| 1 22 | 6 48.31 | +10 41.5 | 1.562 | 2.500 | 8.7 | 20.6 |
| 2 1 | 6 41.32 | +12 14.4 | 1.639 | 2.525 | 12.2 | 20.9 |
| 2 11 | 6 37.02 | +13 44.3 | 1.739 | 2.549 | 15.4 | 21.2 |

**403534** 2010 $GZ_{29}$ 1 5.8 233°.41 1°.2/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.86 | +24 15.1 | 1.792 | 2.616 | 14.4 | 22.4 |
| 12 13 | 7 27.76 | +24 43.6 | 1.703 | 2.605 | 10.8 | 22.1 |
| 12 23 | 7 18.84 | +25 15.1 | 1.639 | 2.594 | 6.5 | 21.8 |
| 1 2 | 7 7.89 | +25 45.3 | 1.602 | 2.583 | 2.1 | 21.5 |
| 1 12 | 6 56.16 | +26 10.2 | 1.594 | 2.570 | 3.4 | 21.6 |
| 1 22 | 6 45.10 | +26 27.2 | 1.616 | 2.558 | 8.0 | 21.8 |
| 2 1 | 6 36.01 | +26 35.9 | 1.663 | 2.544 | 12.3 | 22.1 |
| 2 11 | 6 29.85 | +26 37.8 | 1.734 | 2.531 | 16.0 | 22.3 |

**348505** 2005 $TE_{106}$ 1 5.8 16°.97 5°.1/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.04 | +32 22.0 | 1.349 | 2.188 | 17.3 | 20.2 |
| 12 13 | 7 30.15 | +33 3.5 | 1.283 | 2.189 | 13.2 | 19.9 |
| 12 23 | 7 20.55 | +33 39.7 | 1.239 | 2.190 | 8.8 | 19.7 |
| 1 2 | 7 8.39 | +34 2.5 | 1.219 | 2.191 | 5.4 | 19.5 |
| 1 12 | 6 55.50 | +34 6.0 | 1.226 | 2.192 | 6.5 | 19.5 |
| 1 22 | 6 43.91 | +33 49.3 | 1.258 | 2.193 | 10.6 | 19.8 |
| 2 1 | 6 35.26 | +33 16.0 | 1.314 | 2.194 | 15.0 | 20.0 |
| 2 11 | 6 30.52 | +32 32.3 | 1.390 | 2.196 | 18.7 | 20.3 |

**272651** 2005 $WX_{147}$ 1 5.8 254°.78 1°.7/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.71 | +26 2.6 | 2.097 | 2.920 | 12.6 | 21.0 |
| 12 13 | 7 25.08 | +26 33.5 | 2.008 | 2.908 | 9.4 | 20.8 |
| 12 23 | 7 17.08 | +27 5.6 | 1.942 | 2.897 | 5.8 | 20.5 |
| 1 2 | 7 7.38 | +27 35.1 | 1.905 | 2.885 | 2.2 | 20.3 |
| 1 12 | 6 57.07 | +27 58.4 | 1.898 | 2.872 | 3.3 | 20.3 |
| 1 22 | 6 47.30 | +28 13.5 | 1.920 | 2.860 | 7.2 | 20.5 |
| 2 1 | 6 39.18 | +28 20.0 | 1.970 | 2.847 | 10.9 | 20.7 |
| 2 11 | 6 33.54 | +28 19.3 | 2.042 | 2.834 | 14.1 | 20.9 |

**447760** 2007 $JH_{24}$ 1 5.8 241°.29 3°.8/ 6.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.63 | +11 5.4 | 1.731 | 2.537 | 15.6 | 21.7 |
| 12 13 | 7 26.06 | +11 20.7 | 1.639 | 2.525 | 12.1 | 21.4 |
| 12 23 | 7 17.83 | +11 51.4 | 1.570 | 2.512 | 8.2 | 21.2 |
| 1 2 | 7 7.63 | +12 36.8 | 1.527 | 2.499 | 4.5 | 20.9 |
| 1 12 | 6 56.62 | +13 34.1 | 1.513 | 2.485 | 4.5 | 20.9 |
| 1 22 | 6 46.13 | +14 39.0 | 1.528 | 2.470 | 8.4 | 21.1 |
| 2 1 | 6 37.41 | +15 47.0 | 1.570 | 2.456 | 12.6 | 21.3 |
| 2 11 | 6 31.44 | +16 54.0 | 1.634 | 2.440 | 16.4 | 21.5 |

**487852** 2015 $TA_{104}$ 1 5.8 96°.09 3°.2/ 6.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.95 | +12 45.5 | 1.666 | 2.474 | 16.0 | 21.4 |
| 12 13 | 7 27.35 | +12 56.3 | 1.611 | 2.499 | 12.1 | 21.3 |
| 12 23 | 7 18.28 | +13 19.7 | 1.579 | 2.523 | 7.9 | 21.1 |
| 1 2 | 7 7.67 | +13 54.0 | 1.574 | 2.547 | 4.0 | 20.9 |
| 1 12 | 6 56.78 | +14 36.0 | 1.598 | 2.570 | 4.1 | 20.9 |
| 1 22 | 6 46.89 | +15 22.0 | 1.650 | 2.593 | 7.9 | 21.2 |
| 2 1 | 6 39.05 | +16 8.8 | 1.730 | 2.615 | 11.7 | 21.5 |
| 2 11 | 6 33.96 | +16 53.8 | 1.832 | 2.636 | 15.0 | 21.8 |

**205870** 2002 $EC_{104}$ 1 5.8 230°.66 2°.8/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.27 | +13 10.0 | 2.004 | 2.807 | 13.8 | 20.8 |
| 12 13 | 7 25.47 | +13 25.4 | 1.909 | 2.795 | 10.6 | 20.6 |
| 12 23 | 7 17.32 | +13 52.3 | 1.839 | 2.783 | 7.0 | 20.4 |
| 1 2 | 7 7.48 | +14 29.6 | 1.796 | 2.770 | 3.5 | 20.1 |
| 1 12 | 6 56.95 | +15 14.8 | 1.783 | 2.756 | 3.7 | 20.1 |
| 1 22 | 6 46.89 | +16 4.5 | 1.800 | 2.741 | 7.4 | 20.3 |
| 2 1 | 6 38.38 | +16 55.8 | 1.844 | 2.726 | 11.2 | 20.5 |
| 2 11 | 6 32.27 | +17 46.0 | 1.913 | 2.711 | 14.6 | 20.7 |

**258887** 2002 $QV_{61}$ 1 5.8 88°.10 1°.1/ 6.0 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.68 | +19 52.6 | 1.700 | 2.524 | 15.0 | 20.9 |
| 12 13 | 7 26.52 | +19 46.9 | 1.637 | 2.538 | 11.2 | 20.7 |
| 12 23 | 7 17.85 | +19 46.1 | 1.598 | 2.552 | 6.8 | 20.5 |
| 1 2 | 7 7.57 | +19 48.5 | 1.586 | 2.566 | 2.2 | 20.2 |
| 1 12 | 6 56.96 | +19 52.0 | 1.603 | 2.580 | 3.1 | 20.3 |
| 1 22 | 6 47.31 | +19 55.5 | 1.648 | 2.593 | 7.5 | 20.6 |
| 2 1 | 6 39.72 | +19 58.6 | 1.719 | 2.607 | 11.6 | 20.9 |
| 2 11 | 6 34.89 | +20 1.1 | 1.813 | 2.620 | 15.0 | 21.1 |

**31605** Braschi 1 5.8 129°.83 3°.5/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.40 | +31 3.2 | 2.057 | 2.877 | 12.9 | 18.6 |
| 12 13 | 7 27.01 | +31 44.4 | 1.989 | 2.886 | 9.7 | 18.4 |
| 12 23 | 7 18.15 | +32 22.3 | 1.946 | 2.894 | 6.3 | 18.2 |
| 1 2 | 7 7.67 | +32 51.8 | 1.930 | 2.902 | 3.7 | 18.1 |
| 1 12 | 6 56.75 | +33 9.1 | 1.945 | 2.910 | 4.6 | 18.2 |
| 1 22 | 6 46.65 | +33 12.9 | 1.988 | 2.917 | 7.7 | 18.4 |
| 2 1 | 6 38.47 | +33 4.6 | 2.058 | 2.924 | 11.0 | 18.6 |
| 2 11 | 6 32.94 | +32 47.1 | 2.151 | 2.931 | 13.8 | 18.8 |

**368098** 2013 $BP_{70}$ 1 5.8 291°.70 0°.9/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.75 | +18 3.1 | 1.515 | 2.347 | 16.1 | 20.8 |
| 12 13 | 7 25.72 | +18 33.9 | 1.436 | 2.340 | 12.2 | 20.6 |
| 12 23 | 7 17.75 | +19 15.6 | 1.378 | 2.334 | 7.5 | 20.3 |
| 1 2 | 7 7.64 | +20 4.7 | 1.347 | 2.327 | 2.4 | 19.9 |
| 1 12 | 6 56.74 | +20 56.5 | 1.343 | 2.321 | 3.3 | 20.0 |
| 1 22 | 6 46.56 | +21 46.5 | 1.366 | 2.315 | 8.5 | 20.3 |
| 2 1 | 6 38.51 | +22 31.5 | 1.415 | 2.308 | 13.2 | 20.5 |
| 2 11 | 6 33.56 | +23 10.2 | 1.486 | 2.302 | 17.2 | 20.8 |

**448273** 2008 $YJ_{108}$ 1 5.8 20°.32 0°.3/ 5.7 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.65 | +21 34.6 | 1.171 | 2.024 | 18.5 | 20.9 |
| 12 13 | 7 25.34 | +21 58.8 | 1.113 | 2.030 | 13.7 | 20.7 |
| 12 23 | 7 17.63 | +22 30.3 | 1.077 | 2.037 | 8.3 | 20.4 |
| 1 2 | 7 7.58 | +23 4.5 | 1.063 | 2.045 | 2.3 | 20.0 |
| 1 12 | 6 56.94 | +23 36.2 | 1.075 | 2.054 | 3.8 | 20.2 |
| 1 22 | 6 47.52 | +24 1.9 | 1.112 | 2.064 | 9.5 | 20.5 |
| 2 1 | 6 40.83 | +24 20.2 | 1.172 | 2.075 | 14.6 | 20.8 |
| 2 11 | 6 37.76 | +24 31.8 | 1.252 | 2.086 | 18.8 | 21.1 |

**321370** 2009 $OA_{6}$ 1 5.8 186°.17 2°.6/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.93 | +30 41.9 | 2.223 | 3.036 | 12.3 | 21.2 |
| 12 13 | 7 27.95 | +30 49.5 | 2.142 | 3.036 | 9.3 | 21.0 |
| 12 23 | 7 18.64 | +30 52.6 | 2.086 | 3.035 | 5.9 | 20.8 |
| 1 2 | 7 7.81 | +30 47.7 | 2.059 | 3.034 | 2.9 | 20.6 |
| 1 12 | 6 56.58 | +30 32.7 | 2.063 | 3.033 | 3.7 | 20.6 |
| 1 22 | 6 46.13 | +30 7.5 | 2.097 | 3.031 | 7.0 | 20.8 |
| 2 1 | 6 37.50 | +29 34.1 | 2.158 | 3.028 | 10.4 | 21.0 |
| 2 11 | 6 31.39 | +28 55.7 | 2.244 | 3.025 | 13.3 | 21.2 |

**440461** 2005 $SY_{175}$ 1 5.8 117°.26 1°.6/ 6.1 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.41 | +18 35.5 | 1.570 | 2.392 | 16.1 | 21.8 |
| 12 13 | 7 28.72 | +18 27.9 | 1.507 | 2.406 | 12.1 | 21.6 |
| 12 23 | 7 19.25 | +18 26.9 | 1.467 | 2.420 | 7.4 | 21.4 |
| 1 2 | 7 7.98 | +18 30.6 | 1.454 | 2.433 | 2.7 | 21.1 |
| 1 12 | 6 56.35 | +18 37.0 | 1.470 | 2.446 | 3.5 | 21.2 |
| 1 22 | 6 45.77 | +18 44.5 | 1.513 | 2.459 | 8.1 | 21.5 |
| 2 1 | 6 37.47 | +18 52.5 | 1.583 | 2.470 | 12.4 | 21.8 |
| 2 11 | 6 32.19 | +19 0.3 | 1.675 | 2.482 | 16.0 | 22.1 |

**52771** 1998 $PX$ 1 5.8 81°.20 2°.9/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.01 | +28 20.0 | 1.370 | 2.205 | 17.3 | 19.1 |
| 12 13 | 7 31.07 | +28 45.1 | 1.319 | 2.225 | 12.9 | 18.9 |
| 12 23 | 7 20.79 | +29 7.5 | 1.290 | 2.245 | 8.0 | 18.7 |
| 1 2 | 7 8.41 | +29 21.5 | 1.286 | 2.264 | 3.5 | 18.5 |
| 1 12 | 6 55.73 | +29 22.8 | 1.310 | 2.283 | 4.7 | 18.6 |
| 1 22 | 6 44.52 | +29 11.3 | 1.361 | 2.303 | 9.3 | 18.9 |
| 2 1 | 6 36.17 | +28 49.6 | 1.437 | 2.321 | 13.6 | 19.2 |
| 2 11 | 6 31.42 | +28 21.9 | 1.534 | 2.340 | 17.3 | 19.5 |

**163526** 2002 $TP_{38}$ 1 5.8 114°.32 4°.2/ 4.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.92 | +34 53.0 | 2.465 | 3.276 | 11.3 | 19.6 |
| 12 13 | 7 25.63 | +35 39.7 | 2.400 | 3.288 | 8.7 | 19.5 |
| 12 23 | 7 17.22 | +36 20.9 | 2.361 | 3.300 | 6.0 | 19.3 |
| 1 2 | 7 7.42 | +36 51.8 | 2.350 | 3.311 | 4.3 | 19.2 |
| 1 12 | 6 57.25 | +37 9.3 | 2.369 | 3.322 | 5.0 | 19.3 |
| 1 22 | 6 47.80 | +37 12.3 | 2.417 | 3.333 | 7.3 | 19.5 |
| 2 1 | 6 40.00 | +37 2.3 | 2.492 | 3.343 | 9.9 | 19.6 |
| 2 11 | 6 34.52 | +36 42.3 | 2.591 | 3.354 | 12.2 | 19.8 |

**186471** 2002 $TN_{49}$ 1 5.8 132°.99 3°.4/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.41 | +13 21.5 | 1.822 | 2.624 | 15.1 | 20.6 |
| 12 13 | 7 28.33 | +13 9.0 | 1.757 | 2.642 | 11.5 | 20.4 |
| 12 23 | 7 18.86 | +13 6.6 | 1.716 | 2.658 | 7.6 | 20.2 |
| 1 2 | 7 7.87 | +13 13.7 | 1.702 | 2.674 | 4.0 | 20.1 |
| 1 12 | 6 56.56 | +13 28.9 | 1.719 | 2.689 | 4.2 | 20.1 |
| 1 22 | 6 46.15 | +13 50.2 | 1.764 | 2.703 | 7.7 | 20.3 |
| 2 1 | 6 37.67 | +14 15.4 | 1.837 | 2.716 | 11.4 | 20.6 |
| 2 11 | 6 31.83 | +14 42.5 | 1.934 | 2.728 | 14.6 | 20.8 |

**227558** 2005 $YQ_{182}$ 1 5.8 322°.05 1°.9/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.96 | +19 56.4 | 1.694 | 2.524 | 14.8 | 19.5 |
| 12 13 | 7 24.81 | +19 16.3 | 1.606 | 2.509 | 11.2 | 19.2 |
| 12 23 | 7 17.04 | +18 38.5 | 1.541 | 2.495 | 7.0 | 18.9 |
| 1 2 | 7 7.43 | +18 3.0 | 1.503 | 2.482 | 2.7 | 18.6 |
| 1 12 | 6 57.20 | +17 30.1 | 1.493 | 2.469 | 3.6 | 18.7 |
| 1 22 | 6 47.69 | +17 0.7 | 1.511 | 2.457 | 8.1 | 18.9 |
| 2 1 | 6 40.09 | +16 35.5 | 1.554 | 2.445 | 12.4 | 19.1 |
| 2 11 | 6 35.28 | +16 14.9 | 1.620 | 2.433 | 16.2 | 19.4 |

**346866** 2009 $FX_{14}$ 1 5.8 323°.13 6°.4/ 8.0 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.74 | + 2 46.5 | 2.221 | 2.995 | 13.6 | 20.7 |
| 12 13 | 7 20.32 | + 2 28.3 | 2.135 | 2.988 | 11.2 | 20.5 |
| 12 23 | 7 14.07 | + 2 26.1 | 2.071 | 2.980 | 8.7 | 20.3 |
| 1 2 | 7 6.56 | + 2 41.5 | 2.034 | 2.973 | 6.8 | 20.2 |
| 1 12 | 6 58.62 | + 3 14.5 | 2.024 | 2.967 | 6.5 | 20.2 |
| 1 22 | 6 51.12 | + 4 2.9 | 2.042 | 2.960 | 8.2 | 20.3 |
| 2 1 | 6 44.89 | + 5 3.1 | 2.086 | 2.954 | 10.8 | 20.4 |
| 2 11 | 6 40.58 | + 6 10.6 | 2.154 | 2.948 | 13.4 | 20.6 |

**491388** 2012 $CQ_{12}$ 1 5.8 175°.50 1°.7/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.06 | +15 50.0 | 2.112 | 2.921 | 13.0 | 21.6 |
| 12 13 | 7 24.36 | +16 10.8 | 2.031 | 2.923 | 9.8 | 21.4 |
| 12 23 | 7 16.53 | +16 40.2 | 1.975 | 2.924 | 6.2 | 21.2 |
| 1 2 | 7 7.26 | +17 16.4 | 1.948 | 2.925 | 2.5 | 21.0 |
| 1 12 | 6 57.51 | +17 56.6 | 1.950 | 2.926 | 2.9 | 21.0 |
| 1 22 | 6 48.33 | +18 37.9 | 1.982 | 2.926 | 6.6 | 21.2 |
| 2 1 | 6 40.68 | +19 18.1 | 2.043 | 2.926 | 10.2 | 21.4 |
| 2 11 | 6 35.28 | +19 55.6 | 2.127 | 2.925 | 13.4 | 21.6 |

**456717** 2007 $RV_{295}$ 1 5.8 129°.63 3°.5/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.94 | +30 4.8 | 1.822 | 2.644 | 14.2 | 21.8 |
| 12 13 | 7 29.12 | +30 49.6 | 1.757 | 2.655 | 10.7 | 21.6 |
| 12 23 | 7 19.53 | +31 31.6 | 1.717 | 2.667 | 6.9 | 21.4 |
| 1 2 | 7 8.10 | +32 5.0 | 1.704 | 2.677 | 3.7 | 21.2 |
| 1 12 | 6 56.20 | +32 25.2 | 1.720 | 2.687 | 4.7 | 21.3 |
| 1 22 | 6 45.28 | +32 30.9 | 1.765 | 2.697 | 8.3 | 21.6 |
| 2 1 | 6 36.56 | +32 23.6 | 1.837 | 2.706 | 11.9 | 21.8 |
| 2 11 | 6 30.84 | +32 6.7 | 1.931 | 2.715 | 15.0 | 22.0 |

**301603** 2010 $CP_{146}$ 1 5.8 223°.56 3°.2/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.90 | +29 23.2 | 1.605 | 2.435 | 15.5 | 20.8 |
| 12 13 | 7 29.56 | +29 48.5 | 1.528 | 2.430 | 11.7 | 20.6 |
| 12 23 | 7 20.04 | +30 11.4 | 1.473 | 2.426 | 7.4 | 20.3 |
| 1 2 | 7 8.30 | +30 26.0 | 1.444 | 2.421 | 3.6 | 20.1 |
| 1 12 | 6 55.85 | +30 28.1 | 1.444 | 2.415 | 4.7 | 20.1 |
| 1 22 | 6 44.36 | +30 16.4 | 1.472 | 2.410 | 9.0 | 20.4 |
| 2 1 | 6 35.29 | +29 53.1 | 1.524 | 2.404 | 13.3 | 20.6 |
| 2 11 | 6 29.58 | +29 22.2 | 1.599 | 2.398 | 17.0 | 20.8 |

**345065** 2005 $GU_{204}$ 1 5.8 180°.86 6°.7/ 8.5 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.07 | − 6 23.3 | 3.547 | 4.243 | 10.3 | 22.7 |
| 12 13 | 7 19.88 | − 7 5.1 | 3.465 | 4.244 | 9.0 | 22.6 |
| 12 23 | 7 13.51 | − 7 33.7 | 3.406 | 4.245 | 7.7 | 22.6 |
| 1 2 | 7 6.37 | − 7 46.9 | 3.373 | 4.245 | 6.9 | 22.5 |
| 1 12 | 6 58.99 | − 7 44.2 | 3.368 | 4.244 | 6.8 | 22.5 |
| 1 22 | 6 51.92 | − 7 25.9 | 3.391 | 4.243 | 7.4 | 22.5 |
| 2 1 | 6 45.67 | − 6 54.1 | 3.441 | 4.242 | 8.6 | 22.6 |
| 2 11 | 6 40.66 | − 6 11.6 | 3.514 | 4.239 | 9.9 | 22.7 |

**379096** 2008 $YD$ 1 5.8 69°.40 3°.0/ 4.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.13 | +28 37.0 | 2.052 | 2.876 | 12.8 | 20.4 |
| 12 13 | 7 25.28 | +29 38.7 | 1.994 | 2.894 | 9.5 | 20.2 |
| 12 23 | 7 17.11 | +30 39.5 | 1.961 | 2.912 | 6.0 | 20.1 |
| 1 2 | 7 7.42 | +31 33.9 | 1.955 | 2.929 | 3.2 | 19.9 |
| 1 12 | 6 57.33 | +32 17.5 | 1.980 | 2.947 | 4.2 | 20.0 |
| 1 22 | 6 48.02 | +32 47.9 | 2.034 | 2.965 | 7.4 | 20.2 |
| 2 1 | 6 40.52 | +33 5.3 | 2.114 | 2.982 | 10.6 | 20.5 |
| 2 11 | 6 35.54 | +33 11.8 | 2.218 | 3.000 | 13.4 | 20.7 |

**234880** 2002 $TK_{43}$ 1 5.8 85°.97 4°.5/ 6.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.35 | + 9 10.9 | 2.266 | 3.059 | 12.8 | 20.2 |
| 12 13 | 7 22.07 | + 8 40.1 | 2.196 | 3.069 | 10.1 | 20.0 |
| 12 23 | 7 15.00 | + 8 19.8 | 2.149 | 3.078 | 7.2 | 19.8 |
| 1 2 | 7 6.81 | + 8 11.2 | 2.130 | 3.088 | 4.9 | 19.7 |
| 1 12 | 6 58.33 | + 8 14.0 | 2.140 | 3.098 | 4.9 | 19.7 |
| 1 22 | 6 50.44 | + 8 27.1 | 2.178 | 3.108 | 7.1 | 19.9 |
| 2 1 | 6 43.92 | + 8 48.5 | 2.244 | 3.117 | 9.9 | 20.1 |
| 2 11 | 6 39.35 | + 9 15.7 | 2.334 | 3.127 | 12.5 | 20.3 |

**36448** 2000 $QE_2$ 1 5.8 154.°82 14.°2/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 57.06 | +51 22.8 | 1.235 | 2.025 | 21.5 | 19.1 |
| 12 13 | 7 47.51 | +52 36.6 | 1.181 | 2.030 | 18.5 | 19.0 |
| 12 23 | 7 31.69 | +53 23.0 | 1.145 | 2.034 | 15.8 | 18.8 |
| 1 2 | 7 11.59 | +53 24.4 | 1.130 | 2.038 | 14.3 | 18.7 |
| 1 12 | 6 50.90 | +52 31.5 | 1.137 | 2.041 | 14.6 | 18.7 |
| 1 22 | 6 33.35 | +50 49.1 | 1.168 | 2.044 | 16.7 | 18.9 |
| 2 1 | 6 21.37 | +48 32.7 | 1.219 | 2.046 | 19.6 | 19.1 |
| 2 11 | 6 15.62 | +46 0.4 | 1.289 | 2.047 | 22.4 | 19.3 |

**192514** 1998 $RP_{12}$ 1 5.8 85.°78 1.°2/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.87 | +18 28.4 | 2.090 | 2.908 | 12.8 | 20.8 |
| 12 13 | 7 23.42 | +18 32.0 | 2.019 | 2.916 | 9.6 | 20.6 |
| 12 23 | 7 15.92 | +18 41.2 | 1.972 | 2.924 | 5.9 | 20.4 |
| 1 2 | 7 7.09 | +18 54.4 | 1.953 | 2.933 | 2.1 | 20.1 |
| 1 12 | 6 57.91 | +19 9.7 | 1.964 | 2.941 | 2.7 | 20.2 |
| 1 22 | 6 49.40 | +19 25.5 | 2.004 | 2.949 | 6.5 | 20.5 |
| 2 1 | 6 42.47 | +19 40.8 | 2.072 | 2.957 | 10.0 | 20.7 |
| 2 11 | 6 37.76 | +19 54.8 | 2.163 | 2.966 | 13.0 | 20.9 |

**417081** 2005 $UM_{260}$ 1 5.8 149.°34 2.°3/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | +15 16.1 | 2.266 | 3.071 | 12.4 | 22.3 |
| 12 13 | 7 24.10 | +15 11.0 | 2.191 | 3.078 | 9.4 | 22.1 |
| 12 23 | 7 16.27 | +15 12.9 | 2.140 | 3.086 | 6.0 | 21.9 |
| 1 2 | 7 7.18 | +15 21.0 | 2.118 | 3.092 | 2.9 | 21.7 |
| 1 12 | 6 57.76 | +15 34.3 | 2.126 | 3.099 | 3.1 | 21.7 |
| 1 22 | 6 48.95 | +15 51.0 | 2.164 | 3.105 | 6.4 | 21.9 |
| 2 1 | 6 41.58 | +16 9.9 | 2.230 | 3.110 | 9.6 | 22.1 |
| 2 11 | 6 36.30 | +16 29.6 | 2.321 | 3.115 | 12.5 | 22.3 |

**116337** 2003 $YF_{77}$ 1 5.8 47.°64 1.°4/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.20 | +24 43.5 | 1.485 | 2.324 | 16.1 | 19.2 |
| 12 13 | 7 26.69 | +25 6.7 | 1.424 | 2.333 | 11.9 | 18.9 |
| 12 23 | 7 18.21 | +25 32.0 | 1.385 | 2.342 | 7.2 | 18.7 |
| 1 2 | 7 7.77 | +25 54.9 | 1.371 | 2.352 | 2.3 | 18.4 |
| 1 12 | 6 56.85 | +26 11.3 | 1.385 | 2.362 | 3.7 | 18.5 |
| 1 22 | 6 47.00 | +26 19.5 | 1.426 | 2.372 | 8.5 | 18.8 |
| 2 1 | 6 39.52 | +26 19.8 | 1.493 | 2.382 | 12.9 | 19.1 |
| 2 11 | 6 35.22 | +26 14.1 | 1.580 | 2.393 | 16.5 | 19.4 |

**337576** 2001 $SQ_{317}$ 1 5.8 128.°45 5.°7/ 3.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.39 | +42 27.9 | 2.865 | 3.652 | 10.5 | 21.7 |
| 12 13 | 7 27.37 | +43 18.7 | 2.804 | 3.666 | 8.5 | 21.5 |
| 12 23 | 7 18.23 | +44 0.0 | 2.769 | 3.680 | 6.7 | 21.4 |
| 1 2 | 7 7.73 | +44 26.9 | 2.762 | 3.693 | 5.7 | 21.4 |
| 1 12 | 6 56.90 | +44 36.5 | 2.785 | 3.706 | 6.2 | 21.4 |
| 1 22 | 6 46.81 | +44 28.5 | 2.836 | 3.718 | 7.7 | 21.6 |
| 2 1 | 6 38.38 | +44 5.1 | 2.914 | 3.730 | 9.6 | 21.7 |
| 2 11 | 6 32.26 | +43 29.9 | 3.015 | 3.741 | 11.4 | 21.9 |

**25259** Lucarnold 1 5.8 132.°28 0.°3/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.24 | +22 44.9 | 2.211 | 3.031 | 12.1 | 19.4 |
| 12 13 | 7 23.70 | +22 57.5 | 2.134 | 3.034 | 9.0 | 19.2 |
| 12 23 | 7 16.10 | +23 12.4 | 2.082 | 3.037 | 5.4 | 18.9 |
| 1 2 | 7 7.15 | +23 27.4 | 2.058 | 3.039 | 1.5 | 18.7 |
| 1 12 | 6 57.82 | +23 40.2 | 2.065 | 3.042 | 2.5 | 18.8 |
| 1 22 | 6 49.10 | +23 49.4 | 2.101 | 3.045 | 6.3 | 19.0 |
| 2 1 | 6 41.93 | +23 54.6 | 2.165 | 3.047 | 9.8 | 19.2 |
| 2 11 | 6 36.95 | +23 56.4 | 2.253 | 3.050 | 12.7 | 19.4 |

**421103** 2013 $QM_{65}$ 1 5.8 80.°54 0.°7/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.64 | +22 34.0 | 2.019 | 2.842 | 13.0 | 21.0 |
| 12 13 | 7 24.16 | +23 8.0 | 1.949 | 2.851 | 9.6 | 20.8 |
| 12 23 | 7 16.45 | +23 45.7 | 1.904 | 2.859 | 5.8 | 20.5 |
| 1 2 | 7 7.26 | +24 23.6 | 1.887 | 2.868 | 1.7 | 20.3 |
| 1 12 | 6 57.65 | +24 58.2 | 1.899 | 2.876 | 2.8 | 20.4 |
| 1 22 | 6 48.73 | +25 27.1 | 1.941 | 2.885 | 6.8 | 20.6 |
| 2 1 | 6 41.51 | +25 49.3 | 2.010 | 2.893 | 10.4 | 20.9 |
| 2 11 | 6 36.67 | +26 5.1 | 2.103 | 2.901 | 13.5 | 21.1 |

**430280** 2013 $WL_{56}$ 1 5.8 74.°83 3.°4/ 4.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.20 | +30 56.1 | 2.240 | 3.061 | 12.0 | 20.6 |
| 12 13 | 7 24.54 | +31 49.0 | 2.173 | 3.070 | 9.0 | 20.4 |
| 12 23 | 7 16.67 | +32 39.4 | 2.131 | 3.079 | 5.9 | 20.3 |
| 1 2 | 7 7.32 | +33 22.4 | 2.118 | 3.088 | 3.6 | 20.1 |
| 1 12 | 6 57.55 | +33 54.1 | 2.134 | 3.097 | 4.4 | 20.2 |
| 1 22 | 6 48.45 | +34 12.8 | 2.179 | 3.106 | 7.3 | 20.4 |
| 2 1 | 6 41.03 | +34 18.9 | 2.252 | 3.115 | 10.3 | 20.6 |
| 2 11 | 6 35.98 | +34 14.7 | 2.348 | 3.124 | 12.9 | 20.8 |

**340645** 2006 $QX_{167}$ 1 5.8 264.°97 8.°7/ 2.8 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 40.80 | +51 28.4 | 2.615 | 3.371 | 12.2 | 20.4 |
| 12 13 | 7 32.99 | +52 25.7 | 2.528 | 3.351 | 10.6 | 20.2 |
| 12 23 | 7 22.06 | +53 8.5 | 2.465 | 3.331 | 9.3 | 20.1 |
| 1 2 | 7 8.89 | +53 29.2 | 2.427 | 3.310 | 8.7 | 20.0 |
| 1 12 | 6 54.97 | +53 23.3 | 2.416 | 3.289 | 9.2 | 20.0 |
| 1 22 | 6 41.94 | +52 50.1 | 2.431 | 3.268 | 10.5 | 20.1 |
| 2 1 | 6 31.26 | +51 53.1 | 2.470 | 3.246 | 12.3 | 20.2 |
| 2 11 | 6 23.86 | +50 38.8 | 2.531 | 3.224 | 14.1 | 20.3 |

