

EPHEMERIDES

10 2.0

10 2.0

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|---------------|--------------|---------|------|---------------|-------------------------------|-----------------|---------------|-------------|---------|------|
| 162048 | 1996 <i>RO</i> ₃₂ | | 10 2.0 344°79 | 0°4/ 1.2 18 | | | 226034 | 2002 <i>FH</i> ₂₉ | | 10 2.0 132°39 | 3°6/28.5 18 | | |
| 8 29 | 0 47.24 | + 3 11.5 | 3.960 | 4.811 | 7.1 | 19.8 | 8 29 | 0 56.99 | - 3 41.0 | 1.835 | 2.712 | 12.9 | 20.2 |
| 9 8 | 0 43.86 | + 2 42.7 | 3.881 | 4.809 | 5.2 | 19.7 | 9 8 | 0 51.79 | - 4 42.5 | 1.778 | 2.718 | 9.4 | 20.0 |
| 9 18 | 0 39.66 | + 2 9.1 | 3.828 | 4.806 | 3.1 | 19.5 | 9 18 | 0 44.70 | - 5 48.4 | 1.745 | 2.725 | 5.8 | 19.8 |
| 9 28 | 0 34.94 | + 1 32.9 | 3.804 | 4.804 | 0.9 | 19.3 | 9 28 | 0 36.44 | - 6 51.8 | 1.739 | 2.731 | 3.6 | 19.7 |
| 10 8 | 0 30.08 | + 0 56.8 | 3.811 | 4.802 | 1.6 | 19.4 | 10 8 | 0 27.94 | - 7 45.7 | 1.760 | 2.737 | 5.5 | 19.9 |
| 10 18 | 0 25.46 | + 0 23.3 | 3.847 | 4.800 | 3.9 | 19.6 | 10 18 | 0 20.15 | - 8 24.5 | 1.809 | 2.743 | 8.9 | 20.1 |
| 10 28 | 0 21.45 | - 0 5.1 | 3.912 | 4.798 | 5.9 | 19.7 | 10 28 | 0 13.91 | - 8 44.5 | 1.883 | 2.748 | 12.3 | 20.3 |
| 11 7 | 0 18.35 | - 0 26.7 | 4.002 | 4.797 | 7.8 | 19.9 | 11 7 | 0 9.78 | - 8 45.2 | 1.978 | 2.753 | 15.2 | 20.5 |
| 496010 | 2007 <i>YB</i> ₇₃ | | 10 2.0 238°84 | 17°4/12.5 17 | | | 481748 | 2008 <i>GE</i> ₁₄₄ | | 10 2.0 222°67 | 4°6/26.9 18 | | |
| 8 29 | 0 59.70 | -30 19.4 | 1.175 | 2.050 | 18.7 | 20.2 | 8 29 | 0 55.60 | - 9 9.3 | 2.198 | 3.074 | 11.1 | 21.5 |
| 9 8 | 0 55.20 | -33 39.1 | 1.152 | 2.044 | 17.5 | 20.1 | 9 8 | 0 50.58 | -10 3.0 | 2.135 | 3.072 | 8.3 | 21.4 |
| 9 18 | 0 47.34 | -36 31.1 | 1.148 | 2.038 | 17.6 | 20.1 | 9 18 | 0 43.92 | -10 56.3 | 2.097 | 3.069 | 5.7 | 21.2 |
| 9 28 | 0 37.26 | -38 37.0 | 1.164 | 2.031 | 18.8 | 20.1 | 9 28 | 0 36.23 | -11 43.2 | 2.086 | 3.066 | 4.7 | 21.1 |
| 10 8 | 0 26.66 | -39 46.2 | 1.199 | 2.024 | 20.8 | 20.3 | 10 8 | 0 28.28 | -12 18.2 | 2.103 | 3.063 | 6.2 | 21.2 |
| 10 18 | 0 17.32 | -39 56.9 | 1.248 | 2.016 | 23.1 | 20.4 | 10 18 | 0 20.89 | -12 37.2 | 2.147 | 3.060 | 8.9 | 21.4 |
| 10 28 | 0 10.71 | -39 14.6 | 1.310 | 2.009 | 25.2 | 20.6 | 10 28 | 0 14.79 | -12 38.2 | 2.216 | 3.057 | 11.7 | 21.6 |
| 11 7 | 0 7.60 | -37 49.2 | 1.382 | 2.001 | 26.9 | 20.7 | 11 7 | 0 10.49 | -12 21.2 | 2.307 | 3.054 | 14.1 | 21.7 |
| 363161 | 2001 <i>SF</i> ₁₆₈ | | 10 2.0 10°88 | 2°4/30.7 18 | | | 236440 | 2006 <i>DL</i> ₁₈₈ | | 10 2.0 238°52 | 0°9/ 1.2 18 | | |
| 8 29 | 0 59.37 | - 0 16.7 | 0.982 | 1.883 | 19.3 | 19.8 | 8 29 | 0 56.51 | + 3 38.2 | 1.793 | 2.657 | 13.7 | 21.7 |
| 9 8 | 0 54.87 | - 0 26.1 | 0.932 | 1.884 | 14.3 | 19.5 | 9 8 | 0 51.64 | + 3 0.4 | 1.719 | 2.653 | 10.1 | 21.4 |
| 9 18 | 0 47.10 | - 0 45.2 | 0.900 | 1.886 | 8.5 | 19.2 | 9 18 | 0 44.74 | + 2 11.2 | 1.668 | 2.648 | 6.0 | 21.2 |
| 9 28 | 0 37.19 | - 1 7.0 | 0.890 | 1.889 | 3.0 | 18.9 | 9 28 | 0 36.50 | + 1 15.6 | 1.643 | 2.643 | 1.7 | 20.9 |
| 10 8 | 0 26.79 | - 1 23.4 | 0.902 | 1.894 | 5.3 | 19.1 | 10 8 | 0 27.86 | + 0 20.0 | 1.646 | 2.638 | 3.3 | 21.0 |
| 10 18 | 0 17.65 | - 1 27.3 | 0.937 | 1.899 | 11.1 | 19.4 | 10 18 | 0 19.83 | - 0 29.1 | 1.677 | 2.633 | 7.6 | 21.3 |
| 10 28 | 0 11.20 | - 1 13.8 | 0.992 | 1.905 | 16.4 | 19.8 | 10 28 | 0 13.35 | - 1 5.9 | 1.733 | 2.627 | 11.6 | 21.5 |
| 11 7 | 0 8.19 | - 0 41.7 | 1.065 | 1.912 | 20.8 | 20.1 | 11 7 | 0 9.04 | - 1 26.8 | 1.811 | 2.622 | 15.0 | 21.7 |
| 164196 | 2004 <i>CF</i> ₅₂ | | 10 2.0 301°58 | 13°5/21.7 18 | | | 407615 | 2011 <i>BH</i> ₁₂₂ | | 10 2.0 345°33 | 6°5/ 8.7 17 | | |
| 8 29 | 1 16.07 | -33 10.0 | 1.791 | 2.606 | 15.9 | 19.3 | 8 29 | 0 56.11 | +23 16.7 | 2.115 | 2.887 | 15.1 | 21.1 |
| 9 8 | 1 6.59 | -33 56.5 | 1.715 | 2.573 | 14.5 | 19.1 | 9 8 | 0 51.33 | +23 55.7 | 2.031 | 2.884 | 12.7 | 20.9 |
| 9 18 | 0 53.94 | -34 20.3 | 1.661 | 2.540 | 13.6 | 19.0 | 9 18 | 0 44.57 | +24 14.6 | 1.967 | 2.880 | 10.1 | 20.7 |
| 9 28 | 0 39.17 | -34 9.8 | 1.630 | 2.507 | 13.8 | 18.9 | 9 28 | 0 36.47 | +24 11.9 | 1.927 | 2.878 | 7.7 | 20.6 |
| 10 8 | 0 23.82 | -33 17.9 | 1.622 | 2.474 | 15.0 | 19.0 | 10 8 | 0 27.88 | +23 48.4 | 1.912 | 2.875 | 6.5 | 20.5 |
| 10 18 | 0 9.58 | -31 43.4 | 1.639 | 2.441 | 17.0 | 19.0 | 10 18 | 0 19.77 | +23 7.7 | 1.924 | 2.873 | 7.4 | 20.6 |
| 10 28 | 23 57.86 | -29 31.4 | 1.677 | 2.408 | 19.3 | 19.1 | 10 28 | 0 13.06 | +22 16.0 | 1.962 | 2.871 | 9.7 | 20.7 |
| 11 7 | 23 49.49 | -26 50.9 | 1.734 | 2.375 | 21.5 | 19.2 | 11 7 | 0 8.42 | +21 20.7 | 2.025 | 2.869 | 12.4 | 20.9 |
| 288340 | 2004 <i>BZ</i> ₉₇ | | 10 2.0 171°63 | 1°5/ 3.7 18 | | | 264125 | 2009 <i>TE</i> ₃₅ | | 10 2.0 299°70 | 1°7/28.7 18 | | |
| 8 29 | 0 57.18 | +10 8.5 | 2.390 | 3.218 | 12.0 | 21.6 | 8 29 | 0 48.03 | - 4 18.5 | 4.206 | 5.071 | 6.5 | 19.9 |
| 9 8 | 0 51.66 | + 9 59.6 | 2.312 | 3.221 | 9.1 | 21.4 | 9 8 | 0 44.40 | - 4 46.3 | 4.128 | 5.063 | 4.7 | 19.8 |
| 9 18 | 0 44.54 | + 9 38.8 | 2.257 | 3.223 | 5.9 | 21.0 | 9 18 | 0 39.98 | - 5 15.4 | 4.078 | 5.056 | 2.9 | 19.7 |
| 9 28 | 0 36.39 | + 9 8.2 | 2.230 | 3.225 | 2.6 | 21.0 | 9 28 | 0 35.06 | - 5 43.5 | 4.056 | 5.049 | 1.7 | 19.6 |
| 10 8 | 0 27.95 | + 8 31.1 | 2.233 | 3.227 | 2.2 | 20.9 | 10 8 | 0 30.01 | - 6 8.2 | 4.065 | 5.042 | 2.7 | 19.6 |
| 10 18 | 0 20.01 | + 7 51.9 | 2.265 | 3.228 | 5.4 | 21.2 | 10 18 | 0 25.18 | - 6 27.4 | 4.103 | 5.035 | 4.5 | 19.8 |
| 10 28 | 0 13.28 | + 7 15.3 | 2.325 | 3.228 | 8.7 | 21.4 | 10 28 | 0 20.93 | - 6 39.3 | 4.169 | 5.028 | 6.3 | 19.9 |
| 11 7 | 0 8.29 | + 6 45.6 | 2.410 | 3.228 | 11.5 | 21.6 | 11 7 | 0 17.56 | - 6 42.9 | 4.260 | 5.020 | 7.9 | 20.0 |
| 96197 | 1992 <i>EF</i> ₆ | | 10 2.0 119°45 | 2°5/29.4 18 | | | 428662 | 2008 <i>GF</i> ₉₆ | | 10 2.0 200°81 | 1°4/30.6 17 | | |
| 8 29 | 0 57.12 | - 1 26.7 | 2.112 | 2.979 | 11.9 | 20.6 | 8 29 | 0 56.88 | + 3 56.0 | 1.794 | 2.657 | 13.8 | 21.8 |
| 9 8 | 0 51.60 | - 2 19.2 | 2.058 | 2.994 | 8.6 | 20.4 | 9 8 | 0 51.90 | + 2 50.4 | 1.720 | 2.654 | 10.1 | 21.6 |
| 9 18 | 0 44.46 | - 3 16.7 | 2.029 | 3.010 | 5.1 | 20.3 | 9 18 | 0 44.89 | + 1 31.6 | 1.670 | 2.651 | 6.0 | 21.3 |
| 9 28 | 0 36.34 | - 4 13.8 | 2.028 | 3.024 | 2.5 | 20.1 | 9 28 | 0 36.54 | + 0 5.9 | 1.647 | 2.647 | 1.8 | 21.0 |
| 10 8 | 0 28.08 | - 5 4.7 | 2.056 | 3.039 | 4.2 | 20.3 | 10 8 | 0 27.81 | - 1 18.8 | 1.652 | 2.642 | 3.7 | 21.1 |
| 10 18 | 0 20.48 | - 5 44.4 | 2.113 | 3.053 | 7.5 | 20.5 | 10 18 | 0 19.71 | - 2 34.4 | 1.685 | 2.637 | 8.0 | 21.4 |
| 10 28 | 0 14.27 | - 6 9.6 | 2.196 | 3.066 | 10.6 | 20.7 | 10 28 | 0 13.16 | - 3 34.2 | 1.744 | 2.631 | 12.0 | 21.6 |
| 11 7 | 0 9.92 | - 6 18.8 | 2.301 | 3.079 | 13.2 | 20.9 | 11 7 | 0 8.80 | - 4 14.4 | 1.826 | 2.625 | 15.4 | 21.8 |
| 263816 | 2008 <i>RV</i> ₁₂₅ | | 10 2.0 350°78 | 0°9/ 3.6 16 | | | 28478 | 2000 <i>CR</i> ₂₄ | | 10 2.0 55°54 | 0°9/ 2.7 18 | | |
| 8 29 | 0 47.39 | + 9 51.6 | 3.688 | 4.517 | 8.1 | 19.9 | 8 29 | 0 59.50 | + 8 16.6 | 1.065 | 1.943 | 20.0 | 18.2 |
| 9 8 | 0 44.05 | + 9 27.2 | 3.604 | 4.514 | 6.1 | 19.7 | 9 8 | 0 54.59 | + 7 51.9 | 1.022 | 1.960 | 15.0 | 17.9 |
| 9 18 | 0 39.81 | + 8 54.8 | 3.545 | 4.512 | 3.9 | 19.6 | 9 18 | 0 46.73 | + 7 6.0 | 0.998 | 1.977 | 9.2 | 17.7 |
| 9 28 | 0 35.00 | + 8 16.1 | 3.514 | 4.510 | 1.7 | 19.4 | 9 28 | 0 37.06 | + 6 5.0 | 0.995 | 1.995 | 3.1 | 17.4 |
| 10 8 | 0 30.03 | + 7 33.9 | 3.514 | 4.508 | 1.4 | 19.4 | 10 8 | 0 27.17 | + 4 58.5 | 1.017 | 2.013 | 3.4 | 17.5 |
| 10 18 | 0 25.32 | + 6 50.9 | 3.543 | 4.506 | 3.6 | 19.6 | 10 18 | 0 18.60 | + 3 57.0 | 1.063 | 2.031 | 9.2 | 17.9 |
| 10 28 | 0 21.27 | + 6 10.4 | 3.601 | 4.505 | 5.9 | 19.7 | 10 28 | 0 12.56 | + 3 9.6 | 1.131 | 2.050 | 14.3 | 18.2 |
| 11 7 | 0 18.21 | + 5 34.9 | 3.685 | 4.503 | 7.9 | 19.9 | 11 7 | 0 9.69 | + 2 41.7 | 1.219 | 2.068 | 18.5 | 18.6 |
| 220179 | 2002 <i>UM</i> ₁₀ | | 10 2.0 315°05 | 2°8/29.9 18 | | | 186029 | 2001 <i>QO</i> ₂₇₃ | | 10 2.0 29°75 | 1°8/30.9 18 | | |
| 8 29 | 0 54.88 | + 0 24.9 | 1.272 | 2.164 | 16.4 | 19.8 | 8 29 | 0 59.91 | + 0 20.3 | 1.193 | 2.081 | 17.6 | 19.4 |
| 9 8 | 0 51.26 | - 0 22.3 | 1.196 | 2.145 | 12.2 | 19.5 | 9 8 | 0 54.72 | + 0 12.1 | 1.144 | 2.090 | 12.9 | 19.2 |
| 9 18 | 0 44.92 | - 1 22.5 | 1.141 | 2.126 | 7.3 | 19.2 | 9 18 | 0 46.76 | - 0 4.9 | 1.116 | 2.100 | 7.6 | 18.9 |
| 9 28 | 0 36.61 | - 2 28.1 | 1.108 | 2.107 | 3.0 | 18.8 | 9 28 | 0 37.08 | - 0 24.9 | 1.111 | 2.111 | 2.5 | 18.6 |
| 10 8 | 0 27.57 | - 3 29.4 | 1.100 | 2.089 | 5.5 | 19.0 | 10 8 | 0 27.11 | - 0 41.2 | 1.131 | 2.122 | 4.5 | 18.8 |
| 10 18 | 0 19.20 | - 4 17.0 | 1.117 | 2.072 | 10.7 | 19.2 | 10 18 | 0 18.29 | - 0 47.8 | 1.175 | 2.135 | 9.7 | 19.1 |
| 10 28 | 0 12.85 | - 4 43.3 | 1.155 | 2.055 | 15.7 | 19.4 | 10 28 | 0 11.80 | - 0 40.4 | 1.242 | 2.148 | 14.3 | 19.4 |
| 11 7 | 0 9.39 | - 4 45.2 | 1.212 | 2.039 | 20.0 | 19.7 | 11 7 | 0 8.30 | - 0 17.3 | 1.328 | 2.162 | 18.2 | 19.7 |
| 476018 | 2007 <i>RE</i> ₁₆₀ | | 10 2.0 318°43 | 0°7/ 1.5 18 | | | 484246 | 2007 <i>FR</i> ₁ | | 10 2.0 222°07 | 1°2/ 3.2 17 | | |
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EPHEMERIDES

10 2.0

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|-----------|---------|------|---------------|-------------------------------|-----------------|----------|----------|---------|------|
| 382160 | 2012 <i>HV</i> ₃₉ | 10 2.0 | 93°10 | 3°3/29.3 | 17 | | 185711 | 1998 <i>RB</i> ₇₀ | 10 2.0 | 6°24 | 2°1/30.8 | 18 | |
| 8 29 | 1 0.86 | - 1 55.8 | 1.555 | 2.431 | 14.9 | 21.2 | 8 29 | 0 55.49 | + 0 34.7 | 1.021 | 1.924 | 18.6 | 19.1 |
| 9 8 | 0 54.72 | - 2 54.3 | 1.514 | 2.454 | 10.8 | 21.0 | 9 8 | 0 51.91 | + 0 20.0 | 0.971 | 1.924 | 13.7 | 18.8 |
| 9 18 | 0 46.44 | - 3 58.4 | 1.496 | 2.477 | 6.5 | 20.8 | 9 18 | 0 45.32 | - 0 5.7 | 0.938 | 1.925 | 8.2 | 18.6 |
| 9 28 | 0 36.94 | - 5 0.4 | 1.504 | 2.499 | 3.4 | 20.7 | 9 28 | 0 36.74 | - 0 35.4 | 0.928 | 1.928 | 2.7 | 18.3 |
| 10 8 | 0 27.36 | - 5 52.6 | 1.539 | 2.521 | 5.3 | 20.9 | 10 8 | 0 27.71 | - 1 0.7 | 0.940 | 1.932 | 5.0 | 18.4 |
| 10 18 | 0 18.81 | - 6 29.2 | 1.601 | 2.543 | 9.3 | 21.2 | 10 18 | 0 19.79 | - 1 14.2 | 0.974 | 1.938 | 10.6 | 18.8 |
| 10 28 | 0 12.18 | - 6 46.6 | 1.688 | 2.564 | 13.0 | 21.4 | 10 28 | 0 14.32 | - 1 10.2 | 1.030 | 1.945 | 15.7 | 19.1 |
| 11 7 | 0 8.00 | - 6 44.3 | 1.795 | 2.584 | 16.0 | 21.7 | 11 7 | 0 12.02 | - 0 47.0 | 1.103 | 1.953 | 20.0 | 19.4 |
| 261755 | 2006 <i>BY</i> ₃₂ | 10 2.0 | 250°45 | 1°2/30.6 | 18 | | 394193 | 2006 <i>SX</i> ₅₈ | 10 2.0 | 12°61 | 2°2/ 3.9 | 18 | |
| 8 29 | 0 53.59 | + 1 47.4 | 2.454 | 3.314 | 10.7 | 20.9 | 8 29 | 0 53.75 | +11 3.5 | 1.503 | 2.359 | 16.3 | 20.5 |
| 9 8 | 0 49.03 | + 1 10.1 | 2.372 | 3.305 | 7.8 | 20.7 | 9 8 | 0 49.91 | +10 51.1 | 1.438 | 2.362 | 12.5 | 20.3 |
| 9 18 | 0 42.99 | + 0 25.5 | 2.316 | 3.296 | 4.6 | 20.5 | 9 18 | 0 43.83 | +10 19.7 | 1.395 | 2.366 | 8.2 | 20.1 |
| 9 28 | 0 35.98 | - 0 22.5 | 2.287 | 3.286 | 1.5 | 20.3 | 9 28 | 0 36.29 | + 9 32.5 | 1.375 | 2.370 | 3.7 | 19.8 |
| 10 8 | 0 28.67 | - 1 9.2 | 2.287 | 3.277 | 2.9 | 20.4 | 10 8 | 0 28.37 | + 8 35.4 | 1.381 | 2.375 | 3.0 | 19.8 |
| 10 18 | 0 21.77 | - 1 50.1 | 2.317 | 3.267 | 6.2 | 20.6 | 10 18 | 0 21.20 | + 7 36.1 | 1.412 | 2.381 | 7.3 | 20.1 |
| 10 28 | 0 15.95 | - 2 21.2 | 2.373 | 3.257 | 9.4 | 20.8 | 10 28 | 0 15.79 | + 6 42.7 | 1.469 | 2.388 | 11.6 | 20.3 |
| 11 7 | 0 11.71 | - 2 39.8 | 2.453 | 3.247 | 12.1 | 20.9 | 11 7 | 0 12.80 | + 6 1.6 | 1.547 | 2.395 | 15.3 | 20.6 |
| 394934 | 2008 <i>WG</i> ₁₂₀ | 10 2.0 | 320°16 | 11°0/22.3 | 18 | | 19461 | Feingold | 10 2.0 | 230°00 | 2°7/ 4.6 | 18 | |
| 8 29 | 0 56.16 | -18 53.6 | 1.361 | 2.254 | 15.5 | 20.3 | 8 29 | 0 57.67 | +12 59.5 | 1.898 | 2.726 | 14.6 | 18.8 |
| 9 8 | 0 52.17 | -20 26.7 | 1.296 | 2.229 | 12.9 | 20.1 | 9 8 | 0 52.54 | +12 54.8 | 1.814 | 2.720 | 11.4 | 18.6 |
| 9 18 | 0 45.44 | -21 51.5 | 1.252 | 2.204 | 11.2 | 19.9 | 9 18 | 0 45.34 | +12 33.2 | 1.753 | 2.714 | 7.7 | 18.3 |
| 9 28 | 0 36.78 | -22 55.0 | 1.231 | 2.180 | 11.3 | 19.8 | 9 28 | 0 36.75 | +11 55.9 | 1.717 | 2.707 | 4.0 | 18.1 |
| 10 8 | 0 27.46 | -23 26.5 | 1.232 | 2.156 | 13.4 | 19.9 | 10 8 | 0 27.68 | +11 7.1 | 1.708 | 2.700 | 3.1 | 18.0 |
| 10 18 | 0 18.90 | -23 20.2 | 1.254 | 2.133 | 16.5 | 20.0 | 10 18 | 0 19.15 | +10 12.5 | 1.727 | 2.693 | 6.5 | 18.2 |
| 10 28 | 0 12.40 | -22 35.5 | 1.295 | 2.111 | 19.7 | 20.2 | 10 28 | 0 12.13 | + 9 19.1 | 1.773 | 2.685 | 10.4 | 18.5 |
| 11 7 | 0 8.78 | -21 17.1 | 1.352 | 2.090 | 22.7 | 20.3 | 11 7 | 0 7.29 | + 8 33.4 | 1.843 | 2.678 | 13.8 | 18.7 |
| 333017 | 2011 <i>QG</i> ₂₆ | 10 2.0 | 79°92 | 5°7/ 7.4 | 18 | | 439568 | 2014 <i>DL</i> ₈₅ | 10 2.0 | 86°68 | 0°9/ 1.1 | 18 | |
| 8 29 | 1 1.83 | +20 11.2 | 1.828 | 2.618 | 16.5 | 20.4 | 8 29 | 0 55.15 | + 4 15.1 | 1.798 | 2.663 | 13.7 | 21.5 |
| 9 8 | 0 55.44 | +20 39.2 | 1.772 | 2.644 | 13.4 | 20.2 | 9 8 | 0 50.53 | + 3 24.3 | 1.736 | 2.671 | 10.0 | 21.3 |
| 9 18 | 0 46.92 | +20 45.3 | 1.738 | 2.669 | 10.0 | 20.1 | 9 18 | 0 44.02 | + 2 21.9 | 1.698 | 2.679 | 5.9 | 21.1 |
| 9 28 | 0 37.11 | +20 29.3 | 1.727 | 2.694 | 7.0 | 20.0 | 9 28 | 0 36.32 | + 1 13.4 | 1.686 | 2.686 | 1.7 | 20.8 |
| 10 8 | 0 27.08 | +19 53.9 | 1.744 | 2.719 | 5.7 | 19.9 | 10 8 | 0 28.37 | + 0 5.8 | 1.702 | 2.694 | 3.2 | 20.9 |
| 10 18 | 0 17.91 | +19 4.8 | 1.787 | 2.744 | 7.2 | 20.1 | 10 18 | 0 21.11 | - 0 54.0 | 1.746 | 2.702 | 7.4 | 21.2 |
| 10 28 | 0 10.56 | +18 9.6 | 1.858 | 2.768 | 10.1 | 20.3 | 10 28 | 0 15.37 | - 1 40.2 | 1.815 | 2.709 | 11.2 | 21.5 |
| 11 7 | 0 5.60 | +17 16.0 | 1.952 | 2.792 | 12.9 | 20.5 | 11 7 | 0 11.71 | - 2 9.7 | 1.907 | 2.717 | 14.4 | 21.7 |
| 227038 | 2005 <i>AU</i> ₅₄ | 10 2.0 | 156°74 | 2°6/29.1 | 18 | | 266785 | 2009 <i>SC</i> ₂₅₁ | 10 2.0 | 328°06 | 1°0/ 3.0 | 17 | |
| 8 29 | 0 56.48 | - 4 39.6 | 2.521 | 3.386 | 10.2 | 20.1 | 8 29 | 0 52.72 | + 8 23.2 | 1.844 | 2.700 | 13.8 | 20.7 |
| 9 8 | 0 51.01 | - 5 3.7 | 2.454 | 3.388 | 7.5 | 19.9 | 9 8 | 0 48.93 | + 8 6.4 | 1.759 | 2.685 | 10.5 | 20.4 |
| 9 18 | 0 44.09 | - 5 29.5 | 2.412 | 3.390 | 4.6 | 19.8 | 9 18 | 0 43.20 | + 7 35.2 | 1.696 | 2.670 | 6.6 | 20.2 |
| 9 28 | 0 36.28 | - 5 53.1 | 2.399 | 3.392 | 2.7 | 19.6 | 9 28 | 0 36.13 | + 6 52.6 | 1.658 | 2.656 | 2.5 | 19.9 |
| 10 8 | 0 28.27 | - 6 10.6 | 2.415 | 3.393 | 4.0 | 19.7 | 10 8 | 0 28.59 | + 6 3.5 | 1.647 | 2.642 | 2.5 | 19.9 |
| 10 18 | 0 20.76 | - 6 19.0 | 2.460 | 3.395 | 6.8 | 19.9 | 10 18 | 0 21.52 | + 5 14.0 | 1.663 | 2.629 | 6.7 | 20.1 |
| 10 28 | 0 14.38 | - 6 16.0 | 2.532 | 3.396 | 9.6 | 20.1 | 10 28 | 0 15.85 | + 4 30.5 | 1.705 | 2.617 | 10.7 | 20.3 |
| 11 7 | 0 9.63 | - 6 0.9 | 2.627 | 3.398 | 12.0 | 20.3 | 11 7 | 0 12.23 | + 3 58.3 | 1.770 | 2.605 | 14.3 | 20.5 |
| 328992 | 2010 <i>WZ</i> ₆₅ | 10 2.0 | 302°66 | 3°3/28.8 | 18 | | 299032 | 2005 <i>AT</i> ₃₇ | 10 2.0 | 107°88 | 6°9/24.7 | 18 | |
| 8 29 | 0 54.79 | - 3 56.0 | 2.011 | 2.888 | 11.9 | 20.4 | 8 29 | 0 57.53 | -14 25.4 | 1.958 | 2.836 | 12.2 | 20.2 |
| 9 8 | 0 50.29 | - 4 38.0 | 1.927 | 2.867 | 8.8 | 20.2 | 9 8 | 0 52.05 | -15 49.3 | 1.921 | 2.851 | 9.5 | 20.0 |
| 9 18 | 0 43.93 | - 5 24.5 | 1.866 | 2.846 | 5.5 | 20.0 | 9 18 | 0 44.80 | -17 7.4 | 1.908 | 2.866 | 7.4 | 19.9 |
| 9 28 | 0 36.30 | - 6 10.0 | 1.832 | 2.826 | 3.3 | 19.8 | 9 28 | 0 36.52 | -18 11.6 | 1.921 | 2.881 | 7.1 | 19.9 |
| 10 8 | 0 28.21 | - 6 48.5 | 1.826 | 2.805 | 5.0 | 19.9 | 10 8 | 0 28.12 | -18 55.8 | 1.962 | 2.895 | 8.6 | 20.1 |
| 10 18 | 0 20.56 | - 7 14.9 | 1.847 | 2.785 | 8.5 | 20.0 | 10 18 | 0 20.50 | -19 16.3 | 2.028 | 2.909 | 11.0 | 20.2 |
| 10 28 | 0 14.23 | - 7 25.2 | 1.893 | 2.764 | 12.0 | 20.2 | 10 28 | 0 14.41 | -19 12.8 | 2.116 | 2.922 | 13.4 | 20.4 |
| 11 7 | 0 9.85 | - 7 17.9 | 1.961 | 2.744 | 15.0 | 20.4 | 11 7 | 0 10.36 | -18 47.0 | 2.225 | 2.935 | 15.5 | 20.6 |
| 449457 | 2013 <i>KU</i> ₈ | 10 2.0 | 99°20 | 5°9/26.2 | 18 | | 511340 | 2014 <i>EW</i> ₂₃ | 10 2.0 | 232°75 | 0°6/ 1.5 | 18 | |
| 8 29 | 0 58.88 | -14 28.7 | 2.219 | 3.089 | 11.2 | 20.9 | 8 29 | 1 0.99 | + 2 22.7 | 1.957 | 2.812 | 13.1 | 21.3 |
| 9 8 | 0 52.91 | -15 7.2 | 2.165 | 3.092 | 8.7 | 20.7 | 9 8 | 0 54.87 | + 2 18.3 | 1.876 | 2.805 | 9.8 | 21.0 |
| 9 18 | 0 45.27 | -15 40.3 | 2.135 | 3.096 | 6.6 | 20.6 | 9 18 | 0 46.70 | + 2 6.3 | 1.819 | 2.798 | 5.9 | 20.8 |
| 9 28 | 0 36.63 | -16 2.4 | 2.133 | 3.100 | 5.9 | 20.6 | 9 28 | 0 37.15 | + 1 49.9 | 1.790 | 2.790 | 1.7 | 20.5 |
| 10 8 | 0 27.82 | -16 8.9 | 2.159 | 3.103 | 7.2 | 20.7 | 10 8 | 0 27.16 | + 1 33.2 | 1.789 | 2.782 | 2.9 | 20.6 |
| 10 18 | 0 19.68 | -15 57.4 | 2.211 | 3.107 | 9.6 | 20.8 | 10 18 | 0 17.73 | + 1 20.6 | 1.817 | 2.773 | 7.1 | 20.8 |
| 10 28 | 0 12.95 | -15 27.6 | 2.288 | 3.110 | 12.0 | 21.0 | 10 28 | 0 9.82 | + 1 16.0 | 1.871 | 2.765 | 11.0 | 21.1 |
| 11 7 | 0 8.12 | -14 40.8 | 2.387 | 3.114 | 14.2 | 21.2 | 11 7 | 0 4.08 | + 1 22.1 | 1.949 | 2.756 | 14.3 | 21.3 |
| 187666 | 2008 <i>BM</i> ₁₈ | 10 2.0 | 201°13 | 1°0/30.8 | 18 | | 193232 | 2000 <i>RB</i> ₉₁ | 10 2.0 | 349°25 | 5°9/ 6.3 | 18 | |
| 8 29 | 0 54.21 | + 3 3.9 | 2.350 | 3.208 | 11.2 | 21.4 | 8 29 | 0 49.77 | +16 16.9 | 1.094 | 1.958 | 20.6 | 19.1 |
| 9 8 | 0 49.51 | + 2 19.1 | 2.274 | 3.205 | 8.2 | 21.2 | 9 8 | 0 47.86 | +16 44.7 | 1.025 | 1.945 | 16.7 | 18.8 |
| 9 18 | 0 43.29 | + 1 25.6 | 2.223 | 3.202 | 4.8 | 21.0 | 9 18 | 0 43.07 | +16 44.3 | 0.972 | 1.934 | 12.1 | 18.5 |
| 9 28 | 0 36.08 | + 0 27.7 | 2.199 | 3.199 | 1.5 | 20.7 | 9 28 | 0 36.19 | +16 14.6 | 0.939 | 1.925 | 7.7 | 18.2 |
| 10 8 | 0 28.60 | - 0 29.4 | 2.205 | 3.196 | 2.8 | 20.8 | 10 8 | 0 28.55 | +15 19.8 | 0.927 | 1.917 | 5.9 | 18.1 |
| 10 18 | 0 21.58 | - 1 20.7 | 2.240 | 3.192 | 6.3 | 21.1 | 10 18 | 0 21.68 | +14 8.9 | 0.938 | 1.911 | 9.1 | 18.3 |
| 10 28 | 0 15.72 | - 2 1.5 | 2.303 | 3.188 | 9.5 | 21.3 | 10 28 | 0 17.04 | +12 54.4 | 0.970 | 1.908 | 13.9 | 18.5 |
| 11 7 | 0 11.51 | - 2 29.1 | 2.388 | 3.184 | 12.3 | 21.4 | 11 7 | 0 15.54 | +11 48.5 | 1.022 | 1.906 | 18.4 | 18.8 |
| 312472 | 2008 <i>SX</i> ₂₁₆ | 10 2.0 | 275°55 | 1°8/ 5.7 | 18 | | 94700 | 2001 <i>XQ</i> ₅₀ | 10 2.0 | 270°15 | 0°9/ 2.8 | 18 | |
| 8 29 | 0 47.73 | + | | | | | | | | | | | |

EPHEMERIDES

10 2.0

10 2.1

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 422748 | 2001 <i>SN</i> ₂₀₄ | 10 | 2.0 337°68 | 2°1/30.6 | 17 | | 155852 | 2001 <i>BB</i> ₁₉ | 10 | 2.1 199°99 | 4°6/25.9 | 18 | |
| 8 29 | 0 53.19 | + 2 42.5 | 0.980 | 1.885 | 19.1 | 20.9 | 8 29 | 0 54.19 | -10 55.7 | 2.646 | 3.519 | 9.6 | 20.6 |
| 9 8 | 0 50.53 | + 2 0.0 | 0.918 | 1.872 | 14.2 | 20.6 | 9 8 | 0 49.36 | -12 0.0 | 2.583 | 3.516 | 7.2 | 20.4 |
| 9 18 | 0 44.72 | + 0 59.5 | 0.874 | 1.861 | 8.5 | 20.2 | 9 18 | 0 43.17 | -13 3.0 | 2.546 | 3.513 | 5.3 | 20.3 |
| 9 28 | 0 36.68 | - 0 10.7 | 0.851 | 1.851 | 2.7 | 19.9 | 9 28 | 0 36.13 | -13 59.4 | 2.537 | 3.509 | 4.7 | 20.3 |
| 10 8 | 0 27.90 | - 1 19.0 | 0.850 | 1.842 | 5.3 | 20.0 | 10 8 | 0 28.86 | -14 44.1 | 2.556 | 3.505 | 6.0 | 20.3 |
| 10 18 | 0 20.06 | - 2 13.6 | 0.871 | 1.835 | 11.4 | 20.3 | 10 18 | 0 22.03 | -15 13.5 | 2.604 | 3.500 | 8.2 | 20.5 |
| 10 28 | 0 14.66 | - 2 45.1 | 0.912 | 1.828 | 17.1 | 20.6 | 10 28 | 0 16.25 | -15 25.7 | 2.676 | 3.496 | 10.5 | 20.6 |
| 11 7 | 0 12.61 | - 2 49.6 | 0.969 | 1.823 | 21.8 | 20.9 | 11 7 | 0 11.98 | -15 20.6 | 2.770 | 3.490 | 12.6 | 20.8 |
| 159432 | 1999 <i>VW</i> ₁₈ | 10 | 2.0 39°68 | 1°8/ 3.5 | 18 | | 441920 | 2010 <i>GW</i> ₁₄₅ | 10 | 2.1 95°80 | 3°8/27.8 | 15 | |
| 8 29 | 0 56.60 | +10 32.5 | 1.227 | 2.094 | 18.6 | 19.2 | 8 29 | 0 55.63 | - 3 21.3 | 1.955 | 2.831 | 12.3 | 21.4 |
| 9 8 | 0 52.08 | +10 9.4 | 1.189 | 2.119 | 14.0 | 19.0 | 9 8 | 0 50.64 | - 4 52.3 | 1.912 | 2.853 | 8.9 | 21.2 |
| 9 18 | 0 45.08 | + 9 25.3 | 1.171 | 2.146 | 8.9 | 18.8 | 9 18 | 0 43.98 | - 6 27.4 | 1.894 | 2.874 | 5.5 | 21.0 |
| 9 28 | 0 36.64 | + 8 25.4 | 1.176 | 2.173 | 3.6 | 18.6 | 9 28 | 0 36.34 | - 7 58.6 | 1.904 | 2.894 | 3.8 | 21.0 |
| 10 8 | 0 28.11 | + 7 18.3 | 1.206 | 2.201 | 3.1 | 18.6 | 10 8 | 0 28.60 | - 9 18.3 | 1.943 | 2.915 | 5.6 | 21.1 |
| 10 18 | 0 20.73 | + 6 13.3 | 1.261 | 2.230 | 7.9 | 19.0 | 10 18 | 0 21.57 | -10 20.7 | 2.009 | 2.935 | 8.7 | 21.3 |
| 10 28 | 0 15.53 | + 5 19.1 | 1.339 | 2.259 | 12.4 | 19.3 | 10 28 | 0 15.99 | -11 2.4 | 2.101 | 2.954 | 11.7 | 21.6 |
| 11 7 | 0 13.03 | + 4 41.0 | 1.439 | 2.288 | 16.2 | 19.7 | 11 7 | 0 12.32 | -11 22.7 | 2.214 | 2.973 | 14.3 | 21.8 |
| 305818 | 2009 <i>DZ</i> ₁₂₀ | 10 | 2.0 35°28 | 0°9/ 1.2 | 18 | | 377487 | 2005 <i>EX</i> ₄₉ | 10 | 2.1 157°30 | 2°1/30.2 | 17 | |
| 8 29 | 0 54.04 | + 4 21.8 | 1.664 | 2.535 | 14.3 | 20.5 | 8 29 | 1 0.51 | + 0 36.4 | 1.716 | 2.583 | 14.1 | 20.9 |
| 9 8 | 0 49.86 | + 3 33.3 | 1.604 | 2.541 | 10.5 | 20.3 | 9 8 | 0 54.60 | - 0 9.6 | 1.653 | 2.589 | 10.3 | 20.7 |
| 9 18 | 0 43.69 | + 2 32.5 | 1.566 | 2.548 | 6.2 | 20.1 | 9 18 | 0 46.54 | - 1 4.3 | 1.614 | 2.595 | 6.1 | 20.5 |
| 9 28 | 0 36.27 | + 1 24.9 | 1.554 | 2.555 | 1.8 | 19.8 | 9 28 | 0 37.14 | - 2 1.5 | 1.602 | 2.600 | 2.4 | 20.3 |
| 10 8 | 0 28.58 | + 0 18.1 | 1.570 | 2.562 | 3.3 | 19.9 | 10 8 | 0 27.43 | - 2 54.1 | 1.618 | 2.605 | 4.2 | 20.4 |
| 10 18 | 0 21.60 | - 0 40.7 | 1.612 | 2.570 | 7.7 | 20.2 | 10 18 | 0 18.51 | - 3 36.0 | 1.661 | 2.609 | 8.4 | 20.7 |
| 10 28 | 0 16.21 | - 1 25.4 | 1.679 | 2.578 | 11.7 | 20.5 | 10 28 | 0 11.32 | - 4 2.2 | 1.730 | 2.613 | 12.3 | 20.9 |
| 11 7 | 0 13.00 | - 1 52.4 | 1.768 | 2.586 | 15.0 | 20.7 | 11 7 | 0 6.47 | - 4 10.7 | 1.820 | 2.615 | 15.6 | 21.1 |
| 288332 | 2004 <i>BB</i> ₇₀ | 10 | 2.0 319°97 | 5°3/ 5.9 | 18 | | 5470 | Kurtlindstrom | 10 | 2.1 299°30 | 8°4/11.3 | 18 | |
| 8 29 | 0 56.46 | +16 1.5 | 1.537 | 2.368 | 17.3 | 20.1 | 8 29 | 0 57.07 | +30 10.1 | 2.347 | 3.063 | 15.3 | 18.1 |
| 9 8 | 0 52.33 | +16 38.5 | 1.446 | 2.347 | 14.0 | 19.9 | 9 8 | 0 52.16 | +31 2.9 | 2.248 | 3.049 | 13.4 | 18.0 |
| 9 18 | 0 45.61 | +16 55.8 | 1.374 | 2.326 | 10.3 | 19.6 | 9 18 | 0 45.23 | +31 34.8 | 2.168 | 3.034 | 11.4 | 17.8 |
| 9 28 | 0 36.95 | +16 51.8 | 1.325 | 2.306 | 6.7 | 19.3 | 9 28 | 0 36.82 | +31 42.5 | 2.111 | 3.020 | 9.6 | 17.7 |
| 10 8 | 0 27.45 | +16 27.9 | 1.301 | 2.287 | 5.4 | 19.2 | 10 8 | 0 27.78 | +31 25.2 | 2.078 | 3.006 | 8.5 | 17.6 |
| 10 18 | 0 18.40 | +15 48.9 | 1.302 | 2.268 | 8.2 | 19.3 | 10 18 | 0 19.08 | +30 45.0 | 2.070 | 2.992 | 8.7 | 17.6 |
| 10 28 | 0 11.12 | +15 2.9 | 1.327 | 2.249 | 12.3 | 19.5 | 10 28 | 0 11.69 | +29 47.3 | 2.089 | 2.978 | 10.2 | 17.6 |
| 11 7 | 0 6.54 | +14 18.8 | 1.374 | 2.232 | 16.3 | 19.7 | 11 7 | 0 6.35 | +28 39.7 | 2.131 | 2.964 | 12.2 | 17.7 |
| 322316 | 2011 <i>GG</i> | 10 | 2.0 313°25 | 4°9/12.3 | 18 | | 424614 | 2008 <i>JS</i> ₆ | 10 | 2.1 69°90 | 2°4/30.1 | 16 | |
| 8 29 | 0 49.52 | +30 41.4 | 4.232 | 4.918 | 9.3 | 20.3 | 8 29 | 0 59.39 | + 0 41.6 | 1.406 | 2.285 | 15.9 | 21.5 |
| 9 8 | 0 45.68 | +30 55.0 | 4.134 | 4.913 | 8.1 | 20.2 | 9 8 | 0 53.89 | - 0 10.9 | 1.365 | 2.307 | 11.6 | 21.3 |
| 9 18 | 0 40.88 | +30 55.2 | 4.056 | 4.908 | 6.8 | 20.1 | 9 18 | 0 46.10 | - 1 12.3 | 1.346 | 2.329 | 6.8 | 21.1 |
| 9 28 | 0 35.44 | +30 41.5 | 4.002 | 4.903 | 5.7 | 20.0 | 9 28 | 0 36.98 | - 2 15.1 | 1.352 | 2.351 | 2.7 | 20.9 |
| 10 8 | 0 29.80 | +30 14.6 | 3.975 | 4.898 | 5.0 | 20.0 | 10 8 | 0 27.76 | - 3 10.9 | 1.385 | 2.373 | 4.7 | 21.1 |
| 10 18 | 0 24.38 | +29 36.3 | 3.975 | 4.893 | 5.0 | 20.0 | 10 18 | 0 19.60 | - 3 52.8 | 1.443 | 2.394 | 9.2 | 21.4 |
| 10 28 | 0 19.63 | +28 49.4 | 4.003 | 4.889 | 5.8 | 20.0 | 10 28 | 0 13.47 | - 4 16.2 | 1.526 | 2.416 | 13.2 | 21.7 |
| 11 7 | 0 15.91 | +27 57.5 | 4.058 | 4.884 | 7.0 | 20.1 | 11 7 | 0 9.89 | - 4 19.8 | 1.629 | 2.437 | 16.5 | 22.0 |
| 65521 | 4894 <i>P-L</i> | 10 | 2.0 26°18 | 0°3/ 1.8 | 18 | | 232909 | 2004 <i>XM</i> ₁₃₆ | 10 | 2.1 174°70 | 9°5/17.7 | 18 | |
| 8 29 | 0 59.07 | + 3 1.7 | 1.884 | 2.744 | 13.4 | 19.6 | 8 29 | 1 1.65 | +42 44.5 | 2.914 | 3.497 | 14.8 | 21.6 |
| 9 8 | 0 53.42 | + 3 3.7 | 1.816 | 2.746 | 9.9 | 19.4 | 9 8 | 0 55.27 | +43 19.4 | 2.823 | 3.501 | 13.6 | 21.5 |
| 9 18 | 0 45.80 | + 2 57.8 | 1.771 | 2.749 | 6.0 | 19.2 | 9 18 | 0 46.93 | +43 30.4 | 2.748 | 3.504 | 12.2 | 21.4 |
| 9 28 | 0 36.91 | + 2 46.9 | 1.752 | 2.752 | 1.7 | 18.9 | 9 28 | 0 37.28 | +43 14.2 | 2.692 | 3.507 | 10.9 | 21.3 |
| 10 8 | 0 27.69 | + 2 35.0 | 1.762 | 2.756 | 2.7 | 19.0 | 10 8 | 0 27.20 | +42 29.9 | 2.659 | 3.508 | 9.9 | 21.2 |
| 10 18 | 0 19.14 | + 2 26.3 | 1.800 | 2.759 | 6.9 | 19.3 | 10 18 | 0 17.66 | +41 19.5 | 2.651 | 3.509 | 9.5 | 21.2 |
| 10 28 | 0 12.13 | + 2 24.5 | 1.864 | 2.763 | 10.7 | 19.5 | 10 28 | 0 9.56 | +39 48.4 | 2.668 | 3.509 | 9.9 | 21.2 |
| 11 7 | 0 7.27 | + 2 32.3 | 1.951 | 2.767 | 13.9 | 19.8 | 11 7 | 0 3.54 | +38 4.2 | 2.711 | 3.508 | 11.0 | 21.3 |
| 486666 | 2013 <i>QD</i> ₈₇ | 10 | 2.0 169°96 | 1°5/ 3.8 | 17 | | 258762 | 2002 <i>HX</i> ₁₇ | 10 | 2.1 261°89 | 0°0/ 1.9 | 18 | |
| 8 29 | 0 55.38 | + 9 46.1 | 2.811 | 3.635 | 10.5 | 21.5 | 8 29 | 0 48.23 | + 4 32.7 | 4.429 | 5.271 | 6.6 | 20.6 |
| 9 8 | 0 50.19 | + 9 48.5 | 2.730 | 3.637 | 8.0 | 21.3 | 9 8 | 0 44.57 | + 4 16.7 | 4.345 | 5.266 | 4.9 | 20.5 |
| 9 18 | 0 43.66 | + 9 41.4 | 2.673 | 3.638 | 5.2 | 21.2 | 9 18 | 0 40.14 | + 3 56.3 | 4.286 | 5.262 | 2.9 | 20.4 |
| 9 28 | 0 36.27 | + 9 26.4 | 2.645 | 3.638 | 2.4 | 21.0 | 9 28 | 0 35.24 | + 3 33.0 | 4.257 | 5.257 | 0.8 | 20.2 |
| 10 8 | 0 28.62 | + 9 5.8 | 2.646 | 3.639 | 2.0 | 21.0 | 10 8 | 0 30.20 | + 3 8.9 | 4.259 | 5.252 | 1.3 | 20.2 |
| 10 18 | 0 21.36 | + 8 42.8 | 2.677 | 3.640 | 4.7 | 21.1 | 10 18 | 0 25.37 | + 2 46.0 | 4.291 | 5.248 | 3.3 | 20.4 |
| 10 28 | 0 15.09 | + 8 20.9 | 2.737 | 3.640 | 7.5 | 21.3 | 10 28 | 0 21.08 | + 2 26.3 | 4.352 | 5.243 | 5.3 | 20.5 |
| 11 7 | 0 10.28 | + 8 3.5 | 2.822 | 3.641 | 10.0 | 21.5 | 11 7 | 0 17.62 | + 2 11.6 | 4.439 | 5.239 | 7.0 | 20.6 |
| 382440 | 1999 <i>VV</i> ₁₄ | 10 | 2.1 303°87 | 1°6/ 3.3 | 18 | | 115637 | 2003 <i>UH</i> ₁₂₆ | 10 | 2.1 6°13 | 8°1/23.9 | 18 | |
| 8 29 | 0 58.31 | + 8 36.6 | 1.664 | 2.515 | 15.3 | 20.6 | 8 29 | 0 51.72 | -11 3.3 | 1.381 | 2.284 | 14.6 | 18.5 |
| 9 8 | 0 53.27 | + 8 41.0 | 1.585 | 2.508 | 11.7 | 20.3 | 9 8 | 0 48.53 | -13 4.5 | 1.336 | 2.284 | 11.2 | 18.3 |
| 9 18 | 0 45.92 | + 8 31.1 | 1.528 | 2.500 | 7.5 | 20.1 | 9 18 | 0 43.06 | -15 4.1 | 1.315 | 2.285 | 8.6 | 18.2 |
| 9 28 | 0 36.99 | + 8 8.9 | 1.496 | 2.492 | 3.1 | 19.8 | 9 28 | 0 36.15 | -16 49.4 | 1.317 | 2.287 | 8.3 | 18.2 |
| 10 8 | 0 27.53 | + 7 38.8 | 1.490 | 2.485 | 2.8 | 19.7 | 10 8 | 0 28.92 | -18 9.3 | 1.344 | 2.290 | 10.6 | 18.3 |
| 10 18 | 0 18.67 | + 7 6.2 | 1.512 | 2.478 | 7.2 | 20.0 | 10 18 | 0 22.52 | -18 57.0 | 1.394 | 2.293 | 13.8 | 18.5 |
| 10 28 | 0 11.51 | + 6 37.6 | 1.559 | 2.470 | 11.5 | 20.2 | 10 28 | 0 17.95 | -19 10.4 | 1.464 | 2.297 | 17.0 | 18.7 |
| 11 7 | 0 6.77 | + 6 18.4 | 1.628 | 2.464 | 15.3 | 20.5 | 11 7 | 0 15.81 | -18 52.0 | 1.551 | 2.302 | 19.7 | 19.0 |
| 68630 | 2002 <i>BU</i> ₂₅ | 10 | 2.1 164°68 | 5°9/ 8.1 | 18 | | 256486 | 2007 <i>EN</i> ₈ | 10 | 2.1 337°16 | 0°6/ 1.5 | 18 | |
| 8 29 | 1 0.36 | +22 33.5 | 2.168 | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 284757 | 2008 <i>VV</i> ₂₅ | 10 | 2.1 214°44 | 2°6/29.5 | 18 | | 74753 | 1999 <i>RV</i> ₁₉₇ | 10 | 2.1 343°73 | 4°2/5.6 | 18 | |
| 8 29 | 0 57.39 | - 1 20.7 | 1.931 | 2.801 | 12.6 | 21.0 | 8 29 | 0 52.65 | +16 12.2 | 1.207 | 2.061 | 19.7 | 18.4 |
| 9 8 | 0 52.20 | - 2 8.7 | 1.859 | 2.797 | 9.3 | 20.8 | 9 8 | 0 49.76 | +15 54.3 | 1.137 | 2.054 | 15.7 | 18.1 |
| 9 18 | 0 45.10 | - 3 3.4 | 1.811 | 2.792 | 5.6 | 20.6 | 9 18 | 0 44.12 | +15 6.2 | 1.085 | 2.048 | 11.0 | 17.8 |
| 9 28 | 0 36.75 | - 3 58.9 | 1.791 | 2.787 | 2.7 | 20.4 | 9 28 | 0 36.56 | +13 49.6 | 1.054 | 2.043 | 6.2 | 17.5 |
| 10 8 | 0 28.04 | - 4 48.9 | 1.798 | 2.782 | 4.5 | 20.5 | 10 8 | 0 28.38 | +12 12.1 | 1.046 | 2.039 | 4.4 | 17.4 |
| 10 18 | 0 19.92 | - 5 27.6 | 1.833 | 2.776 | 8.2 | 20.7 | 10 18 | 0 21.00 | +10 25.2 | 1.063 | 2.035 | 8.4 | 17.7 |
| 10 28 | 0 13.26 | - 5 50.9 | 1.894 | 2.770 | 11.8 | 20.9 | 10 28 | 0 15.76 | + 8 43.0 | 1.103 | 2.033 | 13.4 | 17.9 |
| 11 7 | 0 8.65 | - 5 56.8 | 1.977 | 2.763 | 14.8 | 21.1 | 11 7 | 0 13.45 | + 7 16.8 | 1.163 | 2.031 | 17.9 | 18.2 |
| 209741 | 2005 <i>EE</i> ₁₈₆ | 10 | 2.1 293°37 | 1°6/3.5 | 18 | | 291350 | 2006 <i>BV</i> ₂₄₈ | 10 | 2.1 182°79 | 0°7/1.2 | 18 | |
| 8 29 | 0 56.02 | + 9 55.1 | 1.766 | 2.614 | 14.7 | 20.4 | 8 29 | 0 53.96 | + 3 7.0 | 2.653 | 3.505 | 10.2 | 21.5 |
| 9 8 | 0 51.45 | + 9 41.1 | 1.686 | 2.606 | 11.2 | 20.2 | 9 8 | 0 49.21 | + 2 34.7 | 2.578 | 3.506 | 7.5 | 21.3 |
| 9 18 | 0 44.78 | + 9 11.2 | 1.628 | 2.599 | 7.2 | 20.0 | 9 18 | 0 43.11 | + 1 55.3 | 2.527 | 3.506 | 4.4 | 21.1 |
| 9 28 | 0 36.68 | + 8 27.9 | 1.596 | 2.592 | 3.0 | 19.7 | 9 28 | 0 36.16 | + 1 12.2 | 2.506 | 3.505 | 1.3 | 20.9 |
| 10 8 | 0 28.11 | + 7 36.3 | 1.590 | 2.585 | 2.6 | 19.7 | 10 8 | 0 28.98 | + 0 29.3 | 2.513 | 3.505 | 2.4 | 21.0 |
| 10 18 | 0 20.11 | + 6 42.7 | 1.612 | 2.578 | 6.9 | 19.9 | 10 18 | 0 22.22 | - 0 9.2 | 2.551 | 3.504 | 5.5 | 21.2 |
| 10 28 | 0 13.67 | + 5 54.3 | 1.659 | 2.571 | 11.0 | 20.1 | 10 28 | 0 16.47 | - 0 39.7 | 2.616 | 3.503 | 8.5 | 21.4 |
| 11 7 | 0 9.45 | + 5 16.8 | 1.729 | 2.564 | 14.6 | 20.4 | 11 7 | 0 12.20 | - 0 59.7 | 2.705 | 3.502 | 11.0 | 21.6 |
| 312768 | 2010 <i>UL</i> ₃₀ | 10 | 2.1 45°16 | 3°0/5.2 | 18 | | 509905 | 2009 <i>DJ</i> ₄₂ | 10 | 2.1 159°08 | 2°5/28.9 | 18 | |
| 8 29 | 0 54.76 | +14 16.6 | 1.984 | 2.810 | 14.2 | 20.1 | 8 29 | 0 54.96 | - 1 11.6 | 2.375 | 3.240 | 10.8 | 22.3 |
| 9 8 | 0 50.23 | +14 9.4 | 1.913 | 2.816 | 11.1 | 19.9 | 9 8 | 0 50.03 | - 2 19.7 | 2.311 | 3.247 | 7.8 | 22.1 |
| 9 18 | 0 43.90 | +13 45.1 | 1.864 | 2.822 | 7.6 | 19.8 | 9 18 | 0 43.63 | - 3 33.4 | 2.273 | 3.253 | 4.7 | 21.9 |
| 9 28 | 0 36.39 | +13 5.4 | 1.840 | 2.828 | 4.2 | 19.6 | 9 28 | 0 36.31 | - 4 47.3 | 2.263 | 3.258 | 2.5 | 21.8 |
| 10 8 | 0 28.59 | +12 14.5 | 1.844 | 2.835 | 3.2 | 19.5 | 10 8 | 0 28.79 | - 5 55.5 | 2.283 | 3.263 | 4.1 | 21.9 |
| 10 18 | 0 21.36 | +11 18.0 | 1.875 | 2.841 | 6.0 | 19.7 | 10 18 | 0 21.77 | - 6 52.8 | 2.332 | 3.267 | 7.1 | 22.1 |
| 10 28 | 0 15.55 | +10 22.6 | 1.933 | 2.848 | 9.5 | 19.9 | 10 28 | 0 15.92 | - 7 35.2 | 2.408 | 3.271 | 10.0 | 22.3 |
| 11 7 | 0 11.72 | + 9 34.1 | 2.015 | 2.855 | 12.6 | 20.1 | 11 7 | 0 11.72 | - 8 1.1 | 2.506 | 3.274 | 12.6 | 22.5 |
| 119784 | 2002 <i>AQ</i> ₅₅ | 10 | 2.1 288°65 | 0°4/2.5 | 18 | | 25846 | 2000 <i>EF</i> ₉₃ | 10 | 2.1 237°57 | 2°4/5.4 | 18 | |
| 8 29 | 0 54.44 | + 7 5.5 | 2.041 | 2.893 | 12.8 | 20.2 | 8 29 | 0 52.10 | +15 40.4 | 2.593 | 3.401 | 11.7 | 18.0 |
| 9 8 | 0 50.01 | + 6 39.3 | 1.960 | 2.885 | 9.6 | 20.0 | 9 8 | 0 47.98 | +15 5.9 | 2.502 | 3.394 | 9.2 | 17.9 |
| 9 18 | 0 43.79 | + 6 0.7 | 1.902 | 2.877 | 5.9 | 19.8 | 9 18 | 0 42.45 | +14 15.6 | 2.434 | 3.387 | 6.4 | 17.7 |
| 9 28 | 0 36.38 | + 5 13.0 | 1.870 | 2.869 | 1.9 | 19.5 | 9 28 | 0 35.99 | +13 11.4 | 2.393 | 3.380 | 3.5 | 17.5 |
| 10 8 | 0 28.59 | + 4 21.2 | 1.866 | 2.861 | 2.3 | 19.5 | 10 8 | 0 29.24 | +11 57.2 | 2.382 | 3.373 | 2.6 | 17.4 |
| 10 18 | 0 21.29 | + 3 31.0 | 1.891 | 2.853 | 6.4 | 19.7 | 10 18 | 0 22.88 | +10 38.3 | 2.400 | 3.365 | 5.0 | 17.6 |
| 10 28 | 0 15.29 | + 2 48.2 | 1.942 | 2.845 | 10.1 | 20.0 | 10 28 | 0 17.55 | + 9 20.6 | 2.446 | 3.358 | 7.9 | 17.7 |
| 11 7 | 0 11.19 | + 2 16.9 | 2.016 | 2.838 | 13.3 | 20.2 | 11 7 | 0 13.73 | + 8 9.8 | 2.519 | 3.350 | 10.7 | 17.9 |
| 66443 | 1999 <i>NW</i> ₅₇ | 10 | 2.1 60°79 | 4°0/28.2 | 18 | | 165180 | 2000 <i>QB</i> ₁₇₀ | 10 | 2.1 88°32 | 1°3/3.1 | 18 | |
| 8 29 | 0 55.68 | - 0 42.0 | 1.429 | 2.316 | 15.3 | 18.6 | 8 29 | 0 59.92 | +10 26.4 | 1.364 | 2.219 | 17.8 | 19.8 |
| 9 8 | 0 51.08 | - 2 34.0 | 1.397 | 2.343 | 10.9 | 18.5 | 9 8 | 0 54.47 | + 9 43.4 | 1.316 | 2.240 | 13.4 | 19.6 |
| 9 18 | 0 44.38 | - 4 33.3 | 1.388 | 2.371 | 6.6 | 18.3 | 9 18 | 0 46.56 | + 8 39.9 | 1.287 | 2.261 | 8.4 | 19.4 |
| 9 28 | 0 36.49 | - 6 28.7 | 1.405 | 2.399 | 4.0 | 18.2 | 9 28 | 0 37.18 | + 7 21.2 | 1.283 | 2.281 | 3.1 | 19.1 |
| 10 8 | 0 28.56 | - 8 9.2 | 1.449 | 2.427 | 6.3 | 18.4 | 10 8 | 0 27.62 | + 5 56.6 | 1.306 | 2.301 | 2.9 | 19.2 |
| 10 18 | 0 21.64 | - 9 26.7 | 1.519 | 2.455 | 10.2 | 18.7 | 10 18 | 0 19.14 | + 4 35.6 | 1.355 | 2.321 | 7.9 | 19.5 |
| 10 28 | 0 16.59 | -10 17.0 | 1.613 | 2.482 | 13.8 | 19.0 | 10 28 | 0 12.78 | + 3 27.5 | 1.429 | 2.340 | 12.4 | 19.9 |
| 11 7 | 0 13.87 | -10 40.2 | 1.726 | 2.510 | 16.8 | 19.3 | 11 7 | 0 9.12 | + 2 37.7 | 1.524 | 2.358 | 16.2 | 20.2 |
| 479364 | 2013 <i>XF</i> ₁₅ | 10 | 2.1 332°93 | 1°9/30.7 | 18 | | 446118 | 2013 <i>ER</i> ₇ | 10 | 2.1 146°41 | 0°4/2.5 | 18 | |
| 8 29 | 0 54.85 | + 1 37.9 | 1.165 | 2.059 | 17.4 | 21.1 | 8 29 | 0 55.23 | + 7 18.1 | 2.154 | 3.001 | 12.4 | 21.9 |
| 9 8 | 0 51.45 | + 1 9.6 | 1.095 | 2.044 | 12.9 | 20.8 | 9 8 | 0 50.42 | + 6 49.6 | 2.081 | 3.004 | 9.3 | 21.7 |
| 9 18 | 0 45.18 | + 0 28.1 | 1.045 | 2.030 | 7.8 | 20.5 | 9 18 | 0 43.96 | + 6 9.4 | 2.033 | 3.007 | 5.7 | 21.5 |
| 9 28 | 0 36.87 | - 0 20.1 | 1.018 | 2.018 | 2.6 | 20.1 | 9 28 | 0 36.43 | + 5 20.9 | 2.011 | 3.010 | 1.9 | 21.2 |
| 10 8 | 0 27.86 | - 1 6.1 | 1.014 | 2.006 | 4.8 | 20.3 | 10 8 | 0 28.63 | + 4 29.0 | 2.018 | 3.012 | 2.2 | 21.3 |
| 10 18 | 0 19.63 | - 1 41.0 | 1.033 | 1.995 | 10.4 | 20.5 | 10 18 | 0 21.36 | + 3 38.9 | 2.053 | 3.015 | 6.0 | 21.5 |
| 10 28 | 0 13.57 | - 1 57.6 | 1.074 | 1.985 | 15.6 | 20.8 | 10 28 | 0 15.37 | + 2 56.0 | 2.116 | 3.017 | 9.5 | 21.8 |
| 11 7 | 0 10.56 | - 1 52.4 | 1.134 | 1.976 | 20.1 | 21.1 | 11 7 | 0 11.20 | + 2 24.2 | 2.203 | 3.020 | 12.5 | 22.0 |
| 268281 | 2005 <i>QW</i> ₈ | 10 | 2.1 37°37 | 2°4/3.6 | 18 | | 271434 | 2004 <i>DX</i> ₄₀ | 10 | 2.1 173°02 | 1°9/30.2 | 17 | |
| 8 29 | 1 0.08 | + 9 16.1 | 1.249 | 2.113 | 18.5 | 20.2 | 8 29 | 0 59.15 | + 0 50.3 | 1.939 | 2.802 | 12.9 | 21.5 |
| 9 8 | 0 54.93 | + 9 32.1 | 1.195 | 2.124 | 14.1 | 19.9 | 9 8 | 0 53.44 | + 0 0.8 | 1.871 | 2.805 | 9.5 | 21.3 |
| 9 18 | 0 47.02 | + 9 30.0 | 1.162 | 2.135 | 9.1 | 19.7 | 9 18 | 0 45.82 | - 0 56.9 | 1.828 | 2.808 | 5.6 | 21.1 |
| 9 28 | 0 37.34 | + 9 12.0 | 1.151 | 2.147 | 4.0 | 19.4 | 9 28 | 0 36.99 | - 1 57.4 | 1.812 | 2.810 | 2.2 | 20.9 |
| 10 8 | 0 27.30 | + 8 43.5 | 1.164 | 2.159 | 3.4 | 19.4 | 10 8 | 0 27.85 | - 2 54.1 | 1.824 | 2.812 | 3.9 | 21.0 |
| 10 18 | 0 18.31 | + 8 11.5 | 1.203 | 2.172 | 8.2 | 19.8 | 10 18 | 0 19.35 | - 3 41.1 | 1.865 | 2.812 | 7.8 | 21.3 |
| 10 28 | 0 11.60 | + 7 43.8 | 1.266 | 2.185 | 13.0 | 20.1 | 10 28 | 0 12.37 | - 4 13.6 | 1.933 | 2.812 | 11.4 | 21.5 |
| 11 7 | 0 7.86 | + 7 26.6 | 1.349 | 2.199 | 17.0 | 20.4 | 11 7 | 0 7.48 | - 4 29.5 | 2.023 | 2.812 | 14.4 | 21.7 |
| 192389 | 1996 <i>RT</i> ₂₉ | 10 | 2.1 201°77 | 1°4/29.4 | 18 | R | 324763 | 2007 <i>GB</i> ₂₅ | 10 | 2.1 186°94 | 4°9/9.9 | 18 | |
| 8 29 | 0 50.29 | - 3 50.9 | 4.456 | 5.314 | 6.3 | 19.8 | 8 29 | 0 53.54 | +26 23.9 | 2.916 | 3.650 | 12.2 | 21.1 |
| 9 8 | 0 46.03 | - 4 4.0 | 4.382 | 5.313 | 4.6 | 19.6 | 9 8 | 0 48.95 | +26 4.5 | 2.822 | 3.649 | 10.3 | 20.9 |
| 9 18 | 0 41.00 | - 4 18.2 | 4.335 | 5.313 | 2.8 | 19.5 | 9 18 | 0 42.98 | +25 26.1 | 2.750 | 3.648 | 8.2 | 20.8 |
| 9 28 | 0 35.52 | - 4 31.5 | 4.318 | 5.313 | 1.5 | 19.4 | 9 28 | 0 36.14 | +24 28.6 | 2.703 | 3.647 | 6.1 | 20.6 |
| 10 8 | 0 29.91 | - 4 42.0 | 4.332 | 5.313 | 2.3 | 19.5 | 10 8 | 0 29.05 | +23 14.6 | 2.684 | 3.645 | 5.0 | 20.6 |
| 10 18 | 0 24.53 | - 4 48.1 | 4.376 | 5.312 | 4.0 | 19.6 | 10 18 | 0 22.37 | +21 48.2 | 2.694 | 3.643 | 5.5 | 20.6 |
| 10 28 | 0 19.74 | - 4 48.2 | 4.448 | 5.312 | 5.8 | 19.7 | 10 28 | 0 16.71 | +20 15.3 | 2.733 | 3.641 | 7.4 | 20.7 |
| 11 7 | 0 15.80 | - 4 41.5 | 4.547 | 5.312 | 7.4 | 19.8 | 11 7 | 0 12.55 | +18 42.5 | 2.800 | 3.638 | 9.5 | 20.9 |
| 311558 | 2006 <i>BE</i> ₂₁₆ | 10 | 2.1 250°70 | 1°2/3.4 | 17 | | 257200 | 2008 <i>RJ</i> ₆₅ | 10 | 2.1 51°84 | 0°5/1.1 | 18 | |
| 8 29 | 0 56.44 | | | | | | | | | | | | |