**492149** 2013 $OA_{10}$ 1 5.8 194.°32 5.°5/ 8.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.48 | + 2 46.5 | 2.549 | 3.307 | 12.5 | 21.7 |
| 12 13 | 7 22.85 | + 2 44.6 | 2.460 | 3.304 | 10.2 | 21.5 |
| 12 23 | 7 15.50 | + 2 57.5 | 2.395 | 3.301 | 7.8 | 21.3 |
| 1 2 | 7 6.98 | + 3 26.0 | 2.357 | 3.297 | 5.9 | 21.2 |
| 1 12 | 6 58.07 | + 4 9.3 | 2.349 | 3.293 | 5.7 | 21.2 |
| 1 22 | 6 49.56 | + 5 5.1 | 2.371 | 3.288 | 7.3 | 21.3 |
| 2 1 | 6 42.22 | + 6 9.9 | 2.421 | 3.282 | 9.7 | 21.4 |
| 2 11 | 6 36.67 | + 7 19.8 | 2.497 | 3.276 | 12.2 | 21.6 |

**317650** 2003 $FD_{46}$ 1 5.8 227.°30 5.°7/ 4.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.93 | +37 42.4 | 2.172 | 2.981 | 12.7 | 20.9 |
| 12 13 | 7 28.43 | +38 36.4 | 2.091 | 2.974 | 10.0 | 20.7 |
| 12 23 | 7 19.21 | +39 23.3 | 2.035 | 2.967 | 7.4 | 20.5 |
| 1 2 | 7 8.08 | +39 56.5 | 2.006 | 2.959 | 5.7 | 20.4 |
| 1 12 | 6 56.30 | +40 11.3 | 2.006 | 2.951 | 6.5 | 20.5 |
| 1 22 | 6 45.25 | +40 6.5 | 2.035 | 2.942 | 8.9 | 20.6 |
| 2 1 | 6 36.18 | +39 44.0 | 2.089 | 2.933 | 11.8 | 20.8 |
| 2 11 | 6 29.96 | +39 8.5 | 2.166 | 2.924 | 14.4 | 20.9 |

**57403** 2001 $RG_{95}$ 1 5.8 313.°96 0.°7/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.43 | +20 25.7 | 1.674 | 2.506 | 14.9 | 17.5 |
| 12 13 | 7 24.66 | +21 27.2 | 1.590 | 2.496 | 11.1 | 17.3 |
| 12 23 | 7 17.13 | +22 38.7 | 1.529 | 2.485 | 6.7 | 17.0 |
| 1 2 | 7 7.54 | +23 55.1 | 1.494 | 2.476 | 1.9 | 16.7 |
| 1 12 | 6 57.12 | +25 10.2 | 1.489 | 2.466 | 3.3 | 16.8 |
| 1 22 | 6 47.25 | +26 18.2 | 1.512 | 2.457 | 8.2 | 17.0 |
| 2 1 | 6 39.30 | +27 15.9 | 1.561 | 2.448 | 12.6 | 17.3 |
| 2 11 | 6 34.23 | +28 2.4 | 1.632 | 2.440 | 16.3 | 17.5 |

**48818** 1997 $WE_{15}$ 1 5.8 67.°52 0.°4/ 5.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.74 | +23 0.0 | 2.065 | 2.888 | 12.8 | 18.9 |
| 12 13 | 7 24.06 | +23 15.1 | 2.003 | 2.905 | 9.4 | 18.7 |
| 12 23 | 7 16.29 | +23 32.4 | 1.967 | 2.922 | 5.6 | 18.5 |
| 1 2 | 7 7.20 | +23 49.3 | 1.958 | 2.939 | 1.6 | 18.3 |
| 1 12 | 6 57.84 | +24 3.4 | 1.979 | 2.956 | 2.6 | 18.4 |
| 1 22 | 6 49.25 | +24 13.3 | 2.029 | 2.973 | 6.5 | 18.7 |
| 2 1 | 6 42.35 | +24 18.8 | 2.107 | 2.990 | 10.0 | 18.9 |
| 2 11 | 6 37.76 | +24 20.4 | 2.208 | 3.007 | 12.9 | 19.2 |

**43743** 1981 $EK_{16}$ 1 5.8 231.°49 3.°7/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.84 | +30 43.3 | 1.632 | 2.461 | 15.3 | 19.7 |
| 12 13 | 7 29.51 | +31 10.2 | 1.555 | 2.456 | 11.6 | 19.4 |
| 12 23 | 7 20.03 | +31 33.3 | 1.500 | 2.451 | 7.5 | 19.2 |
| 1 2 | 7 8.34 | +31 46.8 | 1.472 | 2.446 | 4.0 | 18.9 |
| 1 12 | 6 55.96 | +31 46.2 | 1.472 | 2.441 | 5.0 | 19.0 |
| 1 22 | 6 44.56 | +31 30.6 | 1.500 | 2.436 | 9.1 | 19.2 |
| 2 1 | 6 35.56 | +31 2.5 | 1.553 | 2.430 | 13.2 | 19.5 |
| 2 11 | 6 29.92 | +30 26.1 | 1.627 | 2.424 | 16.8 | 19.7 |

**412290** 2013 $JD_{28}$ 1 5.8 217.°03 4.°5/ 7.0 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.70 | + 9 46.8 | 2.003 | 2.800 | 14.1 | 21.4 |
| 12 13 | 7 24.21 | + 9 32.3 | 1.918 | 2.795 | 11.1 | 21.2 |
| 12 23 | 7 16.52 | + 9 30.1 | 1.855 | 2.789 | 7.8 | 21.0 |
| 1 2 | 7 7.33 | + 9 40.6 | 1.820 | 2.783 | 5.0 | 20.8 |
| 1 12 | 6 57.60 | +10 3.2 | 1.813 | 2.777 | 5.0 | 20.8 |
| 1 22 | 6 48.42 | +10 35.8 | 1.835 | 2.770 | 7.8 | 21.0 |
| 2 1 | 6 40.78 | +11 15.6 | 1.884 | 2.763 | 11.2 | 21.2 |
| 2 11 | 6 35.42 | +11 59.4 | 1.957 | 2.755 | 14.3 | 21.4 |

**66230** 1999 $CV_{117}$ 1 5.8 332.°83 4.°1/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.19 | +14 3.8 | 1.793 | 2.613 | 14.5 | 18.1 |
| 12 13 | 7 22.60 | +13 15.0 | 1.705 | 2.599 | 11.3 | 17.8 |
| 12 23 | 7 15.67 | +12 33.3 | 1.641 | 2.585 | 7.7 | 17.6 |
| 1 2 | 7 7.10 | +12 0.4 | 1.603 | 2.573 | 4.6 | 17.4 |
| 1 12 | 6 57.97 | +11 37.3 | 1.593 | 2.561 | 4.9 | 17.4 |
| 1 22 | 6 49.44 | +11 24.3 | 1.610 | 2.550 | 8.3 | 17.5 |
| 2 1 | 6 42.60 | +11 20.6 | 1.653 | 2.539 | 12.1 | 17.7 |
| 2 11 | 6 38.23 | +11 24.5 | 1.718 | 2.529 | 15.5 | 17.9 |

**408852** 2001 $SV_{172}$ 1 5.8 102.°94 1.°9/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.70 | +16 10.7 | 2.036 | 2.845 | 13.4 | 21.8 |
| 12 13 | 7 25.42 | +16 17.6 | 1.975 | 2.866 | 10.1 | 21.6 |
| 12 23 | 7 17.08 | +16 31.9 | 1.938 | 2.887 | 6.3 | 21.4 |
| 1 2 | 7 7.43 | +16 52.2 | 1.930 | 2.907 | 2.6 | 21.2 |
| 1 12 | 6 57.53 | +17 16.1 | 1.951 | 2.927 | 3.0 | 21.3 |
| 1 22 | 6 48.41 | +17 41.6 | 2.003 | 2.946 | 6.6 | 21.6 |
| 2 1 | 6 40.98 | +18 7.1 | 2.082 | 2.965 | 10.1 | 21.8 |
| 2 11 | 6 35.85 | +18 31.4 | 2.186 | 2.983 | 13.1 | 22.0 |

**54390** 2000 $KZ_{66}$ 1 5.8 234.°50 12.°6/ 6.7 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.30 | − 7 45.6 | 1.908 | 2.625 | 17.4 | 19.1 |
| 12 13 | 7 26.32 | − 9 36.9 | 1.825 | 2.612 | 15.5 | 18.9 |
| 12 23 | 7 17.92 | −11 7.9 | 1.762 | 2.600 | 13.8 | 18.8 |
| 1 2 | 7 7.76 | −12 11.0 | 1.722 | 2.586 | 12.8 | 18.7 |
| 1 12 | 6 56.90 | −12 41.1 | 1.707 | 2.572 | 12.8 | 18.7 |
| 1 22 | 6 46.51 | −12 37.3 | 1.716 | 2.557 | 14.0 | 18.7 |
| 2 1 | 6 37.72 | −12 2.6 | 1.747 | 2.542 | 15.9 | 18.8 |
| 2 11 | 6 31.40 | −11 3.7 | 1.798 | 2.526 | 18.0 | 18.9 |

**180679** 2004 $GM_{82}$ 1 5.8 48°.32 8°.8/ 8.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.23 | + 1 0.5 | 1.593 | 2.376 | 17.7 | 19.8 |
| 12 13 | 7 23.34 | + 0 18.6 | 1.533 | 2.387 | 14.7 | 19.6 |
| 12 23 | 7 16.05 | − 0 0.9 | 1.493 | 2.398 | 11.6 | 19.5 |
| 1 2 | 7 7.19 | + 0 5.2 | 1.476 | 2.410 | 9.3 | 19.4 |
| 1 12 | 6 57.94 | + 0 37.0 | 1.484 | 2.422 | 9.0 | 19.4 |
| 1 22 | 6 49.50 | + 1 31.1 | 1.519 | 2.434 | 10.8 | 19.5 |
| 2 1 | 6 42.94 | + 2 41.6 | 1.577 | 2.446 | 13.6 | 19.7 |
| 2 11 | 6 38.97 | + 4 1.5 | 1.657 | 2.459 | 16.4 | 19.9 |

**2605** Sahade 1 5.8 102°.43 3°.8/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.70 | + 9 45.4 | 2.348 | 3.141 | 12.4 | 17.5 |
| 12 13 | 7 21.61 | + 9 38.2 | 2.273 | 3.149 | 9.6 | 17.3 |
| 12 23 | 7 14.78 | + 9 41.7 | 2.223 | 3.156 | 6.7 | 17.1 |
| 1 2 | 7 6.81 | + 9 56.1 | 2.200 | 3.163 | 4.3 | 17.0 |
| 1 12 | 6 58.53 | +10 20.4 | 2.206 | 3.170 | 4.2 | 17.0 |
| 1 22 | 6 50.78 | +10 52.5 | 2.242 | 3.177 | 6.6 | 17.2 |
| 2 1 | 6 44.32 | +11 30.0 | 2.306 | 3.184 | 9.5 | 17.4 |
| 2 11 | 6 39.75 | +12 10.4 | 2.395 | 3.191 | 12.1 | 17.5 |

**338107** 2002 $QS_{14}$ 1 5.8 114°.90 0°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.30 | +23 57.5 | 1.570 | 2.394 | 16.1 | 21.4 |
| 12 13 | 7 30.91 | +24 5.2 | 1.512 | 2.413 | 11.9 | 21.2 |
| 12 23 | 7 20.61 | +24 14.3 | 1.476 | 2.431 | 7.1 | 21.0 |
| 1 2 | 7 8.46 | +24 21.0 | 1.468 | 2.449 | 2.1 | 20.7 |
| 1 12 | 6 56.00 | +24 22.5 | 1.488 | 2.465 | 3.3 | 20.8 |
| 1 22 | 6 44.75 | +24 18.0 | 1.538 | 2.482 | 8.2 | 21.2 |
| 2 1 | 6 35.97 | +24 8.5 | 1.613 | 2.497 | 12.4 | 21.5 |
| 2 11 | 6 30.39 | +23 56.0 | 1.711 | 2.512 | 16.0 | 21.7 |

**379026** 2008 $VJ_{39}$ 1 5.8 328°.68 2°.6/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.62 | +17 7.7 | 2.034 | 2.851 | 13.2 | 19.6 |
| 12 13 | 7 23.37 | +16 26.0 | 1.948 | 2.843 | 10.0 | 19.4 |
| 12 23 | 7 16.00 | +15 48.4 | 1.886 | 2.835 | 6.5 | 19.1 |
| 1 2 | 7 7.19 | +15 15.7 | 1.852 | 2.827 | 3.2 | 18.9 |
| 1 12 | 6 57.95 | +14 48.3 | 1.847 | 2.820 | 3.6 | 18.9 |
| 1 22 | 6 49.31 | +14 26.5 | 1.872 | 2.813 | 7.1 | 19.1 |
| 2 1 | 6 42.25 | +14 10.4 | 1.923 | 2.807 | 10.7 | 19.3 |
| 2 11 | 6 37.45 | +13 59.5 | 1.997 | 2.801 | 13.9 | 19.5 |

**457216** 2008 $JM_{36}$ 1 5.8 159°.14 6°.7/ 7.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.16 | + 2 33.3 | 2.182 | 2.950 | 14.0 | 22.1 |
| 12 13 | 7 22.81 | + 2 1.6 | 2.106 | 2.953 | 11.5 | 22.0 |
| 12 23 | 7 15.56 | + 1 45.6 | 2.052 | 2.957 | 9.0 | 21.8 |
| 1 2 | 7 7.06 | + 1 47.3 | 2.024 | 2.960 | 7.1 | 21.7 |
| 1 12 | 6 58.18 | + 2 7.1 | 2.024 | 2.962 | 6.9 | 21.7 |
| 1 22 | 6 49.83 | + 2 42.9 | 2.052 | 2.965 | 8.6 | 21.8 |
| 2 1 | 6 42.88 | + 3 31.5 | 2.107 | 2.967 | 11.0 | 22.0 |
| 2 11 | 6 37.95 | + 4 28.4 | 2.185 | 2.969 | 13.5 | 22.1 |

**268628** 2006 $DE_{30}$ 1 5.8 82°.19 1°.1/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.12 | +18 42.8 | 2.054 | 2.873 | 13.0 | 20.5 |
| 12 13 | 7 23.66 | +18 50.1 | 1.985 | 2.882 | 9.7 | 20.3 |
| 12 23 | 7 16.11 | +19 3.2 | 1.939 | 2.892 | 5.9 | 20.1 |
| 1 2 | 7 7.21 | +19 20.0 | 1.922 | 2.902 | 2.0 | 19.9 |
| 1 12 | 6 57.96 | +19 38.7 | 1.934 | 2.911 | 2.7 | 19.9 |
| 1 22 | 6 49.40 | +19 57.3 | 1.976 | 2.921 | 6.5 | 20.2 |
| 2 1 | 6 42.45 | +20 14.6 | 2.044 | 2.930 | 10.1 | 20.4 |
| 2 11 | 6 37.76 | +20 30.1 | 2.137 | 2.940 | 13.1 | 20.7 |

**296487** 2009 $HX_{105}$ 1 5.8 232°.00 2°.1/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.45 | +16 0.9 | 1.920 | 2.734 | 13.9 | 21.4 |
| 12 13 | 7 24.94 | +16 7.4 | 1.833 | 2.727 | 10.6 | 21.2 |
| 12 23 | 7 17.07 | +16 22.7 | 1.771 | 2.720 | 6.7 | 20.9 |
| 1 2 | 7 7.53 | +16 45.3 | 1.735 | 2.712 | 2.9 | 20.7 |
| 1 12 | 6 57.39 | +17 13.0 | 1.729 | 2.704 | 3.3 | 20.7 |
| 1 22 | 6 47.83 | +17 43.3 | 1.752 | 2.696 | 7.3 | 20.9 |
| 2 1 | 6 39.93 | +18 14.3 | 1.802 | 2.688 | 11.2 | 21.1 |
| 2 11 | 6 34.50 | +18 44.2 | 1.875 | 2.679 | 14.7 | 21.3 |

**166668** 2002 $TM_{58}$ 1 5.8 22°.02 1°.2/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.93 | +25 12.6 | 2.026 | 2.853 | 12.8 | 19.8 |
| 12 13 | 7 23.69 | +25 32.3 | 1.952 | 2.856 | 9.5 | 19.6 |
| 12 23 | 7 16.22 | +25 53.0 | 1.903 | 2.858 | 5.7 | 19.3 |
| 1 2 | 7 7.26 | +26 11.5 | 1.881 | 2.861 | 1.9 | 19.1 |
| 1 12 | 6 57.88 | +26 25.0 | 1.889 | 2.865 | 3.0 | 19.2 |
| 1 22 | 6 49.19 | +26 32.2 | 1.925 | 2.868 | 6.9 | 19.4 |
| 2 1 | 6 42.19 | +26 33.0 | 1.989 | 2.872 | 10.5 | 19.6 |
| 2 11 | 6 37.60 | +26 28.6 | 2.075 | 2.876 | 13.6 | 19.9 |

**490123** 2008 $UB_{87}$ 1 5.8 358°.86 9°.6/ 7.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.50 | + 6 43.6 | 1.058 | 1.895 | 21.2 | 20.8 |
| 12 13 | 7 22.41 | + 5 24.1 | 0.997 | 1.891 | 17.3 | 20.6 |
| 12 23 | 7 16.01 | + 4 25.5 | 0.954 | 1.888 | 13.2 | 20.3 |
| 1 2 | 7 7.29 | + 3 54.4 | 0.931 | 1.886 | 10.1 | 20.2 |
| 1 12 | 6 57.84 | + 3 53.9 | 0.931 | 1.886 | 10.1 | 20.2 |
| 1 22 | 6 49.43 | + 4 22.0 | 0.952 | 1.888 | 13.1 | 20.3 |
| 2 1 | 6 43.58 | + 5 12.8 | 0.994 | 1.891 | 17.1 | 20.6 |
| 2 11 | 6 41.25 | + 6 17.7 | 1.054 | 1.896 | 21.0 | 20.8 |

**240848** 2006 $BU_{139}$ 1 5.8 186°.66 0°.4/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 33.71 | +20 48.9 | 1.962 | 2.778 | 13.6 | 21.9 |
| 12 13 | 7 27.28 | +20 59.2 | 1.881 | 2.778 | 10.2 | 21.6 |
| 12 23 | 7 18.43 | +21 13.8 | 1.824 | 2.777 | 6.2 | 21.4 |
| 1 2 | 7 7.91 | +21 30.2 | 1.795 | 2.776 | 1.8 | 21.1 |
| 1 12 | 6 56.86 | +21 45.7 | 1.796 | 2.774 | 2.8 | 21.2 |
| 1 22 | 6 46.50 | +21 58.6 | 1.827 | 2.771 | 7.1 | 21.4 |
| 2 1 | 6 37.94 | +22 8.3 | 1.886 | 2.768 | 11.0 | 21.7 |
| 2 11 | 6 31.95 | +22 15.1 | 1.968 | 2.764 | 14.4 | 21.9 |

**33406** Saltzman 1 5.8 172°.51 0°.9/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.00 | +19 47.9 | 1.875 | 2.691 | 14.1 | 19.1 |
| 12 13 | 7 27.52 | +19 49.4 | 1.798 | 2.694 | 10.6 | 18.9 |
| 12 23 | 7 18.57 | +19 55.7 | 1.744 | 2.697 | 6.5 | 18.7 |
| 1 2 | 7 7.94 | +20 4.8 | 1.719 | 2.699 | 2.1 | 18.4 |
| 1 12 | 6 56.83 | +20 14.6 | 1.723 | 2.700 | 2.9 | 18.4 |
| 1 22 | 6 46.48 | +20 23.4 | 1.757 | 2.701 | 7.3 | 18.7 |
| 2 1 | 6 38.01 | +20 30.8 | 1.818 | 2.701 | 11.3 | 19.0 |
| 2 11 | 6 32.18 | +20 36.7 | 1.902 | 2.701 | 14.7 | 19.2 |

**333320** 2001 $PU_{62}$ 1 5.8 105°.48 6°.1/ 8.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.45 | + 0 15.9 | 2.654 | 3.402 | 12.3 | 21.0 |
| 12 13 | 7 21.17 | + 0 2.2 | 2.588 | 3.420 | 10.1 | 20.9 |
| 12 23 | 7 14.42 | + 0 3.5 | 2.545 | 3.437 | 8.0 | 20.8 |
| 1 2 | 7 6.73 | + 0 21.0 | 2.529 | 3.455 | 6.4 | 20.7 |
| 1 12 | 6 58.82 | + 0 54.0 | 2.542 | 3.472 | 6.2 | 20.7 |
| 1 22 | 6 51.41 | + 1 40.4 | 2.583 | 3.488 | 7.4 | 20.8 |
| 2 1 | 6 45.15 | + 2 37.0 | 2.652 | 3.504 | 9.3 | 21.0 |
| 2 11 | 6 40.53 | + 3 39.8 | 2.746 | 3.520 | 11.3 | 21.1 |

**451434** 2011 $SL_{30}$ 1 5.8 126°.60 3°.0/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.33 | +29 50.0 | 1.781 | 2.602 | 14.6 | 21.3 |
| 12 13 | 7 30.14 | +30 15.0 | 1.717 | 2.615 | 10.9 | 21.1 |
| 12 23 | 7 20.16 | +30 36.4 | 1.677 | 2.628 | 6.9 | 20.9 |
| 1 2 | 7 8.38 | +30 49.2 | 1.665 | 2.640 | 3.4 | 20.7 |
| 1 12 | 6 56.22 | +30 49.8 | 1.682 | 2.652 | 4.4 | 20.8 |
| 1 22 | 6 45.13 | +30 37.9 | 1.727 | 2.663 | 8.2 | 21.1 |
| 2 1 | 6 36.34 | +30 15.7 | 1.800 | 2.674 | 11.9 | 21.3 |
| 2 11 | 6 30.60 | +29 46.8 | 1.895 | 2.684 | 15.1 | 21.6 |

**204318** 2004 $RM_{66}$ 1 5.8 229°.68 1°.1/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.55 | +18 54.3 | 1.863 | 2.679 | 14.2 | 20.9 |
| 12 13 | 7 27.42 | +19 2.0 | 1.771 | 2.667 | 10.8 | 20.6 |
| 12 23 | 7 18.67 | +19 16.1 | 1.703 | 2.655 | 6.6 | 20.4 |
| 1 2 | 7 8.03 | +19 34.5 | 1.662 | 2.642 | 2.2 | 20.1 |
| 1 12 | 6 56.66 | +19 54.6 | 1.651 | 2.628 | 3.0 | 20.1 |
| 1 22 | 6 45.87 | +20 14.2 | 1.669 | 2.614 | 7.6 | 20.3 |
| 2 1 | 6 36.88 | +20 32.1 | 1.715 | 2.599 | 11.8 | 20.6 |
| 2 11 | 6 30.59 | +20 47.8 | 1.783 | 2.583 | 15.5 | 20.8 |

**273210** 2006 $JQ_{20}$ 1 5.8 185°.11 0°.3/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.08 | +19 38.7 | 2.770 | 3.578 | 10.3 | 21.5 |
| 12 13 | 7 22.54 | +20 4.6 | 2.685 | 3.577 | 7.7 | 21.4 |
| 12 23 | 7 15.34 | +20 34.9 | 2.625 | 3.577 | 4.6 | 21.2 |
| 1 2 | 7 7.02 | +21 7.5 | 2.595 | 3.576 | 1.4 | 20.9 |
| 1 12 | 6 58.34 | +21 40.2 | 2.597 | 3.575 | 2.1 | 21.0 |
| 1 22 | 6 50.06 | +22 11.1 | 2.630 | 3.573 | 5.3 | 21.2 |
| 2 1 | 6 42.94 | +22 38.9 | 2.693 | 3.571 | 8.3 | 21.4 |
| 2 11 | 6 37.56 | +23 3.2 | 2.780 | 3.568 | 10.8 | 21.6 |

**51956** 2001 $QE_{251}$ 1 5.8 265°.19 1°.8/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.92 | +19 52.2 | 1.819 | 2.639 | 14.4 | 19.2 |
| 12 13 | 7 26.88 | +19 15.5 | 1.730 | 2.628 | 10.9 | 19.0 |
| 12 23 | 7 18.27 | +18 41.0 | 1.665 | 2.618 | 6.8 | 18.7 |
| 1 2 | 7 7.90 | +18 8.6 | 1.628 | 2.607 | 2.6 | 18.4 |
| 1 12 | 6 56.95 | +17 38.2 | 1.620 | 2.596 | 3.4 | 18.4 |
| 1 22 | 6 46.71 | +17 10.6 | 1.641 | 2.585 | 7.7 | 18.7 |
| 2 1 | 6 38.35 | +16 46.4 | 1.689 | 2.574 | 11.9 | 18.9 |
| 2 11 | 6 32.68 | +16 26.3 | 1.760 | 2.563 | 15.5 | 19.1 |

**227575** 2005 $YP_{229}$ 1 5.8 156°.32 1°.7/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.33 | +26 23.2 | 2.344 | 3.160 | 11.7 | 21.0 |
| 12 13 | 7 25.24 | +26 57.7 | 2.268 | 3.166 | 8.7 | 20.8 |
| 12 23 | 7 17.08 | +27 32.6 | 2.219 | 3.171 | 5.3 | 20.6 |
| 1 2 | 7 7.53 | +28 4.1 | 2.198 | 3.176 | 2.1 | 20.4 |
| 1 12 | 6 57.57 | +28 29.2 | 2.208 | 3.181 | 3.1 | 20.4 |
| 1 22 | 6 48.22 | +28 46.1 | 2.248 | 3.185 | 6.4 | 20.7 |
| 2 1 | 6 40.41 | +28 54.9 | 2.316 | 3.189 | 9.7 | 20.9 |
| 2 11 | 6 34.82 | +28 56.6 | 2.409 | 3.192 | 12.4 | 21.1 |

**363124** 2001 $PO_{28}$ 1 5.8 123°.91 0°.2/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.90 | +21 36.1 | 2.125 | 2.939 | 12.8 | 21.8 |
| 12 13 | 7 26.34 | +21 38.8 | 2.058 | 2.954 | 9.5 | 21.6 |
| 12 23 | 7 17.68 | +21 44.2 | 2.016 | 2.969 | 5.7 | 21.4 |
| 1 2 | 7 7.67 | +21 50.2 | 2.003 | 2.983 | 1.6 | 21.2 |
| 1 12 | 6 57.39 | +21 54.9 | 2.020 | 2.997 | 2.5 | 21.3 |
| 1 22 | 6 47.88 | +21 57.3 | 2.067 | 3.010 | 6.4 | 21.6 |
| 2 1 | 6 40.07 | +21 57.4 | 2.142 | 3.023 | 10.0 | 21.8 |
| 2 11 | 6 34.60 | +21 55.6 | 2.242 | 3.035 | 12.9 | 22.0 |

**219342** 2000 $QC_{61}$ 1 5.8 165°.34 6°.5/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 38.67 | +42 45.6 | 2.421 | 3.209 | 12.2 | 21.1 |
| 12 13 | 7 30.96 | +43 34.0 | 2.352 | 3.215 | 9.9 | 20.9 |
| 12 23 | 7 20.61 | +44 11.3 | 2.307 | 3.219 | 7.8 | 20.8 |
| 1 2 | 7 8.53 | +44 31.2 | 2.290 | 3.223 | 6.6 | 20.7 |
| 1 12 | 6 56.01 | +44 30.1 | 2.302 | 3.227 | 7.1 | 20.8 |
| 1 22 | 6 44.41 | +44 7.8 | 2.343 | 3.230 | 8.9 | 20.9 |
| 2 1 | 6 34.90 | +43 27.6 | 2.410 | 3.232 | 11.2 | 21.0 |
| 2 11 | 6 28.23 | +42 34.8 | 2.499 | 3.234 | 13.3 | 21.2 |

**28274** 1999 $CF_{21}$ 1 5.8 290°.31 3°.7/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.20 | +32 32.8 | 1.761 | 2.586 | 14.5 | 18.5 |
| 12 13 | 7 28.93 | +32 37.6 | 1.675 | 2.573 | 11.1 | 18.3 |
| 12 23 | 7 19.66 | +32 35.7 | 1.612 | 2.561 | 7.3 | 18.0 |
| 1 2 | 7 8.32 | +32 22.1 | 1.575 | 2.548 | 4.0 | 17.8 |
| 1 12 | 6 56.33 | +31 53.9 | 1.567 | 2.536 | 4.9 | 17.8 |
| 1 22 | 6 45.25 | +31 11.5 | 1.588 | 2.524 | 8.7 | 18.0 |
| 2 1 | 6 36.44 | +30 18.3 | 1.634 | 2.512 | 12.7 | 18.2 |
| 2 11 | 6 30.79 | +29 19.2 | 1.703 | 2.500 | 16.2 | 18.4 |

**423328** 2005 $GK_{14}$ 1 5.8 322°.23 5°.4/ 4.6 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.23 | +36 18.9 | 1.921 | 2.743 | 13.6 | 21.3 |
| 12 13 | 7 26.66 | +36 56.3 | 1.840 | 2.732 | 10.7 | 21.1 |
| 12 23 | 7 18.27 | +37 26.3 | 1.783 | 2.723 | 7.6 | 20.9 |
| 1 2 | 7 7.93 | +37 42.9 | 1.752 | 2.713 | 5.5 | 20.7 |
| 1 12 | 6 56.95 | +37 41.8 | 1.750 | 2.704 | 6.3 | 20.8 |
| 1 22 | 6 46.80 | +37 22.1 | 1.774 | 2.695 | 9.1 | 20.9 |
| 2 1 | 6 38.75 | +36 46.5 | 1.824 | 2.687 | 12.4 | 21.1 |
| 2 11 | 6 33.67 | +35 59.5 | 1.896 | 2.678 | 15.3 | 21.3 |

**51643** 2001 $HT_{56}$ 1 5.8 155°.73 1°.2/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.68 | +25 29.3 | 1.998 | 2.818 | 13.3 | 20.2 |
| 12 13 | 7 27.21 | +25 41.3 | 1.924 | 2.823 | 9.9 | 20.0 |
| 12 23 | 7 18.35 | +25 53.4 | 1.874 | 2.828 | 6.0 | 19.8 |
| 1 2 | 7 7.90 | +26 2.4 | 1.853 | 2.833 | 2.0 | 19.5 |
| 1 12 | 6 57.04 | +26 5.8 | 1.861 | 2.837 | 3.0 | 19.6 |
| 1 22 | 6 46.97 | +26 2.5 | 1.899 | 2.841 | 7.1 | 19.9 |
| 2 1 | 6 38.75 | +25 53.4 | 1.965 | 2.844 | 10.8 | 20.1 |
| 2 11 | 6 33.12 | +25 39.9 | 2.054 | 2.847 | 13.9 | 20.3 |

**238686** 2005 $ES_{243}$ 1 5.8 156°.63 3°.4/ 7.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.79 | +10 40.1 | 2.542 | 3.334 | 11.6 | 20.7 |
| 12 13 | 7 21.62 | +10 35.8 | 2.462 | 3.338 | 9.0 | 20.6 |
| 12 23 | 7 14.79 | +10 41.0 | 2.406 | 3.341 | 6.2 | 20.4 |
| 1 2 | 7 6.88 | +10 55.6 | 2.379 | 3.345 | 3.8 | 20.3 |
| 1 12 | 6 58.65 | +11 18.5 | 2.382 | 3.348 | 3.8 | 20.3 |
| 1 22 | 6 50.88 | +11 48.1 | 2.415 | 3.350 | 6.2 | 20.4 |
| 2 1 | 6 44.31 | +12 22.2 | 2.476 | 3.353 | 8.9 | 20.6 |
| 2 11 | 6 39.50 | +12 58.6 | 2.562 | 3.355 | 11.5 | 20.8 |