EPHEMERIDES

10 2.1

10 2.1

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|----------|---------|------|---------------|------------------------|-----------------|------------|-----------|---------|------|
| 485255 | 2010 VX ₁₆₅ | 10 | 2.1 279°38 | 4°5/27.3 | 17 | | 422870 | 2002 PQ ₁₆₈ | 10 | 2.1 76°31 | 2°2/30.3 | 17 | |
| 8 29 | 0 56.08 | - 8 51.9 | 2.203 | 3.078 | 11.1 | 21.6 | 8 29 | 1 0.24 | + 1 42.9 | 1.365 | 2.243 | 16.4 | 21.3 |
| 9 8 | 0 51.09 | - 9 37.7 | 2.129 | 3.066 | 8.3 | 21.5 | 9 8 | 0 54.59 | + 0 46.3 | 1.325 | 2.266 | 11.9 | 21.1 |
| 9 18 | 0 44.39 | -10 23.4 | 2.080 | 3.053 | 5.7 | 21.3 | 9 18 | 0 46.58 | - 0 20.6 | 1.306 | 2.289 | 7.0 | 20.9 |
| 9 28 | 0 36.58 | -11 3.4 | 2.059 | 3.041 | 4.5 | 21.2 | 9 28 | 0 37.21 | - 1 30.1 | 1.313 | 2.312 | 2.5 | 20.7 |
| 10 8 | 0 28.44 | -11 32.2 | 2.065 | 3.029 | 6.0 | 21.3 | 10 8 | 0 27.74 | - 2 33.0 | 1.346 | 2.335 | 4.6 | 20.9 |
| 10 18 | 0 20.78 | -11 45.8 | 2.098 | 3.016 | 8.8 | 21.4 | 10 18 | 0 19.39 | - 3 22.0 | 1.405 | 2.358 | 9.2 | 21.2 |
| 10 28 | 0 14.39 | -11 42.0 | 2.157 | 3.004 | 11.7 | 21.6 | 10 28 | 0 13.13 | - 3 52.0 | 1.488 | 2.380 | 13.4 | 21.5 |
| 11 7 | 0 9.83 | -11 20.5 | 2.237 | 2.991 | 14.3 | 21.7 | 11 7 | 0 9.51 | - 4 1.3 | 1.591 | 2.402 | 16.8 | 21.8 |
| 396485 | 2014 FK ₄₇ | 10 | 2.1 250°63 | 2°3/29.7 | 18 | | 288725 | 2004 RU ₄₃ | 10 | 2.1 17°26 | 0°1/ 2.2 | 18 | |
| 8 29 | 0 55.25 | + 0 45.1 | 1.861 | 2.733 | 13.0 | 21.2 | 8 29 | 0 54.67 | + 5 33.4 | 1.667 | 2.533 | 14.5 | 20.0 |
| 9 8 | 0 50.75 | - 0 18.1 | 1.784 | 2.723 | 9.5 | 21.0 | 9 8 | 0 50.40 | + 5 17.3 | 1.605 | 2.539 | 10.8 | 19.8 |
| 9 18 | 0 44.31 | - 1 31.2 | 1.732 | 2.714 | 5.7 | 20.7 | 9 18 | 0 44.10 | + 4 49.1 | 1.566 | 2.545 | 6.5 | 19.6 |
| 9 28 | 0 36.58 | - 2 48.0 | 1.706 | 2.704 | 2.4 | 20.5 | 9 28 | 0 36.52 | + 4 12.7 | 1.552 | 2.551 | 2.0 | 19.3 |
| 10 8 | 0 28.43 | - 4 0.9 | 1.708 | 2.694 | 4.4 | 20.6 | 10 8 | 0 28.64 | + 3 33.7 | 1.564 | 2.559 | 2.7 | 19.4 |
| 10 18 | 0 20.83 | - 5 2.8 | 1.738 | 2.684 | 8.3 | 20.8 | 10 18 | 0 21.45 | + 2 58.1 | 1.603 | 2.567 | 7.1 | 19.7 |
| 10 28 | 0 14.67 | - 5 47.9 | 1.793 | 2.673 | 12.1 | 21.0 | 10 28 | 0 15.88 | + 2 31.4 | 1.667 | 2.575 | 11.2 | 20.0 |
| 11 7 | 0 10.57 | - 6 13.5 | 1.870 | 2.662 | 15.3 | 21.2 | 11 7 | 0 12.50 | + 2 17.4 | 1.753 | 2.585 | 14.6 | 20.2 |
| 315944 | 2008 TN ₁₁₈ | 10 | 2.1 260°35 | 0°8/ 3.7 | 18 | | 168683 | 2000 FE ₆₉ | 10 | 2.1 321°11 | 0°4/ 1.8 | 18 | |
| 8 29 | 0 48.32 | + 9 9.4 | 4.444 | 5.268 | 6.9 | 21.0 | 8 29 | 0 55.46 | + 4 2.4 | 1.515 | 2.390 | 15.3 | 19.4 |
| 9 8 | 0 44.66 | + 8 58.9 | 4.359 | 5.266 | 5.2 | 20.8 | 9 8 | 0 51.45 | + 3 47.7 | 1.431 | 2.369 | 11.5 | 19.2 |
| 9 18 | 0 40.23 | + 8 42.4 | 4.300 | 5.265 | 3.4 | 20.7 | 9 18 | 0 45.03 | + 3 20.5 | 1.369 | 2.350 | 7.0 | 18.9 |
| 9 28 | 0 35.32 | + 8 21.1 | 4.269 | 5.264 | 1.4 | 20.6 | 9 28 | 0 36.88 | + 2 44.8 | 1.330 | 2.331 | 2.0 | 18.5 |
| 10 8 | 0 30.28 | + 7 56.8 | 4.269 | 5.263 | 1.2 | 20.5 | 10 8 | 0 28.06 | + 2 6.8 | 1.318 | 2.312 | 3.3 | 18.5 |
| 10 18 | 0 25.44 | + 7 31.7 | 4.299 | 5.261 | 3.1 | 20.7 | 10 18 | 0 19.78 | + 1 33.0 | 1.331 | 2.294 | 8.4 | 18.8 |
| 10 28 | 0 21.16 | + 7 7.8 | 4.358 | 5.260 | 5.0 | 20.8 | 10 28 | 0 13.22 | + 1 10.2 | 1.369 | 2.277 | 13.1 | 19.0 |
| 11 7 | 0 17.71 | + 6 47.3 | 4.444 | 5.259 | 6.7 | 20.9 | 11 7 | 0 9.19 | + 1 2.7 | 1.427 | 2.261 | 17.1 | 19.2 |
| 393165 | 2013 CE ₃₀ | 10 | 2.1 250°33 | 2°0/27.8 | 18 | | 91921 | 1999 VN ₃₃ | 10 | 2.1 326°18 | 2°2/29.9 | 18 | |
| 8 29 | 0 47.30 | - 6 11.6 | 4.490 | 5.357 | 6.1 | 21.5 | 8 29 | 0 54.75 | - 0 57.9 | 1.959 | 2.832 | 12.3 | 19.4 |
| 9 8 | 0 43.90 | - 6 49.2 | 4.417 | 5.352 | 4.4 | 21.4 | 9 8 | 0 50.28 | - 1 32.0 | 1.885 | 2.825 | 9.1 | 19.1 |
| 9 18 | 0 39.77 | - 7 27.5 | 4.371 | 5.347 | 2.8 | 21.2 | 9 18 | 0 43.99 | - 2 12.3 | 1.836 | 2.817 | 5.4 | 18.9 |
| 9 28 | 0 35.18 | - 8 4.1 | 4.355 | 5.342 | 2.0 | 21.2 | 9 28 | 0 36.50 | - 2 53.8 | 1.813 | 2.810 | 2.4 | 18.7 |
| 10 8 | 0 30.48 | - 8 36.5 | 4.368 | 5.337 | 2.9 | 21.2 | 10 8 | 0 28.67 | - 3 31.0 | 1.817 | 2.803 | 4.0 | 18.8 |
| 10 18 | 0 25.98 | - 9 2.5 | 4.411 | 5.332 | 4.5 | 21.4 | 10 18 | 0 21.37 | - 3 58.8 | 1.849 | 2.797 | 7.7 | 19.0 |
| 10 28 | 0 22.01 | - 9 20.6 | 4.482 | 5.326 | 6.1 | 21.5 | 10 28 | 0 15.43 | - 4 13.1 | 1.907 | 2.791 | 11.3 | 19.2 |
| 11 7 | 0 18.85 | - 9 29.8 | 4.577 | 5.321 | 7.6 | 21.6 | 11 7 | 0 11.44 | - 4 12.1 | 1.986 | 2.785 | 14.3 | 19.4 |
| 514374 | 2016 QF ₈₉ | 10 | 2.1 18°65 | 1°7/30.6 | 18 | | 175084 | 2004 GP ₈₆ | 10 | 2.1 168°61 | 1°4/30.6 | 18 | |
| 8 29 | 0 55.45 | + 1 53.1 | 1.497 | 2.377 | 15.1 | 20.8 | 8 29 | 0 55.36 | + 1 57.2 | 2.117 | 2.980 | 12.0 | 21.4 |
| 9 8 | 0 51.15 | + 1 13.1 | 1.438 | 2.380 | 11.1 | 20.6 | 9 8 | 0 50.55 | + 1 14.7 | 2.047 | 2.981 | 8.8 | 21.2 |
| 9 18 | 0 44.62 | + 0 22.4 | 1.401 | 2.384 | 6.5 | 20.3 | 9 18 | 0 44.06 | + 0 23.9 | 2.002 | 2.983 | 5.2 | 21.0 |
| 9 28 | 0 36.66 | - 0 32.8 | 1.388 | 2.388 | 2.2 | 20.1 | 9 28 | 0 36.51 | - 0 30.4 | 1.984 | 2.984 | 1.7 | 20.8 |
| 10 8 | 0 28.37 | - 1 24.8 | 1.402 | 2.393 | 4.1 | 20.2 | 10 8 | 0 28.68 | - 1 22.7 | 1.995 | 2.985 | 3.2 | 20.9 |
| 10 18 | 0 20.87 | - 2 6.6 | 1.442 | 2.398 | 8.6 | 20.5 | 10 18 | 0 21.39 | - 2 7.7 | 2.034 | 2.985 | 6.9 | 21.1 |
| 10 28 | 0 15.15 | - 2 32.7 | 1.505 | 2.403 | 12.8 | 20.7 | 10 28 | 0 15.40 | - 2 40.8 | 2.100 | 2.986 | 10.3 | 21.3 |
| 11 7 | 0 11.83 | - 2 40.4 | 1.590 | 2.410 | 16.4 | 21.0 | 11 7 | 0 11.24 | - 2 59.4 | 2.188 | 2.986 | 13.2 | 21.5 |
| 487249 | 2014 PA ₂₇ | 10 | 2.1 33°46 | 3°4/ 5.2 | 17 | | 6289 | Lanusei | 10 | 2.1 152°46 | 0°4/ 1.5 | 18 | |
| 8 29 | 0 57.58 | +13 46.1 | 2.062 | 2.883 | 13.9 | 21.0 | 8 29 | 0 54.27 | + 3 58.1 | 2.667 | 3.517 | 10.2 | 18.3 |
| 9 8 | 0 52.30 | +14 8.7 | 1.990 | 2.888 | 10.9 | 20.8 | 9 8 | 0 49.42 | + 3 28.0 | 2.596 | 3.522 | 7.5 | 18.1 |
| 9 18 | 0 45.16 | +14 16.5 | 1.939 | 2.894 | 7.6 | 20.6 | 9 18 | 0 43.25 | + 2 50.5 | 2.550 | 3.527 | 4.5 | 18.0 |
| 9 28 | 0 36.82 | +14 10.1 | 1.915 | 2.900 | 4.5 | 20.4 | 9 28 | 0 36.25 | + 2 8.8 | 2.532 | 3.532 | 1.3 | 17.7 |
| 10 8 | 0 28.12 | +13 52.0 | 1.918 | 2.906 | 3.5 | 20.4 | 10 8 | 0 29.05 | + 1 26.8 | 2.543 | 3.536 | 2.2 | 17.8 |
| 10 18 | 0 19.99 | +13 26.1 | 1.949 | 2.913 | 6.1 | 20.5 | 10 18 | 0 22.28 | + 0 48.5 | 2.585 | 3.540 | 5.4 | 18.0 |
| 10 28 | 0 13.28 | +12 57.9 | 2.007 | 2.920 | 9.3 | 20.8 | 10 28 | 0 16.54 | + 0 17.6 | 2.654 | 3.544 | 8.3 | 18.2 |
| 11 7 | 0 8.58 | +12 32.7 | 2.089 | 2.927 | 12.3 | 21.0 | 11 7 | 0 12.27 | - 0 3.4 | 2.748 | 3.547 | 10.8 | 18.4 |
| 19658 | Sloop | 10 | 2.1 295°45 | 1°1/ 3.1 | 18 | | 76286 | 2000 EK ₁₂₁ | 10 | 2.1 98°74 | 4°6/27.4 | 18 | |
| 8 29 | 0 55.69 | + 8 56.2 | 1.682 | 2.536 | 15.0 | 19.0 | 8 29 | 0 58.14 | - 8 4.6 | 2.007 | 2.882 | 12.0 | 18.9 |
| 9 8 | 0 51.30 | + 8 31.7 | 1.604 | 2.529 | 11.4 | 18.7 | 9 8 | 0 52.48 | - 9 3.7 | 1.964 | 2.901 | 8.9 | 18.8 |
| 9 18 | 0 44.75 | + 7 50.8 | 1.548 | 2.522 | 7.2 | 18.5 | 9 18 | 0 45.13 | -10 2.2 | 1.945 | 2.919 | 6.0 | 18.6 |
| 9 28 | 0 36.73 | + 6 56.8 | 1.517 | 2.515 | 2.7 | 18.2 | 9 28 | 0 36.79 | -10 53.6 | 1.953 | 2.937 | 4.6 | 18.6 |
| 10 8 | 0 28.23 | + 5 55.7 | 1.513 | 2.508 | 2.6 | 18.2 | 10 8 | 0 28.34 | -11 32.2 | 1.990 | 2.954 | 6.2 | 18.7 |
| 10 18 | 0 20.33 | + 4 54.8 | 1.536 | 2.501 | 7.2 | 18.4 | 10 18 | 0 20.64 | -11 53.9 | 2.053 | 2.971 | 9.0 | 18.9 |
| 10 28 | 0 14.05 | + 4 1.6 | 1.584 | 2.494 | 11.5 | 18.7 | 10 28 | 0 14.43 | -11 57.0 | 2.142 | 2.988 | 11.8 | 19.1 |
| 11 7 | 0 10.06 | + 3 21.8 | 1.654 | 2.488 | 15.2 | 18.9 | 11 7 | 0 10.18 | -11 42.0 | 2.252 | 3.004 | 14.2 | 19.4 |
| 402428 | 2006 AC ₃₆ | 10 | 2.1 272°51 | 1°6/30.3 | 18 | | 513869 | 2013 JE ₂₄ | 10 | 2.1 78°02 | 11°9/15.6 | 18 | |
| 8 29 | 0 54.13 | + 0 51.9 | 2.244 | 3.109 | 11.3 | 21.4 | 8 29 | 0 58.43 | -36 19.5 | 2.284 | 3.100 | 12.8 | 20.3 |
| 9 8 | 0 49.61 | + 0 13.3 | 2.167 | 3.102 | 8.3 | 21.2 | 9 8 | 0 52.78 | -37 55.1 | 2.278 | 3.116 | 12.1 | 20.3 |
| 9 18 | 0 43.49 | - 0 32.4 | 2.115 | 3.096 | 4.9 | 21.0 | 9 18 | 0 45.31 | -39 9.2 | 2.294 | 3.132 | 11.9 | 20.3 |
| 9 28 | 0 36.33 | - 1 20.8 | 2.090 | 3.089 | 1.8 | 20.8 | 9 28 | 0 36.83 | -39 55.2 | 2.332 | 3.147 | 12.3 | 20.4 |
| 10 8 | 0 28.86 | - 2 6.9 | 2.094 | 3.082 | 3.3 | 20.9 | 10 8 | 0 28.30 | -40 9.9 | 2.390 | 3.163 | 13.2 | 20.5 |
| 10 18 | 0 21.85 | - 2 45.7 | 2.126 | 3.076 | 6.8 | 21.1 | 10 18 | 0 20.63 | -39 53.1 | 2.468 | 3.178 | 14.3 | 20.6 |
| 10 28 | 0 16.03 | - 3 13.2 | 2.185 | 3.069 | 10.1 | 21.3 | 10 28 | 0 14.59 | -39 7.8 | 2.563 | 3.194 | 15.4 | 20.7 |
| 11 7 | 0 11.92 | - 3 26.8 | 2.267 | 3.062 | 12.9 | 21.5 | 11 7 | 0 10.65 | -37 58.5 | 2.672 | 3.209 | 16.4 | 20.8 |
| 513747 | 2012 US ₁₁₆ | 10 | 2.1 272°46 | 1°5/ 1.1 | 18 | | 85608 | 1998 GC ₇ | 10 | 2.1 149°29 | 5°5/24.8 | 18 | |
| 8 29 | 1 4.31 | - 0 51.2 | 1.719 | 2.582 | 14.3 | 21.4 | 8 29 | 0 54.43 | -12 18.5 | 2.437 | 3 | | |

EPHEMERIDES

10 2.1

10 2.1

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|-------------|--------------|---------|------|---------------|-------------------------------|-----------------|-------------|--------------|---------|------|
| 127828 | 2003 <i>FH</i> ₉₃ | 10 | 2.1 175°47' | 2°9'/29.4 18 | | | 74039 | 1998 <i>HA</i> ₈₀ | 10 | 2.1 218°55' | 0°3'/1.8 17 | | |
| 8 29 | 0 59.40 | - 2 26.6 | 1.887 | 2.757 | 12.9 | 20.4 | 8 29 | 1 0.61 | + 4 44.1 | 1.656 | 2.515 | 14.9 | 20.5 |
| 9 8 | 0 53.69 | - 3 9.7 | 1.821 | 2.758 | 9.5 | 20.2 | 9 8 | 0 54.99 | + 4 21.3 | 1.580 | 2.510 | 11.2 | 20.3 |
| 9 18 | 0 46.01 | - 3 58.0 | 1.780 | 2.760 | 5.8 | 20.0 | 9 18 | 0 47.03 | + 3 46.1 | 1.526 | 2.504 | 6.8 | 20.0 |
| 9 28 | 0 37.09 | - 4 45.7 | 1.765 | 2.761 | 3.0 | 19.8 | 9 28 | 0 37.48 | + 3 2.6 | 1.498 | 2.497 | 1.9 | 19.7 |
| 10 8 | 0 27.86 | - 5 26.6 | 1.779 | 2.761 | 4.7 | 20.0 | 10 8 | 0 27.42 | + 2 16.9 | 1.497 | 2.491 | 3.1 | 19.8 |
| 10 18 | 0 19.31 | - 5 55.4 | 1.821 | 2.762 | 8.4 | 20.2 | 10 18 | 0 18.03 | + 1 35.5 | 1.524 | 2.483 | 7.9 | 20.0 |
| 10 28 | 0 12.30 | - 6 8.5 | 1.888 | 2.761 | 11.9 | 20.4 | 10 28 | 0 10.38 | + 1 4.6 | 1.576 | 2.476 | 12.3 | 20.3 |
| 11 7 | 0 7.44 | - 6 4.7 | 1.977 | 2.760 | 14.9 | 20.6 | 11 7 | 0 5.21 | + 0 48.4 | 1.650 | 2.467 | 16.0 | 20.5 |
| 514290 | 2015 <i>TW</i> ₅ | 10 | 2.1 61°70' | 4°3'/5.6 18 | | | 25869 | Jacoby | 10 | 2.1 246°29' | 4°2'/9.4 18 | | |
| 8 29 | 1 1.56 | +15 0.8 | 1.725 | 2.545 | 16.2 | 20.7 | 8 29 | 0 50.81 | +24 43.0 | 3.554 | 4.293 | 10.1 | 18.4 |
| 9 8 | 0 55.43 | +15 33.2 | 1.668 | 2.564 | 12.8 | 20.5 | 9 8 | 0 46.80 | +24 37.7 | 3.452 | 4.283 | 8.5 | 18.2 |
| 9 18 | 0 47.11 | +15 47.3 | 1.632 | 2.584 | 9.0 | 20.3 | 9 18 | 0 41.69 | +24 17.9 | 3.373 | 4.274 | 6.7 | 18.1 |
| 9 28 | 0 37.41 | +15 43.3 | 1.621 | 2.603 | 5.5 | 20.2 | 9 28 | 0 35.85 | +23 43.7 | 3.319 | 4.264 | 5.1 | 18.0 |
| 10 8 | 0 27.44 | +15 24.0 | 1.637 | 2.623 | 4.4 | 20.2 | 10 8 | 0 29.77 | +22 56.8 | 3.293 | 4.254 | 4.2 | 17.9 |
| 10 18 | 0 18.31 | +14 54.5 | 1.680 | 2.643 | 7.0 | 20.4 | 10 18 | 0 23.95 | +21 59.8 | 3.296 | 4.244 | 4.7 | 17.9 |
| 10 28 | 0 11.00 | +14 21.3 | 1.749 | 2.663 | 10.4 | 20.6 | 10 28 | 0 18.91 | +20 56.6 | 3.328 | 4.234 | 6.2 | 18.0 |
| 11 7 | 0 6.12 | +13 51.2 | 1.842 | 2.683 | 13.6 | 20.9 | 11 7 | 0 15.04 | +19 52.0 | 3.387 | 4.223 | 8.1 | 18.1 |
| 120513 | 1993 <i>TJ</i> ₂₅ | 10 | 2.1 354°94' | 3°7'/29.1 18 | | | 315316 | 2007 <i>TJ</i> ₂₉₆ | 10 | 2.1 219°95' | 0°0'/1.9 18 | | |
| 8 29 | 0 57.90 | - 5 59.9 | 1.773 | 2.653 | 13.1 | 19.0 | 8 29 | 1 2.28 | + 4 56.5 | 1.461 | 2.324 | 16.4 | 21.1 |
| 9 8 | 0 52.70 | - 6 18.3 | 1.709 | 2.649 | 9.7 | 18.8 | 9 8 | 0 56.48 | + 4 47.6 | 1.389 | 2.321 | 12.3 | 20.9 |
| 9 18 | 0 45.47 | - 6 37.8 | 1.668 | 2.647 | 6.1 | 18.6 | 9 18 | 0 48.05 | + 4 25.6 | 1.339 | 2.317 | 7.5 | 20.6 |
| 9 28 | 0 36.94 | - 6 52.8 | 1.652 | 2.645 | 3.8 | 18.5 | 9 28 | 0 37.80 | + 3 54.5 | 1.313 | 2.313 | 2.2 | 20.3 |
| 10 8 | 0 28.09 | - 6 58.5 | 1.664 | 2.643 | 5.4 | 18.6 | 10 8 | 0 27.00 | + 3 20.0 | 1.314 | 2.308 | 3.2 | 20.3 |
| 10 18 | 0 19.93 | - 6 50.9 | 1.703 | 2.643 | 8.9 | 18.8 | 10 18 | 0 16.98 | + 2 48.8 | 1.341 | 2.304 | 8.4 | 20.6 |
| 10 28 | 0 13.37 | - 6 28.2 | 1.766 | 2.642 | 12.4 | 19.0 | 10 28 | 0 8.97 | + 2 27.4 | 1.393 | 2.299 | 13.1 | 20.9 |
| 11 7 | 0 9.02 | - 5 50.1 | 1.851 | 2.643 | 15.5 | 19.2 | 11 7 | 0 3.76 | + 2 20.0 | 1.467 | 2.293 | 17.1 | 21.1 |
| 484427 | 2008 <i>AN</i> ₂₂ | 10 | 2.1 301°90' | 3°7'/4.9 17 | | | 24933 | 1997 <i>GK</i> ₂₅ | 10 | 2.1 105°99' | 0°0'/2.2 18 | | |
| 8 29 | 0 58.01 | +13 39.5 | 1.804 | 2.633 | 15.2 | 21.8 | 8 29 | 0 59.41 | + 7 4.9 | 1.645 | 2.500 | 15.2 | 18.8 |
| 9 8 | 0 53.33 | +13 55.6 | 1.693 | 2.597 | 12.2 | 21.5 | 9 8 | 0 53.82 | + 6 23.1 | 1.591 | 2.518 | 11.3 | 18.6 |
| 9 18 | 0 46.25 | +13 54.9 | 1.602 | 2.561 | 8.6 | 21.3 | 9 18 | 0 46.13 | + 5 26.6 | 1.558 | 2.535 | 6.8 | 18.4 |
| 9 28 | 0 37.30 | +13 36.8 | 1.537 | 2.524 | 4.9 | 21.0 | 9 28 | 0 37.16 | + 4 20.8 | 1.552 | 2.551 | 2.0 | 18.1 |
| 10 8 | 0 27.41 | +13 3.6 | 1.497 | 2.488 | 3.9 | 20.8 | 10 8 | 0 27.99 | + 3 12.8 | 1.573 | 2.568 | 2.8 | 18.2 |
| 10 18 | 0 17.74 | +12 19.8 | 1.485 | 2.451 | 7.4 | 20.9 | 10 18 | 0 19.68 | + 2 10.2 | 1.622 | 2.583 | 7.4 | 18.5 |
| 10 28 | 0 9.51 | +11 32.6 | 1.499 | 2.414 | 11.7 | 21.1 | 10 28 | 0 13.15 | + 1 19.5 | 1.697 | 2.599 | 11.4 | 18.8 |
| 11 7 | 0 3.65 | +10 49.8 | 1.535 | 2.377 | 15.7 | 21.3 | 11 7 | 0 8.97 | + 0 44.9 | 1.795 | 2.613 | 14.8 | 19.1 |
| 517128 | 2013 <i>HQ</i> ₆₅ | 10 | 2.1 108°07' | 1°4'/3.7 18 | | | 170166 | 2003 <i>FC</i> ₅₅ | 10 | 2.1 42°75' | 8°2'/26.3 18 | | |
| 8 29 | 0 55.53 | + 9 58.9 | 2.273 | 3.107 | 12.3 | 22.4 | 8 29 | 0 56.58 | - 7 26.3 | 0.912 | 1.827 | 19.0 | 18.3 |
| 9 8 | 0 50.58 | + 9 43.9 | 2.203 | 3.115 | 9.3 | 22.2 | 9 8 | 0 52.56 | - 9 27.0 | 0.894 | 1.851 | 14.1 | 18.1 |
| 9 18 | 0 44.05 | + 9 16.5 | 2.156 | 3.123 | 6.0 | 22.0 | 9 18 | 0 45.58 | -11 25.3 | 0.895 | 1.876 | 9.7 | 18.0 |
| 9 28 | 0 36.52 | + 8 39.1 | 2.136 | 3.131 | 2.6 | 21.8 | 9 28 | 0 36.98 | -13 5.1 | 0.917 | 1.901 | 8.2 | 18.0 |
| 10 8 | 0 28.74 | + 7 55.8 | 2.144 | 3.139 | 2.2 | 21.8 | 10 8 | 0 28.40 | -14 13.5 | 0.962 | 1.928 | 10.8 | 18.2 |
| 10 18 | 0 21.49 | + 7 11.2 | 2.182 | 3.146 | 5.5 | 22.0 | 10 18 | 0 21.34 | -14 44.8 | 1.027 | 1.955 | 14.8 | 18.5 |
| 10 28 | 0 15.48 | + 6 30.5 | 2.247 | 3.154 | 8.8 | 22.2 | 10 28 | 0 16.87 | -14 39.3 | 1.111 | 1.982 | 18.6 | 18.9 |
| 11 7 | 0 11.22 | + 5 57.8 | 2.337 | 3.161 | 11.6 | 22.5 | 11 7 | 0 15.45 | -14 2.1 | 1.212 | 2.010 | 21.7 | 19.2 |
| 224689 | 2006 <i>AC</i> ₁₀₀ | 10 | 2.1 141°54' | 0°8'/1.2 18 | | | 451996 | 2014 <i>OG</i> ₃₀ | 10 | 2.1 350°03' | 6°6'/25.2 17 | | |
| 8 29 | 0 54.48 | + 2 56.7 | 2.604 | 3.457 | 10.3 | 21.9 | 8 29 | 0 52.60 | -11 25.6 | 1.733 | 2.625 | 12.7 | 20.5 |
| 9 8 | 0 49.60 | + 2 24.2 | 2.536 | 3.464 | 7.6 | 21.8 | 9 8 | 0 48.89 | -12 45.9 | 1.677 | 2.619 | 9.8 | 20.4 |
| 9 18 | 0 43.37 | + 1 44.7 | 2.492 | 3.471 | 4.5 | 21.6 | 9 18 | 0 43.24 | -14 4.4 | 1.645 | 2.614 | 7.3 | 20.2 |
| 9 28 | 0 36.31 | + 1 1.8 | 2.477 | 3.477 | 1.3 | 21.4 | 9 28 | 0 36.34 | -15 12.4 | 1.638 | 2.610 | 6.7 | 20.2 |
| 10 8 | 0 29.05 | + 0 19.5 | 2.492 | 3.483 | 2.4 | 21.5 | 10 8 | 0 29.13 | -16 2.1 | 1.657 | 2.607 | 8.5 | 20.3 |
| 10 18 | 0 22.24 | + 0 18.1 | 2.536 | 3.489 | 5.6 | 21.7 | 10 18 | 0 22.57 | -16 28.3 | 1.700 | 2.604 | 11.4 | 20.4 |
| 10 28 | 0 16.49 | + 0 47.4 | 2.608 | 3.495 | 8.5 | 21.9 | 10 28 | 0 17.52 | -16 28.8 | 1.765 | 2.602 | 14.4 | 20.6 |
| 11 7 | 0 12.25 | - 1 6.0 | 2.704 | 3.500 | 11.0 | 22.1 | 11 7 | 0 14.56 | -16 4.9 | 1.850 | 2.600 | 17.0 | 20.8 |
| 141600 | 2002 <i>JA</i> ₂ | 10 | 2.1 224°97' | 1°0'/1.1 18 | | | 69056 | 2002 <i>YE</i> ₈ | 10 | 2.1 251°09' | 6°4'/25.5 18 | | |
| 8 29 | 0 58.29 | + 4 50.1 | 1.742 | 2.602 | 14.3 | 20.1 | 8 29 | 0 57.17 | - 9 54.7 | 1.781 | 2.664 | 12.9 | 19.5 |
| 9 8 | 0 53.20 | + 3 51.0 | 1.660 | 2.592 | 10.6 | 19.8 | 9 8 | 0 52.35 | -11 28.3 | 1.711 | 2.649 | 9.8 | 19.3 |
| 9 18 | 0 45.92 | + 2 37.3 | 1.602 | 2.581 | 6.3 | 19.6 | 9 18 | 0 45.40 | -13 3.6 | 1.664 | 2.634 | 7.2 | 19.1 |
| 9 28 | 0 37.15 | + 1 14.5 | 1.570 | 2.570 | 1.8 | 19.3 | 9 28 | 0 37.01 | -14 31.0 | 1.645 | 2.619 | 6.5 | 19.1 |
| 10 8 | 0 27.87 | + 0 9.5 | 1.567 | 2.558 | 3.5 | 19.4 | 10 8 | 0 28.15 | -15 41.5 | 1.652 | 2.603 | 8.5 | 19.2 |
| 10 18 | 0 19.17 | + 1 26.0 | 1.591 | 2.546 | 8.1 | 19.6 | 10 18 | 0 19.86 | -16 28.4 | 1.684 | 2.587 | 11.6 | 19.3 |
| 10 28 | 0 12.06 | + 2 27.9 | 1.641 | 2.532 | 12.4 | 19.8 | 10 28 | 0 13.13 | -16 48.2 | 1.740 | 2.570 | 14.9 | 19.5 |
| 11 7 | 0 7.26 | + 3 10.3 | 1.713 | 2.518 | 16.0 | 20.0 | 11 7 | 0 8.64 | -16 41.4 | 1.815 | 2.553 | 17.7 | 19.7 |
| 257505 | 1996 <i>RH</i> ₃₃ | 10 | 2.1 345°03' | 1°6'/29.2 18 | | | 364111 | 2006 <i>AY</i> ₁₅ | 10 | 2.1 332°02' | 5°2'/26.6 18 | | |
| 8 29 | 0 48.45 | - 3 17.4 | 4.049 | 4.913 | 6.7 | 20.0 | 8 29 | 0 52.86 | - 7 51.9 | 1.828 | 2.717 | 12.4 | 20.2 |
| 9 8 | 0 44.82 | - 3 45.6 | 3.977 | 4.911 | 4.9 | 19.9 | 9 8 | 0 49.02 | - 9 5.6 | 1.764 | 2.707 | 9.2 | 20.0 |
| 9 18 | 0 40.38 | - 4 15.6 | 3.931 | 4.910 | 3.0 | 19.7 | 9 18 | 0 43.31 | -10 21.3 | 1.723 | 2.699 | 6.4 | 19.8 |
| 9 28 | 0 35.44 | - 4 44.9 | 3.914 | 4.909 | 1.6 | 19.6 | 9 28 | 0 36.37 | -11 31.0 | 1.708 | 2.690 | 5.3 | 19.7 |
| 10 8 | 0 30.36 | - 5 11.1 | 3.927 | 4.907 | 2.6 | 19.7 | 10 8 | 0 29.08 | -12 27.2 | 1.719 | 2.682 | 7.1 | 19.8 |
| 10 18 | 0 25.52 | - 5 32.0 | 3.970 | 4.906 | 4.4 | 19.8 | 10 18 | 0 22.36 | -13 4.1 | 1.757 | 2.675 | 10.2 | 20.0 |
| 10 28 | 0 21.29 | - 5 45.7 | 4.041 | 4.905 | 6.3 | 20.0 | 10 28 | 0 17.07 | -13 18.3 | 1.817 | 2.668 | 13.4 | 20.2 |
| 11 7 | 0 17.97 | - 5 51.1 | 4.137 | 4.904 | 8.0 | 20.1 | 11 7 | 0 13.79 | -13 9.8 | 1.898 | 2.662 | 16.2 | 20.4 |
| 384297 | 2009 <i>RS</i> ₄₄ | 10 | 2.1 315°18' | 1°1'/2.9 18 | | | 480122 | 2015 <i>FQ</i> ₁₀₇ | 10 | 2.1 163°99' | 2°1'/4.2 18 | | |
| 8 29 | 0 54.49 | + 8 47.9 | 1.317 | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 176621 | 2002 <i>JP</i> ₁₀ | 10 | 2.1 | 76°69 | 1°9/29.1 | 18 | 435846 | 2008 <i>WT</i> ₁₁₇ | 10 | 2.1 | 356°84 | 12°2/23.7 | 18 |
| 8 29 | 0 50.40 | - 1 29.4 | 3.008 | 3.874 | 8.7 | 19.7 | 8 29 | 0 58.69 | -21 31.7 | 1.203 | 2.096 | 17.1 | 19.4 |
| 9 8 | 0 46.44 | - 2 26.0 | 2.953 | 3.889 | 6.3 | 19.6 | 9 8 | 0 54.12 | -22 42.2 | 1.162 | 2.091 | 14.4 | 19.2 |
| 9 18 | 0 41.42 | - 3 26.2 | 2.925 | 3.905 | 3.8 | 19.4 | 9 18 | 0 46.66 | -23 36.2 | 1.140 | 2.088 | 12.5 | 19.1 |
| 9 28 | 0 35.76 | - 4 26.1 | 2.925 | 3.920 | 2.0 | 19.3 | 9 28 | 0 37.39 | -24 1.8 | 1.140 | 2.085 | 12.4 | 19.1 |
| 10 8 | 0 29.99 | - 5 21.4 | 2.955 | 3.936 | 3.2 | 19.4 | 10 8 | 0 27.82 | -23 50.8 | 1.160 | 2.084 | 14.1 | 19.2 |
| 10 18 | 0 24.60 | - 6 8.5 | 3.015 | 3.951 | 5.7 | 19.6 | 10 18 | 0 19.43 | -23 1.5 | 1.201 | 2.084 | 16.8 | 19.4 |
| 10 28 | 0 20.08 | - 6 44.4 | 3.102 | 3.967 | 8.0 | 19.8 | 10 28 | 0 13.44 | -21 37.3 | 1.261 | 2.086 | 19.7 | 19.6 |
| 11 7 | 0 16.78 | - 7 7.8 | 3.213 | 3.982 | 10.0 | 20.0 | 11 7 | 0 10.48 | -19 45.3 | 1.337 | 2.089 | 22.3 | 19.8 |
| 302100 | 2001 <i>FA</i> ₉₇ | 10 | 2.1 | 82°63 | 2°4/29.9 | 16 | 228112 | 2008 <i>TG</i> ₃₅ | 10 | 2.1 | 330°17 | 0°2/ 2.6 | 18 |
| 8 29 | 1 2.96 | - 2 8.3 | 2.082 | 2.940 | 12.4 | 20.9 | 8 29 | 0 47.52 | + 6 42.0 | 4.018 | 4.857 | 7.3 | 20.4 |
| 9 8 | 0 55.78 | - 2 43.1 | 2.048 | 2.979 | 8.9 | 20.7 | 9 8 | 0 44.20 | + 6 16.0 | 3.934 | 4.852 | 5.4 | 20.2 |
| 9 18 | 0 46.99 | - 3 21.2 | 2.039 | 3.017 | 5.3 | 20.6 | 9 18 | 0 40.05 | + 5 43.8 | 3.875 | 4.848 | 3.3 | 20.1 |
| 9 28 | 0 37.37 | - 3 57.7 | 2.059 | 3.055 | 2.5 | 20.5 | 9 28 | 0 35.39 | + 5 7.4 | 3.845 | 4.843 | 1.1 | 19.9 |
| 10 8 | 0 27.81 | - 4 27.7 | 2.108 | 3.091 | 4.0 | 20.6 | 10 8 | 0 30.58 | + 4 29.2 | 3.845 | 4.839 | 1.3 | 19.9 |
| 10 18 | 0 19.13 | - 4 47.5 | 2.187 | 3.127 | 7.2 | 20.9 | 10 18 | 0 25.99 | + 3 51.8 | 3.875 | 4.835 | 3.5 | 20.1 |
| 10 28 | 0 12.05 | - 4 54.9 | 2.292 | 3.163 | 10.2 | 21.2 | 10 28 | 0 22.00 | + 3 17.8 | 3.934 | 4.831 | 5.6 | 20.2 |
| 11 7 | 0 6.97 | - 4 49.1 | 2.421 | 3.197 | 12.7 | 21.4 | 11 7 | 0 18.90 | + 2 49.5 | 4.019 | 4.827 | 7.5 | 20.4 |
| 449308 | 2013 <i>EL</i> ₁₄₇ | 10 | 2.1 | 335°37 | 0°6/ 2.6 | 18 | 521202 | 2015 <i>FN</i> ₄₁₃ | 10 | 2.1 | 36°64 | 8°5/24.2 | 18 |
| 8 29 | 0 56.19 | + 6 23.9 | 1.668 | 2.529 | 14.7 | 21.4 | 8 29 | 0 53.75 | -11 46.0 | 1.313 | 2.216 | 15.3 | 20.5 |
| 9 8 | 0 51.71 | + 6 16.2 | 1.592 | 2.522 | 11.1 | 21.2 | 9 8 | 0 50.02 | -13 48.7 | 1.284 | 2.231 | 11.7 | 20.3 |
| 9 18 | 0 45.05 | + 5 55.6 | 1.538 | 2.515 | 6.9 | 21.0 | 9 18 | 0 43.97 | -15 46.3 | 1.278 | 2.247 | 9.0 | 20.2 |
| 9 28 | 0 36.92 | + 5 25.3 | 1.510 | 2.509 | 2.3 | 20.7 | 9 28 | 0 36.57 | -17 25.7 | 1.295 | 2.263 | 8.7 | 20.2 |
| 10 8 | 0 28.31 | + 4 50.3 | 1.508 | 2.503 | 2.7 | 20.7 | 10 8 | 0 29.01 | -18 36.8 | 1.337 | 2.280 | 10.8 | 20.4 |
| 10 18 | 0 20.31 | + 4 16.5 | 1.533 | 2.497 | 7.3 | 20.9 | 10 18 | 0 22.46 | -19 14.3 | 1.401 | 2.298 | 13.9 | 20.6 |
| 10 28 | 0 13.93 | + 3 50.0 | 1.583 | 2.493 | 11.5 | 21.2 | 10 28 | 0 17.86 | -19 17.7 | 1.485 | 2.317 | 16.9 | 20.9 |
| 11 7 | 0 9.87 | + 3 35.1 | 1.655 | 2.488 | 15.2 | 21.4 | 11 7 | 0 15.73 | -18 50.8 | 1.586 | 2.335 | 19.4 | 21.1 |
| 437310 | 2013 <i>CN</i> ₂₀₆ | 10 | 2.1 | 273°67 | 0°3/ 2.6 | 18 | 514912 | 2008 <i>SY</i> ₂₉₈ | 10 | 2.1 | 331°74 | 3°4/29.7 | 18 |
| 8 29 | 0 47.31 | + 6 54.1 | 4.335 | 5.171 | 6.9 | 21.7 | 8 29 | 0 57.27 | - 2 36.1 | 1.355 | 2.245 | 15.7 | 20.9 |
| 9 8 | 0 43.98 | + 6 27.2 | 4.249 | 5.166 | 5.1 | 21.5 | 9 8 | 0 52.93 | - 3 6.2 | 1.287 | 2.234 | 11.7 | 20.6 |
| 9 18 | 0 39.89 | + 5 54.6 | 4.188 | 5.161 | 3.1 | 21.4 | 9 18 | 0 45.98 | - 3 42.8 | 1.239 | 2.222 | 7.1 | 20.3 |
| 9 28 | 0 35.32 | + 5 17.8 | 4.157 | 5.156 | 1.0 | 21.2 | 9 28 | 0 37.25 | - 4 19.0 | 1.215 | 2.212 | 3.6 | 20.1 |
| 10 8 | 0 30.61 | + 4 39.3 | 4.156 | 5.151 | 1.2 | 21.2 | 10 8 | 0 27.95 | - 4 47.1 | 1.216 | 2.202 | 5.7 | 20.2 |
| 10 18 | 0 26.11 | + 4 1.5 | 4.185 | 5.146 | 3.3 | 21.4 | 10 18 | 0 19.40 | - 5 0.7 | 1.242 | 2.193 | 10.3 | 20.4 |
| 10 28 | 0 22.15 | + 3 26.8 | 4.244 | 5.140 | 5.3 | 21.5 | 10 28 | 0 12.83 | - 4 55.3 | 1.291 | 2.185 | 14.8 | 20.7 |
| 11 7 | 0 19.03 | + 2 57.3 | 4.329 | 5.135 | 7.0 | 21.7 | 11 7 | 0 9.01 | - 4 29.7 | 1.359 | 2.178 | 18.7 | 20.9 |
| 311581 | 2006 <i>HO</i> ₃₅ | 10 | 2.1 | 124°23 | 3°1/29.5 | 17 | 121234 | 1999 <i>RM</i> ₃₇ | 10 | 2.1 | 66°49 | 10°6/ 9.2 | 18 |
| 8 29 | 0 59.85 | - 0 7.4 | 1.504 | 2.381 | 15.2 | 20.7 | 8 29 | 1 11.73 | +27 17.6 | 1.763 | 2.498 | 19.0 | 19.0 |
| 9 8 | 0 54.33 | - 1 19.1 | 1.452 | 2.393 | 11.1 | 20.5 | 9 8 | 1 3.79 | +29 18.9 | 1.688 | 2.504 | 16.5 | 18.8 |
| 9 18 | 0 46.52 | - 2 40.0 | 1.423 | 2.405 | 6.6 | 20.3 | 9 18 | 0 52.73 | +30 58.0 | 1.632 | 2.510 | 13.9 | 18.7 |
| 9 28 | 0 37.31 | - 4 1.8 | 1.420 | 2.417 | 3.2 | 20.1 | 9 28 | 0 39.33 | +32 7.5 | 1.601 | 2.516 | 11.7 | 18.5 |
| 10 8 | 0 27.85 | - 5 15.1 | 1.443 | 2.427 | 5.3 | 20.3 | 10 8 | 0 24.92 | +32 43.2 | 1.594 | 2.522 | 10.6 | 18.5 |
| 10 18 | 0 19.32 | - 6 12.2 | 1.494 | 2.438 | 9.6 | 20.5 | 10 18 | 0 11.13 | +32 46.4 | 1.614 | 2.528 | 11.3 | 18.5 |
| 10 28 | 0 12.71 | - 6 48.1 | 1.568 | 2.448 | 13.5 | 20.8 | 10 28 | 23 59.48 | +32 23.7 | 1.658 | 2.534 | 13.2 | 18.7 |
| 11 7 | 0 8.60 | - 7 1.4 | 1.663 | 2.457 | 16.9 | 21.1 | 11 7 | 23 51.02 | +31 45.8 | 1.725 | 2.540 | 15.5 | 18.9 |
| 107573 | 2001 <i>DM</i> ₉₂ | 10 | 2.1 | 174°04 | 5°8/27.4 | 18 | 309606 | 2008 <i>BJ</i> ₃₂ | 10 | 2.1 | 233°98 | 1°1/30.9 | 18 |
| 8 29 | 1 0.55 | - 8 17.2 | 1.560 | 2.443 | 14.4 | 20.0 | 8 29 | 0 54.83 | + 2 54.6 | 2.196 | 3.056 | 11.7 | 21.9 |
| 9 8 | 0 54.90 | - 9 22.1 | 1.503 | 2.444 | 10.8 | 19.8 | 9 8 | 0 50.21 | + 2 10.4 | 2.117 | 3.049 | 8.6 | 21.7 |
| 9 18 | 0 46.91 | -10 27.5 | 1.470 | 2.445 | 7.3 | 19.6 | 9 18 | 0 43.95 | + 1 17.0 | 2.063 | 3.043 | 5.1 | 21.5 |
| 9 28 | 0 37.44 | -11 24.8 | 1.462 | 2.446 | 5.8 | 19.5 | 9 28 | 0 36.60 | + 0 18.9 | 2.036 | 3.036 | 1.6 | 21.3 |
| 10 8 | 0 27.64 | -12 5.7 | 1.481 | 2.446 | 7.7 | 19.6 | 10 8 | 0 28.92 | - 0 38.6 | 2.038 | 3.028 | 3.0 | 21.4 |
| 10 18 | 0 18.70 | -12 24.9 | 1.524 | 2.447 | 11.2 | 19.9 | 10 18 | 0 21.70 | - 1 29.8 | 2.068 | 3.021 | 6.7 | 21.6 |
| 10 28 | 0 11.64 | -12 19.9 | 1.592 | 2.446 | 14.7 | 20.1 | 10 28 | 0 15.70 | - 2 9.8 | 2.126 | 3.013 | 10.1 | 21.8 |
| 11 7 | 0 7.12 | -11 52.0 | 1.678 | 2.446 | 17.8 | 20.3 | 11 7 | 0 11.47 | - 2 35.7 | 2.206 | 3.006 | 13.1 | 22.0 |
| 478800 | 2012 <i>UU</i> ₁₆₀ | 10 | 2.1 | 37°82 | 6°3/29.5 | 16 | 404053 | 2012 <i>DG</i> ₁₆ | 10 | 2.1 | 277°65 | 2°8/29.1 | 18 |
| 8 29 | 1 10.23 | -11 38.5 | 1.156 | 2.040 | 18.3 | 20.4 | 8 29 | 0 55.00 | - 3 16.1 | 2.228 | 3.100 | 11.1 | 21.1 |
| 9 8 | 1 2.10 | -11 26.2 | 1.125 | 2.064 | 13.7 | 20.2 | 9 8 | 0 50.32 | - 3 57.8 | 2.151 | 3.089 | 8.2 | 20.9 |
| 9 18 | 0 51.10 | -11 6.3 | 1.115 | 2.090 | 9.2 | 20.0 | 9 18 | 0 44.01 | - 4 43.7 | 2.099 | 3.079 | 5.0 | 20.7 |
| 9 28 | 0 38.59 | -10 32.7 | 1.128 | 2.116 | 6.3 | 20.0 | 9 28 | 0 36.62 | - 5 28.8 | 2.074 | 3.069 | 2.8 | 20.5 |
| 10 8 | 0 26.25 | - 9 42.1 | 1.168 | 2.143 | 7.9 | 20.1 | 10 8 | 0 28.90 | - 6 7.9 | 2.078 | 3.058 | 4.4 | 20.6 |
| 10 18 | 0 15.62 | - 8 34.6 | 1.232 | 2.171 | 11.7 | 20.5 | 10 18 | 0 21.63 | - 6 36.4 | 2.110 | 3.048 | 7.6 | 20.8 |
| 10 28 | 0 7.80 | - 7 12.8 | 1.319 | 2.199 | 15.6 | 20.8 | 10 28 | 0 15.56 | - 6 50.9 | 2.167 | 3.037 | 10.7 | 21.0 |
| 11 7 | 0 3.26 | - 5 40.2 | 1.427 | 2.228 | 18.8 | 21.1 | 11 7 | 0 11.25 | - 6 49.8 | 2.247 | 3.027 | 13.5 | 21.1 |
| 19746 | 2000 <i>AE</i> ₂₀₀ | 10 | 2.1 | 306°95 | 1°8/29.9 | 18 | 251300 | 2006 <i>XK</i> ₄₂ | 10 | 2.1 | 334°10 | 0°5/ 2.7 | 18 |
| 8 29 | 0 51.75 | + 2 27.5 | 2.122 | 2.990 | 11.8 | 18.2 | 8 29 | 0 54.90 | + 7 20.3 | 1.845 | 2.701 | 13.8 | 20.7 |
| 9 8 | 0 47.96 | + 1 11.5 | 2.049 | 2.986 | 8.6 | 18.0 | 9 8 | 0 50.56 | + 6 57.3 | 1.770 | 2.697 | 10.4 | 20.5 |
| 9 18 | 0 42.58 | - 0 14.9 | 2.000 | 2.982 | 5.0 | 17.8 | 9 18 | 0 44.28 | + 6 21.0 | 1.717 | 2.693 | 6.4 | 20.2 |
| 9 28 | 0 36.17 | - 1 45.7 | 1.979 | 2.978 | 1.9 | 17.6 | 9 28 | 0 36.72 | + 5 34.6 | 1.690 | 2.689 | 2.1 | 19.9 |
| 10 8 | 0 29.46 | - 3 13.7 | 1.987 | 2.974 | 3.7 | 17.7 | 10 8 | 0 28.78 | + 4 43.7 | 1.691 | 2.686 | 2.4 | 20.0 |
| 10 18 | 0 23.22 | - 4 32.1 | 2.024 | 2.970 | 7.3 | 17.9 | 10 18 | 0 21.39 | + 3 54.5 | 1.719 | 2.683 | 6.7 | 20.2 |
| 10 28 | 0 18.19 | - 5 35.2 | 2.087 | 2.967 | 10.6 | 18.1 | 10 28 | 0 15.46 | + 3 12.9 | 1.773 | 2.680 | 10.7 | 20.5 |
| 11 7 | 0 14.89 | - 6 19.8 | 2.172 | 2.963 | 13.5 | 18.3 | 11 7 | 0 11.59 | + 2 43.6 | 1.849 | 2.677 | 14.1 | 20.7 |
| 42905 | 1999 <i>RC</i> ₂₀₃ | 10 | 2.1 | 230°17 | 5°0/ 7.8 | 18 | 147298 | 2003 <i>AR</i> ₅₇ | 10 | 2.1 | 220°40 | 1°4/30.8 | 18 |