**83466** 2001 $SB_{75}$ 1 5.8 234°.42 3°.7/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.05 | +34 4.1 | 2.513 | 3.326 | 11.1 | 19.2 |
| 12 13 | 7 25.09 | +34 32.3 | 2.431 | 3.321 | 8.5 | 19.0 |
| 12 23 | 7 17.01 | +34 55.3 | 2.373 | 3.315 | 5.8 | 18.8 |
| 1 2 | 7 7.53 | +35 9.3 | 2.344 | 3.310 | 3.8 | 18.7 |
| 1 12 | 6 57.61 | +35 11.5 | 2.345 | 3.304 | 4.5 | 18.7 |
| 1 22 | 6 48.31 | +35 1.1 | 2.376 | 3.299 | 7.0 | 18.9 |
| 2 1 | 6 40.55 | +34 39.5 | 2.434 | 3.293 | 9.8 | 19.1 |
| 2 11 | 6 35.04 | +34 9.4 | 2.516 | 3.287 | 12.3 | 19.2 |

**58210** 1992 $EW_{21}$ 1 5.8 26°.64 2°.3/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.44 | +13 50.4 | 2.006 | 2.821 | 13.4 | 19.0 |
| 12 13 | 7 21.77 | +14 13.4 | 1.934 | 2.827 | 10.2 | 18.8 |
| 12 23 | 7 15.07 | +14 47.3 | 1.886 | 2.833 | 6.6 | 18.6 |
| 1 2 | 7 6.99 | +15 30.2 | 1.865 | 2.840 | 3.1 | 18.4 |
| 1 12 | 6 58.50 | +16 19.4 | 1.873 | 2.847 | 3.2 | 18.5 |
| 1 22 | 6 50.62 | +17 11.4 | 1.910 | 2.855 | 6.7 | 18.7 |
| 2 1 | 6 44.25 | +18 3.1 | 1.974 | 2.863 | 10.2 | 18.9 |
| 2 11 | 6 40.08 | +18 52.2 | 2.062 | 2.872 | 13.3 | 19.1 |

**426232** 2012 $OL_{2}$ 1 5.8 76°.70 2°.2/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.10 | +16 5.3 | 2.195 | 3.007 | 12.5 | 20.9 |
| 12 13 | 7 22.80 | +15 52.7 | 2.120 | 3.012 | 9.5 | 20.8 |
| 12 23 | 7 15.58 | +15 46.6 | 2.070 | 3.018 | 6.0 | 20.6 |
| 1 2 | 7 7.12 | +15 46.4 | 2.048 | 3.023 | 2.8 | 20.4 |
| 1 12 | 6 58.32 | +15 51.1 | 2.055 | 3.029 | 3.1 | 20.4 |
| 1 22 | 6 50.13 | +15 59.7 | 2.092 | 3.035 | 6.4 | 20.6 |
| 2 1 | 6 43.40 | +16 10.9 | 2.156 | 3.040 | 9.7 | 20.8 |
| 2 11 | 6 38.74 | +16 23.6 | 2.245 | 3.046 | 12.6 | 21.0 |

**320997** 2008 $KX_{11}$ 1 5.8 223°.77 6°.2/ 7.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.37 | + 2 26.2 | 2.509 | 3.266 | 12.6 | 21.6 |
| 12 13 | 7 22.88 | + 1 56.6 | 2.414 | 3.255 | 10.5 | 21.4 |
| 12 23 | 7 15.63 | + 1 40.6 | 2.343 | 3.244 | 8.2 | 21.3 |
| 1 2 | 7 7.15 | + 1 40.2 | 2.298 | 3.232 | 6.5 | 21.1 |
| 1 12 | 6 58.22 | + 1 55.9 | 2.283 | 3.219 | 6.4 | 21.1 |
| 1 22 | 6 49.66 | + 2 26.4 | 2.296 | 3.205 | 8.0 | 21.2 |
| 2 1 | 6 42.26 | + 3 9.4 | 2.338 | 3.191 | 10.3 | 21.3 |
| 2 11 | 6 36.66 | + 4 1.0 | 2.403 | 3.176 | 12.7 | 21.5 |

**237396** 1997 $SW_{23}$ 1 5.8 21°.29 0°.0/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.34 | +22 10.4 | 1.818 | 2.649 | 13.9 | 20.6 |
| 12 13 | 7 23.41 | +22 19.6 | 1.749 | 2.655 | 10.3 | 20.4 |
| 12 23 | 7 16.13 | +22 32.1 | 1.704 | 2.660 | 6.2 | 20.2 |
| 1 2 | 7 7.29 | +22 45.6 | 1.685 | 2.667 | 1.7 | 19.9 |
| 1 12 | 6 58.05 | +22 57.6 | 1.696 | 2.673 | 2.8 | 20.0 |
| 1 22 | 6 49.59 | +23 6.5 | 1.734 | 2.681 | 7.1 | 20.3 |
| 2 1 | 6 42.94 | +23 11.8 | 1.798 | 2.688 | 11.0 | 20.5 |
| 2 11 | 6 38.82 | +23 13.8 | 1.886 | 2.697 | 14.3 | 20.7 |

**277102** 2005 $FG_{1}$ 1 5.8 353°.70 5°.6/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.29 | +35 22.3 | 1.915 | 2.739 | 13.6 | 19.9 |
| 12 13 | 7 25.97 | +36 27.8 | 1.843 | 2.737 | 10.5 | 19.7 |
| 12 23 | 7 17.88 | +37 28.0 | 1.796 | 2.735 | 7.5 | 19.5 |
| 1 2 | 7 7.83 | +38 15.7 | 1.775 | 2.734 | 5.7 | 19.4 |
| 1 12 | 6 57.14 | +38 45.8 | 1.782 | 2.733 | 6.5 | 19.4 |
| 1 22 | 6 47.22 | +38 56.1 | 1.816 | 2.732 | 9.3 | 19.6 |
| 2 1 | 6 39.36 | +38 48.2 | 1.876 | 2.732 | 12.4 | 19.8 |
| 2 11 | 6 34.44 | +38 26.2 | 1.957 | 2.732 | 15.2 | 20.0 |

**180567** 2004 $ET_{80}$ 1 5.8 17°.46 0°.9/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.43 | +18 45.0 | 1.291 | 2.137 | 17.5 | 19.3 |
| 12 13 | 7 24.24 | +19 9.5 | 1.230 | 2.142 | 13.1 | 19.1 |
| 12 23 | 7 16.96 | +19 44.4 | 1.190 | 2.148 | 8.0 | 18.8 |
| 1 2 | 7 7.58 | +20 25.9 | 1.175 | 2.156 | 2.5 | 18.5 |
| 1 12 | 6 57.61 | +21 9.3 | 1.185 | 2.164 | 3.5 | 18.6 |
| 1 22 | 6 48.66 | +21 50.2 | 1.222 | 2.173 | 8.9 | 18.9 |
| 2 1 | 6 42.13 | +22 26.0 | 1.282 | 2.183 | 13.7 | 19.2 |
| 2 11 | 6 38.88 | +22 55.5 | 1.362 | 2.194 | 17.7 | 19.5 |

**152246** 2005 $SO_{89}$ 1 5.8 101°.27 0°.6/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.14 | +20 26.5 | 1.928 | 2.749 | 13.6 | 20.4 |
| 12 13 | 7 25.30 | +20 33.1 | 1.860 | 2.759 | 10.1 | 20.2 |
| 12 23 | 7 17.18 | +20 44.2 | 1.815 | 2.769 | 6.1 | 20.0 |
| 1 2 | 7 7.58 | +20 57.5 | 1.799 | 2.779 | 1.8 | 19.7 |
| 1 12 | 6 57.62 | +21 10.7 | 1.811 | 2.789 | 2.7 | 19.8 |
| 1 22 | 6 48.43 | +21 22.3 | 1.853 | 2.799 | 6.9 | 20.1 |
| 2 1 | 6 41.02 | +21 31.7 | 1.922 | 2.808 | 10.7 | 20.3 |
| 2 11 | 6 36.08 | +21 38.8 | 2.015 | 2.817 | 13.8 | 20.6 |

**322128** 2010 $VW_{178}$ 1 5.8 326°.46 0°.7/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.96 | +20 34.2 | 1.667 | 2.498 | 14.9 | 20.7 |
| 12 13 | 7 24.91 | +20 35.3 | 1.587 | 2.492 | 11.2 | 20.5 |
| 12 23 | 7 17.20 | +20 41.3 | 1.531 | 2.487 | 6.8 | 20.2 |
| 1 2 | 7 7.64 | +20 50.3 | 1.501 | 2.481 | 2.1 | 19.9 |
| 1 12 | 6 57.48 | +21 0.0 | 1.498 | 2.476 | 3.1 | 20.0 |
| 1 22 | 6 48.07 | +21 8.5 | 1.524 | 2.472 | 7.8 | 20.2 |
| 2 1 | 6 40.62 | +21 15.2 | 1.575 | 2.467 | 12.2 | 20.5 |
| 2 11 | 6 35.98 | +21 20.0 | 1.649 | 2.463 | 15.9 | 20.7 |

**14450** 1992 $WZ_{1}$ 1 5.8 74°.04 4°.7/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.22 | +34 47.7 | 2.133 | 2.951 | 12.6 | 17.7 |
| 12 13 | 7 26.24 | +35 41.6 | 2.070 | 2.961 | 9.7 | 17.6 |
| 12 23 | 7 17.82 | +36 29.7 | 2.031 | 2.971 | 6.8 | 17.4 |
| 1 2 | 7 7.78 | +37 6.4 | 2.020 | 2.981 | 4.8 | 17.3 |
| 1 12 | 6 57.31 | +37 27.8 | 2.038 | 2.991 | 5.6 | 17.4 |
| 1 22 | 6 47.65 | +37 32.5 | 2.084 | 3.002 | 8.2 | 17.6 |
| 2 1 | 6 39.87 | +37 22.2 | 2.157 | 3.012 | 11.0 | 17.8 |
| 2 11 | 6 34.73 | +37 0.5 | 2.252 | 3.022 | 13.6 | 17.9 |

**42311** 2001 $VB_{93}$ 1 5.9 199°.61 3°.9/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.91 | +10 32.8 | 1.805 | 2.606 | 15.2 | 19.0 |
| 12 13 | 7 26.13 | +10 45.2 | 1.722 | 2.604 | 11.8 | 18.8 |
| 12 23 | 7 17.87 | +11 12.3 | 1.661 | 2.601 | 8.0 | 18.5 |
| 1 2 | 7 7.85 | +11 53.4 | 1.628 | 2.597 | 4.6 | 18.3 |
| 1 12 | 6 57.20 | +12 45.8 | 1.623 | 2.593 | 4.5 | 18.3 |
| 1 22 | 6 47.15 | +13 45.7 | 1.648 | 2.589 | 8.0 | 18.5 |
| 2 1 | 6 38.85 | +14 48.8 | 1.699 | 2.583 | 11.9 | 18.7 |
| 2 11 | 6 33.13 | +15 51.4 | 1.774 | 2.578 | 15.4 | 18.9 |

**486685** 2013 $TV_{113}$ 1 5.9 120°.43 19°.2/ 7.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.53 | −12 32.2 | 1.284 | 2.010 | 23.9 | 21.4 |
| 12 13 | 7 28.04 | −15 24.8 | 1.231 | 2.011 | 22.0 | 21.2 |
| 12 23 | 7 19.32 | −17 44.4 | 1.195 | 2.013 | 20.3 | 21.1 |
| 1 2 | 7 8.30 | −19 17.8 | 1.177 | 2.014 | 19.3 | 21.1 |
| 1 12 | 6 56.51 | −19 57.0 | 1.178 | 2.015 | 19.3 | 21.1 |
| 1 22 | 6 45.64 | −19 41.7 | 1.197 | 2.016 | 20.2 | 21.1 |
| 2 1 | 6 37.18 | −18 38.8 | 1.232 | 2.017 | 21.8 | 21.2 |
| 2 11 | 6 32.14 | −17 0.8 | 1.283 | 2.018 | 23.6 | 21.4 |

**238851** 2005 $VS_{3}$ 1 5.9 101°.48 2°.1/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.50 | +17 20.7 | 1.657 | 2.470 | 15.9 | 20.5 |
| 12 13 | 7 30.01 | +17 7.4 | 1.604 | 2.497 | 11.9 | 20.3 |
| 12 23 | 7 19.95 | +17 1.2 | 1.574 | 2.524 | 7.4 | 20.1 |
| 1 2 | 7 8.36 | +17 0.7 | 1.572 | 2.550 | 3.0 | 19.9 |
| 1 12 | 6 56.59 | +17 4.2 | 1.600 | 2.575 | 3.5 | 20.0 |
| 1 22 | 6 45.97 | +17 10.4 | 1.656 | 2.599 | 7.8 | 20.3 |
| 2 1 | 6 37.58 | +17 18.3 | 1.739 | 2.623 | 11.7 | 20.6 |
| 2 11 | 6 32.07 | +17 27.3 | 1.845 | 2.645 | 15.0 | 20.9 |

**521856** 2015 $TM_{375}$ 1 5.9 294.°98 0.°2/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.11 | +22 26.7 | 1.447 | 2.285 | 16.4 | 22.0 |
| 12 13 | 7 27.05 | +22 36.6 | 1.363 | 2.272 | 12.4 | 21.7 |
| 12 23 | 7 18.79 | +22 51.2 | 1.301 | 2.259 | 7.5 | 21.4 |
| 1 2 | 7 8.18 | +23 6.9 | 1.265 | 2.246 | 2.2 | 21.0 |
| 1 12 | 6 56.69 | +23 20.2 | 1.256 | 2.234 | 3.5 | 21.1 |
| 1 22 | 6 45.98 | +23 28.8 | 1.273 | 2.221 | 9.0 | 21.4 |
| 2 1 | 6 37.58 | +23 32.3 | 1.315 | 2.209 | 13.9 | 21.6 |
| 2 11 | 6 32.54 | +23 31.7 | 1.378 | 2.197 | 18.2 | 21.8 |

**78684** 2002 $TL_{137}$ 1 5.9 6.°60 0.°5/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.14 | +21 38.1 | 2.054 | 2.876 | 12.8 | 19.3 |
| 12 13 | 7 23.78 | +21 25.0 | 1.976 | 2.877 | 9.6 | 19.1 |
| 12 23 | 7 16.28 | +21 14.2 | 1.923 | 2.877 | 5.8 | 18.9 |
| 1 2 | 7 7.37 | +21 4.3 | 1.897 | 2.878 | 1.8 | 18.6 |
| 1 12 | 6 58.08 | +20 54.4 | 1.901 | 2.879 | 2.6 | 18.7 |
| 1 22 | 6 49.47 | +20 43.9 | 1.934 | 2.880 | 6.6 | 18.9 |
| 2 1 | 6 42.49 | +20 32.9 | 1.995 | 2.881 | 10.3 | 19.2 |
| 2 11 | 6 37.81 | +20 22.0 | 2.079 | 2.883 | 13.4 | 19.4 |

**198977** 2005 $VD_{16}$ 1 5.9 333.°13 16.°6/ 1.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.21 | + 2 4.5 | 1.085 | 1.897 | 22.5 | 17.9 |
| 12 13 | 7 26.96 | − 1 45.5 | 1.010 | 1.874 | 19.7 | 17.7 |
| 12 23 | 7 19.05 | − 5 27.5 | 0.956 | 1.853 | 17.5 | 17.5 |
| 1 2 | 7 8.33 | − 8 43.3 | 0.924 | 1.833 | 16.6 | 17.3 |
| 1 12 | 6 56.40 | −11 15.7 | 0.914 | 1.815 | 17.7 | 17.3 |
| 1 22 | 6 45.20 | −12 54.6 | 0.925 | 1.798 | 20.3 | 17.4 |
| 2 1 | 6 36.57 | −13 39.5 | 0.953 | 1.783 | 23.5 | 17.6 |
| 2 11 | 6 31.78 | −13 39.2 | 0.994 | 1.770 | 26.6 | 17.7 |

**33346** Sabinedevieilhe 1 5.9 279.°41 3.°6/ 4.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.40 | +27 48.5 | 1.764 | 2.594 | 14.3 | 18.9 |
| 12 13 | 7 27.05 | +29 7.5 | 1.678 | 2.581 | 10.8 | 18.7 |
| 12 23 | 7 18.73 | +30 30.1 | 1.617 | 2.569 | 6.9 | 18.4 |
| 1 2 | 7 8.18 | +31 49.0 | 1.583 | 2.557 | 3.8 | 18.2 |
| 1 12 | 6 56.67 | +32 56.7 | 1.578 | 2.545 | 5.2 | 18.2 |
| 1 22 | 6 45.70 | +33 48.4 | 1.601 | 2.532 | 9.1 | 18.4 |
| 2 1 | 6 36.72 | +34 22.6 | 1.650 | 2.520 | 13.0 | 18.7 |
| 2 11 | 6 30.81 | +34 41.6 | 1.721 | 2.508 | 16.5 | 18.9 |

**376661** 2013 $QF_{9}$ 1 5.9 75.°49 3.°9/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.64 | +33 25.2 | 2.015 | 2.834 | 13.2 | 21.4 |
| 12 13 | 7 27.25 | +33 49.1 | 1.951 | 2.846 | 10.0 | 21.2 |
| 12 23 | 7 18.39 | +34 6.8 | 1.912 | 2.857 | 6.7 | 21.0 |
| 1 2 | 7 7.96 | +34 13.7 | 1.900 | 2.868 | 4.1 | 20.9 |
| 1 12 | 6 57.21 | +34 7.1 | 1.917 | 2.880 | 4.9 | 20.9 |
| 1 22 | 6 47.40 | +33 46.9 | 1.962 | 2.891 | 7.8 | 21.1 |
| 2 1 | 6 39.61 | +33 15.5 | 2.034 | 2.902 | 11.0 | 21.3 |
| 2 11 | 6 34.53 | +32 36.7 | 2.130 | 2.914 | 13.8 | 21.6 |

**68447** 2001 $RP_{148}$ 1 5.9 40.°08 0.°6/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.30 | +17 58.2 | 1.810 | 2.635 | 14.2 | 18.5 |
| 12 13 | 7 23.30 | +18 41.1 | 1.753 | 2.654 | 10.5 | 18.3 |
| 12 23 | 7 16.03 | +19 32.3 | 1.719 | 2.674 | 6.4 | 18.1 |
| 1 2 | 7 7.30 | +20 28.2 | 1.713 | 2.694 | 2.0 | 17.9 |
| 1 12 | 6 58.23 | +21 24.6 | 1.736 | 2.714 | 2.7 | 18.0 |
| 1 22 | 6 49.95 | +22 17.4 | 1.788 | 2.735 | 6.9 | 18.3 |
| 2 1 | 6 43.45 | +23 4.4 | 1.867 | 2.757 | 10.7 | 18.5 |
| 2 11 | 6 39.41 | +23 44.5 | 1.969 | 2.778 | 13.9 | 18.8 |

**149321** 2002 $VH_{15}$ 1 5.9 123.°28 1.°3/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.06 | +18 25.4 | 1.657 | 2.474 | 15.7 | 20.6 |
| 12 13 | 7 29.17 | +18 32.6 | 1.594 | 2.491 | 11.7 | 20.4 |
| 12 23 | 7 19.61 | +18 46.9 | 1.555 | 2.507 | 7.2 | 20.2 |
| 1 2 | 7 8.32 | +19 5.6 | 1.543 | 2.522 | 2.5 | 19.9 |
| 1 12 | 6 56.65 | +19 26.1 | 1.560 | 2.537 | 3.2 | 20.0 |
| 1 22 | 6 45.99 | +19 45.9 | 1.606 | 2.551 | 7.8 | 20.3 |
| 2 1 | 6 37.50 | +20 4.0 | 1.679 | 2.565 | 11.9 | 20.6 |
| 2 11 | 6 31.93 | +20 19.9 | 1.775 | 2.577 | 15.4 | 20.8 |

**458206** 2010 $RV_{61}$ 1 5.9 43.°15 10.°0/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 39.54 | +44 57.7 | 1.522 | 2.333 | 17.1 | 20.4 |
| 12 13 | 7 32.94 | +46 11.5 | 1.473 | 2.345 | 14.2 | 20.2 |
| 12 23 | 7 22.37 | +47 7.8 | 1.446 | 2.357 | 11.5 | 20.1 |
| 1 2 | 7 9.16 | +47 36.3 | 1.442 | 2.370 | 10.1 | 20.0 |
| 1 12 | 6 55.45 | +47 31.0 | 1.463 | 2.383 | 10.7 | 20.1 |
| 1 22 | 6 43.41 | +46 53.2 | 1.509 | 2.397 | 12.8 | 20.2 |
| 2 1 | 6 34.70 | +45 49.7 | 1.577 | 2.411 | 15.4 | 20.4 |
| 2 11 | 6 30.16 | +44 30.2 | 1.664 | 2.425 | 18.0 | 20.7 |

**409894** 2006 $SR_{403}$ 1 5.9 63.°37 0.°5/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.73 | +21 7.1 | 1.582 | 2.412 | 15.7 | 21.4 |
| 12 13 | 7 26.79 | +21 8.2 | 1.525 | 2.430 | 11.6 | 21.2 |
| 12 23 | 7 18.20 | +21 13.6 | 1.492 | 2.447 | 7.0 | 20.9 |
| 1 2 | 7 7.94 | +21 21.0 | 1.485 | 2.465 | 2.1 | 20.7 |
| 1 12 | 6 57.37 | +21 27.8 | 1.506 | 2.484 | 3.1 | 20.8 |
| 1 22 | 6 47.86 | +21 32.8 | 1.554 | 2.502 | 7.8 | 21.1 |
| 2 1 | 6 40.55 | +21 35.5 | 1.629 | 2.520 | 11.9 | 21.4 |
| 2 11 | 6 36.14 | +21 36.4 | 1.726 | 2.538 | 15.4 | 21.7 |

**240735** 2005 $JU_{58}$ 1 5.9 21.°71 1.°0/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.70 | +18 58.4 | 2.087 | 2.908 | 12.7 | 20.8 |
| 12 13 | 7 22.70 | +19 3.6 | 2.011 | 2.910 | 9.5 | 20.6 |
| 12 23 | 7 15.65 | +19 14.2 | 1.959 | 2.912 | 5.8 | 20.3 |
| 1 2 | 7 7.23 | +19 28.7 | 1.935 | 2.915 | 2.0 | 20.1 |
| 1 12 | 6 58.41 | +19 44.9 | 1.941 | 2.918 | 2.6 | 20.1 |
| 1 22 | 6 50.21 | +20 1.4 | 1.975 | 2.921 | 6.5 | 20.4 |
| 2 1 | 6 43.54 | +20 16.8 | 2.037 | 2.925 | 10.0 | 20.6 |
| 2 11 | 6 39.07 | +20 30.7 | 2.123 | 2.928 | 13.1 | 20.8 |

**115754** 2003 $UN_{204}$ 1 5.9 124.°01 1.°0/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.87 | +18 35.6 | 2.277 | 3.090 | 12.1 | 20.0 |
| 12 13 | 7 23.38 | +18 45.2 | 2.202 | 3.097 | 9.0 | 19.8 |
| 12 23 | 7 15.97 | +19 0.1 | 2.152 | 3.104 | 5.5 | 19.6 |
| 1 2 | 7 7.31 | +19 18.6 | 2.131 | 3.110 | 1.9 | 19.3 |
| 1 12 | 6 58.29 | +19 38.7 | 2.140 | 3.117 | 2.5 | 19.4 |
| 1 22 | 6 49.87 | +19 58.6 | 2.179 | 3.123 | 6.1 | 19.6 |
| 2 1 | 6 42.88 | +20 17.4 | 2.245 | 3.129 | 9.4 | 19.9 |
| 2 11 | 6 37.95 | +20 34.2 | 2.337 | 3.135 | 12.3 | 20.1 |

**347632** 2001 $SG_{211}$ 1 5.9 35.°63 1.°0/ 5.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.59 | +23 36.0 | 1.069 | 1.926 | 19.6 | 20.5 |
| 12 13 | 7 27.70 | +23 54.3 | 1.024 | 1.942 | 14.5 | 20.2 |
| 12 23 | 7 19.15 | +24 16.8 | 0.998 | 1.958 | 8.7 | 19.9 |
| 1 2 | 7 8.24 | +24 38.1 | 0.995 | 1.976 | 2.6 | 19.6 |
| 1 12 | 6 56.94 | +24 53.5 | 1.017 | 1.995 | 4.1 | 19.8 |
| 1 22 | 6 47.19 | +25 0.9 | 1.064 | 2.015 | 9.9 | 20.2 |
| 2 1 | 6 40.50 | +25 1.0 | 1.133 | 2.035 | 14.9 | 20.5 |
| 2 11 | 6 37.64 | +24 55.5 | 1.221 | 2.056 | 19.1 | 20.9 |

**81759** 2000 $JD_{60}$ 1 5.9 233.°59 0.°1/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.99 | +22 9.8 | 2.063 | 2.881 | 13.0 | 19.9 |
| 12 13 | 7 26.04 | +22 10.7 | 1.974 | 2.872 | 9.7 | 19.7 |
| 12 23 | 7 17.76 | +22 14.0 | 1.908 | 2.862 | 5.9 | 19.5 |
| 1 2 | 7 7.86 | +22 17.6 | 1.871 | 2.852 | 1.7 | 19.2 |
| 1 12 | 6 57.40 | +22 19.7 | 1.864 | 2.842 | 2.7 | 19.2 |
| 1 22 | 6 47.54 | +22 19.1 | 1.887 | 2.831 | 6.9 | 19.5 |
| 2 1 | 6 39.33 | +22 15.8 | 1.937 | 2.820 | 10.7 | 19.7 |
| 2 11 | 6 33.56 | +22 10.5 | 2.011 | 2.808 | 14.0 | 19.9 |

**496183** 2011 $DG_{3}$ 1 5.9 22.°47 5.°7/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.25 | + 6 30.0 | 1.810 | 2.607 | 15.4 | 20.5 |
| 12 13 | 7 22.56 | + 6 22.0 | 1.737 | 2.610 | 12.3 | 20.3 |
| 12 23 | 7 15.66 | + 6 30.8 | 1.685 | 2.613 | 9.0 | 20.1 |
| 1 2 | 7 7.25 | + 6 57.3 | 1.659 | 2.616 | 6.2 | 20.0 |
| 1 12 | 6 58.38 | + 7 40.2 | 1.661 | 2.620 | 6.0 | 20.0 |
| 1 22 | 6 50.15 | + 8 36.0 | 1.690 | 2.624 | 8.5 | 20.1 |
| 2 1 | 6 43.56 | + 9 40.4 | 1.745 | 2.628 | 11.7 | 20.3 |
| 2 11 | 6 39.33 | +10 48.4 | 1.823 | 2.632 | 14.8 | 20.5 |

**96817** 1999 $RK_{166}$ 1 5.9 41.°57 4.°9/ 4.9 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.79 | +32 10.1 | 1.371 | 2.211 | 17.0 | 18.4 |
| 12 13 | 7 29.09 | +32 53.8 | 1.315 | 2.221 | 13.0 | 18.2 |
| 12 23 | 7 19.94 | +33 32.1 | 1.281 | 2.232 | 8.6 | 18.0 |
| 1 2 | 7 8.49 | +33 57.3 | 1.272 | 2.243 | 5.2 | 17.8 |
| 1 12 | 6 56.54 | +34 4.2 | 1.289 | 2.255 | 6.2 | 17.9 |
| 1 22 | 6 45.93 | +33 52.2 | 1.332 | 2.267 | 10.1 | 18.2 |
| 2 1 | 6 38.14 | +33 24.5 | 1.399 | 2.279 | 14.2 | 18.4 |
| 2 11 | 6 34.02 | +32 46.7 | 1.486 | 2.292 | 17.7 | 18.7 |

**82344** 2001 $LH_{17}$ 1 5.9 24.°91 1.°4/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.77 | +23 40.3 | 1.573 | 2.398 | 16.0 | 18.5 |
| 12 13 | 7 30.57 | +22 24.3 | 1.500 | 2.401 | 12.0 | 18.2 |
| 12 23 | 7 20.49 | +21 4.6 | 1.451 | 2.405 | 7.3 | 17.9 |
| 1 2 | 7 8.60 | +19 42.3 | 1.429 | 2.409 | 2.5 | 17.7 |
| 1 12 | 6 56.40 | +18 20.2 | 1.437 | 2.413 | 3.6 | 17.7 |
| 1 22 | 6 45.38 | +17 2.3 | 1.474 | 2.418 | 8.4 | 18.0 |
| 2 1 | 6 36.77 | +15 52.2 | 1.537 | 2.423 | 12.8 | 18.3 |
| 2 11 | 6 31.29 | +14 52.1 | 1.624 | 2.428 | 16.5 | 18.6 |

**426849** 2013 $VR_{20}$ 1 5.9 106.°66 6.°1/ 3.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.01 | +39 38.2 | 2.311 | 3.116 | 12.2 | 20.9 |
| 12 13 | 7 27.65 | +40 47.3 | 2.248 | 3.124 | 9.7 | 20.8 |
| 12 23 | 7 18.76 | +41 48.0 | 2.210 | 3.133 | 7.4 | 20.6 |
| 1 2 | 7 8.15 | +42 33.9 | 2.199 | 3.141 | 6.2 | 20.6 |
| 1 12 | 6 57.02 | +43 0.5 | 2.217 | 3.149 | 6.8 | 20.6 |
| 1 22 | 6 46.67 | +43 6.7 | 2.263 | 3.157 | 8.8 | 20.8 |
| 2 1 | 6 38.22 | +42 54.6 | 2.335 | 3.165 | 11.2 | 20.9 |
| 2 11 | 6 32.47 | +42 28.4 | 2.429 | 3.173 | 13.4 | 21.1 |

**208186** 2000 $QN_{165}$ 1 5.9 144.°25 7.°6/ 4.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 41.26 | +51 6.6 | 2.858 | 3.610 | 11.4 | 20.3 |
| 12 13 | 7 32.71 | +51 42.5 | 2.794 | 3.617 | 9.8 | 20.2 |
| 12 23 | 7 21.59 | +52 3.3 | 2.755 | 3.624 | 8.4 | 20.1 |
| 1 2 | 7 8.89 | +52 3.6 | 2.741 | 3.630 | 7.6 | 20.0 |
| 1 12 | 6 55.96 | +51 40.6 | 2.756 | 3.637 | 7.9 | 20.1 |
| 1 22 | 6 44.15 | +50 55.3 | 2.798 | 3.643 | 9.1 | 20.1 |
| 2 1 | 6 34.53 | +49 51.5 | 2.865 | 3.649 | 10.6 | 20.3 |
| 2 11 | 6 27.80 | +48 35.0 | 2.956 | 3.654 | 12.2 | 20.4 |

**402859** 2007 $RQ_{93}$ 1 5.9 132°.69 5°.9/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 37.32 | +35 40.9 | 1.690 | 2.511 | 15.2 | 21.3 |
| 12 13 | 7 30.70 | +36 36.3 | 1.624 | 2.516 | 11.8 | 21.1 |
| 12 23 | 7 20.84 | +37 24.3 | 1.581 | 2.521 | 8.3 | 20.9 |
| 1 2 | 7 8.77 | +37 57.0 | 1.565 | 2.526 | 6.0 | 20.8 |
| 1 12 | 6 56.08 | +38 8.9 | 1.576 | 2.530 | 6.9 | 20.8 |
| 1 22 | 6 44.50 | +37 59.1 | 1.615 | 2.534 | 9.9 | 21.0 |
| 2 1 | 6 35.46 | +37 30.8 | 1.679 | 2.538 | 13.4 | 21.2 |
| 2 11 | 6 29.87 | +36 49.9 | 1.763 | 2.542 | 16.5 | 21.4 |