EPHEMERIDES

10 2.1

10 2.2

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|--------------|---------|------|---------------|------------------------|-----------------|------------|--------------|---------|------|
| 323031 | 2002 QV ₁₀₈ | 10 | 2.1 125°58 | 1.1°/ 1.1 17 | | | 117911 | 4138 P-L | 10 | 2.1 253°59 | 1.4°/ 3.1 18 | | |
| 8 29 | 0 59.97 | + 3 51.1 | 1.679 | 2.541 | 14.6 | 21.6 | 8 29 | 1 1.79 | + 7 50.8 | 1.481 | 2.336 | 16.6 | 20.1 |
| 9 8 | 0 54.25 | + 3 1.1 | 1.623 | 2.555 | 10.8 | 21.4 | 9 8 | 0 56.26 | + 7 53.0 | 1.402 | 2.326 | 12.7 | 19.8 |
| 9 18 | 0 46.44 | + 1 59.4 | 1.589 | 2.569 | 6.4 | 21.1 | 9 18 | 0 48.06 | + 7 40.0 | 1.343 | 2.317 | 8.1 | 19.5 |
| 9 28 | 0 37.34 | + 0 52.0 | 1.582 | 2.582 | 1.9 | 20.9 | 9 28 | 0 37.95 | + 7 13.9 | 1.310 | 2.307 | 3.1 | 19.2 |
| 10 8 | 0 28.00 | - 0 13.7 | 1.603 | 2.594 | 3.5 | 21.0 | 10 8 | 0 27.16 | + 6 39.7 | 1.303 | 2.298 | 3.0 | 19.2 |
| 10 18 | 0 19.50 | - 1 10.5 | 1.651 | 2.606 | 7.9 | 21.3 | 10 18 | 0 17.05 | + 6 4.0 | 1.322 | 2.287 | 8.1 | 19.5 |
| 10 28 | 0 12.74 | - 1 52.7 | 1.725 | 2.617 | 11.8 | 21.6 | 10 28 | 0 8.89 | + 5 34.1 | 1.366 | 2.277 | 12.9 | 19.7 |
| 11 7 | 0 8.31 | - 2 17.4 | 1.821 | 2.628 | 15.1 | 21.8 | 11 7 | 0 3.53 | + 5 15.7 | 1.431 | 2.267 | 17.0 | 20.0 |
| 392039 | 2009 BP ₇₆ | 10 | 2.1 158°98 | 2.0°/ 4.2 18 | | | 305303 | 2008 AC ₃₁ | 10 | 2.1 238°78 | 1.3°/ 3.6 18 | | |
| 8 29 | 0 59.77 | +11 7.7 | 2.317 | 3.138 | 12.5 | 21.3 | 8 29 | 0 54.38 | +11 8.9 | 2.085 | 2.922 | 13.2 | 21.4 |
| 9 8 | 0 53.76 | +11 10.4 | 2.241 | 3.144 | 9.6 | 21.1 | 9 8 | 0 50.04 | +10 29.2 | 2.001 | 2.915 | 10.1 | 21.2 |
| 9 18 | 0 46.05 | +11 0.7 | 2.188 | 3.149 | 6.4 | 20.9 | 9 18 | 0 43.94 | + 9 33.2 | 1.940 | 2.908 | 6.5 | 21.0 |
| 9 28 | 0 37.24 | +10 40.1 | 2.162 | 3.154 | 3.1 | 20.7 | 9 28 | 0 36.66 | + 8 24.2 | 1.905 | 2.901 | 2.7 | 20.7 |
| 10 8 | 0 28.12 | +10 11.6 | 2.166 | 3.159 | 2.5 | 20.6 | 10 8 | 0 29.02 | + 7 7.5 | 1.899 | 2.894 | 2.3 | 20.7 |
| 10 18 | 0 19.53 | + 9 39.4 | 2.200 | 3.163 | 5.5 | 20.9 | 10 18 | 0 21.85 | + 5 49.9 | 1.921 | 2.886 | 6.0 | 20.9 |
| 10 28 | 0 12.24 | + 9 8.1 | 2.261 | 3.166 | 8.8 | 21.1 | 10 28 | 0 15.96 | + 4 38.4 | 1.971 | 2.878 | 9.7 | 21.1 |
| 11 7 | 0 6.79 | + 8 42.2 | 2.348 | 3.169 | 11.7 | 21.3 | 11 7 | 0 11.95 | + 3 38.7 | 2.045 | 2.870 | 13.0 | 21.3 |
| 283318 | 1992 DE ₁ | 10 | 2.1 175°73 | 1.0°/ 3.7 17 | | | 206404 | 2003 SM ₆₃ | 10 | 2.1 335°76 | 6.0°/ 5.9 18 | | |
| 8 29 | 0 52.04 | + 9 22.6 | 3.409 | 4.233 | 8.8 | 20.8 | 8 29 | 0 58.97 | +15 34.0 | 1.395 | 2.232 | 18.5 | 19.9 |
| 9 8 | 0 47.65 | + 9 13.1 | 3.326 | 4.234 | 6.7 | 20.6 | 9 8 | 0 54.49 | +16 35.3 | 1.315 | 2.218 | 15.0 | 19.7 |
| 9 18 | 0 42.20 | + 8 55.5 | 3.269 | 4.234 | 4.3 | 20.5 | 9 18 | 0 47.17 | +17 17.6 | 1.253 | 2.205 | 11.1 | 19.4 |
| 9 28 | 0 36.09 | + 8 31.6 | 3.240 | 4.235 | 1.9 | 20.3 | 9 28 | 0 37.74 | +17 38.2 | 1.214 | 2.194 | 7.4 | 19.2 |
| 10 8 | 0 29.78 | + 8 3.6 | 3.241 | 4.235 | 1.6 | 20.3 | 10 8 | 0 27.43 | +17 37.6 | 1.199 | 2.183 | 6.1 | 19.1 |
| 10 18 | 0 23.78 | + 7 34.4 | 3.272 | 4.235 | 3.9 | 20.5 | 10 18 | 0 17.70 | +17 19.6 | 1.208 | 2.173 | 8.8 | 19.2 |
| 10 28 | 0 18.54 | + 7 7.0 | 3.332 | 4.235 | 6.3 | 20.6 | 10 28 | 0 9.98 | +16 52.0 | 1.241 | 2.164 | 12.9 | 19.4 |
| 11 7 | 0 14.44 | + 6 44.1 | 3.419 | 4.235 | 8.5 | 20.8 | 11 7 | 0 5.25 | +16 23.6 | 1.295 | 2.156 | 16.9 | 19.6 |
| 193301 | 2000 SN ₂₇₆ | 10 | 2.1 325°76 | 8.7°/10.9 18 | | | 454899 | 2015 TR ₉₉ | 10 | 2.1 315°67 | 2.2°/ 4.7 18 | | |
| 8 29 | 0 55.01 | +27 57.5 | 1.618 | 2.385 | 19.2 | 19.6 | 8 29 | 0 52.04 | +13 39.2 | 2.051 | 2.882 | 13.6 | 20.7 |
| 9 8 | 0 51.26 | +28 19.5 | 1.536 | 2.379 | 16.6 | 19.4 | 9 8 | 0 48.37 | +13 3.9 | 1.965 | 2.873 | 10.5 | 20.5 |
| 9 18 | 0 45.02 | +28 10.9 | 1.470 | 2.373 | 13.5 | 19.2 | 9 18 | 0 42.96 | +12 10.4 | 1.901 | 2.864 | 7.1 | 20.3 |
| 9 28 | 0 37.03 | +27 28.5 | 1.425 | 2.368 | 10.6 | 19.0 | 9 28 | 0 36.38 | +11 1.2 | 1.863 | 2.855 | 3.5 | 20.1 |
| 10 8 | 0 28.42 | +26 13.9 | 1.404 | 2.363 | 8.8 | 18.9 | 10 8 | 0 29.43 | + 9 41.7 | 1.853 | 2.846 | 2.6 | 20.0 |
| 10 18 | 0 20.46 | +24 33.3 | 1.407 | 2.358 | 9.4 | 18.9 | 10 18 | 0 22.93 | + 8 18.4 | 1.871 | 2.838 | 5.9 | 20.2 |
| 10 28 | 0 14.33 | +22 37.9 | 1.434 | 2.353 | 11.8 | 19.1 | 10 28 | 0 17.70 | + 6 59.1 | 1.916 | 2.830 | 9.6 | 20.4 |
| 11 7 | 0 10.85 | +20 40.6 | 1.485 | 2.349 | 15.0 | 19.2 | 11 7 | 0 14.32 | + 5 50.3 | 1.985 | 2.822 | 12.9 | 20.6 |
| 99885 | 2002 PR ₁₅₇ | 10 | 2.1 297°13 | 3.1°/28.5 18 | | | 363968 | 2005 UY ₁₂₆ | 10 | 2.1 232°45 | 3.2°/ 6.2 18 | | |
| 8 29 | 0 52.99 | - 3 32.0 | 2.236 | 3.111 | 11.0 | 19.6 | 8 29 | 0 53.72 | +17 29.1 | 2.440 | 3.249 | 12.6 | 21.2 |
| 9 8 | 0 48.86 | - 4 28.4 | 2.160 | 3.100 | 8.0 | 19.4 | 9 8 | 0 49.37 | +17 5.0 | 2.357 | 3.241 | 10.0 | 21.1 |
| 9 18 | 0 43.16 | - 5 29.5 | 2.108 | 3.088 | 5.0 | 19.2 | 9 18 | 0 43.46 | +16 23.4 | 2.288 | 3.233 | 7.2 | 20.9 |
| 9 28 | 0 36.41 | - 6 29.8 | 2.084 | 3.077 | 3.1 | 19.0 | 9 28 | 0 36.52 | +15 25.8 | 2.244 | 3.225 | 4.4 | 20.7 |
| 10 8 | 0 29.33 | - 7 23.3 | 2.089 | 3.066 | 4.7 | 19.1 | 10 8 | 0 29.24 | +14 15.7 | 2.229 | 3.217 | 3.2 | 20.6 |
| 10 18 | 0 22.69 | - 8 5.0 | 2.121 | 3.055 | 7.8 | 19.3 | 10 18 | 0 22.36 | +12 58.4 | 2.244 | 3.209 | 5.3 | 20.7 |
| 10 28 | 0 17.21 | - 8 31.1 | 2.179 | 3.044 | 10.9 | 19.5 | 10 28 | 0 16.60 | +11 40.3 | 2.287 | 3.200 | 8.3 | 20.9 |
| 11 7 | 0 13.41 | - 8 40.0 | 2.259 | 3.033 | 13.6 | 19.7 | 11 7 | 0 12.48 | +10 27.7 | 2.355 | 3.191 | 11.1 | 21.1 |
| 261385 | 2005 UF ₃₈₇ | 10 | 2.1 45°97 | 0.4°/ 1.7 18 | | | 70757 | 1999 VL ₂₉ | 10 | 2.1 168°61 | 4.2°/28.3 18 | | |
| 8 29 | 0 55.42 | + 4 13.9 | 2.044 | 2.903 | 12.5 | 20.8 | 8 29 | 0 59.29 | - 6 46.5 | 1.950 | 2.824 | 12.4 | 18.7 |
| 9 8 | 0 50.71 | + 3 47.6 | 1.976 | 2.906 | 9.3 | 20.6 | 9 8 | 0 53.60 | - 7 30.5 | 1.889 | 2.826 | 9.2 | 18.6 |
| 9 18 | 0 44.27 | + 3 11.7 | 1.931 | 2.909 | 5.5 | 20.4 | 9 18 | 0 46.03 | - 8 15.6 | 1.851 | 2.828 | 6.0 | 18.4 |
| 9 28 | 0 36.73 | + 2 30.1 | 1.913 | 2.912 | 1.6 | 20.1 | 9 28 | 0 37.27 | - 8 55.7 | 1.841 | 2.829 | 4.2 | 18.3 |
| 10 8 | 0 28.91 | + 1 47.8 | 1.922 | 2.916 | 2.6 | 20.2 | 10 8 | 0 28.24 | - 9 24.9 | 1.858 | 2.830 | 5.8 | 18.4 |
| 10 18 | 0 21.65 | + 1 9.9 | 1.961 | 2.919 | 6.5 | 20.5 | 10 18 | 0 19.87 | - 9 39.2 | 1.903 | 2.831 | 9.0 | 18.6 |
| 10 28 | 0 15.73 | + 0 41.0 | 2.025 | 2.923 | 10.0 | 20.7 | 10 28 | 0 13.02 | - 9 35.9 | 1.973 | 2.832 | 12.1 | 18.8 |
| 11 7 | 0 11.69 | + 0 24.3 | 2.113 | 2.926 | 13.1 | 20.9 | 11 7 | 0 8.24 | - 9 15.2 | 2.064 | 2.832 | 14.9 | 19.0 |
| 451607 | 2012 DY ₁₄ | 10 | 2.1 171°85 | 5.8°/24.1 18 | | | 358725 | 2008 CJ ₂ | 10 | 2.1 339°01 | 7.0°/ 6.7 17 | | |
| 8 29 | 0 56.09 | -17 43.0 | 2.864 | 3.726 | 9.2 | 21.6 | 8 29 | 0 57.45 | +17 38.2 | 1.416 | 2.245 | 18.6 | 19.7 |
| 9 8 | 0 50.74 | -18 40.7 | 2.812 | 3.729 | 7.4 | 21.4 | 9 8 | 0 53.38 | +18 45.5 | 1.333 | 2.229 | 15.4 | 19.4 |
| 9 18 | 0 44.08 | -19 32.5 | 2.787 | 3.731 | 6.1 | 21.4 | 9 18 | 0 46.52 | +19 32.8 | 1.270 | 2.214 | 11.7 | 19.2 |
| 9 28 | 0 36.65 | -20 13.5 | 2.789 | 3.733 | 5.9 | 21.4 | 9 28 | 0 37.56 | +19 56.5 | 1.228 | 2.201 | 8.3 | 18.9 |
| 10 8 | 0 29.05 | -20 39.5 | 2.819 | 3.735 | 7.0 | 21.4 | 10 8 | 0 27.71 | +19 56.5 | 1.209 | 2.188 | 7.0 | 18.8 |
| 10 18 | 0 21.92 | -20 48.2 | 2.875 | 3.736 | 8.8 | 21.6 | 10 18 | 0 18.38 | +19 36.1 | 1.215 | 2.177 | 9.2 | 18.9 |
| 10 28 | 0 15.85 | -20 38.9 | 2.957 | 3.737 | 10.6 | 21.7 | 10 28 | 0 11.01 | +19 3.3 | 1.245 | 2.167 | 12.9 | 19.1 |
| 11 7 | 0 11.26 | -20 12.6 | 3.059 | 3.737 | 12.3 | 21.8 | 11 7 | 0 6.58 | +18 27.5 | 1.295 | 2.158 | 16.7 | 19.3 |
| 337972 | 2002 CQ ₈₇ | 10 | 2.1 153°87 | 2.0°/ 3.9 18 | | | 403719 | 2010 WH ₁₁ | 10 | 2.1 234°24 | 0.8°/ 3.1 17 | | |
| 8 29 | 0 59.10 | +10 31.4 | 1.807 | 2.645 | 14.8 | 21.0 | 8 29 | 0 56.60 | + 7 48.4 | 2.626 | 3.459 | 10.9 | 21.8 |
| 9 8 | 0 53.70 | +10 26.9 | 1.734 | 2.648 | 11.4 | 20.8 | 9 8 | 0 51.36 | + 7 39.7 | 2.535 | 3.448 | 8.2 | 21.6 |
| 9 18 | 0 46.21 | +10 6.9 | 1.683 | 2.651 | 7.4 | 20.6 | 9 18 | 0 44.62 | + 7 21.5 | 2.468 | 3.437 | 5.2 | 21.4 |
| 9 28 | 0 37.33 | + 9 33.7 | 1.658 | 2.653 | 3.3 | 20.3 | 9 28 | 0 36.87 | + 6 55.8 | 2.429 | 3.426 | 2.0 | 21.1 |
| 10 8 | 0 28.06 | + 8 51.7 | 1.661 | 2.655 | 2.7 | 20.3 | 10 8 | 0 28.78 | + 6 25.6 | 2.419 | 3.414 | 1.9 | 21.1 |
| 10 18 | 0 19.44 | + 8 6.7 | 1.691 | 2.657 | 6.6 | 20.6 | 10 18 | 0 21.03 | + 5 54.7 | 2.440 | 3.402 | 5.2 | 21.3 |
| 10 28 | 0 12.42 | + 7 25.3 | 1.748 | 2.659 | 10.6 | 20.8 | 10 28 | 0 14.33 | + 5 27.1 | 2.489 | 3.389 | 8.3 | 21.5 |
| 11 7 | 0 7.67 | + 6 52.8 | 1.828 | 2.660 | 14.0 | 21.0 | 11 7 | 0 9.18 | + 5 6.3 | 2.563 | 3.376 | 11.0 | 21.7 |
| 292320 | 2006 SN ₁₆₆ | 10 | 2.1 345°37 | 1.8°/ 3.7 18 | | | 117402 | 2005 AM ₈ | 10 | 2.2 301°56 | 6.6°/25.8 18 | | |
| 8 29 | 0 55.96 | +10 4.1 | 1.768 | 2.615 | 14.7 | 20.6 | 8 29 | | | | | | |

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10 2.2

10 2.2

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|------|---------------|------------------------------|-----------------|----------|--------|----------|------|
| 68864 | 2002 <i>JW</i> ₉ | | 10 2.2 | 1°94 | 8°4/21.0 | 18 | 28722 | Dhruviyer | | 10 2.2 | 206°94 | 2°8/29.5 | 18 |
| 8 29 | 0 51.97 | -17 27.8 | 1.950 | 2.835 | 11.9 | 18.8 | 8 29 | 0 59.03 | -1 28.4 | 1.860 | 2.729 | 13.1 | 19.2 |
| 9 8 | 0 48.32 | -19 33.2 | 1.907 | 2.834 | 9.7 | 18.7 | 9 8 | 0 53.60 | -2 20.6 | 1.788 | 2.725 | 9.6 | 19.0 |
| 9 18 | 0 42.90 | -21 31.8 | 1.889 | 2.834 | 8.5 | 18.6 | 9 18 | 0 46.15 | -3 19.6 | 1.740 | 2.720 | 5.8 | 18.7 |
| 9 28 | 0 36.37 | -23 13.7 | 1.897 | 2.834 | 8.8 | 18.7 | 9 28 | 0 37.37 | -4 19.6 | 1.719 | 2.715 | 2.9 | 18.5 |
| 10 8 | 0 29.56 | -24 31.0 | 1.931 | 2.835 | 10.5 | 18.8 | 10 8 | 0 28.20 | -5 13.4 | 1.726 | 2.709 | 4.7 | 18.7 |
| 10 18 | 0 23.34 | -25 19.3 | 1.989 | 2.836 | 12.7 | 18.9 | 10 18 | 0 19.64 | -5 55.0 | 1.761 | 2.703 | 8.5 | 18.9 |
| 10 28 | 0 18.50 | -25 37.3 | 2.067 | 2.837 | 14.9 | 19.1 | 10 28 | 0 12.62 | -6 20.1 | 1.821 | 2.696 | 12.2 | 19.1 |
| 11 7 | 0 15.57 | -25 27.3 | 2.163 | 2.838 | 16.8 | 19.2 | 11 7 | 0 7.75 | -6 26.6 | 1.903 | 2.689 | 15.4 | 19.3 |
| 394920 | 2008 <i>WN</i> ₄₇ | | 10 2.2 | 211°38 | 5°8/25.9 | 18 | 481499 | 2007 <i>DO</i> ₈₉ | | 10 2.2 | 138°60 | 7°2/11.2 | 18 |
| 8 29 | 0 59.50 | -13 7.3 | 2.255 | 3.124 | 11.1 | 22.0 | 8 29 | 1 1.96 | +30 6.0 | 2.802 | 3.496 | 13.5 | 21.4 |
| 9 8 | 0 53.63 | -14 6.4 | 2.190 | 3.117 | 8.6 | 21.9 | 9 8 | 0 55.44 | +30 57.4 | 2.720 | 3.506 | 11.7 | 21.3 |
| 9 18 | 0 46.02 | -15 2.4 | 2.149 | 3.110 | 6.5 | 21.7 | 9 18 | 0 47.15 | +31 30.1 | 2.659 | 3.516 | 9.8 | 21.2 |
| 9 28 | 0 37.30 | -15 48.7 | 2.136 | 3.103 | 5.9 | 21.7 | 9 28 | 0 37.67 | +31 41.8 | 2.622 | 3.525 | 8.2 | 21.1 |
| 10 8 | 0 28.28 | -16 19.8 | 2.151 | 3.094 | 7.3 | 21.7 | 10 8 | 0 27.77 | +31 32.3 | 2.611 | 3.534 | 7.2 | 21.1 |
| 10 18 | 0 19.81 | -16 31.9 | 2.193 | 3.085 | 9.7 | 21.9 | 10 18 | 0 18.31 | +31 3.9 | 2.629 | 3.543 | 7.4 | 21.1 |
| 10 28 | 0 12.68 | -16 23.7 | 2.259 | 3.076 | 12.3 | 22.0 | 10 28 | 0 10.08 | +30 21.1 | 2.673 | 3.551 | 8.7 | 21.2 |
| 11 7 | 0 7.43 | -15 56.0 | 2.347 | 3.066 | 14.6 | 22.2 | 11 7 | 0 3.68 | +29 30.2 | 2.743 | 3.559 | 10.3 | 21.3 |
| 289091 | 2004 <i>TQ</i> ₂₇₂ | | 10 2.2 | 331°71 | 3°7/ 6.4 | 18 | 412348 | 2013 <i>LV</i> ₉ | | 10 2.2 | 108°63 | 2°7/28.9 | 18 |
| 8 29 | 0 52.57 | +17 34.0 | 2.043 | 2.854 | 14.3 | 20.3 | 8 29 | 0 54.94 | -3 31.2 | 2.411 | 3.280 | 10.5 | 21.6 |
| 9 8 | 0 48.80 | +17 17.2 | 1.958 | 2.848 | 11.4 | 20.1 | 9 8 | 0 50.07 | -4 15.9 | 2.352 | 3.289 | 7.7 | 21.4 |
| 9 18 | 0 43.25 | +16 40.5 | 1.894 | 2.843 | 8.2 | 19.9 | 9 18 | 0 43.78 | -5 3.6 | 2.319 | 3.298 | 4.7 | 21.2 |
| 9 28 | 0 36.50 | +15 45.0 | 1.856 | 2.837 | 5.1 | 19.7 | 9 28 | 0 36.63 | -5 49.6 | 2.313 | 3.306 | 2.7 | 21.1 |
| 10 8 | 0 29.36 | +14 34.9 | 1.844 | 2.832 | 3.8 | 19.6 | 10 8 | 0 29.29 | -6 29.2 | 2.336 | 3.315 | 4.2 | 21.2 |
| 10 18 | 0 22.71 | +13 16.3 | 1.860 | 2.827 | 6.0 | 19.8 | 10 18 | 0 22.47 | -6 58.4 | 2.388 | 3.324 | 7.0 | 21.4 |
| 10 28 | 0 17.36 | +11 56.8 | 1.903 | 2.822 | 9.3 | 20.0 | 10 28 | 0 16.80 | -7 14.5 | 2.466 | 3.332 | 9.8 | 21.6 |
| 11 7 | 0 13.92 | +10 43.8 | 1.971 | 2.818 | 12.5 | 20.2 | 11 7 | 0 12.73 | -7 16.2 | 2.568 | 3.340 | 12.2 | 21.8 |
| 72194 | 2000 <i>YA</i> ₁₂₈ | | 10 2.2 | 70°09 | 3°5/29.1 | 18 | 242918 | 2006 <i>OM</i> ₃ | | 10 2.2 | 97°93 | 7°9/23.9 | 18 |
| 8 29 | 0 57.49 | -2 48.5 | 1.632 | 2.513 | 14.0 | 19.1 | 8 29 | 0 58.32 | -17 8.9 | 1.904 | 2.780 | 12.6 | 20.4 |
| 9 8 | 0 52.50 | -3 44.0 | 1.581 | 2.524 | 10.2 | 18.9 | 9 8 | 0 52.85 | -18 34.2 | 1.870 | 2.794 | 10.0 | 20.2 |
| 9 18 | 0 45.44 | -4 44.7 | 1.553 | 2.534 | 6.3 | 18.7 | 9 18 | 0 45.53 | -19 51.0 | 1.859 | 2.809 | 8.3 | 20.2 |
| 9 28 | 0 37.12 | -5 43.5 | 1.550 | 2.545 | 3.5 | 18.5 | 9 28 | 0 37.14 | -20 51.2 | 1.875 | 2.823 | 8.1 | 20.2 |
| 10 8 | 0 28.57 | -6 32.8 | 1.575 | 2.556 | 5.4 | 18.7 | 10 8 | 0 28.63 | -21 28.5 | 1.916 | 2.837 | 9.5 | 20.3 |
| 10 18 | 0 20.84 | -7 6.8 | 1.626 | 2.567 | 9.2 | 18.9 | 10 18 | 0 20.92 | -21 40.0 | 1.982 | 2.851 | 11.8 | 20.5 |
| 10 28 | 0 14.82 | -7 22.0 | 1.701 | 2.578 | 12.8 | 19.2 | 10 28 | 0 14.82 | -21 25.9 | 2.071 | 2.864 | 14.1 | 20.7 |
| 11 7 | 0 11.07 | -7 17.5 | 1.797 | 2.588 | 15.9 | 19.4 | 11 7 | 0 10.81 | -20 48.8 | 2.178 | 2.878 | 16.1 | 20.9 |
| 205180 | 2000 <i>CG</i> ₇₄ | | 10 2.2 | 120°00 | 2°5/29.5 | 18 | 204407 | 2004 <i>VT</i> ₈ | | 10 2.2 | 297°84 | 3°5/29.2 | 18 |
| 8 29 | 0 56.12 | -0 38.1 | 1.992 | 2.862 | 12.3 | 20.8 | 8 29 | 0 56.31 | -1 50.1 | 1.591 | 2.473 | 14.2 | 20.2 |
| 9 8 | 0 51.21 | -1 35.9 | 1.933 | 2.870 | 9.0 | 20.6 | 9 8 | 0 52.11 | -2 45.7 | 1.504 | 2.448 | 10.6 | 19.9 |
| 9 18 | 0 44.57 | -2 40.3 | 1.898 | 2.879 | 5.4 | 20.4 | 9 18 | 0 45.55 | -3 50.7 | 1.439 | 2.422 | 6.5 | 19.6 |
| 9 28 | 0 36.86 | -3 45.3 | 1.891 | 2.887 | 2.5 | 20.3 | 9 28 | 0 37.28 | -4 58.2 | 1.400 | 2.396 | 3.5 | 19.4 |
| 10 8 | 0 28.92 | -4 44.5 | 1.912 | 2.895 | 4.3 | 20.4 | 10 8 | 0 28.30 | -5 59.6 | 1.387 | 2.370 | 5.7 | 19.4 |
| 10 18 | 0 21.62 | -5 32.2 | 1.960 | 2.903 | 7.7 | 20.6 | 10 18 | 0 19.80 | -6 46.8 | 1.400 | 2.344 | 10.1 | 19.6 |
| 10 28 | 0 15.70 | -6 4.3 | 2.035 | 2.911 | 11.1 | 20.9 | 10 28 | 0 12.93 | -7 13.7 | 1.437 | 2.319 | 14.4 | 19.8 |
| 11 7 | 0 11.71 | -6 19.1 | 2.132 | 2.918 | 13.9 | 21.1 | 11 7 | 0 8.51 | -7 17.6 | 1.493 | 2.293 | 18.2 | 20.0 |
| 347528 | 1999 <i>UR</i> ₅₀ | | 10 2.2 | 320°37 | 4°6/28.6 | 18 | 99947 | 4220 <i>T-2</i> | | 10 2.2 | 67°55 | 2°1/29.9 | 18 |
| 8 29 | 0 55.73 | -4 35.1 | 1.375 | 2.269 | 15.3 | 20.0 | 8 29 | 0 54.09 | +2 41.7 | 1.773 | 2.645 | 13.5 | 19.1 |
| 9 8 | 0 51.99 | -5 21.4 | 1.293 | 2.241 | 11.4 | 19.7 | 9 8 | 0 49.83 | +1 17.0 | 1.723 | 2.662 | 9.8 | 18.9 |
| 9 18 | 0 45.61 | -6 14.1 | 1.232 | 2.215 | 7.3 | 19.4 | 9 18 | 0 43.78 | -0 18.1 | 1.697 | 2.679 | 5.7 | 18.7 |
| 9 28 | 0 37.29 | -7 5.2 | 1.195 | 2.189 | 4.7 | 19.2 | 9 28 | 0 36.64 | -1 56.3 | 1.698 | 2.697 | 2.2 | 18.6 |
| 10 8 | 0 28.19 | -7 45.6 | 1.183 | 2.163 | 6.9 | 19.3 | 10 8 | 0 29.34 | -3 28.7 | 1.727 | 2.714 | 4.1 | 18.7 |
| 10 18 | 0 19.65 | -8 7.4 | 1.195 | 2.139 | 11.5 | 19.4 | 10 18 | 0 22.75 | -4 47.8 | 1.784 | 2.731 | 8.0 | 19.0 |
| 10 28 | 0 12.96 | -8 5.6 | 1.228 | 2.115 | 16.0 | 19.6 | 10 28 | 0 17.67 | -5 48.1 | 1.866 | 2.749 | 11.6 | 19.3 |
| 11 7 | 0 9.03 | -7 38.8 | 1.281 | 2.092 | 20.0 | 19.8 | 11 7 | 0 14.58 | -6 26.9 | 1.970 | 2.766 | 14.5 | 19.5 |
| 486946 | 2014 <i>MG</i> ₅₀ | | 10 2.2 | 322°79 | 6°7/ 9.9 | 18 | 448522 | 2010 <i>OU</i> ₅₀ | | 10 2.2 | 12°14 | 6°0/29.3 | 18 |
| 8 29 | 0 54.74 | +25 52.6 | 2.131 | 2.889 | 15.5 | 20.8 | 8 29 | 1 11.74 | -13 56.7 | 1.646 | 2.507 | 14.9 | 20.1 |
| 9 8 | 0 50.47 | +26 6.5 | 2.045 | 2.885 | 13.1 | 20.6 | 9 8 | 1 3.04 | -13 36.2 | 1.585 | 2.510 | 11.5 | 19.9 |
| 9 18 | 0 44.29 | +25 57.4 | 1.978 | 2.882 | 10.5 | 20.4 | 9 18 | 0 51.81 | -13 6.4 | 1.547 | 2.513 | 8.0 | 19.7 |
| 9 28 | 0 36.82 | +25 23.9 | 1.934 | 2.879 | 8.1 | 20.3 | 9 28 | 0 39.04 | -12 22.3 | 1.537 | 2.518 | 6.0 | 19.6 |
| 10 8 | 0 28.92 | +24 28.0 | 1.916 | 2.876 | 6.7 | 20.2 | 10 8 | 0 26.06 | -11 21.0 | 1.556 | 2.523 | 7.3 | 19.7 |
| 10 18 | 0 21.51 | +23 14.3 | 1.924 | 2.874 | 7.3 | 20.2 | 10 18 | 0 14.20 | -10 2.9 | 1.602 | 2.528 | 10.5 | 19.9 |
| 10 28 | 0 15.49 | +21 50.2 | 1.959 | 2.871 | 9.5 | 20.4 | 10 28 | 0 4.57 | -8 30.4 | 1.676 | 2.534 | 13.9 | 20.1 |
| 11 7 | 0 11.48 | +20 24.4 | 2.019 | 2.869 | 12.2 | 20.5 | 11 7 | 23 57.78 | -6 47.1 | 1.771 | 2.541 | 16.9 | 20.4 |
| 113346 | 2002 <i>RE</i> ₂₃₃ | | 10 2.2 | 197°70 | 3°5/ 5.7 | 18 | 218902 | 2007 <i>EW</i> ₁₂ | | 10 2.2 | 90°35 | 2°6/28.8 | 18 |
| 8 29 | 0 59.54 | +15 31.6 | 2.282 | 3.085 | 13.3 | 20.5 | 8 29 | 0 52.39 | -0 26.3 | 2.218 | 3.089 | 11.2 | 19.9 |
| 9 8 | 0 53.78 | +15 43.6 | 2.195 | 3.082 | 10.6 | 20.3 | 9 8 | 0 48.36 | -1 51.0 | 2.157 | 3.096 | 8.1 | 19.7 |
| 9 18 | 0 46.19 | +15 40.4 | 2.132 | 3.079 | 7.5 | 20.1 | 9 18 | 0 42.83 | -3 22.7 | 2.122 | 3.103 | 4.8 | 19.5 |
| 9 28 | 0 37.38 | +15 22.3 | 2.094 | 3.076 | 4.6 | 19.9 | 9 28 | 0 36.38 | -4 55.0 | 2.115 | 3.110 | 2.6 | 19.4 |
| 10 8 | 0 28.15 | +14 51.8 | 2.085 | 3.072 | 3.6 | 19.9 | 10 8 | 0 29.71 | -6 20.8 | 2.137 | 3.117 | 4.4 | 19.5 |
| 10 18 | 0 19.37 | +14 12.8 | 2.105 | 3.067 | 5.9 | 20.0 | 10 18 | 0 23.55 | -7 34.1 | 2.188 | 3.124 | 7.5 | 19.7 |
| 10 28 | 0 11.90 | +13 31.0 | 2.153 | 3.062 | 9.0 | 20.2 | 10 28 | 0 18.57 | -8 30.3 | 2.265 | 3.130 | 10.5 | 19.9 |
| 11 7 | 0 6.34 | +12 51.8 | 2.227 | 3.057 | 11.9 | 20.4 | 11 7 | 0 15.24 | -9 7.4 | 2.364 | 3.137 | 13.1 | 20.1 |
| 65028 | 2002 <i>AM</i> ₁₁₀ | | 10 2.2 | 106°71 | 5°3/26.1 | 18 | 400674 | 2009 <i>OA</i> ₁₅ | | 10 2.2 | 4°62 | 9°3/21.2 | 18 |
| 8 29 | 0 55.10 | -10 19.6 | 2.139 | 3.017 | 11.2 | 19.6 | 8 29 | 0 44.16 | | | | | |

EPHEMERIDES

10 2.2

10 2.2

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 20142 | 1996 <i>RC</i> ₁₂ | 10 | 2.2 239°60 | 2°6/29.9 | 18 | | 228084 | 2008 <i>RV</i> ₃ | 10 | 2.2 52°54 | 0°2/2.6 | 18 | |
| 8 29 | 0 57.92 | + 1 3.2 | 1.495 | 2.373 | 15.2 | 19.3 | 8 29 | 0 47.85 | + 6 32.3 | 4.278 | 5.114 | 6.9 | 21.0 |
| 9 8 | 0 53.23 | + 0 0.2 | 1.425 | 2.367 | 11.2 | 19.0 | 9 8 | 0 44.45 | + 6 8.3 | 4.198 | 5.115 | 5.2 | 20.9 |
| 9 18 | 0 46.14 | - 1 15.0 | 1.378 | 2.360 | 6.7 | 18.8 | 9 18 | 0 40.27 | + 5 38.6 | 4.144 | 5.116 | 3.2 | 20.7 |
| 9 28 | 0 37.43 | - 2 34.7 | 1.356 | 2.354 | 2.8 | 18.5 | 9 28 | 0 35.62 | + 5 5.2 | 4.119 | 5.118 | 1.0 | 20.6 |
| 10 8 | 0 28.23 | - 3 49.7 | 1.360 | 2.347 | 5.0 | 18.6 | 10 8 | 0 30.84 | + 4 30.2 | 4.124 | 5.119 | 1.2 | 20.6 |
| 10 18 | 0 19.74 | - 4 51.2 | 1.391 | 2.340 | 9.6 | 18.9 | 10 18 | 0 26.28 | + 3 56.0 | 4.160 | 5.120 | 3.3 | 20.8 |
| 10 28 | 0 13.07 | - 5 32.7 | 1.445 | 2.333 | 14.0 | 19.1 | 10 28 | 0 22.28 | + 3 25.0 | 4.225 | 5.122 | 5.3 | 20.9 |
| 11 7 | 0 8.96 | - 5 51.2 | 1.520 | 2.326 | 17.7 | 19.4 | 11 7 | 0 19.13 | + 2 59.2 | 4.316 | 5.123 | 7.0 | 21.0 |
| 514066 | 2014 <i>PD</i> ₃₉ | 10 | 2.2 123°74 | 3°1/6.1 | 18 | | 75630 | 2000 <i>AR</i> ₅₁ | 10 | 2.2 112°59 | 3°6/5.1 | 18 | |
| 8 29 | 0 59.69 | +16 19.4 | 2.925 | 3.709 | 11.1 | 22.1 | 8 29 | 1 1.07 | +14 10.1 | 1.557 | 2.388 | 17.1 | 18.5 |
| 9 8 | 0 53.41 | +16 35.6 | 2.853 | 3.727 | 8.8 | 21.9 | 9 8 | 0 55.47 | +14 15.3 | 1.492 | 2.397 | 13.4 | 18.2 |
| 9 18 | 0 45.75 | +16 39.5 | 2.805 | 3.744 | 6.3 | 21.8 | 9 18 | 0 47.45 | +13 59.9 | 1.447 | 2.406 | 9.2 | 18.0 |
| 9 28 | 0 37.25 | +16 31.4 | 2.785 | 3.761 | 4.0 | 21.7 | 9 28 | 0 37.83 | +13 25.2 | 1.426 | 2.415 | 5.1 | 17.8 |
| 10 8 | 0 28.53 | +16 13.1 | 2.794 | 3.777 | 3.2 | 21.6 | 10 8 | 0 27.80 | +12 36.0 | 1.432 | 2.423 | 3.9 | 17.8 |
| 10 18 | 0 20.27 | +15 47.6 | 2.834 | 3.792 | 4.8 | 21.8 | 10 18 | 0 18.61 | +11 39.3 | 1.465 | 2.432 | 7.3 | 18.0 |
| 10 28 | 0 13.09 | +15 18.7 | 2.904 | 3.807 | 7.1 | 21.9 | 10 28 | 0 11.34 | +10 43.5 | 1.523 | 2.440 | 11.4 | 18.3 |
| 11 7 | 0 7.44 | +14 50.7 | 3.000 | 3.822 | 9.4 | 22.1 | 11 7 | 0 6.70 | + 9 56.0 | 1.604 | 2.447 | 15.1 | 18.5 |
| 338532 | 2003 <i>RO</i> ₁₉ | 10 | 2.2 47°60 | 2°6/4.3 | 18 | | 312475 | 2008 <i>SW</i> ₂₇₅ | 10 | 2.2 343°21 | 0°8/30.5 | 18 | |
| 8 29 | 0 59.20 | +11 37.1 | 1.368 | 2.220 | 17.9 | 20.3 | 8 29 | 0 47.55 | + 0 49.3 | 4.304 | 5.158 | 6.5 | 21.3 |
| 9 8 | 0 54.04 | +11 34.7 | 1.324 | 2.244 | 13.7 | 20.2 | 9 8 | 0 44.22 | + 0 18.9 | 4.227 | 5.157 | 4.7 | 21.2 |
| 9 18 | 0 46.48 | +11 12.3 | 1.299 | 2.268 | 9.0 | 20.0 | 9 18 | 0 40.13 | - 0 14.9 | 4.177 | 5.156 | 2.8 | 21.1 |
| 9 28 | 0 37.47 | +10 33.0 | 1.299 | 2.292 | 4.2 | 19.7 | 9 28 | 0 35.58 | - 0 50.0 | 4.157 | 5.155 | 1.0 | 20.9 |
| 10 8 | 0 28.30 | + 9 43.3 | 1.323 | 2.317 | 3.3 | 19.8 | 10 8 | 0 30.90 | - 1 23.9 | 4.166 | 5.154 | 1.8 | 21.0 |
| 10 18 | 0 20.18 | + 8 50.9 | 1.374 | 2.343 | 7.4 | 20.1 | 10 18 | 0 26.44 | - 1 54.4 | 4.206 | 5.154 | 3.8 | 21.1 |
| 10 28 | 0 14.15 | + 8 4.0 | 1.449 | 2.368 | 11.7 | 20.4 | 10 28 | 0 22.52 | - 2 19.4 | 4.274 | 5.153 | 5.7 | 21.3 |
| 11 7 | 0 10.76 | + 7 28.6 | 1.546 | 2.394 | 15.3 | 20.7 | 11 7 | 0 19.44 | - 2 37.3 | 4.368 | 5.152 | 7.3 | 21.4 |
| 406266 | 2007 <i>ET</i> ₄₈ | 10 | 2.2 142°39 | 2°4/29.6 | 18 | | 373507 | 2001 <i>FX</i> ₁₁₉ | 10 | 2.2 197°79 | 0°8/2.9 | 17 | |
| 8 29 | 0 59.42 | - 4 33.6 | 2.710 | 3.567 | 9.9 | 21.1 | 8 29 | 1 0.91 | + 7 48.9 | 1.793 | 2.638 | 14.6 | 22.1 |
| 9 8 | 0 53.21 | - 4 49.9 | 2.646 | 3.575 | 7.2 | 20.9 | 9 8 | 0 55.14 | + 7 31.5 | 1.716 | 2.636 | 11.1 | 21.9 |
| 9 18 | 0 45.62 | - 5 7.6 | 2.607 | 3.584 | 4.4 | 20.7 | 9 18 | 0 47.19 | + 7 0.1 | 1.661 | 2.633 | 6.9 | 21.6 |
| 9 28 | 0 37.21 | - 5 23.2 | 2.598 | 3.592 | 2.4 | 20.6 | 9 28 | 0 37.76 | + 6 17.8 | 1.632 | 2.630 | 2.4 | 21.3 |
| 10 8 | 0 28.62 | - 5 33.5 | 2.619 | 3.599 | 3.6 | 20.7 | 10 8 | 0 27.87 | + 5 29.7 | 1.631 | 2.626 | 2.5 | 21.3 |
| 10 18 | 0 20.54 | - 5 35.7 | 2.670 | 3.606 | 6.3 | 20.9 | 10 18 | 0 18.60 | + 4 42.1 | 1.658 | 2.621 | 7.0 | 21.6 |
| 10 28 | 0 13.59 | - 5 28.0 | 2.749 | 3.613 | 8.9 | 21.1 | 10 28 | 0 10.97 | + 4 1.5 | 1.712 | 2.616 | 11.2 | 21.8 |
| 11 7 | 0 8.20 | - 5 9.8 | 2.852 | 3.620 | 11.2 | 21.3 | 11 7 | 0 5.67 | + 3 32.8 | 1.789 | 2.610 | 14.8 | 22.1 |
| 139672 | 2001 <i>QD</i> ₂₀₁ | 10 | 2.2 325°24 | 1°1/3.3 | 18 | | 433296 | 2013 <i>DT</i> ₇ | 10 | 2.2 251°95 | 1°5/29.3 | 18 | |
| 8 29 | 0 52.93 | +10 5.9 | 1.730 | 2.584 | 14.7 | 19.8 | 8 29 | 0 48.83 | - 3 20.7 | 4.400 | 5.260 | 6.3 | 21.3 |
| 9 8 | 0 49.32 | + 9 27.3 | 1.651 | 2.575 | 11.2 | 19.5 | 9 8 | 0 45.13 | - 3 45.3 | 4.324 | 5.257 | 4.6 | 21.2 |
| 9 18 | 0 43.70 | + 8 30.7 | 1.593 | 2.566 | 7.1 | 19.3 | 9 18 | 0 40.67 | - 4 11.5 | 4.275 | 5.254 | 2.8 | 21.0 |
| 9 28 | 0 36.71 | + 7 19.7 | 1.560 | 2.557 | 2.7 | 19.0 | 9 28 | 0 35.75 | - 4 37.1 | 4.256 | 5.250 | 1.5 | 20.9 |
| 10 8 | 0 29.27 | + 6 0.9 | 1.554 | 2.549 | 2.5 | 19.0 | 10 8 | 0 30.69 | - 4 59.9 | 4.267 | 5.247 | 2.3 | 21.0 |
| 10 18 | 0 22.37 | + 4 42.3 | 1.575 | 2.542 | 6.9 | 19.2 | 10 18 | 0 25.85 | - 5 17.9 | 4.307 | 5.243 | 4.1 | 21.1 |
| 10 28 | 0 16.96 | + 3 32.2 | 1.622 | 2.534 | 11.1 | 19.5 | 10 28 | 0 21.56 | - 5 29.5 | 4.376 | 5.240 | 5.9 | 21.3 |
| 11 7 | 0 13.70 | + 2 36.7 | 1.691 | 2.527 | 14.8 | 19.7 | 11 7 | 0 18.11 | - 5 33.5 | 4.471 | 5.237 | 7.5 | 21.4 |
| 134314 | 6362 <i>P-L</i> | 10 | 2.2 39°11 | 2°0/3.8 | 17 | | 66261 | 1999 <i>GM</i> ₃₇ | 10 | 2.2 155°49 | 6°0/27.4 | 18 | |
| 8 29 | 0 55.42 | +12 2.0 | 1.123 | 1.992 | 19.8 | 19.6 | 8 29 | 0 59.29 | - 6 41.9 | 1.348 | 2.240 | 15.7 | 18.3 |
| 9 8 | 0 51.81 | +11 21.9 | 1.071 | 2.002 | 15.1 | 19.4 | 9 8 | 0 54.35 | - 8 1.4 | 1.295 | 2.240 | 11.7 | 18.0 |
| 9 18 | 0 45.41 | +10 15.1 | 1.038 | 2.012 | 9.7 | 19.1 | 9 18 | 0 46.83 | - 9 24.1 | 1.263 | 2.241 | 7.8 | 17.8 |
| 9 28 | 0 37.22 | + 8 47.4 | 1.027 | 2.024 | 4.1 | 18.9 | 9 28 | 0 37.65 | -10 39.6 | 1.255 | 2.242 | 6.0 | 17.7 |
| 10 8 | 0 28.66 | + 7 9.2 | 1.040 | 2.035 | 3.2 | 18.8 | 10 8 | 0 28.08 | -11 37.6 | 1.273 | 2.242 | 8.2 | 17.8 |
| 10 18 | 0 21.16 | + 5 33.1 | 1.077 | 2.048 | 8.6 | 19.2 | 10 18 | 0 19.44 | -12 11.0 | 1.315 | 2.243 | 12.1 | 18.1 |
| 10 28 | 0 15.95 | + 4 11.1 | 1.137 | 2.060 | 13.7 | 19.5 | 10 28 | 0 12.87 | -12 16.5 | 1.379 | 2.243 | 16.0 | 18.3 |
| 11 7 | 0 13.69 | + 3 10.7 | 1.217 | 2.074 | 18.0 | 19.8 | 11 7 | 0 9.05 | -11 55.3 | 1.461 | 2.243 | 19.3 | 18.6 |
| 476631 | 2008 <i>SW</i> ₂₀₀ | 10 | 2.2 4°39 | 1°2/3.0 | 16 | | 516339 | 2017 <i>BL</i> ₆₃ | 10 | 2.2 327°40 | 6°1/25.5 | 18 | |
| 8 29 | 0 55.94 | + 7 26.4 | 1.256 | 2.131 | 17.7 | 21.1 | 8 29 | 0 55.53 | -12 54.1 | 2.076 | 2.955 | 11.5 | 21.1 |
| 9 8 | 0 52.09 | + 7 24.8 | 1.194 | 2.131 | 13.4 | 20.8 | 9 8 | 0 50.82 | -14 0.3 | 2.019 | 2.953 | 8.9 | 21.0 |
| 9 18 | 0 45.58 | + 7 6.2 | 1.153 | 2.131 | 8.4 | 20.5 | 9 18 | 0 44.40 | -15 3.2 | 1.987 | 2.951 | 6.7 | 20.8 |
| 9 28 | 0 37.30 | + 6 34.0 | 1.134 | 2.132 | 3.1 | 20.2 | 9 28 | 0 36.89 | -15 55.9 | 1.981 | 2.949 | 6.2 | 20.8 |
| 10 8 | 0 28.51 | + 5 54.7 | 1.139 | 2.135 | 3.1 | 20.2 | 10 8 | 0 29.12 | -16 32.2 | 2.003 | 2.947 | 7.7 | 20.9 |
| 10 18 | 0 20.58 | + 5 16.0 | 1.169 | 2.138 | 8.4 | 20.6 | 10 18 | 0 21.94 | -16 48.3 | 2.050 | 2.945 | 10.2 | 21.1 |
| 10 28 | 0 14.74 | + 4 45.7 | 1.222 | 2.143 | 13.2 | 20.9 | 10 28 | 0 16.12 | -16 42.7 | 2.120 | 2.943 | 12.8 | 21.2 |
| 11 7 | 0 11.72 | + 4 29.4 | 1.295 | 2.148 | 17.4 | 21.1 | 11 7 | 0 12.17 | -16 16.4 | 2.211 | 2.942 | 15.1 | 21.4 |
| 161717 | 2006 <i>PL</i> ₂₃ | 10 | 2.2 266°03 | 3°3/8.9 | 18 | | 447720 | 2007 <i>EP</i> ₁₅₄ | 10 | 2.2 225°16 | 1°0/3.4 | 18 | |
| 8 29 | 0 49.79 | +22 55.9 | 4.558 | 5.299 | 8.0 | 19.9 | 8 29 | 0 53.25 | +10 13.1 | 2.451 | 3.285 | 11.5 | 21.7 |
| 9 8 | 0 45.90 | +23 5.4 | 4.463 | 5.297 | 6.7 | 19.8 | 9 8 | 0 48.99 | + 9 32.3 | 2.366 | 3.279 | 8.8 | 21.5 |
| 9 18 | 0 41.16 | +23 4.8 | 4.391 | 5.294 | 5.2 | 19.7 | 9 18 | 0 43.26 | + 8 38.1 | 2.305 | 3.274 | 5.6 | 21.3 |
| 9 28 | 0 35.89 | +22 54.0 | 4.346 | 5.292 | 3.9 | 19.6 | 9 28 | 0 36.56 | + 7 33.7 | 2.271 | 3.268 | 2.2 | 21.1 |
| 10 8 | 0 30.44 | +22 34.3 | 4.329 | 5.290 | 3.3 | 19.5 | 10 8 | 0 29.56 | + 6 23.7 | 2.267 | 3.262 | 1.9 | 21.1 |
| 10 18 | 0 25.19 | +22 7.2 | 4.341 | 5.287 | 3.7 | 19.6 | 10 18 | 0 22.97 | + 5 13.6 | 2.292 | 3.256 | 5.3 | 21.3 |
| 10 28 | 0 20.51 | +21 35.2 | 4.383 | 5.285 | 5.0 | 19.6 | 10 28 | 0 17.45 | + 4 9.1 | 2.345 | 3.249 | 8.6 | 21.5 |
| 11 7 | 0 16.72 | +21 1.2 | 4.451 | 5.282 | 6.4 | 19.7 | 11 7 | 0 13.51 | + 3 14.7 | 2.424 | 3.243 | 11.4 | 21.7 |
| 518572 | 2007 <i>HG</i> ₉₉ | 10 | 2.2 231°64 | 1°2/30.7 | 18 | | 72593 | 2001 <i>FA</i> ₆ | 10 | 2.2 104°27 | 1°8/3.6 | 18 | |
| 8 29 | 0 52.97 | + 3 26.5 | 2.299 | | | | | | | | | | |

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10 2.2

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|--------------|---------|------|---------------|------------------------|-----------------|------------|--------------|---------|------|
| 116195 | 2003 XY ₁₁ | 10 | 2.2 186°02 | 5°1/ 8.9 18 | | | 45523 | 2000 BU ₄₇ | 10 | 2.2 65°12 | 0°3/ 2.5 18 | | |
| 8 29 | 0 54.90 | +24 46.5 | 2.196 | 2.959 | 14.9 | 19.5 | 8 29 | 0 54.98 | + 6 42.5 | 2.167 | 3.016 | 12.3 | 19.1 |
| 9 8 | 0 50.45 | +24 7.9 | 2.108 | 2.958 | 12.4 | 19.3 | 9 8 | 0 50.27 | + 6 15.7 | 2.107 | 3.031 | 9.1 | 18.9 |
| 9 18 | 0 44.23 | +23 4.1 | 2.040 | 2.958 | 9.5 | 19.1 | 9 18 | 0 44.00 | + 5 38.2 | 2.071 | 3.046 | 5.6 | 18.7 |
| 9 28 | 0 36.86 | +21 35.8 | 1.996 | 2.957 | 6.7 | 19.0 | 9 28 | 0 36.78 | + 4 53.7 | 2.063 | 3.062 | 1.8 | 18.5 |
| 10 8 | 0 29.18 | +19 47.4 | 1.981 | 2.956 | 5.1 | 18.9 | 10 8 | 0 29.37 | + 4 6.8 | 2.082 | 3.077 | 2.1 | 18.6 |
| 10 18 | 0 22.04 | +17 45.9 | 1.994 | 2.955 | 6.2 | 18.9 | 10 18 | 0 22.55 | + 3 22.5 | 2.131 | 3.093 | 5.8 | 18.9 |
| 10 28 | 0 16.25 | +15 40.8 | 2.037 | 2.954 | 9.0 | 19.1 | 10 28 | 0 17.00 | + 2 45.6 | 2.206 | 3.108 | 9.1 | 19.1 |
| 11 7 | 0 12.37 | +13 41.4 | 2.106 | 2.952 | 11.9 | 19.3 | 11 7 | 0 13.20 | + 2 19.4 | 2.306 | 3.124 | 12.0 | 19.3 |
| 65267 | 2002 GR ₂₂ | 10 | 2.2 101°27 | 3°3/ 5.7 18 | | | 354487 | 2004 EC ₇₆ | 10 | 2.2 217°10 | 2°6/ 4.6 18 | | |
| 8 29 | 0 57.25 | +16 22.6 | 1.894 | 2.709 | 15.1 | 19.5 | 8 29 | 1 1.01 | +12 0.6 | 2.351 | 3.165 | 12.6 | 20.9 |
| 9 8 | 0 52.21 | +15 58.8 | 1.830 | 2.724 | 11.9 | 19.3 | 9 8 | 0 54.86 | +12 17.7 | 2.261 | 3.158 | 9.8 | 20.7 |
| 9 18 | 0 45.28 | +15 14.8 | 1.787 | 2.740 | 8.3 | 19.1 | 9 18 | 0 46.90 | +12 22.7 | 2.194 | 3.151 | 6.7 | 20.5 |
| 9 28 | 0 37.16 | +14 12.9 | 1.770 | 2.755 | 4.7 | 18.9 | 9 28 | 0 37.70 | +12 16.1 | 2.155 | 3.144 | 3.6 | 20.3 |
| 10 8 | 0 28.80 | +12 58.4 | 1.780 | 2.770 | 3.4 | 18.9 | 10 8 | 0 28.04 | +12 0.1 | 2.145 | 3.135 | 2.9 | 20.2 |
| 10 18 | 0 21.15 | +11 38.5 | 1.819 | 2.785 | 6.2 | 19.1 | 10 18 | 0 18.80 | +11 38.2 | 2.164 | 3.127 | 5.7 | 20.4 |
| 10 28 | 0 15.05 | +10 21.0 | 1.884 | 2.799 | 9.7 | 19.3 | 10 28 | 0 10.82 | +11 14.8 | 2.212 | 3.118 | 8.9 | 20.6 |
| 11 7 | 0 11.05 | + 9 12.9 | 1.974 | 2.813 | 12.8 | 19.6 | 11 7 | 0 4.71 | +10 54.7 | 2.286 | 3.109 | 11.9 | 20.8 |
| 274284 | 2008 QM ₆ | 10 | 2.2 131°12 | 1°3/ 3.6 18 | | | 58002 | 2002 TM ₁₇₅ | 10 | 2.2 148°08 | 5°3/ 26.9 18 | | |
| 8 29 | 0 55.91 | +12 14.2 | 1.813 | 2.651 | 14.8 | 20.7 | 8 29 | 0 59.63 | -11 15.3 | 2.142 | 3.012 | 11.6 | 19.3 |
| 9 8 | 0 51.31 | +11 10.4 | 1.745 | 2.659 | 11.3 | 20.5 | 9 8 | 0 53.72 | -12 4.8 | 2.087 | 3.019 | 8.8 | 19.1 |
| 9 18 | 0 44.77 | + 9 47.0 | 1.699 | 2.668 | 7.2 | 20.3 | 9 18 | 0 46.08 | -12 51.6 | 2.057 | 3.025 | 6.3 | 19.0 |
| 9 28 | 0 37.02 | + 8 8.5 | 1.680 | 2.676 | 2.9 | 20.1 | 9 28 | 0 37.41 | -13 29.5 | 2.055 | 3.030 | 5.3 | 18.9 |
| 10 8 | 0 28.99 | + 6 22.9 | 1.688 | 2.684 | 2.4 | 20.0 | 10 8 | 0 28.53 | -13 53.4 | 2.080 | 3.035 | 6.7 | 19.0 |
| 10 18 | 0 21.63 | + 4 39.2 | 1.726 | 2.691 | 6.6 | 20.3 | 10 18 | 0 20.31 | -14 0.0 | 2.133 | 3.040 | 9.3 | 19.2 |
| 10 28 | 0 15.82 | + 3 6.1 | 1.791 | 2.698 | 10.6 | 20.6 | 10 28 | 0 13.52 | -13 47.9 | 2.211 | 3.045 | 12.0 | 19.4 |
| 11 7 | 0 12.10 | + 1 49.9 | 1.879 | 2.704 | 14.0 | 20.8 | 11 7 | 0 8.66 | -13 18.1 | 2.310 | 3.049 | 14.3 | 19.5 |
| 508000 | 2015 BL ₂₅₂ | 10 | 2.2 149°02 | 1°4/ 3.4 17 | | | 298060 | 2002 QM ₈₄ | 10 | 2.2 334°28 | 3°1/ 5.0 18 | | |
| 8 29 | 0 59.77 | +10 2.4 | 1.749 | 2.590 | 15.1 | 21.7 | 8 29 | 0 56.74 | +13 37.1 | 1.786 | 2.617 | 15.2 | 20.8 |
| 9 8 | 0 54.24 | + 9 35.9 | 1.681 | 2.598 | 11.5 | 21.5 | 9 8 | 0 52.11 | +13 35.0 | 1.709 | 2.615 | 11.9 | 20.6 |
| 9 18 | 0 46.60 | + 8 53.0 | 1.635 | 2.605 | 7.3 | 21.3 | 9 18 | 0 45.39 | +13 14.8 | 1.654 | 2.614 | 8.2 | 20.3 |
| 9 28 | 0 37.58 | + 7 56.8 | 1.615 | 2.611 | 2.9 | 21.0 | 9 28 | 0 37.26 | +12 37.9 | 1.623 | 2.612 | 4.4 | 20.1 |
| 10 8 | 0 28.22 | + 6 53.6 | 1.622 | 2.617 | 2.5 | 21.0 | 10 8 | 0 28.68 | +11 48.4 | 1.619 | 2.611 | 3.3 | 20.1 |
| 10 18 | 0 19.58 | + 5 50.2 | 1.658 | 2.622 | 6.8 | 21.3 | 10 18 | 0 20.69 | +10 52.7 | 1.642 | 2.609 | 6.6 | 20.3 |
| 10 28 | 0 12.61 | + 4 54.1 | 1.720 | 2.627 | 10.9 | 21.6 | 10 28 | 0 14.27 | + 9 57.9 | 1.691 | 2.608 | 10.5 | 20.5 |
| 11 7 | 0 7.95 | + 4 10.7 | 1.805 | 2.631 | 14.4 | 21.8 | 11 7 | 0 10.08 | + 9 10.8 | 1.764 | 2.607 | 14.0 | 20.7 |
| 190307 | 1997 RA ₁₃ | 10 | 2.2 110°94 | 0°3/ 1.8 18 | | | 357576 | 2004 TH ₁₇₄ | 10 | 2.2 74°12 | 0°7/ 1.6 18 | | |
| 8 29 | 0 53.76 | + 5 27.5 | 2.498 | 3.346 | 10.9 | 21.0 | 8 29 | 1 0.68 | + 1 44.9 | 2.101 | 2.955 | 12.4 | 20.1 |
| 9 8 | 0 49.22 | + 4 45.3 | 2.432 | 3.357 | 8.0 | 20.8 | 9 8 | 0 54.49 | + 1 45.9 | 2.041 | 2.969 | 9.1 | 19.9 |
| 9 18 | 0 43.31 | + 3 54.1 | 2.392 | 3.368 | 4.8 | 20.6 | 9 18 | 0 46.55 | + 1 40.8 | 2.005 | 2.982 | 5.5 | 19.7 |
| 9 28 | 0 36.56 | + 2 57.5 | 2.380 | 3.379 | 1.4 | 20.4 | 9 28 | 0 37.55 | + 1 32.5 | 1.996 | 2.996 | 1.6 | 19.5 |
| 10 8 | 0 29.63 | + 2 0.2 | 2.397 | 3.390 | 2.2 | 20.5 | 10 8 | 0 28.34 | + 1 24.6 | 2.017 | 3.010 | 2.6 | 19.6 |
| 10 18 | 0 23.17 | + 1 7.0 | 2.443 | 3.400 | 5.5 | 20.7 | 10 18 | 0 19.80 | + 1 20.4 | 2.067 | 3.023 | 6.4 | 19.9 |
| 10 28 | 0 17.81 | + 0 22.2 | 2.517 | 3.411 | 8.5 | 21.0 | 10 28 | 0 12.71 | + 1 23.0 | 2.144 | 3.037 | 9.8 | 20.1 |
| 11 7 | 0 13.96 | - 0 11.2 | 2.616 | 3.421 | 11.1 | 21.1 | 11 7 | 0 7.58 | + 1 34.6 | 2.244 | 3.050 | 12.7 | 20.3 |
| 243548 | 2010 JN ₇₃ | 10 | 2.2 94°50 | 0°5/ 2.7 18 | | | 210035 | Jungli | 10 | 2.2 2°01 | 3°8/ 28.6 18 | | |
| 8 29 | 0 57.24 | + 7 57.3 | 1.912 | 2.760 | 13.7 | 21.2 | 8 29 | 0 54.80 | - 3 4.5 | 1.644 | 2.529 | 13.7 | 20.3 |
| 9 8 | 0 52.12 | + 7 24.5 | 1.853 | 2.775 | 10.3 | 21.0 | 9 8 | 0 50.66 | - 4 10.6 | 1.583 | 2.528 | 10.0 | 20.1 |
| 9 18 | 0 45.18 | + 6 38.3 | 1.817 | 2.791 | 6.3 | 20.8 | 9 18 | 0 44.47 | - 5 22.9 | 1.546 | 2.528 | 6.2 | 19.8 |
| 9 28 | 0 37.13 | + 5 43.0 | 1.807 | 2.806 | 2.1 | 20.6 | 9 28 | 0 36.97 | - 6 33.7 | 1.535 | 2.528 | 3.8 | 19.7 |
| 10 8 | 0 28.87 | + 4 44.1 | 1.826 | 2.821 | 2.3 | 20.6 | 10 8 | 0 29.12 | - 7 34.6 | 1.550 | 2.529 | 5.8 | 19.8 |
| 10 18 | 0 21.31 | + 3 48.0 | 1.873 | 2.836 | 6.4 | 20.9 | 10 18 | 0 21.96 | - 8 19.2 | 1.591 | 2.529 | 9.6 | 20.1 |
| 10 28 | 0 15.23 | + 3 0.4 | 1.947 | 2.851 | 10.1 | 21.2 | 10 28 | 0 16.41 | - 8 43.0 | 1.656 | 2.530 | 13.2 | 20.3 |
| 11 7 | 0 11.18 | + 2 25.5 | 2.044 | 2.865 | 13.2 | 21.4 | 11 7 | 0 13.07 | - 8 45.0 | 1.741 | 2.532 | 16.4 | 20.5 |
| 265152 | 2003 WH ₃₄ | 10 | 2.2 309°26 | 0°3/ 2.5 18 | | | 304501 | 2006 UM ₁₆₂ | 10 | 2.2 346°20 | 2°9/ 29.6 18 | | |
| 8 29 | 0 54.37 | + 6 7.7 | 2.160 | 3.012 | 12.2 | 20.4 | 8 29 | 0 56.92 | - 2 23.6 | 1.807 | 2.683 | 13.1 | 20.4 |
| 9 8 | 0 50.05 | + 5 50.3 | 2.073 | 2.999 | 9.2 | 20.2 | 9 8 | 0 52.09 | - 3 0.5 | 1.741 | 2.681 | 9.6 | 20.2 |
| 9 18 | 0 44.02 | + 5 22.2 | 2.009 | 2.985 | 5.6 | 19.9 | 9 18 | 0 45.28 | - 3 42.7 | 1.698 | 2.680 | 5.8 | 20.0 |
| 9 28 | 0 36.82 | + 4 46.4 | 1.972 | 2.972 | 1.8 | 19.7 | 9 28 | 0 37.20 | - 4 24.4 | 1.682 | 2.678 | 3.0 | 19.8 |
| 10 8 | 0 29.22 | + 4 7.1 | 1.964 | 2.958 | 2.2 | 19.7 | 10 8 | 0 28.79 | - 4 59.6 | 1.693 | 2.677 | 4.7 | 19.9 |
| 10 18 | 0 22.02 | + 3 29.3 | 1.983 | 2.945 | 6.1 | 19.9 | 10 18 | 0 21.01 | - 5 23.0 | 1.731 | 2.676 | 8.4 | 20.1 |
| 10 28 | 0 16.03 | + 2 57.8 | 2.029 | 2.933 | 9.7 | 20.1 | 10 28 | 0 14.75 | - 5 31.0 | 1.794 | 2.675 | 12.0 | 20.3 |
| 11 7 | 0 11.84 | + 2 36.6 | 2.099 | 2.920 | 12.9 | 20.3 | 11 7 | 0 10.62 | - 5 22.2 | 1.878 | 2.674 | 15.1 | 20.5 |
| 406758 | 2008 JW ₃₉ | 10 | 2.2 42°74 | 5°5/ 26.6 18 | | | 81023 | 2000 ER ₄₂ | 10 | 2.2 37°10 | 0°6/ 1.8 18 | | |
| 8 29 | 0 56.21 | -11 2.2 | 1.996 | 2.876 | 11.9 | 20.9 | 8 29 | 1 1.19 | + 2 47.1 | 1.202 | 2.083 | 17.9 | 18.1 |
| 9 8 | 0 51.31 | -11 58.2 | 1.946 | 2.882 | 9.0 | 20.7 | 9 8 | 0 55.84 | + 2 46.6 | 1.155 | 2.096 | 13.3 | 17.9 |
| 9 18 | 0 44.67 | -12 51.7 | 1.919 | 2.888 | 6.5 | 20.6 | 9 18 | 0 47.75 | + 2 34.8 | 1.128 | 2.110 | 8.0 | 17.6 |
| 9 28 | 0 36.98 | -13 36.0 | 1.919 | 2.895 | 5.6 | 20.6 | 9 28 | 0 37.94 | + 2 16.3 | 1.125 | 2.125 | 2.3 | 17.4 |
| 10 8 | 0 29.09 | -14 5.5 | 1.946 | 2.901 | 7.1 | 20.7 | 10 8 | 0 27.86 | + 1 57.5 | 1.146 | 2.141 | 3.6 | 17.5 |
| 10 18 | 0 21.86 | -14 16.4 | 1.999 | 2.908 | 9.7 | 20.9 | 10 18 | 0 18.94 | + 1 44.8 | 1.192 | 2.157 | 9.0 | 17.9 |
| 10 28 | 0 16.05 | -14 7.3 | 2.076 | 2.915 | 12.4 | 21.1 | 10 28 | 0 12.35 | + 1 43.3 | 1.262 | 2.173 | 13.7 | 18.2 |
| 11 7 | 0 12.17 | -13 39.1 | 2.174 | 2.922 | 14.8 | 21.2 | 11 7 | 0 8.73 | + 1 55.8 | 1.351 | 2.191 | 17.6 | 18.5 |
| 67000 | 1999 XT ₁₁₆ | 10 | 2.2 240°41 | 4°4/ 5.9 18 | | | 39029 | 2000 UP ₇₂ | 10 | 2.2 25°42 | 3°9/ 5.3 18 | | |
| 8 29 | 0 58.53 | +16 36.6 | 1.574 | 2.398 | 17.3 | 19.7 | 8 29 | 0 53.96 | +14 15.7 | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 400965 | 2010 <i>WA</i> ₃ | 10 | 2.2 333°11 | 4.7/28.2 | 18 | | 352218 | 2007 <i>TP</i> ₃₀ | 10 | 2.2 96°01 | 4.0/28.9 | 18 | |
| 8 29 | 0 56.96 | - 7 40.5 | 1.776 | 2.658 | 13.0 | 19.9 | 8 29 | 1 2.38 | - 6 56.5 | 1.885 | 2.754 | 12.9 | 20.4 |
| 9 8 | 0 52.21 | - 8 16.7 | 1.707 | 2.648 | 9.7 | 19.7 | 9 8 | 0 55.86 | - 7 23.5 | 1.834 | 2.769 | 9.6 | 20.3 |
| 9 18 | 0 45.41 | - 8 53.4 | 1.662 | 2.639 | 6.4 | 19.5 | 9 18 | 0 47.42 | - 7 50.6 | 1.807 | 2.783 | 6.1 | 20.1 |
| 9 28 | 0 37.27 | - 9 24.2 | 1.642 | 2.630 | 4.7 | 19.4 | 9 28 | 0 37.84 | - 8 12.0 | 1.807 | 2.797 | 4.0 | 20.0 |
| 10 8 | 0 28.73 | - 9 43.0 | 1.649 | 2.621 | 6.4 | 19.5 | 10 8 | 0 28.12 | - 8 22.9 | 1.836 | 2.811 | 5.5 | 20.1 |
| 10 18 | 0 20.81 | - 9 45.5 | 1.682 | 2.613 | 9.7 | 19.6 | 10 18 | 0 19.21 | - 8 20.1 | 1.892 | 2.824 | 8.7 | 20.3 |
| 10 28 | 0 14.44 | - 9 29.3 | 1.739 | 2.605 | 13.1 | 19.8 | 10 28 | 0 11.97 | - 8 1.8 | 1.974 | 2.838 | 11.9 | 20.6 |
| 11 7 | 0 10.26 | - 8 54.5 | 1.816 | 2.598 | 16.1 | 20.0 | 11 7 | 0 6.92 | - 7 28.7 | 2.078 | 2.851 | 14.6 | 20.8 |
| 475373 | 2006 <i>DV</i> ₁₆₅ | 10 | 2.2 149°61 | 2°2/29.9 | 18 | | 252053 | 2000 <i>SN</i> ₁₇ | 10 | 2.2 323°27 | 3°0/3.9 | 18 | |
| 8 29 | 0 56.55 | + 0 50.2 | 1.827 | 2.697 | 13.3 | 21.9 | 8 29 | 0 59.29 | + 9 40.8 | 1.162 | 2.031 | 19.3 | 19.8 |
| 9 8 | 0 51.76 | - 0 9.2 | 1.763 | 2.701 | 9.7 | 21.7 | 9 8 | 0 55.14 | + 10 9.4 | 1.087 | 2.016 | 15.1 | 19.5 |
| 9 18 | 0 45.07 | - 1 17.6 | 1.722 | 2.704 | 5.7 | 21.5 | 9 18 | 0 47.82 | + 10 19.7 | 1.030 | 2.003 | 10.0 | 19.2 |
| 9 28 | 0 37.15 | - 2 28.7 | 1.709 | 2.707 | 2.4 | 21.3 | 9 28 | 0 38.15 | + 10 11.9 | 0.995 | 1.990 | 4.8 | 18.9 |
| 10 8 | 0 28.92 | - 3 35.2 | 1.723 | 2.709 | 4.2 | 21.4 | 10 8 | 0 27.53 | + 9 50.0 | 0.983 | 1.978 | 3.9 | 18.8 |
| 10 18 | 0 21.34 | - 4 30.4 | 1.765 | 2.712 | 8.1 | 21.7 | 10 18 | 0 17.64 | + 9 20.7 | 0.995 | 1.966 | 9.2 | 19.1 |
| 10 28 | 0 15.27 | - 5 9.4 | 1.832 | 2.714 | 11.8 | 21.9 | 10 28 | 0 10.06 | + 8 53.1 | 1.030 | 1.956 | 14.6 | 19.3 |
| 11 7 | 0 11.27 | - 5 29.6 | 1.921 | 2.716 | 14.9 | 22.1 | 11 7 | 0 5.82 | + 8 35.2 | 1.083 | 1.946 | 19.3 | 19.6 |
| 225115 | 2008 <i>EY</i> ₄₁ | 10 | 2.2 52°79 | 1°8/1.0 | 16 | | 72073 | 2000 <i>YE</i> ₃₅ | 10 | 2.2 299°80 | 3°8/4.6 | 18 | |
| 8 29 | 1 1.80 | + 0 41.5 | 1.313 | 2.192 | 16.8 | 20.2 | 8 29 | 0 59.59 | + 12 9.1 | 1.348 | 2.199 | 18.2 | 19.0 |
| 9 8 | 0 56.15 | + 0 25.8 | 1.262 | 2.203 | 12.4 | 20.0 | 9 8 | 0 55.21 | + 12 33.0 | 1.257 | 2.175 | 14.4 | 18.7 |
| 9 18 | 0 47.89 | + 0 1.1 | 1.233 | 2.215 | 7.4 | 19.7 | 9 18 | 0 47.85 | + 12 37.6 | 1.185 | 2.151 | 10.0 | 18.4 |
| 9 28 | 0 37.99 | - 0 26.7 | 1.227 | 2.227 | 2.4 | 19.5 | 9 28 | 0 38.18 | + 12 22.3 | 1.136 | 2.127 | 5.4 | 18.1 |
| 10 8 | 0 27.82 | - 0 50.9 | 1.248 | 2.239 | 4.2 | 19.6 | 10 8 | 0 27.44 | + 11 50.1 | 1.111 | 2.103 | 4.3 | 17.9 |
| 10 18 | 0 18.70 | - 1 5.5 | 1.293 | 2.252 | 9.2 | 19.9 | 10 18 | 0 17.14 | + 11 7.3 | 1.111 | 2.080 | 8.7 | 18.1 |
| 10 28 | 0 11.79 | - 1 6.1 | 1.363 | 2.264 | 13.7 | 20.2 | 10 28 | 0 8.83 | + 10 22.9 | 1.134 | 2.057 | 13.9 | 18.3 |
| 11 7 | 0 7.70 | - 0 50.9 | 1.453 | 2.277 | 17.4 | 20.5 | 11 7 | 0 3.61 | + 9 46.1 | 1.178 | 2.034 | 18.6 | 18.5 |
| 67066 | 1999 <i>YO</i> | 10 | 2.2 345°39 | 23°2/31.4 | 17 | | 127378 | 2002 <i>KZ</i> ₂ | 10 | 2.2 56°60 | 1°0/1.1 | 18 | |
| 8 29 | 0 49.22 | -36 40.1 | 0.808 | 1.701 | 23.2 | 17.8 | 8 29 | 0 55.59 | + 2 37.0 | 2.014 | 2.878 | 12.5 | 19.6 |
| 9 8 | 0 48.68 | -41 6.9 | 0.804 | 1.692 | 23.5 | 17.8 | 9 8 | 0 50.82 | + 2 4.3 | 1.959 | 2.893 | 9.1 | 19.4 |
| 9 18 | 0 44.18 | -44 40.8 | 0.816 | 1.685 | 24.9 | 17.8 | 9 18 | 0 44.39 | + 1 23.5 | 1.928 | 2.908 | 5.4 | 19.2 |
| 9 28 | 0 36.99 | -47 1.9 | 0.843 | 1.679 | 26.9 | 18.0 | 9 28 | 0 36.95 | + 0 39.1 | 1.923 | 2.923 | 1.6 | 19.0 |
| 10 8 | 0 29.21 | -48 3.0 | 0.880 | 1.674 | 29.0 | 18.1 | 10 8 | 0 29.33 | - 0 3.8 | 1.947 | 2.938 | 2.9 | 19.1 |
| 10 18 | 0 22.94 | -47 47.7 | 0.926 | 1.671 | 30.9 | 18.3 | 10 18 | 0 22.35 | - 0 40.0 | 1.998 | 2.954 | 6.7 | 19.4 |
| 10 28 | 0 19.82 | -46 26.5 | 0.979 | 1.669 | 32.5 | 18.4 | 10 28 | 0 16.74 | - 1 5.5 | 2.076 | 2.969 | 10.1 | 19.6 |
| 11 7 | 0 20.49 | -44 12.7 | 1.037 | 1.668 | 33.8 | 18.6 | 11 7 | 0 12.99 | - 1 17.8 | 2.177 | 2.985 | 12.9 | 19.8 |
| 210607 | 2000 <i>AF</i> ₁₁₅ | 10 | 2.2 322°68 | 8°7/23.4 | 18 | | 393604 | 2003 <i>UP</i> ₂₉₈ | 10 | 2.2 330°50 | 0°1/2.1 | 18 | |
| 8 29 | 0 51.55 | -11 26.1 | 1.353 | 2.258 | 14.8 | 19.1 | 8 29 | 0 57.80 | + 4 32.4 | 1.584 | 2.451 | 15.1 | 21.0 |
| 9 8 | 0 48.93 | -13 26.6 | 1.282 | 2.231 | 11.6 | 18.8 | 9 8 | 0 53.11 | + 4 21.3 | 1.511 | 2.444 | 11.3 | 20.7 |
| 9 18 | 0 43.81 | -15 30.3 | 1.234 | 2.204 | 9.1 | 18.6 | 9 18 | 0 46.11 | + 3 58.5 | 1.459 | 2.438 | 6.9 | 20.5 |
| 9 28 | 0 36.88 | -17 23.9 | 1.209 | 2.178 | 9.0 | 18.5 | 9 28 | 0 37.54 | + 3 27.5 | 1.433 | 2.432 | 2.0 | 20.2 |
| 10 8 | 0 29.25 | -18 54.0 | 1.207 | 2.152 | 11.6 | 18.6 | 10 8 | 0 28.48 | + 2 54.2 | 1.432 | 2.427 | 3.0 | 20.2 |
| 10 18 | 0 22.21 | -19 50.5 | 1.228 | 2.128 | 15.2 | 18.7 | 10 18 | 0 20.06 | + 2 24.5 | 1.459 | 2.422 | 7.8 | 20.5 |
| 10 28 | 0 16.97 | -20 9.1 | 1.268 | 2.104 | 18.9 | 18.9 | 10 28 | 0 13.37 | + 2 4.2 | 1.510 | 2.417 | 12.2 | 20.7 |
| 11 7 | 0 14.39 | -19 50.6 | 1.324 | 2.082 | 22.2 | 19.1 | 11 7 | 0 9.12 | + 1 57.3 | 1.583 | 2.413 | 15.9 | 21.0 |
| 473319 | 2015 <i>RC</i> ₂₂₂ | 10 | 2.2 72°33 | 0°6/1.5 | 18 | | 96594 | 1998 <i>XA</i> ₂₂ | 10 | 2.2 280°89 | 2°3/4.9 | 18 | |
| 8 29 | 0 53.52 | + 5 44.5 | 2.019 | 2.877 | 12.7 | 21.0 | 8 29 | 0 54.31 | + 13 7.9 | 2.398 | 3.219 | 12.2 | 19.6 |
| 9 8 | 0 49.36 | + 4 45.5 | 1.955 | 2.885 | 9.3 | 20.8 | 9 8 | 0 49.91 | + 12 59.3 | 2.307 | 3.208 | 9.5 | 19.4 |
| 9 18 | 0 43.54 | + 3 34.4 | 1.914 | 2.893 | 5.6 | 20.6 | 9 18 | 0 43.92 | + 12 36.9 | 2.239 | 3.197 | 6.5 | 19.2 |
| 9 28 | 0 36.69 | + 2 16.4 | 1.901 | 2.901 | 1.6 | 20.3 | 9 28 | 0 36.85 | + 12 1.9 | 2.197 | 3.187 | 3.4 | 19.0 |
| 10 8 | 0 29.60 | + 0 58.3 | 1.916 | 2.909 | 2.7 | 20.4 | 10 8 | 0 29.41 | + 11 17.7 | 2.184 | 3.176 | 2.6 | 18.9 |
| 10 18 | 0 23.08 | - 0 13.5 | 1.960 | 2.917 | 6.6 | 20.7 | 10 18 | 0 22.35 | + 10 28.6 | 2.200 | 3.166 | 5.3 | 19.1 |
| 10 28 | 0 17.87 | - 1 12.9 | 2.030 | 2.925 | 10.1 | 20.9 | 10 28 | 0 16.39 | + 9 39.9 | 2.243 | 3.155 | 8.5 | 19.2 |
| 11 7 | 0 14.48 | - 1 56.3 | 2.123 | 2.933 | 13.1 | 21.1 | 11 7 | 0 12.09 | + 8 56.9 | 2.311 | 3.144 | 11.4 | 19.4 |
| 69741 | 1998 <i>KR</i> ₄₃ | 10 | 2.2 90°83 | 15°9/20.4 | 18 | | 124554 | 2001 <i>RO</i> ₁₃₆ | 10 | 2.2 336°32 | 4°3/28.7 | 18 | |
| 8 29 | 1 11.50 | -36 49.9 | 1.516 | 2.337 | 18.0 | 18.1 | 8 29 | 0 55.18 | - 2 40.4 | 1.311 | 2.206 | 15.8 | 19.1 |
| 9 8 | 1 3.05 | -38 12.9 | 1.505 | 2.353 | 16.6 | 18.0 | 9 8 | 0 51.49 | - 3 46.8 | 1.248 | 2.198 | 11.7 | 18.8 |
| 9 18 | 0 51.78 | -39 5.0 | 1.513 | 2.369 | 16.0 | 18.0 | 9 18 | 0 45.25 | - 5 2.0 | 1.207 | 2.191 | 7.2 | 18.5 |
| 9 28 | 0 39.06 | -39 16.5 | 1.541 | 2.385 | 16.2 | 18.1 | 9 28 | 0 37.30 | - 6 16.6 | 1.189 | 2.184 | 4.3 | 18.4 |
| 10 8 | 0 26.58 | -38 43.8 | 1.588 | 2.401 | 17.1 | 18.2 | 10 8 | 0 28.84 | - 7 20.3 | 1.197 | 2.178 | 6.7 | 18.5 |
| 10 18 | 0 15.81 | -37 29.5 | 1.655 | 2.416 | 18.5 | 18.4 | 10 18 | 0 21.16 | - 8 4.5 | 1.228 | 2.173 | 11.2 | 18.7 |
| 10 28 | 0 7.81 | -35 40.6 | 1.739 | 2.431 | 20.0 | 18.5 | 10 28 | 0 15.44 | - 8 24.0 | 1.282 | 2.168 | 15.5 | 19.0 |
| 11 7 | 0 3.03 | -33 26.3 | 1.838 | 2.446 | 21.3 | 18.7 | 11 7 | 0 12.41 | - 8 17.4 | 1.354 | 2.164 | 19.2 | 19.2 |
| 120658 | 1996 <i>UQ</i> ₂ | 10 | 2.2 250°06 | 2°8/4.8 | 18 | | 294890 | 2008 <i>DO</i> ₈ | 10 | 2.2 86°19 | 2°3/30.2 | 18 | |
| 8 29 | 0 57.01 | + 14 36.9 | 1.628 | 2.461 | 16.4 | 20.6 | 8 29 | 0 58.19 | + 1 46.0 | 1.443 | 2.321 | 15.7 | 20.3 |
| 9 8 | 0 52.62 | + 14 3.6 | 1.541 | 2.449 | 12.9 | 20.3 | 9 8 | 0 53.33 | + 0 43.6 | 1.391 | 2.332 | 11.5 | 20.1 |
| 9 18 | 0 45.88 | + 13 6.6 | 1.475 | 2.437 | 8.8 | 20.1 | 9 18 | 0 46.14 | - 0 30.1 | 1.360 | 2.342 | 6.8 | 19.8 |
| 9 28 | 0 37.48 | + 11 48.0 | 1.433 | 2.424 | 4.5 | 19.8 | 9 28 | 0 37.51 | - 1 47.5 | 1.354 | 2.353 | 2.6 | 19.6 |
| 10 8 | 0 28.48 | + 10 14.1 | 1.418 | 2.411 | 3.2 | 19.7 | 10 8 | 0 28.61 | - 2 59.3 | 1.375 | 2.364 | 4.6 | 19.8 |
| 10 18 | 0 20.05 | + 8 34.1 | 1.430 | 2.398 | 7.3 | 19.9 | 10 18 | 0 20.60 | - 3 57.4 | 1.422 | 2.374 | 9.2 | 20.1 |
| 10 28 | 0 13.30 | + 6 58.7 | 1.468 | 2.385 | 11.8 | 20.1 | 10 28 | 0 14.50 | - 4 35.9 | 1.493 | 2.385 | 13.4 | 20.3 |
| 11 7 | 0 9.02 | + 5 36.9 | 1.529 | 2.371 | 15.8 | 20.4 | 11 7 | 0 10.91 | - 4 52.6 | 1.585 | 2.395 | 16.8 | 20.6 |
| 328282 | 2008 <i>GC</i> ₈₇ | 10 | 2.2 37°37 | 2°4/30.5 | 15 | | 35004 | | | | | | |

EPHEMERIDES

10 2.2

10 2.2

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|-----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 116954 | 2004 <i>HS</i> ₁ | 10 | 2.2 | 26°12 | 1.7°/29.0 | 17 | 446186 | 2013 <i>FM</i> ₁₇ | 10 | 2.2 | 90°36 | 0.2°/ 1.9 | 18 |
| 8 29 | 0 48.02 | - 2 43.5 | 3.846 | 4.711 | 7.0 | 19.6 | 8 29 | 0 54.99 | + 5 27.9 | 2.084 | 2.939 | 12.5 | 21.6 |
| 9 8 | 0 44.67 | - 3 24.9 | 3.779 | 4.715 | 5.1 | 19.5 | 9 8 | 0 50.47 | + 4 52.3 | 2.013 | 2.941 | 9.2 | 21.4 |
| 9 18 | 0 40.48 | - 4 8.7 | 3.739 | 4.718 | 3.1 | 19.3 | 9 18 | 0 44.27 | + 4 5.8 | 1.966 | 2.944 | 5.6 | 21.2 |
| 9 28 | 0 35.79 | - 4 52.0 | 3.728 | 4.722 | 1.7 | 19.2 | 9 28 | 0 36.98 | + 3 12.4 | 1.946 | 2.946 | 1.6 | 20.9 |
| 10 8 | 0 30.96 | - 5 31.8 | 3.747 | 4.726 | 2.7 | 19.3 | 10 8 | 0 29.41 | + 2 17.5 | 1.954 | 2.948 | 2.5 | 21.0 |
| 10 18 | 0 26.38 | - 6 5.6 | 3.795 | 4.730 | 4.6 | 19.5 | 10 18 | 0 22.36 | + 1 26.7 | 1.991 | 2.951 | 6.3 | 21.2 |
| 10 28 | 0 22.44 | - 6 31.2 | 3.871 | 4.735 | 6.6 | 19.6 | 10 28 | 0 16.61 | + 0 45.2 | 2.054 | 2.953 | 9.9 | 21.5 |
| 11 7 | 0 19.42 | - 6 47.3 | 3.972 | 4.739 | 8.3 | 19.7 | 11 7 | 0 12.69 | + 0 16.5 | 2.141 | 2.955 | 12.9 | 21.7 |
| 129925 | 1999 <i>TM</i> ₁₂₇ | 10 | 2.2 | 78°00 | 0°3/ 2.6 | 18 | 407000 | 2009 <i>RO</i> ₅₇ | 10 | 2.2 | 305°55 | 0°1/ 2.1 | 17 |
| 8 29 | 0 56.15 | + 7 49.3 | 1.711 | 2.567 | 14.7 | 19.7 | 8 29 | 0 59.47 | + 3 15.7 | 2.151 | 3.002 | 12.3 | 21.2 |
| 9 8 | 0 51.62 | + 7 9.7 | 1.646 | 2.573 | 11.0 | 19.5 | 9 8 | 0 53.82 | + 3 22.4 | 2.069 | 2.995 | 9.2 | 21.0 |
| 9 18 | 0 45.06 | + 6 14.8 | 1.603 | 2.579 | 6.8 | 19.3 | 9 18 | 0 46.34 | + 3 22.1 | 2.011 | 2.987 | 5.6 | 20.7 |
| 9 28 | 0 37.21 | + 5 9.2 | 1.586 | 2.585 | 2.2 | 19.0 | 9 28 | 0 37.63 | + 3 17.2 | 1.980 | 2.980 | 1.7 | 20.5 |
| 10 8 | 0 29.03 | + 3 59.8 | 1.596 | 2.591 | 2.6 | 19.1 | 10 8 | 0 28.51 | + 3 10.8 | 1.978 | 2.972 | 2.4 | 20.5 |
| 10 18 | 0 21.54 | + 2 54.0 | 1.633 | 2.597 | 7.1 | 19.4 | 10 18 | 0 19.87 | + 3 6.5 | 2.005 | 2.965 | 6.3 | 20.8 |
| 10 28 | 0 15.64 | + 1 58.8 | 1.696 | 2.603 | 11.1 | 19.6 | 10 28 | 0 12.55 | + 3 7.7 | 2.060 | 2.958 | 9.9 | 21.0 |
| 11 7 | 0 11.94 | + 1 18.8 | 1.782 | 2.609 | 14.6 | 19.9 | 11 7 | 0 7.16 | + 3 17.0 | 2.138 | 2.951 | 12.9 | 21.2 |
| 108623 | 2001 <i>MR</i> ₂₇ | 10 | 2.2 | 21°52 | 5°2/ 17.3 | 18 | 370867 | 2005 <i>EE</i> ₅₅ | 10 | 2.2 | 182°95 | 1°5/ 3.4 | 17 |
| 8 29 | 0 52.85 | - 4 41.7 | 1.428 | 2.325 | 14.6 | 18.5 | 8 29 | 1 1.74 | + 9 10.3 | 1.622 | 2.467 | 15.9 | 21.9 |
| 9 8 | 0 49.41 | - 6 14.5 | 1.381 | 2.331 | 10.7 | 18.3 | 9 8 | 0 56.00 | + 9 3.1 | 1.549 | 2.468 | 12.1 | 21.6 |
| 9 18 | 0 43.80 | - 7 52.2 | 1.357 | 2.339 | 7.0 | 18.1 | 9 18 | 0 47.86 | + 8 40.0 | 1.497 | 2.468 | 7.8 | 21.4 |
| 9 28 | 0 36.83 | - 9 24.3 | 1.358 | 2.347 | 5.2 | 18.0 | 9 28 | 0 38.12 | + 8 3.6 | 1.471 | 2.468 | 3.1 | 21.1 |
| 10 8 | 0 29.58 | - 10 40.9 | 1.384 | 2.356 | 7.4 | 18.2 | 10 8 | 0 27.88 | + 7 19.0 | 1.472 | 2.467 | 2.8 | 21.1 |
| 10 18 | 0 23.15 | - 11 34.3 | 1.435 | 2.365 | 11.1 | 18.4 | 10 18 | 0 18.36 | + 6 32.9 | 1.501 | 2.466 | 7.3 | 21.4 |
| 10 28 | 0 18.48 | - 12 0.7 | 1.508 | 2.375 | 14.7 | 18.7 | 10 28 | 0 10.66 | + 5 52.3 | 1.555 | 2.464 | 11.7 | 21.6 |
| 11 7 | 0 16.13 | - 12 0.4 | 1.600 | 2.386 | 17.7 | 18.9 | 11 7 | 0 5.50 | + 5 23.0 | 1.631 | 2.463 | 15.5 | 21.9 |
| 190301 | 1996 <i>RA</i> ₁₄ | 10 | 2.2 | 81°38 | 0°4/ 1.3 | 18 | 344630 | 2003 <i>KD</i> ₁₀ | 10 | 2.2 | 50°26 | 4°8/ 28.9 | 16 |
| 8 29 | 0 47.67 | + 3 14.7 | 4.311 | 5.159 | 6.7 | 20.0 | 8 29 | 1 3.00 | - 5 20.5 | 1.262 | 2.150 | 16.8 | 20.6 |
| 9 8 | 0 44.34 | + 2 43.0 | 4.236 | 5.162 | 4.9 | 19.9 | 9 8 | 0 56.66 | - 6 12.6 | 1.241 | 2.186 | 12.2 | 20.4 |
| 9 18 | 0 40.26 | + 2 6.9 | 4.188 | 5.166 | 2.9 | 19.8 | 9 18 | 0 47.94 | - 7 5.4 | 1.242 | 2.222 | 7.6 | 20.3 |
| 9 28 | 0 35.72 | + 1 28.6 | 4.169 | 5.169 | 0.8 | 19.6 | 9 28 | 0 38.01 | - 7 50.2 | 1.267 | 2.259 | 4.8 | 20.2 |
| 10 8 | 0 31.06 | + 0 50.4 | 4.181 | 5.173 | 1.5 | 19.7 | 10 8 | 0 28.23 | - 8 19.6 | 1.317 | 2.295 | 6.7 | 20.4 |
| 10 18 | 0 26.62 | + 0 14.7 | 4.223 | 5.176 | 3.5 | 19.8 | 10 18 | 0 19.83 | - 8 29.4 | 1.393 | 2.332 | 10.6 | 20.7 |
| 10 28 | 0 22.73 | - 0 16.2 | 4.293 | 5.180 | 5.5 | 20.0 | 10 28 | 0 13.72 | - 8 18.3 | 1.491 | 2.369 | 14.2 | 21.0 |
| 11 7 | 0 19.68 | - 0 40.5 | 4.390 | 5.183 | 7.1 | 20.1 | 11 7 | 0 10.32 | - 7 48.0 | 1.609 | 2.405 | 17.3 | 21.3 |
| 4473 | Sears | 10 | 2.2 | 228°06 | 3°4/ 5.8 | 18 | 482734 | 2013 <i>EH</i> ₉₀ | 10 | 2.2 | 245°59 | 1°6/ 3.7 | 18 |
| 8 29 | 0 56.71 | + 15 31.3 | 2.296 | 3.103 | 13.0 | 17.7 | 8 29 | 1 2.02 | + 8 45.0 | 2.305 | 3.131 | 12.4 | 21.8 |
| 9 8 | 0 51.74 | + 15 38.9 | 2.211 | 3.101 | 10.4 | 17.5 | 9 8 | 0 55.74 | + 8 59.8 | 2.208 | 3.116 | 9.6 | 21.6 |
| 9 18 | 0 45.05 | + 15 31.4 | 2.149 | 3.098 | 7.4 | 17.4 | 9 18 | 0 47.55 | + 9 4.6 | 2.135 | 3.100 | 6.2 | 21.4 |
| 9 28 | 0 37.22 | + 15 9.2 | 2.114 | 3.096 | 4.5 | 17.2 | 9 28 | 0 38.03 | + 9 0.3 | 2.090 | 3.084 | 2.8 | 21.1 |
| 10 8 | 0 29.01 | + 14 35.0 | 2.106 | 3.093 | 3.5 | 17.1 | 10 8 | 0 27.97 | + 8 49.2 | 2.074 | 3.068 | 2.4 | 21.1 |
| 10 18 | 0 21.23 | + 13 53.1 | 2.126 | 3.090 | 5.7 | 17.2 | 10 18 | 0 18.28 | + 8 34.8 | 2.089 | 3.051 | 5.8 | 21.3 |
| 10 28 | 0 14.69 | + 13 8.8 | 2.175 | 3.087 | 8.7 | 17.4 | 10 28 | 0 9.84 | + 8 21.1 | 2.132 | 3.034 | 9.4 | 21.5 |
| 11 7 | 0 9.96 | + 12 27.8 | 2.248 | 3.084 | 11.6 | 17.6 | 11 7 | 0 3.31 | + 8 12.2 | 2.200 | 3.016 | 12.5 | 21.7 |
| 482705 | 2013 <i>CX</i> ₁₉₀ | 10 | 2.2 | 281°98 | 2°6/ 5.1 | 18 | 72310 | 2001 <i>BV</i> ₃₉ | 10 | 2.2 | 97°88 | 2°5/ 4.8 | 18 |
| 8 29 | 0 53.86 | + 15 6.7 | 1.935 | 2.760 | 14.5 | 21.4 | 8 29 | 0 58.82 | + 12 4.9 | 2.336 | 3.154 | 12.5 | 19.1 |
| 9 8 | 0 49.98 | + 14 28.6 | 1.840 | 2.743 | 11.4 | 21.1 | 9 8 | 0 53.20 | + 12 22.1 | 2.259 | 3.159 | 9.7 | 18.9 |
| 9 18 | 0 44.16 | + 13 29.3 | 1.767 | 2.726 | 7.8 | 20.9 | 9 18 | 0 45.90 | + 12 27.1 | 2.205 | 3.163 | 6.6 | 18.7 |
| 9 28 | 0 36.98 | + 12 10.8 | 1.719 | 2.709 | 4.1 | 20.6 | 9 28 | 0 37.50 | + 12 20.6 | 2.179 | 3.167 | 3.6 | 18.5 |
| 10 8 | 0 29.30 | + 10 38.6 | 1.698 | 2.691 | 2.9 | 20.5 | 10 8 | 0 28.77 | + 12 5.2 | 2.181 | 3.172 | 2.8 | 18.5 |
| 10 18 | 0 22.05 | + 9 0.2 | 1.706 | 2.674 | 6.3 | 20.7 | 10 18 | 0 20.53 | + 11 44.2 | 2.212 | 3.176 | 5.5 | 18.7 |
| 10 28 | 0 16.15 | + 7 24.9 | 1.741 | 2.657 | 10.3 | 20.9 | 10 28 | 0 13.53 | + 11 22.1 | 2.271 | 3.180 | 8.6 | 18.9 |
| 11 7 | 0 12.28 | + 6 0.6 | 1.800 | 2.639 | 13.9 | 21.1 | 11 7 | 0 8.35 | + 11 3.3 | 2.356 | 3.184 | 11.4 | 19.1 |
| 404438 | 2013 <i>GM</i> ₉₈ | 10 | 2.2 | 94°65 | 0°6/ 1.5 | 18 | 330096 | 2005 <i>WA</i> ₁₁₉ | 10 | 2.2 | 309°41 | 0°6/ 1.7 | 17 |
| 8 29 | 0 55.17 | + 4 15.9 | 2.343 | 3.195 | 11.4 | 21.7 | 8 29 | 0 55.01 | + 4 5.9 | 1.920 | 2.783 | 13.0 | 21.3 |
| 9 8 | 0 50.32 | + 3 36.8 | 2.284 | 3.212 | 8.3 | 21.5 | 9 8 | 0 50.77 | + 3 39.1 | 1.836 | 2.768 | 9.7 | 21.1 |
| 9 18 | 0 44.03 | + 2 49.3 | 2.250 | 3.228 | 4.9 | 21.3 | 9 18 | 0 44.61 | + 3 1.5 | 1.775 | 2.754 | 5.9 | 20.8 |
| 9 28 | 0 36.87 | + 1 57.2 | 2.244 | 3.244 | 1.4 | 21.1 | 9 28 | 0 37.15 | + 2 17.2 | 1.741 | 2.741 | 1.7 | 20.5 |
| 10 8 | 0 29.55 | + 1 5.6 | 2.267 | 3.260 | 2.4 | 21.2 | 10 8 | 0 29.22 | + 1 31.4 | 1.734 | 2.727 | 2.8 | 20.6 |
| 10 18 | 0 22.77 | + 0 19.0 | 2.320 | 3.276 | 5.8 | 21.5 | 10 18 | 0 21.76 | + 0 49.9 | 1.754 | 2.714 | 7.0 | 20.8 |
| 10 28 | 0 17.17 | - 0 18.2 | 2.399 | 3.291 | 8.9 | 21.7 | 10 28 | 0 15.65 | + 0 18.3 | 1.801 | 2.701 | 10.9 | 21.0 |
| 11 7 | 0 13.22 | - 0 43.5 | 2.503 | 3.306 | 11.6 | 21.9 | 11 7 | 0 11.55 | + 0 0.2 | 1.870 | 2.688 | 14.3 | 21.2 |
| 403448 | 2009 <i>SM</i> ₂₇₆ | 10 | 2.2 | 317°17 | 1°1/ 1.2 | 18 | 71126 | 1999 <i>XU</i> ₁₇₄ | 10 | 2.2 | 230°65 | 7°0/ 24.7 | 18 |
| 8 29 | 0 57.05 | + 1 9.9 | 2.100 | 2.962 | 12.1 | 20.7 | 8 29 | 0 58.54 | - 15 28.0 | 2.076 | 2.949 | 11.8 | 19.1 |
| 9 8 | 0 52.03 | + 0 56.4 | 2.023 | 2.955 | 8.9 | 20.5 | 9 8 | 0 53.17 | - 16 39.8 | 2.015 | 2.941 | 9.3 | 18.9 |
| 9 18 | 0 45.24 | + 0 36.3 | 1.969 | 2.949 | 5.3 | 20.3 | 9 18 | 0 45.94 | - 17 46.7 | 1.978 | 2.933 | 7.5 | 18.8 |
| 9 28 | 0 37.28 | + 0 13.3 | 1.943 | 2.943 | 1.7 | 20.0 | 9 28 | 0 37.52 | - 18 41.2 | 1.967 | 2.924 | 7.1 | 18.7 |
| 10 8 | 0 28.96 | - 0 8.5 | 1.945 | 2.937 | 3.0 | 20.1 | 10 8 | 0 28.77 | - 19 16.7 | 1.984 | 2.915 | 8.6 | 18.8 |
| 10 18 | 0 21.13 | - 0 24.7 | 1.976 | 2.931 | 6.8 | 20.3 | 10 18 | 0 20.60 | - 19 29.5 | 2.026 | 2.906 | 11.0 | 18.9 |
| 10 28 | 0 14.62 | - 0 31.8 | 2.033 | 2.925 | 10.3 | 20.5 | 10 28 | 0 13.86 | - 19 18.3 | 2.092 | 2.897 | 13.6 | 19.1 |
| 11 7 | 0 9.99 | - 0 27.5 | 2.113 | 2.920 | 13.3 | 20.7 | 11 7 | 0 9.13 | - 18 44.9 | 2.176 | 2.887 | 15.8 | 19.3 |
| 473140 | 2015 <i>KP</i> ₄ | 10 | 2.2 | 346°91 | 3°7/ 4.7 | 18 | 292362 | 2006 | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|--------|---------------|-------------------------------|-----------------|----------|--------|----------|--------|
| 520284 | 2014 <i>ED</i> ₂₄₉ | 10 | 2.2 | 72°14 | 6°5/25.9 | 18 | 159443 | 1999 <i>XD</i> ₁₇₁ | 10 | 2.2 | 350°11 | 2°2/ | 3.7 18 |
| 8 29 | 0 56.82 | -10 21.6 | 1.682 | 2.568 | 13.4 | 20.4 | 8 29 | 0 54.17 | + 8 24.7 | 1.173 | 2.052 | 18.4 | 18.2 |
| 9 8 | 0 52.12 | -11 46.0 | 1.632 | 2.572 | 10.1 | 20.2 | 9 8 | 0 51.15 | + 8 45.5 | 1.104 | 2.041 | 14.2 | 17.9 |
| 9 18 | 0 45.37 | -13 9.2 | 1.606 | 2.577 | 7.4 | 20.0 | 9 18 | 0 45.32 | + 8 48.9 | 1.054 | 2.031 | 9.2 | 17.6 |
| 9 28 | 0 37.34 | -14 21.8 | 1.606 | 2.581 | 6.5 | 20.0 | 9 28 | 0 37.46 | + 8 36.5 | 1.026 | 2.022 | 4.0 | 17.3 |
| 10 8 | 0 29.05 | -15 15.8 | 1.632 | 2.585 | 8.3 | 20.1 | 10 8 | 0 28.90 | + 8 13.2 | 1.020 | 2.016 | 3.4 | 17.2 |
| 10 18 | 0 21.51 | -15 46.0 | 1.683 | 2.590 | 11.3 | 20.3 | 10 18 | 0 21.09 | + 7 46.0 | 1.039 | 2.011 | 8.6 | 17.5 |
| 10 28 | 0 15.62 | -15 50.4 | 1.757 | 2.594 | 14.4 | 20.5 | 10 28 | 0 15.40 | + 7 23.1 | 1.079 | 2.008 | 13.8 | 17.8 |
| 11 7 | 0 11.97 | -15 30.3 | 1.850 | 2.599 | 17.0 | 20.7 | 11 7 | 0 12.72 | + 7 11.3 | 1.139 | 2.006 | 18.2 | 18.0 |
| 332028 | 2005 <i>PY</i> ₄ | 10 | 2.2 | 37°57 | 1°6/ | 1.2 16 | 361507 | 2007 <i>EB</i> ₁₃₆ | 10 | 2.2 | 32°34 | 1°5/30.4 | 18 |
| 8 29 | 0 58.73 | + 2 30.2 | 1.109 | 1.999 | 18.5 | 20.8 | 8 29 | 0 51.56 | + 4 26.1 | 1.919 | 2.787 | 12.8 | 20.1 |
| 9 8 | 0 54.15 | + 2 0.6 | 1.069 | 2.015 | 13.5 | 20.5 | 9 8 | 0 48.04 | + 2 58.6 | 1.856 | 2.793 | 9.3 | 19.9 |
| 9 18 | 0 46.80 | + 1 18.2 | 1.048 | 2.032 | 8.0 | 20.3 | 9 18 | 0 42.85 | + 1 18.6 | 1.818 | 2.800 | 5.5 | 19.7 |
| 9 28 | 0 37.77 | + 0 30.3 | 1.050 | 2.050 | 2.5 | 20.0 | 9 28 | 0 36.61 | - 0 27.1 | 1.808 | 2.807 | 1.8 | 19.5 |
| 10 8 | 0 28.54 | - 0 14.0 | 1.076 | 2.069 | 4.3 | 20.2 | 10 8 | 0 30.12 | - 2 10.0 | 1.826 | 2.815 | 3.6 | 19.6 |
| 10 18 | 0 20.52 | - 0 46.9 | 1.127 | 2.089 | 9.6 | 20.6 | 10 18 | 0 24.20 | - 3 42.2 | 1.872 | 2.823 | 7.4 | 19.9 |
| 10 28 | 0 14.86 | - 1 2.7 | 1.199 | 2.109 | 14.4 | 20.9 | 10 28 | 0 19.60 | - 4 57.1 | 1.944 | 2.831 | 11.0 | 20.1 |
| 11 7 | 0 12.16 | - 0 59.2 | 1.291 | 2.130 | 18.3 | 21.2 | 11 7 | 0 16.82 | - 5 51.3 | 2.039 | 2.839 | 13.9 | 20.3 |
| 211677 | 2003 <i>WU</i> ₅₅ | 10 | 2.2 | 332°18 | 0°5/ | 2.6 17 | 256516 | 2007 <i>EL</i> ₁₆₆ | 10 | 2.2 | 152°51 | 0°7/ | 1.4 18 |
| 8 29 | 0 56.04 | + 5 28.6 | 1.353 | 2.229 | 16.6 | 20.3 | 8 29 | 0 54.53 | + 3 49.4 | 2.367 | 3.221 | 11.2 | 20.8 |
| 9 8 | 0 52.31 | + 5 31.4 | 1.273 | 2.210 | 12.6 | 20.0 | 9 8 | 0 49.97 | + 3 9.5 | 2.295 | 3.224 | 8.2 | 20.6 |
| 9 18 | 0 45.93 | + 5 20.4 | 1.213 | 2.193 | 7.9 | 19.7 | 9 18 | 0 43.92 | + 2 21.0 | 2.249 | 3.227 | 4.9 | 20.4 |
| 9 28 | 0 37.62 | + 4 58.8 | 1.177 | 2.176 | 2.6 | 19.3 | 9 28 | 0 36.93 | + 1 27.7 | 2.229 | 3.229 | 1.4 | 20.2 |
| 10 8 | 0 28.57 | + 4 31.9 | 1.165 | 2.160 | 3.1 | 19.3 | 10 8 | 0 29.69 | + 0 34.6 | 2.240 | 3.232 | 2.5 | 20.3 |
| 10 18 | 0 20.10 | + 4 6.4 | 1.178 | 2.146 | 8.5 | 19.6 | 10 18 | 0 22.92 | - 0 13.4 | 2.279 | 3.234 | 6.0 | 20.5 |
| 10 28 | 0 13.54 | + 3 49.2 | 1.214 | 2.132 | 13.5 | 19.8 | 10 28 | 0 17.28 | - 0 52.0 | 2.345 | 3.236 | 9.2 | 20.7 |
| 11 7 | 0 9.77 | + 3 45.5 | 1.271 | 2.120 | 17.9 | 20.1 | 11 7 | 0 13.26 | - 1 18.2 | 2.435 | 3.238 | 11.9 | 20.9 |
| 172762 | 2004 <i>DN</i> ₂₅ | 10 | 2.2 | 76°77 | 3°5/28.7 | 18 | 123664 | 2000 <i>YC</i> ₇₉ | 10 | 2.2 | 298°63 | 5°7/ | 8.8 18 |
| 8 29 | 0 55.66 | - 2 44.1 | 1.830 | 2.708 | 12.9 | 20.0 | 8 29 | 0 54.95 | +23 8.0 | 2.158 | 2.931 | 14.8 | 19.5 |
| 9 8 | 0 51.07 | - 3 52.6 | 1.777 | 2.718 | 9.4 | 19.8 | 9 8 | 0 50.68 | +23 16.4 | 2.069 | 2.925 | 12.4 | 19.3 |
| 9 18 | 0 44.66 | - 5 6.4 | 1.748 | 2.729 | 5.8 | 19.7 | 9 18 | 0 44.55 | +23 3.4 | 2.001 | 2.920 | 9.7 | 19.2 |
| 9 28 | 0 37.13 | - 6 18.2 | 1.746 | 2.739 | 3.5 | 19.5 | 9 28 | 0 37.17 | +22 28.4 | 1.956 | 2.914 | 7.1 | 19.0 |
| 10 8 | 0 29.37 | - 7 20.8 | 1.771 | 2.750 | 5.3 | 19.7 | 10 8 | 0 29.34 | +21 33.5 | 1.938 | 2.908 | 5.7 | 18.9 |
| 10 18 | 0 22.30 | - 8 8.3 | 1.824 | 2.760 | 8.7 | 19.9 | 10 18 | 0 21.96 | +20 23.6 | 1.947 | 2.903 | 6.7 | 19.0 |
| 10 28 | 0 16.72 | - 8 36.9 | 1.901 | 2.770 | 12.0 | 20.1 | 10 28 | 0 15.91 | +19 5.8 | 1.982 | 2.897 | 9.3 | 19.1 |
| 11 7 | 0 13.15 | - 8 45.4 | 1.999 | 2.781 | 14.9 | 20.4 | 11 7 | 0 11.80 | +17 48.1 | 2.043 | 2.892 | 12.1 | 19.3 |
| 384318 | 2009 <i>SG</i> ₂₀₉ | 10 | 2.2 | 329°79 | 0°3/ | 2.4 18 | 114673 | 2003 <i>FY</i> ₄₆ | 10 | 2.2 | 314°29 | 0°9/ | 1.3 18 |
| 8 29 | 0 55.40 | + 6 2.4 | 1.206 | 2.089 | 17.8 | 20.4 | 8 29 | 0 55.83 | + 2 58.4 | 1.909 | 2.774 | 13.0 | 19.7 |
| 9 8 | 0 52.06 | + 5 49.9 | 1.132 | 2.073 | 13.5 | 20.1 | 9 8 | 0 51.32 | + 2 30.0 | 1.833 | 2.767 | 9.6 | 19.5 |
| 9 18 | 0 45.88 | + 5 20.1 | 1.077 | 2.058 | 8.4 | 19.8 | 9 18 | 0 44.93 | + 1 52.0 | 1.781 | 2.760 | 5.8 | 19.2 |
| 9 28 | 0 37.64 | + 4 37.1 | 1.044 | 2.044 | 2.7 | 19.4 | 9 28 | 0 37.27 | + 1 8.6 | 1.754 | 2.754 | 1.7 | 18.9 |
| 10 8 | 0 28.62 | + 3 48.1 | 1.035 | 2.030 | 3.4 | 19.4 | 10 8 | 0 29.22 | + 0 25.5 | 1.755 | 2.748 | 3.0 | 19.0 |
| 10 18 | 0 20.29 | + 3 2.1 | 1.050 | 2.018 | 9.2 | 19.7 | 10 18 | 0 21.69 | - 0 11.9 | 1.784 | 2.742 | 7.1 | 19.3 |
| 10 28 | 0 14.06 | + 2 27.8 | 1.087 | 2.007 | 14.6 | 20.0 | 10 28 | 0 15.56 | - 0 38.5 | 1.839 | 2.736 | 10.9 | 19.5 |
| 11 7 | 0 10.83 | + 2 11.2 | 1.143 | 1.997 | 19.2 | 20.3 | 11 7 | 0 11.45 | - 0 51.2 | 1.916 | 2.730 | 14.2 | 19.7 |
| 87275 | 2000 <i>PZ</i> ₈ | 10 | 2.2 | 44°39 | 8°4/10.5 | 18 | 214057 | 2004 <i>FH</i> ₅₂ | 10 | 2.2 | 109°07 | 0°7/ | 3.1 18 |
| 8 29 | 0 56.81 | +26 29.3 | 1.479 | 2.261 | 20.2 | 18.5 | 8 29 | 0 55.95 | + 9 25.5 | 2.280 | 3.115 | 12.2 | 20.9 |
| 9 8 | 0 52.68 | +26 51.1 | 1.415 | 2.271 | 17.1 | 18.3 | 9 8 | 0 50.97 | + 8 40.1 | 2.219 | 3.134 | 9.2 | 20.7 |
| 9 18 | 0 45.99 | +26 41.2 | 1.368 | 2.281 | 13.7 | 18.2 | 9 18 | 0 44.48 | + 7 41.9 | 2.182 | 3.152 | 5.7 | 20.5 |
| 9 28 | 0 37.60 | +25 57.4 | 1.341 | 2.292 | 10.4 | 18.0 | 9 28 | 0 37.08 | + 6 34.8 | 2.173 | 3.170 | 2.1 | 20.3 |
| 10 8 | 0 28.75 | +24 42.9 | 1.338 | 2.303 | 8.5 | 17.9 | 10 8 | 0 29.52 | + 5 24.2 | 2.193 | 3.188 | 2.0 | 20.4 |
| 10 18 | 0 20.76 | +23 5.5 | 1.359 | 2.314 | 9.2 | 18.0 | 10 18 | 0 22.54 | + 4 15.7 | 2.242 | 3.205 | 5.5 | 20.6 |
| 10 28 | 0 14.80 | +21 17.1 | 1.404 | 2.326 | 11.8 | 18.2 | 10 28 | 0 16.80 | + 3 15.0 | 2.320 | 3.221 | 8.8 | 20.9 |
| 11 7 | 0 11.56 | +19 30.5 | 1.473 | 2.338 | 15.0 | 18.4 | 11 7 | 0 12.77 | + 2 26.0 | 2.422 | 3.237 | 11.6 | 21.1 |
| 50490 | 2000 <i>DO</i> ₈₈ | 10 | 2.2 | 221°69 | 2°2/ | 3.8 18 | 354202 | 2002 <i>EF</i> ₁₂₀ | 10 | 2.2 | 326°13 | 0°7/30.8 | 18 |
| 8 29 | 1 3.64 | + 9 25.1 | 1.749 | 2.586 | 15.3 | 19.8 | 8 29 | 0 47.70 | + 1 52.4 | 4.238 | 5.090 | 6.7 | 20.8 |
| 9 8 | 0 57.40 | + 9 42.7 | 1.668 | 2.580 | 11.8 | 19.6 | 9 8 | 0 44.41 | + 1 17.6 | 4.160 | 5.089 | 4.9 | 20.6 |
| 9 18 | 0 48.76 | + 9 46.7 | 1.608 | 2.574 | 7.7 | 19.3 | 9 18 | 0 40.36 | + 0 38.7 | 4.109 | 5.088 | 2.9 | 20.5 |
| 9 28 | 0 38.45 | + 9 38.1 | 1.574 | 2.568 | 3.5 | 19.1 | 9 28 | 0 35.84 | - 0 2.0 | 4.087 | 5.087 | 0.9 | 20.3 |
| 10 8 | 0 27.55 | + 9 20.2 | 1.568 | 2.561 | 3.0 | 19.0 | 10 8 | 0 31.18 | - 0 41.8 | 4.096 | 5.085 | 1.7 | 20.4 |
| 10 18 | 0 17.25 | + 8 57.7 | 1.590 | 2.554 | 7.1 | 19.3 | 10 18 | 0 26.73 | - 1 18.5 | 4.134 | 5.084 | 3.8 | 20.6 |
| 10 28 | 0 8.66 | + 8 36.3 | 1.638 | 2.547 | 11.3 | 19.5 | 10 28 | 0 22.85 | - 1 49.6 | 4.202 | 5.083 | 5.7 | 20.7 |
| 11 7 | 0 2.57 | + 8 21.6 | 1.710 | 2.539 | 14.9 | 19.7 | 11 7 | 0 19.80 | - 2 13.5 | 4.295 | 5.082 | 7.4 | 20.8 |
| 315204 | 2007 <i>QM</i> ₁₅ | 10 | 2.2 | 333°48 | 0°5/ | 3.2 16 | 106115 | 2000 <i>TU</i> ₂₇ | 10 | 2.2 | 354°53 | 1°6/30.8 | 18 |
| 8 29 | 0 48.62 | + 7 28.8 | 4.457 | 5.287 | 6.8 | 21.1 | 8 29 | 0 54.16 | + 2 4.2 | 1.736 | 2.611 | 13.6 | 19.4 |
| 9 8 | 0 45.05 | + 7 15.4 | 4.374 | 5.286 | 5.1 | 20.9 | 9 8 | 0 50.20 | + 1 22.5 | 1.669 | 2.608 | 10.0 | 19.1 |
| 9 18 | 0 40.73 | + 6 56.5 | 4.317 | 5.286 | 3.2 | 20.8 | 9 18 | 0 44.28 | + 0 30.9 | 1.624 | 2.606 | 6.0 | 18.9 |
| 9 28 | 0 35.94 | + 6 33.6 | 4.288 | 5.285 | 1.2 | 20.6 | 9 28 | 0 37.08 | - 0 25.3 | 1.605 | 2.604 | 2.0 | 18.6 |
| 10 8 | 0 31.00 | + 6 8.5 | 4.290 | 5.285 | 1.1 | 20.6 | 10 8 | 0 29.52 | - 1 19.3 | 1.612 | 2.603 | 3.7 | 18.8 |
| 10 18 | 0 26.28 | + 5 43.3 | 4.322 | 5.284 | 3.1 | 20.8 | 10 18 | 0 22.56 | - 2 4.6 | 1.647 | 2.602 | 7.8 | 19.0 |
| 10 28 | 0 22.09 | + 5 20.2 | 4.384 | 5.284 | 5.0 | 20.9 | 10 28 | 0 17.10 | - 2 36.0 | 1.706 | 2.602 | 11.7 | 19.3 |
| 11 7 | 0 18.73 | + 5 1.1 | 4.472 | 5.283 | 6.7 | 21.1 | 11 7 | 0 13.73 | - 2 50.4 | 1.787 | 2.602 | 15.0 | 19.5 |
| 98713 | 2000 <i>XH</i> ₄₃ | 10 | 2.2 | 346°50 | 6°1/29.1 | 18 | 13115 | | | | | | |