**121135** 1999 $JJ_{26}$ 1 5.9 235°.64 0°.7/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.38 | +23 38.4 | 2.367 | 3.180 | 11.6 | 21.3 |
| 12 13 | 7 25.44 | +24 0.9 | 2.270 | 3.166 | 8.7 | 21.1 |
| 12 23 | 7 17.37 | +24 25.9 | 2.198 | 3.152 | 5.3 | 20.8 |
| 1 2 | 7 7.78 | +24 50.2 | 2.156 | 3.137 | 1.6 | 20.6 |
| 1 12 | 6 57.61 | +25 11.3 | 2.144 | 3.121 | 2.6 | 20.6 |
| 1 22 | 6 47.88 | +25 27.3 | 2.163 | 3.104 | 6.4 | 20.8 |
| 2 1 | 6 39.56 | +25 37.5 | 2.211 | 3.087 | 9.9 | 21.0 |
| 2 11 | 6 33.42 | +25 42.7 | 2.282 | 3.070 | 12.9 | 21.2 |

**78527** 2002 $RJ_{98}$ 1 5.9 10°.04 6°.5/ 4.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.05 | +38 10.0 | 1.828 | 2.650 | 14.2 | 18.5 |
| 12 13 | 7 26.68 | +39 9.0 | 1.763 | 2.652 | 11.2 | 18.3 |
| 12 23 | 7 18.38 | +39 59.2 | 1.721 | 2.654 | 8.3 | 18.2 |
| 1 2 | 7 8.08 | +40 33.6 | 1.705 | 2.657 | 6.6 | 18.1 |
| 1 12 | 6 57.20 | +40 47.0 | 1.716 | 2.661 | 7.3 | 18.1 |
| 1 22 | 6 47.28 | +40 38.5 | 1.754 | 2.665 | 9.9 | 18.3 |
| 2 1 | 6 39.63 | +40 10.9 | 1.816 | 2.669 | 12.8 | 18.5 |
| 2 11 | 6 35.10 | +39 29.5 | 1.899 | 2.675 | 15.6 | 18.7 |

**104908** 2000 $JZ_{10}$ 1 5.9 97°.35 2°.3/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.73 | +16 16.3 | 2.281 | 3.090 | 12.2 | 19.3 |
| 12 13 | 7 23.22 | +15 54.7 | 2.206 | 3.096 | 9.2 | 19.1 |
| 12 23 | 7 15.86 | +15 38.7 | 2.156 | 3.103 | 5.9 | 18.9 |
| 1 2 | 7 7.30 | +15 28.2 | 2.134 | 3.109 | 2.8 | 18.7 |
| 1 12 | 6 58.44 | +15 22.5 | 2.142 | 3.115 | 3.1 | 18.7 |
| 1 22 | 6 50.19 | +15 21.1 | 2.180 | 3.121 | 6.3 | 18.9 |
| 2 1 | 6 43.36 | +15 23.2 | 2.246 | 3.128 | 9.5 | 19.2 |
| 2 11 | 6 38.54 | +15 27.8 | 2.336 | 3.134 | 12.3 | 19.4 |

**78470** 2002 $RM_{45}$ 1 5.9 70°.42 1°.3/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.11 | +26 57.0 | 2.985 | 3.798 | 9.5 | 19.5 |
| 12 13 | 7 21.67 | +27 17.0 | 2.927 | 3.823 | 7.0 | 19.4 |
| 12 23 | 7 14.76 | +27 36.2 | 2.895 | 3.847 | 4.2 | 19.2 |
| 1 2 | 7 6.96 | +27 52.2 | 2.893 | 3.871 | 1.7 | 19.1 |
| 1 12 | 6 59.00 | +28 3.5 | 2.922 | 3.895 | 2.4 | 19.1 |
| 1 22 | 6 51.58 | +28 9.3 | 2.982 | 3.919 | 5.0 | 19.4 |
| 2 1 | 6 45.35 | +28 9.6 | 3.071 | 3.943 | 7.5 | 19.6 |
| 2 11 | 6 40.77 | +28 5.4 | 3.184 | 3.967 | 9.7 | 19.7 |

**496744** 2016 $JE_{10}$ 1 5.9 202°.23 3°.1/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.01 | +12 39.5 | 2.422 | 3.222 | 11.8 | 21.5 |
| 12 13 | 7 21.93 | +12 23.6 | 2.339 | 3.222 | 9.1 | 21.3 |
| 12 23 | 7 15.10 | +12 15.7 | 2.281 | 3.221 | 6.2 | 21.1 |
| 1 2 | 7 7.13 | +12 15.9 | 2.251 | 3.220 | 3.6 | 20.9 |
| 1 12 | 6 58.79 | +12 23.7 | 2.251 | 3.219 | 3.7 | 20.9 |
| 1 22 | 6 50.94 | +12 37.9 | 2.280 | 3.218 | 6.3 | 21.1 |
| 2 1 | 6 44.35 | +12 56.9 | 2.338 | 3.217 | 9.3 | 21.3 |
| 2 11 | 6 39.61 | +13 19.1 | 2.419 | 3.216 | 12.0 | 21.5 |

**381981** 2010 $GF_{103}$ 1 5.9 286°.29 0°.9/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.07 | +19 44.4 | 2.263 | 3.080 | 12.0 | 21.3 |
| 12 13 | 7 22.96 | +19 41.5 | 2.171 | 3.069 | 9.0 | 21.1 |
| 12 23 | 7 15.86 | +19 42.6 | 2.105 | 3.058 | 5.5 | 20.9 |
| 1 2 | 7 7.37 | +19 46.5 | 2.067 | 3.047 | 1.9 | 20.6 |
| 1 12 | 6 58.41 | +19 51.6 | 2.058 | 3.035 | 2.5 | 20.7 |
| 1 22 | 6 49.94 | +19 56.9 | 2.079 | 3.024 | 6.3 | 20.9 |
| 2 1 | 6 42.86 | +20 1.8 | 2.128 | 3.014 | 9.8 | 21.1 |
| 2 11 | 6 37.87 | +20 6.0 | 2.201 | 3.003 | 12.9 | 21.3 |

**196155** 2002 $UJ_{51}$ 1 5.9 38°.32 0°.9/ 5.8 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.65 | +26 38.5 | 1.959 | 2.782 | 13.4 | 19.6 |
| 12 13 | 7 26.45 | +26 15.7 | 1.887 | 2.788 | 9.9 | 19.3 |
| 12 23 | 7 17.92 | +25 50.3 | 1.840 | 2.794 | 6.0 | 19.1 |
| 1 2 | 7 7.93 | +25 20.5 | 1.821 | 2.801 | 1.9 | 18.9 |
| 1 12 | 6 57.65 | +24 45.9 | 1.831 | 2.808 | 2.8 | 19.0 |
| 1 22 | 6 48.26 | +24 7.3 | 1.871 | 2.815 | 6.9 | 19.2 |
| 2 1 | 6 40.76 | +23 26.6 | 1.938 | 2.822 | 10.6 | 19.5 |
| 2 11 | 6 35.81 | +22 46.2 | 2.029 | 2.830 | 13.8 | 19.7 |

**31700** Naperez 1 5.9 168°.87 0°.5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.08 | +23 39.5 | 2.848 | 3.659 | 10.0 | 20.0 |
| 12 13 | 7 22.56 | +23 57.4 | 2.766 | 3.662 | 7.4 | 19.9 |
| 12 23 | 7 15.42 | +24 16.6 | 2.711 | 3.665 | 4.4 | 19.7 |
| 1 2 | 7 7.22 | +24 35.0 | 2.686 | 3.667 | 1.3 | 19.5 |
| 1 12 | 6 58.70 | +24 50.9 | 2.692 | 3.669 | 2.1 | 19.5 |
| 1 22 | 6 50.64 | +25 2.9 | 2.729 | 3.670 | 5.2 | 19.7 |
| 2 1 | 6 43.75 | +25 10.8 | 2.795 | 3.672 | 8.1 | 19.9 |
| 2 11 | 6 38.59 | +25 14.8 | 2.886 | 3.673 | 10.5 | 20.1 |

**432545** 2010 $HT_{79}$ 1 5.9 252°.71 2°.5/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.25 | +29 12.8 | 2.510 | 3.327 | 10.9 | 21.4 |
| 12 13 | 7 23.81 | +29 48.6 | 2.423 | 3.319 | 8.2 | 21.2 |
| 12 23 | 7 16.36 | +30 23.4 | 2.361 | 3.311 | 5.2 | 21.0 |
| 1 2 | 7 7.53 | +30 53.3 | 2.328 | 3.303 | 2.7 | 20.8 |
| 1 12 | 6 58.20 | +31 15.4 | 2.326 | 3.294 | 3.5 | 20.9 |
| 1 22 | 6 49.36 | +31 27.9 | 2.353 | 3.286 | 6.5 | 21.0 |
| 2 1 | 6 41.91 | +31 31.0 | 2.409 | 3.277 | 9.5 | 21.2 |
| 2 11 | 6 36.54 | +31 26.1 | 2.488 | 3.269 | 12.1 | 21.4 |

**160819** 2000 $WE_{122}$ 1 5.9 68°.84 1°.6/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.54 | +24 54.3 | 1.435 | 2.270 | 16.7 | 19.9 |
| 12 13 | 7 29.18 | +25 23.6 | 1.385 | 2.292 | 12.4 | 19.6 |
| 12 23 | 7 19.78 | +25 54.6 | 1.358 | 2.314 | 7.4 | 19.4 |
| 1 2 | 7 8.48 | +26 21.9 | 1.356 | 2.336 | 2.5 | 19.2 |
| 1 12 | 6 56.86 | +26 41.4 | 1.382 | 2.359 | 3.8 | 19.3 |
| 1 22 | 6 46.53 | +26 51.3 | 1.436 | 2.381 | 8.5 | 19.7 |
| 2 1 | 6 38.75 | +26 52.4 | 1.515 | 2.403 | 12.8 | 20.0 |
| 2 11 | 6 34.25 | +26 46.9 | 1.615 | 2.425 | 16.4 | 20.2 |

**433466** 2013 $VO_{8}$ 1 5.9 141°.27 4°.8/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.64 | + 7 58.1 | 2.428 | 3.212 | 12.3 | 21.2 |
| 12 13 | 7 22.33 | + 7 21.7 | 2.351 | 3.216 | 9.8 | 21.0 |
| 12 23 | 7 15.32 | + 6 55.7 | 2.297 | 3.220 | 7.2 | 20.9 |
| 1 2 | 7 7.20 | + 6 41.3 | 2.271 | 3.224 | 5.1 | 20.8 |
| 1 12 | 6 58.77 | + 6 38.8 | 2.275 | 3.228 | 5.1 | 20.8 |
| 1 22 | 6 50.84 | + 6 47.4 | 2.307 | 3.232 | 7.1 | 20.9 |
| 2 1 | 6 44.18 | + 7 5.4 | 2.368 | 3.235 | 9.7 | 21.1 |
| 2 11 | 6 39.34 | + 7 30.3 | 2.452 | 3.238 | 12.1 | 21.2 |

**2968** Iliya 1 5.9 137°.33 0°.8/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.24 | +20 27.0 | 2.130 | 2.936 | 13.0 | 19.6 |
| 12 13 | 7 28.81 | +20 17.9 | 2.062 | 2.953 | 9.7 | 19.5 |
| 12 23 | 7 19.23 | +20 11.7 | 2.019 | 2.969 | 5.9 | 19.3 |
| 1 2 | 7 8.30 | +20 6.8 | 2.005 | 2.985 | 1.9 | 19.0 |
| 1 12 | 6 57.10 | +20 1.8 | 2.022 | 2.999 | 2.6 | 19.1 |
| 1 22 | 6 46.74 | +19 56.4 | 2.071 | 3.013 | 6.5 | 19.4 |
| 2 1 | 6 38.15 | +19 50.4 | 2.148 | 3.026 | 10.1 | 19.6 |
| 2 11 | 6 31.97 | +19 44.4 | 2.249 | 3.037 | 13.0 | 19.8 |

**285943** 2001 $RB_{4}$ 1 5.9 159°.29 5°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.04 | +42 20.9 | 2.863 | 3.646 | 10.6 | 20.7 |
| 12 13 | 7 29.31 | +42 41.2 | 2.790 | 3.652 | 8.5 | 20.5 |
| 12 23 | 7 19.49 | +42 51.1 | 2.743 | 3.657 | 6.6 | 20.4 |
| 1 2 | 7 8.37 | +42 46.2 | 2.724 | 3.662 | 5.3 | 20.3 |
| 1 12 | 6 57.01 | +42 24.6 | 2.735 | 3.667 | 5.7 | 20.4 |
| 1 22 | 6 46.48 | +41 46.8 | 2.776 | 3.671 | 7.4 | 20.5 |
| 2 1 | 6 37.70 | +40 55.6 | 2.845 | 3.675 | 9.4 | 20.6 |
| 2 11 | 6 31.28 | +39 55.2 | 2.939 | 3.678 | 11.4 | 20.8 |

**52680** 1998 $DX_{29}$ 1 5.9 248°.88 0°.0/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.64 | +21 46.8 | 2.568 | 3.383 | 10.8 | 19.8 |
| 12 13 | 7 22.46 | +22 2.1 | 2.478 | 3.375 | 8.0 | 19.6 |
| 12 23 | 7 15.49 | +22 20.4 | 2.413 | 3.366 | 4.9 | 19.4 |
| 1 2 | 7 7.28 | +22 39.7 | 2.377 | 3.358 | 1.4 | 19.1 |
| 1 12 | 6 58.64 | +22 58.0 | 2.372 | 3.349 | 2.2 | 19.2 |
| 1 22 | 6 50.44 | +23 13.8 | 2.397 | 3.341 | 5.7 | 19.4 |
| 2 1 | 6 43.47 | +23 26.3 | 2.451 | 3.332 | 8.8 | 19.6 |
| 2 11 | 6 38.38 | +23 35.5 | 2.529 | 3.323 | 11.6 | 19.7 |

**244676** 2003 $NT_{7}$ 1 5.9 115°.66 2°.0/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.67 | +17 28.6 | 1.851 | 2.663 | 14.5 | 20.6 |
| 12 13 | 7 27.89 | +17 14.8 | 1.788 | 2.681 | 10.9 | 20.4 |
| 12 23 | 7 18.77 | +17 7.1 | 1.749 | 2.699 | 6.8 | 20.2 |
| 1 2 | 7 8.19 | +17 4.6 | 1.738 | 2.716 | 2.8 | 20.0 |
| 1 12 | 6 57.32 | +17 6.0 | 1.757 | 2.732 | 3.3 | 20.0 |
| 1 22 | 6 47.36 | +17 10.0 | 1.805 | 2.748 | 7.2 | 20.3 |
| 2 1 | 6 39.33 | +17 15.9 | 1.880 | 2.763 | 11.0 | 20.6 |
| 2 11 | 6 33.88 | +17 23.0 | 1.979 | 2.778 | 14.2 | 20.8 |

**197971** 2004 $RW_{110}$ 1 5.9 125°.44 0°.5/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.63 | +20 25.3 | 1.833 | 2.648 | 14.5 | 21.4 |
| 12 13 | 7 28.71 | +20 34.6 | 1.769 | 2.665 | 10.8 | 21.2 |
| 12 23 | 7 19.33 | +20 48.4 | 1.729 | 2.682 | 6.5 | 21.0 |
| 1 2 | 7 8.36 | +21 4.1 | 1.717 | 2.697 | 2.0 | 20.8 |
| 1 12 | 6 57.05 | +21 19.1 | 1.735 | 2.712 | 2.8 | 20.9 |
| 1 22 | 6 46.66 | +21 31.6 | 1.782 | 2.727 | 7.2 | 21.2 |
| 2 1 | 6 38.27 | +21 41.1 | 1.857 | 2.740 | 11.1 | 21.4 |
| 2 11 | 6 32.58 | +21 48.0 | 1.956 | 2.753 | 14.4 | 21.7 |

**22445** 1996 $TT_{14}$ 1 5.9 80°.65 0°.8/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.64 | +19 2.7 | 1.300 | 2.133 | 18.2 | 17.8 |
| 12 13 | 7 30.13 | +19 27.2 | 1.251 | 2.156 | 13.6 | 17.5 |
| 12 23 | 7 20.42 | +20 0.5 | 1.224 | 2.179 | 8.2 | 17.3 |
| 1 2 | 7 8.68 | +20 38.2 | 1.221 | 2.202 | 2.5 | 17.0 |
| 1 12 | 6 56.60 | +21 15.5 | 1.246 | 2.224 | 3.5 | 17.1 |
| 1 22 | 6 45.86 | +21 48.8 | 1.298 | 2.246 | 8.8 | 17.5 |
| 2 1 | 6 37.81 | +22 16.5 | 1.375 | 2.268 | 13.5 | 17.9 |
| 2 11 | 6 33.23 | +22 38.5 | 1.473 | 2.289 | 17.3 | 18.2 |

**297383** 2000 $QO_1$ 1 5.9 108°.39 1°.4/ 6.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.40 | +18 22.9 | 1.752 | 2.567 | 15.0 | 21.2 |
| 12 13 | 7 28.54 | +18 23.0 | 1.693 | 2.588 | 11.2 | 21.0 |
| 12 23 | 7 19.20 | +18 29.4 | 1.658 | 2.609 | 6.9 | 20.8 |
| 1 2 | 7 8.32 | +18 40.0 | 1.650 | 2.629 | 2.5 | 20.6 |
| 1 12 | 6 57.16 | +18 52.8 | 1.671 | 2.648 | 3.1 | 20.6 |
| 1 22 | 6 46.98 | +19 5.8 | 1.722 | 2.667 | 7.4 | 20.9 |
| 2 1 | 6 38.85 | +19 18.3 | 1.800 | 2.685 | 11.3 | 21.2 |
| 2 11 | 6 33.46 | +19 29.8 | 1.901 | 2.702 | 14.6 | 21.5 |

**409490** 2005 $SQ_{122}$ 1 5.9 92°.36 5°.5/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.86 | +37 45.1 | 1.976 | 2.784 | 13.8 | 20.8 |
| 12 13 | 7 31.19 | +38 19.1 | 1.923 | 2.806 | 10.8 | 20.6 |
| 12 23 | 7 20.81 | +38 42.9 | 1.894 | 2.828 | 7.7 | 20.5 |
| 1 2 | 7 8.76 | +38 50.8 | 1.893 | 2.849 | 5.6 | 20.4 |
| 1 12 | 6 56.51 | +38 39.7 | 1.920 | 2.870 | 6.2 | 20.5 |
| 1 22 | 6 45.48 | +38 10.4 | 1.976 | 2.891 | 8.7 | 20.7 |
| 2 1 | 6 36.80 | +37 26.8 | 2.059 | 2.912 | 11.6 | 20.9 |
| 2 11 | 6 31.13 | +36 34.3 | 2.164 | 2.931 | 14.1 | 21.1 |

**252016** 2000 $HD_{60}$ 1 5.9 276°.78 4°.4/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.50 | +31 45.3 | 1.820 | 2.646 | 14.1 | 21.2 |
| 12 13 | 7 27.89 | +32 39.5 | 1.731 | 2.630 | 10.8 | 21.0 |
| 12 23 | 7 19.29 | +33 31.8 | 1.666 | 2.614 | 7.3 | 20.7 |
| 1 2 | 7 8.47 | +34 15.6 | 1.628 | 2.597 | 4.6 | 20.5 |
| 1 12 | 6 56.75 | +34 44.8 | 1.618 | 2.581 | 5.6 | 20.6 |
| 1 22 | 6 45.66 | +34 56.8 | 1.636 | 2.564 | 9.2 | 20.7 |
| 2 1 | 6 36.64 | +34 52.2 | 1.680 | 2.548 | 12.9 | 20.9 |
| 2 11 | 6 30.70 | +34 34.7 | 1.745 | 2.531 | 16.3 | 21.1 |

**491042** 2011 $QO_{22}$ 1 5.9 87°.58 1°.8/ 6.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.70 | +18 40.2 | 1.529 | 2.354 | 16.4 | 21.9 |
| 12 13 | 7 28.35 | +18 23.5 | 1.469 | 2.369 | 12.3 | 21.6 |
| 12 23 | 7 19.23 | +18 13.0 | 1.432 | 2.385 | 7.6 | 21.4 |
| 1 2 | 7 8.36 | +18 7.5 | 1.421 | 2.400 | 2.9 | 21.2 |
| 1 12 | 6 57.15 | +18 5.6 | 1.439 | 2.415 | 3.5 | 21.2 |
| 1 22 | 6 47.03 | +18 6.1 | 1.484 | 2.430 | 8.1 | 21.6 |
| 2 1 | 6 39.19 | +18 8.3 | 1.555 | 2.445 | 12.4 | 21.8 |
| 2 11 | 6 34.35 | +18 11.7 | 1.648 | 2.459 | 16.0 | 22.1 |

**419938** 2011 $BG_{68}$ 1 5.9 359°.14 2°.2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.08 | +26 46.9 | 1.854 | 2.683 | 13.8 | 21.4 |
| 12 13 | 7 25.67 | +27 20.0 | 1.779 | 2.682 | 10.3 | 21.2 |
| 12 23 | 7 17.69 | +27 53.6 | 1.728 | 2.682 | 6.3 | 20.9 |
| 1 2 | 7 7.96 | +28 23.3 | 1.704 | 2.682 | 2.6 | 20.7 |
| 1 12 | 6 57.68 | +28 45.2 | 1.709 | 2.682 | 3.7 | 20.8 |
| 1 22 | 6 48.13 | +28 57.3 | 1.742 | 2.682 | 7.7 | 21.0 |
| 2 1 | 6 40.50 | +28 59.7 | 1.801 | 2.682 | 11.5 | 21.2 |
| 2 11 | 6 35.58 | +28 54.4 | 1.883 | 2.683 | 14.8 | 21.4 |

**355965** 2008 $YJ_{167}$ 1 5.9 18°.22 1°.5/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.77 | +19 34.8 | 1.122 | 1.976 | 19.1 | 20.1 |
| 12 13 | 7 25.59 | +19 26.0 | 1.066 | 1.981 | 14.3 | 19.8 |
| 12 23 | 7 17.98 | +19 25.4 | 1.029 | 1.988 | 8.8 | 19.6 |
| 1 2 | 7 8.07 | +19 31.0 | 1.016 | 1.996 | 3.0 | 19.2 |
| 1 12 | 6 57.59 | +19 40.1 | 1.027 | 2.005 | 3.9 | 19.3 |
| 1 22 | 6 48.36 | +19 50.3 | 1.062 | 2.015 | 9.6 | 19.7 |
| 2 1 | 6 41.88 | +20 0.3 | 1.121 | 2.027 | 14.8 | 20.0 |
| 2 11 | 6 39.02 | +20 9.2 | 1.198 | 2.039 | 19.0 | 20.3 |

**310157** 2011 $QU_{56}$ 1 5.9 98°.30 4°.4/ 7.1 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.01 | +11 1.1 | 1.617 | 2.425 | 16.4 | 21.4 |
| 12 13 | 7 26.94 | +10 50.6 | 1.557 | 2.442 | 12.7 | 21.3 |
| 12 23 | 7 18.34 | +10 54.2 | 1.519 | 2.459 | 8.6 | 21.1 |
| 1 2 | 7 8.11 | +11 11.5 | 1.507 | 2.475 | 5.1 | 20.9 |
| 1 12 | 6 57.52 | +11 40.7 | 1.523 | 2.492 | 5.0 | 20.9 |
| 1 22 | 6 47.86 | +12 18.6 | 1.567 | 2.508 | 8.4 | 21.2 |
| 2 1 | 6 40.24 | +13 1.6 | 1.638 | 2.523 | 12.2 | 21.4 |
| 2 11 | 6 35.37 | +13 46.5 | 1.730 | 2.538 | 15.5 | 21.7 |

**236883** 2007 $RS_{301}$ 1 5.9 213°.87 0°.9/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.33 | +24 39.0 | 2.634 | 3.448 | 10.6 | 21.6 |
| 12 13 | 7 23.69 | +24 58.0 | 2.546 | 3.442 | 7.9 | 21.4 |
| 12 23 | 7 16.23 | +25 18.0 | 2.483 | 3.436 | 4.8 | 21.2 |
| 1 2 | 7 7.51 | +25 36.6 | 2.449 | 3.429 | 1.5 | 20.9 |
| 1 12 | 6 58.39 | +25 51.6 | 2.447 | 3.422 | 2.4 | 21.0 |
| 1 22 | 6 49.71 | +26 1.7 | 2.475 | 3.415 | 5.7 | 21.2 |
| 2 1 | 6 42.32 | +26 6.5 | 2.531 | 3.408 | 8.8 | 21.4 |
| 2 11 | 6 36.83 | +26 6.8 | 2.613 | 3.400 | 11.5 | 21.5 |

**336001** 2007 $TL_{366}$ 1 5.9 20°.74 0°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.84 | +22 41.2 | 2.194 | 3.015 | 12.2 | 20.8 |
| 12 13 | 7 23.51 | +22 38.6 | 2.116 | 3.016 | 9.1 | 20.6 |
| 12 23 | 7 16.17 | +22 37.8 | 2.064 | 3.018 | 5.5 | 20.4 |
| 1 2 | 7 7.49 | +22 36.9 | 2.039 | 3.020 | 1.6 | 20.2 |
| 1 12 | 6 58.45 | +22 34.7 | 2.044 | 3.022 | 2.4 | 20.2 |
| 1 22 | 6 50.05 | +22 30.2 | 2.079 | 3.024 | 6.3 | 20.5 |
| 2 1 | 6 43.17 | +22 23.6 | 2.141 | 3.027 | 9.7 | 20.7 |
| 2 11 | 6 38.46 | +22 15.4 | 2.228 | 3.029 | 12.7 | 20.9 |

**83930** 2001 $VY_{56}$ 1 5.9 223°.36 1°.9/ 6.4 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 27.94 | +16 31.4 | 2.771 | 3.573 | 10.5 | 20.2 |
| 12 13 | 7 22.49 | +16 13.9 | 2.679 | 3.565 | 7.9 | 20.1 |
| 12 23 | 7 15.43 | +16 0.7 | 2.612 | 3.558 | 5.1 | 19.9 |
| 1 2 | 7 7.29 | +15 51.6 | 2.574 | 3.549 | 2.4 | 19.7 |
| 1 12 | 6 58.80 | +15 46.2 | 2.568 | 3.541 | 2.7 | 19.7 |
| 1 22 | 6 50.73 | +15 43.9 | 2.592 | 3.532 | 5.5 | 19.9 |
| 2 1 | 6 43.78 | +15 44.2 | 2.645 | 3.523 | 8.4 | 20.0 |
| 2 11 | 6 38.52 | +15 46.5 | 2.724 | 3.514 | 11.0 | 20.2 |

**335935** 2007 $TF_{37}$ 1 5.9 151°.60 4°.4/ 7.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.93 | + 7 31.3 | 2.587 | 3.368 | 11.7 | 21.3 |
| 12 13 | 7 21.75 | + 7 14.1 | 2.509 | 3.373 | 9.3 | 21.2 |
| 12 23 | 7 14.97 | + 7 7.7 | 2.454 | 3.377 | 6.8 | 21.0 |
| 1 2 | 7 7.15 | + 7 12.7 | 2.427 | 3.382 | 4.7 | 20.9 |
| 1 12 | 6 59.03 | + 7 28.7 | 2.430 | 3.386 | 4.7 | 20.9 |
| 1 22 | 6 51.36 | + 7 54.3 | 2.463 | 3.390 | 6.6 | 21.0 |
| 2 1 | 6 44.85 | + 8 27.3 | 2.524 | 3.393 | 9.1 | 21.2 |
| 2 11 | 6 40.06 | + 9 5.0 | 2.609 | 3.397 | 11.5 | 21.3 |

**122503** 2000 $QN_{196}$ 1 5.9 91°.48 2°.1/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.35 | +16 7.5 | 1.555 | 2.377 | 16.3 | 20.6 |
| 12 13 | 7 27.37 | +16 20.1 | 1.494 | 2.392 | 12.3 | 20.4 |
| 12 23 | 7 18.69 | +16 43.0 | 1.456 | 2.407 | 7.7 | 20.2 |
| 1 2 | 7 8.24 | +17 14.0 | 1.445 | 2.423 | 3.1 | 19.9 |
| 1 12 | 6 57.37 | +17 49.5 | 1.461 | 2.438 | 3.5 | 20.0 |
| 1 22 | 6 47.48 | +18 26.3 | 1.506 | 2.452 | 8.0 | 20.3 |
| 2 1 | 6 39.76 | +19 1.8 | 1.576 | 2.467 | 12.3 | 20.6 |
| 2 11 | 6 34.95 | +19 34.5 | 1.669 | 2.481 | 15.8 | 20.8 |

**137193** 1999 $JB_{96}$ 1 5.9 204°.85 1°.9/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.47 | +13 31.0 | 3.133 | 3.925 | 9.6 | 20.7 |
| 12 13 | 7 21.27 | +13 48.3 | 3.040 | 3.920 | 7.3 | 20.5 |
| 12 23 | 7 14.65 | +14 12.8 | 2.972 | 3.914 | 4.8 | 20.3 |
| 1 2 | 7 7.07 | +14 43.3 | 2.934 | 3.908 | 2.4 | 20.2 |
| 1 12 | 6 59.14 | +15 18.4 | 2.928 | 3.901 | 2.5 | 20.2 |
| 1 22 | 6 51.53 | +15 56.3 | 2.954 | 3.894 | 4.9 | 20.3 |
| 2 1 | 6 44.85 | +16 35.3 | 3.009 | 3.886 | 7.5 | 20.5 |
| 2 11 | 6 39.62 | +17 13.7 | 3.091 | 3.878 | 9.9 | 20.6 |

**163042** 2001 $XH_{205}$ 1 5.9 254°.50 1°.1/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.04 | +24 25.8 | 1.648 | 2.477 | 15.2 | 20.5 |
| 12 13 | 7 28.26 | +24 43.1 | 1.562 | 2.465 | 11.4 | 20.2 |
| 12 23 | 7 19.48 | +25 2.8 | 1.498 | 2.454 | 7.0 | 19.9 |
| 1 2 | 7 8.54 | +25 20.9 | 1.461 | 2.442 | 2.2 | 19.6 |
| 1 12 | 6 56.80 | +25 33.7 | 1.453 | 2.430 | 3.5 | 19.7 |
| 1 22 | 6 45.77 | +25 38.9 | 1.472 | 2.417 | 8.4 | 19.9 |
| 2 1 | 6 36.88 | +25 36.9 | 1.518 | 2.404 | 12.9 | 20.2 |
| 2 11 | 6 31.10 | +25 29.4 | 1.585 | 2.391 | 16.8 | 20.4 |

**460441** 2014 $SJ_{175}$ 1 5.9 38°.50 1°.3/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.42 | +23 53.0 | 1.619 | 2.453 | 15.2 | 21.4 |
| 12 13 | 7 26.13 | +24 25.9 | 1.551 | 2.457 | 11.3 | 21.2 |
| 12 23 | 7 18.06 | +25 2.3 | 1.505 | 2.462 | 6.8 | 21.0 |
| 1 2 | 7 8.09 | +25 37.7 | 1.486 | 2.467 | 2.2 | 20.7 |
| 1 12 | 6 57.57 | +26 7.7 | 1.495 | 2.472 | 3.4 | 20.8 |
| 1 22 | 6 47.91 | +26 29.7 | 1.532 | 2.477 | 8.1 | 21.1 |
| 2 1 | 6 40.37 | +26 43.2 | 1.595 | 2.483 | 12.3 | 21.3 |
| 2 11 | 6 35.80 | +26 49.2 | 1.679 | 2.489 | 15.9 | 21.6 |

**322896** 2001 $XS_{239}$ 1 5.9 30°.28 3°.3/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.75 | +25 58.8 | 1.402 | 2.246 | 16.5 | 19.7 |
| 12 13 | 7 26.01 | +27 19.5 | 1.348 | 2.259 | 12.3 | 19.5 |
| 12 23 | 7 18.14 | +28 43.5 | 1.316 | 2.273 | 7.6 | 19.2 |
| 1 2 | 7 8.13 | +30 2.6 | 1.311 | 2.288 | 3.6 | 19.0 |
| 1 12 | 6 57.53 | +31 9.1 | 1.332 | 2.303 | 5.1 | 19.2 |
| 1 22 | 6 47.99 | +31 58.3 | 1.380 | 2.319 | 9.4 | 19.4 |
| 2 1 | 6 40.90 | +32 29.8 | 1.452 | 2.336 | 13.5 | 19.7 |
| 2 11 | 6 37.15 | +32 46.2 | 1.545 | 2.354 | 17.0 | 20.0 |

**351755** 2006 $DZ_{156}$ 1 5.9 309°.93 1°.0/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.50 | +18 55.4 | 1.380 | 2.219 | 17.0 | 20.9 |
| 12 13 | 7 26.00 | +19 9.4 | 1.298 | 2.206 | 12.9 | 20.6 |
| 12 23 | 7 18.31 | +19 33.0 | 1.237 | 2.193 | 8.0 | 20.3 |
| 1 2 | 7 8.25 | +20 3.6 | 1.200 | 2.181 | 2.6 | 20.0 |
| 1 12 | 6 57.25 | +20 37.2 | 1.190 | 2.168 | 3.6 | 20.0 |
| 1 22 | 6 46.97 | +21 10.0 | 1.206 | 2.157 | 9.1 | 20.3 |
| 2 1 | 6 38.97 | +21 39.8 | 1.247 | 2.145 | 14.2 | 20.5 |
| 2 11 | 6 34.34 | +22 5.2 | 1.308 | 2.134 | 18.6 | 20.8 |

**454594** 2014 $PV_{44}$ 1 5.9 204°.78 0°.1/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.97 | +22 19.5 | 1.912 | 2.730 | 13.8 | 22.4 |
| 12 13 | 7 27.71 | +22 30.6 | 1.828 | 2.726 | 10.3 | 22.1 |
| 12 23 | 7 18.91 | +22 44.8 | 1.768 | 2.722 | 6.3 | 21.9 |
| 1 2 | 7 8.34 | +22 59.4 | 1.736 | 2.717 | 1.8 | 21.6 |
| 1 12 | 6 57.18 | +23 11.5 | 1.734 | 2.711 | 2.8 | 21.7 |
| 1 22 | 6 46.71 | +23 19.6 | 1.761 | 2.705 | 7.3 | 21.9 |
| 2 1 | 6 38.07 | +23 23.3 | 1.815 | 2.698 | 11.3 | 22.1 |
| 2 11 | 6 32.09 | +23 23.5 | 1.893 | 2.691 | 14.8 | 22.4 |

**223791** 2004 $TS_1$ 1 5.9 80°.63 0°.3/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.97 | +19 47.4 | 1.945 | 2.766 | 13.5 | 20.2 |
| 12 13 | 7 24.58 | +20 17.0 | 1.874 | 2.774 | 10.0 | 20.0 |
| 12 23 | 7 16.93 | +20 52.8 | 1.828 | 2.782 | 6.1 | 19.8 |
| 1 2 | 7 7.76 | +21 31.8 | 1.809 | 2.790 | 1.8 | 19.5 |
| 1 12 | 6 58.14 | +22 10.5 | 1.820 | 2.797 | 2.6 | 19.6 |
| 1 22 | 6 49.21 | +22 46.0 | 1.859 | 2.805 | 6.8 | 19.9 |
| 2 1 | 6 41.97 | +23 16.7 | 1.927 | 2.813 | 10.6 | 20.1 |
| 2 11 | 6 37.16 | +23 42.1 | 2.017 | 2.821 | 13.8 | 20.4 |

**407266** 2010 $CB_{43}$ 1 5.9 286°.94 12°.9/10.2 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.15 | − 8 52.2 | 1.592 | 2.323 | 19.8 | 21.4 |
| 12 13 | 7 25.45 | − 9 23.6 | 1.493 | 2.297 | 17.6 | 21.2 |
| 12 23 | 7 17.92 | − 9 23.7 | 1.412 | 2.272 | 15.3 | 21.0 |
| 1 2 | 7 8.17 | − 8 44.7 | 1.351 | 2.245 | 13.5 | 20.8 |
| 1 12 | 6 57.34 | − 7 23.3 | 1.314 | 2.219 | 12.9 | 20.7 |
| 1 22 | 6 46.82 | − 5 22.0 | 1.301 | 2.192 | 14.2 | 20.7 |
| 2 1 | 6 38.04 | − 2 49.4 | 1.312 | 2.166 | 16.8 | 20.8 |
| 2 11 | 6 32.13 | + 0 2.2 | 1.345 | 2.139 | 19.9 | 20.9 |

**178617** 2000 $EB_{153}$ 1 5.9 354°.41 9°.4/ 8.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.30 | + 2 28.2 | 1.233 | 2.048 | 20.1 | 19.5 |
| 12 13 | 7 21.33 | + 1 57.5 | 1.164 | 2.041 | 16.7 | 19.3 |
| 12 23 | 7 15.42 | + 1 53.8 | 1.113 | 2.035 | 13.1 | 19.0 |
| 1 2 | 7 7.41 | + 2 21.4 | 1.083 | 2.031 | 10.1 | 18.9 |
| 1 12 | 6 58.66 | + 3 20.3 | 1.076 | 2.028 | 9.6 | 18.8 |
| 1 22 | 6 50.69 | + 4 45.2 | 1.093 | 2.027 | 11.9 | 18.9 |
| 2 1 | 6 44.89 | + 6 27.7 | 1.132 | 2.027 | 15.6 | 19.2 |
| 2 11 | 6 42.24 | + 8 17.5 | 1.191 | 2.029 | 19.3 | 19.4 |

**211961** 2004 $YG_{36}$ 1 5.9 319°.02 3°.7/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.88 | +16 6.6 | 1.371 | 2.207 | 17.3 | 19.9 |
| 12 13 | 7 25.47 | +15 26.3 | 1.286 | 2.190 | 13.4 | 19.6 |
| 12 23 | 7 17.95 | +14 53.5 | 1.222 | 2.174 | 8.8 | 19.3 |
| 1 2 | 7 8.15 | +14 29.7 | 1.183 | 2.158 | 4.5 | 19.0 |
| 1 12 | 6 57.48 | +14 15.1 | 1.169 | 2.143 | 5.0 | 19.0 |
| 1 22 | 6 47.53 | +14 9.6 | 1.181 | 2.128 | 9.7 | 19.2 |
| 2 1 | 6 39.81 | +14 12.1 | 1.217 | 2.115 | 14.6 | 19.5 |
| 2 11 | 6 35.36 | +14 20.9 | 1.273 | 2.102 | 18.9 | 19.7 |

**349308** 2007 $UU_{45}$ 1 5.9 72°.27 2°.4/ 6.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.29 | +15 43.7 | 2.270 | 3.079 | 12.2 | 20.7 |
| 12 13 | 7 22.94 | +15 23.2 | 2.197 | 3.087 | 9.3 | 20.5 |
| 12 23 | 7 15.76 | +15 8.8 | 2.149 | 3.095 | 6.0 | 20.3 |
| 1 2 | 7 7.40 | +15 0.4 | 2.129 | 3.104 | 3.0 | 20.1 |
| 1 12 | 6 58.75 | +14 57.4 | 2.139 | 3.112 | 3.2 | 20.1 |
| 1 22 | 6 50.71 | +14 59.0 | 2.179 | 3.121 | 6.3 | 20.3 |
| 2 1 | 6 44.08 | +15 4.3 | 2.246 | 3.129 | 9.5 | 20.6 |
| 2 11 | 6 39.45 | +15 12.2 | 2.338 | 3.137 | 12.3 | 20.8 |

**403621** 2010 $RD_{127}$ 1 5.9 80°.18 1°.6/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.53 | +25 9.3 | 1.734 | 2.559 | 14.7 | 22.3 |
| 12 13 | 7 28.06 | +25 40.4 | 1.680 | 2.582 | 10.9 | 22.1 |
| 12 23 | 7 19.01 | +26 12.6 | 1.650 | 2.605 | 6.5 | 21.9 |
| 1 2 | 7 8.33 | +26 41.3 | 1.648 | 2.628 | 2.3 | 21.6 |
| 1 12 | 6 57.37 | +27 2.8 | 1.675 | 2.650 | 3.4 | 21.8 |
| 1 22 | 6 47.44 | +27 15.4 | 1.730 | 2.672 | 7.6 | 22.1 |
| 2 1 | 6 39.66 | +27 19.7 | 1.812 | 2.694 | 11.4 | 22.3 |
| 2 11 | 6 34.72 | +27 17.4 | 1.917 | 2.716 | 14.6 | 22.6 |

**503812** 2017 $KZ_8$ 1 5.9 231°.09 5°.3/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.17 | + 9 52.8 | 1.927 | 2.724 | 14.6 | 21.4 |
| 12 13 | 7 25.47 | + 9 4.4 | 1.841 | 2.717 | 11.5 | 21.2 |
| 12 23 | 7 17.50 | + 8 26.2 | 1.779 | 2.710 | 8.3 | 21.0 |
| 1 2 | 7 7.95 | + 8 0.3 | 1.744 | 2.703 | 5.7 | 20.8 |
| 1 12 | 6 57.87 | + 7 47.9 | 1.737 | 2.696 | 5.8 | 20.8 |
| 1 22 | 6 48.38 | + 7 48.5 | 1.759 | 2.688 | 8.5 | 21.0 |
| 2 1 | 6 40.51 | + 8 0.5 | 1.807 | 2.680 | 11.9 | 21.1 |
| 2 11 | 6 35.02 | + 8 21.2 | 1.877 | 2.672 | 15.0 | 21.3 |

**293188** 2007 $AR_{25}$ 1 5.9 328°.37 4°.7/ 7.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.81 | + 8 24.2 | 1.688 | 2.495 | 15.9 | 20.0 |
| 12 13 | 7 23.33 | + 8 39.0 | 1.606 | 2.488 | 12.5 | 19.8 |
| 12 23 | 7 16.39 | + 9 11.9 | 1.545 | 2.481 | 8.8 | 19.5 |
| 1 2 | 7 7.66 | +10 2.8 | 1.509 | 2.475 | 5.5 | 19.3 |
| 1 12 | 6 58.28 | +11 9.0 | 1.501 | 2.469 | 5.2 | 19.3 |
| 1 22 | 6 49.46 | +12 25.6 | 1.521 | 2.463 | 8.4 | 19.4 |
| 2 1 | 6 42.36 | +13 47.3 | 1.567 | 2.458 | 12.3 | 19.7 |
| 2 11 | 6 37.86 | +15 8.6 | 1.636 | 2.453 | 15.9 | 19.9 |

**142585** 2002 $TH_{96}$ 1 5.9 100°.70 5°.9/ 6.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.44 | + 8 27.8 | 2.042 | 2.822 | 14.4 | 19.1 |
| 12 13 | 7 28.12 | + 7 12.7 | 1.983 | 2.846 | 11.4 | 19.0 |
| 12 23 | 7 18.78 | + 6 8.4 | 1.949 | 2.870 | 8.4 | 18.8 |
| 1 2 | 7 8.24 | + 5 17.8 | 1.944 | 2.893 | 6.2 | 18.7 |
| 1 12 | 6 57.54 | + 4 42.6 | 1.968 | 2.916 | 6.3 | 18.8 |
| 1 22 | 6 47.71 | + 4 22.8 | 2.022 | 2.938 | 8.4 | 19.0 |
| 2 1 | 6 39.61 | + 4 17.1 | 2.102 | 2.959 | 11.2 | 19.2 |
| 2 11 | 6 33.82 | + 4 22.5 | 2.207 | 2.980 | 13.7 | 19.4 |

**98886** 2001 $BZ_{29}$ 1 5.9 256°.75 2°.4/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.68 | +13 39.6 | 1.970 | 2.775 | 14.0 | 19.9 |
| 12 13 | 7 26.11 | +14 5.2 | 1.867 | 2.755 | 10.8 | 19.6 |
| 12 23 | 7 18.07 | +14 43.2 | 1.788 | 2.734 | 7.0 | 19.4 |
| 1 2 | 7 8.18 | +15 32.2 | 1.737 | 2.712 | 3.3 | 19.1 |
| 1 12 | 6 57.43 | +16 29.1 | 1.715 | 2.690 | 3.4 | 19.1 |
| 1 22 | 6 47.03 | +17 29.9 | 1.723 | 2.667 | 7.5 | 19.3 |
| 2 1 | 6 38.15 | +18 31.0 | 1.759 | 2.644 | 11.6 | 19.4 |
| 2 11 | 6 31.72 | +19 29.5 | 1.819 | 2.620 | 15.2 | 19.6 |

**61653** 2000 $QU_{112}$ 1 5.9 171°.22 1°.5/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.08 | +17 20.0 | 2.047 | 2.861 | 13.2 | 20.0 |
| 12 13 | 7 24.58 | +17 29.4 | 1.968 | 2.862 | 9.9 | 19.8 |
| 12 23 | 7 16.91 | +17 45.8 | 1.913 | 2.863 | 6.2 | 19.6 |
| 1 2 | 7 7.77 | +18 7.7 | 1.886 | 2.864 | 2.4 | 19.3 |
| 1 12 | 6 58.17 | +18 32.7 | 1.888 | 2.865 | 2.8 | 19.4 |
| 1 22 | 6 49.17 | +18 58.7 | 1.920 | 2.866 | 6.7 | 19.6 |
| 2 1 | 6 41.76 | +19 24.0 | 1.980 | 2.866 | 10.4 | 19.8 |
| 2 11 | 6 36.64 | +19 47.6 | 2.063 | 2.866 | 13.6 | 20.0 |

**505608** 2014 $DJ_{123}$ 1 5.9 184°.10 0°.0/ 5.9 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.06 | +22 20.1 | 3.989 | 4.794 | 7.5 | 22.5 |
| 12 13 | 7 19.24 | +22 28.5 | 3.901 | 4.794 | 5.5 | 22.4 |
| 12 23 | 7 13.32 | +22 38.1 | 3.841 | 4.793 | 3.3 | 22.3 |
| 1 2 | 7 6.70 | +22 47.8 | 3.812 | 4.793 | 0.9 | 22.1 |
| 1 12 | 6 59.86 | +22 56.7 | 3.814 | 4.792 | 1.5 | 22.1 |
| 1 22 | 6 53.31 | +23 3.9 | 3.848 | 4.790 | 3.8 | 22.3 |
| 2 1 | 6 47.53 | +23 9.3 | 3.913 | 4.789 | 6.0 | 22.4 |
| 2 11 | 6 42.93 | +23 12.6 | 4.004 | 4.787 | 7.9 | 22.6 |

**50163** 2000 $AV_{146}$ 1 5.9 284°.07 4°.5/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.64 | +11 33.5 | 1.733 | 2.544 | 15.3 | 19.3 |
| 12 13 | 7 24.69 | +11 10.5 | 1.644 | 2.530 | 12.0 | 19.0 |
| 12 23 | 7 17.22 | +10 59.1 | 1.577 | 2.517 | 8.3 | 18.8 |
| 1 2 | 7 7.93 | +11 0.6 | 1.536 | 2.504 | 5.1 | 18.5 |
| 1 12 | 6 57.94 | +11 14.4 | 1.523 | 2.490 | 5.1 | 18.5 |
| 1 22 | 6 48.50 | +11 38.8 | 1.537 | 2.477 | 8.6 | 18.7 |
| 2 1 | 6 40.80 | +12 11.3 | 1.577 | 2.464 | 12.5 | 18.9 |
| 2 11 | 6 35.72 | +12 48.6 | 1.639 | 2.450 | 16.1 | 19.1 |

**302393** 2002 $CF_{88}$ 1 5.9 251°.30 3°.2/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.27 | +29 24.8 | 1.645 | 2.474 | 15.2 | 20.5 |
| 12 13 | 7 29.25 | +29 52.5 | 1.565 | 2.467 | 11.5 | 20.2 |
| 12 23 | 7 20.12 | +30 18.1 | 1.506 | 2.459 | 7.3 | 20.0 |
| 1 2 | 7 8.77 | +30 35.9 | 1.475 | 2.451 | 3.6 | 19.7 |
| 1 12 | 6 56.67 | +30 41.5 | 1.471 | 2.443 | 4.7 | 19.8 |
| 1 22 | 6 45.43 | +30 33.4 | 1.496 | 2.434 | 8.9 | 20.0 |
| 2 1 | 6 36.49 | +30 13.2 | 1.546 | 2.426 | 13.1 | 20.2 |
| 2 11 | 6 30.82 | +29 44.9 | 1.617 | 2.417 | 16.8 | 20.5 |

**341910** 2008 $JU_{20}$ 1 5.9 146°.53 3°.4/ 5.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.76 | +29 6.1 | 1.786 | 2.605 | 14.6 | 21.8 |
| 12 13 | 7 31.47 | +30 0.5 | 1.720 | 2.616 | 11.0 | 21.6 |
| 12 23 | 7 21.26 | +30 53.5 | 1.678 | 2.627 | 7.0 | 21.3 |
| 1 2 | 7 9.06 | +31 38.4 | 1.664 | 2.638 | 3.7 | 21.2 |
| 1 12 | 6 56.29 | +32 10.0 | 1.679 | 2.647 | 4.7 | 21.2 |
| 1 22 | 6 44.49 | +32 26.1 | 1.724 | 2.655 | 8.5 | 21.5 |
| 2 1 | 6 34.97 | +32 27.9 | 1.795 | 2.663 | 12.2 | 21.7 |
| 2 11 | 6 28.58 | +32 18.9 | 1.889 | 2.670 | 15.4 | 22.0 |

**370795** 2004 $TK_{96}$ 1 5.9 144°.47 1°.4/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.30 | +25 33.6 | 2.146 | 2.966 | 12.4 | 21.9 |
| 12 13 | 7 25.47 | +25 57.9 | 2.071 | 2.971 | 9.3 | 21.7 |
| 12 23 | 7 17.44 | +26 22.9 | 2.021 | 2.975 | 5.6 | 21.4 |
| 1 2 | 7 7.94 | +26 45.2 | 1.999 | 2.978 | 2.0 | 21.2 |
| 1 12 | 6 58.01 | +27 2.0 | 2.007 | 2.982 | 3.0 | 21.3 |
| 1 22 | 6 48.74 | +27 11.7 | 2.045 | 2.986 | 6.7 | 21.5 |
| 2 1 | 6 41.13 | +27 14.3 | 2.110 | 2.989 | 10.2 | 21.8 |
| 2 11 | 6 35.87 | +27 11.2 | 2.199 | 2.992 | 13.1 | 22.0 |

**151349** Stanleycooper 1 5.9 102°.12 0°.8/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.76 | +24 5.1 | 1.987 | 2.809 | 13.2 | 20.8 |
| 12 13 | 7 25.87 | +24 22.3 | 1.918 | 2.818 | 9.8 | 20.6 |
| 12 23 | 7 17.69 | +24 41.1 | 1.873 | 2.828 | 5.9 | 20.4 |
| 1 2 | 7 8.01 | +24 58.5 | 1.856 | 2.837 | 1.8 | 20.1 |
| 1 12 | 6 57.94 | +25 11.7 | 1.869 | 2.846 | 2.8 | 20.2 |
| 1 22 | 6 48.64 | +25 19.2 | 1.912 | 2.855 | 6.9 | 20.5 |
| 2 1 | 6 41.12 | +25 21.2 | 1.981 | 2.864 | 10.5 | 20.7 |
| 2 11 | 6 36.08 | +25 18.7 | 2.074 | 2.873 | 13.6 | 21.0 |

**116568** 2004 $BZ_{84}$ 1 5.9 250°.55 4°.6/ 7.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.29 | + 6 20.9 | 2.581 | 3.358 | 11.8 | 20.4 |
| 12 13 | 7 21.43 | + 6 15.1 | 2.486 | 3.347 | 9.5 | 20.2 |
| 12 23 | 7 14.91 | + 6 21.5 | 2.415 | 3.335 | 7.0 | 20.0 |
| 1 2 | 7 7.23 | + 6 40.8 | 2.371 | 3.324 | 5.0 | 19.9 |
| 1 12 | 6 59.12 | + 7 12.2 | 2.357 | 3.312 | 4.8 | 19.9 |
| 1 22 | 6 51.35 | + 7 54.0 | 2.373 | 3.300 | 6.7 | 20.0 |
| 2 1 | 6 44.69 | + 8 43.4 | 2.417 | 3.288 | 9.4 | 20.1 |
| 2 11 | 6 39.73 | + 9 37.4 | 2.485 | 3.276 | 11.9 | 20.3 |

**262733** 2006 $XA_{39}$ 1 5.9 345°.80 0°.4/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 29.50 | +21 46.2 | 1.573 | 2.410 | 15.4 | 20.8 |
| 12 13 | 7 24.87 | +22 13.0 | 1.497 | 2.405 | 11.5 | 20.6 |
| 12 23 | 7 17.43 | +22 45.8 | 1.444 | 2.401 | 7.0 | 20.3 |
| 1 2 | 7 8.01 | +23 21.0 | 1.416 | 2.397 | 2.0 | 20.0 |
| 1 12 | 6 57.91 | +23 54.2 | 1.416 | 2.394 | 3.2 | 20.1 |
| 1 22 | 6 48.57 | +24 22.2 | 1.444 | 2.392 | 8.1 | 20.4 |
| 2 1 | 6 41.30 | +24 43.8 | 1.496 | 2.390 | 12.6 | 20.6 |
| 2 11 | 6 36.98 | +24 58.9 | 1.570 | 2.388 | 16.4 | 20.9 |

**456286** 2006 $SB_{74}$ 1 5.9 22°.69 5°.8/ 7.4 16

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.52 | +10 21.4 | 1.064 | 1.909 | 20.5 | 20.3 |
| 12 13 | 7 23.00 | +10 3.3 | 1.022 | 1.926 | 16.0 | 20.0 |
| 12 23 | 7 16.33 | +10 6.2 | 0.998 | 1.945 | 11.0 | 19.8 |
| 1 2 | 7 7.65 | +10 30.4 | 0.996 | 1.966 | 6.7 | 19.7 |
| 1 12 | 6 58.61 | +11 12.8 | 1.018 | 1.988 | 6.4 | 19.7 |
| 1 22 | 6 50.85 | +12 7.7 | 1.063 | 2.012 | 10.2 | 20.0 |
| 2 1 | 6 45.66 | +13 8.8 | 1.131 | 2.037 | 14.6 | 20.3 |
| 2 11 | 6 43.78 | +14 10.0 | 1.218 | 2.064 | 18.5 | 20.7 |

**521038** 2015 $DA_{232}$ 1 5.9 349°.37 0°.4/ 6.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.09 | +21 23.7 | 2.250 | 3.070 | 12.0 | 21.1 |
| 12 13 | 7 22.97 | +21 21.9 | 2.170 | 3.069 | 8.9 | 20.9 |
| 12 23 | 7 15.89 | +21 22.9 | 2.113 | 3.067 | 5.4 | 20.7 |
| 1 2 | 7 7.51 | +21 25.2 | 2.085 | 3.066 | 1.6 | 20.4 |
| 1 12 | 6 58.74 | +21 27.2 | 2.087 | 3.065 | 2.4 | 20.5 |
| 1 22 | 6 50.54 | +21 28.1 | 2.119 | 3.064 | 6.1 | 20.7 |
| 2 1 | 6 43.79 | +21 27.5 | 2.178 | 3.064 | 9.6 | 21.0 |
| 2 11 | 6 39.12 | +21 25.5 | 2.261 | 3.063 | 12.5 | 21.1 |

**155516** 1999 $RG_{204}$ 1 5.9 67°.08 8°.5/ 8.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.30 | − 0 3.4 | 1.968 | 2.731 | 15.5 | 19.9 |
| 12 13 | 7 23.17 | − 1 4.5 | 1.902 | 2.739 | 13.0 | 19.7 |
| 12 23 | 7 16.01 | − 1 47.5 | 1.858 | 2.748 | 10.6 | 19.6 |
| 1 2 | 7 7.54 | − 2 8.6 | 1.838 | 2.757 | 8.9 | 19.5 |
| 1 12 | 6 58.72 | − 2 6.7 | 1.844 | 2.766 | 8.7 | 19.5 |
| 1 22 | 6 50.53 | − 1 43.1 | 1.877 | 2.775 | 10.1 | 19.6 |
| 2 1 | 6 43.88 | − 1 1.4 | 1.935 | 2.784 | 12.3 | 19.8 |
| 2 11 | 6 39.41 | − 0 7.1 | 2.015 | 2.794 | 14.7 | 20.0 |

**32930** 1995 $SC_{4}$ 1 5.9 146°.36 1°.2/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.90 | +18 6.5 | 2.818 | 3.622 | 10.2 | 19.9 |
| 12 13 | 7 22.40 | +18 5.4 | 2.740 | 3.630 | 7.7 | 19.7 |
| 12 23 | 7 15.36 | +18 8.3 | 2.688 | 3.637 | 4.7 | 19.6 |
| 1 2 | 7 7.34 | +18 14.3 | 2.666 | 3.644 | 1.8 | 19.4 |
| 1 12 | 6 59.05 | +18 22.3 | 2.675 | 3.651 | 2.2 | 19.4 |
| 1 22 | 6 51.23 | +18 31.2 | 2.715 | 3.657 | 5.1 | 19.6 |
| 2 1 | 6 44.56 | +18 40.4 | 2.784 | 3.663 | 8.0 | 19.8 |
| 2 11 | 6 39.55 | +18 49.3 | 2.878 | 3.669 | 10.4 | 20.0 |

**205217** 2000 $ON_{40}$ 1 5.9 164°.35 4°.0/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.16 | +38 19.8 | 2.838 | 3.631 | 10.5 | 20.4 |
| 12 13 | 7 28.60 | +38 22.3 | 2.760 | 3.634 | 8.2 | 20.3 |
| 12 23 | 7 19.10 | +38 16.0 | 2.707 | 3.638 | 5.8 | 20.1 |
| 1 2 | 7 8.39 | +37 57.6 | 2.684 | 3.641 | 4.2 | 20.0 |
| 1 12 | 6 57.48 | +37 25.6 | 2.692 | 3.643 | 4.6 | 20.1 |
| 1 22 | 6 47.35 | +36 40.7 | 2.731 | 3.646 | 6.6 | 20.2 |
| 2 1 | 6 38.86 | +35 45.8 | 2.799 | 3.648 | 9.0 | 20.3 |
| 2 11 | 6 32.57 | +34 44.4 | 2.892 | 3.649 | 11.2 | 20.5 |

**48842** 1998 $BA_{44}$ 1 5.9 98°.56 5°.3/ 4.9 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.02 | +39 24.8 | 2.377 | 3.178 | 12.0 | 18.0 |
| 12 13 | 7 28.20 | +39 49.5 | 2.309 | 3.186 | 9.5 | 17.9 |
| 12 23 | 7 19.04 | +40 4.7 | 2.265 | 3.193 | 7.0 | 17.7 |
| 1 2 | 7 8.40 | +40 5.5 | 2.250 | 3.200 | 5.4 | 17.6 |
| 1 12 | 6 57.47 | +39 49.4 | 2.263 | 3.208 | 5.8 | 17.7 |
| 1 22 | 6 47.43 | +39 16.9 | 2.306 | 3.215 | 7.9 | 17.8 |
| 2 1 | 6 39.29 | +38 30.8 | 2.375 | 3.222 | 10.4 | 18.0 |
| 2 11 | 6 33.72 | +37 35.6 | 2.468 | 3.229 | 12.8 | 18.2 |

**58932** 1998 $OF_{7}$ 1 5.9 155°.69 0°.2/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.38 | +23 12.3 | 1.819 | 2.635 | 14.5 | 19.8 |
| 12 13 | 7 30.19 | +23 13.1 | 1.747 | 2.644 | 10.8 | 19.6 |
| 12 23 | 7 20.37 | +23 15.4 | 1.698 | 2.652 | 6.5 | 19.4 |
| 1 2 | 7 8.81 | +23 16.5 | 1.678 | 2.659 | 1.9 | 19.1 |
| 1 12 | 6 56.82 | +23 14.1 | 1.688 | 2.665 | 2.9 | 19.2 |
| 1 22 | 6 45.74 | +23 7.4 | 1.727 | 2.671 | 7.5 | 19.5 |
| 2 1 | 6 36.75 | +22 57.2 | 1.794 | 2.675 | 11.5 | 19.7 |
| 2 11 | 6 30.61 | +22 44.8 | 1.884 | 2.679 | 14.9 | 19.9 |

**410214** 2007 $RW_{273}$ 1 5.9 192°.71 3°.8/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.42 | +31 24.8 | 1.824 | 2.645 | 14.3 | 21.9 |
| 12 13 | 7 29.83 | +31 59.8 | 1.747 | 2.644 | 10.9 | 21.7 |
| 12 23 | 7 20.34 | +32 31.1 | 1.694 | 2.642 | 7.1 | 21.5 |
| 1 2 | 7 8.84 | +32 52.7 | 1.669 | 2.640 | 4.1 | 21.3 |
| 1 12 | 6 56.73 | +33 0.3 | 1.672 | 2.638 | 5.0 | 21.3 |
| 1 22 | 6 45.49 | +32 52.7 | 1.704 | 2.636 | 8.6 | 21.5 |
| 2 1 | 6 36.44 | +32 31.9 | 1.762 | 2.632 | 12.3 | 21.8 |
| 2 11 | 6 30.47 | +32 1.9 | 1.842 | 2.629 | 15.5 | 22.0 |

**150978** 2001 $TN_{214}$ 1 5.9 10°.15 7°.0/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.09 | +38 11.1 | 1.407 | 2.240 | 17.1 | 19.7 |
| 12 13 | 7 29.57 | +38 40.8 | 1.346 | 2.242 | 13.4 | 19.5 |
| 12 23 | 7 20.43 | +38 58.0 | 1.305 | 2.245 | 9.7 | 19.3 |
| 1 2 | 7 8.88 | +38 55.0 | 1.289 | 2.249 | 7.2 | 19.1 |
| 1 12 | 6 56.81 | +38 27.3 | 1.299 | 2.254 | 7.8 | 19.2 |
| 1 22 | 6 46.17 | +37 36.3 | 1.333 | 2.260 | 11.0 | 19.4 |
| 2 1 | 6 38.49 | +36 27.9 | 1.392 | 2.266 | 14.7 | 19.6 |
| 2 11 | 6 34.61 | +35 9.9 | 1.470 | 2.274 | 18.0 | 19.9 |

**104856** 2000 $HJ_{77}$ 1 5.9 228°.49 0°.8/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.20 | +17 18.8 | 2.005 | 2.818 | 13.5 | 20.0 |
| 12 13 | 7 25.65 | +18 1.0 | 1.916 | 2.811 | 10.2 | 19.8 |
| 12 23 | 7 17.73 | +18 52.8 | 1.852 | 2.803 | 6.3 | 19.6 |
| 1 2 | 7 8.12 | +19 51.3 | 1.816 | 2.795 | 2.1 | 19.3 |
| 1 12 | 6 57.83 | +20 52.1 | 1.810 | 2.787 | 2.7 | 19.3 |
| 1 22 | 6 48.02 | +21 51.1 | 1.834 | 2.779 | 7.0 | 19.6 |
| 2 1 | 6 39.78 | +22 45.5 | 1.886 | 2.770 | 10.9 | 19.8 |
| 2 11 | 6 33.97 | +23 33.6 | 1.961 | 2.761 | 14.3 | 20.0 |

**372909** 2011 $AY_{68}$ 1 5.9 318°.93 3°.7/ 7.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.55 | +11 25.1 | 1.759 | 2.573 | 15.0 | 20.3 |
| 12 13 | 7 23.13 | +11 35.7 | 1.672 | 2.562 | 11.7 | 20.1 |
| 12 23 | 7 16.29 | +12 0.8 | 1.608 | 2.551 | 7.9 | 19.8 |
| 1 2 | 7 7.71 | +12 39.7 | 1.569 | 2.541 | 4.4 | 19.6 |
| 1 12 | 6 58.46 | +13 30.3 | 1.559 | 2.531 | 4.4 | 19.6 |
| 1 22 | 6 49.73 | +14 28.5 | 1.576 | 2.521 | 7.9 | 19.8 |
| 2 1 | 6 42.65 | +15 30.3 | 1.620 | 2.512 | 11.9 | 20.0 |
| 2 11 | 6 38.10 | +16 31.9 | 1.686 | 2.503 | 15.5 | 20.2 |