EPHEMERIDES

10 2.2

10 2.3

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|---------|-----------|------|---------------|-------------------------------|-----------------|----------|---------|------------|------|
| 286863 | 2002 <i>NW</i> ₇₄ | 10 | 2.2 | 25°42' | 1.5°/1.0 | 18 | 430502 | 2001 <i>UP</i> ₈₅ | 10 | 2.3 | 57°52' | 1.7°/1.0 | 16 |
| 8 29 | 0 54.45 | + 3 17.7 | 1.286 | 2.173 | 16.6 | 20.2 | 8 29 | 1 0.48 | + 1 55.4 | 1.332 | 2.210 | 16.7 | 20.6 |
| 9 8 | 0 50.79 | + 2 32.1 | 1.239 | 2.184 | 12.2 | 20.0 | 9 8 | 0 55.10 | + 1 22.3 | 1.289 | 2.229 | 12.2 | 20.4 |
| 9 18 | 0 44.75 | + 1 33.2 | 1.213 | 2.197 | 7.2 | 19.8 | 9 18 | 0 47.26 | + 0 38.7 | 1.267 | 2.249 | 7.2 | 20.2 |
| 9 28 | 0 37.22 | + 0 28.4 | 1.210 | 2.210 | 2.2 | 19.5 | 9 28 | 0 37.97 | - 0 8.8 | 1.269 | 2.269 | 2.3 | 20.0 |
| 10 8 | 0 29.43 | - 0 33.3 | 1.233 | 2.225 | 4.0 | 19.7 | 10 8 | 0 28.51 | - 0 52.4 | 1.297 | 2.289 | 4.1 | 20.1 |
| 10 18 | 0 22.57 | - 1 23.6 | 1.280 | 2.241 | 8.9 | 20.0 | 10 18 | 0 20.13 | - 1 25.3 | 1.351 | 2.309 | 8.9 | 20.5 |
| 10 28 | 0 17.67 | - 1 56.4 | 1.350 | 2.257 | 13.4 | 20.3 | 10 28 | 0 13.86 | - 1 42.5 | 1.428 | 2.329 | 13.2 | 20.8 |
| 11 7 | 0 15.31 | - 2 8.8 | 1.441 | 2.274 | 17.0 | 20.6 | 11 7 | 0 10.27 | - 1 42.1 | 1.526 | 2.349 | 16.8 | 21.1 |
| 325763 | 2010 <i>AU</i> ₉₇ | 10 | 2.2 | 346°87' | 4.7°/26.6 | 18 | 321847 | 2010 <i>RN</i> ₁₁₃ | 10 | 2.3 | 33°26' | 4.1°/5.1 | 17 |
| 8 29 | 0 52.13 | - 6 31.0 | 2.003 | 2.888 | 11.6 | 20.2 | 8 29 | 0 58.36 | + 13 27.2 | 1.055 | 1.920 | 21.1 | 20.2 |
| 9 8 | 0 48.47 | - 7 59.2 | 1.942 | 2.885 | 8.6 | 20.0 | 9 8 | 0 54.29 | + 13 39.3 | 1.006 | 1.931 | 16.5 | 19.9 |
| 9 18 | 0 43.14 | - 9 30.5 | 1.906 | 2.882 | 5.8 | 19.9 | 9 18 | 0 47.15 | + 13 24.9 | 0.974 | 1.943 | 11.2 | 19.7 |
| 9 28 | 0 36.73 | - 10 57.2 | 1.896 | 2.879 | 4.7 | 19.8 | 9 28 | 0 38.02 | + 12 45.9 | 0.964 | 1.955 | 6.0 | 19.4 |
| 10 8 | 0 30.03 | - 12 11.5 | 1.914 | 2.877 | 6.5 | 19.9 | 10 8 | 0 28.45 | + 11 49.3 | 0.976 | 1.969 | 4.5 | 19.4 |
| 10 18 | 0 23.85 | - 13 7.7 | 1.959 | 2.875 | 9.5 | 20.1 | 10 18 | 0 20.06 | + 10 45.2 | 1.011 | 1.984 | 8.8 | 19.7 |
| 10 28 | 0 18.94 | - 13 42.0 | 2.028 | 2.874 | 12.4 | 20.3 | 10 28 | 0 14.19 | + 9 45.2 | 1.069 | 1.999 | 13.7 | 20.0 |
| 11 7 | 0 15.83 | - 13 53.8 | 2.117 | 2.873 | 15.0 | 20.5 | 11 7 | 0 11.53 | + 8 58.3 | 1.146 | 2.015 | 18.1 | 20.4 |
| 188550 | 2004 <i>TM</i> ₂ | 10 | 2.2 | 351°87' | 1.3°/30.9 | 18 | 202869 | 2008 <i>UM</i> ₅₃ | 10 | 2.3 | 67°30' | 4.4°/28.9 | 18 |
| 8 29 | 0 53.00 | + 2 56.3 | 1.713 | 2.588 | 13.8 | 19.8 | 8 29 | 1 1.51 | - 5 45.6 | 1.556 | 2.435 | 14.6 | 19.9 |
| 9 8 | 0 49.39 | + 2 14.7 | 1.644 | 2.583 | 10.1 | 19.6 | 9 8 | 0 55.52 | - 6 27.9 | 1.516 | 2.456 | 10.8 | 19.7 |
| 9 18 | 0 43.82 | + 1 22.0 | 1.597 | 2.579 | 6.0 | 19.3 | 9 18 | 0 47.38 | - 7 11.6 | 1.498 | 2.477 | 6.8 | 19.6 |
| 9 28 | 0 36.96 | + 0 23.6 | 1.575 | 2.575 | 1.9 | 19.1 | 9 28 | 0 38.00 | - 7 49.3 | 1.506 | 2.498 | 4.4 | 19.5 |
| 10 8 | 0 29.72 | - 0 33.7 | 1.581 | 2.572 | 3.5 | 19.2 | 10 8 | 0 28.52 | - 8 14.8 | 1.541 | 2.518 | 6.1 | 19.6 |
| 10 18 | 0 23.06 | - 1 23.0 | 1.613 | 2.570 | 7.7 | 19.4 | 10 18 | 0 20.04 | - 8 23.7 | 1.603 | 2.539 | 9.7 | 19.9 |
| 10 28 | 0 17.88 | - 1 58.7 | 1.670 | 2.569 | 11.7 | 19.7 | 10 28 | 0 13.47 | - 8 14.0 | 1.688 | 2.560 | 13.2 | 20.1 |
| 11 7 | 0 14.00 | - 2 17.3 | 1.748 | 2.568 | 15.1 | 19.9 | 11 7 | 0 9.33 | - 7 46.4 | 1.794 | 2.580 | 16.1 | 20.4 |
| 121187 | 1999 <i>NJ</i> ₁₃ | 10 | 2.2 | 38°23' | 2.7°/4.3 | 18 | 79546 | 1998 <i>QJ</i> ₄₁ | 10 | 2.3 | 18°50' | 1.5°/3.3 | 18 |
| 8 29 | 0 58.49 | + 11 41.3 | 1.175 | 2.039 | 19.5 | 18.6 | 8 29 | 0 56.36 | + 8 20.5 | 1.074 | 1.956 | 19.6 | 18.6 |
| 9 8 | 0 53.85 | + 11 36.2 | 1.138 | 2.064 | 14.9 | 18.4 | 9 8 | 0 52.74 | + 8 18.1 | 1.023 | 1.961 | 14.8 | 18.3 |
| 9 18 | 0 46.57 | + 11 8.5 | 1.120 | 2.090 | 9.7 | 18.2 | 9 18 | 0 46.20 | + 7 55.5 | 0.990 | 1.969 | 9.4 | 18.1 |
| 9 28 | 0 37.75 | + 10 22.3 | 1.123 | 2.118 | 4.5 | 18.0 | 9 28 | 0 37.73 | + 7 16.5 | 0.979 | 1.977 | 3.6 | 17.8 |
| 10 8 | 0 28.78 | + 9 25.2 | 1.151 | 2.146 | 3.4 | 18.0 | 10 8 | 0 28.83 | + 6 29.0 | 0.991 | 1.987 | 3.3 | 17.8 |
| 10 18 | 0 21.03 | + 8 26.4 | 1.204 | 2.175 | 7.9 | 18.4 | 10 18 | 0 20.99 | + 5 42.2 | 1.026 | 1.998 | 8.9 | 18.2 |
| 10 28 | 0 15.55 | + 7 35.2 | 1.280 | 2.204 | 12.5 | 18.7 | 10 28 | 0 15.51 | + 5 5.2 | 1.084 | 2.010 | 14.0 | 18.5 |
| 11 7 | 0 12.91 | + 6 58.0 | 1.378 | 2.234 | 16.3 | 19.0 | 11 7 | 0 13.11 | + 4 44.1 | 1.161 | 2.023 | 18.3 | 18.8 |
| 174118 | 2002 <i>JA</i> ₁₂₇ | 10 | 2.2 | 45°43' | 5.8°/27.9 | 17 | 117954 | 6686 <i>P-L</i> | 10 | 2.3 | 27°03' | 0.2°/2.1 | 18 |
| 8 29 | 0 57.91 | - 4 45.2 | 1.095 | 1.997 | 17.7 | 19.6 | 8 29 | 1 0.51 | + 3 47.4 | 1.016 | 1.906 | 19.7 | 18.8 |
| 9 8 | 0 53.54 | - 6 10.0 | 1.062 | 2.014 | 12.9 | 19.4 | 9 8 | 0 55.89 | + 3 49.8 | 0.969 | 1.914 | 14.7 | 18.6 |
| 9 18 | 0 46.43 | - 7 38.7 | 1.049 | 2.032 | 8.3 | 19.2 | 9 18 | 0 48.11 | + 3 37.7 | 0.941 | 1.924 | 8.9 | 18.3 |
| 9 28 | 0 37.71 | - 8 59.1 | 1.059 | 2.050 | 5.8 | 19.1 | 9 28 | 0 38.31 | + 3 16.1 | 0.934 | 1.934 | 2.6 | 18.0 |
| 10 8 | 0 28.84 | - 9 59.9 | 1.093 | 2.069 | 8.2 | 19.3 | 10 8 | 0 28.10 | + 2 52.5 | 0.950 | 1.946 | 3.7 | 18.1 |
| 10 18 | 0 21.21 | - 10 33.9 | 1.150 | 2.088 | 12.4 | 19.6 | 10 18 | 0 19.14 | + 2 34.5 | 0.990 | 1.958 | 9.7 | 18.5 |
| 10 28 | 0 15.93 | - 10 38.6 | 1.228 | 2.108 | 16.4 | 19.9 | 10 28 | 0 12.79 | + 2 28.7 | 1.051 | 1.971 | 15.0 | 18.8 |
| 11 7 | 0 13.53 | - 10 16.1 | 1.323 | 2.129 | 19.8 | 20.2 | 11 7 | 0 9.75 | + 2 38.6 | 1.131 | 1.985 | 19.3 | 19.1 |
| 218237 | 2002 <i>WG</i> ₂₅ | 10 | 2.2 | 51°62' | 0.2°/2.5 | 16 | 438511 | 2007 <i>RF</i> ₁₄₄ | 10 | 2.3 | 17°04' | 2.8°/4.3 | 16 |
| 8 29 | 0 58.25 | + 7 7.5 | 1.292 | 2.163 | 17.6 | 20.3 | 8 29 | 0 53.75 | + 11 8.6 | 1.114 | 1.990 | 19.5 | 19.9 |
| 9 8 | 0 53.65 | + 6 35.8 | 1.241 | 2.175 | 13.1 | 20.0 | 9 8 | 0 50.68 | + 11 12.0 | 1.066 | 1.999 | 15.0 | 19.7 |
| 9 18 | 0 46.51 | + 5 46.7 | 1.209 | 2.188 | 8.0 | 19.8 | 9 18 | 0 44.88 | + 10 52.5 | 1.036 | 2.010 | 9.9 | 19.4 |
| 9 28 | 0 37.76 | + 4 45.7 | 1.202 | 2.201 | 2.5 | 19.5 | 9 28 | 0 37.33 | + 10 13.4 | 1.028 | 2.023 | 4.7 | 19.2 |
| 10 8 | 0 28.71 | + 3 41.4 | 1.219 | 2.215 | 3.1 | 19.6 | 10 8 | 0 29.40 | + 9 21.9 | 1.042 | 2.037 | 3.5 | 19.2 |
| 10 18 | 0 20.65 | + 2 42.5 | 1.262 | 2.228 | 8.4 | 19.9 | 10 18 | 0 22.49 | + 8 27.2 | 1.080 | 2.053 | 8.2 | 19.5 |
| 10 28 | 0 14.68 | + 1 57.0 | 1.329 | 2.242 | 13.0 | 20.2 | 10 28 | 0 17.79 | + 7 39.0 | 1.141 | 2.071 | 13.0 | 19.8 |
| 11 7 | 0 11.45 | + 1 29.5 | 1.417 | 2.256 | 16.9 | 20.5 | 11 7 | 0 15.94 | + 7 4.7 | 1.221 | 2.090 | 17.2 | 20.1 |
| 353349 | 2010 <i>VT</i> ₁₀₃ | 10 | 2.3 | 236°95' | 1.2°/29.8 | 16 | 511648 | 2015 <i>BZ</i> ₂₅₂ | 10 | 2.3 | 213°83' | 4.5°/6.1 | 17 |
| 8 29 | 0 48.27 | - 1 37.8 | 4.533 | 5.390 | 6.2 | 21.4 | 8 29 | 1 0.37 | + 17 2.6 | 1.676 | 2.490 | 16.8 | 21.7 |
| 9 8 | 0 44.79 | - 2 5.7 | 4.455 | 5.387 | 4.5 | 21.3 | 9 8 | 0 55.14 | + 17 6.6 | 1.594 | 2.486 | 13.5 | 21.5 |
| 9 18 | 0 40.59 | - 2 35.8 | 4.405 | 5.384 | 2.7 | 21.2 | 9 18 | 0 47.49 | + 16 48.5 | 1.532 | 2.481 | 9.7 | 21.2 |
| 9 28 | 0 35.93 | - 3 6.1 | 4.384 | 5.380 | 1.2 | 21.0 | 9 28 | 0 38.15 | + 16 8.3 | 1.494 | 2.475 | 6.0 | 21.0 |
| 10 8 | 0 31.14 | - 3 34.4 | 4.393 | 5.377 | 2.1 | 21.1 | 10 8 | 0 28.21 | + 15 9.7 | 1.482 | 2.470 | 4.6 | 20.9 |
| 10 18 | 0 26.56 | - 3 58.6 | 4.433 | 5.374 | 3.8 | 21.2 | 10 18 | 0 18.88 | + 13 59.6 | 1.498 | 2.463 | 7.3 | 21.1 |
| 10 28 | 0 22.50 | - 4 16.8 | 4.501 | 5.370 | 5.6 | 21.4 | 10 28 | 0 11.32 | + 12 46.9 | 1.539 | 2.457 | 11.3 | 21.3 |
| 11 7 | 0 19.24 | - 4 27.9 | 4.594 | 5.367 | 7.2 | 21.5 | 11 7 | 0 6.28 | + 11 40.7 | 1.604 | 2.449 | 15.0 | 21.5 |
| 449449 | 2013 <i>JY</i> ₃₀ | 10 | 2.3 | 89°40' | 4.6°/26.8 | 18 | 277922 | 2006 <i>KX</i> ₁₀₁ | 10 | 2.3 | 195°47' | 19.6°/16.1 | 16 |
| 8 29 | 0 54.55 | - 8 55.2 | 2.275 | 3.152 | 10.7 | 21.2 | 8 29 | 1 12.46 | - 38 18.4 | 1.213 | 2.045 | 21.0 | 20.9 |
| 9 8 | 0 50.01 | - 10 0.2 | 2.220 | 3.157 | 8.0 | 21.0 | 9 8 | 1 4.92 | - 40 22.7 | 1.193 | 2.044 | 19.9 | 20.8 |
| 9 18 | 0 43.95 | - 11 4.8 | 2.191 | 3.163 | 5.6 | 20.9 | 9 18 | 0 53.56 | - 41 50.8 | 1.190 | 2.043 | 19.6 | 20.8 |
| 9 28 | 0 36.97 | - 12 3.0 | 2.189 | 3.169 | 4.6 | 20.8 | 9 28 | 0 39.91 | - 42 27.9 | 1.204 | 2.042 | 20.2 | 20.9 |
| 10 8 | 0 29.78 | - 12 49.1 | 2.216 | 3.174 | 6.1 | 20.9 | 10 8 | 0 26.11 | - 42 7.2 | 1.235 | 2.040 | 21.5 | 21.0 |
| 10 18 | 0 23.12 | - 13 19.2 | 2.269 | 3.180 | 8.6 | 21.1 | 10 18 | 0 14.21 | - 40 51.0 | 1.281 | 2.037 | 23.2 | 21.1 |
| 10 28 | 0 17.67 | - 13 30.9 | 2.347 | 3.186 | 11.2 | 21.3 | 10 28 | 0 5.68 | - 38 47.9 | 1.341 | 2.035 | 24.9 | 21.2 |
| 11 7 | 0 13.89 | - 13 24.4 | 2.447 | 3.191 | 13.4 | 21.4 | 11 7 | 0 1.11 | - 36 10.1 | 1.413 | 2.032 | 26.4 | 21.4 |
| 387153 | 2012 <i>TP</i> ₂₃₃ | 10 | 2.3 | 270°71' | 1.4°/1.0 | 18 | 441300 | 2007 <i>YC</i> ₅₇ | 10 | 2.3</ | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 215638 | 2003 <i>TW</i> ₄₉ | 10 | 2.3 | 15°53 | 5°9/25.5 | 18 | 139201 | 2001 <i>FC</i> ₁₆₆ | 10 | 2.3 | 88°33 | 0°8/1.7 | 18 R |
| 8 29 | 0 53.92 | -11 32.0 | 2.014 | 2.898 | 11.6 | 19.3 | 8 29 | 1 3.34 | + 2 52.5 | 1.459 | 2.326 | 16.2 | 19.7 |
| 9 8 | 0 49.76 | -12 47.8 | 1.963 | 2.900 | 8.9 | 19.2 | 9 8 | 0 57.22 | + 2 42.2 | 1.404 | 2.337 | 12.0 | 19.5 |
| 9 18 | 0 43.90 | -14 1.5 | 1.935 | 2.902 | 6.6 | 19.0 | 9 18 | 0 48.63 | + 2 21.6 | 1.369 | 2.349 | 7.2 | 19.3 |
| 9 28 | 0 36.99 | -15 5.5 | 1.935 | 2.905 | 6.0 | 19.0 | 9 28 | 0 38.47 | + 1 55.1 | 1.360 | 2.360 | 2.1 | 19.0 |
| 10 8 | 0 29.85 | -15 53.4 | 1.960 | 2.908 | 7.6 | 19.1 | 10 8 | 0 28.00 | + 1 28.7 | 1.378 | 2.371 | 3.4 | 19.1 |
| 10 18 | 0 23.28 | -16 20.8 | 2.012 | 2.911 | 10.2 | 19.3 | 10 18 | 0 18.48 | + 1 8.3 | 1.422 | 2.382 | 8.3 | 19.4 |
| 10 28 | 0 18.06 | -16 25.9 | 2.087 | 2.915 | 12.8 | 19.5 | 10 28 | 0 11.02 | + 0 58.8 | 1.491 | 2.393 | 12.6 | 19.7 |
| 11 7 | 0 14.68 | -16 9.4 | 2.181 | 2.919 | 15.1 | 19.7 | 11 7 | 0 6.26 | + 1 3.1 | 1.582 | 2.404 | 16.3 | 20.0 |
| 95188 | 2002 <i>BK</i> ₁₁ | 10 | 2.3 | 116°90 | 1°1/30.8 | 18 | 255114 | 2005 <i>UD</i> ₁₀₁ | 10 | 2.3 | 12°27 | 5°9/27.1 | 18 |
| 8 29 | 0 55.44 | + 2 18.1 | 2.532 | 3.386 | 10.6 | 19.9 | 8 29 | 0 58.01 | -11 6.5 | 1.795 | 2.676 | 12.9 | 19.8 |
| 9 8 | 0 50.48 | + 1 32.8 | 2.473 | 3.402 | 7.7 | 19.8 | 9 8 | 0 52.94 | -11 52.4 | 1.740 | 2.678 | 9.8 | 19.6 |
| 9 18 | 0 44.17 | + 0 40.8 | 2.439 | 3.418 | 4.5 | 19.6 | 9 18 | 0 45.90 | -12 35.4 | 1.709 | 2.680 | 7.0 | 19.4 |
| 9 28 | 0 37.06 | + 0 14.0 | 2.434 | 3.433 | 1.5 | 19.4 | 9 28 | 0 37.63 | -13 8.5 | 1.704 | 2.682 | 5.9 | 19.4 |
| 10 8 | 0 29.79 | - 1 6.7 | 2.458 | 3.448 | 2.7 | 19.5 | 10 8 | 0 29.10 | -13 25.8 | 1.726 | 2.685 | 7.4 | 19.5 |
| 10 18 | 0 23.01 | - 1 52.9 | 2.512 | 3.462 | 5.8 | 19.8 | 10 18 | 0 21.29 | -13 23.6 | 1.773 | 2.688 | 10.3 | 19.7 |
| 10 28 | 0 17.35 | - 2 29.0 | 2.594 | 3.476 | 8.7 | 20.0 | 10 28 | 0 15.09 | -13 0.8 | 1.843 | 2.692 | 13.3 | 19.9 |
| 11 7 | 0 13.21 | - 2 52.7 | 2.699 | 3.490 | 11.2 | 20.2 | 11 7 | 0 11.03 | -12 18.7 | 1.934 | 2.696 | 16.0 | 20.1 |
| 325088 | 2008 <i>DO</i> ₄₃ | 10 | 2.3 | 131°45 | 1°6/30.9 | 17 | 520573 | 2014 <i>NO</i> ₇₀ | 10 | 2.3 | 81°57 | 1°3/30.9 | 18 |
| 8 29 | 1 1.34 | + 1 55.5 | 1.716 | 2.578 | 14.3 | 21.5 | 8 29 | 0 55.79 | + 1 31.2 | 2.194 | 3.055 | 11.7 | 21.7 |
| 9 8 | 0 55.42 | + 1 15.0 | 1.657 | 2.590 | 10.5 | 21.3 | 9 8 | 0 51.00 | + 0 58.7 | 2.128 | 3.061 | 8.6 | 21.6 |
| 9 18 | 0 47.39 | + 0 25.2 | 1.622 | 2.602 | 6.2 | 21.1 | 9 18 | 0 44.62 | + 0 19.2 | 2.088 | 3.067 | 5.1 | 21.4 |
| 9 28 | 0 38.06 | + 0 28.3 | 1.613 | 2.612 | 2.1 | 20.9 | 9 28 | 0 37.24 | + 0 23.1 | 2.074 | 3.073 | 1.7 | 21.1 |
| 10 8 | 0 28.46 | - 1 18.9 | 1.633 | 2.623 | 3.7 | 21.0 | 10 8 | 0 29.61 | - 1 3.4 | 2.089 | 3.079 | 3.0 | 21.2 |
| 10 18 | 0 19.67 | - 2 0.2 | 1.680 | 2.633 | 7.9 | 21.3 | 10 18 | 0 22.52 | - 1 37.0 | 2.133 | 3.085 | 6.5 | 21.5 |
| 10 28 | 0 12.60 | - 2 27.6 | 1.753 | 2.642 | 11.8 | 21.5 | 10 28 | 0 16.68 | - 2 0.1 | 2.203 | 3.091 | 9.8 | 21.7 |
| 11 7 | 0 7.85 | - 2 38.5 | 1.847 | 2.650 | 15.1 | 21.8 | 11 7 | 0 12.59 | - 2 10.4 | 2.296 | 3.097 | 12.6 | 21.9 |
| 85992 | 1999 <i>JR</i> ₁₇ | 10 | 2.3 | 164°53 | 4°3/8.2 | 18 | 367255 | 2007 <i>RX</i> ₉₇ | 10 | 2.3 | 109°52 | 2°5/30.4 | 17 |
| 8 29 | 0 55.47 | +22 19.8 | 2.531 | 3.297 | 13.1 | 20.1 | 8 29 | 1 1.99 | + 0 31.3 | 1.395 | 2.270 | 16.2 | 20.8 |
| 9 8 | 0 50.73 | +21 57.6 | 2.446 | 3.302 | 10.7 | 19.9 | 9 8 | 0 56.28 | - 0 16.9 | 1.343 | 2.282 | 11.9 | 20.6 |
| 9 18 | 0 44.44 | +21 15.9 | 2.382 | 3.306 | 8.1 | 19.7 | 9 18 | 0 48.07 | - 1 14.8 | 1.312 | 2.294 | 7.1 | 20.3 |
| 9 28 | 0 37.17 | +20 15.5 | 2.345 | 3.309 | 5.6 | 19.6 | 9 28 | 0 38.30 | - 2 15.0 | 1.307 | 2.305 | 2.8 | 20.1 |
| 10 8 | 0 29.63 | +18 59.7 | 2.335 | 3.312 | 4.3 | 19.5 | 10 8 | 0 28.25 | - 3 9.0 | 1.328 | 2.316 | 4.8 | 20.2 |
| 10 18 | 0 22.55 | +17 33.6 | 2.355 | 3.315 | 5.5 | 19.6 | 10 18 | 0 19.19 | - 3 49.4 | 1.375 | 2.327 | 9.4 | 20.5 |
| 10 28 | 0 16.64 | +16 4.0 | 2.404 | 3.317 | 8.0 | 19.8 | 10 28 | 0 12.21 | - 4 11.3 | 1.446 | 2.337 | 13.7 | 20.8 |
| 11 7 | 0 12.39 | +14 37.7 | 2.479 | 3.319 | 10.5 | 19.9 | 11 7 | 0 7.94 | - 4 13.0 | 1.537 | 2.347 | 17.3 | 21.1 |
| 230329 | 2002 <i>CA</i> ₉₈ | 10 | 2.3 | 165°65 | 3°8/28.0 | 17 | 330664 | 2008 <i>GC</i> ₈₃ | 10 | 2.3 | 46°00 | 1°9/30.6 | 17 |
| 8 29 | 0 56.65 | - 3 34.2 | 2.013 | 2.886 | 12.1 | 20.9 | 8 29 | 0 55.87 | + 3 42.6 | 1.307 | 2.190 | 16.7 | 20.0 |
| 9 8 | 0 51.77 | - 4 56.9 | 1.951 | 2.890 | 8.8 | 20.8 | 9 8 | 0 51.89 | + 2 32.3 | 1.256 | 2.199 | 12.2 | 19.7 |
| 9 18 | 0 45.14 | - 6 24.8 | 1.915 | 2.893 | 5.6 | 20.6 | 9 18 | 0 45.48 | + 1 6.9 | 1.225 | 2.209 | 7.2 | 19.5 |
| 9 28 | 0 37.39 | - 7 50.6 | 1.906 | 2.896 | 3.8 | 20.5 | 9 28 | 0 37.53 | - 0 25.0 | 1.219 | 2.219 | 2.4 | 19.2 |
| 10 8 | 0 29.36 | - 9 6.7 | 1.926 | 2.899 | 5.5 | 20.6 | 10 8 | 0 29.27 | - 1 52.7 | 1.238 | 2.229 | 4.5 | 19.4 |
| 10 18 | 0 21.93 | - 10 6.9 | 1.974 | 2.901 | 8.7 | 20.8 | 10 18 | 0 21.92 | - 3 6.3 | 1.283 | 2.240 | 9.4 | 19.7 |
| 10 28 | 0 15.87 | - 10 47.3 | 2.047 | 2.903 | 11.9 | 21.0 | 10 28 | 0 16.56 | - 3 58.6 | 1.351 | 2.251 | 13.9 | 20.0 |
| 11 7 | 0 11.72 | - 11 6.5 | 2.142 | 2.904 | 14.6 | 21.2 | 11 7 | 0 13.79 | - 4 26.4 | 1.439 | 2.262 | 17.6 | 20.3 |
| 47087 | 1999 <i>AY</i> ₃ | 10 | 2.3 | 157°63 | 2°2/4.1 | 18 | 321465 | 2009 <i>RB</i> ₄₃ | 10 | 2.3 | 42°37 | 2°0/4.6 | 18 |
| 8 29 | 1 1.48 | +10 34.5 | 1.801 | 2.635 | 15.0 | 18.8 | 8 29 | 0 53.21 | +13 8.5 | 1.952 | 2.786 | 14.0 | 20.1 |
| 9 8 | 0 55.64 | +10 38.2 | 1.728 | 2.639 | 11.6 | 18.6 | 9 8 | 0 49.30 | +12 31.9 | 1.887 | 2.797 | 10.8 | 19.9 |
| 9 18 | 0 47.63 | +10 26.9 | 1.677 | 2.642 | 7.6 | 18.4 | 9 18 | 0 43.67 | +11 37.7 | 1.844 | 2.808 | 7.1 | 19.7 |
| 9 28 | 0 38.18 | +10 2.3 | 1.652 | 2.645 | 3.5 | 18.1 | 9 28 | 0 36.96 | +10 29.4 | 1.827 | 2.820 | 3.4 | 19.5 |
| 10 8 | 0 28.30 | + 9 28.3 | 1.654 | 2.648 | 2.8 | 18.1 | 10 8 | 0 30.00 | + 9 12.6 | 1.838 | 2.832 | 2.5 | 19.5 |
| 10 18 | 0 19.08 | + 8 50.4 | 1.685 | 2.651 | 6.7 | 18.4 | 10 18 | 0 23.64 | + 7 54.4 | 1.877 | 2.845 | 5.9 | 19.7 |
| 10 28 | 0 11.51 | + 8 15.0 | 1.742 | 2.653 | 10.6 | 18.6 | 10 28 | 0 18.65 | + 6 41.9 | 1.943 | 2.857 | 9.4 | 19.9 |
| 11 7 | 0 6.27 | + 7 47.3 | 1.823 | 2.655 | 14.1 | 18.8 | 11 7 | 0 15.53 | + 5 40.9 | 2.032 | 2.870 | 12.6 | 20.2 |
| 227123 | 2005 <i>NR</i> ₁₂₃ | 10 | 2.3 | 341°55 | 2°2/3.9 | 18 | 253898 | 2004 <i>BY</i> ₁₀₂ | 10 | 2.3 | 279°26 | 14°6/15.5 | 18 |
| 8 29 | 0 55.80 | +10 19.2 | 1.261 | 2.128 | 18.2 | 20.4 | 8 29 | 1 9.10 | -34 14.6 | 1.752 | 2.576 | 15.8 | 19.8 |
| 9 8 | 0 52.23 | +10 14.2 | 1.191 | 2.120 | 14.1 | 20.1 | 9 8 | 1 2.05 | -36 1.3 | 1.688 | 2.542 | 14.8 | 19.7 |
| 9 18 | 0 45.94 | + 9 48.3 | 1.140 | 2.113 | 9.2 | 19.8 | 9 18 | 0 51.92 | -37 28.1 | 1.644 | 2.506 | 14.6 | 19.6 |
| 9 28 | 0 37.73 | + 9 4.0 | 1.111 | 2.107 | 4.0 | 19.5 | 9 28 | 0 39.58 | -38 22.0 | 1.623 | 2.470 | 15.3 | 19.6 |
| 10 8 | 0 28.86 | + 8 7.7 | 1.106 | 2.101 | 3.2 | 19.5 | 10 8 | 0 26.44 | -38 33.9 | 1.622 | 2.434 | 16.9 | 19.6 |
| 10 18 | 0 20.75 | + 7 8.4 | 1.126 | 2.097 | 8.3 | 19.7 | 10 18 | 0 14.09 | -38 0.5 | 1.640 | 2.396 | 18.8 | 19.6 |
| 10 28 | 0 14.69 | + 6 15.6 | 1.168 | 2.093 | 13.4 | 20.0 | 10 28 | 0 3.98 | -36 44.2 | 1.675 | 2.358 | 20.9 | 19.7 |
| 11 7 | 0 11.51 | + 5 37.2 | 1.231 | 2.090 | 17.8 | 20.3 | 11 7 | 23 57.03 | -34 52.0 | 1.724 | 2.319 | 22.9 | 19.8 |
| 183148 | 2002 <i>RZ</i> ₂₅₃ | 10 | 2.3 | 107°83 | 0°7/1.6 | 17 | 407171 | 2009 <i>UC</i> ₅₀ | 10 | 2.3 | 304°39 | 1°1/1.1 | 17 |
| 8 29 | 0 57.93 | + 6 7.6 | 1.522 | 2.387 | 15.7 | 21.2 | 8 29 | 0 54.44 | + 2 31.3 | 2.107 | 2.970 | 12.0 | 21.4 |
| 9 8 | 0 53.16 | + 5 7.4 | 1.464 | 2.397 | 11.6 | 20.9 | 9 8 | 0 50.25 | + 1 58.3 | 2.021 | 2.955 | 8.9 | 21.2 |
| 9 18 | 0 46.15 | + 3 51.4 | 1.427 | 2.406 | 7.0 | 20.7 | 9 18 | 0 44.31 | + 1 16.4 | 1.959 | 2.939 | 5.3 | 20.9 |
| 9 28 | 0 37.71 | + 2 26.0 | 1.415 | 2.415 | 2.0 | 20.4 | 9 28 | 0 37.19 | + 0 29.5 | 1.923 | 2.923 | 1.7 | 20.7 |
| 10 8 | 0 28.97 | + 1 0.4 | 1.431 | 2.424 | 3.3 | 20.5 | 10 8 | 0 29.65 | - 0 17.0 | 1.916 | 2.908 | 3.0 | 20.7 |
| 10 18 | 0 21.04 | - 0 16.7 | 1.474 | 2.433 | 8.1 | 20.8 | 10 18 | 0 22.51 | - 0 57.8 | 1.937 | 2.892 | 6.8 | 21.0 |
| 10 28 | 0 14.92 | - 1 17.5 | 1.541 | 2.442 | 12.4 | 21.1 | 10 28 | 0 16.59 | - 1 28.2 | 1.984 | 2.877 | 10.4 | 21.1 |
| 11 7 | 0 11.23 | - 1 58.0 | 1.630 | 2.450 | 16.0 | 21.4 | 11 7 | 0 12.49 | - 1 44.8 | 2.054 | 2.862 | 13.6 | 21.3 |
| 107028 | 2000 <i>YH</i> ₁₂₁ | 10 | 2.3 | 244°74 | 1°8/4.1 | 18 | 56808 | 2000 <i>PO</i> < | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|----------|-------|---------|------|---------------|------------------------|-----------------|----------|-------|---------|------|
| 477035 | 2009 AP ₂₁ | 10 2.3 70°55' | 9.4/22.9 | 18 | | | 478995 | 2012 XX ₁₃₁ | 10 2.3 38°46' | 6.7/9.4 | 16 | | |
| 8 29 | 0 58.45 | -19 25.3 | 1.717 | 2.595 | 13.6 | 20.2 | 8 29 | 0 54.68 | +24 22.7 | 1.551 | 2.344 | 18.9 | 20.5 |
| 9 8 | 0 53.36 | -20 57.6 | 1.680 | 2.601 | 11.2 | 20.1 | 9 8 | 0 50.98 | +24 15.6 | 1.485 | 2.353 | 15.7 | 20.3 |
| 9 18 | 0 46.17 | -22 19.2 | 1.665 | 2.608 | 9.6 | 20.0 | 9 18 | 0 44.96 | +23 38.1 | 1.437 | 2.363 | 12.2 | 20.1 |
| 9 28 | 0 37.72 | -23 20.5 | 1.676 | 2.614 | 9.6 | 20.0 | 9 28 | 0 37.43 | +22 29.9 | 1.411 | 2.374 | 8.7 | 19.9 |
| 10 8 | 0 29.06 | -23 54.8 | 1.710 | 2.621 | 11.1 | 20.1 | 10 8 | 0 29.53 | +20 56.1 | 1.409 | 2.385 | 6.7 | 19.8 |
| 10 18 | 0 21.25 | -23 58.9 | 1.768 | 2.628 | 13.4 | 20.3 | 10 18 | 0 22.41 | +19 5.4 | 1.433 | 2.397 | 7.9 | 19.9 |
| 10 28 | 0 15.18 | -23 33.5 | 1.847 | 2.634 | 15.8 | 20.5 | 10 28 | 0 17.13 | +17 9.9 | 1.483 | 2.408 | 11.0 | 20.2 |
| 11 7 | 0 11.41 | -22 42.4 | 1.943 | 2.641 | 17.9 | 20.7 | 11 7 | 0 14.31 | +15 21.0 | 1.556 | 2.421 | 14.3 | 20.4 |
| 19407 | Standing Bear | 10 2.3 45°20' | 5.3/29.0 | 18 | | | 215685 | 2003 WK ₁₈₅ | 10 2.3 242°14' | 6.3/25.9 | 18 | | |
| 8 29 | 1 4.89 | -9 9.3 | 1.487 | 2.366 | 15.3 | 16.6 | 8 29 | 0 58.75 | -12 46.5 | 2.009 | 2.884 | 12.0 | 20.5 |
| 9 8 | 0 58.26 | -9 25.0 | 1.437 | 2.375 | 11.4 | 16.4 | 9 8 | 0 53.44 | -13 50.1 | 1.945 | 2.876 | 9.3 | 20.4 |
| 9 18 | 0 49.19 | -9 38.0 | 1.410 | 2.385 | 7.6 | 16.2 | 9 18 | 0 46.24 | -14 50.8 | 1.904 | 2.868 | 7.0 | 20.2 |
| 9 28 | 0 38.64 | -9 41.7 | 1.408 | 2.395 | 5.3 | 16.1 | 9 28 | 0 37.81 | -15 41.3 | 1.890 | 2.859 | 6.3 | 20.2 |
| 10 8 | 0 27.88 | -9 30.9 | 1.432 | 2.406 | 6.9 | 16.2 | 10 8 | 0 29.02 | -16 15.1 | 1.904 | 2.850 | 7.9 | 20.2 |
| 10 18 | 0 18.16 | -9 2.8 | 1.482 | 2.417 | 10.5 | 16.4 | 10 18 | 0 20.82 | -16 28.1 | 1.943 | 2.841 | 10.5 | 20.4 |
| 10 28 | 0 10.55 | -8 17.1 | 1.557 | 2.428 | 14.1 | 16.7 | 10 28 | 0 14.06 | -16 18.5 | 2.006 | 2.832 | 13.3 | 20.5 |
| 11 7 | 0 5.65 | -7 15.7 | 1.652 | 2.440 | 17.2 | 16.9 | 11 7 | 0 9.34 | -15 47.6 | 2.089 | 2.822 | 15.8 | 20.7 |
| 515882 | 2015 PO ₂₆ | 10 2.3 74°63' | 5.5/7.1 | 18 | | | 392964 | 2012 XW ₇ | 10 2.3 187°55' | 5.3/8.9 | 18 | | |
| 8 29 | 1 1.61 | +18 43.9 | 1.838 | 2.635 | 16.2 | 21.8 | 8 29 | 0 56.73 | +23 53.2 | 2.236 | 2.999 | 14.7 | 21.0 |
| 9 8 | 0 55.78 | +19 22.6 | 1.769 | 2.646 | 13.2 | 21.6 | 9 8 | 0 51.94 | +23 41.2 | 2.148 | 2.998 | 12.2 | 20.8 |
| 9 18 | 0 47.74 | +19 41.5 | 1.722 | 2.657 | 9.8 | 21.4 | 9 18 | 0 45.34 | +23 6.7 | 2.081 | 2.998 | 9.4 | 20.6 |
| 9 28 | 0 38.24 | +19 39.7 | 1.699 | 2.669 | 6.8 | 21.3 | 9 28 | 0 37.54 | +22 9.6 | 2.038 | 2.996 | 6.8 | 20.4 |
| 10 8 | 0 28.32 | +19 19.0 | 1.702 | 2.680 | 5.5 | 21.2 | 10 8 | 0 29.36 | +20 53.0 | 2.022 | 2.995 | 5.4 | 20.3 |
| 10 18 | 0 19.08 | +18 44.0 | 1.732 | 2.691 | 7.2 | 21.4 | 10 18 | 0 21.69 | +19 22.6 | 2.035 | 2.993 | 6.4 | 20.4 |
| 10 28 | 0 11.54 | +18 1.6 | 1.789 | 2.702 | 10.2 | 21.6 | 10 28 | 0 15.35 | +17 46.1 | 2.076 | 2.990 | 9.0 | 20.6 |
| 11 7 | 0 6.37 | +17 19.1 | 1.869 | 2.713 | 13.3 | 21.8 | 11 7 | 0 10.94 | +16 11.9 | 2.143 | 2.987 | 11.8 | 20.7 |
| 349751 | 2008 YQ ₁₅₆ | 10 2.3 293°35' | 7.3/24.3 | 18 | | | 165950 | 2001 WG ₅ | 10 2.3 18°87' | 1.2/3.2 | 18 | | |
| 8 29 | 0 55.10 | -12 4.3 | 1.715 | 2.603 | 13.0 | 20.5 | 8 29 | 0 56.55 | +9 2.2 | 1.049 | 1.930 | 20.0 | 20.2 |
| 9 8 | 0 51.03 | -13 49.2 | 1.656 | 2.595 | 10.1 | 20.3 | 9 8 | 0 53.03 | +8 39.1 | 0.995 | 1.934 | 15.2 | 20.0 |
| 9 18 | 0 44.90 | -15 33.1 | 1.621 | 2.586 | 7.8 | 20.2 | 9 18 | 0 46.49 | +7 52.6 | 0.959 | 1.938 | 9.6 | 19.7 |
| 9 28 | 0 37.40 | -17 5.7 | 1.612 | 2.578 | 7.5 | 20.1 | 9 28 | 0 37.94 | +6 48.1 | 0.944 | 1.943 | 3.5 | 19.4 |
| 10 8 | 0 29.50 | -18 17.7 | 1.629 | 2.570 | 9.4 | 20.2 | 10 8 | 0 28.88 | +5 35.0 | 0.953 | 1.949 | 3.3 | 19.4 |
| 10 18 | 0 22.22 | -19 2.8 | 1.670 | 2.561 | 12.4 | 20.4 | 10 18 | 0 20.87 | +4 24.8 | 0.984 | 1.955 | 9.2 | 19.7 |
| 10 28 | 0 16.50 | -19 18.5 | 1.733 | 2.553 | 15.3 | 20.6 | 10 28 | 0 15.26 | +3 28.2 | 1.038 | 1.962 | 14.6 | 20.1 |
| 11 7 | 0 12.98 | -19 6.0 | 1.815 | 2.545 | 17.9 | 20.8 | 11 7 | 0 12.82 | +2 52.2 | 1.110 | 1.970 | 19.1 | 20.4 |
| 515313 | 2012 WN ₃₄ | 10 2.3 169°58' | 6.2/9.4 | 18 | | | 451952 | 2014 MS ₃₇ | 10 2.3 348°54' | 7.5/23.2 | 18 | | |
| 8 29 | 0 56.73 | +24 43.8 | 2.027 | 2.792 | 15.9 | 21.4 | 8 29 | 0 53.26 | -15 31.2 | 1.973 | 2.857 | 11.8 | 20.5 |
| 9 8 | 0 52.12 | +24 43.7 | 1.944 | 2.794 | 13.3 | 21.2 | 9 8 | 0 49.40 | -17 7.1 | 1.922 | 2.854 | 9.4 | 20.3 |
| 9 18 | 0 45.52 | +24 19.2 | 1.881 | 2.795 | 10.5 | 21.1 | 9 18 | 0 43.79 | -18 38.0 | 1.896 | 2.851 | 7.7 | 20.2 |
| 9 28 | 0 37.59 | +23 29.9 | 1.842 | 2.796 | 7.7 | 20.9 | 9 28 | 0 37.06 | -19 55.4 | 1.896 | 2.848 | 7.7 | 20.2 |
| 10 8 | 0 29.25 | +22 18.3 | 1.828 | 2.797 | 6.2 | 20.8 | 10 8 | 0 30.04 | -20 52.0 | 1.922 | 2.846 | 9.3 | 20.3 |
| 10 18 | 0 21.47 | +20 50.4 | 1.842 | 2.798 | 7.1 | 20.9 | 10 18 | 0 23.59 | -21 23.4 | 1.972 | 2.844 | 11.7 | 20.5 |
| 10 28 | 0 15.16 | +19 14.8 | 1.883 | 2.798 | 9.7 | 21.0 | 10 28 | 0 18.50 | -21 28.3 | 2.043 | 2.843 | 14.1 | 20.6 |
| 11 7 | 0 10.97 | +17 40.4 | 1.948 | 2.798 | 12.5 | 21.2 | 11 7 | 0 15.31 | -21 8.2 | 2.134 | 2.841 | 16.2 | 20.8 |
| 349747 | 2008 YL ₁₄₆ | 10 2.3 234°22' | 6.1/24.9 | 18 | | | 405854 | 2006 CE ₅₈ | 10 2.3 124°56' | 5.3/25.2 | 18 | | |
| 8 29 | 0 56.80 | -12 21.1 | 2.175 | 3.050 | 11.2 | 21.2 | 8 29 | 0 53.63 | -11 11.9 | 2.369 | 3.246 | 10.3 | 21.2 |
| 9 8 | 0 51.92 | -13 48.8 | 2.107 | 3.039 | 8.7 | 21.0 | 9 8 | 0 49.36 | -12 37.4 | 2.316 | 3.251 | 7.9 | 21.0 |
| 9 18 | 0 45.30 | -15 15.4 | 2.065 | 3.027 | 6.7 | 20.9 | 9 18 | 0 43.63 | -14 1.4 | 2.289 | 3.255 | 5.9 | 20.9 |
| 9 28 | 0 37.51 | -16 33.0 | 2.049 | 3.014 | 6.3 | 20.8 | 9 28 | 0 36.99 | -15 17.1 | 2.290 | 3.259 | 5.4 | 20.9 |
| 10 8 | 0 29.35 | -17 34.5 | 2.062 | 3.001 | 7.9 | 20.9 | 10 8 | 0 30.14 | -16 18.6 | 2.319 | 3.262 | 6.9 | 21.0 |
| 10 18 | 0 21.67 | -18 15.0 | 2.101 | 2.988 | 10.4 | 21.1 | 10 18 | 0 23.77 | -17 1.5 | 2.375 | 3.266 | 9.2 | 21.2 |
| 10 28 | 0 15.27 | -18 32.0 | 2.164 | 2.974 | 13.0 | 21.2 | 10 28 | 0 18.54 | -17 23.7 | 2.455 | 3.270 | 11.5 | 21.3 |
| 11 7 | 0 10.73 | -18 25.9 | 2.246 | 2.959 | 15.3 | 21.4 | 11 7 | 0 14.92 | -17 25.6 | 2.555 | 3.273 | 13.6 | 21.5 |
| 295387 | 2008 JZ ₄ | 10 2.3 113°57' | 0.0/2.2 | 18 | | | 518226 | 2016 SK ₅₀ | 10 2.3 43°38' | 1.0/1.4 | 18 | | |
| 8 29 | 0 56.73 | +5 26.1 | 2.466 | 3.310 | 11.1 | 21.7 | 8 29 | 0 55.61 | +4 59.1 | 1.428 | 2.303 | 16.0 | 21.1 |
| 9 8 | 0 51.51 | +4 58.9 | 2.404 | 3.326 | 8.2 | 21.5 | 9 8 | 0 51.55 | +4 2.5 | 1.375 | 2.314 | 11.8 | 20.8 |
| 9 18 | 0 44.85 | +4 23.0 | 2.366 | 3.341 | 5.0 | 21.3 | 9 18 | 0 45.23 | +2 51.2 | 1.344 | 2.325 | 7.0 | 20.6 |
| 9 28 | 0 37.33 | +3 41.7 | 2.357 | 3.356 | 1.5 | 21.1 | 9 28 | 0 37.50 | +1 32.0 | 1.337 | 2.337 | 2.0 | 20.3 |
| 10 8 | 0 29.64 | +2 59.1 | 2.377 | 3.371 | 2.0 | 21.2 | 10 8 | 0 29.49 | +0 14.1 | 1.356 | 2.349 | 3.6 | 20.5 |
| 10 18 | 0 22.47 | +2 19.7 | 2.426 | 3.385 | 5.4 | 21.4 | 10 18 | 0 22.32 | -0 53.8 | 1.402 | 2.362 | 8.4 | 20.8 |
| 10 28 | 0 16.45 | +1 47.2 | 2.504 | 3.399 | 8.5 | 21.6 | 10 28 | 0 16.99 | -1 44.6 | 1.471 | 2.375 | 12.7 | 21.1 |
| 11 7 | 0 12.04 | +1 24.7 | 2.606 | 3.413 | 11.1 | 21.8 | 11 7 | 0 14.07 | -2 14.7 | 1.562 | 2.388 | 16.3 | 21.3 |
| 157705 | 2006 AS ₃₅ | 10 2.3 224°73' | 0.5/2.8 | 18 | | | 286548 | 2002 CP ₁₅₈ | 10 2.3 230°45' | 1.9/28.5 | 18 | | |
| 8 29 | 0 54.96 | +7 21.9 | 2.342 | 3.185 | 11.7 | 21.1 | 8 29 | 0 48.29 | -4 53.7 | 4.372 | 5.236 | 6.3 | 20.4 |
| 9 8 | 0 50.41 | +6 57.0 | 2.263 | 3.183 | 8.8 | 20.9 | 9 8 | 0 44.88 | -5 30.9 | 4.300 | 5.234 | 4.6 | 20.3 |
| 9 18 | 0 44.31 | +6 21.4 | 2.208 | 3.181 | 5.4 | 20.7 | 9 18 | 0 40.72 | -6 9.4 | 4.255 | 5.232 | 2.9 | 20.1 |
| 9 28 | 0 37.20 | +5 37.8 | 2.180 | 3.179 | 1.9 | 20.4 | 9 28 | 0 36.09 | -6 46.7 | 4.240 | 5.230 | 1.9 | 20.1 |
| 10 8 | 0 29.78 | +4 50.7 | 2.181 | 3.176 | 2.0 | 20.4 | 10 8 | 0 31.33 | -7 20.1 | 4.254 | 5.228 | 2.7 | 20.1 |
| 10 18 | 0 22.80 | +4 4.6 | 2.211 | 3.174 | 5.6 | 20.7 | 10 18 | 0 26.79 | -7 47.6 | 4.299 | 5.226 | 4.4 | 20.2 |
| 10 28 | 0 16.97 | +3 24.5 | 2.269 | 3.171 | 8.9 | 20.9 | 10 28 | 0 22.79 | -8 7.4 | 4.371 | 5.224 | 6.1 | 20.4 |
| 11 7 | 0 12.79 | +2 54.1 | 2.351 | 3.169 | 11.8 | 21.1 | 11 7 | 0 19.62 | -8 18.3 | 4.467 | 5.222 | 7.6 | 20.5 |
| 442472 | 2011 UY ₃₀₃ | 10 2.3 166°31' | 3.2/29.1 | 18 | | | 207359 | 2005 JD ₁₃₇ | 10 2.3 256°71' | 4.8/27.4 | 18 | | |
| 8 29 | 0 56.89 | -3 4.1 | 1.932 | 2.806 | 12.5 | 21.5 | 8 29 | 0 59.17 | -8 29.6 | 2.097 | 2.969 | 11.7 | 21.0 |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 213142 | 2000 <i>HM</i> ₂ | 10 | 2.3 338°84 | 1°5/30.9 | 18 | | 173086 | Nireus | 10 | 2.3 318°78 | 3°1/8.6 | 18 | |
| 8 29 | 0 54.87 | + 2 36.2 | 1.656 | 2.530 | 14.2 | 20.4 | 8 29 | 0 48.65 | +21 49.4 | 4.049 | 4.805 | 8.7 | 19.6 |
| 9 8 | 0 50.90 | + 1 51.2 | 1.586 | 2.525 | 10.5 | 20.2 | 9 8 | 0 45.30 | +21 36.5 | 3.951 | 4.799 | 7.2 | 19.5 |
| 9 18 | 0 44.86 | + 0 54.8 | 1.538 | 2.520 | 6.2 | 19.9 | 9 18 | 0 41.05 | +21 11.8 | 3.877 | 4.793 | 5.5 | 19.4 |
| 9 28 | 0 37.42 | - 0 7.2 | 1.516 | 2.515 | 2.1 | 19.6 | 9 28 | 0 36.24 | +20 35.9 | 3.830 | 4.788 | 3.9 | 19.3 |
| 10 8 | 0 29.57 | - 1 7.5 | 1.520 | 2.511 | 3.7 | 19.8 | 10 8 | 0 31.24 | +19 50.6 | 3.811 | 4.782 | 3.1 | 19.2 |
| 10 18 | 0 22.32 | - 1 59.0 | 1.551 | 2.507 | 8.1 | 20.0 | 10 18 | 0 26.47 | +18 58.3 | 3.821 | 4.777 | 3.8 | 19.3 |
| 10 28 | 0 16.65 | - 2 35.8 | 1.607 | 2.504 | 12.2 | 20.3 | 10 28 | 0 22.32 | +18 2.4 | 3.861 | 4.771 | 5.3 | 19.4 |
| 11 7 | 0 13.18 | - 2 54.3 | 1.684 | 2.501 | 15.7 | 20.5 | 11 7 | 0 19.13 | +17 6.3 | 3.928 | 4.766 | 7.0 | 19.5 |
| 256784 | 2008 <i>CZ</i> ₁₈ | 10 | 2.3 217°39 | 1°2/1.2 | 17 | | 487114 | 2014 <i>OH</i> ₁₆₇ | 10 | 2.3 356°83 | 2°2/4.2 | 17 | |
| 8 29 | 0 59.33 | + 3 43.5 | 1.734 | 2.595 | 14.3 | 21.7 | 8 29 | 0 58.03 | + 9 56.6 | 1.849 | 2.691 | 14.4 | 21.1 |
| 9 8 | 0 54.18 | + 2 54.8 | 1.657 | 2.589 | 10.6 | 21.4 | 9 8 | 0 53.13 | +10 14.7 | 1.774 | 2.688 | 11.1 | 20.9 |
| 9 18 | 0 46.85 | + 1 53.4 | 1.603 | 2.582 | 6.3 | 21.2 | 9 18 | 0 46.18 | +10 19.6 | 1.720 | 2.687 | 7.3 | 20.7 |
| 9 28 | 0 38.04 | + 0 44.7 | 1.575 | 2.575 | 2.0 | 20.9 | 9 28 | 0 37.86 | +10 12.5 | 1.692 | 2.686 | 3.5 | 20.4 |
| 10 8 | 0 28.75 | - 0 23.8 | 1.575 | 2.567 | 3.5 | 21.0 | 10 8 | 0 29.09 | + 9 56.4 | 1.691 | 2.685 | 2.8 | 20.4 |
| 10 18 | 0 20.05 | - 1 24.6 | 1.603 | 2.558 | 8.0 | 21.2 | 10 18 | 0 20.88 | + 9 35.8 | 1.718 | 2.685 | 6.4 | 20.6 |
| 10 28 | 0 12.96 | - 2 11.3 | 1.656 | 2.549 | 12.2 | 21.5 | 10 28 | 0 14.18 | + 9 16.0 | 1.771 | 2.685 | 10.2 | 20.8 |
| 11 7 | 0 8.17 | - 2 40.0 | 1.732 | 2.539 | 15.7 | 21.7 | 11 7 | 0 9.63 | + 9 1.9 | 1.846 | 2.686 | 13.6 | 21.1 |
| 352877 | 2008 <i>XU</i> ₄₇ | 10 | 2.3 3°88 | 2°8/4.3 | 16 | | 390349 | 2013 <i>CG</i> ₁₄₀ | 10 | 2.3 293°82 | 2°2/28.0 | 18 | |
| 8 29 | 0 52.24 | +10 53.5 | 1.104 | 1.983 | 19.4 | 20.2 | 8 29 | 0 48.89 | - 6 20.9 | 4.137 | 5.003 | 6.5 | 20.9 |
| 9 8 | 0 49.77 | +10 57.7 | 1.046 | 1.981 | 15.0 | 19.9 | 9 8 | 0 45.38 | - 6 56.7 | 4.063 | 4.997 | 4.8 | 20.7 |
| 9 18 | 0 44.51 | +10 38.8 | 1.007 | 1.981 | 9.9 | 19.6 | 9 18 | 0 41.06 | - 7 33.3 | 4.015 | 4.990 | 3.1 | 20.6 |
| 9 28 | 0 37.37 | + 9 59.7 | 0.988 | 1.983 | 4.7 | 19.4 | 9 28 | 0 36.23 | - 8 7.9 | 3.997 | 4.984 | 2.2 | 20.5 |
| 10 8 | 0 29.67 | + 9 7.3 | 0.992 | 1.987 | 3.5 | 19.3 | 10 8 | 0 31.26 | - 8 37.9 | 4.008 | 4.977 | 3.1 | 20.6 |
| 10 18 | 0 22.87 | + 8 11.0 | 1.019 | 1.993 | 8.4 | 19.6 | 10 18 | 0 26.50 | - 9 1.2 | 4.048 | 4.971 | 4.8 | 20.7 |
| 10 28 | 0 18.24 | + 7 21.0 | 1.068 | 2.000 | 13.5 | 19.9 | 10 28 | 0 22.33 | - 9 15.9 | 4.116 | 4.964 | 6.6 | 20.8 |
| 11 7 | 0 16.54 | + 6 45.2 | 1.136 | 2.009 | 17.9 | 20.2 | 11 7 | 0 19.03 | - 9 21.0 | 4.209 | 4.958 | 8.1 | 21.0 |
| 205105 | 1999 <i>TC</i> ₂₃₄ | 10 | 2.3 332°01 | 2°0/30.7 | 18 | | 366675 | 2003 <i>UY</i> ₅₇ | 10 | 2.3 22°82 | 5°3/5.9 | 16 | |
| 8 29 | 0 53.44 | + 2 13.3 | 1.331 | 2.220 | 16.1 | 19.9 | 8 29 | 0 55.25 | +15 18.7 | 0.929 | 1.801 | 22.7 | 20.3 |
| 9 8 | 0 50.39 | + 1 28.9 | 1.257 | 2.203 | 11.9 | 19.6 | 9 8 | 0 52.31 | +15 39.9 | 0.885 | 1.811 | 18.0 | 20.1 |
| 9 18 | 0 44.82 | + 0 30.4 | 1.203 | 2.187 | 7.2 | 19.3 | 9 18 | 0 46.15 | +15 29.9 | 0.857 | 1.823 | 12.7 | 19.8 |
| 9 28 | 0 37.47 | - 0 35.6 | 1.172 | 2.172 | 2.5 | 19.0 | 9 28 | 0 37.88 | +14 49.9 | 0.848 | 1.837 | 7.4 | 19.6 |
| 10 8 | 0 29.48 | - 1 39.9 | 1.166 | 2.158 | 4.5 | 19.1 | 10 8 | 0 29.17 | +13 47.5 | 0.860 | 1.852 | 5.4 | 19.6 |
| 10 18 | 0 22.11 | - 2 33.4 | 1.185 | 2.144 | 9.7 | 19.4 | 10 18 | 0 21.69 | +12 34.1 | 0.895 | 1.869 | 9.2 | 19.8 |
| 10 28 | 0 16.59 | - 3 8.5 | 1.226 | 2.132 | 14.5 | 19.6 | 10 28 | 0 16.84 | +11 23.3 | 0.950 | 1.887 | 14.1 | 20.2 |
| 11 7 | 0 13.72 | - 3 21.1 | 1.287 | 2.121 | 18.6 | 19.8 | 11 7 | 0 15.32 | +10 26.0 | 1.024 | 1.906 | 18.6 | 20.5 |
| 407639 | 2011 <i>DZ</i> ₄₉ | 10 | 2.3 277°50 | 0°9/3.2 | 17 | | 227119 | 2005 <i>ND</i> ₈₅ | 10 | 2.3 6°12 | 1°7/30.8 | 18 | |
| 8 29 | 0 57.23 | + 7 17.7 | 2.451 | 3.288 | 11.4 | 20.8 | 8 29 | 0 49.42 | + 5 47.7 | 1.025 | 1.925 | 18.7 | 19.1 |
| 9 8 | 0 52.16 | + 7 16.7 | 2.356 | 3.272 | 8.7 | 20.6 | 9 8 | 0 47.72 | + 4 25.2 | 0.973 | 1.925 | 13.8 | 18.9 |
| 9 18 | 0 45.44 | + 7 6.2 | 2.285 | 3.255 | 5.5 | 20.4 | 9 18 | 0 43.27 | + 2 39.7 | 0.940 | 1.926 | 8.2 | 18.6 |
| 9 28 | 0 37.60 | + 6 48.2 | 2.241 | 3.238 | 2.1 | 20.1 | 9 28 | 0 37.01 | + 0 41.9 | 0.929 | 1.929 | 2.5 | 18.2 |
| 10 8 | 0 29.33 | + 6 25.6 | 2.226 | 3.221 | 2.0 | 20.1 | 10 8 | 0 30.28 | - 1 13.7 | 0.941 | 1.933 | 4.8 | 18.4 |
| 10 18 | 0 21.38 | + 6 2.1 | 2.241 | 3.204 | 5.5 | 20.3 | 10 18 | 0 24.48 | - 2 52.7 | 0.975 | 1.939 | 10.6 | 18.8 |
| 10 28 | 0 14.52 | + 5 41.7 | 2.284 | 3.187 | 8.8 | 20.5 | 10 28 | 0 20.83 | - 4 4.5 | 1.031 | 1.946 | 15.7 | 19.1 |
| 11 7 | 0 9.32 | + 5 28.0 | 2.351 | 3.170 | 11.7 | 20.7 | 11 7 | 0 20.02 | - 4 44.6 | 1.105 | 1.955 | 20.0 | 19.4 |
| 27629 | 2054 <i>P-L</i> | 10 | 2.3 170°15 | 1°7/3.9 | 18 | | 299193 | 2005 <i>GA</i> ₁₄₆ | 10 | 2.3 54°95 | 2°0/4.4 | 18 | |
| 8 29 | 0 59.51 | +11 33.8 | 1.809 | 2.643 | 15.0 | 18.7 | 8 29 | 0 55.00 | +13 2.7 | 1.697 | 2.537 | 15.5 | 20.3 |
| 9 8 | 0 54.19 | +11 2.0 | 1.735 | 2.647 | 11.5 | 18.5 | 9 8 | 0 50.87 | +12 22.8 | 1.636 | 2.550 | 11.9 | 20.1 |
| 9 18 | 0 46.79 | +10 12.2 | 1.683 | 2.650 | 7.5 | 18.3 | 9 18 | 0 44.75 | +11 23.0 | 1.597 | 2.563 | 7.8 | 19.9 |
| 9 28 | 0 38.01 | + 9 7.6 | 1.657 | 2.652 | 3.2 | 18.0 | 9 28 | 0 37.40 | +10 7.3 | 1.583 | 2.577 | 3.6 | 19.7 |
| 10 8 | 0 28.84 | + 7 54.3 | 1.659 | 2.654 | 2.5 | 18.0 | 10 8 | 0 29.78 | + 8 42.6 | 1.596 | 2.591 | 2.6 | 19.7 |
| 10 18 | 0 20.32 | + 6 39.6 | 1.690 | 2.655 | 6.6 | 18.3 | 10 18 | 0 22.88 | + 7 17.3 | 1.637 | 2.605 | 6.5 | 19.9 |
| 10 28 | 0 13.40 | + 5 31.4 | 1.747 | 2.656 | 10.7 | 18.5 | 10 28 | 0 17.58 | + 5 59.7 | 1.703 | 2.620 | 10.4 | 20.2 |
| 11 7 | 0 8.71 | + 4 35.9 | 1.827 | 2.656 | 14.2 | 18.7 | 11 7 | 0 14.42 | + 4 56.1 | 1.793 | 2.634 | 13.9 | 20.5 |
| 123699 | 2000 <i>YF</i> ₁₀₅ | 10 | 2.3 81°08 | 2°7/4.9 | 18 | | 409750 | 2006 <i>DD</i> ₆₂ | 10 | 2.3 216°22 | 1°5/30.4 | 18 | |
| 8 29 | 1 2.40 | +12 1.8 | 2.325 | 3.137 | 12.8 | 18.6 | 8 29 | 0 55.70 | - 0 2.8 | 2.681 | 3.537 | 10.0 | 21.1 |
| 9 8 | 0 55.85 | +12 31.6 | 2.258 | 3.153 | 9.9 | 18.4 | 9 8 | 0 50.79 | - 0 34.6 | 2.601 | 3.532 | 7.3 | 20.9 |
| 9 18 | 0 47.58 | +12 49.4 | 2.215 | 3.170 | 6.8 | 18.2 | 9 18 | 0 44.50 | - 1 11.7 | 2.547 | 3.525 | 4.4 | 20.8 |
| 9 28 | 0 38.23 | +12 55.7 | 2.199 | 3.186 | 3.7 | 18.1 | 9 28 | 0 37.31 | - 1 50.3 | 2.521 | 3.519 | 1.7 | 20.6 |
| 10 8 | 0 28.62 | +12 52.5 | 2.213 | 3.203 | 3.0 | 18.1 | 10 8 | 0 29.85 | - 2 26.5 | 2.525 | 3.512 | 2.9 | 20.6 |
| 10 18 | 0 19.59 | +12 42.7 | 2.257 | 3.219 | 5.5 | 18.3 | 10 18 | 0 22.77 | - 2 56.5 | 2.558 | 3.505 | 5.9 | 20.8 |
| 10 28 | 0 11.92 | +12 30.7 | 2.329 | 3.235 | 8.5 | 18.5 | 10 28 | 0 16.68 | - 3 17.1 | 2.619 | 3.498 | 8.8 | 21.0 |
| 11 7 | 0 6.14 | +12 20.5 | 2.426 | 3.251 | 11.2 | 18.7 | 11 7 | 0 12.07 | - 3 26.2 | 2.704 | 3.490 | 11.3 | 21.2 |
| 327143 | 2005 <i>ET</i> ₂₆₂ | 10 | 2.3 222°12 | 0°6/2.8 | 17 | | 412768 | 2014 <i>OQ</i> ₃₈₆ | 10 | 2.3 264°47 | 4°0/6.7 | 17 | |
| 8 29 | 0 59.18 | + 8 22.8 | 1.587 | 2.440 | 15.8 | 21.5 | 8 29 | 0 56.22 | +17 50.8 | 2.237 | 3.035 | 13.6 | 21.3 |
| 9 8 | 0 54.28 | + 7 48.3 | 1.510 | 2.435 | 12.0 | 21.3 | 9 8 | 0 51.55 | +17 56.9 | 2.152 | 3.033 | 11.0 | 21.2 |
| 9 18 | 0 47.02 | + 6 56.4 | 1.455 | 2.429 | 7.5 | 21.0 | 9 18 | 0 45.13 | +17 45.9 | 2.090 | 3.030 | 8.0 | 21.0 |
| 9 28 | 0 38.13 | + 5 51.0 | 1.425 | 2.424 | 2.6 | 20.7 | 9 28 | 0 37.54 | +17 17.9 | 2.052 | 3.028 | 5.2 | 20.8 |
| 10 8 | 0 28.72 | + 4 39.3 | 1.422 | 2.417 | 2.7 | 20.7 | 10 8 | 0 29.55 | +16 35.7 | 2.042 | 3.026 | 4.1 | 20.7 |
| 10 18 | 0 19.95 | + 3 29.5 | 1.446 | 2.411 | 7.7 | 21.0 | 10 18 | 0 22.00 | +15 43.8 | 2.060 | 3.023 | 5.9 | 20.8 |
| 10 28 | 0 12.93 | + 2 29.9 | 1.496 | 2.404 | 12.2 | 21.2 | 10 28 | 0 15.72 | +14 48.2 | 2.106 | 3.021 | 8.8 | 21.0 |
| 11 7 | 0 8.40 | + 1 46.3 | 1.567 | 2.396 | 16.1 | 21.4 | 11 7 | 0 11.27 | +13 55.2 | 2.176 | 3.019 | 11.7 | 21.2 |
| 294997 | 2008 <i>EA</i> ₃₃ | 10 | 2.3 182°61 | 3°3/29.3 | 17 | | 139170 | 2001 <i>FU</i> ₁₂₆ | 10 | 2.3 88°02 | 3°7/29.6 | 18 | |
| 8 29 | 0 59.77 | - 1 51.4 | 1.7 | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|-----------|---------|------|---------------|-------------------------------|-----------------|----------|-----------|---------|------|
| 469848 | 2005 <i>TN</i> ₁₁₆ | 10 2.3 | 60°01' | 1.1°/3.1 | 16 | | 12163 | Manilius | 10 2.3 | 310°55' | 1.3°/1.1 | 18 | |
| 8 29 | 1 2.76 | + 6 57.4 | 1.372 | 2.233 | 17.4 | 21.2 | 8 29 | 0 55.46 | + 3 38.3 | 1.668 | 2.538 | 14.3 | 18.1 |
| 9 8 | 0 56.94 | + 7 2.6 | 1.320 | 2.248 | 13.1 | 21.0 | 9 8 | 0 51.38 | + 2 48.3 | 1.595 | 2.532 | 10.6 | 17.9 |
| 9 18 | 0 48.56 | + 6 53.1 | 1.289 | 2.264 | 8.2 | 20.8 | 9 18 | 0 45.19 | + 1 45.4 | 1.544 | 2.525 | 6.3 | 17.6 |
| 9 28 | 0 38.57 | + 6 32.0 | 1.282 | 2.280 | 3.0 | 20.5 | 9 28 | 0 37.59 | + 0 35.4 | 1.520 | 2.519 | 2.0 | 17.4 |
| 10 8 | 0 28.29 | + 6 4.8 | 1.301 | 2.297 | 2.9 | 20.6 | 10 8 | 0 29.55 | - 0 34.0 | 1.522 | 2.513 | 3.6 | 17.5 |
| 10 18 | 0 19.03 | + 5 38.0 | 1.346 | 2.313 | 7.8 | 20.9 | 10 18 | 0 22.09 | - 1 35.3 | 1.550 | 2.508 | 8.1 | 17.7 |
| 10 28 | 0 11.91 | + 5 18.0 | 1.416 | 2.329 | 12.4 | 21.2 | 10 28 | 0 16.21 | - 2 21.7 | 1.604 | 2.502 | 12.2 | 18.0 |
| 11 7 | 0 7.59 | + 5 9.2 | 1.507 | 2.346 | 16.1 | 21.5 | 11 7 | 0 12.55 | - 2 49.5 | 1.680 | 2.497 | 15.7 | 18.2 |
| 505716 | 2015 <i>AU</i> ₁₅₃ | 10 2.3 | 283°78' | 0°1'/2.2 | 17 | | 38164 | 1999 <i>JB</i> ₇₈ | 10 2.3 | 127°11' | 2°8'/29.7 | 17 | |
| 8 29 | 0 59.93 | + 5 34.5 | 1.358 | 2.227 | 17.0 | 22.5 | 8 29 | 1 1.47 | - 0 9.5 | 1.713 | 2.580 | 14.2 | 19.6 |
| 9 8 | 0 55.41 | + 5 12.9 | 1.272 | 2.207 | 12.9 | 22.2 | 9 8 | 0 55.50 | - 1 20.5 | 1.662 | 2.598 | 10.3 | 19.4 |
| 9 18 | 0 48.04 | + 4 35.0 | 1.207 | 2.186 | 8.0 | 21.9 | 9 18 | 0 47.48 | - 2 39.4 | 1.635 | 2.615 | 6.2 | 19.2 |
| 9 28 | 0 38.54 | + 3 44.6 | 1.166 | 2.165 | 2.4 | 21.5 | 9 28 | 0 38.23 | - 3 58.7 | 1.635 | 2.631 | 2.9 | 19.1 |
| 10 8 | 0 28.15 | + 2 49.0 | 1.150 | 2.144 | 3.4 | 21.5 | 10 8 | 0 28.79 | - 5 10.2 | 1.663 | 2.646 | 4.8 | 19.2 |
| 10 18 | 0 18.30 | + 1 56.9 | 1.159 | 2.123 | 9.2 | 21.8 | 10 18 | 0 20.19 | - 6 7.2 | 1.719 | 2.661 | 8.7 | 19.5 |
| 10 28 | 0 10.42 | + 1 16.8 | 1.192 | 2.102 | 14.4 | 22.0 | 10 28 | 0 13.33 | - 6 45.1 | 1.800 | 2.675 | 12.3 | 19.8 |
| 11 7 | 0 5.47 | + 0 54.9 | 1.245 | 2.081 | 19.0 | 22.2 | 11 7 | 0 8.75 | - 7 2.4 | 1.903 | 2.687 | 15.4 | 20.0 |
| 409714 | 2006 <i>BN</i> ₁₇₈ | 10 2.3 | 184°97' | 2°4'/29.3 | 18 | | 513987 | 2014 <i>HN</i> ₁ | 10 2.3 | 281°63' | 4°1'/29.7 | 18 | |
| 8 29 | 0 54.59 | - 2 19.9 | 2.565 | 3.430 | 10.1 | 21.7 | 8 29 | 1 7.04 | - 7 56.9 | 1.785 | 2.650 | 13.8 | 20.8 |
| 9 8 | 0 49.99 | - 3 9.0 | 2.495 | 3.429 | 7.4 | 21.5 | 9 8 | 0 59.80 | - 7 57.8 | 1.713 | 2.644 | 10.4 | 20.5 |
| 9 18 | 0 44.02 | - 4 2.4 | 2.450 | 3.429 | 4.5 | 21.3 | 9 18 | 0 50.23 | - 7 56.9 | 1.665 | 2.639 | 6.7 | 20.3 |
| 9 28 | 0 37.17 | - 4 55.4 | 2.434 | 3.429 | 2.4 | 21.2 | 9 28 | 0 39.12 | - 7 49.3 | 1.643 | 2.634 | 4.2 | 20.2 |
| 10 8 | 0 30.08 | - 5 43.4 | 2.447 | 3.428 | 3.8 | 21.3 | 10 8 | 0 27.59 | - 7 30.5 | 1.651 | 2.629 | 5.6 | 20.2 |
| 10 18 | 0 23.41 | - 6 22.0 | 2.489 | 3.427 | 6.6 | 21.5 | 10 18 | 0 16.82 | - 6 58.1 | 1.686 | 2.623 | 9.2 | 20.4 |
| 10 28 | 0 17.78 | - 6 48.2 | 2.558 | 3.426 | 9.4 | 21.6 | 10 28 | 0 7.85 | - 6 11.3 | 1.748 | 2.618 | 12.9 | 20.7 |
| 11 7 | 0 13.65 | - 7 0.2 | 2.651 | 3.424 | 11.8 | 21.8 | 11 7 | 0 1.39 | - 5 11.0 | 1.832 | 2.613 | 16.0 | 20.9 |
| 319069 | 2005 <i>WA</i> ₃₉ | 10 2.3 | 312°93' | 4°0'/6.7 | 17 | | 163521 | 2002 <i>TX</i> ₂₁ | 10 2.3 | 12°29' | 1°1'/1.4 | 18 | |
| 8 29 | 0 54.25 | +17 57.2 | 2.051 | 2.858 | 14.4 | 20.7 | 8 29 | 0 56.86 | + 2 49.1 | 1.611 | 2.483 | 14.6 | 19.7 |
| 9 8 | 0 50.26 | +17 48.1 | 1.964 | 2.851 | 11.6 | 20.5 | 9 8 | 0 52.40 | + 2 20.5 | 1.547 | 2.484 | 10.8 | 19.5 |
| 9 18 | 0 44.42 | +17 19.3 | 1.899 | 2.844 | 8.4 | 20.2 | 9 18 | 0 45.78 | + 1 41.3 | 1.505 | 2.486 | 6.5 | 19.3 |
| 9 28 | 0 37.34 | +16 31.6 | 1.858 | 2.837 | 5.3 | 20.0 | 9 28 | 0 37.76 | + 0 56.5 | 1.488 | 2.488 | 2.0 | 19.0 |
| 10 8 | 0 29.82 | +15 28.4 | 1.844 | 2.830 | 4.0 | 20.0 | 10 8 | 0 29.37 | + 0 12.8 | 1.498 | 2.491 | 3.4 | 19.1 |
| 10 18 | 0 22.77 | +14 15.7 | 1.858 | 2.824 | 6.1 | 20.1 | 10 18 | 0 21.68 | - 0 23.7 | 1.535 | 2.494 | 7.9 | 19.4 |
| 10 28 | 0 17.03 | +13 0.8 | 1.899 | 2.818 | 9.4 | 20.3 | 10 28 | 0 15.65 | - 0 47.4 | 1.596 | 2.497 | 12.0 | 19.6 |
| 11 7 | 0 13.23 | +11 51.0 | 1.964 | 2.812 | 12.5 | 20.5 | 11 7 | 0 11.92 | - 0 55.4 | 1.679 | 2.501 | 15.5 | 19.9 |
| 328789 | 2009 <i>UF</i> ₁₅₅ | 10 2.3 | 245°67' | 1°8'/30.4 | 18 | | 170622 | 2003 <i>YJ</i> ₅₅ | 10 2.3 | 281°03' | 7°6'/24.7 | 18 | |
| 8 29 | 0 56.25 | - 0 53.8 | 2.406 | 3.267 | 10.8 | 21.0 | 8 29 | 0 58.43 | -14 54.8 | 1.835 | 2.714 | 12.8 | 19.5 |
| 9 8 | 0 51.31 | - 1 19.8 | 2.332 | 3.265 | 7.9 | 20.8 | 9 8 | 0 53.49 | -16 10.0 | 1.768 | 2.698 | 10.2 | 19.3 |
| 9 18 | 0 44.86 | - 1 50.4 | 2.284 | 3.263 | 4.7 | 20.6 | 9 18 | 0 46.45 | -17 21.3 | 1.724 | 2.682 | 8.1 | 19.2 |
| 9 28 | 0 37.43 | - 2 22.0 | 2.263 | 3.261 | 2.0 | 20.4 | 9 28 | 0 37.98 | -18 19.6 | 1.705 | 2.665 | 7.7 | 19.1 |
| 10 8 | 0 29.73 | - 2 50.3 | 2.271 | 3.258 | 3.3 | 20.5 | 10 8 | 0 29.06 | -18 57.5 | 1.713 | 2.649 | 9.4 | 19.2 |
| 10 18 | 0 22.48 | - 3 11.4 | 2.308 | 3.256 | 6.4 | 20.7 | 10 18 | 0 20.72 | -19 10.1 | 1.745 | 2.633 | 12.1 | 19.3 |
| 10 28 | 0 16.35 | - 3 22.3 | 2.372 | 3.253 | 9.5 | 20.9 | 10 28 | 0 13.94 | -18 55.8 | 1.799 | 2.616 | 15.0 | 19.5 |
| 11 7 | 0 11.87 | - 3 21.1 | 2.460 | 3.251 | 12.1 | 21.0 | 11 7 | 0 9.37 | -18 16.5 | 1.873 | 2.600 | 17.6 | 19.7 |
| 275438 | 2011 <i>CM</i> ₄₄ | 10 2.3 | 244°58' | 1°5'/4.2 | 18 | | 442254 | 2011 <i>PL</i> ₂ | 10 2.3 | 167°51' | 5°5'/8.1 | 18 | |
| 8 29 | 0 53.75 | +11 31.1 | 2.628 | 3.451 | 11.1 | 21.6 | 8 29 | 0 58.86 | +21 31.9 | 2.055 | 2.835 | 15.3 | 21.7 |
| 9 8 | 0 49.46 | +11 4.5 | 2.536 | 3.442 | 8.6 | 21.4 | 9 8 | 0 53.69 | +21 45.1 | 1.974 | 2.837 | 12.6 | 21.5 |
| 9 18 | 0 43.76 | +10 25.3 | 2.469 | 3.433 | 5.6 | 21.2 | 9 18 | 0 46.52 | +21 37.4 | 1.914 | 2.839 | 9.6 | 21.3 |
| 9 28 | 0 37.11 | + 9 35.4 | 2.429 | 3.423 | 2.6 | 21.0 | 9 28 | 0 38.00 | +21 8.2 | 1.877 | 2.841 | 6.8 | 21.1 |
| 10 8 | 0 30.14 | + 8 38.8 | 2.418 | 3.413 | 2.0 | 20.9 | 10 8 | 0 29.05 | +20 19.7 | 1.868 | 2.842 | 5.5 | 21.1 |
| 10 18 | 0 23.51 | + 7 39.9 | 2.437 | 3.403 | 4.9 | 21.1 | 10 18 | 0 20.64 | +19 17.0 | 1.886 | 2.844 | 6.8 | 21.2 |
| 10 28 | 0 17.88 | + 6 43.8 | 2.484 | 3.392 | 8.0 | 21.3 | 10 28 | 0 13.69 | +18 7.5 | 1.931 | 2.844 | 9.6 | 21.3 |
| 11 7 | 0 13.73 | + 5 55.1 | 2.557 | 3.382 | 10.7 | 21.5 | 11 7 | 0 8.85 | +16 58.9 | 2.000 | 2.845 | 12.5 | 21.5 |
| 488038 | 2015 <i>UK</i> ₄₃ | 10 2.3 | 302°65' | 4°0'/27.9 | 17 | | 129975 | 1999 <i>UA</i> ₃₆ | 10 2.3 | 153°16' | 0°4'/2.7 | 18 | |
| 8 29 | 0 53.98 | - 5 9.2 | 2.045 | 2.924 | 11.7 | 21.6 | 8 29 | 1 0.79 | + 6 11.1 | 2.068 | 2.911 | 13.0 | 20.4 |
| 9 8 | 0 49.95 | - 6 15.1 | 1.972 | 2.912 | 8.6 | 21.4 | 9 8 | 0 54.87 | + 5 58.9 | 1.997 | 2.917 | 9.8 | 20.2 |
| 9 18 | 0 44.18 | - 7 25.2 | 1.923 | 2.901 | 5.6 | 21.2 | 9 18 | 0 47.11 | + 5 36.1 | 1.950 | 2.923 | 6.0 | 20.0 |
| 9 28 | 0 37.25 | - 8 32.9 | 1.900 | 2.889 | 4.0 | 21.1 | 9 28 | 0 38.16 | + 5 5.8 | 1.930 | 2.929 | 2.0 | 19.7 |
| 10 8 | 0 29.96 | - 9 31.4 | 1.906 | 2.878 | 5.7 | 21.2 | 10 8 | 0 28.90 | + 4 32.2 | 1.939 | 2.934 | 2.2 | 19.7 |
| 10 18 | 0 23.13 | -10 15.0 | 1.939 | 2.867 | 8.8 | 21.3 | 10 18 | 0 20.23 | + 4 0.2 | 1.977 | 2.939 | 6.2 | 20.0 |
| 10 28 | 0 17.56 | -10 39.8 | 1.996 | 2.856 | 12.0 | 21.5 | 10 28 | 0 12.99 | + 3 34.3 | 2.043 | 2.943 | 9.8 | 20.2 |
| 11 7 | 0 13.83 | -10 44.7 | 2.075 | 2.845 | 14.7 | 21.7 | 11 7 | 0 7.76 | + 3 18.2 | 2.132 | 2.947 | 12.9 | 20.5 |
| 127105 | 2002 <i>GL</i> ₈₈ | 10 2.3 | 152°24' | 5°6'/26.0 | 18 | | 153510 | 2001 <i>RB</i> ₁₄₆ | 10 2.3 | 281°43' | 3°9'/5.8 | 18 | |
| 8 29 | 0 58.84 | -11 22.3 | 2.175 | 3.047 | 11.4 | 20.5 | 8 29 | 0 57.67 | +15 52.7 | 1.595 | 2.422 | 16.9 | 19.8 |
| 9 8 | 0 53.28 | -12 37.9 | 2.124 | 3.055 | 8.7 | 20.4 | 9 8 | 0 53.25 | +15 47.8 | 1.517 | 2.418 | 13.5 | 19.6 |
| 9 18 | 0 46.04 | -13 51.3 | 2.098 | 3.063 | 6.4 | 20.2 | 9 18 | 0 46.45 | +15 20.3 | 1.459 | 2.414 | 9.5 | 19.4 |
| 9 28 | 0 37.78 | -14 55.4 | 2.100 | 3.071 | 5.7 | 20.2 | 9 28 | 0 38.02 | +14 31.2 | 1.424 | 2.410 | 5.5 | 19.1 |
| 10 8 | 0 29.32 | -15 44.1 | 2.131 | 3.077 | 7.1 | 20.3 | 10 8 | 0 29.04 | +13 25.3 | 1.416 | 2.406 | 4.1 | 19.0 |
| 10 18 | 0 21.48 | -16 13.3 | 2.188 | 3.084 | 9.6 | 20.5 | 10 18 | 0 20.68 | +12 10.1 | 1.434 | 2.402 | 7.2 | 19.2 |
| 10 28 | 0 15.00 | -16 21.5 | 2.269 | 3.089 | 12.2 | 20.7 | 10 28 | 0 14.08 | +10 55.0 | 1.478 | 2.399 | 11.4 | 19.4 |
| 11 7 | 0 10.40 | -16 9.2 | 2.372 | 3.094 | 14.4 | 20.8 | 11 7 | 0 9.97 | + 9 48.8 | 1.544 | 2.395 | 15.2 | 19.7 |
| 175021 | 2004 <i>FO</i> ₂₆ | 10 2.3 | 343°38' | 0°4'/1.9 | 18 | | 388221 | 2006 <i>HJ</i> ₁₀₃ | 10 2.3 | 83°26' | 4°1'/28.0 | 17 | |
| 8 29 | 0 56.42 | + 4 34.8 | | | | | | | | | | | |

EPHEMERIDES

10 2.3

10 2.3

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | | |
|---------------|------------------------|-----------------|----------|-------|---------|-----------|-------|-----------------|------------------------|----------|-------|---------|--------|----------|----|
| 4007 | Euryalos | | 10 | 2.3 | 291°55 | 0°1/ 2.6 | 18 | 435647 | 2008 SB ₂₃₂ | | 10 | 2.3 | 263°44 | 1°0/ 4.5 | 18 |
| 8 29 | 0 50.02 | + 5 19.6 | 4.263 | 5.100 | 7.0 | 17.5 | 8 29 | 0 48.19 | +11 14.2 | 4.452 | 5.267 | 7.1 | 21.7 | | |
| 9 8 | 0 46.20 | + 5 8.6 | 4.178 | 5.095 | 5.2 | 17.4 | 9 8 | 0 44.87 | +10 53.6 | 4.362 | 5.262 | 5.4 | 21.5 | | |
| 9 18 | 0 41.58 | + 4 52.7 | 4.119 | 5.091 | 3.2 | 17.2 | 9 18 | 0 40.79 | +10 25.9 | 4.298 | 5.258 | 3.6 | 21.4 | | |
| 9 28 | 0 36.44 | + 4 33.5 | 4.088 | 5.087 | 1.0 | 17.0 | 9 28 | 0 36.22 | + 9 52.5 | 4.262 | 5.254 | 1.7 | 21.3 | | |
| 10 8 | 0 31.15 | + 4 13.0 | 4.088 | 5.083 | 1.2 | 17.1 | 10 8 | 0 31.51 | + 9 15.3 | 4.256 | 5.250 | 1.3 | 21.2 | | |
| 10 18 | 0 26.06 | + 3 53.2 | 4.119 | 5.079 | 3.3 | 17.2 | 10 18 | 0 26.99 | + 8 36.6 | 4.281 | 5.245 | 3.0 | 21.4 | | |
| 10 28 | 0 21.55 | + 3 36.3 | 4.179 | 5.075 | 5.3 | 17.4 | 10 28 | 0 23.01 | + 7 59.0 | 4.335 | 5.241 | 4.9 | 21.5 | | |
| 11 7 | 0 17.90 | + 3 23.9 | 4.265 | 5.071 | 7.1 | 17.5 | 11 7 | 0 19.84 | + 7 24.9 | 4.416 | 5.237 | 6.6 | 21.6 | | |
| 432606 | 2010 TT ₁₇₉ | | 10 | 2.3 | 332°15 | 1°4/ 1.3 | 18 | 179820 | 2002 TQ ₁₀₂ | | 10 | 2.3 | 65°83 | 1°6/ 3.6 | 18 |
| 8 29 | 0 55.46 | + 4 39.2 | 1.177 | 2.064 | 17.8 | 21.3 | 8 29 | 1 0 58 | + 9 49.0 | 1.341 | 2.198 | 17.9 | 20.1 | | |
| 9 8 | 0 52.13 | + 3 47.0 | 1.111 | 2.056 | 13.3 | 21.0 | 9 8 | 0 55.38 | + 9 32.2 | 1.291 | 2.216 | 13.6 | 19.9 | | |
| 9 18 | 0 45.99 | + 2 36.0 | 1.065 | 2.048 | 8.0 | 20.7 | 9 18 | 0 47.66 | + 8 56.3 | 1.261 | 2.233 | 8.6 | 19.6 | | |
| 9 28 | 0 37.92 | + 1 13.7 | 1.041 | 2.042 | 2.4 | 20.3 | 9 28 | 0 38.37 | + 8 5.2 | 1.254 | 2.251 | 3.5 | 19.4 | | |
| 10 8 | 0 29.20 | - 0 9.3 | 1.042 | 2.035 | 4.3 | 20.4 | 10 8 | 0 28.80 | + 7 6.4 | 1.274 | 2.269 | 2.9 | 19.4 | | |
| 10 18 | 0 21.31 | - 1 21.5 | 1.067 | 2.030 | 10.0 | 20.7 | 10 18 | 0 20.26 | + 6 8.3 | 1.319 | 2.287 | 7.8 | 19.8 | | |
| 10 28 | 0 15.54 | - 2 13.7 | 1.114 | 2.025 | 15.2 | 21.0 | 10 28 | 0 13.84 | + 5 19.1 | 1.389 | 2.305 | 12.3 | 20.1 | | |
| 11 7 | 0 12.71 | - 2 40.8 | 1.180 | 2.021 | 19.6 | 21.3 | 11 7 | 0 10.15 | + 4 44.4 | 1.480 | 2.323 | 16.1 | 20.4 | | |
| 133094 | 2003 ND ₅ | | 10 | 2.3 | 4°11 | 14°3/20.6 | 18 | 104995 | 2000 KJ | | 10 | 2.3 | 178°83 | 0°3/ 2.0 | 18 |
| 8 29 | 0 55.39 | -24 24.8 | 1.129 | 2.025 | 17.7 | 17.8 | 8 29 | 0 59.15 | + 5 42.9 | 1.895 | 2.746 | 13.7 | 20.5 | | |
| 9 8 | 0 52.06 | -26 12.1 | 1.100 | 2.024 | 15.5 | 17.7 | 9 8 | 0 53.86 | + 5 4.0 | 1.822 | 2.748 | 10.2 | 20.3 | | |
| 9 18 | 0 45.82 | -27 38.2 | 1.090 | 2.025 | 14.3 | 17.6 | 9 18 | 0 46.60 | + 4 12.5 | 1.773 | 2.749 | 6.2 | 20.0 | | |
| 9 28 | 0 37.80 | -28 29.4 | 1.100 | 2.027 | 14.7 | 17.7 | 9 28 | 0 38.05 | + 3 13.0 | 1.750 | 2.750 | 1.8 | 19.7 | | |
| 10 8 | 0 29.49 | -28 37.2 | 1.129 | 2.030 | 16.4 | 17.8 | 10 8 | 0 29.14 | + 2 11.5 | 1.756 | 2.749 | 2.7 | 19.8 | | |
| 10 18 | 0 22.37 | -28 0.2 | 1.177 | 2.035 | 18.8 | 18.0 | 10 18 | 0 20.83 | + 1 14.6 | 1.790 | 2.749 | 7.0 | 20.1 | | |
| 10 28 | 0 17.62 | -26 42.7 | 1.241 | 2.042 | 21.3 | 18.2 | 10 28 | 0 14.01 | + 0 28.3 | 1.850 | 2.748 | 10.8 | 20.3 | | |
| 11 7 | 0 15.82 | -24 52.7 | 1.319 | 2.050 | 23.5 | 18.4 | 11 7 | 0 9.29 | - 0 3.4 | 1.934 | 2.746 | 14.2 | 20.5 | | |
| 183662 | 2003 WN ₁₂₆ | | 10 | 2.3 | 183°94 | 4°1/26.5 | 18 | 12737 | 1991 VW ₄ | | 10 | 2.3 | 21°52 | 7°1/27.3 | 18 |
| 8 29 | 0 57.55 | -11 3.4 | 3.038 | 3.899 | 8.8 | 20.8 | 8 29 | 0 57.13 | - 8 17.5 | 1.117 | 2.022 | 17.2 | 16.2 | | |
| 9 8 | 0 51.98 | -12 0.2 | 2.973 | 3.899 | 6.7 | 20.6 | 9 8 | 0 53.20 | - 9 32.6 | 1.076 | 2.028 | 12.9 | 16.0 | | |
| 9 18 | 0 45.15 | -12 55.5 | 2.935 | 3.899 | 4.8 | 20.5 | 9 18 | 0 46.48 | -10 47.7 | 1.056 | 2.035 | 8.9 | 15.8 | | |
| 9 28 | 0 37.55 | -13 44.8 | 2.926 | 3.898 | 4.2 | 20.5 | 9 28 | 0 38.02 | -11 51.0 | 1.058 | 2.043 | 7.1 | 15.7 | | |
| 10 8 | 0 29.74 | -14 23.8 | 2.948 | 3.896 | 5.3 | 20.5 | 10 8 | 0 29.26 | -12 32.1 | 1.083 | 2.052 | 9.3 | 15.9 | | |
| 10 18 | 0 22.33 | -14 49.5 | 2.998 | 3.893 | 7.3 | 20.7 | 10 18 | 0 21.62 | -12 44.7 | 1.130 | 2.062 | 13.3 | 16.1 | | |
| 10 28 | 0 15.87 | -15 0.3 | 3.074 | 3.890 | 9.4 | 20.8 | 10 28 | 0 16.27 | -12 27.5 | 1.198 | 2.073 | 17.2 | 16.4 | | |
| 11 7 | 0 10.79 | -14 55.8 | 3.174 | 3.886 | 11.3 | 21.0 | 11 7 | 0 13.82 | -11 43.1 | 1.283 | 2.084 | 20.5 | 16.7 | | |
| 76855 | 2000 WD ₆₃ | | 10 | 2.3 | 183°05 | 11°6/18.8 | 18 | 47615 | 2000 BT ₂₂ | | 10 | 2.3 | 189°40 | 0°6/ 1.5 | 18 |
| 8 29 | 1 4.78 | -30 6.9 | 2.021 | 2.857 | 13.5 | 18.8 | 8 29 | 0 54.48 | + 3 37.6 | 2.764 | 3.612 | 9.9 | 19.8 | | |
| 9 8 | 0 58.02 | -31 50.4 | 1.987 | 2.858 | 12.2 | 18.7 | 9 8 | 0 49.87 | + 3 2.7 | 2.686 | 3.611 | 7.3 | 19.7 | | |
| 9 18 | 0 49.07 | -33 16.1 | 1.977 | 2.858 | 11.6 | 18.7 | 9 18 | 0 43.96 | + 2 20.4 | 2.633 | 3.610 | 4.4 | 19.5 | | |
| 9 28 | 0 38.76 | -34 14.8 | 1.990 | 2.858 | 12.1 | 18.7 | 9 28 | 0 37.22 | + 1 34.0 | 2.609 | 3.609 | 1.3 | 19.3 | | |
| 10 8 | 0 28.21 | -34 40.6 | 2.026 | 2.857 | 13.3 | 18.8 | 10 8 | 0 30.23 | + 0 47.6 | 2.615 | 3.607 | 2.2 | 19.3 | | |
| 10 18 | 0 18.53 | -34 32.0 | 2.084 | 2.854 | 14.9 | 18.9 | 10 18 | 0 23.62 | + 0 5.1 | 2.650 | 3.605 | 5.3 | 19.5 | | |
| 10 28 | 0 10.68 | -33 51.4 | 2.161 | 2.851 | 16.6 | 19.0 | 10 28 | 0 17.96 | - 0 29.7 | 2.714 | 3.602 | 8.1 | 19.7 | | |
| 11 7 | 0 5.25 | -32 43.8 | 2.254 | 2.847 | 18.0 | 19.2 | 11 7 | 0 13.71 | - 0 54.2 | 2.802 | 3.600 | 10.6 | 19.9 | | |
| 373174 | 2012 DT ₃₁ | | 10 | 2.3 | 143°67 | 2°6/29.9 | 17 | 356235 | 2009 SJ ₃₁₇ | | 10 | 2.3 | 320°36 | 0°4/ 1.5 | 16 |
| 8 29 | 0 59.52 | + 0 55.7 | 1.591 | 2.463 | 14.8 | 21.6 | 8 29 | 0 48.72 | + 3 7.0 | 4.191 | 5.038 | 6.9 | 21.7 | | |
| 9 8 | 0 54.33 | - 0 14.3 | 1.532 | 2.471 | 10.8 | 21.4 | 9 8 | 0 45.27 | + 2 41.1 | 4.111 | 5.036 | 5.0 | 21.6 | | |
| 9 18 | 0 46.94 | - 1 34.6 | 1.496 | 2.478 | 6.5 | 21.1 | 9 18 | 0 41.03 | + 2 10.9 | 4.058 | 5.034 | 3.0 | 21.5 | | |
| 9 28 | 0 38.14 | - 2 57.7 | 1.487 | 2.484 | 2.8 | 20.9 | 9 28 | 0 36.30 | + 1 38.4 | 4.033 | 5.033 | 0.9 | 21.3 | | |
| 10 8 | 0 29.01 | - 4 14.7 | 1.504 | 2.490 | 4.8 | 21.1 | 10 8 | 0 31.43 | + 1 5.8 | 4.039 | 5.031 | 1.5 | 21.3 | | |
| 10 18 | 0 20.68 | - 5 17.5 | 1.549 | 2.496 | 9.0 | 21.3 | 10 18 | 0 26.77 | + 0 35.6 | 4.075 | 5.030 | 3.6 | 21.5 | | |
| 10 28 | 0 14.11 | - 6 0.5 | 1.618 | 2.501 | 13.0 | 21.6 | 10 28 | 0 22.68 | + 0 9.9 | 4.140 | 5.028 | 5.6 | 21.6 | | |
| 11 7 | 0 9.94 | - 6 21.6 | 1.709 | 2.506 | 16.4 | 21.8 | 11 7 | 0 19.44 | - 0 9.4 | 4.231 | 5.027 | 7.3 | 21.8 | | |
| 322157 | 2010 WC ₆₁ | | 10 | 2.3 | 262°29 | 2°8/26.4 | 15 | 317918 | 2003 UF ₃₂₃ | | 10 | 2.3 | 84°83 | 1°7/30.6 | 18 |
| 8 29 | 0 49.29 | -11 26.2 | 4.584 | 5.449 | 6.0 | 21.3 | 8 29 | 0 58.45 | - 1 9.2 | 2.333 | 3.193 | 11.2 | 20.2 | | |
| 9 8 | 0 45.63 | -11 59.3 | 4.512 | 5.441 | 4.5 | 21.1 | 9 8 | 0 52.91 | - 1 24.8 | 2.270 | 3.202 | 8.2 | 20.0 | | |
| 9 18 | 0 41.22 | -12 31.2 | 4.467 | 5.432 | 3.3 | 21.0 | 9 18 | 0 45.83 | - 1 44.3 | 2.232 | 3.210 | 4.9 | 19.8 | | |
| 9 28 | 0 36.34 | -12 59.2 | 4.451 | 5.423 | 2.9 | 21.0 | 9 28 | 0 37.78 | - 2 4.3 | 2.222 | 3.219 | 2.0 | 19.6 | | |
| 10 8 | 0 31.33 | -13 21.1 | 4.464 | 5.414 | 3.6 | 21.1 | 10 8 | 0 29.53 | - 2 20.9 | 2.240 | 3.228 | 3.2 | 19.7 | | |
| 10 18 | 0 26.53 | -13 35.0 | 4.506 | 5.404 | 5.0 | 21.2 | 10 18 | 0 21.82 | - 2 30.8 | 2.288 | 3.237 | 6.4 | 19.9 | | |
| 10 28 | 0 22.26 | -13 39.7 | 4.576 | 5.395 | 6.5 | 21.3 | 10 28 | 0 15.35 | - 2 31.3 | 2.363 | 3.246 | 9.4 | 20.1 | | |
| 11 7 | 0 18.80 | -13 34.7 | 4.668 | 5.386 | 7.8 | 21.4 | 11 7 | 0 10.61 | - 2 20.9 | 2.462 | 3.255 | 12.1 | 20.3 | | |
| 345448 | 2006 EN ₂₀ | | 10 | 2.3 | 116°29 | 0°3/ 2.7 | 17 | 57461 | 2001 SY ₇₅ | | 10 | 2.3 | 25°20 | 0°7/ 1.7 | 18 |
| 8 29 | 1 0.48 | + 6 39.2 | 1.963 | 2.807 | 13.6 | 21.3 | 8 29 | 0 55.37 | + 4 38.1 | 1.771 | 2.636 | 13.9 | 18.7 | | |
| 9 8 | 0 54.64 | + 6 18.0 | 1.902 | 2.823 | 10.1 | 21.1 | 9 8 | 0 51.14 | + 3 59.5 | 1.706 | 2.640 | 10.3 | 18.5 | | |
| 9 18 | 0 46.96 | + 5 45.2 | 1.865 | 2.838 | 6.2 | 20.9 | 9 18 | 0 44.97 | + 3 9.0 | 1.664 | 2.643 | 6.2 | 18.3 | | |
| 9 28 | 0 38.13 | + 5 4.5 | 1.854 | 2.853 | 2.0 | 20.7 | 9 28 | 0 37.56 | + 2 11.5 | 1.647 | 2.647 | 1.8 | 18.0 | | |
| 10 8 | 0 29.07 | + 4 20.7 | 1.872 | 2.867 | 2.3 | 20.7 | 10 8 | 0 29.82 | + 1 13.7 | 1.658 | 2.651 | 2.9 | 18.1 | | |
| 10 18 | 0 20.70 | + 3 39.4 | 1.919 | 2.881 | 6.3 | 21.0 | 10 18 | 0 22.71 | + 0 21.9 | 1.696 | 2.656 | 7.2 | 18.4 | | |
| 10 28 | 0 13.84 | + 3 5.7 | 1.993 | 2.894 | 10.0 | 21.3 | 10 28 | 0 17.09 | - 0 18.1 | 1.759 | 2.661 | 11.1 | 18.6 | | |
| 11 7 | 0 9.05 | + 2 43.1 | 2.091 | 2.907 | 13.1 | 21.5 | 11 7 | 0 13.55 | - 0 42.5 | 1.845 | 2.666 | 14.4 | 18.9 | | |
| 131087 | 2000 YM ₁₂₇ | | 10 | 2.3 | 210°95 | 2°5/29.8 | 18 | 436100 | 2009 SJ ₂₆₇ | | 10 | 2.3 | 336°13 | 2°4/ 4.3 | 18 |
| 8 29 | 0 58.21 | - 1 11.8</ | | | | | | | | | | | | | |