**218725** 2005 $UN_{166}$ 1 5.9 167°.20 0°.2/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.03 | +21 18.9 | 1.954 | 2.775 | 13.4 | 21.0 |
| 12 13 | 7 25.43 | +21 28.0 | 1.876 | 2.776 | 10.0 | 20.8 |
| 12 23 | 7 17.51 | +21 41.0 | 1.823 | 2.777 | 6.1 | 20.6 |
| 1 2 | 7 8.02 | +21 55.5 | 1.797 | 2.778 | 1.8 | 20.3 |
| 1 12 | 6 58.05 | +22 9.2 | 1.800 | 2.778 | 2.7 | 20.4 |
| 1 22 | 6 48.76 | +22 20.4 | 1.833 | 2.779 | 6.9 | 20.6 |
| 2 1 | 6 41.20 | +22 28.5 | 1.893 | 2.779 | 10.8 | 20.9 |
| 2 11 | 6 36.10 | +22 33.6 | 1.976 | 2.779 | 14.0 | 21.1 |

**497520** 2006 $BL_{123}$ 1 5.9 278°.99 0°.4/ 6.0 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.56 | +20 39.2 | 2.093 | 2.912 | 12.7 | 21.8 |
| 12 13 | 7 24.38 | +20 48.7 | 1.997 | 2.896 | 9.6 | 21.5 |
| 12 23 | 7 16.95 | +21 2.8 | 1.925 | 2.879 | 5.9 | 21.3 |
| 1 2 | 7 7.89 | +21 19.4 | 1.881 | 2.862 | 1.8 | 21.0 |
| 1 12 | 6 58.20 | +21 36.2 | 1.867 | 2.845 | 2.6 | 21.0 |
| 1 22 | 6 48.98 | +21 51.3 | 1.882 | 2.828 | 6.8 | 21.2 |
| 2 1 | 6 41.27 | +22 3.8 | 1.925 | 2.811 | 10.6 | 21.4 |
| 2 11 | 6 35.88 | +22 13.6 | 1.991 | 2.794 | 14.0 | 21.6 |

**184031** 2004 $FX_{64}$ 1 5.9 330°.89 8°.1/ 7.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.48 | + 3 57.2 | 1.573 | 2.370 | 17.3 | 19.7 |
| 12 13 | 7 23.21 | + 3 13.4 | 1.494 | 2.362 | 14.2 | 19.4 |
| 12 23 | 7 16.38 | + 2 48.7 | 1.436 | 2.354 | 11.0 | 19.2 |
| 1 2 | 7 7.74 | + 2 46.9 | 1.401 | 2.346 | 8.6 | 19.1 |
| 1 12 | 6 58.45 | + 3 8.9 | 1.392 | 2.339 | 8.4 | 19.0 |
| 1 22 | 6 49.78 | + 3 52.5 | 1.408 | 2.333 | 10.6 | 19.2 |
| 2 1 | 6 42.93 | + 4 52.9 | 1.448 | 2.327 | 13.9 | 19.3 |
| 2 11 | 6 38.76 | + 6 3.9 | 1.509 | 2.322 | 17.2 | 19.5 |

**58003** 2002 $TC_{180}$ 1 5.9 117°.28 0°.0/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.67 | +23 39.7 | 2.016 | 2.829 | 13.4 | 19.0 |
| 12 13 | 7 28.57 | +23 25.7 | 1.950 | 2.846 | 9.9 | 18.8 |
| 12 23 | 7 19.22 | +23 11.9 | 1.909 | 2.862 | 6.0 | 18.6 |
| 1 2 | 7 8.47 | +22 56.6 | 1.897 | 2.878 | 1.7 | 18.3 |
| 1 12 | 6 57.48 | +22 38.7 | 1.915 | 2.893 | 2.6 | 18.4 |
| 1 22 | 6 47.40 | +22 18.4 | 1.964 | 2.907 | 6.7 | 18.7 |
| 2 1 | 6 39.21 | +21 56.6 | 2.040 | 2.921 | 10.4 | 18.9 |
| 2 11 | 6 33.54 | +21 34.6 | 2.141 | 2.935 | 13.4 | 19.2 |

**352854** 2008 $WO_{62}$ 1 5.9 344°.07 4°.5/ 6.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.10 | +12 55.1 | 1.416 | 2.240 | 17.4 | 20.9 |
| 12 13 | 7 26.13 | +12 27.6 | 1.343 | 2.238 | 13.5 | 20.7 |
| 12 23 | 7 18.24 | +12 12.6 | 1.291 | 2.237 | 9.2 | 20.4 |
| 1 2 | 7 8.30 | +12 11.2 | 1.264 | 2.235 | 5.2 | 20.2 |
| 1 12 | 6 57.70 | +12 22.7 | 1.263 | 2.234 | 5.4 | 20.2 |
| 1 22 | 6 47.95 | +12 44.8 | 1.288 | 2.232 | 9.4 | 20.4 |
| 2 1 | 6 40.39 | +13 14.6 | 1.338 | 2.232 | 13.8 | 20.7 |
| 2 11 | 6 35.92 | +13 48.8 | 1.409 | 2.231 | 17.7 | 20.9 |

**407512** 2010 $VS_{114}$ 1 5.9 58°.13 0°.3/ 5.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.19 | +23 11.2 | 1.603 | 2.434 | 15.4 | 20.9 |
| 12 13 | 7 27.23 | +23 12.4 | 1.547 | 2.451 | 11.4 | 20.7 |
| 12 23 | 7 18.62 | +23 15.8 | 1.514 | 2.470 | 6.9 | 20.5 |
| 1 2 | 7 8.34 | +23 18.7 | 1.507 | 2.488 | 2.0 | 20.2 |
| 1 12 | 6 57.77 | +23 18.7 | 1.529 | 2.507 | 3.0 | 20.3 |
| 1 22 | 6 48.28 | +23 14.9 | 1.579 | 2.526 | 7.7 | 20.7 |
| 2 1 | 6 40.99 | +23 7.9 | 1.654 | 2.544 | 11.8 | 20.9 |
| 2 11 | 6 36.59 | +22 58.6 | 1.752 | 2.563 | 15.2 | 21.2 |

**185362** 2006 $VG_{96}$ 1 5.9 75°.12 0°.8/ 5.8 18 R

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.96 | +24 2.8 | 1.718 | 2.546 | 14.7 | 20.5 |
| 12 13 | 7 27.04 | +24 16.4 | 1.655 | 2.558 | 10.9 | 20.3 |
| 12 23 | 7 18.53 | +24 31.8 | 1.615 | 2.570 | 6.6 | 20.1 |
| 1 2 | 7 8.34 | +24 45.6 | 1.602 | 2.583 | 2.0 | 19.8 |
| 1 12 | 6 57.75 | +24 54.9 | 1.618 | 2.595 | 3.1 | 19.9 |
| 1 22 | 6 48.11 | +24 58.4 | 1.662 | 2.607 | 7.5 | 20.2 |
| 2 1 | 6 40.53 | +24 56.3 | 1.732 | 2.619 | 11.5 | 20.5 |
| 2 11 | 6 35.77 | +24 50.0 | 1.825 | 2.632 | 14.9 | 20.7 |

**178660** 2000 $QQ_{57}$ 1 5.9 154°.08 2°.4/ 5.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.08 | +29 47.2 | 2.482 | 3.291 | 11.3 | 21.2 |
| 12 13 | 7 27.29 | +30 10.5 | 2.408 | 3.300 | 8.5 | 21.0 |
| 12 23 | 7 18.46 | +30 31.1 | 2.360 | 3.309 | 5.4 | 20.8 |
| 1 2 | 7 8.30 | +30 45.3 | 2.342 | 3.317 | 2.7 | 20.6 |
| 1 12 | 6 57.80 | +30 50.8 | 2.355 | 3.324 | 3.4 | 20.7 |
| 1 22 | 6 47.98 | +30 46.7 | 2.398 | 3.330 | 6.4 | 20.9 |
| 2 1 | 6 39.73 | +30 34.0 | 2.470 | 3.336 | 9.4 | 21.1 |
| 2 11 | 6 33.70 | +30 14.9 | 2.566 | 3.341 | 12.0 | 21.3 |

**192582** 1998 $YF_{18}$ 1 5.9 64°.15 0°.7/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.29 | +19 26.3 | 2.014 | 2.834 | 13.1 | 20.1 |
| 12 13 | 7 24.00 | +19 42.4 | 1.946 | 2.845 | 9.8 | 20.0 |
| 12 23 | 7 16.58 | +20 4.2 | 1.902 | 2.856 | 6.0 | 19.7 |
| 1 2 | 7 7.77 | +20 29.3 | 1.886 | 2.866 | 1.9 | 19.5 |
| 1 12 | 6 58.60 | +20 55.0 | 1.899 | 2.877 | 2.6 | 19.6 |
| 1 22 | 6 50.11 | +21 19.3 | 1.942 | 2.888 | 6.5 | 19.8 |
| 2 1 | 6 43.25 | +21 40.8 | 2.012 | 2.899 | 10.2 | 20.1 |
| 2 11 | 6 38.68 | +21 59.1 | 2.105 | 2.910 | 13.2 | 20.3 |

**49312** 1998 $VA_{18}$ 1 5.9 333°.45 7°.7/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.07 | + 8 52.1 | 1.435 | 2.251 | 17.7 | 18.4 |
| 12 13 | 7 24.63 | + 7 27.7 | 1.355 | 2.239 | 14.3 | 18.1 |
| 12 23 | 7 17.36 | + 6 15.1 | 1.297 | 2.228 | 10.7 | 17.9 |
| 1 2 | 7 8.07 | + 5 19.5 | 1.263 | 2.217 | 8.0 | 17.7 |
| 1 12 | 6 58.07 | + 4 44.7 | 1.254 | 2.208 | 8.2 | 17.7 |
| 1 22 | 6 48.80 | + 4 31.6 | 1.270 | 2.199 | 11.2 | 17.8 |
| 2 1 | 6 41.57 | + 4 38.5 | 1.310 | 2.190 | 15.0 | 18.0 |
| 2 11 | 6 37.31 | + 5 1.0 | 1.369 | 2.183 | 18.6 | 18.2 |

**21018** 1988 $VV_{1}$ 1 5.9 154°.46 1°.5/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.41 | +27 59.6 | 2.770 | 3.577 | 10.3 | 18.5 |
| 12 13 | 7 25.81 | +28 4.0 | 2.694 | 3.586 | 7.7 | 18.4 |
| 12 23 | 7 17.45 | +28 6.1 | 2.643 | 3.594 | 4.7 | 18.2 |
| 1 2 | 7 7.99 | +28 3.9 | 2.623 | 3.601 | 1.9 | 18.0 |
| 1 12 | 6 58.28 | +27 55.8 | 2.634 | 3.608 | 2.6 | 18.1 |
| 1 22 | 6 49.16 | +27 41.5 | 2.677 | 3.614 | 5.5 | 18.3 |
| 2 1 | 6 41.42 | +27 22.0 | 2.749 | 3.620 | 8.4 | 18.5 |
| 2 11 | 6 35.60 | +26 58.8 | 2.846 | 3.625 | 10.8 | 18.6 |

**237391** 1997 $AX_{10}$ 1 5.9 262°.40 4°.4/ 7.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.47 | + 5 50.3 | 1.208 | 2.014 | 21.0 | 20.4 |
| 12 13 | 7 32.02 | + 7 17.0 | 1.114 | 1.997 | 16.8 | 20.0 |
| 12 23 | 7 22.60 | + 9 23.1 | 1.039 | 1.979 | 11.5 | 19.7 |
| 1 2 | 7 9.81 | +12 7.3 | 0.989 | 1.961 | 6.1 | 19.3 |
| 1 12 | 6 55.18 | +15 19.1 | 0.967 | 1.942 | 5.3 | 19.2 |
| 1 22 | 6 40.79 | +18 41.0 | 0.975 | 1.923 | 11.0 | 19.5 |
| 2 1 | 6 28.82 | +21 55.3 | 1.009 | 1.904 | 17.1 | 19.7 |
| 2 11 | 6 20.93 | +24 50.2 | 1.065 | 1.884 | 22.4 | 20.0 |

**522618** 2016 $FC_{66}$ 1 5.9 200°.78 4°.9/ 7.9 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 25.98 | + 3 21.2 | 3.003 | 3.759 | 10.8 | 22.6 |
| 12 13 | 7 20.97 | + 3 11.0 | 2.912 | 3.756 | 8.8 | 22.5 |
| 12 23 | 7 14.55 | + 3 12.7 | 2.847 | 3.751 | 6.8 | 22.3 |
| 1 2 | 7 7.19 | + 3 27.0 | 2.808 | 3.747 | 5.2 | 22.2 |
| 1 12 | 6 59.51 | + 3 53.7 | 2.800 | 3.742 | 5.0 | 22.2 |
| 1 22 | 6 52.16 | + 4 31.3 | 2.822 | 3.736 | 6.4 | 22.3 |
| 2 1 | 6 45.76 | + 5 17.3 | 2.872 | 3.730 | 8.5 | 22.4 |
| 2 11 | 6 40.81 | + 6 9.0 | 2.947 | 3.724 | 10.5 | 22.6 |

**166807** 2002 $VU_{74}$ 1 5.9 117°.96 3°.9/ 7.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.51 | + 9 58.1 | 2.401 | 3.193 | 12.2 | 20.0 |
| 12 13 | 7 22.34 | + 9 40.9 | 2.325 | 3.199 | 9.5 | 19.8 |
| 12 23 | 7 15.46 | + 9 33.5 | 2.274 | 3.206 | 6.7 | 19.6 |
| 1 2 | 7 7.46 | + 9 36.6 | 2.250 | 3.212 | 4.3 | 19.5 |
| 1 12 | 6 59.14 | + 9 49.5 | 2.256 | 3.218 | 4.3 | 19.5 |
| 1 22 | 6 51.34 | +10 10.7 | 2.291 | 3.224 | 6.6 | 19.6 |
| 2 1 | 6 44.81 | +10 38.2 | 2.354 | 3.230 | 9.4 | 19.8 |
| 2 11 | 6 40.12 | +11 9.7 | 2.442 | 3.236 | 11.9 | 20.0 |

**497243** 2005 $EO_{279}$ 1 5.9 330°.59 2°.1/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.13 | +19 8.2 | 1.725 | 2.554 | 14.6 | 20.4 |
| 12 13 | 7 24.37 | +18 30.3 | 1.637 | 2.539 | 11.1 | 20.2 |
| 12 23 | 7 17.07 | +17 55.7 | 1.572 | 2.525 | 7.0 | 19.9 |
| 1 2 | 7 7.99 | +17 24.5 | 1.533 | 2.512 | 2.9 | 19.6 |
| 1 12 | 6 58.30 | +16 57.0 | 1.523 | 2.499 | 3.5 | 19.6 |
| 1 22 | 6 49.27 | +16 33.6 | 1.540 | 2.487 | 7.9 | 19.9 |
| 2 1 | 6 42.06 | +16 14.6 | 1.583 | 2.475 | 12.1 | 20.1 |
| 2 11 | 6 37.51 | +16 0.1 | 1.648 | 2.465 | 15.8 | 20.3 |

**237494** 2000 $QV_{33}$ 1 5.9 88°.79 1°.8/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 36.67 | +26 21.3 | 1.538 | 2.368 | 16.0 | 20.5 |
| 12 13 | 7 30.03 | +26 35.5 | 1.480 | 2.384 | 11.9 | 20.3 |
| 12 23 | 7 20.42 | +26 49.0 | 1.445 | 2.400 | 7.3 | 20.0 |
| 1 2 | 7 8.91 | +26 57.6 | 1.436 | 2.416 | 2.6 | 19.8 |
| 1 12 | 6 57.04 | +26 58.0 | 1.456 | 2.431 | 3.7 | 19.9 |
| 1 22 | 6 46.36 | +26 49.6 | 1.503 | 2.447 | 8.3 | 20.2 |
| 2 1 | 6 38.15 | +26 33.9 | 1.576 | 2.462 | 12.6 | 20.5 |
| 2 11 | 6 33.14 | +26 13.6 | 1.671 | 2.477 | 16.1 | 20.8 |

**459424** 2012 $RH_{39}$ 1 5.9 239°.95 4°.9/ 4.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.86 | +36 24.5 | 2.351 | 3.161 | 11.8 | 21.1 |
| 12 13 | 7 26.83 | +37 10.1 | 2.270 | 3.155 | 9.2 | 20.9 |
| 12 23 | 7 18.42 | +37 49.6 | 2.214 | 3.149 | 6.6 | 20.7 |
| 1 2 | 7 8.36 | +38 17.6 | 2.186 | 3.143 | 4.9 | 20.6 |
| 1 12 | 6 57.75 | +38 30.5 | 2.188 | 3.137 | 5.6 | 20.6 |
| 1 22 | 6 47.78 | +38 26.9 | 2.217 | 3.131 | 8.0 | 20.8 |
| 2 1 | 6 39.53 | +38 8.4 | 2.274 | 3.124 | 10.7 | 20.9 |
| 2 11 | 6 33.79 | +37 38.5 | 2.354 | 3.118 | 13.2 | 21.1 |

**168285** 2007 $RZ_{77}$ 1 5.9 126°.89 3°.8/ 7.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.61 | + 9 8.9 | 2.498 | 3.285 | 11.9 | 21.2 |
| 12 13 | 7 22.35 | + 9 3.8 | 2.423 | 3.294 | 9.3 | 21.0 |
| 12 23 | 7 15.44 | + 9 9.3 | 2.373 | 3.303 | 6.6 | 20.9 |
| 1 2 | 7 7.46 | + 9 25.5 | 2.351 | 3.312 | 4.2 | 20.7 |
| 1 12 | 6 59.18 | + 9 51.3 | 2.358 | 3.321 | 4.1 | 20.7 |
| 1 22 | 6 51.39 | +10 24.7 | 2.396 | 3.329 | 6.3 | 20.9 |
| 2 1 | 6 44.83 | +11 3.5 | 2.461 | 3.337 | 9.0 | 21.1 |
| 2 11 | 6 40.04 | +11 45.1 | 2.552 | 3.345 | 11.5 | 21.3 |

**396848** 2004 $RH_{267}$ 1 5.9 74°.29 4°.2/ 6.9 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.67 | +12 24.9 | 1.440 | 2.260 | 17.5 | 21.6 |
| 12 13 | 7 27.05 | +12 12.2 | 1.381 | 2.274 | 13.4 | 21.4 |
| 12 23 | 7 18.65 | +12 13.4 | 1.343 | 2.288 | 9.0 | 21.1 |
| 1 2 | 7 8.42 | +12 28.5 | 1.331 | 2.302 | 5.0 | 21.0 |
| 1 12 | 6 57.76 | +12 55.2 | 1.345 | 2.316 | 5.0 | 21.0 |
| 1 22 | 6 48.11 | +13 30.3 | 1.386 | 2.330 | 8.9 | 21.2 |
| 2 1 | 6 40.70 | +14 10.2 | 1.452 | 2.344 | 13.0 | 21.5 |
| 2 11 | 6 36.29 | +14 51.6 | 1.540 | 2.358 | 16.7 | 21.8 |

**410518** 2008 $EN_{152}$ 1 5.9 338°.11 7°.5/ 3.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.56 | +38 18.7 | 1.737 | 2.557 | 14.9 | 20.6 |
| 12 13 | 7 29.79 | +39 49.1 | 1.669 | 2.555 | 11.9 | 20.4 |
| 12 23 | 7 20.67 | +41 12.2 | 1.624 | 2.554 | 9.1 | 20.2 |
| 1 2 | 7 9.09 | +42 18.4 | 1.606 | 2.552 | 7.5 | 20.1 |
| 1 12 | 6 56.63 | +43 0.1 | 1.614 | 2.551 | 8.4 | 20.2 |
| 1 22 | 6 45.05 | +43 14.9 | 1.649 | 2.550 | 11.1 | 20.3 |
| 2 1 | 6 35.94 | +43 5.1 | 1.707 | 2.549 | 14.1 | 20.5 |
| 2 11 | 6 30.36 | +42 36.9 | 1.786 | 2.548 | 16.9 | 20.7 |

**379005** 2008 $UQ_{344}$ 1 5.9 15°.95 1°.0/ 6.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.46 | +19 33.7 | 1.903 | 2.728 | 13.6 | 21.0 |
| 12 13 | 7 23.55 | +19 32.0 | 1.829 | 2.730 | 10.2 | 20.7 |
| 12 23 | 7 16.41 | +19 35.4 | 1.779 | 2.733 | 6.3 | 20.5 |
| 1 2 | 7 7.77 | +19 42.4 | 1.757 | 2.737 | 2.1 | 20.3 |
| 1 12 | 6 58.72 | +19 51.1 | 1.763 | 2.741 | 2.8 | 20.3 |
| 1 22 | 6 50.36 | +20 0.1 | 1.798 | 2.745 | 6.9 | 20.6 |
| 2 1 | 6 43.69 | +20 8.5 | 1.859 | 2.750 | 10.7 | 20.8 |
| 2 11 | 6 39.40 | +20 15.9 | 1.944 | 2.755 | 13.9 | 21.0 |

**463519** 2013 $QL_{73}$ 1 5.9 122°.06 1°.6/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.92 | +16 45.7 | 2.159 | 2.969 | 12.7 | 22.3 |
| 12 13 | 7 24.35 | +16 53.1 | 2.086 | 2.978 | 9.6 | 22.1 |
| 12 23 | 7 16.76 | +17 7.4 | 2.037 | 2.986 | 6.0 | 21.9 |
| 1 2 | 7 7.86 | +17 27.1 | 2.017 | 2.994 | 2.4 | 21.7 |
| 1 12 | 6 58.59 | +17 50.3 | 2.026 | 3.002 | 2.8 | 21.7 |
| 1 22 | 6 49.94 | +18 14.9 | 2.066 | 3.010 | 6.4 | 22.0 |
| 2 1 | 6 42.80 | +18 39.4 | 2.133 | 3.017 | 9.8 | 22.2 |
| 2 11 | 6 37.81 | +19 2.7 | 2.224 | 3.025 | 12.8 | 22.4 |

**100915** 1998 $KH_{49}$ 1 5.9 230°.45 4°.4/ 6.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.35 | +10 37.8 | 1.966 | 2.764 | 14.3 | 20.5 |
| 12 13 | 7 25.71 | +10 17.7 | 1.876 | 2.754 | 11.2 | 20.3 |
| 12 23 | 7 17.77 | +10 8.8 | 1.808 | 2.744 | 7.8 | 20.0 |
| 1 2 | 7 8.20 | +10 12.0 | 1.768 | 2.733 | 4.9 | 19.8 |
| 1 12 | 6 58.02 | +10 26.9 | 1.756 | 2.721 | 4.9 | 19.8 |
| 1 22 | 6 48.34 | +10 51.7 | 1.773 | 2.709 | 8.0 | 20.0 |
| 2 1 | 6 40.23 | +11 24.0 | 1.817 | 2.697 | 11.5 | 20.2 |
| 2 11 | 6 34.49 | +12 1.0 | 1.885 | 2.684 | 14.8 | 20.3 |

**427413** 1999 $XT_{53}$ 1 5.9 25°.21 5°.7/ 6.7 14 C

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.02 | +13 15.9 | 1.139 | 1.981 | 19.7 | 20.6 |
| 12 13 | 7 25.22 | +12 6.0 | 1.105 | 2.008 | 15.1 | 20.4 |
| 12 23 | 7 17.48 | +11 11.0 | 1.091 | 2.038 | 10.3 | 20.2 |
| 1 2 | 7 8.03 | +10 33.6 | 1.100 | 2.069 | 6.3 | 20.1 |
| 1 12 | 6 58.51 | +10 14.4 | 1.134 | 2.102 | 6.4 | 20.2 |
| 1 22 | 6 50.42 | +10 11.7 | 1.193 | 2.136 | 10.0 | 20.5 |
| 2 1 | 6 44.89 | +10 22.3 | 1.274 | 2.171 | 14.0 | 20.8 |
| 2 11 | 6 42.50 | +10 41.4 | 1.375 | 2.208 | 17.5 | 21.1 |

**318088** 2004 $GL_{60}$ 1 5.9 323°.80 2°.6/ 5.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.55 | +26 15.5 | 1.510 | 2.351 | 15.7 | 20.5 |
| 12 13 | 7 26.03 | +27 1.0 | 1.429 | 2.339 | 11.8 | 20.2 |
| 12 23 | 7 18.40 | +27 49.8 | 1.370 | 2.327 | 7.4 | 20.0 |
| 1 2 | 7 8.45 | +28 35.9 | 1.337 | 2.316 | 3.1 | 19.7 |
| 1 12 | 6 57.61 | +29 13.4 | 1.331 | 2.305 | 4.5 | 19.7 |
| 1 22 | 6 47.50 | +29 38.5 | 1.352 | 2.295 | 9.1 | 20.0 |
| 2 1 | 6 39.63 | +29 50.8 | 1.397 | 2.285 | 13.7 | 20.2 |
| 2 11 | 6 35.04 | +29 52.1 | 1.462 | 2.276 | 17.6 | 20.4 |

**189252** 2004 $TW_{19}$ 1 5.9 85°.10 1°.3/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.80 | +23 6.0 | 2.022 | 2.843 | 13.1 | 19.5 |
| 12 13 | 7 25.94 | +24 2.8 | 1.960 | 2.860 | 9.7 | 19.3 |
| 12 23 | 7 17.81 | +25 3.4 | 1.922 | 2.877 | 5.8 | 19.1 |
| 1 2 | 7 8.18 | +26 3.0 | 1.914 | 2.894 | 1.9 | 18.9 |
| 1 12 | 6 58.13 | +26 57.1 | 1.935 | 2.910 | 3.0 | 19.0 |
| 1 22 | 6 48.80 | +27 42.5 | 1.986 | 2.927 | 6.9 | 19.2 |
| 2 1 | 6 41.21 | +28 17.9 | 2.065 | 2.943 | 10.4 | 19.5 |
| 2 11 | 6 36.04 | +28 43.9 | 2.167 | 2.959 | 13.3 | 19.7 |

**200632** 2001 $SD_{179}$ 1 5.9 40°.75 2°.7/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.27 | +24 34.9 | 1.291 | 2.136 | 17.6 | 19.5 |
| 12 13 | 7 28.23 | +25 43.6 | 1.232 | 2.143 | 13.1 | 19.3 |
| 12 23 | 7 19.74 | +26 58.0 | 1.194 | 2.151 | 8.0 | 19.0 |
| 1 2 | 7 8.82 | +28 10.0 | 1.181 | 2.160 | 3.3 | 18.8 |
| 1 12 | 6 57.16 | +29 11.4 | 1.194 | 2.168 | 4.8 | 18.9 |
| 1 22 | 6 46.60 | +29 57.4 | 1.234 | 2.177 | 9.8 | 19.2 |
| 2 1 | 6 38.73 | +30 26.9 | 1.297 | 2.187 | 14.4 | 19.5 |
| 2 11 | 6 34.51 | +30 42.4 | 1.381 | 2.197 | 18.3 | 19.8 |

**289081** 2004 $TE_{241}$ 1 5.9 67°.86 3°.5/ 5.5 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.56 | +29 59.1 | 1.399 | 2.234 | 17.1 | 20.4 |
| 12 13 | 7 31.00 | +30 21.0 | 1.346 | 2.250 | 12.8 | 20.2 |
| 12 23 | 7 21.12 | +30 38.5 | 1.314 | 2.267 | 8.1 | 19.9 |
| 1 2 | 7 9.13 | +30 45.8 | 1.308 | 2.284 | 4.0 | 19.7 |
| 1 12 | 6 56.80 | +30 39.1 | 1.330 | 2.301 | 4.9 | 19.8 |
| 1 22 | 6 45.88 | +30 18.6 | 1.378 | 2.319 | 9.3 | 20.1 |
| 2 1 | 6 37.75 | +29 47.5 | 1.451 | 2.336 | 13.5 | 20.4 |
| 2 11 | 6 33.17 | +29 10.4 | 1.545 | 2.353 | 17.1 | 20.7 |

**27103** Sungwoncho 1 5.9 50°.58 2°.3/ 5.5 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.43 | +25 46.7 | 1.175 | 2.023 | 18.8 | 19.0 |
| 12 13 | 7 29.79 | +26 20.0 | 1.128 | 2.041 | 14.0 | 18.8 |
| 12 23 | 7 20.55 | +26 54.8 | 1.101 | 2.059 | 8.5 | 18.6 |
| 1 2 | 7 9.00 | +27 24.5 | 1.098 | 2.078 | 3.2 | 18.3 |
| 1 12 | 6 57.03 | +27 43.7 | 1.121 | 2.097 | 4.5 | 18.5 |
| 1 22 | 6 46.56 | +27 50.5 | 1.169 | 2.117 | 9.7 | 18.8 |
| 2 1 | 6 39.08 | +27 46.4 | 1.241 | 2.136 | 14.5 | 19.1 |
| 2 11 | 6 35.40 | +27 34.7 | 1.333 | 2.157 | 18.4 | 19.4 |

**450029** 2015 $QE_{11}$ 1 5.9 47°.59 0°.6/ 6.1 15

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.18 | +21 22.1 | 1.098 | 1.944 | 20.0 | 20.8 |
| 12 13 | 7 30.72 | +21 15.2 | 1.065 | 1.976 | 14.7 | 20.6 |
| 12 23 | 7 20.85 | +21 13.9 | 1.051 | 2.009 | 8.8 | 20.4 |
| 1 2 | 7 9.01 | +21 15.0 | 1.062 | 2.043 | 2.6 | 20.2 |
| 1 12 | 6 57.16 | +21 15.8 | 1.098 | 2.077 | 3.7 | 20.3 |
| 1 22 | 6 47.08 | +21 15.0 | 1.160 | 2.111 | 9.3 | 20.8 |
| 2 1 | 6 40.07 | +21 12.8 | 1.246 | 2.146 | 14.1 | 21.1 |
| 2 11 | 6 36.71 | +21 9.7 | 1.351 | 2.180 | 17.9 | 21.5 |

**472621** 2015 $DH_{178}$ 1 5.9 236°.05 5°.1/ 7.5 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 26.23 | + 4 17.4 | 2.934 | 3.696 | 10.9 | 22.2 |
| 12 13 | 7 21.23 | + 3 48.7 | 2.837 | 3.684 | 8.9 | 22.0 |
| 12 23 | 7 14.77 | + 3 30.5 | 2.765 | 3.671 | 6.9 | 21.8 |
| 1 2 | 7 7.31 | + 3 24.5 | 2.720 | 3.658 | 5.3 | 21.7 |
| 1 12 | 6 59.48 | + 3 30.8 | 2.704 | 3.645 | 5.2 | 21.7 |
| 1 22 | 6 51.96 | + 3 48.7 | 2.718 | 3.631 | 6.7 | 21.8 |
| 2 1 | 6 45.39 | + 4 16.6 | 2.761 | 3.617 | 8.8 | 21.9 |
| 2 11 | 6 40.32 | + 4 51.8 | 2.828 | 3.603 | 11.0 | 22.0 |

**236790** 2007 $PW_{38}$ 1 5.9 170°.26 0°.6/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.13 | +19 55.5 | 1.979 | 2.792 | 13.6 | 21.3 |
| 12 13 | 7 27.72 | +20 7.7 | 1.901 | 2.796 | 10.2 | 21.1 |
| 12 23 | 7 18.93 | +20 24.9 | 1.848 | 2.800 | 6.2 | 20.9 |
| 1 2 | 7 8.54 | +20 44.7 | 1.822 | 2.803 | 1.9 | 20.6 |
| 1 12 | 6 57.65 | +21 4.5 | 1.827 | 2.805 | 2.7 | 20.6 |
| 1 22 | 6 47.45 | +21 22.3 | 1.862 | 2.806 | 6.9 | 20.9 |
| 2 1 | 6 39.02 | +21 37.3 | 1.924 | 2.807 | 10.8 | 21.1 |
| 2 11 | 6 33.10 | +21 49.3 | 2.010 | 2.807 | 14.1 | 21.4 |