EPHEMERIDES

10 2.3

10 2.4

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 449755 | 2014 <i>OV</i> ₃₃ | 10 | 2.3 317°40 | 1°4/30.9 | 18 | | 222402 | 2001 <i>FR</i> ₂₆ | 10 | 2.3 237°06 | 1°3/3.8 | 18 | |
| 8 29 | 0 55.47 | + 1 40.8 | 2.027 | 2.893 | 12.3 | 21.3 | 8 29 | 0 57.58 | + 9 9.4 | 2.608 | 3.435 | 11.1 | 20.4 |
| 9 8 | 0 51.06 | + 1 7.7 | 1.952 | 2.887 | 9.1 | 21.1 | 9 8 | 0 52.34 | + 9 7.6 | 2.516 | 3.425 | 8.5 | 20.2 |
| 9 18 | 0 44.88 | + 0 26.3 | 1.900 | 2.881 | 5.4 | 20.8 | 9 18 | 0 45.57 | + 8 55.8 | 2.449 | 3.415 | 5.5 | 20.0 |
| 9 28 | 0 37.54 | - 0 18.8 | 1.875 | 2.875 | 1.8 | 20.6 | 9 28 | 0 37.76 | + 8 35.5 | 2.409 | 3.404 | 2.4 | 19.7 |
| 10 8 | 0 29.83 | - 1 2.2 | 1.878 | 2.869 | 3.2 | 20.7 | 10 8 | 0 29.59 | + 8 9.6 | 2.399 | 3.394 | 2.0 | 19.7 |
| 10 18 | 0 22.61 | - 1 38.8 | 1.909 | 2.864 | 7.0 | 20.9 | 10 18 | 0 21.76 | + 7 41.5 | 2.419 | 3.383 | 5.1 | 19.9 |
| 10 28 | 0 16.69 | - 2 4.0 | 1.966 | 2.858 | 10.6 | 21.1 | 10 28 | 0 14.97 | + 7 15.3 | 2.467 | 3.371 | 8.2 | 20.1 |
| 11 7 | 0 12.65 | - 2 15.0 | 2.046 | 2.853 | 13.7 | 21.3 | 11 7 | 0 9.75 | + 6 54.7 | 2.540 | 3.360 | 10.9 | 20.2 |
| 430911 | 2005 <i>ST</i> ₂₄₀ | 10 | 2.3 27°36 | 2°2/3.8 | 18 | | 188590 | 2005 <i>NU</i> ₄₃ | 10 | 2.3 202°20 | 4°3/28.5 | 18 | |
| 8 29 | 1 0.82 | + 9 0.4 | 1.305 | 2.166 | 18.1 | 20.7 | 8 29 | 0 58.68 | - 3 43.6 | 1.586 | 2.467 | 14.3 | 20.8 |
| 9 8 | 0 55.82 | + 9 17.4 | 1.245 | 2.172 | 13.8 | 20.5 | 9 8 | 0 53.83 | - 4 56.3 | 1.524 | 2.466 | 10.6 | 20.5 |
| 9 18 | 0 48.10 | + 9 17.3 | 1.206 | 2.178 | 9.0 | 20.2 | 9 18 | 0 46.73 | - 6 15.3 | 1.484 | 2.464 | 6.7 | 20.3 |
| 9 28 | 0 38.56 | + 9 2.0 | 1.189 | 2.185 | 3.9 | 19.9 | 9 28 | 0 38.15 | - 7 32.0 | 1.471 | 2.462 | 4.3 | 20.2 |
| 10 8 | 0 28.53 | + 8 36.5 | 1.197 | 2.192 | 3.2 | 19.9 | 10 8 | 0 29.16 | - 8 37.6 | 1.484 | 2.460 | 6.4 | 20.3 |
| 10 18 | 0 19.43 | + 8 7.5 | 1.231 | 2.200 | 8.0 | 20.2 | 10 18 | 0 20.90 | - 9 24.8 | 1.523 | 2.458 | 10.2 | 20.5 |
| 10 28 | 0 12.49 | + 7 42.2 | 1.288 | 2.208 | 12.7 | 20.5 | 10 28 | 0 14.38 | - 9 49.1 | 1.586 | 2.456 | 14.0 | 20.8 |
| 11 7 | 0 8.45 | + 7 26.9 | 1.366 | 2.217 | 16.8 | 20.8 | 11 7 | 0 10.26 | - 9 49.8 | 1.669 | 2.453 | 17.2 | 21.0 |
| 344395 | 2001 <i>YT</i> ₈₇ | 10 | 2.3 304°12 | 1°2/3.3 | 18 | | 227718 | 2006 <i>DC</i> ₁₉₇ | 10 | 2.3 165°25 | 5°8/8.3 | 18 | |
| 8 29 | 0 57.88 | + 8 9.0 | 1.495 | 2.355 | 16.2 | 20.9 | 8 29 | 1 1.10 | +22 18.5 | 2.146 | 2.914 | 15.1 | 20.6 |
| 9 8 | 0 53.64 | + 8 1.8 | 1.410 | 2.337 | 12.4 | 20.6 | 9 8 | 0 55.33 | +22 42.8 | 2.065 | 2.918 | 12.5 | 20.4 |
| 9 18 | 0 46.86 | + 7 38.3 | 1.345 | 2.319 | 8.0 | 20.3 | 9 18 | 0 47.55 | +22 46.9 | 2.004 | 2.922 | 9.7 | 20.3 |
| 9 28 | 0 38.24 | + 7 1.0 | 1.304 | 2.302 | 3.0 | 20.0 | 9 28 | 0 38.40 | +22 29.7 | 1.968 | 2.925 | 7.1 | 20.1 |
| 10 8 | 0 28.86 | + 6 15.2 | 1.289 | 2.284 | 2.8 | 19.9 | 10 8 | 0 28.81 | +21 52.9 | 1.958 | 2.928 | 5.8 | 20.1 |
| 10 18 | 0 20.01 | + 5 28.2 | 1.299 | 2.267 | 7.9 | 20.2 | 10 18 | 0 19.75 | +21 0.8 | 1.977 | 2.930 | 6.9 | 20.1 |
| 10 28 | 0 12.91 | + 4 47.8 | 1.335 | 2.250 | 12.8 | 20.4 | 10 28 | 0 12.14 | +20 0.1 | 2.023 | 2.932 | 9.5 | 20.3 |
| 11 7 | 0 8.45 | + 4 20.4 | 1.391 | 2.234 | 17.0 | 20.7 | 11 7 | 0 6.65 | +18 58.3 | 2.094 | 2.933 | 12.2 | 20.5 |
| 220442 | 2003 <i>WQ</i> ₉₁ | 10 | 2.3 298°51 | 2°6/29.3 | 18 | | 516726 | 2009 <i>DM</i> ₁₅ | 10 | 2.3 226°83 | 0°2/2.5 | 18 | |
| 8 29 | 0 53.90 | - 2 1.4 | 2.236 | 3.107 | 11.1 | 20.3 | 8 29 | 0 58.29 | + 6 14.2 | 2.229 | 3.072 | 12.2 | 22.3 |
| 9 8 | 0 49.79 | - 2 51.7 | 2.155 | 3.093 | 8.2 | 20.1 | 9 8 | 0 53.08 | + 5 50.8 | 2.142 | 3.063 | 9.2 | 22.1 |
| 9 18 | 0 44.08 | - 3 47.7 | 2.100 | 3.080 | 5.0 | 19.9 | 9 18 | 0 46.11 | + 5 16.6 | 2.079 | 3.053 | 5.7 | 21.9 |
| 9 28 | 0 37.30 | - 4 44.3 | 2.071 | 3.067 | 2.7 | 19.7 | 9 28 | 0 37.95 | + 4 34.6 | 2.043 | 3.042 | 1.8 | 21.6 |
| 10 8 | 0 30.15 | - 5 35.9 | 2.071 | 3.053 | 4.2 | 19.8 | 10 8 | 0 29.38 | + 3 49.4 | 2.037 | 3.032 | 2.2 | 21.6 |
| 10 18 | 0 23.41 | - 6 17.3 | 2.099 | 3.040 | 7.4 | 20.0 | 10 18 | 0 21.24 | + 3 5.8 | 2.060 | 3.020 | 6.1 | 21.8 |
| 10 28 | 0 17.80 | - 6 44.5 | 2.153 | 3.027 | 10.6 | 20.1 | 10 28 | 0 14.32 | + 2 29.0 | 2.110 | 3.008 | 9.6 | 22.0 |
| 11 7 | 0 13.89 | - 6 55.4 | 2.229 | 3.014 | 13.4 | 20.3 | 11 7 | 0 9.23 | + 2 2.9 | 2.184 | 2.996 | 12.7 | 22.2 |
| 303605 | 2005 <i>JF</i> ₂₀ | 10 | 2.3 71°55 | 7°8/24.3 | 18 | | 13732 | Woodall | 10 | 2.3 314°40 | 1°2/3.4 | 18 | |
| 8 29 | 0 57.77 | -15 30.9 | 1.789 | 2.670 | 13.0 | 20.4 | 8 29 | 0 55.11 | +10 24.0 | 1.390 | 2.251 | 17.1 | 17.8 |
| 9 8 | 0 52.72 | -17 3.3 | 1.759 | 2.689 | 10.2 | 20.2 | 9 8 | 0 51.62 | + 9 44.5 | 1.313 | 2.241 | 13.1 | 17.5 |
| 9 18 | 0 45.79 | -18 28.1 | 1.752 | 2.707 | 8.2 | 20.2 | 9 18 | 0 45.62 | + 8 42.6 | 1.257 | 2.232 | 8.4 | 17.2 |
| 9 28 | 0 37.77 | -19 36.4 | 1.771 | 2.726 | 8.0 | 20.2 | 9 28 | 0 37.86 | + 7 22.5 | 1.225 | 2.223 | 3.2 | 16.9 |
| 10 8 | 0 29.63 | -20 21.5 | 1.816 | 2.744 | 9.5 | 20.3 | 10 8 | 0 29.49 | + 5 52.2 | 1.218 | 2.214 | 2.8 | 16.8 |
| 10 18 | 0 22.33 | -20 40.2 | 1.885 | 2.763 | 11.9 | 20.5 | 10 18 | 0 21.78 | + 4 22.3 | 1.236 | 2.205 | 8.1 | 17.1 |
| 10 28 | 0 16.65 | -20 32.4 | 1.976 | 2.781 | 14.3 | 20.7 | 10 28 | 0 15.91 | + 3 3.4 | 1.279 | 2.197 | 13.0 | 17.4 |
| 11 7 | 0 13.08 | -20 0.7 | 2.086 | 2.799 | 16.4 | 20.9 | 11 7 | 0 12.68 | + 2 3.3 | 1.343 | 2.189 | 17.3 | 17.7 |
| 446364 | 2014 <i>HH</i> ₂₈ | 10 | 2.3 170°73 | 1°0/3.6 | 18 | | 121651 | 1999 <i>WY</i> ₁₈ | 10 | 2.3 97°37 | 1°7/30.5 | 18 | |
| 8 29 | 0 55.21 | +11 24.5 | 2.127 | 2.960 | 13.1 | 21.8 | 8 29 | 0 56.71 | + 0 12.7 | 2.293 | 3.154 | 11.3 | 20.0 |
| 9 8 | 0 50.78 | +10 28.2 | 2.050 | 2.962 | 10.0 | 21.6 | 9 8 | 0 51.65 | - 0 23.3 | 2.235 | 3.167 | 8.2 | 19.8 |
| 9 18 | 0 44.66 | + 9 15.3 | 1.996 | 2.964 | 6.4 | 21.3 | 9 18 | 0 45.08 | - 1 5.0 | 2.202 | 3.181 | 4.9 | 19.6 |
| 9 28 | 0 37.46 | + 7 49.7 | 1.969 | 2.965 | 2.5 | 21.1 | 9 28 | 0 37.59 | - 1 47.9 | 2.196 | 3.194 | 1.9 | 19.5 |
| 10 8 | 0 29.96 | + 6 17.6 | 1.971 | 2.966 | 2.1 | 21.1 | 10 8 | 0 29.92 | - 2 27.5 | 2.219 | 3.207 | 3.2 | 19.6 |
| 10 18 | 0 22.97 | + 4 46.4 | 2.003 | 2.967 | 5.9 | 21.3 | 10 18 | 0 22.80 | - 2 59.3 | 2.271 | 3.220 | 6.5 | 19.8 |
| 10 28 | 0 17.25 | + 3 23.2 | 2.062 | 2.968 | 9.5 | 21.6 | 10 28 | 0 16.91 | - 3 20.1 | 2.350 | 3.233 | 9.5 | 20.0 |
| 11 7 | 0 13.35 | + 2 13.6 | 2.146 | 2.968 | 12.6 | 21.8 | 11 7 | 0 12.70 | - 3 28.0 | 2.453 | 3.245 | 12.1 | 20.2 |
| 396076 | 2013 <i>CA</i> ₈₂ | 10 | 2.3 344°23 | 0°5/2.9 | 18 | | 464050 | 2014 <i>WQ</i> ₂₁₄ | 10 | 2.3 312°64 | 3°0/28.8 | 18 | |
| 8 29 | 0 53.90 | + 8 49.4 | 1.744 | 2.599 | 14.5 | 20.8 | 8 29 | 0 53.12 | - 3 35.4 | 2.345 | 3.219 | 10.6 | 20.8 |
| 9 8 | 0 50.16 | + 8 3.0 | 1.670 | 2.596 | 10.9 | 20.6 | 9 8 | 0 49.14 | - 4 27.5 | 2.270 | 3.208 | 7.8 | 20.6 |
| 9 18 | 0 44.45 | + 6 59.7 | 1.618 | 2.593 | 6.8 | 20.3 | 9 18 | 0 43.65 | - 5 23.8 | 2.219 | 3.198 | 4.9 | 20.4 |
| 9 28 | 0 37.43 | + 5 44.0 | 1.592 | 2.591 | 2.3 | 20.0 | 9 28 | 0 37.19 | - 6 19.1 | 2.196 | 3.188 | 3.0 | 20.2 |
| 10 8 | 0 30.01 | + 4 23.0 | 1.593 | 2.589 | 2.4 | 20.0 | 10 8 | 0 30.41 | - 7 8.1 | 2.201 | 3.179 | 4.5 | 20.3 |
| 10 18 | 0 23.16 | + 3 4.7 | 1.622 | 2.587 | 6.9 | 20.3 | 10 18 | 0 24.03 | - 7 46.2 | 2.234 | 3.169 | 7.4 | 20.5 |
| 10 28 | 0 17.79 | + 1 56.8 | 1.676 | 2.585 | 11.0 | 20.6 | 10 28 | 0 18.74 | - 8 9.7 | 2.293 | 3.160 | 10.3 | 20.7 |
| 11 7 | 0 14.52 | + 1 4.9 | 1.753 | 2.584 | 14.6 | 20.8 | 11 7 | 0 15.04 | - 8 17.0 | 2.375 | 3.151 | 12.9 | 20.8 |
| 192052 | 2006 <i>AU</i> ₉₆ | 10 | 2.3 306°78 | 2°5/29.9 | 18 | | 156076 | 2001 <i>SJ</i> ₁₄₀ | 10 | 2.3 310°24 | 0°1/2.5 | 18 | |
| 8 29 | 0 52.57 | + 3 54.5 | 1.434 | 2.316 | 15.5 | 19.6 | 8 29 | 0 55.71 | + 6 52.5 | 1.384 | 2.256 | 16.6 | 19.9 |
| 9 8 | 0 49.72 | + 2 19.2 | 1.348 | 2.292 | 11.5 | 19.3 | 9 8 | 0 52.20 | + 6 23.5 | 1.299 | 2.234 | 12.6 | 19.6 |
| 9 18 | 0 44.48 | + 0 23.1 | 1.285 | 2.269 | 6.9 | 18.9 | 9 18 | 0 46.10 | + 5 36.1 | 1.234 | 2.213 | 7.9 | 19.2 |
| 9 28 | 0 37.51 | - 1 45.5 | 1.246 | 2.245 | 2.7 | 18.6 | 9 28 | 0 38.06 | + 4 34.4 | 1.192 | 2.192 | 2.5 | 18.9 |
| 10 8 | 0 29.84 | - 3 54.2 | 1.234 | 2.222 | 5.2 | 18.7 | 10 8 | 0 29.23 | + 3 26.0 | 1.176 | 2.171 | 3.1 | 18.8 |
| 10 18 | 0 22.66 | - 5 50.1 | 1.248 | 2.200 | 10.3 | 19.0 | 10 18 | 0 20.92 | + 2 20.0 | 1.184 | 2.151 | 8.7 | 19.1 |
| 10 28 | 0 17.16 | - 7 22.1 | 1.286 | 2.177 | 15.0 | 19.2 | 10 28 | 0 14.42 | + 1 25.9 | 1.217 | 2.131 | 13.8 | 19.4 |
| 11 7 | 0 14.17 | - 8 24.3 | 1.343 | 2.156 | 19.2 | 19.4 | 11 7 | 0 10.65 | + 0 50.3 | 1.269 | 2.112 | 18.3 | 19.6 |
| 256706 | 2008 <i>AT</i> ₂₀ | 10 | 2.3 316°87 | 0°3/2.6 | 18 | | 106709 | 2000 <i>WF</i> ₁₇₁ | 10 | 2.4 237°66 | 0°8/3.1 | 18 | |
| 8 29 | 0 58.28 | + 6 5.5 | | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|----------|---------|-----------|------|---------------|------------------------|-----------------|----------|---------|-----------|---------|
| 368498 | 2003 UR ₇₅ | 10 | 2.4 | 7°30' | 4.1/4.9 | 18 | 471976 | 2013 TW ₁₁₀ | 10 | 2.4 | 333°33' | 0°0' | 2.4 18 |
| 8 29 | 0 56.53 | +12 22.2 | 1.014 | 1.888 | 21.1 | 20.0 | 8 29 | 1 1.14 | +4 9.9 | 1.265 | 2.140 | 17.6 | 20.4 |
| 9 8 | 0 53.30 | +12 48.0 | 0.958 | 1.888 | 16.6 | 19.8 | 9 8 | 0 56.34 | +4 19.5 | 1.195 | 2.132 | 13.3 | 20.1 |
| 9 18 | 0 46.90 | +12 48.9 | 0.918 | 1.889 | 11.3 | 19.5 | 9 18 | 0 48.63 | +4 16.9 | 1.144 | 2.124 | 8.2 | 19.8 |
| 9 28 | 0 38.29 | +12 25.7 | 0.899 | 1.892 | 6.1 | 19.2 | 9 28 | 0 38.86 | +4 5.2 | 1.117 | 2.117 | 2.6 | 19.4 |
| 10 8 | 0 29.03 | +11 44.0 | 0.902 | 1.896 | 4.6 | 19.2 | 10 8 | 0 28.37 | +3 50.0 | 1.115 | 2.110 | 3.3 | 19.5 |
| 10 18 | 0 20.79 | +10 53.0 | 0.928 | 1.901 | 9.1 | 19.4 | 10 18 | 0 18.67 | +3 37.4 | 1.137 | 2.104 | 8.9 | 19.8 |
| 10 28 | 0 15.04 | +10 4.0 | 0.974 | 1.908 | 14.3 | 19.8 | 10 28 | 0 11.14 | +3 33.5 | 1.183 | 2.099 | 14.0 | 20.1 |
| 11 7 | 0 12.63 | +9 26.5 | 1.040 | 1.916 | 18.9 | 20.1 | 11 7 | 0 6.66 | +3 42.7 | 1.249 | 2.094 | 18.4 | 20.3 |
| 496293 | 2013 AL ₅₅ | 10 | 2.4 | 311°60' | 7.1/14.2 | 17 | 482999 | 2014 QZ ₂₈₅ | 10 | 2.4 | 169°16' | 7°0' | 23.2 18 |
| 8 29 | 0 51.32 | -36 33.9 | 4.327 | 5.124 | 7.6 | 20.7 | 8 29 | 0 56.05 | -19 1.4 | 2.480 | 3.347 | 10.3 | 20.9 |
| 9 8 | 0 47.30 | -37 37.8 | 4.303 | 5.123 | 7.2 | 20.6 | 9 8 | 0 51.19 | -20 14.2 | 2.432 | 3.348 | 8.5 | 20.7 |
| 9 18 | 0 42.32 | -38 30.5 | 4.303 | 5.122 | 7.1 | 20.6 | 9 18 | 0 44.85 | -21 19.7 | 2.409 | 3.349 | 7.2 | 20.7 |
| 9 28 | 0 36.75 | -39 8.8 | 4.327 | 5.122 | 7.4 | 20.7 | 9 28 | 0 37.59 | -22 11.8 | 2.413 | 3.350 | 7.2 | 20.7 |
| 10 8 | 0 31.03 | -39 30.3 | 4.373 | 5.121 | 8.0 | 20.7 | 10 8 | 0 30.12 | -22 45.4 | 2.443 | 3.351 | 8.4 | 20.7 |
| 10 18 | 0 25.63 | -39 34.3 | 4.441 | 5.121 | 8.8 | 20.8 | 10 18 | 0 23.16 | -22 57.9 | 2.499 | 3.351 | 10.2 | 20.9 |
| 10 28 | 0 20.97 | -39 20.9 | 4.527 | 5.120 | 9.5 | 20.9 | 10 28 | 0 17.38 | -22 48.6 | 2.577 | 3.352 | 12.2 | 21.0 |
| 11 7 | 0 17.39 | -38 51.6 | 4.629 | 5.120 | 10.1 | 20.9 | 11 7 | 0 13.26 | -22 19.1 | 2.675 | 3.352 | 13.9 | 21.2 |
| 315060 | 2007 DL ₂₈ | 10 | 2.4 | 102°11' | 2.5/29.4 | 18 | 46419 | 2002 JO ₂₁ | 10 | 2.4 | 89°60' | 5°2' | 28.2 18 |
| 8 29 | 0 55.20 | -1 44.6 | 2.312 | 3.179 | 11.0 | 20.9 | 8 29 | 1 1.65 | -5 35.4 | 1.403 | 2.287 | 15.6 | 19.4 |
| 9 8 | 0 50.56 | -2 37.6 | 2.254 | 3.190 | 8.0 | 20.7 | 9 8 | 0 56.02 | -6 48.5 | 1.362 | 2.305 | 11.5 | 19.2 |
| 9 18 | 0 44.44 | -3 35.2 | 2.221 | 3.200 | 4.8 | 20.6 | 9 18 | 0 48.00 | -8 4.2 | 1.343 | 2.322 | 7.4 | 19.0 |
| 9 28 | 0 37.41 | -4 32.5 | 2.216 | 3.211 | 2.5 | 20.4 | 9 28 | 0 38.56 | -9 12.9 | 1.350 | 2.338 | 5.2 | 18.9 |
| 10 8 | 0 30.20 | -5 24.0 | 2.239 | 3.221 | 4.0 | 20.6 | 10 8 | 0 28.94 | -10 5.5 | 1.382 | 2.355 | 7.2 | 19.1 |
| 10 18 | 0 23.50 | -6 5.2 | 2.291 | 3.231 | 7.0 | 20.8 | 10 18 | 0 20.37 | -10 36.2 | 1.440 | 2.371 | 11.0 | 19.4 |
| 10 28 | 0 17.98 | -6 32.7 | 2.369 | 3.241 | 9.9 | 21.0 | 10 28 | 0 13.86 | -10 42.5 | 1.520 | 2.387 | 14.6 | 19.6 |
| 11 7 | 0 14.10 | -6 45.0 | 2.471 | 3.251 | 12.4 | 21.2 | 11 7 | 0 9.96 | -10 25.3 | 1.620 | 2.403 | 17.7 | 19.9 |
| 174345 | 2002 TA ₂₂₅ | 10 | 2.4 | 319°13' | 3°8'/29.6 | 18 | 167975 | 2005 GY ₆ | 10 | 2.4 | 288°91' | 1°2' | 1.2 18 |
| 8 29 | 0 58.97 | -4 23.0 | 1.556 | 2.438 | 14.5 | 19.7 | 8 29 | 0 56.43 | +3 58.9 | 1.818 | 2.681 | 13.6 | 20.4 |
| 9 8 | 0 54.31 | -4 47.6 | 1.476 | 2.418 | 10.8 | 19.4 | 9 8 | 0 52.26 | +3 6.9 | 1.719 | 2.652 | 10.2 | 20.1 |
| 9 18 | 0 47.21 | -5 16.0 | 1.418 | 2.399 | 6.8 | 19.2 | 9 18 | 0 45.94 | +2 0.7 | 1.642 | 2.622 | 6.2 | 19.8 |
| 9 28 | 0 38.38 | -5 42.2 | 1.385 | 2.380 | 3.8 | 18.9 | 9 28 | 0 38.04 | +0 45.1 | 1.592 | 2.591 | 1.9 | 19.5 |
| 10 8 | 0 28.90 | -5 59.5 | 1.378 | 2.361 | 5.7 | 19.0 | 10 8 | 0 29.44 | -0 32.6 | 1.569 | 2.561 | 3.5 | 19.6 |
| 10 18 | 0 19.98 | -6 2.4 | 1.397 | 2.343 | 9.9 | 19.2 | 10 18 | 0 21.18 | -1 44.5 | 1.574 | 2.530 | 8.1 | 19.8 |
| 10 28 | 0 12.79 | -5 47.3 | 1.439 | 2.326 | 14.1 | 19.4 | 10 28 | 0 14.29 | -2 43.0 | 1.604 | 2.499 | 12.4 | 20.0 |
| 11 7 | 0 8.14 | -5 13.3 | 1.502 | 2.309 | 17.7 | 19.6 | 11 7 | 0 9.58 | -3 22.9 | 1.657 | 2.467 | 16.2 | 20.1 |
| 485919 | 2012 GX ₃₁ | 10 | 2.4 | 235°03' | 4°4'/27.6 | 17 | 278318 | 2007 HR ₃₉ | 10 | 2.4 | 177°30' | 2°2'/30.2 | 15 |
| 8 29 | 1 1.62 | -12 4.7 | 2.756 | 3.612 | 9.7 | 21.6 | 8 29 | 0 58.82 | +0 30.0 | 1.923 | 2.788 | 12.9 | 22.1 |
| 9 8 | 0 55.16 | -12 28.5 | 2.678 | 3.601 | 7.4 | 21.5 | 9 8 | 0 53.60 | -0 24.3 | 1.855 | 2.789 | 9.5 | 21.9 |
| 9 18 | 0 47.21 | -12 49.3 | 2.626 | 3.589 | 5.3 | 21.3 | 9 18 | 0 46.48 | -1 26.9 | 1.811 | 2.791 | 5.7 | 21.7 |
| 9 28 | 0 38.28 | -13 2.7 | 2.602 | 3.577 | 4.4 | 21.2 | 9 28 | 0 38.12 | -2 32.0 | 1.794 | 2.791 | 2.4 | 21.5 |
| 10 8 | 0 29.08 | -13 5.3 | 2.609 | 3.564 | 5.5 | 21.3 | 10 8 | 0 29.43 | -3 32.9 | 1.805 | 2.792 | 4.0 | 21.6 |
| 10 18 | 0 20.30 | -12 54.5 | 2.645 | 3.552 | 7.7 | 21.4 | 10 18 | 0 21.35 | -4 23.2 | 1.845 | 2.791 | 7.8 | 21.8 |
| 10 28 | 0 12.64 | -12 29.4 | 2.708 | 3.538 | 10.1 | 21.6 | 10 28 | 0 14.72 | -4 58.3 | 1.910 | 2.791 | 11.4 | 22.0 |
| 11 7 | 0 6.58 | -11 50.5 | 2.795 | 3.525 | 12.3 | 21.7 | 11 7 | 0 10.13 | -5 15.8 | 1.998 | 2.790 | 14.5 | 22.2 |
| 490434 | 2009 SR ₁₀₇ | 10 | 2.4 | 331°29' | 0°2'/2.5 | 18 | 107187 | 2001 BW ₂₆ | 10 | 2.4 | 163°16' | 2°2'/30.4 | 17 |
| 8 29 | 0 58.30 | +5 34.0 | 1.294 | 2.169 | 17.3 | 20.9 | 8 29 | 0 59.33 | +1 41.0 | 1.595 | 2.465 | 14.8 | 20.3 |
| 9 8 | 0 54.16 | +5 27.8 | 1.222 | 2.159 | 13.1 | 20.6 | 9 8 | 0 54.30 | +0 40.2 | 1.531 | 2.468 | 10.9 | 20.1 |
| 9 18 | 0 47.26 | +5 6.6 | 1.170 | 2.149 | 8.1 | 20.3 | 9 18 | 0 47.04 | -0 31.9 | 1.490 | 2.471 | 6.5 | 19.8 |
| 9 28 | 0 38.41 | +4 34.1 | 1.141 | 2.141 | 2.6 | 19.9 | 9 28 | 0 38.31 | -1 48.2 | 1.475 | 2.473 | 2.5 | 19.6 |
| 10 8 | 0 28.88 | +3 56.8 | 1.137 | 2.133 | 3.2 | 19.9 | 10 8 | 0 29.21 | -3 0.2 | 1.487 | 2.475 | 4.4 | 19.7 |
| 10 18 | 0 20.07 | +3 22.3 | 1.158 | 2.125 | 8.7 | 20.3 | 10 18 | 0 20.84 | -4 0.0 | 1.526 | 2.477 | 8.8 | 20.0 |
| 10 28 | 0 13.31 | +2 57.9 | 1.202 | 2.119 | 13.8 | 20.5 | 10 28 | 0 14.22 | -4 41.7 | 1.590 | 2.478 | 12.9 | 20.2 |
| 11 7 | 0 9.43 | +2 48.8 | 1.266 | 2.113 | 18.1 | 20.8 | 11 7 | 0 9.99 | -5 2.6 | 1.675 | 2.479 | 16.3 | 20.5 |
| 201125 | 2002 JK ₅₄ | 10 | 2.4 | 248°10' | 3°5'/29.1 | 18 | 512119 | 2015 OX ₈₄ | 10 | 2.4 | 76°64' | 2°8'/5.4 | 18 |
| 8 29 | 1 0.04 | -4 22.7 | 1.918 | 2.789 | 12.7 | 20.3 | 8 29 | 0 55.85 | +14 49.7 | 1.881 | 2.705 | 14.9 | 21.1 |
| 9 8 | 0 54.61 | -5 4.3 | 1.841 | 2.777 | 9.4 | 20.1 | 9 8 | 0 51.50 | +14 24.9 | 1.809 | 2.711 | 11.6 | 20.9 |
| 9 18 | 0 47.16 | -5 49.9 | 1.787 | 2.765 | 6.0 | 19.8 | 9 18 | 0 45.24 | +13 40.8 | 1.759 | 2.717 | 8.0 | 20.7 |
| 9 28 | 0 38.32 | -6 33.5 | 1.760 | 2.752 | 3.6 | 19.7 | 9 28 | 0 37.75 | +12 39.7 | 1.735 | 2.723 | 4.3 | 20.5 |
| 10 8 | 0 29.02 | -7 9.1 | 1.761 | 2.739 | 5.2 | 19.7 | 10 8 | 0 29.92 | +11 26.9 | 1.737 | 2.730 | 3.0 | 20.4 |
| 10 18 | 0 20.25 | -7 31.3 | 1.789 | 2.726 | 8.8 | 19.9 | 10 18 | 0 22.70 | +10 9.4 | 1.767 | 2.736 | 6.1 | 20.6 |
| 10 28 | 0 12.95 | -7 36.7 | 1.843 | 2.713 | 12.3 | 20.1 | 10 28 | 0 16.93 | +8 55.1 | 1.825 | 2.742 | 9.8 | 20.8 |
| 11 7 | 0 7.78 | -7 24.3 | 1.919 | 2.699 | 15.4 | 20.3 | 11 7 | 0 13.22 | +7 50.7 | 1.906 | 2.748 | 13.1 | 21.1 |
| 3970 | Herran | 10 | 2.4 | 31°21' | 3°0'/30.7 | 18 | 214145 | 2005 AC ₆₉ | 10 | 2.4 | 322°07' | 0°7'/1.9 | 18 |
| 8 29 | 1 6.12 | -4 10.7 | 1.376 | 2.253 | 16.4 | 15.6 | 8 29 | 1 3.43 | +2 27.4 | 1.261 | 2.137 | 17.6 | 19.9 |
| 9 8 | 0 59.51 | -3 59.8 | 1.322 | 2.261 | 12.1 | 15.4 | 9 8 | 0 58.03 | +2 30.8 | 1.193 | 2.131 | 13.2 | 19.6 |
| 9 18 | 0 50.21 | -3 50.6 | 1.289 | 2.269 | 7.4 | 15.2 | 9 18 | 0 49.65 | +2 23.5 | 1.146 | 2.126 | 8.1 | 19.3 |
| 9 28 | 0 39.23 | -3 38.4 | 1.281 | 2.278 | 3.4 | 15.0 | 9 28 | 0 39.19 | +2 9.6 | 1.121 | 2.121 | 2.4 | 19.0 |
| 10 8 | 0 27.94 | -3 18.7 | 1.300 | 2.288 | 4.9 | 15.1 | 10 8 | 0 28.05 | +1 55.0 | 1.123 | 2.117 | 3.7 | 19.0 |
| 10 18 | 0 17.71 | -2 48.6 | 1.345 | 2.298 | 9.4 | 15.4 | 10 18 | 0 17.78 | +1 46.0 | 1.149 | 2.113 | 9.3 | 19.3 |
| 10 28 | 0 9.72 | -2 6.6 | 1.414 | 2.309 | 13.7 | 15.7 | 10 28 | 0 9.76 | +1 47.9 | 1.198 | 2.109 | 14.4 | 19.6 |
| 11 7 | 0 4.64 | -1 12.6 | 1.504 | 2.320 | 17.3 | 15.9 | 11 7 | 0 4.86 | +2 4.1 | 1.268 | 2.105 | 18.7 | 19.9 |
| 438617 | 2007 XM ₂₂ | 10 | 2.4 | 284°22' | 6°0'/26.7 | 18 | 13707 | 1998 QS ₉ | 10 | 2.4 | 0°20' | 7°5'/7.5 | 18 |
| 8 29 | 0 58.60 | -10 49.9 | 1.870 | 2.748 | 12.6 | 20.5 | 8 29 | 1 0.07 | +19 8.7 | 1.404 | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 240680 | 2005 <i>EM</i> ₁₃₁ | 10 | 2.4 297°73 | 0°4/ 2.0 18 | | | 199589 | 2006 <i>FV</i> ₁₇ | 10 | 2.4 232°91 | 0°6/ 1.8 18 | | |
| 8 29 | 0 55.64 | + 5 57.0 | 1.693 | 2.556 | 14.5 | 20.4 | 8 29 | 0 56.86 | + 5 25.3 | 1.872 | 2.729 | 13.6 | 20.4 |
| 9 8 | 0 51.61 | + 5 13.7 | 1.614 | 2.546 | 10.8 | 20.1 | 9 8 | 0 52.30 | + 4 39.3 | 1.795 | 2.724 | 10.1 | 20.2 |
| 9 18 | 0 45.46 | + 4 15.5 | 1.557 | 2.536 | 6.6 | 19.9 | 9 18 | 0 45.79 | + 3 40.2 | 1.740 | 2.718 | 6.1 | 20.0 |
| 9 28 | 0 37.86 | + 3 7.3 | 1.526 | 2.525 | 2.0 | 19.6 | 9 28 | 0 37.96 | + 2 32.7 | 1.712 | 2.712 | 1.8 | 19.7 |
| 10 8 | 0 29.76 | + 1 56.2 | 1.521 | 2.515 | 2.9 | 19.6 | 10 8 | 0 29.72 | + 1 23.6 | 1.712 | 2.706 | 2.8 | 19.7 |
| 10 18 | 0 22.19 | + 0 49.9 | 1.544 | 2.506 | 7.6 | 19.9 | 10 18 | 0 22.01 | + 0 19.7 | 1.740 | 2.700 | 7.1 | 20.0 |
| 10 28 | 0 16.16 | + 0 4.2 | 1.592 | 2.496 | 11.9 | 20.1 | 10 28 | 0 15.73 | + 0 32.5 | 1.795 | 2.693 | 11.1 | 20.2 |
| 11 7 | 0 12.36 | + 0 41.2 | 1.662 | 2.487 | 15.5 | 20.3 | 11 7 | 0 11.51 | + 1 8.8 | 1.872 | 2.686 | 14.5 | 20.4 |
| 330635 | 2008 <i>EG</i> ₁₃₆ | 10 | 2.4 136°57 | 2°4/30.5 16 | | | 359835 | 2011 <i>UX</i> ₃₂₃ | 10 | 2.4 295°14 | 0°6/ 1.8 18 | | |
| 8 29 | 1 2.23 | + 0 29.3 | 1.576 | 2.447 | 15.0 | 21.6 | 8 29 | 0 55.11 | + 5 11.1 | 1.851 | 2.713 | 13.5 | 21.7 |
| 9 8 | 0 56.45 | + 1 0.8 | 1.515 | 2.452 | 11.0 | 21.3 | 9 8 | 0 51.13 | + 4 28.1 | 1.764 | 2.695 | 10.1 | 21.4 |
| 9 18 | 0 48.33 | + 1 39.8 | 1.476 | 2.456 | 6.6 | 21.1 | 9 18 | 0 45.16 | + 3 31.7 | 1.699 | 2.677 | 6.1 | 21.2 |
| 9 28 | 0 38.72 | + 2 20.4 | 1.463 | 2.461 | 2.7 | 20.9 | 9 28 | 0 37.80 | + 2 26.3 | 1.660 | 2.660 | 1.8 | 20.8 |
| 10 8 | 0 28.74 | + 2 55.7 | 1.477 | 2.465 | 4.4 | 21.0 | 10 8 | 0 29.91 | + 1 18.4 | 1.649 | 2.642 | 2.9 | 20.9 |
| 10 18 | 0 19.56 | + 3 20.1 | 1.517 | 2.469 | 8.8 | 21.3 | 10 18 | 0 22.46 | + 0 15.1 | 1.665 | 2.625 | 7.3 | 21.1 |
| 10 28 | 0 12.25 | + 3 29.1 | 1.583 | 2.473 | 12.8 | 21.5 | 10 28 | 0 16.38 | + 0 36.8 | 1.707 | 2.607 | 11.4 | 21.3 |
| 11 7 | 0 7.44 | + 3 21.2 | 1.670 | 2.476 | 16.3 | 21.8 | 11 7 | 0 12.36 | + 1 12.6 | 1.771 | 2.590 | 15.0 | 21.5 |
| 512517 | 2016 <i>RN</i> ₃₁ | 10 | 2.4 267°94 | 8°5/ 9.6 18 | | | 389548 | 2010 <i>OY</i> ₆₇ | 10 | 2.4 33°29 | 2°5/30.1 16 | | |
| 8 29 | 1 1.73 | +25 29.8 | 1.748 | 2.513 | 18.1 | 21.6 | 8 29 | 0 53.71 | + 2 31.8 | 1.350 | 2.236 | 16.0 | 20.2 |
| 9 8 | 0 56.49 | +26 26.9 | 1.663 | 2.506 | 15.5 | 21.4 | 9 8 | 0 50.26 | + 1 11.9 | 1.307 | 2.253 | 11.6 | 20.0 |
| 9 18 | 0 48.66 | +27 0.0 | 1.596 | 2.499 | 12.6 | 21.2 | 9 18 | 0 44.59 | + 0 20.5 | 1.286 | 2.270 | 6.8 | 19.7 |
| 9 28 | 0 38.91 | +27 5.1 | 1.551 | 2.492 | 10.0 | 21.0 | 9 28 | 0 37.57 | + 1 55.9 | 1.290 | 2.288 | 2.7 | 19.5 |
| 10 8 | 0 28.38 | +26 41.8 | 1.530 | 2.486 | 8.6 | 20.9 | 10 8 | 0 30.33 | + 3 24.0 | 1.319 | 2.307 | 4.8 | 19.7 |
| 10 18 | 0 18.36 | +25 53.5 | 1.534 | 2.479 | 9.4 | 20.9 | 10 18 | 0 23.99 | + 4 35.7 | 1.374 | 2.327 | 9.3 | 20.0 |
| 10 28 | 0 10.12 | +24 48.2 | 1.564 | 2.472 | 11.8 | 21.1 | 10 28 | 0 19.47 | + 5 25.0 | 1.452 | 2.348 | 13.4 | 20.3 |
| 11 7 | 0 4.54 | +23 36.4 | 1.616 | 2.465 | 14.7 | 21.2 | 11 7 | 0 17.32 | + 5 49.7 | 1.550 | 2.369 | 16.8 | 20.6 |
| 158376 | 2001 <i>XY</i> ₂₀₂ | 10 | 2.4 276°73 | 3°5/29.2 18 | | | 294396 | 2007 <i>VL</i> ₁₆₇ | 10 | 2.4 336°88 | 0°5/ 2.8 16 | | |
| 8 29 | 0 57.07 | + 1 33.8 | 1.607 | 2.487 | 14.2 | 20.1 | 8 29 | 0 55.42 | + 6 20.7 | 1.401 | 2.274 | 16.4 | 20.6 |
| 9 8 | 0 52.74 | + 2 40.4 | 1.535 | 2.477 | 10.5 | 19.9 | 9 8 | 0 51.89 | + 6 13.2 | 1.324 | 2.260 | 12.4 | 20.3 |
| 9 18 | 0 46.17 | + 3 55.9 | 1.486 | 2.468 | 6.4 | 19.6 | 9 18 | 0 45.87 | + 5 50.7 | 1.268 | 2.246 | 7.8 | 20.0 |
| 9 28 | 0 38.09 | + 5 12.8 | 1.463 | 2.458 | 3.5 | 19.4 | 9 28 | 0 38.06 | + 5 16.4 | 1.234 | 2.234 | 2.6 | 19.7 |
| 10 8 | 0 29.51 | + 6 22.2 | 1.467 | 2.449 | 5.6 | 19.5 | 10 8 | 0 29.59 | + 4 36.5 | 1.226 | 2.222 | 2.9 | 19.7 |
| 10 18 | 0 21.54 | + 7 16.3 | 1.497 | 2.439 | 9.7 | 19.7 | 10 18 | 0 21.72 | + 3 58.0 | 1.243 | 2.212 | 8.1 | 20.0 |
| 10 28 | 0 15.22 | + 7 49.5 | 1.550 | 2.430 | 13.7 | 20.0 | 10 28 | 0 15.67 | + 3 28.5 | 1.284 | 2.202 | 13.0 | 20.2 |
| 11 7 | 0 11.25 | + 7 59.7 | 1.624 | 2.420 | 17.1 | 20.2 | 11 7 | 0 12.23 | + 3 13.2 | 1.345 | 2.194 | 17.1 | 20.5 |
| 269391 | 2009 <i>QM</i> ₃₇ | 10 | 2.4 341°90 | 2°8/29.9 18 | | | 346721 | 2009 <i>AP</i> ₁₅ | 10 | 2.4 319°39 | 7°7/25.3 18 | | |
| 8 29 | 0 54.46 | + 1 56.5 | 1.288 | 2.177 | 16.4 | 19.9 | 8 29 | 0 56.58 | + 12 0.7 | 1.507 | 2.399 | 14.3 | 19.9 |
| 9 8 | 0 51.19 | + 0 43.6 | 1.224 | 2.171 | 12.1 | 19.7 | 9 8 | 0 52.51 | + 13 26.7 | 1.446 | 2.387 | 11.1 | 19.7 |
| 9 18 | 0 45.38 | + 0 44.3 | 1.182 | 2.166 | 7.2 | 19.4 | 9 18 | 0 46.09 | + 14 51.0 | 1.408 | 2.376 | 8.5 | 19.5 |
| 9 28 | 0 37.86 | + 2 18.5 | 1.163 | 2.162 | 3.0 | 19.1 | 9 28 | 0 38.09 | + 16 3.3 | 1.395 | 2.366 | 7.8 | 19.4 |
| 10 8 | 0 29.82 | + 3 47.5 | 1.169 | 2.158 | 5.3 | 19.2 | 10 8 | 0 29.60 | + 16 53.9 | 1.406 | 2.356 | 9.8 | 19.5 |
| 10 18 | 0 22.54 | + 5 0.9 | 1.200 | 2.154 | 10.2 | 19.5 | 10 18 | 0 21.82 | + 17 16.7 | 1.441 | 2.346 | 13.0 | 19.7 |
| 10 28 | 0 17.19 | + 5 50.8 | 1.254 | 2.152 | 14.9 | 19.8 | 10 28 | 0 15.82 | + 17 9.6 | 1.497 | 2.337 | 16.3 | 19.9 |
| 11 7 | 0 14.49 | + 6 14.0 | 1.326 | 2.149 | 18.8 | 20.0 | 11 7 | 0 12.29 | + 16 34.2 | 1.571 | 2.328 | 19.2 | 20.1 |
| 513670 | 2011 <i>UQ</i> ₃₆₃ | 10 | 2.4 350°10 | 2°1/30.6 18 | | | 479764 | 2014 <i>EM</i> ₂₆ | 10 | 2.4 336°07 | 1°2/ 1.4 18 | | |
| 8 29 | 0 57.28 | + 0 2.8 | 1.596 | 2.473 | 14.5 | 20.8 | 8 29 | 0 58.39 | + 2 37.0 | 1.704 | 2.570 | 14.2 | 21.2 |
| 9 8 | 0 52.84 | + 0 25.7 | 1.529 | 2.469 | 10.7 | 20.6 | 9 8 | 0 53.55 | + 2 7.3 | 1.635 | 2.569 | 10.5 | 21.0 |
| 9 18 | 0 46.19 | + 1 2.2 | 1.484 | 2.466 | 6.4 | 20.3 | 9 18 | 0 46.59 | + 1 27.6 | 1.588 | 2.568 | 6.3 | 20.7 |
| 9 28 | 0 38.08 | + 1 41.3 | 1.465 | 2.463 | 2.5 | 20.1 | 9 28 | 0 38.23 | + 0 42.5 | 1.568 | 2.567 | 2.0 | 20.5 |
| 10 8 | 0 29.55 | + 2 16.3 | 1.471 | 2.461 | 4.2 | 20.2 | 10 8 | 0 29.46 | + 0 1.5 | 1.574 | 2.566 | 3.4 | 20.6 |
| 10 18 | 0 21.68 | + 2 41.4 | 1.504 | 2.459 | 8.5 | 20.4 | 10 18 | 0 21.34 | + 0 38.5 | 1.608 | 2.565 | 7.7 | 20.8 |
| 10 28 | 0 15.48 | + 2 52.0 | 1.562 | 2.458 | 12.6 | 20.7 | 10 28 | 0 14.82 | + 1 3.0 | 1.667 | 2.565 | 11.8 | 21.1 |
| 11 7 | 0 11.63 | + 2 45.8 | 1.641 | 2.458 | 16.1 | 20.9 | 11 7 | 0 10.56 | + 1 12.1 | 1.747 | 2.564 | 15.2 | 21.3 |
| 248625 | 2006 <i>FM</i> | 10 | 2.4 221°09 | 6°6/26.1 18 | | | 516291 | 2016 <i>WE</i> ₄₀ | 10 | 2.4 37°05 | 2°5/30.4 18 | | |
| 8 29 | 1 1.20 | +13 26.6 | 1.948 | 2.820 | 12.5 | 20.5 | 8 29 | 0 58.75 | + 0 55.1 | 1.577 | 2.454 | 14.6 | 20.9 |
| 9 8 | 0 55.41 | +14 28.4 | 1.884 | 2.813 | 9.7 | 20.4 | 9 8 | 0 53.82 | + 1 26.0 | 1.522 | 2.462 | 10.7 | 20.6 |
| 9 18 | 0 47.61 | +15 26.4 | 1.845 | 2.806 | 7.4 | 20.2 | 9 18 | 0 46.72 | + 2 3.5 | 1.489 | 2.470 | 6.4 | 20.4 |
| 9 28 | 0 38.50 | +16 13.1 | 1.832 | 2.799 | 6.7 | 20.2 | 9 28 | 0 38.25 | + 2 41.8 | 1.481 | 2.479 | 2.7 | 20.2 |
| 10 8 | 0 29.03 | +16 42.0 | 1.846 | 2.792 | 8.2 | 20.2 | 10 8 | 0 29.48 | + 3 14.4 | 1.500 | 2.488 | 4.4 | 20.3 |
| 10 18 | 0 20.20 | +16 48.9 | 1.887 | 2.784 | 10.9 | 20.4 | 10 18 | 0 21.52 | + 3 35.7 | 1.545 | 2.497 | 8.6 | 20.6 |
| 10 28 | 0 12.91 | +16 32.8 | 1.951 | 2.775 | 13.7 | 20.6 | 10 28 | 0 15.30 | + 3 41.9 | 1.615 | 2.507 | 12.5 | 20.9 |
| 11 7 | 0 7.77 | +15 55.0 | 2.035 | 2.766 | 16.2 | 20.7 | 11 7 | 0 11.44 | + 3 31.5 | 1.706 | 2.517 | 15.8 | 21.1 |
| 197256 | 2003 <i>WE</i> ₇₄ | 10 | 2.4 357°50 | 7°9/12.4 18 | | | 213488 | 2002 <i>FX</i> ₃₈ | 10 | 2.4 103°44 | 2°1/ 1.3 17 | | |
| 8 29 | 0 54.18 | +30 10.6 | 2.147 | 2.876 | 16.2 | 19.2 | 8 29 | 1 15.24 | + 2 52.9 | 1.501 | 2.355 | 16.5 | 20.2 |
| 9 8 | 0 50.37 | +30 30.7 | 2.063 | 2.875 | 14.1 | 19.1 | 9 8 | 1 6.01 | + 2 31.2 | 1.447 | 2.374 | 12.2 | 20.0 |
| 9 18 | 0 44.64 | +30 25.9 | 1.996 | 2.873 | 11.7 | 18.9 | 9 18 | 0 54.07 | + 2 11.9 | 1.416 | 2.392 | 7.4 | 19.8 |
| 9 28 | 0 37.61 | +29 54.0 | 1.951 | 2.873 | 9.5 | 18.8 | 9 28 | 0 40.49 | + 1 51.5 | 1.412 | 2.410 | 2.8 | 19.6 |
| 10 8 | 0 30.13 | +28 56.2 | 1.930 | 2.872 | 8.1 | 18.7 | 10 8 | 0 26.71 | + 1 26.5 | 1.437 | 2.427 | 4.2 | 19.7 |
| 10 18 | 0 23.15 | +27 36.8 | 1.934 | 2.872 | 8.2 | 18.7 | 10 18 | 0 14.18 | + 0 54.6 | 1.492 | 2.444 | 8.8 | 20.0 |
| 10 28 | 0 17.56 | +26 3.4 | 1.965 | 2.873 | 9.8 | 18.8 | 10 28 | 0 4.07 | + 0 14.3 | 1.573 | 2.460 | 13.0 | 20.3 |
| 11 7 | 0 13.99 | +24 25.0 | 2.021 | 2.873 | 12.0 | 18.9 | 11 7 | 23 57.01 | + 0 34.8 | 1.676 | 2.476 | 16.5 | 20.6 |
| 143835 | 2003 <i>WG</i> ₁₈₁ | 10 | 2.4 351°47 | 0°4/ 2.6 18 | | | 347263 | 2011 <i>KH</i> ₂₇ | 10 | 2.4 48°50 | 9°7/24.8 18 | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|-----------|------|---------------|-------------------------------|-----------------|----------|--------|------------|------|
| 185330 | 2006 <i>VU</i> ₂₆ | 10 | 2.4 | 51°86 | 1.3°/ 1.2 | 18 | 325529 | 2009 <i>SL</i> ₁₆ | 10 | 2.4 | 62°50 | 1.2°/ 1.3 | 17 |
| 8 29 | 0 57.07 | + 2 9.7 | 1.895 | 2.760 | 13.1 | 20.6 | 8 29 | 0 57.99 | + 6 25.4 | 1.278 | 2.152 | 17.6 | 20.5 |
| 9 8 | 0 52.33 | + 1 37.0 | 1.830 | 2.764 | 9.6 | 20.4 | 9 8 | 0 53.46 | + 5 1.4 | 1.238 | 2.176 | 12.9 | 20.3 |
| 9 18 | 0 45.73 | + 0 55.6 | 1.789 | 2.768 | 5.8 | 20.1 | 9 18 | 0 46.53 | + 3 20.0 | 1.220 | 2.201 | 7.6 | 20.1 |
| 9 28 | 0 37.94 | + 0 10.2 | 1.774 | 2.773 | 1.9 | 19.9 | 9 28 | 0 38.19 | + 1 30.8 | 1.226 | 2.226 | 2.2 | 19.8 |
| 10 8 | 0 29.86 | - 0 33.5 | 1.787 | 2.778 | 3.2 | 20.0 | 10 8 | 0 29.71 | - 0 14.4 | 1.258 | 2.251 | 3.9 | 20.0 |
| 10 18 | 0 22.38 | - 1 10.0 | 1.827 | 2.783 | 7.2 | 20.3 | 10 18 | 0 22.32 | - 1 45.0 | 1.316 | 2.276 | 8.9 | 20.4 |
| 10 28 | 0 16.33 | - 1 34.7 | 1.893 | 2.788 | 10.8 | 20.5 | 10 28 | 0 16.99 | - 2 53.3 | 1.399 | 2.301 | 13.3 | 20.7 |
| 11 7 | 0 12.30 | - 1 45.1 | 1.982 | 2.793 | 13.9 | 20.7 | 11 7 | 0 14.24 | - 3 36.1 | 1.502 | 2.326 | 16.9 | 21.0 |
| 48053 | 2001 <i>EL</i> | 10 | 2.4 | 101°70 | 1.4°/ 1.1 | 18 | 68539 | 2001 <i>WL</i> ₂ | 10 | 2.4 | 186°40 | 4.1°/ 28.9 | 18 |
| 8 29 | 0 59.93 | + 1 20.0 | 1.880 | 2.741 | 13.3 | 19.1 | 8 29 | 1 0.64 | - 2 52.0 | 1.520 | 2.399 | 15.0 | 19.5 |
| 9 8 | 0 54.38 | + 0 52.2 | 1.820 | 2.752 | 9.8 | 18.9 | 9 8 | 0 55.42 | - 4 2.1 | 1.458 | 2.399 | 11.0 | 19.3 |
| 9 18 | 0 46.94 | + 0 16.9 | 1.784 | 2.763 | 5.8 | 18.7 | 9 18 | 0 47.82 | - 5 19.4 | 1.418 | 2.398 | 6.9 | 19.1 |
| 9 28 | 0 38.31 | - 0 21.4 | 1.775 | 2.774 | 2.0 | 18.5 | 9 28 | 0 38.64 | - 6 35.4 | 1.405 | 2.398 | 4.1 | 18.9 |
| 10 8 | 0 29.42 | - 0 57.2 | 1.794 | 2.785 | 3.3 | 18.6 | 10 8 | 0 29.04 | - 7 41.0 | 1.417 | 2.397 | 6.2 | 19.0 |
| 10 18 | 0 21.23 | - 1 25.4 | 1.841 | 2.795 | 7.3 | 18.9 | 10 18 | 0 20.22 | - 8 28.4 | 1.457 | 2.395 | 10.3 | 19.3 |
| 10 28 | 0 14.58 | - 1 42.0 | 1.914 | 2.806 | 10.9 | 19.1 | 10 28 | 0 13.25 | - 8 53.1 | 1.519 | 2.393 | 14.2 | 19.5 |
| 11 7 | 0 10.02 | - 1 44.9 | 2.010 | 2.816 | 13.9 | 19.4 | 11 7 | 0 8.82 | - 8 54.1 | 1.602 | 2.391 | 17.6 | 19.7 |
| 446557 | 2014 <i>OO</i> ₃₅ | 10 | 2.4 | 5°95 | 5°6/ 26.1 | 18 | 160546 | 1998 <i>MD</i> ₃ | 10 | 2.4 | 40°31 | 4°5/ 28.7 | 18 |
| 8 29 | 0 54.57 | - 10 2.4 | 1.967 | 2.850 | 11.9 | 20.7 | 8 29 | 0 57.39 | - 3 51.4 | 1.340 | 2.231 | 15.8 | 19.2 |
| 9 8 | 0 50.44 | - 11 18.1 | 1.912 | 2.850 | 9.0 | 20.5 | 9 8 | 0 52.98 | - 4 57.3 | 1.301 | 2.248 | 11.5 | 19.0 |
| 9 18 | 0 44.56 | - 12 33.1 | 1.881 | 2.851 | 6.5 | 20.3 | 9 18 | 0 46.24 | - 6 7.6 | 1.284 | 2.265 | 7.2 | 18.8 |
| 9 28 | 0 37.58 | - 13 39.9 | 1.876 | 2.852 | 5.7 | 20.3 | 9 28 | 0 38.11 | - 7 13.1 | 1.291 | 2.283 | 4.6 | 18.7 |
| 10 8 | 0 30.33 | - 14 31.5 | 1.899 | 2.853 | 7.3 | 20.4 | 10 8 | 0 29.80 | - 8 4.8 | 1.323 | 2.302 | 6.6 | 18.9 |
| 10 18 | 0 23.65 | - 15 3.2 | 1.947 | 2.854 | 10.0 | 20.6 | 10 18 | 0 22.48 | - 8 36.5 | 1.380 | 2.321 | 10.5 | 19.2 |
| 10 28 | 0 18.32 | - 15 12.6 | 2.018 | 2.856 | 12.8 | 20.8 | 10 28 | 0 17.13 | - 8 45.1 | 1.460 | 2.341 | 14.3 | 19.5 |
| 11 7 | 0 14.88 | - 15 0.4 | 2.110 | 2.857 | 15.2 | 20.9 | 11 7 | 0 14.28 | - 8 30.9 | 1.559 | 2.361 | 17.5 | 19.7 |
| 377028 | 2002 <i>RZ</i> ₂₃₈ | 10 | 2.4 | 341°73 | 2°6/ 4.0 | 18 | 515389 | 2013 <i>GF</i> ₂₈ | 10 | 2.4 | 132°43 | 3°5/ 28.4 | 18 |
| 8 29 | 0 53.28 | + 9 27.1 | 1.012 | 1.899 | 20.1 | 20.0 | 8 29 | 0 58.42 | - 7 4.6 | 2.545 | 3.409 | 10.2 | 21.6 |
| 9 8 | 0 51.10 | + 9 43.5 | 0.942 | 1.882 | 15.6 | 19.7 | 9 8 | 0 52.82 | - 7 44.7 | 2.488 | 3.420 | 7.5 | 21.5 |
| 9 18 | 0 45.78 | + 9 38.3 | 0.890 | 1.867 | 10.4 | 19.4 | 9 18 | 0 45.82 | - 8 25.1 | 2.458 | 3.432 | 4.9 | 21.3 |
| 9 28 | 0 38.13 | + 9 12.8 | 0.857 | 1.854 | 4.7 | 19.0 | 9 28 | 0 37.96 | - 9 1.2 | 2.456 | 3.442 | 3.5 | 21.3 |
| 10 8 | 0 29.54 | + 8 32.9 | 0.846 | 1.842 | 3.7 | 18.9 | 10 8 | 0 29.94 | - 9 28.6 | 2.483 | 3.453 | 4.7 | 21.4 |
| 10 18 | 0 21.69 | + 7 47.6 | 0.857 | 1.832 | 9.4 | 19.2 | 10 18 | 0 22.45 | - 9 44.3 | 2.539 | 3.463 | 7.2 | 21.5 |
| 10 28 | 0 16.19 | + 7 7.7 | 0.888 | 1.823 | 15.1 | 19.5 | 10 28 | 0 16.11 | - 9 46.3 | 2.622 | 3.473 | 9.8 | 21.7 |
| 11 7 | 0 14.03 | + 6 42.2 | 0.937 | 1.817 | 20.1 | 19.8 | 11 7 | 0 11.37 | - 9 34.3 | 2.728 | 3.482 | 12.0 | 21.9 |
| 151750 | 2003 <i>DR</i> ₁₈ | 10 | 2.4 | 166°83 | 0°4/ 1.9 | 18 | 472605 | 2015 <i>DQ</i> ₁₅₂ | 10 | 2.4 | 15°00 | 3°9/ 29.4 | 18 |
| 8 29 | 1 0.13 | + 4 52.2 | 1.888 | 2.740 | 13.7 | 21.1 | 8 29 | 0 58.16 | - 2 5.6 | 1.295 | 2.185 | 16.3 | 20.2 |
| 9 8 | 0 54.64 | + 4 20.6 | 1.818 | 2.744 | 10.2 | 20.8 | 9 8 | 0 53.85 | - 3 1.6 | 1.240 | 2.187 | 12.0 | 20.0 |
| 9 18 | 0 47.17 | + 3 37.7 | 1.771 | 2.747 | 6.2 | 20.6 | 9 18 | 0 46.96 | - 4 5.7 | 1.206 | 2.189 | 7.4 | 19.7 |
| 9 28 | 0 38.41 | + 2 47.7 | 1.750 | 2.750 | 1.8 | 20.3 | 9 28 | 0 38.39 | - 5 9.2 | 1.195 | 2.191 | 4.0 | 19.6 |
| 10 8 | 0 29.29 | + 1 56.5 | 1.758 | 2.752 | 2.7 | 20.4 | 10 8 | 0 29.40 | - 6 2.5 | 1.210 | 2.194 | 6.1 | 19.7 |
| 10 18 | 0 20.80 | + 1 10.0 | 1.795 | 2.754 | 7.0 | 20.7 | 10 18 | 0 21.30 | - 6 38.0 | 1.249 | 2.197 | 10.6 | 20.0 |
| 10 28 | 0 13.82 | + 0 33.6 | 1.858 | 2.755 | 10.8 | 20.9 | 10 28 | 0 15.24 | - 6 50.9 | 1.311 | 2.201 | 14.9 | 20.2 |
| 11 7 | 0 8.97 | + 0 11.1 | 1.944 | 2.756 | 14.1 | 21.1 | 11 7 | 0 11.91 | - 6 40.4 | 1.391 | 2.205 | 18.6 | 20.5 |
| 159898 | 2004 <i>TO</i> ₂₁₆ | 10 | 2.4 | 39°93 | 2°9/ 4.2 | 17 | 137255 | 1999 <i>RO</i> ₈₇ | 10 | 2.4 | 357°69 | 0°8/ 2.9 | 18 |
| 8 29 | 1 0.94 | + 11 19.7 | 0.852 | 1.734 | 23.3 | 18.7 | 8 29 | 0 58.71 | + 5 48.5 | 1.087 | 1.971 | 19.2 | 19.3 |
| 9 8 | 0 56.41 | + 11 16.8 | 0.825 | 1.761 | 17.7 | 18.5 | 9 8 | 0 54.82 | + 5 58.7 | 1.026 | 1.967 | 14.6 | 19.0 |
| 9 18 | 0 48.56 | + 10 46.3 | 0.814 | 1.790 | 11.5 | 18.3 | 9 18 | 0 47.85 | + 5 52.7 | 0.984 | 1.965 | 9.1 | 18.7 |
| 9 28 | 0 38.80 | + 9 53.4 | 0.823 | 1.819 | 5.1 | 18.1 | 9 28 | 0 38.73 | + 5 34.1 | 0.964 | 1.963 | 3.1 | 18.4 |
| 10 8 | 0 28.98 | + 8 48.6 | 0.854 | 1.849 | 3.8 | 18.1 | 10 8 | 0 28.94 | + 5 9.1 | 0.967 | 1.963 | 3.3 | 18.4 |
| 10 18 | 0 20.81 | + 7 44.2 | 0.907 | 1.881 | 9.2 | 18.6 | 10 18 | 0 20.09 | + 4 45.4 | 0.993 | 1.964 | 9.2 | 18.8 |
| 10 28 | 0 15.54 | + 6 51.3 | 0.981 | 1.912 | 14.5 | 19.0 | 10 28 | 0 13.63 | + 4 30.6 | 1.041 | 1.965 | 14.6 | 19.1 |
| 11 7 | 0 13.69 | + 6 16.7 | 1.074 | 1.945 | 18.8 | 19.4 | 11 7 | 0 10.40 | + 4 30.2 | 1.108 | 1.969 | 19.2 | 19.4 |
| 292661 | 2006 <i>UV</i> ₅₈ | 10 | 2.4 | 89°78 | 0°8/ 3.2 | 18 | 394603 | 2007 <i>VC</i> ₂₆₂ | 10 | 2.4 | 47°22 | 6°1/ 27.8 | 18 |
| 8 29 | 0 57.24 | + 8 15.6 | 1.912 | 2.758 | 13.8 | 20.6 | 8 29 | 1 2.03 | - 11 5.4 | 1.640 | 2.519 | 14.1 | 20.2 |
| 9 8 | 0 52.49 | + 7 52.1 | 1.843 | 2.763 | 10.4 | 20.4 | 9 8 | 0 56.17 | - 11 44.4 | 1.590 | 2.526 | 10.7 | 20.0 |
| 9 18 | 0 45.85 | + 7 15.1 | 1.796 | 2.768 | 6.5 | 20.2 | 9 18 | 0 48.10 | - 12 19.9 | 1.563 | 2.534 | 7.5 | 19.8 |
| 9 28 | 0 38.00 | + 6 27.9 | 1.775 | 2.773 | 2.4 | 19.9 | 9 28 | 0 38.70 | - 12 44.5 | 1.562 | 2.541 | 6.1 | 19.8 |
| 10 8 | 0 29.82 | + 5 35.8 | 1.783 | 2.778 | 2.2 | 19.9 | 10 8 | 0 29.06 | - 12 52.2 | 1.586 | 2.549 | 7.6 | 19.9 |
| 10 18 | 0 22.23 | + 4 44.7 | 1.818 | 2.783 | 6.3 | 20.2 | 10 18 | 0 20.31 | - 12 39.8 | 1.637 | 2.557 | 10.7 | 20.1 |
| 10 28 | 0 16.08 | + 4 0.7 | 1.880 | 2.788 | 10.1 | 20.4 | 10 28 | 0 13.38 | - 12 6.8 | 1.711 | 2.565 | 13.9 | 20.3 |
| 11 7 | 0 11.95 | + 3 28.1 | 1.965 | 2.793 | 13.4 | 20.7 | 11 7 | 0 8.86 | - 11 14.9 | 1.805 | 2.574 | 16.7 | 20.5 |
| 365321 | 2009 <i>SQ</i> ₁₁₃ | 10 | 2.4 | 318°45 | 1°4/ 4.1 | 18 | 72667 | 2001 <i>FY</i> ₅₀ | 10 | 2.4 | 148°51 | 0°6/ 1.8 | 18 |
| 8 29 | 0 53.63 | + 11 28.6 | 2.194 | 3.027 | 12.7 | 21.1 | 8 29 | 1 1.28 | + 1 33.8 | 2.587 | 3.430 | 10.7 | 18.5 |
| 9 8 | 0 49.68 | + 10 53.3 | 2.113 | 3.024 | 9.7 | 20.9 | 9 8 | 0 54.99 | + 1 36.5 | 2.512 | 3.435 | 7.9 | 18.3 |
| 9 18 | 0 44.11 | + 10 2.8 | 2.055 | 3.021 | 6.3 | 20.7 | 9 18 | 0 47.18 | + 1 34.4 | 2.464 | 3.439 | 4.8 | 18.1 |
| 9 28 | 0 37.47 | + 9 0.1 | 2.024 | 3.019 | 2.8 | 20.4 | 9 28 | 0 38.41 | + 1 29.6 | 2.444 | 3.443 | 1.5 | 17.9 |
| 10 8 | 0 30.50 | + 7 50.0 | 2.021 | 3.016 | 2.1 | 20.4 | 10 8 | 0 29.38 | + 1 25.1 | 2.454 | 3.447 | 2.2 | 18.0 |
| 10 18 | 0 23.97 | + 6 38.7 | 2.047 | 3.013 | 5.6 | 20.6 | 10 18 | 0 20.82 | + 1 23.6 | 2.496 | 3.451 | 5.5 | 18.2 |
| 10 28 | 0 18.03 | + 5 32.4 | 2.100 | 3.011 | 9.0 | 20.8 | 10 28 | 0 13.42 | + 1 27.7 | 2.565 | 3.454 | 8.5 | 18.4 |
| 11 7 | 0 15.02 | + 4 36.6 | 2.177 | 3.008 | 12.1 | 21.0 | 11 7 | 0 7.67 | + 1 39.3 | 2.660 | 3.458 | 11.1 | 18.6 |
| 343794 | 2011 <i>GO</i> ₆₁ | 10 | 2.4 | 273°20 | 2°2/ 28.0 | 18 | 421491 | 2014 <i>OZ</i> ₆₂ | 10 | 2.4 | 156°82 | 0°4/ 1.9 | |

EPHEMERIDES

10 2.4

10 2.4

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|--------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 220270 | 2003 <i>AQ</i> ₄₄ | 10 | 2.4 344°52 | 2°6/ 3.9 18 | | | 141754 | 2002 <i>LU</i> ₅₃ | 10 | 2.4 217°77 | 2°3/30.3 18 | | |
| 8 29 | 0 56.54 | + 8 16.2 | 1.057 | 1.940 | 19.7 | 19.2 | 8 29 | 0 57.63 | + 2 51.5 | 1.487 | 2.362 | 15.5 | 20.2 |
| 9 8 | 0 53.46 | + 8 49.4 | 0.989 | 1.927 | 15.3 | 18.8 | 9 8 | 0 53.28 | + 1 35.6 | 1.420 | 2.359 | 11.4 | 19.9 |
| 9 18 | 0 47.20 | + 9 5.2 | 0.937 | 1.914 | 10.1 | 18.5 | 9 18 | 0 46.58 | + 0 5.1 | 1.375 | 2.357 | 6.8 | 19.7 |
| 9 28 | 0 38.60 | + 9 4.2 | 0.907 | 1.904 | 4.5 | 18.2 | 9 28 | 0 38.30 | - 1 32.1 | 1.355 | 2.354 | 2.6 | 19.4 |
| 10 8 | 0 29.08 | + 8 50.8 | 0.899 | 1.894 | 3.7 | 18.1 | 10 8 | 0 29.56 | - 3 5.7 | 1.362 | 2.351 | 4.6 | 19.5 |
| 10 18 | 0 20.34 | + 8 31.6 | 0.913 | 1.887 | 9.2 | 18.4 | 10 18 | 0 21.52 | - 4 26.1 | 1.395 | 2.347 | 9.3 | 19.8 |
| 10 28 | 0 13.96 | + 8 15.3 | 0.949 | 1.881 | 14.8 | 18.7 | 10 28 | 0 15.26 | - 5 25.5 | 1.453 | 2.344 | 13.7 | 20.0 |
| 11 7 | 0 10.94 | + 8 9.3 | 1.003 | 1.877 | 19.6 | 19.0 | 11 7 | 0 11.50 | - 6 0.5 | 1.531 | 2.340 | 17.4 | 20.3 |
| 301158 | 2008 <i>YT</i> ₂₁ | 10 | 2.4 56°58 | 6°3/26.4 18 | | | 255375 | 2005 <i>WL</i> ₁₁₆ | 10 | 2.4 319°37 | 0°6/ 1.8 18 | | |
| 8 29 | 0 56.83 | - 9 11.8 | 1.605 | 2.493 | 13.8 | 20.0 | 8 29 | 0 54.34 | + 4 43.9 | 1.865 | 2.729 | 13.3 | 20.2 |
| 9 8 | 0 52.30 | -10 41.1 | 1.567 | 2.509 | 10.4 | 19.8 | 9 8 | 0 50.52 | + 4 7.0 | 1.783 | 2.716 | 9.9 | 20.0 |
| 9 18 | 0 45.74 | -12 9.0 | 1.552 | 2.524 | 7.3 | 19.7 | 9 18 | 0 44.78 | + 3 17.9 | 1.724 | 2.703 | 6.0 | 19.7 |
| 9 28 | 0 37.97 | -13 26.3 | 1.562 | 2.540 | 6.3 | 19.7 | 9 28 | 0 37.74 | + 2 20.9 | 1.692 | 2.691 | 1.8 | 19.4 |
| 10 8 | 0 30.02 | -14 24.5 | 1.598 | 2.556 | 8.1 | 19.8 | 10 8 | 0 30.24 | + 1 22.3 | 1.686 | 2.680 | 2.8 | 19.5 |
| 10 18 | 0 22.90 | -14 58.7 | 1.660 | 2.572 | 11.1 | 20.0 | 10 18 | 0 23.21 | + 0 28.5 | 1.708 | 2.668 | 7.1 | 19.7 |
| 10 28 | 0 17.48 | -15 7.0 | 1.744 | 2.588 | 14.2 | 20.3 | 10 28 | 0 17.53 | - 0 14.4 | 1.755 | 2.657 | 11.1 | 19.9 |
| 11 7 | 0 14.28 | -14 50.9 | 1.847 | 2.604 | 16.8 | 20.5 | 11 7 | 0 13.86 | - 0 42.2 | 1.825 | 2.647 | 14.5 | 20.1 |
| 347077 | 2010 <i>GS</i> ₂₇ | 10 | 2.4 151°07 | 4°5/28.2 18 | | | 131494 | 2001 <i>ST</i> ₂₂₇ | 10 | 2.4 334°08 | 0°6/ 2.0 18 | | |
| 8 29 | 1 1.50 | - 8 22.8 | 2.057 | 2.926 | 12.1 | 20.9 | 8 29 | 0 59.21 | + 4 31.4 | 1.131 | 2.015 | 18.6 | 20.2 |
| 9 8 | 0 55.43 | - 9 4.6 | 1.999 | 2.932 | 9.0 | 20.7 | 9 8 | 0 55.16 | + 4 11.6 | 1.066 | 2.008 | 14.0 | 20.0 |
| 9 18 | 0 47.55 | - 9 46.0 | 1.965 | 2.937 | 6.1 | 20.6 | 9 18 | 0 48.06 | + 3 35.4 | 1.020 | 2.002 | 8.6 | 19.6 |
| 9 28 | 0 38.53 | -10 20.9 | 1.959 | 2.943 | 4.5 | 20.5 | 9 28 | 0 38.82 | + 2 48.2 | 0.997 | 1.997 | 2.6 | 19.3 |
| 10 8 | 0 29.28 | -10 44.1 | 1.980 | 2.948 | 5.9 | 20.6 | 10 8 | 0 28.88 | + 1 58.5 | 0.997 | 1.992 | 3.8 | 19.3 |
| 10 18 | 0 20.69 | -10 51.9 | 2.030 | 2.952 | 8.8 | 20.8 | 10 18 | 0 19.82 | + 1 15.6 | 1.022 | 1.988 | 9.8 | 19.7 |
| 10 28 | 0 13.57 | -10 42.5 | 2.105 | 2.956 | 11.8 | 21.0 | 10 28 | 0 13.08 | + 0 47.7 | 1.068 | 1.984 | 15.1 | 20.0 |
| 11 7 | 0 8.46 | -10 16.4 | 2.202 | 2.960 | 14.4 | 21.2 | 11 7 | 0 9.52 | + 0 39.7 | 1.133 | 1.981 | 19.7 | 20.2 |
| 21345 | 1997 <i>ED</i> ₃ | 10 | 2.4 208°96 | 5°7/25.9 18 | | | 439732 | 2015 <i>FB</i> ₇₅ | 10 | 2.4 236°94 | 1°0/ 4.6 18 | | |
| 8 29 | 0 57.42 | -10 27.8 | 2.064 | 2.940 | 11.7 | 19.0 | 8 29 | 0 47.88 | +11 44.8 | 4.572 | 5.384 | 6.9 | 20.9 |
| 9 8 | 0 52.54 | -11 50.2 | 2.002 | 2.936 | 8.9 | 18.8 | 9 8 | 0 44.70 | +11 13.6 | 4.483 | 5.381 | 5.3 | 20.7 |
| 9 18 | 0 45.87 | -13 12.2 | 1.965 | 2.932 | 6.5 | 18.7 | 9 18 | 0 40.80 | +10 35.1 | 4.419 | 5.379 | 3.5 | 20.6 |
| 9 28 | 0 38.04 | -14 26.2 | 1.955 | 2.927 | 5.8 | 18.6 | 9 28 | 0 36.44 | + 9 50.6 | 4.384 | 5.376 | 1.7 | 20.5 |
| 10 8 | 0 29.88 | -15 24.9 | 1.972 | 2.922 | 7.4 | 18.7 | 10 8 | 0 31.94 | + 9 2.5 | 4.379 | 5.373 | 1.2 | 20.4 |
| 10 18 | 0 22.26 | -16 3.4 | 2.016 | 2.916 | 10.1 | 18.9 | 10 18 | 0 27.63 | + 8 13.1 | 4.405 | 5.370 | 2.9 | 20.6 |
| 10 28 | 0 15.99 | -16 19.1 | 2.084 | 2.910 | 12.9 | 19.1 | 10 28 | 0 23.84 | + 7 25.2 | 4.461 | 5.368 | 4.8 | 20.7 |
| 11 7 | 0 11.64 | -16 12.5 | 2.173 | 2.904 | 15.3 | 19.2 | 11 7 | 0 20.83 | + 6 41.2 | 4.545 | 5.365 | 6.5 | 20.8 |
| 105898 | 2000 <i>SC</i> ₁₈₈ | 10 | 2.4 313°47 | 0°8/ 1.6 18 | | | 288038 | 2003 <i>UR</i> ₂₅₉ | 10 | 2.4 317°27 | 7°5/13.0 18 | | |
| 8 29 | 0 54.97 | + 4 3.4 | 1.908 | 2.771 | 13.1 | 19.6 | 8 29 | 0 53.15 | +32 6.3 | 2.290 | 3.001 | 15.7 | 19.9 |
| 9 8 | 0 50.91 | + 3 25.2 | 1.829 | 2.762 | 9.7 | 19.4 | 9 8 | 0 49.57 | +31 55.7 | 2.191 | 2.991 | 13.8 | 19.8 |
| 9 18 | 0 44.98 | + 2 35.7 | 1.773 | 2.753 | 5.9 | 19.1 | 9 18 | 0 44.17 | +31 18.1 | 2.111 | 2.981 | 11.5 | 19.6 |
| 9 28 | 0 37.79 | + 1 39.5 | 1.744 | 2.744 | 1.8 | 18.8 | 9 28 | 0 37.55 | +30 11.9 | 2.052 | 2.971 | 9.3 | 19.4 |
| 10 8 | 0 30.17 | + 0 42.5 | 1.742 | 2.735 | 2.9 | 18.9 | 10 8 | 0 30.51 | +28 38.8 | 2.018 | 2.961 | 7.7 | 19.3 |
| 10 18 | 0 23.04 | - 0 8.8 | 1.768 | 2.726 | 7.1 | 19.1 | 10 18 | 0 23.94 | +26 43.7 | 2.011 | 2.952 | 7.7 | 19.3 |
| 10 28 | 0 17.25 | - 0 48.9 | 1.819 | 2.718 | 10.9 | 19.4 | 10 28 | 0 18.67 | +24 35.2 | 2.032 | 2.943 | 9.3 | 19.4 |
| 11 7 | 0 13.43 | - 1 14.0 | 1.893 | 2.710 | 14.2 | 19.6 | 11 7 | 0 15.30 | +22 23.3 | 2.080 | 2.935 | 11.6 | 19.5 |
| 132395 | 2002 <i>GA</i> ₉₇ | 10 | 2.4 296°10 | 0°2/ 2.6 18 | | | 65811 | 1996 <i>RW</i> ₃₀ | 10 | 2.4 280°39 | 0°8/ 3.9 18 | | |
| 8 29 | 0 58.67 | + 5 51.1 | 1.629 | 2.489 | 15.1 | 19.8 | 8 29 | 0 48.81 | + 9 39.9 | 4.326 | 5.147 | 7.1 | 19.9 |
| 9 8 | 0 54.03 | + 5 36.7 | 1.548 | 2.477 | 11.4 | 19.5 | 9 8 | 0 45.42 | + 9 20.0 | 4.240 | 5.146 | 5.4 | 19.7 |
| 9 18 | 0 47.07 | + 5 9.0 | 1.488 | 2.465 | 7.1 | 19.2 | 9 18 | 0 41.24 | + 8 53.3 | 4.180 | 5.145 | 3.5 | 19.6 |
| 9 28 | 0 38.47 | + 4 31.5 | 1.454 | 2.453 | 2.3 | 18.9 | 9 28 | 0 36.58 | + 8 21.5 | 4.149 | 5.144 | 1.5 | 19.4 |
| 10 8 | 0 29.28 | + 3 49.7 | 1.446 | 2.441 | 2.7 | 18.9 | 10 8 | 0 31.77 | + 7 46.6 | 4.148 | 5.142 | 1.2 | 19.4 |
| 10 18 | 0 20.63 | + 3 10.2 | 1.465 | 2.430 | 7.6 | 19.2 | 10 18 | 0 27.16 | + 7 11.0 | 4.177 | 5.141 | 3.1 | 19.6 |
| 10 28 | 0 13.64 | + 2 39.3 | 1.510 | 2.418 | 12.1 | 19.4 | 10 28 | 0 23.10 | + 6 37.0 | 4.236 | 5.140 | 5.0 | 19.7 |
| 11 7 | 0 9.06 | + 2 21.9 | 1.576 | 2.407 | 15.9 | 19.7 | 11 7 | 0 19.88 | + 6 7.1 | 4.321 | 5.139 | 6.8 | 19.8 |
| 243870 | 2000 <i>XQ</i> ₁ | 10 | 2.4 353°59 | 11°3/12.4 18 | | | 63554 | 2001 <i>QA</i> ₈ | 10 | 2.4 27°07 | 1°4/30.6 18 | | |
| 8 29 | 0 53.67 | +28 49.3 | 1.292 | 2.077 | 22.4 | 18.7 | 8 29 | 0 53.14 | + 1 58.4 | 2.359 | 3.221 | 10.9 | 19.2 |
| 9 8 | 0 51.14 | +29 53.4 | 1.220 | 2.070 | 19.6 | 18.5 | 9 8 | 0 49.15 | + 1 7.9 | 2.290 | 3.223 | 8.0 | 19.0 |
| 9 18 | 0 45.70 | +30 23.8 | 1.163 | 2.065 | 16.5 | 18.3 | 9 18 | 0 43.72 | + 0 9.7 | 2.245 | 3.225 | 4.8 | 18.8 |
| 9 28 | 0 38.12 | +30 14.6 | 1.124 | 2.061 | 13.5 | 18.1 | 9 28 | 0 37.37 | - 0 51.6 | 2.228 | 3.227 | 1.7 | 18.6 |
| 10 8 | 0 29.70 | +29 25.0 | 1.105 | 2.058 | 11.5 | 18.0 | 10 8 | 0 30.78 | - 1 50.8 | 2.240 | 3.229 | 3.0 | 18.7 |
| 10 18 | 0 21.99 | +28 0.7 | 1.108 | 2.056 | 11.7 | 18.0 | 10 18 | 0 24.62 | - 2 42.9 | 2.281 | 3.232 | 6.3 | 18.9 |
| 10 28 | 0 16.46 | +26 13.5 | 1.133 | 2.056 | 13.8 | 18.1 | 10 28 | 0 19.54 | - 3 23.4 | 2.348 | 3.234 | 9.4 | 19.1 |
| 11 7 | 0 14.05 | +24 18.9 | 1.178 | 2.057 | 16.9 | 18.3 | 11 7 | 0 16.03 | - 3 49.9 | 2.439 | 3.237 | 12.0 | 19.3 |
| 216571 | 2002 <i>CS</i> ₇₆ | 10 | 2.4 207°28 | 0°7/ 1.8 17 | | | 123900 | 2001 <i>DD</i> ₆₃ | 10 | 2.4 338°11 | 4°0/ 6.0 18 | | |
| 8 29 | 1 1.33 | + 4 54.0 | 1.721 | 2.577 | 14.7 | 21.9 | 8 29 | 0 57.47 | +15 15.9 | 1.903 | 2.721 | 14.9 | 18.9 |
| 9 8 | 0 55.83 | + 4 14.0 | 1.644 | 2.572 | 11.0 | 21.6 | 9 8 | 0 52.91 | +15 40.0 | 1.819 | 2.714 | 11.9 | 18.7 |
| 9 18 | 0 48.06 | + 3 20.7 | 1.589 | 2.566 | 6.6 | 21.4 | 9 18 | 0 46.29 | +15 47.3 | 1.757 | 2.708 | 8.6 | 18.5 |
| 9 28 | 0 38.76 | + 2 18.8 | 1.560 | 2.560 | 2.0 | 21.0 | 9 28 | 0 38.23 | +15 37.8 | 1.720 | 2.702 | 5.3 | 18.3 |
| 10 8 | 0 28.94 | + 1 15.3 | 1.560 | 2.553 | 3.1 | 21.1 | 10 8 | 0 29.65 | +15 13.8 | 1.709 | 2.696 | 4.1 | 18.2 |
| 10 18 | 0 19.74 | + 0 17.5 | 1.587 | 2.545 | 7.8 | 21.4 | 10 18 | 0 21.54 | +14 39.7 | 1.725 | 2.691 | 6.5 | 18.3 |
| 10 28 | 0 12.19 | - 0 27.9 | 1.640 | 2.537 | 12.0 | 21.6 | 10 28 | 0 14.88 | +14 1.6 | 1.768 | 2.686 | 10.0 | 18.5 |
| 11 7 | 0 7.01 | - 0 56.8 | 1.716 | 2.528 | 15.7 | 21.8 | 11 7 | 0 10.35 | +13 26.0 | 1.834 | 2.682 | 13.3 | 18.7 |
| 40777 | 1999 <i>TM</i> ₂₅ | 10 | 2.4 32°84 | 1°6/ 3.8 18 | | | 36072 | 1999 <i>RJ</i> ₅₆ | 10 | 2.4 55°07 | 4°1/27.9 18 | | |
| 8 29 | | | | | | | | | | | | | |