**380422** 2003 $EQ_{4}$ 1 5.9 355°.22 3°.3/ 5.1 15

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 19.53 | +26 23.4 | 1.114 | 1.988 | 17.7 | 20.2 |
| 12 13 | 7 18.49 | +27 12.7 | 1.045 | 1.972 | 13.3 | 19.8 |
| 12 23 | 7 14.12 | +28 6.3 | 0.997 | 1.959 | 8.3 | 19.5 |
| 1 2 | 7 7.27 | +28 57.4 | 0.970 | 1.949 | 3.8 | 19.2 |
| 1 12 | 6 59.53 | +29 38.9 | 0.967 | 1.942 | 5.3 | 19.3 |
| 1 22 | 6 52.72 | +30 6.0 | 0.986 | 1.938 | 10.4 | 19.6 |
| 2 1 | 6 48.48 | +30 17.5 | 1.028 | 1.937 | 15.4 | 19.8 |
| 2 11 | 6 47.87 | +30 15.1 | 1.087 | 1.939 | 19.7 | 20.1 |

**438894** 2009 $UL_{55}$ 1 5.9 150°.50 2°.1/ 5.5 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 38.93 | +26 19.5 | 1.730 | 2.549 | 15.0 | 22.6 |
| 12 13 | 7 31.63 | +26 53.4 | 1.662 | 2.560 | 11.2 | 22.3 |
| 12 23 | 7 21.43 | +27 27.7 | 1.617 | 2.570 | 6.9 | 22.1 |
| 1 2 | 7 9.27 | +27 57.1 | 1.600 | 2.579 | 2.7 | 21.9 |
| 1 12 | 6 56.59 | +28 17.1 | 1.613 | 2.587 | 3.8 | 22.0 |
| 1 22 | 6 44.88 | +28 26.1 | 1.655 | 2.595 | 8.1 | 22.2 |
| 2 1 | 6 35.46 | +28 24.8 | 1.724 | 2.601 | 12.2 | 22.5 |
| 2 11 | 6 29.15 | +28 16.1 | 1.816 | 2.607 | 15.6 | 22.7 |

**28359** 1999 $FP_{52}$ 1 5.9 22°.71 3°.3/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.90 | +30 46.2 | 1.984 | 2.810 | 13.1 | 18.4 |
| 12 13 | 7 25.48 | +31 15.0 | 1.913 | 2.813 | 9.9 | 18.2 |
| 12 23 | 7 17.63 | +31 40.6 | 1.867 | 2.817 | 6.4 | 18.0 |
| 1 2 | 7 8.17 | +31 58.4 | 1.848 | 2.821 | 3.5 | 17.8 |
| 1 12 | 6 58.26 | +32 5.2 | 1.858 | 2.826 | 4.3 | 17.9 |
| 1 22 | 6 49.14 | +32 0.0 | 1.896 | 2.831 | 7.6 | 18.1 |
| 2 1 | 6 41.88 | +31 44.1 | 1.960 | 2.836 | 11.0 | 18.3 |
| 2 11 | 6 37.22 | +31 20.3 | 2.048 | 2.841 | 14.0 | 18.5 |

**78759** 2002 $UB_{2}$ 1 5.9 44°.41 1°.5/ 5.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.53 | +24 4.1 | 2.010 | 2.835 | 13.0 | 18.6 |
| 12 13 | 7 24.37 | +24 56.2 | 1.941 | 2.843 | 9.6 | 18.4 |
| 12 23 | 7 16.95 | +25 51.7 | 1.896 | 2.851 | 5.8 | 18.2 |
| 1 2 | 7 7.98 | +26 46.2 | 1.880 | 2.859 | 2.1 | 18.0 |
| 1 12 | 6 58.53 | +27 35.0 | 1.893 | 2.868 | 3.2 | 18.1 |
| 1 22 | 6 49.73 | +28 15.3 | 1.935 | 2.877 | 7.0 | 18.3 |
| 2 1 | 6 42.60 | +28 45.8 | 2.005 | 2.885 | 10.5 | 18.6 |
| 2 11 | 6 37.89 | +29 7.1 | 2.097 | 2.894 | 13.6 | 18.8 |

**179951** 2002 $WW_{6}$ 1 5.9 101°.17 0°.7/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.53 | +23 35.7 | 1.823 | 2.646 | 14.2 | 20.7 |
| 12 13 | 7 27.37 | +23 51.3 | 1.758 | 2.659 | 10.5 | 20.5 |
| 12 23 | 7 18.73 | +24 9.0 | 1.716 | 2.671 | 6.3 | 20.3 |
| 1 2 | 7 8.47 | +24 25.5 | 1.703 | 2.683 | 1.9 | 20.0 |
| 1 12 | 6 57.83 | +24 38.0 | 1.718 | 2.696 | 2.9 | 20.1 |
| 1 22 | 6 48.07 | +24 45.0 | 1.763 | 2.707 | 7.2 | 20.4 |
| 2 1 | 6 40.28 | +24 46.5 | 1.834 | 2.719 | 11.1 | 20.7 |
| 2 11 | 6 35.17 | +24 43.7 | 1.929 | 2.731 | 14.4 | 20.9 |

**327035** 2004 $RB_{335}$ 1 5.9 113°.78 3°.7/ 7.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.45 | + 9 50.3 | 2.124 | 2.918 | 13.5 | 20.8 |
| 12 13 | 7 24.00 | +10 3.0 | 2.052 | 2.929 | 10.5 | 20.7 |
| 12 23 | 7 16.58 | +10 28.4 | 2.004 | 2.939 | 7.2 | 20.5 |
| 1 2 | 7 7.85 | +11 5.7 | 1.983 | 2.949 | 4.3 | 20.3 |
| 1 12 | 6 58.74 | +11 52.9 | 1.992 | 2.959 | 4.1 | 20.3 |
| 1 22 | 6 50.23 | +12 46.5 | 2.030 | 2.969 | 6.9 | 20.5 |
| 2 1 | 6 43.18 | +13 43.3 | 2.096 | 2.979 | 10.1 | 20.7 |
| 2 11 | 6 38.25 | +14 40.1 | 2.187 | 2.988 | 13.0 | 20.9 |

**427805** 2005 $GS_{116}$ 1 5.9 208°.32 4°.9/ 4.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.47 | +36 38.6 | 2.394 | 3.203 | 11.7 | 21.5 |
| 12 13 | 7 26.51 | +37 27.7 | 2.318 | 3.202 | 9.1 | 21.4 |
| 12 23 | 7 18.22 | +38 10.7 | 2.267 | 3.201 | 6.6 | 21.2 |
| 1 2 | 7 8.35 | +38 42.2 | 2.244 | 3.199 | 5.0 | 21.1 |
| 1 12 | 6 57.97 | +38 58.5 | 2.250 | 3.197 | 5.6 | 21.1 |
| 1 22 | 6 48.24 | +38 58.4 | 2.284 | 3.196 | 7.9 | 21.3 |
| 2 1 | 6 40.20 | +38 43.4 | 2.346 | 3.194 | 10.5 | 21.4 |
| 2 11 | 6 34.60 | +38 16.9 | 2.430 | 3.192 | 12.9 | 21.6 |

**413993** 2007 $EC_{125}$ 1 5.9 19°.72 3°.4/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.07 | +30 44.1 | 1.844 | 2.670 | 13.9 | 21.0 |
| 12 13 | 7 27.30 | +31 12.6 | 1.771 | 2.671 | 10.5 | 20.7 |
| 12 23 | 7 18.83 | +31 37.7 | 1.722 | 2.672 | 6.8 | 20.5 |
| 1 2 | 7 8.54 | +31 54.5 | 1.699 | 2.673 | 3.7 | 20.3 |
| 1 12 | 6 57.73 | +31 59.1 | 1.706 | 2.674 | 4.6 | 20.4 |
| 1 22 | 6 47.77 | +31 50.7 | 1.740 | 2.675 | 8.1 | 20.6 |
| 2 1 | 6 39.86 | +31 30.9 | 1.800 | 2.677 | 11.8 | 20.8 |
| 2 11 | 6 34.81 | +31 3.0 | 1.883 | 2.678 | 15.0 | 21.0 |

**273257** 2006 $KO_{115}$ 1 5.9 228°.99 0°.3/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.99 | +20 33.2 | 2.359 | 3.174 | 11.7 | 21.6 |
| 12 13 | 7 23.69 | +20 50.8 | 2.272 | 3.169 | 8.7 | 21.4 |
| 12 23 | 7 16.43 | +21 12.6 | 2.210 | 3.163 | 5.3 | 21.2 |
| 1 2 | 7 7.84 | +21 36.6 | 2.177 | 3.158 | 1.6 | 20.9 |
| 1 12 | 6 58.77 | +22 0.4 | 2.174 | 3.152 | 2.3 | 20.9 |
| 1 22 | 6 50.19 | +22 22.2 | 2.202 | 3.146 | 6.0 | 21.2 |
| 2 1 | 6 42.96 | +22 40.9 | 2.257 | 3.140 | 9.4 | 21.4 |
| 2 11 | 6 37.77 | +22 56.2 | 2.337 | 3.134 | 12.3 | 21.6 |

**109110** 2001 $QW_{38}$ 1 5.9 214°.34 2°.2/ 6.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.92 | +13 54.7 | 2.089 | 2.893 | 13.3 | 20.1 |
| 12 13 | 7 25.33 | +14 20.3 | 2.001 | 2.888 | 10.2 | 19.9 |
| 12 23 | 7 17.54 | +14 57.0 | 1.936 | 2.882 | 6.6 | 19.6 |
| 1 2 | 7 8.19 | +15 42.8 | 1.900 | 2.875 | 3.0 | 19.4 |
| 1 12 | 6 58.24 | +16 34.9 | 1.893 | 2.868 | 3.2 | 19.4 |
| 1 22 | 6 48.76 | +17 29.7 | 1.917 | 2.861 | 6.8 | 19.6 |
| 2 1 | 6 40.78 | +18 24.2 | 1.969 | 2.853 | 10.5 | 19.8 |
| 2 11 | 6 35.05 | +19 15.9 | 2.045 | 2.845 | 13.8 | 20.0 |

**49803** 1999 $XG_{35}$ 1 5.9 118°.85 0°.6/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 37.40 | +22 25.4 | 1.600 | 2.423 | 15.9 | 20.1 |
| 12 13 | 7 30.51 | +22 54.6 | 1.540 | 2.440 | 11.8 | 19.9 |
| 12 23 | 7 20.75 | +23 28.0 | 1.502 | 2.457 | 7.1 | 19.7 |
| 1 2 | 7 9.09 | +24 1.1 | 1.492 | 2.473 | 2.1 | 19.4 |
| 1 12 | 6 56.99 | +24 29.5 | 1.511 | 2.488 | 3.2 | 19.5 |
| 1 22 | 6 45.95 | +24 50.8 | 1.558 | 2.502 | 8.0 | 19.8 |
| 2 1 | 6 37.23 | +25 4.6 | 1.632 | 2.516 | 12.3 | 20.1 |
| 2 11 | 6 31.63 | +25 12.3 | 1.728 | 2.529 | 15.8 | 20.4 |

**277873** 2006 $JQ_{38}$ 1 5.9 323°.26 3°.9/ 4.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.02 | +30 46.5 | 2.024 | 2.849 | 12.9 | 20.2 |
| 12 13 | 7 25.74 | +31 47.7 | 1.946 | 2.845 | 9.8 | 20.0 |
| 12 23 | 7 17.92 | +32 47.7 | 1.893 | 2.841 | 6.5 | 19.7 |
| 1 2 | 7 8.31 | +33 40.5 | 1.867 | 2.837 | 4.0 | 19.6 |
| 1 12 | 6 58.05 | +34 21.2 | 1.871 | 2.834 | 5.0 | 19.6 |
| 1 22 | 6 48.40 | +34 46.9 | 1.903 | 2.830 | 8.1 | 19.8 |
| 2 1 | 6 40.54 | +34 57.9 | 1.961 | 2.827 | 11.4 | 20.0 |
| 2 11 | 6 35.32 | +34 56.5 | 2.041 | 2.824 | 14.4 | 20.2 |

**378454** 2007 $RZ_{317}$ 1 5.9 78°.64 4°.0/ 4.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.62 | +33 13.8 | 2.256 | 3.073 | 12.0 | 21.1 |
| 12 13 | 7 25.83 | +33 57.7 | 2.187 | 3.080 | 9.2 | 21.0 |
| 12 23 | 7 17.78 | +34 37.2 | 2.143 | 3.087 | 6.2 | 20.8 |
| 1 2 | 7 8.23 | +35 7.4 | 2.128 | 3.094 | 4.1 | 20.7 |
| 1 12 | 6 58.25 | +35 24.9 | 2.141 | 3.101 | 4.8 | 20.7 |
| 1 22 | 6 48.98 | +35 28.4 | 2.184 | 3.108 | 7.5 | 20.9 |
| 2 1 | 6 41.42 | +35 19.1 | 2.253 | 3.115 | 10.4 | 21.1 |
| 2 11 | 6 36.28 | +34 59.9 | 2.346 | 3.122 | 12.9 | 21.3 |

**354219** 2002 $GX_{103}$ 1 5.9 205°.84 3°.5/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.07 | +30 36.7 | 1.939 | 2.757 | 13.7 | 21.6 |
| 12 13 | 7 29.53 | +31 15.4 | 1.857 | 2.753 | 10.4 | 21.4 |
| 12 23 | 7 20.23 | +31 51.5 | 1.800 | 2.748 | 6.7 | 21.2 |
| 1 2 | 7 8.98 | +32 19.5 | 1.770 | 2.743 | 3.8 | 21.0 |
| 1 12 | 6 57.07 | +32 34.9 | 1.770 | 2.737 | 4.7 | 21.0 |
| 1 22 | 6 45.90 | +32 36.0 | 1.799 | 2.731 | 8.2 | 21.2 |
| 2 1 | 6 36.75 | +32 24.2 | 1.855 | 2.724 | 11.8 | 21.4 |
| 2 11 | 6 30.49 | +32 2.8 | 1.933 | 2.717 | 15.0 | 21.6 |

**33637** 1999 $JW_{80}$ 1 5.9 292°.12 1°.1/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.72 | +21 40.5 | 1.814 | 2.640 | 14.1 | 18.4 |
| 12 13 | 7 25.71 | +22 42.5 | 1.725 | 2.628 | 10.6 | 18.2 |
| 12 23 | 7 18.04 | +23 52.7 | 1.661 | 2.616 | 6.4 | 17.9 |
| 1 2 | 7 8.39 | +25 6.3 | 1.624 | 2.604 | 2.0 | 17.6 |
| 1 12 | 6 57.90 | +26 17.1 | 1.616 | 2.593 | 3.3 | 17.6 |
| 1 22 | 6 47.88 | +27 20.1 | 1.638 | 2.581 | 7.8 | 17.9 |
| 2 1 | 6 39.63 | +28 12.4 | 1.686 | 2.570 | 12.0 | 18.1 |
| 2 11 | 6 34.12 | +28 53.7 | 1.757 | 2.558 | 15.6 | 18.3 |

**369324** 2009 $SE_{142}$ 1 5.9 168°.21 3°.7/ 6.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.75 | +11 14.8 | 2.236 | 3.030 | 12.9 | 22.3 |
| 12 13 | 7 24.18 | +11 0.3 | 2.156 | 3.033 | 10.0 | 22.1 |
| 12 23 | 7 16.69 | +10 55.7 | 2.100 | 3.036 | 6.9 | 21.9 |
| 1 2 | 7 7.91 | +11 1.1 | 2.072 | 3.038 | 4.2 | 21.8 |
| 1 12 | 6 58.74 | +11 15.8 | 2.074 | 3.040 | 4.2 | 21.8 |
| 1 22 | 6 50.11 | +11 38.1 | 2.105 | 3.041 | 6.9 | 21.9 |
| 2 1 | 6 42.88 | +12 6.0 | 2.164 | 3.042 | 10.0 | 22.1 |
| 2 11 | 6 37.68 | +12 37.3 | 2.247 | 3.043 | 12.8 | 22.3 |

**104588** 2000 $GG_{86}$ 1 5.9 152°.80 2°.4/ 5.0 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.59 | +27 39.2 | 2.355 | 3.173 | 11.6 | 19.1 |
| 12 13 | 7 24.98 | +28 32.1 | 2.279 | 3.176 | 8.6 | 18.9 |
| 12 23 | 7 17.26 | +29 25.5 | 2.228 | 3.179 | 5.4 | 18.7 |
| 1 2 | 7 8.10 | +30 14.8 | 2.206 | 3.181 | 2.7 | 18.5 |
| 1 12 | 6 58.44 | +30 56.2 | 2.214 | 3.183 | 3.6 | 18.6 |
| 1 22 | 6 49.31 | +31 27.3 | 2.252 | 3.186 | 6.7 | 18.8 |
| 2 1 | 6 41.67 | +31 47.6 | 2.319 | 3.188 | 9.8 | 19.0 |
| 2 11 | 6 36.24 | +31 58.4 | 2.409 | 3.190 | 12.5 | 19.2 |

**367756** 2010 $VV_{196}$ 1 5.9 293°.34 2°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.54 | +27 52.0 | 1.800 | 2.626 | 14.2 | 20.9 |
| 12 13 | 7 27.65 | +27 56.4 | 1.720 | 2.622 | 10.7 | 20.6 |
| 12 23 | 7 19.06 | +27 58.6 | 1.664 | 2.618 | 6.6 | 20.4 |
| 1 2 | 7 8.63 | +27 55.0 | 1.635 | 2.614 | 2.6 | 20.1 |
| 1 12 | 6 57.66 | +27 43.1 | 1.635 | 2.610 | 3.6 | 20.2 |
| 1 22 | 6 47.51 | +27 22.5 | 1.663 | 2.606 | 7.8 | 20.4 |
| 2 1 | 6 39.40 | +26 55.0 | 1.718 | 2.602 | 11.8 | 20.7 |
| 2 11 | 6 34.15 | +26 23.3 | 1.795 | 2.598 | 15.3 | 20.9 |

**186269** 2001 $YC_{132}$ 1 5.9 26°.81 6°.4/ 2.7 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.65 | +30 27.2 | 1.560 | 2.391 | 15.8 | 19.3 |
| 12 13 | 7 30.10 | +33 5.0 | 1.497 | 2.398 | 12.1 | 19.1 |
| 12 23 | 7 21.07 | +35 45.9 | 1.460 | 2.405 | 8.4 | 18.9 |
| 1 2 | 7 9.34 | +38 16.0 | 1.452 | 2.412 | 6.5 | 18.8 |
| 1 12 | 6 56.45 | +40 22.8 | 1.472 | 2.420 | 8.0 | 18.9 |
| 1 22 | 6 44.23 | +41 58.8 | 1.521 | 2.429 | 11.3 | 19.1 |
| 2 1 | 6 34.46 | +43 3.4 | 1.594 | 2.438 | 14.8 | 19.4 |
| 2 11 | 6 28.35 | +43 41.5 | 1.687 | 2.447 | 17.8 | 19.6 |

**458630** 2011 $FO_{142}$ 1 5.9 282°.02 3°.1/ 6.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 28.76 | +14 0.4 | 2.110 | 2.917 | 13.1 | 20.9 |
| 12 13 | 7 23.73 | +13 41.1 | 2.014 | 2.901 | 10.1 | 20.7 |
| 12 23 | 7 16.58 | +13 29.6 | 1.942 | 2.886 | 6.7 | 20.4 |
| 1 2 | 7 7.92 | +13 26.3 | 1.898 | 2.870 | 3.7 | 20.2 |
| 1 12 | 6 58.70 | +13 30.5 | 1.883 | 2.854 | 3.9 | 20.2 |
| 1 22 | 6 49.92 | +13 41.3 | 1.897 | 2.838 | 7.1 | 20.4 |
| 2 1 | 6 42.56 | +13 57.2 | 1.938 | 2.822 | 10.7 | 20.6 |
| 2 11 | 6 37.37 | +14 16.6 | 2.002 | 2.806 | 13.9 | 20.7 |

**29184** 1990 $SL_{10}$ 1 5.9 113°.41 9°.0/ 3.9 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 42.44 | +42 16.2 | 1.598 | 2.407 | 16.5 | 18.5 |
| 12 13 | 7 35.15 | +43 39.1 | 1.543 | 2.418 | 13.4 | 18.3 |
| 12 23 | 7 23.97 | +44 48.4 | 1.510 | 2.428 | 10.6 | 18.2 |
| 1 2 | 7 10.09 | +45 33.1 | 1.503 | 2.438 | 9.1 | 18.1 |
| 1 12 | 6 55.52 | +45 46.4 | 1.521 | 2.448 | 9.8 | 18.2 |
| 1 22 | 6 42.39 | +45 28.1 | 1.565 | 2.457 | 12.2 | 18.4 |
| 2 1 | 6 32.42 | +44 43.9 | 1.632 | 2.466 | 15.0 | 18.6 |
| 2 11 | 6 26.55 | +43 42.7 | 1.719 | 2.475 | 17.7 | 18.8 |

**353263** 2010 $EE_{109}$ 1 5.9 240°.10 1°.5/ 5.6 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.40 | +24 27.5 | 1.720 | 2.546 | 14.8 | 21.5 |
| 12 13 | 7 28.56 | +25 2.4 | 1.633 | 2.536 | 11.1 | 21.3 |
| 12 23 | 7 19.81 | +25 40.8 | 1.570 | 2.525 | 6.8 | 21.0 |
| 1 2 | 7 8.91 | +26 18.2 | 1.534 | 2.514 | 2.3 | 20.7 |
| 1 12 | 6 57.19 | +26 49.6 | 1.527 | 2.503 | 3.6 | 20.8 |
| 1 22 | 6 46.11 | +27 12.0 | 1.548 | 2.491 | 8.2 | 21.0 |
| 2 1 | 6 37.07 | +27 24.9 | 1.595 | 2.479 | 12.6 | 21.2 |
| 2 11 | 6 31.04 | +27 29.6 | 1.665 | 2.466 | 16.3 | 21.4 |

**201801** 2003 $WM_{192}$ 1 5.9 35°.69 5°.3/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.20 | +34 16.1 | 1.829 | 2.656 | 14.0 | 19.8 |
| 12 13 | 7 26.77 | +35 21.7 | 1.770 | 2.665 | 10.8 | 19.6 |
| 12 23 | 7 18.58 | +36 22.1 | 1.734 | 2.676 | 7.5 | 19.5 |
| 1 2 | 7 8.51 | +37 10.1 | 1.724 | 2.686 | 5.4 | 19.4 |
| 1 12 | 6 57.92 | +37 40.6 | 1.743 | 2.697 | 6.2 | 19.4 |
| 1 22 | 6 48.22 | +37 51.9 | 1.789 | 2.709 | 9.1 | 19.6 |
| 2 1 | 6 40.67 | +37 45.7 | 1.860 | 2.721 | 12.2 | 19.9 |
| 2 11 | 6 36.06 | +37 26.1 | 1.952 | 2.733 | 15.0 | 20.1 |

**56338** 1999 $XS_{162}$ 1 5.9 11°.97 21°.8/ 2.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 54.57 | +57 35.0 | 0.906 | 1.711 | 26.4 | 17.6 |
| 12 13 | 7 49.52 | +60 9.0 | 0.871 | 1.712 | 24.2 | 17.5 |
| 12 23 | 7 35.32 | +62 7.1 | 0.849 | 1.713 | 22.5 | 17.4 |
| 1 2 | 7 13.74 | +63 3.6 | 0.842 | 1.714 | 21.8 | 17.4 |
| 1 12 | 6 50.28 | +62 42.4 | 0.851 | 1.716 | 22.3 | 17.4 |
| 1 22 | 6 31.28 | +61 7.7 | 0.876 | 1.719 | 23.9 | 17.5 |
| 2 1 | 6 20.53 | +58 39.5 | 0.915 | 1.723 | 26.0 | 17.7 |
| 2 11 | 6 18.42 | +55 41.6 | 0.967 | 1.727 | 28.2 | 17.9 |

**468239** 2015 $BB_{241}$ 1 5.9 19°.18 0°.7/ 6.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.74 | +20 17.5 | 1.827 | 2.655 | 14.0 | 20.9 |
| 12 13 | 7 23.88 | +20 22.1 | 1.756 | 2.659 | 10.4 | 20.7 |
| 12 23 | 7 16.69 | +20 31.6 | 1.709 | 2.663 | 6.4 | 20.5 |
| 1 2 | 7 7.95 | +20 44.2 | 1.688 | 2.668 | 2.0 | 20.2 |
| 1 12 | 6 58.78 | +20 57.5 | 1.696 | 2.674 | 2.7 | 20.3 |
| 1 22 | 6 50.33 | +21 9.8 | 1.732 | 2.680 | 7.0 | 20.6 |
| 2 1 | 6 43.65 | +21 20.2 | 1.794 | 2.686 | 10.9 | 20.8 |
| 2 11 | 6 39.46 | +21 28.4 | 1.880 | 2.693 | 14.3 | 21.0 |

**324514** 2006 $VH_{55}$ 1 5.9 39°.78 1°.5/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.02 | +18 39.4 | 1.499 | 2.332 | 16.2 | 21.5 |
| 12 13 | 7 25.89 | +18 37.5 | 1.438 | 2.342 | 12.2 | 21.3 |
| 12 23 | 7 18.02 | +18 43.0 | 1.398 | 2.353 | 7.5 | 21.0 |
| 1 2 | 7 8.34 | +18 54.0 | 1.385 | 2.364 | 2.7 | 20.8 |
| 1 12 | 6 58.24 | +19 8.2 | 1.398 | 2.376 | 3.3 | 20.8 |
| 1 22 | 6 49.11 | +19 23.3 | 1.439 | 2.388 | 8.0 | 21.1 |
| 2 1 | 6 42.14 | +19 38.0 | 1.505 | 2.401 | 12.4 | 21.4 |
| 2 11 | 6 38.11 | +19 51.5 | 1.593 | 2.414 | 16.1 | 21.7 |

**241395** 2008 $TP_{52}$ 1 5.9 349°.16 7°.3/ 7.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.72 | + 8 38.9 | 1.168 | 2.000 | 19.9 | 20.1 |
| 12 13 | 7 24.15 | + 7 56.1 | 1.099 | 1.994 | 15.9 | 19.9 |
| 12 23 | 7 17.36 | + 7 32.7 | 1.048 | 1.988 | 11.6 | 19.6 |
| 1 2 | 7 8.24 | + 7 32.3 | 1.020 | 1.983 | 8.0 | 19.4 |
| 1 12 | 6 58.31 | + 7 55.4 | 1.015 | 1.980 | 7.8 | 19.4 |
| 1 22 | 6 49.26 | + 8 38.7 | 1.034 | 1.977 | 11.3 | 19.6 |
| 2 1 | 6 42.62 | + 9 36.5 | 1.075 | 1.976 | 15.8 | 19.8 |
| 2 11 | 6 39.41 | +10 41.9 | 1.135 | 1.975 | 19.9 | 20.1 |

**412496** 2014 $JN_{70}$ 1 5.9 132°.54 3°.3/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.97 | +28 59.3 | 1.738 | 2.561 | 14.8 | 21.3 |
| 12 13 | 7 30.29 | +29 48.9 | 1.673 | 2.571 | 11.1 | 21.1 |
| 12 23 | 7 20.69 | +30 37.3 | 1.631 | 2.582 | 7.1 | 20.8 |
| 1 2 | 7 9.13 | +31 17.9 | 1.617 | 2.592 | 3.7 | 20.7 |
| 1 12 | 6 57.03 | +31 45.9 | 1.632 | 2.601 | 4.7 | 20.7 |
| 1 22 | 6 45.88 | +31 59.1 | 1.676 | 2.610 | 8.5 | 21.0 |
| 2 1 | 6 37.00 | +31 58.6 | 1.745 | 2.618 | 12.3 | 21.2 |
| 2 11 | 6 31.21 | +31 47.9 | 1.837 | 2.626 | 15.5 | 21.5 |

**19312** 1996 $VR_7$ 1 5.9 37°.64 2°.2/ 5.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 32.74 | +24 59.4 | 1.369 | 2.211 | 16.9 | 18.2 |
| 12 13 | 7 27.65 | +25 45.8 | 1.308 | 2.218 | 12.6 | 18.0 |
| 12 23 | 7 19.32 | +26 35.8 | 1.269 | 2.226 | 7.7 | 17.7 |
| 1 2 | 7 8.77 | +27 23.1 | 1.255 | 2.235 | 2.9 | 17.4 |
| 1 12 | 6 57.59 | +28 1.5 | 1.268 | 2.244 | 4.2 | 17.6 |
| 1 22 | 6 47.49 | +28 27.8 | 1.308 | 2.253 | 9.1 | 17.9 |
| 2 1 | 6 39.92 | +28 41.8 | 1.372 | 2.263 | 13.7 | 18.1 |
| 2 11 | 6 35.78 | +28 45.6 | 1.456 | 2.273 | 17.5 | 18.4 |

**229413** 2005 $SE_{257}$ 1 5.9 192°.24 0°.3/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.80 | +20 31.3 | 2.502 | 3.308 | 11.3 | 22.2 |
| 12 13 | 7 25.65 | +20 47.7 | 2.414 | 3.306 | 8.5 | 22.0 |
| 12 23 | 7 17.59 | +21 8.0 | 2.352 | 3.304 | 5.1 | 21.8 |
| 1 2 | 7 8.22 | +21 29.8 | 2.320 | 3.300 | 1.5 | 21.5 |
| 1 12 | 6 58.40 | +21 51.2 | 2.319 | 3.296 | 2.2 | 21.6 |
| 1 22 | 6 49.06 | +22 10.3 | 2.349 | 3.291 | 5.8 | 21.8 |
| 2 1 | 6 41.05 | +22 26.4 | 2.408 | 3.286 | 9.1 | 22.0 |
| 2 11 | 6 35.04 | +22 39.3 | 2.492 | 3.280 | 11.9 | 22.2 |

**323980** 2005 $UH_{150}$ 1 5.9 15°.90 4°.1/ 5.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.11 | +30 32.2 | 1.541 | 2.379 | 15.6 | 19.9 |
| 12 13 | 7 27.04 | +31 16.1 | 1.476 | 2.382 | 11.8 | 19.6 |
| 12 23 | 7 18.90 | +31 57.2 | 1.433 | 2.385 | 7.7 | 19.4 |
| 1 2 | 7 8.64 | +32 29.1 | 1.416 | 2.390 | 4.4 | 19.2 |
| 1 12 | 6 57.79 | +32 46.8 | 1.426 | 2.394 | 5.4 | 19.3 |
| 1 22 | 6 47.93 | +32 48.4 | 1.463 | 2.400 | 9.2 | 19.5 |
| 2 1 | 6 40.46 | +32 35.6 | 1.524 | 2.405 | 13.2 | 19.8 |
| 2 11 | 6 36.24 | +32 12.3 | 1.606 | 2.412 | 16.6 | 20.0 |

**93606** 2000 $UU_{60}$ 1 5.9 177°.40 3°.9/ 4.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 34.38 | +33 26.9 | 2.276 | 3.088 | 12.1 | 19.8 |
| 12 13 | 7 27.92 | +34 5.7 | 2.200 | 3.089 | 9.3 | 19.6 |
| 12 23 | 7 19.09 | +34 39.8 | 2.148 | 3.091 | 6.3 | 19.4 |
| 1 2 | 7 8.67 | +35 4.3 | 2.125 | 3.091 | 4.1 | 19.3 |
| 1 12 | 6 57.76 | +35 15.5 | 2.132 | 3.091 | 4.8 | 19.3 |
| 1 22 | 6 47.54 | +35 12.6 | 2.168 | 3.091 | 7.5 | 19.5 |
| 2 1 | 6 39.09 | +34 56.8 | 2.231 | 3.091 | 10.5 | 19.7 |
| 2 11 | 6 33.14 | +34 31.3 | 2.318 | 3.090 | 13.2 | 19.8 |

**3561** Devine 1 5.9 167°.46 0°.6/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 24.11 | +18 42.3 | 3.655 | 4.458 | 8.1 | 17.7 |
| 12 13 | 7 19.46 | +18 58.7 | 3.570 | 4.460 | 6.1 | 17.6 |
| 12 23 | 7 13.64 | +19 18.6 | 3.513 | 4.462 | 3.7 | 17.4 |
| 1 2 | 7 7.06 | +19 40.7 | 3.485 | 4.464 | 1.3 | 17.2 |
| 1 12 | 7 0.23 | +20 3.8 | 3.489 | 4.466 | 1.6 | 17.3 |
| 1 22 | 6 53.70 | +20 26.6 | 3.524 | 4.468 | 4.1 | 17.5 |
| 2 1 | 6 47.98 | +20 48.4 | 3.590 | 4.469 | 6.4 | 17.6 |
| 2 11 | 6 43.50 | +21 8.3 | 3.682 | 4.470 | 8.4 | 17.8 |

**126398** 2002 $BP_9$ 1 5.9 275°.99 1°.3/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.66 | +18 5.4 | 1.820 | 2.635 | 14.5 | 20.2 |
| 12 13 | 7 28.05 | +18 16.8 | 1.708 | 2.604 | 11.1 | 19.9 |
| 12 23 | 7 19.62 | +18 36.5 | 1.620 | 2.572 | 7.0 | 19.6 |
| 1 2 | 7 8.96 | +19 2.6 | 1.559 | 2.539 | 2.5 | 19.3 |
| 1 12 | 6 57.20 | +19 32.2 | 1.528 | 2.505 | 3.2 | 19.2 |
| 1 22 | 6 45.71 | +20 2.4 | 1.525 | 2.470 | 8.1 | 19.4 |
| 2 1 | 6 35.89 | +20 31.2 | 1.549 | 2.435 | 12.7 | 19.6 |
| 2 11 | 6 28.84 | +20 57.4 | 1.596 | 2.399 | 16.8 | 19.8 |

**307684** 2003 $TD_{11}$ 1 5.9 42°.98 2°.8/ 6.8 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.18 | +14 24.5 | 1.198 | 2.035 | 19.2 | 20.1 |
| 12 13 | 7 27.01 | +14 44.3 | 1.156 | 2.061 | 14.5 | 19.9 |
| 12 23 | 7 18.75 | +15 19.4 | 1.135 | 2.087 | 9.1 | 19.7 |
| 1 2 | 7 8.56 | +16 6.3 | 1.138 | 2.115 | 4.0 | 19.5 |
| 1 12 | 6 58.10 | +16 59.9 | 1.166 | 2.143 | 4.1 | 19.6 |
| 1 22 | 6 48.95 | +17 54.9 | 1.221 | 2.172 | 8.9 | 19.9 |
| 2 1 | 6 42.40 | +18 47.1 | 1.300 | 2.201 | 13.5 | 20.3 |
| 2 11 | 6 39.16 | +19 33.9 | 1.399 | 2.230 | 17.3 | 20.6 |

**349080** 2007 $CL_{49}$ 1 5.9 236°.94 4°.1/ 6.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.27 | +11 49.0 | 1.722 | 2.528 | 15.7 | 22.2 |
| 12 13 | 7 27.56 | +11 40.7 | 1.631 | 2.515 | 12.2 | 21.9 |
| 12 23 | 7 19.15 | +11 45.1 | 1.562 | 2.502 | 8.3 | 21.6 |
| 1 2 | 7 8.77 | +12 2.5 | 1.519 | 2.489 | 4.8 | 21.4 |
| 1 12 | 6 57.58 | +12 31.5 | 1.504 | 2.474 | 4.8 | 21.4 |
| 1 22 | 6 46.92 | +13 9.4 | 1.518 | 2.459 | 8.5 | 21.5 |
| 2 1 | 6 38.07 | +13 52.9 | 1.559 | 2.444 | 12.7 | 21.8 |
| 2 11 | 6 31.97 | +14 38.9 | 1.622 | 2.428 | 16.5 | 22.0 |

**202441** 2005 $YZ_{29}$ 1 5.9 207°.52 2°.2/ 5.5 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 35.83 | +26 55.3 | 1.742 | 2.566 | 14.7 | 21.1 |
| 12 13 | 7 29.54 | +27 23.2 | 1.662 | 2.563 | 11.1 | 20.8 |
| 12 23 | 7 20.34 | +27 51.3 | 1.605 | 2.559 | 6.9 | 20.6 |
| 1 2 | 7 9.10 | +28 14.7 | 1.576 | 2.554 | 2.8 | 20.3 |
| 1 12 | 6 57.15 | +28 29.2 | 1.575 | 2.549 | 3.9 | 20.4 |
| 1 22 | 6 46.01 | +28 33.0 | 1.603 | 2.544 | 8.2 | 20.6 |
| 2 1 | 6 37.00 | +28 26.8 | 1.658 | 2.538 | 12.4 | 20.9 |
| 2 11 | 6 31.03 | +28 13.3 | 1.734 | 2.532 | 15.9 | 21.1 |

**458289** 2010 $UX_{78}$ 1 5.9 25°.27 2°.7/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 31.31 | +18 22.8 | 1.400 | 2.235 | 17.0 | 20.5 |
| 12 13 | 7 26.20 | +17 40.1 | 1.339 | 2.244 | 12.8 | 20.2 |
| 12 23 | 7 18.24 | +17 3.3 | 1.300 | 2.254 | 8.1 | 20.0 |
| 1 2 | 7 8.44 | +16 33.0 | 1.286 | 2.264 | 3.6 | 19.8 |
| 1 12 | 6 58.25 | +16 9.3 | 1.299 | 2.275 | 4.1 | 19.8 |
| 1 22 | 6 49.14 | +15 52.1 | 1.339 | 2.287 | 8.6 | 20.1 |
| 2 1 | 6 42.33 | +15 41.2 | 1.403 | 2.300 | 13.1 | 20.4 |
| 2 11 | 6 38.56 | +15 35.6 | 1.488 | 2.313 | 16.8 | 20.7 |

**493028** 2014 $SX_{226}$ 1 5.9 76°.10 0°.3/ 5.9 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.11 | +21 41.5 | 1.772 | 2.597 | 14.4 | 21.5 |
| 12 13 | 7 26.42 | +22 10.3 | 1.709 | 2.611 | 10.7 | 21.3 |
| 12 23 | 7 18.24 | +22 43.8 | 1.670 | 2.625 | 6.4 | 21.1 |
| 1 2 | 7 8.44 | +23 18.4 | 1.658 | 2.639 | 1.9 | 20.8 |
| 1 12 | 6 58.23 | +23 50.2 | 1.675 | 2.653 | 2.9 | 20.9 |
| 1 22 | 6 48.86 | +24 16.7 | 1.721 | 2.667 | 7.3 | 21.2 |
| 2 1 | 6 41.43 | +24 37.0 | 1.794 | 2.681 | 11.2 | 21.5 |
| 2 11 | 6 36.67 | +24 51.4 | 1.889 | 2.695 | 14.5 | 21.7 |

**52043** 2002 $PM_{75}$ 1 5.9 59°.09 1°.0/ 5.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.29 | +24 19.5 | 1.577 | 2.410 | 15.6 | 19.6 |
| 12 13 | 7 27.60 | +24 32.8 | 1.513 | 2.419 | 11.6 | 19.3 |
| 12 23 | 7 19.08 | +24 48.0 | 1.472 | 2.428 | 7.0 | 19.1 |
| 1 2 | 7 8.69 | +25 1.4 | 1.457 | 2.438 | 2.2 | 18.8 |
| 1 12 | 6 57.85 | +25 9.7 | 1.471 | 2.448 | 3.3 | 18.9 |
| 1 22 | 6 48.01 | +25 11.5 | 1.512 | 2.458 | 8.0 | 19.2 |
| 2 1 | 6 40.41 | +25 7.3 | 1.578 | 2.468 | 12.3 | 19.5 |
| 2 11 | 6 35.82 | +24 58.7 | 1.667 | 2.479 | 15.9 | 19.7 |

**200756** 2001 $WR_{32}$ 1 5.9 330°.27 1°.4/ 6.3 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.43 | +18 26.0 | 1.184 | 2.034 | 18.5 | 20.0 |
| 12 13 | 7 25.01 | +18 37.2 | 1.104 | 2.018 | 14.1 | 19.6 |
| 12 23 | 7 18.10 | +19 0.1 | 1.045 | 2.003 | 8.8 | 19.3 |
| 1 2 | 7 8.55 | +19 32.4 | 1.008 | 1.989 | 3.0 | 18.9 |
| 1 12 | 6 57.92 | +20 9.7 | 0.997 | 1.976 | 3.9 | 18.9 |
| 1 22 | 6 48.05 | +20 47.7 | 1.010 | 1.963 | 9.9 | 19.2 |
| 2 1 | 6 40.71 | +21 23.0 | 1.045 | 1.952 | 15.5 | 19.5 |
| 2 11 | 6 37.07 | +21 53.7 | 1.100 | 1.942 | 20.2 | 19.8 |

**226932** 2004 $TK_{282}$ 1 5.9 128°.60 1°.4/ 5.6 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.71 | +25 20.6 | 2.152 | 2.971 | 12.5 | 20.5 |
| 12 13 | 7 25.86 | +25 51.4 | 2.080 | 2.978 | 9.3 | 20.3 |
| 12 23 | 7 17.82 | +26 23.3 | 2.032 | 2.986 | 5.6 | 20.1 |
| 1 2 | 7 8.32 | +26 52.8 | 2.013 | 2.992 | 2.0 | 19.8 |
| 1 12 | 6 58.39 | +27 16.6 | 2.024 | 2.999 | 3.0 | 19.9 |
| 1 22 | 6 49.13 | +27 32.9 | 2.065 | 3.006 | 6.6 | 20.2 |
| 2 1 | 6 41.51 | +27 41.5 | 2.133 | 3.012 | 10.1 | 20.4 |
| 2 11 | 6 36.24 | +27 43.7 | 2.225 | 3.018 | 13.0 | 20.6 |

**371698** 2007 $DD_{110}$ 1 5.9 251°.88 6°.2/ 7.8 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.26 | + 4 16.5 | 2.158 | 2.933 | 13.9 | 21.2 |
| 12 13 | 7 23.26 | + 3 50.6 | 2.068 | 2.923 | 11.4 | 21.0 |
| 12 23 | 7 16.28 | + 3 39.4 | 2.000 | 2.913 | 8.7 | 20.8 |
| 1 2 | 7 7.90 | + 3 44.9 | 1.959 | 2.903 | 6.6 | 20.7 |
| 1 12 | 6 58.99 | + 4 7.4 | 1.946 | 2.892 | 6.4 | 20.6 |
| 1 22 | 6 50.51 | + 4 45.1 | 1.961 | 2.881 | 8.4 | 20.7 |
| 2 1 | 6 43.37 | + 5 34.9 | 2.002 | 2.870 | 11.1 | 20.9 |
| 2 11 | 6 38.28 | + 6 32.5 | 2.067 | 2.859 | 13.9 | 21.1 |

**194649** 2001 $XS_{175}$ 1 5.9 8°.66 0°.6/ 6.1 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.93 | +19 41.7 | 1.102 | 1.958 | 19.2 | 19.8 |
| 12 13 | 7 25.30 | +20 2.5 | 1.042 | 1.959 | 14.4 | 19.6 |
| 12 23 | 7 18.15 | +20 33.8 | 1.001 | 1.961 | 8.8 | 19.3 |
| 1 2 | 7 8.51 | +21 11.7 | 0.983 | 1.964 | 2.7 | 18.9 |
| 1 12 | 6 58.12 | +21 50.9 | 0.990 | 1.969 | 3.8 | 19.0 |
| 1 22 | 6 48.86 | +22 26.7 | 1.021 | 1.975 | 9.7 | 19.4 |
| 2 1 | 6 42.35 | +22 56.6 | 1.074 | 1.982 | 15.1 | 19.7 |
| 2 11 | 6 39.57 | +23 19.8 | 1.147 | 1.990 | 19.5 | 20.0 |

**150718** 2001 $QT_{13}$ 1 5.9 138°.19 4°.4/ 5.2 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 40.91 | +33 26.9 | 1.862 | 2.674 | 14.4 | 20.5 |
| 12 13 | 7 33.04 | +34 2.7 | 1.799 | 2.689 | 11.0 | 20.3 |
| 12 23 | 7 22.26 | +34 32.0 | 1.759 | 2.702 | 7.4 | 20.1 |
| 1 2 | 7 9.61 | +34 48.8 | 1.748 | 2.715 | 4.6 | 20.0 |
| 1 12 | 6 56.54 | +34 48.9 | 1.765 | 2.727 | 5.4 | 20.1 |
| 1 22 | 6 44.60 | +34 32.2 | 1.812 | 2.739 | 8.6 | 20.3 |
| 2 1 | 6 35.03 | +34 1.9 | 1.886 | 2.749 | 12.0 | 20.5 |
| 2 11 | 6 28.61 | +33 22.7 | 1.982 | 2.759 | 15.0 | 20.7 |

**310316** 2011 $UQ_{131}$ 1 5.9 8°.17 2°.7/ 6.4 18

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.02 | +17 38.5 | 1.077 | 1.933 | 19.5 | 20.4 |
| 12 13 | 7 24.55 | +17 17.6 | 1.019 | 1.934 | 14.8 | 20.1 |
| 12 23 | 7 17.64 | +17 7.0 | 0.979 | 1.937 | 9.4 | 19.8 |
| 1 2 | 7 8.35 | +17 6.4 | 0.962 | 1.941 | 3.9 | 19.5 |
| 1 12 | 6 58.40 | +17 13.8 | 0.969 | 1.946 | 4.5 | 19.6 |
| 1 22 | 6 49.63 | +17 26.9 | 0.999 | 1.953 | 9.9 | 19.9 |
| 2 1 | 6 43.57 | +17 43.3 | 1.052 | 1.962 | 15.1 | 20.2 |
| 2 11 | 6 41.13 | +18 0.8 | 1.124 | 1.972 | 19.5 | 20.5 |

**274790** 2008 $WS_{12}$ 1 5.9 89°.44 4°.4/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 35.07 | +35 34.0 | 2.233 | 3.043 | 12.4 | 20.3 |
| 12 13 | 7 28.30 | +36 2.8 | 2.174 | 3.061 | 9.5 | 20.1 |
| 12 23 | 7 19.22 | +36 24.2 | 2.140 | 3.078 | 6.6 | 20.0 |
| 1 2 | 7 8.70 | +36 33.7 | 2.133 | 3.096 | 4.5 | 19.9 |
| 1 12 | 6 57.92 | +36 28.7 | 2.157 | 3.113 | 5.1 | 20.0 |
| 1 22 | 6 48.06 | +36 9.2 | 2.209 | 3.130 | 7.6 | 20.1 |
| 2 1 | 6 40.11 | +35 37.7 | 2.288 | 3.146 | 10.3 | 20.3 |
| 2 11 | 6 34.71 | +34 57.9 | 2.391 | 3.163 | 12.8 | 20.5 |

**144539** 2004 $EZ_{85}$ 1 5.9 342°.33 2°.8/ 5.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 30.19 | +26 31.1 | 1.395 | 2.241 | 16.5 | 19.8 |
| 12 13 | 7 25.97 | +27 16.5 | 1.320 | 2.232 | 12.4 | 19.5 |
| 12 23 | 7 18.49 | +28 4.9 | 1.267 | 2.225 | 7.7 | 19.2 |
| 1 2 | 7 8.63 | +28 49.9 | 1.239 | 2.218 | 3.4 | 18.9 |
| 1 12 | 6 57.91 | +29 25.2 | 1.238 | 2.212 | 4.7 | 19.0 |
| 1 22 | 6 48.03 | +29 47.3 | 1.262 | 2.207 | 9.5 | 19.3 |
| 2 1 | 6 40.57 | +29 55.9 | 1.310 | 2.202 | 14.1 | 19.5 |
| 2 11 | 6 36.55 | +29 53.3 | 1.378 | 2.199 | 18.1 | 19.7 |

**234232** 2000 $SZ_{245}$ 1 5.9 120°.64 1°.3/ 5.5 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.02 | +25 33.2 | 2.608 | 3.423 | 10.7 | 20.3 |
| 12 13 | 7 23.55 | +26 2.8 | 2.534 | 3.430 | 7.9 | 20.2 |
| 12 23 | 7 16.30 | +26 33.2 | 2.485 | 3.438 | 4.8 | 20.0 |
| 1 2 | 7 7.88 | +27 1.3 | 2.467 | 3.446 | 1.8 | 19.8 |
| 1 12 | 6 59.11 | +27 24.7 | 2.479 | 3.453 | 2.6 | 19.8 |
| 1 22 | 6 50.87 | +27 42.0 | 2.521 | 3.460 | 5.7 | 20.1 |
| 2 1 | 6 43.94 | +27 52.6 | 2.592 | 3.467 | 8.6 | 20.3 |
| 2 11 | 6 38.91 | +27 57.5 | 2.687 | 3.474 | 11.2 | 20.4 |

**188478** 2004 $NO_{13}$ 1 5.9 263°.73 3°.2/ 7.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.73 | +10 50.9 | 1.968 | 2.769 | 14.1 | 20.2 |
| 12 13 | 7 24.64 | +11 19.4 | 1.876 | 2.758 | 11.0 | 20.0 |
| 12 23 | 7 17.27 | +12 2.7 | 1.807 | 2.747 | 7.4 | 19.7 |
| 1 2 | 7 8.23 | +12 59.5 | 1.766 | 2.737 | 4.0 | 19.5 |
| 1 12 | 6 58.51 | +14 6.7 | 1.754 | 2.726 | 3.9 | 19.5 |
| 1 22 | 6 49.23 | +15 20.0 | 1.771 | 2.715 | 7.3 | 19.6 |
| 2 1 | 6 41.44 | +16 34.9 | 1.817 | 2.703 | 11.1 | 19.8 |
| 2 11 | 6 35.99 | +17 47.5 | 1.886 | 2.692 | 14.5 | 20.0 |

**123294** 2000 $UX_{102}$ 1 5.9 74°.75 1°.5/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.42 | +25 48.9 | 1.879 | 2.704 | 13.7 | 20.1 |
| 12 13 | 7 26.59 | +26 7.0 | 1.813 | 2.715 | 10.2 | 19.9 |
| 12 23 | 7 18.33 | +26 25.3 | 1.772 | 2.726 | 6.2 | 19.7 |
| 1 2 | 7 8.48 | +26 40.4 | 1.757 | 2.737 | 2.2 | 19.5 |
| 1 12 | 6 58.25 | +26 49.3 | 1.772 | 2.748 | 3.2 | 19.6 |
| 1 22 | 6 48.86 | +26 50.8 | 1.816 | 2.759 | 7.2 | 19.8 |
| 2 1 | 6 41.39 | +26 45.5 | 1.886 | 2.770 | 10.9 | 20.1 |
| 2 11 | 6 36.54 | +26 35.1 | 1.980 | 2.781 | 14.1 | 20.3 |

**218727** 2005 $US_{211}$ 1 5.9 139°.06 1°.0/ 5.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.06 | +23 57.0 | 2.093 | 2.911 | 12.8 | 21.6 |
| 12 13 | 7 26.17 | +24 23.2 | 2.019 | 2.918 | 9.5 | 21.4 |
| 12 23 | 7 18.04 | +24 51.7 | 1.970 | 2.924 | 5.7 | 21.2 |
| 1 2 | 7 8.41 | +25 18.9 | 1.950 | 2.930 | 1.8 | 20.9 |
| 1 12 | 6 58.34 | +25 41.8 | 1.959 | 2.936 | 2.8 | 21.0 |
| 1 22 | 6 48.95 | +25 58.6 | 1.998 | 2.941 | 6.7 | 21.2 |
| 2 1 | 6 41.23 | +26 8.8 | 2.065 | 2.946 | 10.3 | 21.5 |
| 2 11 | 6 35.89 | +26 13.3 | 2.156 | 2.951 | 13.3 | 21.7 |

**502401** 2015 $BR_{251}$ 1 5.9 221°.15 0°.6/ 5.8 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 29.06 | +24 12.0 | 2.720 | 3.532 | 10.3 | 22.0 |
| 12 13 | 7 23.57 | +24 24.3 | 2.630 | 3.526 | 7.7 | 21.8 |
| 12 23 | 7 16.33 | +24 37.6 | 2.566 | 3.519 | 4.7 | 21.6 |
| 1 2 | 7 7.91 | +24 49.8 | 2.531 | 3.512 | 1.4 | 21.3 |
| 1 12 | 6 59.09 | +24 59.1 | 2.528 | 3.504 | 2.2 | 21.4 |
| 1 22 | 6 50.71 | +25 4.4 | 2.555 | 3.497 | 5.5 | 21.6 |
| 2 1 | 6 43.54 | +25 5.5 | 2.610 | 3.489 | 8.5 | 21.8 |
| 2 11 | 6 38.19 | +25 2.9 | 2.691 | 3.480 | 11.1 | 21.9 |

**284005** 2004 $TL_{127}$ 1 5.9 72°.96 1°.2/ 6.3 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 36.13 | +18 17.0 | 1.427 | 2.253 | 17.2 | 21.1 |
| 12 13 | 7 29.59 | +18 35.8 | 1.380 | 2.281 | 12.8 | 20.9 |
| 12 23 | 7 20.19 | +19 3.0 | 1.355 | 2.309 | 7.8 | 20.7 |
| 1 2 | 7 9.01 | +19 35.3 | 1.357 | 2.337 | 2.6 | 20.5 |
| 1 12 | 6 57.58 | +20 8.5 | 1.386 | 2.364 | 3.3 | 20.6 |
| 1 22 | 6 47.39 | +20 39.5 | 1.443 | 2.391 | 8.2 | 21.0 |
| 2 1 | 6 39.65 | +21 6.7 | 1.526 | 2.418 | 12.5 | 21.3 |
| 2 11 | 6 35.05 | +21 29.4 | 1.631 | 2.444 | 16.1 | 21.6 |

**79509** 1998 $HT_{136}$ 1 5.9 285°.60 1°.1/ 6.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 27.36 | +17 49.9 | 2.374 | 3.187 | 11.6 | 19.8 |
| 12 13 | 7 22.53 | +18 4.7 | 2.283 | 3.177 | 8.8 | 19.6 |
| 12 23 | 7 15.81 | +18 25.7 | 2.217 | 3.168 | 5.5 | 19.4 |
| 1 2 | 7 7.78 | +18 51.4 | 2.180 | 3.159 | 2.0 | 19.1 |
| 1 12 | 6 59.27 | +19 19.7 | 2.173 | 3.150 | 2.4 | 19.1 |
| 1 22 | 6 51.18 | +19 48.6 | 2.195 | 3.141 | 6.0 | 19.4 |
| 2 1 | 6 44.37 | +20 16.3 | 2.246 | 3.132 | 9.3 | 19.6 |
| 2 11 | 6 39.50 | +20 41.9 | 2.321 | 3.123 | 12.3 | 19.7 |

**275358** 2011 $AP_{30}$ 1 5.9 160°.89 0°.6/ 6.2 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| | h m | ° ′ | | | ° | m |
| 12 3 | 7 30.36 | +19 8.7 | 2.055 | 2.872 | 13.1 | 20.9 |
| 12 13 | 7 24.94 | +19 30.1 | 1.977 | 2.874 | 9.8 | 20.7 |
| 12 23 | 7 17.33 | +19 57.6 | 1.923 | 2.875 | 6.0 | 20.5 |
| 1 2 | 7 8.22 | +20 28.9 | 1.897 | 2.877 | 1.9 | 20.2 |
| 1 12 | 6 58.63 | +21 1.1 | 1.900 | 2.878 | 2.5 | 20.3 |
| 1 22 | 6 49.63 | +21 31.7 | 1.933 | 2.879 | 6.6 | 20.5 |
| 2 1 | 6 42.21 | +21 59.1 | 1.994 | 2.880 | 10.3 | 20.8 |
| 2 11 | 6 37.10 | +22 22.6 | 2.079 | 2.881 | 13.5 | 21.0 |

**473409** 2015 $VH_{113}$ 1 5.9 48°.26 1°.2/ 6.3 15

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 33.06 | +18 58.0 | 1.282 | 2.122 | 18.0 | 21.1 |
| 12 13 | 7 27.69 | +19 5.6 | 1.232 | 2.140 | 13.5 | 20.9 |
| 12 23 | 7 19.22 | +19 21.9 | 1.203 | 2.159 | 8.2 | 20.6 |
| 1 2 | 7 8.77 | +19 43.7 | 1.198 | 2.178 | 2.7 | 20.4 |
| 1 12 | 6 57.93 | +20 7.4 | 1.220 | 2.198 | 3.5 | 20.5 |
| 1 22 | 6 48.35 | +20 30.2 | 1.268 | 2.218 | 8.7 | 20.8 |
| 2 1 | 6 41.31 | +20 50.3 | 1.340 | 2.239 | 13.4 | 21.2 |
| 2 11 | 6 37.58 | +21 7.2 | 1.433 | 2.259 | 17.2 | 21.5 |

**110436** 2001 $TR_{28}$ 1 5.9 152°.29 7°.2/ 4.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.61 | +41 45.8 | 2.054 | 2.854 | 13.7 | 20.2 |
| 12 13 | 7 31.61 | +42 48.3 | 1.987 | 2.858 | 11.1 | 20.1 |
| 12 23 | 7 21.58 | +43 39.8 | 1.945 | 2.862 | 8.7 | 19.9 |
| 1 2 | 7 9.48 | +44 12.6 | 1.929 | 2.866 | 7.3 | 19.8 |
| 1 12 | 6 56.79 | +44 21.8 | 1.941 | 2.869 | 7.9 | 19.9 |
| 1 22 | 6 45.09 | +44 6.8 | 1.980 | 2.872 | 10.0 | 20.0 |
| 2 1 | 6 35.72 | +43 31.2 | 2.044 | 2.875 | 12.5 | 20.2 |
| 2 11 | 6 29.57 | +42 41.0 | 2.130 | 2.878 | 14.9 | 20.4 |

**363199** 2001 $UM_{81}$ 1 5.9 117°.00 5°.2/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 31.41 | + 5 56.4 | 2.323 | 3.094 | 13.2 | 22.0 |
| 12 13 | 7 25.20 | + 5 30.3 | 2.260 | 3.116 | 10.5 | 21.8 |
| 12 23 | 7 17.22 | + 5 17.0 | 2.221 | 3.137 | 7.8 | 21.7 |
| 1 2 | 7 8.14 | + 5 17.6 | 2.209 | 3.157 | 5.7 | 21.6 |
| 1 12 | 6 58.84 | + 5 31.5 | 2.227 | 3.177 | 5.5 | 21.6 |
| 1 22 | 6 50.17 | + 5 57.1 | 2.275 | 3.196 | 7.4 | 21.7 |
| 2 1 | 6 42.91 | + 6 31.7 | 2.350 | 3.214 | 9.9 | 21.9 |
| 2 11 | 6 37.61 | + 7 12.1 | 2.450 | 3.232 | 12.3 | 22.1 |

**410487** 2008 $DE_{38}$ 1 5.9 286°.21 7°.2/ 7.7 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.76 | + 4 23.8 | 1.806 | 2.592 | 15.8 | 21.1 |
| 12 13 | 7 24.04 | + 3 47.1 | 1.716 | 2.578 | 13.0 | 20.9 |
| 12 23 | 7 16.96 | + 3 26.9 | 1.648 | 2.564 | 10.0 | 20.7 |
| 1 2 | 7 8.17 | + 3 26.3 | 1.605 | 2.550 | 7.7 | 20.5 |
| 1 12 | 6 58.70 | + 3 46.3 | 1.588 | 2.536 | 7.5 | 20.5 |
| 1 22 | 6 49.70 | + 4 25.1 | 1.599 | 2.522 | 9.7 | 20.6 |
| 2 1 | 6 42.30 | + 5 19.0 | 1.634 | 2.508 | 12.9 | 20.7 |
| 2 11 | 6 37.32 | + 6 22.5 | 1.692 | 2.494 | 16.1 | 20.9 |

**286072** 2001 $SC_{344}$ 1 6.0 32°.23 21°.1/16.5 17

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 28.20 | −18 37.9 | 1.129 | 1.844 | 27.2 | 20.0 |
| 12 13 | 7 24.27 | −20 57.4 | 1.102 | 1.862 | 25.2 | 19.9 |
| 12 23 | 7 17.24 | −22 28.9 | 1.086 | 1.881 | 23.4 | 19.9 |
| 1 2 | 7 8.21 | −23 2.1 | 1.085 | 1.902 | 22.0 | 19.8 |
| 1 12 | 6 58.79 | −22 33.8 | 1.098 | 1.924 | 21.2 | 19.9 |
| 1 22 | 6 50.58 | −21 9.0 | 1.128 | 1.946 | 21.2 | 19.9 |
| 2 1 | 6 44.89 | −18 58.9 | 1.173 | 1.970 | 22.0 | 20.1 |
| 2 11 | 6 42.50 | −16 19.5 | 1.235 | 1.995 | 23.1 | 20.3 |

**381585** 2008 $UV_{255}$ 1 6.0 130°.29 4°.5/ 4.4 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 32.89 | +34 24.0 | 2.312 | 3.125 | 11.9 | 21.5 |
| 12 13 | 7 26.88 | +35 23.6 | 2.242 | 3.130 | 9.2 | 21.3 |
| 12 23 | 7 18.53 | +36 18.6 | 2.197 | 3.136 | 6.4 | 21.2 |
| 1 2 | 7 8.59 | +37 3.4 | 2.180 | 3.141 | 4.6 | 21.1 |
| 1 12 | 6 58.14 | +37 33.9 | 2.193 | 3.146 | 5.3 | 21.1 |
| 1 22 | 6 48.34 | +37 48.4 | 2.235 | 3.151 | 7.8 | 21.3 |
| 2 1 | 6 40.24 | +37 47.8 | 2.304 | 3.156 | 10.5 | 21.5 |
| 2 11 | 6 34.61 | +37 35.2 | 2.396 | 3.160 | 13.0 | 21.7 |

**64929** 2001 $YO_{108}$ 1 6.0 148°.32 4°.2/ 5.1 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 38.23 | +31 48.3 | 1.752 | 2.572 | 14.8 | 19.8 |
| 12 13 | 7 31.31 | +32 30.7 | 1.684 | 2.580 | 11.3 | 19.6 |
| 12 23 | 7 21.39 | +33 8.8 | 1.640 | 2.587 | 7.4 | 19.4 |
| 1 2 | 7 9.44 | +33 36.2 | 1.623 | 2.593 | 4.4 | 19.2 |
| 1 12 | 6 56.92 | +33 48.2 | 1.634 | 2.599 | 5.3 | 19.3 |
| 1 22 | 6 45.42 | +33 43.5 | 1.674 | 2.604 | 8.8 | 19.5 |
| 2 1 | 6 36.26 | +33 24.5 | 1.740 | 2.609 | 12.5 | 19.7 |
| 2 11 | 6 30.29 | +32 55.5 | 1.828 | 2.614 | 15.7 | 20.0 |

**445872** 2012 $TU_{206}$ 1 6.0 173°.27 1°.3/ 5.8 18

| 2019/20 | $\alpha_{2000}$ | $\delta_{2000}$ | $\Delta$ | $r$ | $\beta$ | $V$ |
|---|---|---|---|---|---|---|
| 12 3 | 7 37.92 | +25 30.2 | 1.583 | 2.408 | 15.9 | 21.9 |
| 12 13 | 7 31.19 | +25 38.1 | 1.509 | 2.411 | 11.9 | 21.6 |
| 12 23 | 7 21.37 | +25 46.2 | 1.458 | 2.413 | 7.3 | 21.4 |
| 1 2 | 7 9.44 | +25 50.3 | 1.434 | 2.414 | 2.4 | 21.1 |
| 1 12 | 6 56.91 | +25 47.5 | 1.439 | 2.415 | 3.5 | 21.1 |
| 1 22 | 6 45.37 | +25 36.7 | 1.471 | 2.416 | 8.4 | 21.4 |
| 2 1 | 6 36.22 | +25 19.4 | 1.530 | 2.415 | 12.9 | 21.7 |
| 2 11 | 6 30.34 | +24 58.3 | 1.611 | 2.415 | 16.7 | 21.9 |