EPHEMERIDES

10 2.4

10 2.4

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 15720 | 1990 <i>EN</i> ₁ | 10 | 2.4 139°52 | 2°2/ 5.0 | 18 | | 54326 | 2000 <i>KY</i> ₃ | 10 | 2.4 324°58 | 5°9/27.9 | 18 | |
| 8 29 | 0 56.70 | +13 48.2 | 2.311 | 3.126 | 12.7 | 18.6 | 8 29 | 0 58.54 | - 7 16.4 | 1.356 | 2.248 | 15.6 | 18.4 |
| 9 8 | 0 51.83 | +13 20.8 | 2.237 | 3.135 | 9.9 | 18.5 | 9 8 | 0 54.22 | - 8 15.7 | 1.292 | 2.238 | 11.7 | 18.1 |
| 9 18 | 0 45.36 | +12 38.0 | 2.187 | 3.144 | 6.7 | 18.3 | 9 18 | 0 47.29 | - 9 17.7 | 1.250 | 2.229 | 7.9 | 17.9 |
| 9 28 | 0 37.89 | +11 42.0 | 2.163 | 3.152 | 3.4 | 18.1 | 9 28 | 0 38.59 | -10 13.0 | 1.232 | 2.220 | 5.9 | 17.8 |
| 10 8 | 0 30.15 | +10 37.3 | 2.167 | 3.160 | 2.4 | 18.0 | 10 8 | 0 29.33 | -10 52.1 | 1.239 | 2.211 | 8.0 | 17.9 |
| 10 18 | 0 22.92 | + 9 29.4 | 2.201 | 3.168 | 5.3 | 18.3 | 10 18 | 0 20.85 | -11 8.4 | 1.270 | 2.203 | 11.9 | 18.1 |
| 10 28 | 0 16.92 | + 8 24.3 | 2.264 | 3.175 | 8.5 | 18.5 | 10 28 | 0 14.35 | -10 58.7 | 1.322 | 2.196 | 16.0 | 18.3 |
| 11 7 | 0 12.63 | + 7 27.4 | 2.351 | 3.181 | 11.4 | 18.7 | 11 7 | 0 10.57 | -10 23.8 | 1.393 | 2.189 | 19.5 | 18.5 |
| 523311 | 2017 <i>BD</i> ₁₂₁ | 10 | 2.4 229°50 | 3°8/ 7.4 | 18 | | 21967 | 1999 <i>WS</i> ₉ | 10 | 2.4 64°20 | 6°2/26.9 | 18 | |
| 8 29 | 0 54.88 | +19 32.2 | 2.623 | 3.405 | 12.3 | 21.5 | 8 29 | 0 59.43 | -10 48.8 | 1.694 | 2.576 | 13.5 | 16.3 |
| 9 8 | 0 50.48 | +19 23.4 | 2.530 | 3.399 | 10.0 | 21.3 | 9 8 | 0 54.22 | -11 51.3 | 1.647 | 2.584 | 10.3 | 16.1 |
| 9 18 | 0 44.57 | +18 57.9 | 2.459 | 3.392 | 7.4 | 21.1 | 9 18 | 0 46.95 | -12 51.1 | 1.623 | 2.592 | 7.4 | 16.0 |
| 9 28 | 0 37.68 | +18 16.4 | 2.414 | 3.385 | 4.9 | 21.0 | 9 28 | 0 38.41 | -13 40.3 | 1.624 | 2.600 | 6.3 | 15.9 |
| 10 8 | 0 30.43 | +17 21.5 | 2.397 | 3.378 | 3.8 | 20.9 | 10 8 | 0 29.64 | -14 11.8 | 1.651 | 2.609 | 7.9 | 16.0 |
| 10 18 | 0 23.54 | +16 17.3 | 2.409 | 3.371 | 5.2 | 21.0 | 10 18 | 0 21.67 | -14 21.7 | 1.704 | 2.617 | 10.8 | 16.2 |
| 10 28 | 0 17.69 | +15 9.6 | 2.450 | 3.364 | 7.8 | 21.1 | 10 28 | 0 15.40 | -14 8.7 | 1.781 | 2.626 | 13.9 | 16.4 |
| 11 7 | 0 13.40 | +14 4.1 | 2.516 | 3.356 | 10.4 | 21.3 | 11 7 | 0 11.38 | -13 34.2 | 1.877 | 2.634 | 16.5 | 16.7 |
| 340010 | 2005 <i>UN</i> ₃₁₈ | 10 | 2.4 121°44 | 0°2/ 2.8 | 17 | | 247986 | 2004 <i>CU</i> ₇₇ | 10 | 2.4 92°10 | 1°3/ 3.7 | 18 | |
| 8 29 | 0 52.39 | + 6 32.2 | 3.487 | 4.321 | 8.4 | 21.9 | 8 29 | 0 57.65 | + 9 41.1 | 1.937 | 2.777 | 13.9 | 20.5 |
| 9 8 | 0 48.16 | + 6 10.0 | 3.415 | 4.331 | 6.3 | 21.7 | 9 8 | 0 52.81 | + 9 23.8 | 1.867 | 2.783 | 10.6 | 20.3 |
| 9 18 | 0 42.95 | + 5 41.1 | 3.369 | 4.341 | 3.9 | 21.6 | 9 18 | 0 46.09 | + 8 52.2 | 1.820 | 2.789 | 6.8 | 20.1 |
| 9 28 | 0 37.13 | + 5 7.7 | 3.352 | 4.350 | 1.3 | 21.4 | 9 28 | 0 38.16 | + 8 9.2 | 1.799 | 2.795 | 2.8 | 19.9 |
| 10 8 | 0 31.16 | + 4 32.4 | 3.364 | 4.359 | 1.4 | 21.4 | 10 8 | 0 29.90 | + 7 19.7 | 1.806 | 2.801 | 2.3 | 19.9 |
| 10 18 | 0 25.49 | + 3 58.2 | 3.407 | 4.368 | 3.9 | 21.6 | 10 18 | 0 22.23 | + 6 29.3 | 1.841 | 2.807 | 6.1 | 20.1 |
| 10 28 | 0 20.57 | + 3 28.0 | 3.479 | 4.377 | 6.3 | 21.8 | 10 28 | 0 16.00 | + 5 44.3 | 1.903 | 2.813 | 9.9 | 20.4 |
| 11 7 | 0 16.73 | + 3 4.0 | 3.577 | 4.386 | 8.3 | 22.0 | 11 7 | 0 11.78 | + 5 9.4 | 1.988 | 2.819 | 13.1 | 20.6 |
| 10758 | Aldoushuxley | 10 | 2.4 245°42 | 2°8/30.4 | 18 | | 117045 | 2004 <i>JD</i> ₃₀ | 10 | 2.4 66°69 | 1°9/30.6 | 18 | |
| 8 29 | 1 2.54 | - 0 54.6 | 1.488 | 2.362 | 15.5 | 18.6 | 8 29 | 0 56.60 | + 0 51.8 | 1.931 | 2.799 | 12.8 | 19.6 |
| 9 8 | 0 57.06 | - 1 29.5 | 1.415 | 2.353 | 11.5 | 18.3 | 9 8 | 0 51.95 | + 0 8.2 | 1.871 | 2.807 | 9.4 | 19.4 |
| 9 18 | 0 48.98 | - 2 12.7 | 1.364 | 2.345 | 7.0 | 18.0 | 9 18 | 0 45.52 | - 0 43.0 | 1.834 | 2.815 | 5.6 | 19.2 |
| 9 28 | 0 39.11 | - 2 57.9 | 1.338 | 2.335 | 3.1 | 17.8 | 9 28 | 0 37.97 | - 1 36.6 | 1.824 | 2.823 | 2.1 | 19.0 |
| 10 8 | 0 28.64 | - 3 37.6 | 1.338 | 2.326 | 4.9 | 17.9 | 10 8 | 0 30.16 | - 2 26.5 | 1.842 | 2.831 | 3.6 | 19.1 |
| 10 18 | 0 18.86 | - 4 4.9 | 1.365 | 2.316 | 9.6 | 18.1 | 10 18 | 0 22.96 | - 3 7.2 | 1.888 | 2.839 | 7.3 | 19.4 |
| 10 28 | 0 11.00 | - 4 14.8 | 1.416 | 2.306 | 14.0 | 18.4 | 10 28 | 0 17.17 | - 3 34.4 | 1.959 | 2.847 | 10.8 | 19.6 |
| 11 7 | 0 5.83 | - 4 5.3 | 1.487 | 2.295 | 17.8 | 18.6 | 11 7 | 0 13.31 | - 3 45.9 | 2.053 | 2.856 | 13.8 | 19.8 |
| 40933 | 1999 <i>TP</i> ₁₉₂ | 10 | 2.4 295°25 | 4°0/ 6.9 | 18 | | 311785 | Erwanmazarico | 10 | 2.4 67°1 | 7°3/ 7.4 | 17 | |
| 8 29 | 0 55.68 | +18 7.1 | 2.214 | 3.013 | 13.7 | 18.6 | 8 29 | 0 55.06 | +17 27.5 | 1.137 | 1.986 | 20.9 | 19.4 |
| 9 8 | 0 51.30 | +18 6.7 | 2.129 | 3.010 | 11.1 | 18.4 | 9 8 | 0 52.11 | +18 36.8 | 1.080 | 1.988 | 17.2 | 19.2 |
| 9 18 | 0 45.18 | +17 48.2 | 2.066 | 3.006 | 8.1 | 18.2 | 9 18 | 0 46.22 | +19 20.4 | 1.040 | 1.991 | 12.9 | 18.9 |
| 9 28 | 0 37.88 | +17 12.4 | 2.027 | 3.003 | 5.3 | 18.1 | 9 28 | 0 38.29 | +19 35.5 | 1.021 | 1.997 | 9.0 | 18.8 |
| 10 8 | 0 30.19 | +16 22.1 | 2.016 | 3.000 | 4.0 | 18.0 | 10 8 | 0 29.72 | +19 23.6 | 1.023 | 2.005 | 7.3 | 18.7 |
| 10 18 | 0 22.93 | +15 22.2 | 2.033 | 2.997 | 5.8 | 18.1 | 10 18 | 0 22.03 | +18 50.8 | 1.047 | 2.015 | 9.4 | 18.8 |
| 10 28 | 0 16.92 | +14 19.2 | 2.077 | 2.994 | 8.8 | 18.3 | 10 28 | 0 16.62 | +18 7.3 | 1.094 | 2.027 | 13.2 | 19.1 |
| 11 7 | 0 12.73 | +13 19.4 | 2.146 | 2.991 | 11.7 | 18.5 | 11 7 | 0 14.30 | +17 23.9 | 1.160 | 2.041 | 17.0 | 19.4 |
| 183719 | 2003 <i>YP</i> ₇₅ | 10 | 2.4 262°07 | 1°2/ 1.5 | 18 | | 511645 | 2015 <i>BW</i> ₂₃₁ | 10 | 2.4 93°96 | 3°1/30.1 | 17 | |
| 8 29 | 1 0.80 | + 2 54.4 | 1.536 | 2.403 | 15.5 | 20.7 | 8 29 | 1 3.67 | - 1 54.4 | 1.464 | 2.338 | 15.7 | 21.3 |
| 9 8 | 0 55.75 | + 2 26.3 | 1.457 | 2.392 | 11.6 | 20.4 | 9 8 | 0 57.54 | - 2 33.4 | 1.416 | 2.354 | 11.5 | 21.1 |
| 9 18 | 0 48.19 | + 1 46.2 | 1.400 | 2.380 | 7.0 | 20.1 | 9 18 | 0 49.02 | - 3 18.5 | 1.390 | 2.370 | 7.0 | 20.9 |
| 9 28 | 0 38.88 | + 0 59.1 | 1.369 | 2.368 | 2.2 | 19.8 | 9 28 | 0 39.05 | - 4 2.5 | 1.390 | 2.386 | 3.3 | 20.7 |
| 10 8 | 0 28.92 | + 0 12.0 | 1.364 | 2.356 | 3.6 | 19.9 | 10 8 | 0 28.87 | - 4 38.2 | 1.416 | 2.401 | 5.1 | 20.9 |
| 10 18 | 0 19.57 | - 0 28.0 | 1.385 | 2.344 | 8.6 | 20.1 | 10 18 | 0 19.69 | - 5 0.0 | 1.469 | 2.417 | 9.3 | 21.2 |
| 10 28 | 0 12.02 | - 0 54.5 | 1.431 | 2.332 | 13.2 | 20.4 | 10 28 | 0 12.55 | - 5 4.2 | 1.546 | 2.432 | 13.3 | 21.4 |
| 11 7 | 0 7.07 | - 1 3.8 | 1.498 | 2.319 | 17.1 | 20.6 | 11 7 | 0 8.03 | - 4 50.3 | 1.643 | 2.446 | 16.7 | 21.7 |
| 220181 | 2002 <i>UY</i> ₂₇ | 10 | 2.4 358°91 | 12°0/25.3 | 18 | | 276994 | 2004 <i>XN</i> ₄₃ | 10 | 2.4 22°45 | 7°8/26.9 | 18 | |
| 8 29 | 0 59.50 | -18 31.0 | 1.006 | 1.910 | 18.6 | 18.4 | 8 29 | 0 59.05 | -11 47.7 | 1.241 | 2.138 | 16.3 | 18.9 |
| 9 8 | 0 55.49 | -19 36.4 | 0.965 | 1.906 | 15.3 | 18.2 | 9 8 | 0 54.49 | -12 48.0 | 1.202 | 2.146 | 12.5 | 18.7 |
| 9 18 | 0 48.22 | -20 27.2 | 0.942 | 1.903 | 12.7 | 18.0 | 9 18 | 0 47.31 | -13 43.2 | 1.183 | 2.155 | 9.1 | 18.5 |
| 9 28 | 0 38.85 | -20 50.1 | 0.939 | 1.901 | 12.1 | 18.0 | 9 28 | 0 38.54 | -14 23.2 | 1.187 | 2.165 | 7.8 | 18.5 |
| 10 8 | 0 29.08 | -20 35.7 | 0.957 | 1.901 | 13.9 | 18.1 | 10 8 | 0 29.53 | -14 39.7 | 1.215 | 2.176 | 9.7 | 18.6 |
| 10 18 | 0 20.58 | -19 41.8 | 0.995 | 1.903 | 17.1 | 18.3 | 10 18 | 0 21.61 | -14 28.9 | 1.266 | 2.188 | 13.0 | 18.9 |
| 10 28 | 0 14.72 | -18 12.0 | 1.050 | 1.906 | 20.5 | 18.5 | 10 28 | 0 15.87 | -13 50.9 | 1.338 | 2.201 | 16.5 | 19.1 |
| 11 7 | 0 12.20 | -16 14.1 | 1.122 | 1.911 | 23.6 | 18.8 | 11 7 | 0 12.90 | -12 49.1 | 1.428 | 2.214 | 19.5 | 19.4 |
| 384400 | 2009 <i>WG</i> ₄₃ | 10 | 2.4 306°25 | 6°1/27.3 | 18 R | | 33636 | 1999 <i>JD</i> ₈₀ | 10 | 2.4 59°77 | 1°2/ 1.2 | 18 | |
| 8 29 | 0 56.57 | - 6 16.4 | 1.376 | 2.271 | 15.3 | 20.7 | 8 29 | 0 55.45 | + 6 34.3 | 1.462 | 2.332 | 16.0 | 17.3 |
| 9 8 | 0 52.93 | - 7 36.1 | 1.298 | 2.245 | 11.5 | 20.4 | 9 8 | 0 51.49 | + 5 4.0 | 1.412 | 2.349 | 11.7 | 17.1 |
| 9 18 | 0 46.65 | - 9 2.9 | 1.241 | 2.221 | 7.8 | 20.2 | 9 18 | 0 45.37 | + 3 16.6 | 1.385 | 2.366 | 6.9 | 16.9 |
| 9 28 | 0 38.44 | -10 26.6 | 1.209 | 2.196 | 6.1 | 20.0 | 9 28 | 0 37.93 | + 1 20.9 | 1.383 | 2.383 | 2.1 | 16.6 |
| 10 8 | 0 29.44 | -11 35.9 | 1.201 | 2.171 | 8.4 | 20.1 | 10 8 | 0 30.27 | - 0 32.1 | 1.409 | 2.401 | 3.7 | 16.8 |
| 10 18 | 0 21.00 | -12 21.3 | 1.217 | 2.147 | 12.6 | 20.2 | 10 18 | 0 23.46 | - 2 12.0 | 1.461 | 2.419 | 8.4 | 17.1 |
| 10 28 | 0 14.39 | -12 37.1 | 1.254 | 2.124 | 16.9 | 20.4 | 10 28 | 0 18.42 | - 3 30.7 | 1.538 | 2.436 | 12.6 | 17.4 |
| 11 7 | 0 10.52 | -12 22.8 | 1.309 | 2.101 | 20.7 | 20.6 | 11 7 | 0 15.69 | - 4 24.7 | 1.636 | 2.454 | 16.0 | 17.7 |
| 393024 | 2012 <i>YY</i> | 10 | 2.4 336°70 | 1°9/ 1.6 | 18 | | 436472 | 2011 <i>DD</i> ₂₉ | 10 | 2.4 183°66 | 1°2/ 1.2 | 17 | |
| 8 29 | 1 7.92 | - 3 7.0 | 1.3 | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|---------------|----------|---------|------|---------------|-------------------------------|-----------------|---------------|----------|---------|------|
| 412854 | 2014 <i>PT</i> ₅₆ | | 10 2.4 32°68 | 2.3/ 4.8 | 18 | | 378570 | 2008 <i>DY</i> ₁₄ | | 10 2.4 135°06 | 0.6/ 1.9 | 17 | |
| 8 29 | 0 55.27 | +12 21.0 | 1.935 | 2.769 | 14.1 | 20.4 | 8 29 | 1 0.68 | + 5 6.8 | 1.725 | 2.580 | 14.6 | 21.7 |
| 9 8 | 0 51.05 | +12 11.2 | 1.870 | 2.779 | 10.9 | 20.3 | 9 8 | 0 55.19 | + 4 23.7 | 1.663 | 2.591 | 10.8 | 21.5 |
| 9 18 | 0 45.02 | +11 45.6 | 1.827 | 2.790 | 7.3 | 20.1 | 9 18 | 0 47.61 | + 3 27.9 | 1.624 | 2.601 | 6.5 | 21.2 |
| 9 28 | 0 37.85 | +11 6.3 | 1.809 | 2.801 | 3.7 | 19.9 | 9 28 | 0 38.70 | + 2 24.8 | 1.611 | 2.610 | 1.9 | 21.0 |
| 10 8 | 0 30.39 | +10 18.0 | 1.819 | 2.812 | 2.7 | 19.8 | 10 8 | 0 29.48 | + 1 21.1 | 1.626 | 2.619 | 3.0 | 21.0 |
| 10 18 | 0 23.52 | + 9 26.3 | 1.856 | 2.824 | 5.9 | 20.1 | 10 18 | 0 21.00 | + 0 24.0 | 1.669 | 2.628 | 7.4 | 21.3 |
| 10 28 | 0 18.05 | + 8 37.4 | 1.920 | 2.837 | 9.4 | 20.3 | 10 28 | 0 14.19 | - 0 20.4 | 1.738 | 2.636 | 11.4 | 21.6 |
| 11 7 | 0 14.52 | + 7 56.7 | 2.007 | 2.850 | 12.5 | 20.5 | 11 7 | 0 9.65 | - 0 48.6 | 1.829 | 2.643 | 14.8 | 21.8 |
| 393373 | 1999 <i>VB</i> ₄₆ | | 10 2.4 316°25 | 9.4/28.4 | 18 | | 521809 | 2015 <i>TF</i> ₁₄₀ | | 10 2.4 301°25 | 6.4/25.0 | 18 | |
| 8 29 | 1 18.71 | -20 53.5 | 1.543 | 2.391 | 16.4 | 19.5 | 8 29 | 0 55.13 | -12 50.8 | 2.069 | 2.950 | 11.5 | 20.8 |
| 9 8 | 1 9.17 | -20 50.3 | 1.466 | 2.373 | 13.5 | 19.3 | 9 8 | 0 50.98 | -14 8.3 | 2.001 | 2.934 | 9.0 | 20.6 |
| 9 18 | 0 56.41 | -20 30.2 | 1.411 | 2.357 | 10.7 | 19.1 | 9 18 | 0 45.04 | -15 24.0 | 1.957 | 2.919 | 6.9 | 20.5 |
| 9 28 | 0 41.45 | -19 44.4 | 1.383 | 2.340 | 9.4 | 19.0 | 9 28 | 0 37.92 | -16 30.2 | 1.939 | 2.904 | 6.5 | 20.4 |
| 10 8 | 0 25.91 | -18 27.7 | 1.381 | 2.324 | 10.6 | 19.0 | 10 8 | 0 30.40 | -17 19.9 | 1.948 | 2.889 | 8.1 | 20.5 |
| 10 18 | 0 11.48 | -16 41.0 | 1.408 | 2.309 | 13.6 | 19.1 | 10 18 | 0 23.36 | -17 48.4 | 1.982 | 2.875 | 10.6 | 20.7 |
| 10 28 | 23 59.62 | -14 29.6 | 1.460 | 2.294 | 17.0 | 19.3 | 10 28 | 0 17.59 | -17 53.2 | 2.040 | 2.860 | 13.3 | 20.8 |
| 11 7 | 23 51.17 | -12 1.2 | 1.535 | 2.280 | 20.1 | 19.5 | 11 7 | 0 13.69 | -17 35.1 | 2.117 | 2.846 | 15.7 | 21.0 |
| 284916 | 2010 <i>AC</i> ₁₂₅ | | 10 2.4 351°29 | 5.3/26.6 | 18 | | 114138 | 2002 <i>VS</i> ₅₇ | | 10 2.4 78°02 | 0.3/ 2.2 | 18 | |
| 8 29 | 0 55.36 | -10 3.0 | 2.042 | 2.923 | 11.6 | 20.1 | 8 29 | 0 57.44 | + 6 44.9 | 1.845 | 2.698 | 13.9 | 19.2 |
| 9 8 | 0 51.03 | -11 5.7 | 1.983 | 2.921 | 8.8 | 19.9 | 9 8 | 0 52.56 | + 5 50.3 | 1.795 | 2.721 | 10.3 | 19.0 |
| 9 18 | 0 44.99 | -12 7.5 | 1.949 | 2.919 | 6.3 | 19.8 | 9 18 | 0 45.88 | + 4 42.8 | 1.768 | 2.744 | 6.2 | 18.8 |
| 9 28 | 0 37.85 | -13 1.5 | 1.940 | 2.917 | 5.4 | 19.7 | 9 28 | 0 38.13 | + 3 27.9 | 1.767 | 2.767 | 1.8 | 18.6 |
| 10 8 | 0 30.43 | -13 41.7 | 1.959 | 2.916 | 6.9 | 19.8 | 10 8 | 0 30.23 | + 2 12.7 | 1.795 | 2.789 | 2.6 | 18.7 |
| 10 18 | 0 23.56 | -14 3.7 | 2.004 | 2.915 | 9.6 | 20.0 | 10 18 | 0 23.06 | + 1 4.0 | 1.851 | 2.812 | 6.7 | 19.0 |
| 10 28 | 0 18.01 | -14 5.3 | 2.073 | 2.915 | 12.3 | 20.1 | 10 28 | 0 17.40 | + 0 7.7 | 1.934 | 2.834 | 10.3 | 19.3 |
| 11 7 | 0 14.30 | -13 46.9 | 2.163 | 2.914 | 14.8 | 20.3 | 11 7 | 0 13.74 | - 0 32.5 | 2.040 | 2.855 | 13.4 | 19.5 |
| 185780 | 1999 <i>UA</i> ₃₄ | | 10 2.4 76°90 | 1.9/ 4.7 | 18 | | 180445 | 2004 <i>BG</i> ₁₁₆ | | 10 2.4 131°25 | 5.0/28.3 | 18 | |
| 8 29 | 0 54.75 | +13 12.6 | 2.144 | 2.970 | 13.2 | 20.3 | 8 29 | 1 1.31 | - 6 12.1 | 1.566 | 2.446 | 14.5 | 20.1 |
| 9 8 | 0 50.50 | +12 35.3 | 2.077 | 2.982 | 10.2 | 20.1 | 9 8 | 0 55.83 | - 7 14.4 | 1.512 | 2.452 | 10.8 | 19.9 |
| 9 18 | 0 44.62 | +11 41.7 | 2.032 | 2.994 | 6.8 | 19.9 | 9 18 | 0 48.07 | - 8 19.1 | 1.481 | 2.458 | 7.1 | 19.7 |
| 9 28 | 0 37.74 | +10 35.0 | 2.014 | 3.006 | 3.3 | 19.7 | 9 28 | 0 38.85 | - 9 18.1 | 1.475 | 2.463 | 5.0 | 19.6 |
| 10 8 | 0 30.62 | + 9 20.4 | 2.024 | 3.018 | 2.3 | 19.7 | 10 8 | 0 29.32 | -10 3.1 | 1.496 | 2.468 | 6.9 | 19.7 |
| 10 18 | 0 24.04 | + 8 4.1 | 2.063 | 3.030 | 5.5 | 19.9 | 10 18 | 0 20.63 | -10 28.5 | 1.542 | 2.473 | 10.5 | 20.0 |
| 10 28 | 0 18.72 | + 6 52.9 | 2.130 | 3.042 | 8.8 | 20.2 | 10 28 | 0 13.77 | -10 31.5 | 1.613 | 2.478 | 14.1 | 20.2 |
| 11 7 | 0 15.17 | + 5 52.0 | 2.221 | 3.054 | 11.8 | 20.4 | 11 7 | 0 9.37 | -10 12.5 | 1.703 | 2.482 | 17.1 | 20.4 |
| 258657 | 2002 <i>EJ</i> ₈₂ | | 10 2.4 92°64 | 2.1/ 4.5 | 18 | | 148475 | 2001 <i>EX</i> ₁₇ | | 10 2.4 203°49 | 0.6/ 1.9 | 18 | |
| 8 29 | 0 59.54 | +10 45.5 | 2.213 | 3.038 | 12.9 | 20.3 | 8 29 | 1 0.12 | + 5 24.6 | 1.804 | 2.657 | 14.2 | 20.9 |
| 9 8 | 0 54.04 | +10 55.8 | 2.139 | 3.044 | 9.9 | 20.1 | 9 8 | 0 54.87 | + 4 40.4 | 1.726 | 2.653 | 10.6 | 20.7 |
| 9 18 | 0 46.81 | +10 53.9 | 2.089 | 3.051 | 6.6 | 19.9 | 9 18 | 0 47.51 | + 3 42.8 | 1.672 | 2.649 | 6.4 | 20.4 |
| 9 28 | 0 38.44 | +10 41.1 | 2.065 | 3.057 | 3.3 | 19.7 | 9 28 | 0 38.72 | + 2 36.6 | 1.644 | 2.644 | 1.9 | 20.1 |
| 10 8 | 0 29.74 | +10 20.3 | 2.070 | 3.063 | 2.5 | 19.7 | 10 8 | 0 29.46 | + 1 28.5 | 1.645 | 2.638 | 2.9 | 20.2 |
| 10 18 | 0 21.55 | + 9 55.5 | 2.104 | 3.069 | 5.5 | 19.9 | 10 18 | 0 20.79 | + 0 25.8 | 1.673 | 2.632 | 7.4 | 20.5 |
| 10 28 | 0 14.67 | + 9 31.2 | 2.165 | 3.075 | 8.9 | 20.1 | 10 28 | 0 13.67 | - 0 25.0 | 1.728 | 2.625 | 11.5 | 20.7 |
| 11 7 | 0 9.65 | + 9 11.8 | 2.251 | 3.081 | 11.8 | 20.3 | 11 7 | 0 8.77 | - 0 59.4 | 1.806 | 2.618 | 15.0 | 20.9 |
| 143238 | 2002 <i>YF</i> ₂₁ | | 10 2.4 247°08 | 2.1/30.6 | 18 | | 425123 | 2009 <i>SA</i> ₁₉₅ | | 10 2.4 173°30 | 1.0/ 3.3 | 18 | |
| 8 29 | 1 0.00 | + 0 45.8 | 1.736 | 2.603 | 14.0 | 20.5 | 8 29 | 1 1.15 | + 8 32.0 | 1.815 | 2.657 | 14.6 | 21.6 |
| 9 8 | 0 54.91 | + 0 2.9 | 1.656 | 2.591 | 10.4 | 20.2 | 9 8 | 0 55.59 | + 8 13.3 | 1.742 | 2.659 | 11.1 | 21.4 |
| 9 18 | 0 47.59 | - 0 49.6 | 1.599 | 2.579 | 6.3 | 20.0 | 9 18 | 0 47.92 | + 7 40.2 | 1.690 | 2.661 | 7.0 | 21.2 |
| 9 28 | 0 38.74 | - 1 46.2 | 1.568 | 2.566 | 2.5 | 19.7 | 9 28 | 0 38.84 | + 6 55.8 | 1.665 | 2.663 | 2.7 | 20.9 |
| 10 8 | 0 29.33 | - 2 39.7 | 1.564 | 2.553 | 4.1 | 19.8 | 10 8 | 0 29.34 | + 6 5.2 | 1.668 | 2.664 | 2.4 | 20.9 |
| 10 18 | 0 20.47 | - 3 23.5 | 1.588 | 2.539 | 8.5 | 20.0 | 10 18 | 0 20.47 | + 5 14.9 | 1.699 | 2.664 | 6.7 | 21.2 |
| 10 28 | 0 13.18 | - 3 52.0 | 1.637 | 2.526 | 12.6 | 20.2 | 10 28 | 0 13.19 | + 4 31.2 | 1.757 | 2.664 | 10.8 | 21.4 |
| 11 7 | 0 8.20 | - 4 2.4 | 1.708 | 2.512 | 16.1 | 20.4 | 11 7 | 0 8.16 | + 3 59.0 | 1.838 | 2.664 | 14.2 | 21.7 |
| 371519 | 2006 <i>UQ</i> ₁₆₆ | | 10 2.4 269°85 | 1.7/ 1.0 | 18 | | 289319 | 2005 <i>AJ</i> ₄₂ | | 10 2.4 18°48 | 5.0/ 6.4 | 18 | |
| 8 29 | 0 58.34 | + 3 11.4 | 1.522 | 2.393 | 15.4 | 21.6 | 8 29 | 1 0.89 | +15 56.2 | 1.810 | 2.623 | 15.8 | 19.0 |
| 9 8 | 0 53.95 | + 2 19.9 | 1.443 | 2.381 | 11.4 | 21.3 | 9 8 | 0 55.50 | +16 48.7 | 1.741 | 2.630 | 12.7 | 18.9 |
| 9 18 | 0 47.14 | + 1 14.3 | 1.387 | 2.368 | 6.9 | 21.0 | 9 18 | 0 47.92 | +17 24.4 | 1.692 | 2.637 | 9.3 | 18.7 |
| 9 28 | 0 38.62 | + 0 0.7 | 1.355 | 2.355 | 2.3 | 20.7 | 9 28 | 0 38.85 | +17 42.1 | 1.669 | 2.645 | 6.2 | 18.5 |
| 10 8 | 0 29.48 | - 1 12.4 | 1.350 | 2.341 | 4.0 | 20.8 | 10 8 | 0 29.32 | +17 43.0 | 1.672 | 2.654 | 5.0 | 18.5 |
| 10 18 | 0 20.93 | - 2 16.3 | 1.372 | 2.328 | 8.9 | 21.0 | 10 18 | 0 20.40 | +17 30.8 | 1.702 | 2.663 | 7.0 | 18.6 |
| 10 28 | 0 14.11 | - 3 3.3 | 1.417 | 2.315 | 13.5 | 21.3 | 10 28 | 0 13.11 | +17 11.2 | 1.758 | 2.674 | 10.2 | 18.8 |
| 11 7 | 0 9.82 | - 3 29.4 | 1.483 | 2.301 | 17.4 | 21.5 | 11 7 | 0 8.15 | +16 50.6 | 1.837 | 2.684 | 13.3 | 19.0 |
| 191725 | 2004 <i>RM</i> ₂₇₆ | | 10 2.4 269°65 | 1.7/30.8 | 18 | | 291253 | 2006 <i>BT</i> ₅₄ | | 10 2.5 333°84 | 4.1/27.7 | 18 | |
| 8 29 | 0 56.83 | + 3 4.1 | 1.679 | 2.548 | 14.3 | 20.4 | 8 29 | 0 52.45 | - 3 51.4 | 1.913 | 2.797 | 12.2 | 20.4 |
| 9 8 | 0 52.59 | + 2 6.0 | 1.601 | 2.538 | 10.6 | 20.1 | 9 8 | 0 49.06 | - 5 16.4 | 1.845 | 2.788 | 8.9 | 20.2 |
| 9 18 | 0 46.19 | + 0 54.7 | 1.546 | 2.527 | 6.3 | 19.8 | 9 18 | 0 43.91 | - 6 47.5 | 1.801 | 2.781 | 5.7 | 20.0 |
| 9 28 | 0 38.30 | - 0 23.6 | 1.517 | 2.516 | 2.2 | 19.6 | 9 28 | 0 37.59 | - 8 17.0 | 1.784 | 2.773 | 4.1 | 19.8 |
| 10 8 | 0 29.90 | - 1 40.9 | 1.514 | 2.505 | 3.9 | 19.7 | 10 8 | 0 30.91 | - 9 37.0 | 1.794 | 2.766 | 5.9 | 19.9 |
| 10 18 | 0 22.04 | - 2 48.8 | 1.539 | 2.494 | 8.4 | 19.9 | 10 18 | 0 24.71 | -10 40.4 | 1.831 | 2.760 | 9.2 | 20.1 |
| 10 28 | 0 15.74 | - 3 40.6 | 1.589 | 2.482 | 12.6 | 20.1 | 10 28 | 0 19.81 | -11 22.7 | 1.892 | 2.754 | 12.4 | 20.3 |
| 11 7 | 0 11.69 | - 4 12.2 | 1.660 | 2.471 | 16.2 | 20.3 | 11 7 | 0 16.77 | -11 42.2 | 1.974 | 2.748 | 15.3 | 20.5 |
| 115852 | 2003 <i>UX</i> ₂₆₉ | | 10 2.4 201°20 | 1.9/ 4.2 | 18 | | 5169 | | | | | | |

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10 2.5

10 2.5

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|-------|---------|----------|-------|-----------------|-----------------|----------|-------|---------|------|
| 273531 | 2007 <i>BM</i> ₃₀ | | 10 | 2.5 | 220°83 | 2°1/30.5 | 18 | | | | | | |
| 8 29 | 0 59.73 | + 0 53.2 | 1.868 | 2.732 | 13.3 | 21.5 | 8 29 | 0 59.73 | + 0 53.2 | 1.868 | 2.732 | 13.3 | 21.5 |
| 9 8 | 0 54.53 | + 0 4.1 | 1.791 | 2.724 | 9.8 | 21.3 | 9 8 | 0 54.53 | + 0 4.1 | 1.791 | 2.724 | 9.8 | 21.3 |
| 9 18 | 0 47.29 | - 0 54.3 | 1.737 | 2.716 | 5.9 | 21.0 | 9 18 | 0 47.29 | - 0 54.3 | 1.737 | 2.716 | 5.9 | 21.0 |
| 9 28 | 0 38.66 | - 1 56.5 | 1.710 | 2.708 | 2.4 | 20.8 | 9 28 | 0 38.66 | - 1 56.5 | 1.710 | 2.708 | 2.4 | 20.8 |
| 10 8 | 0 29.57 | - 2 55.4 | 1.711 | 2.699 | 4.0 | 20.9 | 10 8 | 0 29.57 | - 2 55.4 | 1.711 | 2.699 | 4.0 | 20.9 |
| 10 18 | 0 21.02 | - 3 44.7 | 1.740 | 2.689 | 8.0 | 21.1 | 10 18 | 0 21.02 | - 3 44.7 | 1.740 | 2.689 | 8.0 | 21.1 |
| 10 28 | 0 13.95 | - 4 19.1 | 1.795 | 2.679 | 11.9 | 21.3 | 10 28 | 0 13.95 | - 4 19.1 | 1.795 | 2.679 | 11.9 | 21.3 |
| 11 7 | 0 9.02 | - 4 35.7 | 1.872 | 2.668 | 15.2 | 21.5 | 11 7 | 0 9.02 | - 4 35.7 | 1.872 | 2.668 | 15.2 | 21.5 |
| 289042 | 2004 <i>TW</i> ₁₅₃ | | 10 | 2.5 | 65°08 | 0°3/2.1 | 18 | | | | | | |
| 8 29 | 0 56.71 | + 4 50.9 | 2.052 | 2.907 | 12.7 | 21.1 | 8 29 | 0 56.71 | + 4 50.9 | 2.052 | 2.907 | 12.7 | 21.1 |
| 9 8 | 0 51.96 | + 4 22.6 | 1.992 | 2.920 | 9.4 | 20.9 | 9 8 | 0 51.96 | + 4 22.6 | 1.992 | 2.920 | 9.4 | 20.9 |
| 9 18 | 0 45.53 | + 3 44.6 | 1.956 | 2.932 | 5.7 | 20.7 | 9 18 | 0 45.53 | + 3 44.6 | 1.956 | 2.932 | 5.7 | 20.7 |
| 9 28 | 0 38.06 | + 3 0.7 | 1.946 | 2.945 | 1.7 | 20.5 | 9 28 | 0 38.06 | + 3 0.7 | 1.946 | 2.945 | 1.7 | 20.5 |
| 10 8 | 0 30.36 | + 2 16.1 | 1.964 | 2.958 | 2.4 | 20.6 | 10 8 | 0 30.36 | + 2 16.1 | 1.964 | 2.958 | 2.4 | 20.6 |
| 10 18 | 0 23.25 | + 1 35.7 | 2.011 | 2.972 | 6.2 | 20.9 | 10 18 | 0 23.25 | + 1 35.7 | 2.011 | 2.972 | 6.2 | 20.9 |
| 10 28 | 0 17.48 | + 1 4.2 | 2.085 | 2.985 | 9.7 | 21.1 | 10 28 | 0 17.48 | + 1 4.2 | 2.085 | 2.985 | 9.7 | 21.1 |
| 11 7 | 0 13.55 | + 0 44.8 | 2.182 | 2.998 | 12.6 | 21.3 | 11 7 | 0 13.55 | + 0 44.8 | 2.182 | 2.998 | 12.6 | 21.3 |
| 289345 | 2009 <i>UD</i> ₅ | | 10 | 2.5 | 319°32 | 6°4/27.3 | 17 | | | | | | |
| 8 29 | 1 1.89 | -13 42.9 | 1.881 | 2.753 | 12.8 | 20.1 | 8 29 | 1 1.89 | -13 42.9 | 1.881 | 2.753 | 12.8 | 20.1 |
| 9 8 | 0 56.21 | -14 9.4 | 1.802 | 2.732 | 10.0 | 19.9 | 9 8 | 0 56.21 | -14 9.4 | 1.802 | 2.732 | 10.0 | 19.9 |
| 9 18 | 0 48.35 | -14 30.7 | 1.747 | 2.711 | 7.5 | 19.7 | 9 18 | 0 48.35 | -14 30.7 | 1.747 | 2.711 | 7.5 | 19.7 |
| 9 28 | 0 39.00 | -14 40.2 | 1.717 | 2.690 | 6.4 | 19.6 | 9 28 | 0 39.00 | -14 40.2 | 1.717 | 2.690 | 6.4 | 19.6 |
| 10 8 | 0 29.15 | -14 32.4 | 1.714 | 2.670 | 7.8 | 19.7 | 10 8 | 0 29.15 | -14 32.4 | 1.714 | 2.670 | 7.8 | 19.7 |
| 10 18 | 0 19.84 | -14 4.1 | 1.738 | 2.650 | 10.7 | 19.8 | 10 18 | 0 19.84 | -14 4.1 | 1.738 | 2.650 | 10.7 | 19.8 |
| 10 28 | 0 12.11 | -13 14.7 | 1.786 | 2.631 | 13.8 | 20.0 | 10 28 | 0 12.11 | -13 14.7 | 1.786 | 2.631 | 13.8 | 20.0 |
| 11 7 | 0 6.63 | -12 5.9 | 1.855 | 2.612 | 16.7 | 20.1 | 11 7 | 0 6.63 | -12 5.9 | 1.855 | 2.612 | 16.7 | 20.1 |
| 127071 | 2002 <i>GT</i> ₆₀ | | 10 | 2.5 | 77°65 | 4°1/5.6 | 18 | | | | | | |
| 8 29 | 1 4.56 | +14 10.6 | 1.714 | 2.532 | 16.3 | 19.2 | 8 29 | 1 4.56 | +14 10.6 | 1.714 | 2.532 | 16.3 | 19.2 |
| 9 8 | 0 58.19 | +14 45.6 | 1.652 | 2.548 | 12.9 | 19.0 | 9 8 | 0 58.19 | +14 45.6 | 1.652 | 2.548 | 12.9 | 19.0 |
| 9 18 | 0 49.51 | +15 3.3 | 1.611 | 2.563 | 9.1 | 18.8 | 9 18 | 0 49.51 | +15 3.3 | 1.611 | 2.563 | 9.1 | 18.8 |
| 9 28 | 0 39.34 | +15 3.4 | 1.596 | 2.579 | 5.4 | 18.6 | 9 28 | 0 39.34 | +15 3.4 | 1.596 | 2.579 | 5.4 | 18.6 |
| 10 8 | 0 28.79 | +14 48.6 | 1.607 | 2.595 | 4.2 | 18.6 | 10 8 | 0 28.79 | +14 48.6 | 1.607 | 2.595 | 4.2 | 18.6 |
| 10 18 | 0 19.04 | +14 23.6 | 1.646 | 2.611 | 6.9 | 18.8 | 10 18 | 0 19.04 | +14 23.6 | 1.646 | 2.611 | 6.9 | 18.8 |
| 10 28 | 0 11.13 | +13 54.9 | 1.712 | 2.626 | 10.5 | 19.0 | 10 28 | 0 11.13 | +13 54.9 | 1.712 | 2.626 | 10.5 | 19.0 |
| 11 7 | 0 5.71 | +13 29.0 | 1.801 | 2.642 | 13.8 | 19.3 | 11 7 | 0 5.71 | +13 29.0 | 1.801 | 2.642 | 13.8 | 19.3 |
| 340473 | 2006 <i>HB</i> ₄₆ | | 10 | 2.5 | 192°52 | 0°2/2.7 | 18 | | | | | | |
| 8 29 | 0 56.52 | + 8 42.0 | 2.031 | 2.874 | 13.2 | 21.3 | 8 29 | 0 56.52 | + 8 42.0 | 2.031 | 2.874 | 13.2 | 21.3 |
| 9 8 | 0 51.98 | + 7 43.8 | 1.953 | 2.873 | 9.9 | 21.1 | 9 8 | 0 51.98 | + 7 43.8 | 1.953 | 2.873 | 9.9 | 21.1 |
| 9 18 | 0 45.64 | + 6 30.3 | 1.898 | 2.871 | 6.2 | 20.9 | 9 18 | 0 45.64 | + 6 30.3 | 1.898 | 2.871 | 6.2 | 20.9 |
| 9 28 | 0 38.13 | + 5 5.8 | 1.871 | 2.869 | 2.0 | 20.6 | 9 28 | 0 38.13 | + 5 5.8 | 1.871 | 2.869 | 2.0 | 20.6 |
| 10 8 | 0 30.26 | + 3 37.0 | 1.872 | 2.867 | 2.3 | 20.6 | 10 8 | 0 30.26 | + 3 37.0 | 1.872 | 2.867 | 2.3 | 20.6 |
| 10 18 | 0 22.91 | + 2 11.5 | 1.903 | 2.864 | 6.4 | 20.9 | 10 18 | 0 22.91 | + 2 11.5 | 1.903 | 2.864 | 6.4 | 20.9 |
| 10 28 | 0 16.87 | + 0 56.3 | 1.960 | 2.861 | 10.2 | 21.1 | 10 28 | 0 16.87 | + 0 56.3 | 1.960 | 2.861 | 10.2 | 21.1 |
| 11 7 | 0 12.74 | - 0 3.5 | 2.042 | 2.858 | 13.4 | 21.3 | 11 7 | 0 12.74 | - 0 3.5 | 2.042 | 2.858 | 13.4 | 21.3 |
| 317938 | 2003 <i>WC</i> ₄₇ | | 10 | 2.5 | 342°84 | 1°1/3.4 | 18 | | | | | | |
| 8 29 | 0 57.51 | + 8 0.6 | 1.528 | 2.388 | 15.9 | 20.6 | 8 29 | 0 57.51 | + 8 0.6 | 1.528 | 2.388 | 15.9 | 20.6 |
| 9 8 | 0 53.29 | + 7 54.0 | 1.455 | 2.382 | 12.2 | 20.3 | 9 8 | 0 53.29 | + 7 54.0 | 1.455 | 2.382 | 12.2 | 20.3 |
| 9 18 | 0 46.72 | + 7 31.9 | 1.403 | 2.377 | 7.7 | 20.1 | 9 18 | 0 46.72 | + 7 31.9 | 1.403 | 2.377 | 7.7 | 20.1 |
| 9 28 | 0 38.52 | + 6 57.3 | 1.375 | 2.373 | 3.0 | 19.8 | 9 28 | 0 38.52 | + 6 57.3 | 1.375 | 2.373 | 3.0 | 19.8 |
| 10 8 | 0 29.78 | + 6 15.7 | 1.373 | 2.369 | 2.6 | 19.7 | 10 8 | 0 29.78 | + 6 15.7 | 1.373 | 2.369 | 2.6 | 19.7 |
| 10 18 | 0 21.68 | + 5 33.7 | 1.397 | 2.365 | 7.4 | 20.0 | 10 18 | 0 21.68 | + 5 33.7 | 1.397 | 2.365 | 7.4 | 20.0 |
| 10 28 | 0 15.31 | + 4 58.4 | 1.446 | 2.362 | 11.9 | 20.3 | 10 28 | 0 15.31 | + 4 58.4 | 1.446 | 2.362 | 11.9 | 20.3 |
| 11 7 | 0 11.42 | + 4 35.3 | 1.516 | 2.360 | 15.8 | 20.5 | 11 7 | 0 11.42 | + 4 35.3 | 1.516 | 2.360 | 15.8 | 20.5 |
| 287356 | 2002 <i>UB</i> ₁₃ | | 10 | 2.5 | 0°39 | 2°7/4.9 | 18 | | | | | | |
| 8 29 | 0 49.95 | +14 4.5 | 1.260 | 2.122 | 18.5 | 19.1 | 8 29 | 0 49.95 | +14 4.5 | 1.260 | 2.122 | 18.5 | 19.1 |
| 9 8 | 0 48.01 | +13 28.5 | 1.194 | 2.119 | 14.4 | 18.8 | 9 8 | 0 48.01 | +13 28.5 | 1.194 | 2.119 | 14.4 | 18.8 |
| 9 18 | 0 43.62 | +12 24.9 | 1.148 | 2.117 | 9.7 | 18.6 | 9 18 | 0 43.62 | +12 24.9 | 1.148 | 2.117 | 9.7 | 18.6 |
| 9 28 | 0 37.56 | +10 57.7 | 1.123 | 2.117 | 4.8 | 18.3 | 9 28 | 0 37.56 | +10 57.7 | 1.123 | 2.117 | 4.8 | 18.3 |
| 10 8 | 0 31.00 | + 9 15.6 | 1.122 | 2.118 | 3.2 | 18.2 | 10 8 | 0 31.00 | + 9 15.6 | 1.122 | 2.118 | 3.2 | 18.2 |
| 10 18 | 0 25.17 | + 7 30.5 | 1.146 | 2.120 | 7.7 | 18.5 | 10 18 | 0 25.17 | + 7 30.5 | 1.146 | 2.120 | 7.7 | 18.5 |
| 10 28 | 0 21.20 | + 5 54.8 | 1.194 | 2.124 | 12.6 | 18.8 | 10 28 | 0 21.20 | + 5 54.8 | 1.194 | 2.124 | 12.6 | 18.8 |
| 11 7 | 0 19.79 | + 4 37.8 | 1.262 | 2.129 | 16.8 | 19.0 | 11 7 | 0 19.79 | + 4 37.8 | 1.262 | 2.129 | 16.8 | 19.0 |
| 381123 | 2007 <i>DJ</i> ₈₄ | | 10 | 2.5 | 252°30 | 5°7/28.2 | 18 | | | | | | |
| 8 29 | 1 4.91 | - 9 59.1 | 1.722 | 2.593 | 13.9 | 20.7 | 8 29 | 1 4.91 | - 9 59.1 | 1.722 | 2.593 | 13.9 | 20.7 |
| 9 8 | 0 58.58 | -10 36.5 | 1.648 | 2.581 | 10.6 | 20.5 | 9 8 | 0 58.58 | -10 36.5 | 1.648 | 2.581 | 10.6 | 20.5 |
| 9 18 | 0 49.86 | -11 12.5 | 1.597 | 2.568 | 7.4 | 20.3 | 9 18 | 0 49.86 | -11 12.5 | 1.597 | 2.568 | 7.4 | 20.3 |
| 9 28 | 0 39.50 | -11 39.8 | 1.573 | 2.555 | 5.7 | 20.2 | 9 28 | 0 39.50 | -11 39.8 | 1.573 | 2.555 | 5.7 | 20.2 |
| 10 8 | 0 28.60 | -11 51.7 | 1.575 | 2.541 | 7.3 | 20.2 | 10 8 | 0 28.60 | -11 51.7 | 1.575 | 2.541 | 7.3 | 20.2 |
| 10 18 | 0 18.37 | -11 44.0 | 1.604 | 2.527 | 10.7 | 20.4 | 10 18 | 0 18.37 | -11 44.0 | 1.604 | 2.527 | 10.7 | 20.4 |
| 10 28 | 0 9.89 | -11 15.0 | 1.658 | 2.513 | 14.2 | 20.6 | 10 28 | 0 9.89 | -11 15.0 | 1.658 | 2.513 | 14.2 | 20.6 |
| 11 7 | 0 3.92 | -10 26.0 | 1.732 | 2.498 | 17.4 | 20.8 | 11 7 | 0 3.92 | -10 26.0 | 1.732 | 2.498 | 17.4 | 20.8 |
| 86872 | 2000 <i>HE</i> ₂₁ | | 10 | 2.5 | 337°98 | 6°3/27.9 | 18 | | | | | | |
| 8 29 | 0 58.45 | - 7 50.4 | 1.249 | 2.146 | 16.3 | 18.2 | 8 29 | 0 58.45 | - 7 50.4 | 1.249 | 2.146 | 16.3 | 18.2 |
| 9 8 | 0 54.37 | - 8 46.2 | 1.189 | 2.137 | 12.3 | 18.0 | 9 8 | 0 54.37 | - 8 46.2 | 1.189 | 2.137 | 12.3 | 18.0 |
| 9 18 | 0 47.52 | - 9 43.8 | 1.150 | 2.129 | 8.4 | 17.7 | 9 18 | 0 47.52 | - 9 | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 451640 | 2012 <i>HT</i> ₆₄ | 10 | 2.5 246°15 | 3°4/28.3 | 17 | | 302748 | 2002 <i>UG</i> ₆₄ | 10 | 2.5 352°81 | 0°5/2.9 | 18 | |
| 8 29 | 0 57.08 | - 6 56.7 | 2.649 | 3.514 | 9.8 | 21.9 | 8 29 | 0 54.39 | + 8 18.3 | 1.536 | 2.400 | 15.7 | 21.0 |
| 9 8 | 0 52.05 | - 7 38.0 | 2.569 | 3.501 | 7.3 | 21.7 | 9 8 | 0 50.93 | + 7 40.8 | 1.466 | 2.396 | 11.9 | 20.7 |
| 9 18 | 0 45.57 | - 8 20.4 | 2.513 | 3.487 | 4.8 | 21.5 | 9 18 | 0 45.26 | + 6 45.7 | 1.417 | 2.393 | 7.4 | 20.5 |
| 9 28 | 0 38.13 | - 8 59.6 | 2.486 | 3.473 | 3.4 | 21.4 | 9 28 | 0 38.11 | + 5 37.6 | 1.392 | 2.391 | 2.5 | 20.2 |
| 10 8 | 0 30.37 | - 9 31.0 | 2.489 | 3.458 | 4.7 | 21.5 | 10 8 | 0 30.49 | + 4 23.8 | 1.393 | 2.389 | 2.6 | 20.2 |
| 10 18 | 0 22.96 | - 9 51.0 | 2.519 | 3.443 | 7.3 | 21.6 | 10 18 | 0 23.51 | + 3 12.9 | 1.421 | 2.388 | 7.5 | 20.5 |
| 10 28 | 0 16.57 | - 9 57.2 | 2.577 | 3.428 | 9.9 | 21.8 | 10 28 | 0 18.17 | + 2 13.1 | 1.473 | 2.387 | 11.9 | 20.8 |
| 11 7 | 0 11.70 | - 9 48.7 | 2.658 | 3.413 | 12.2 | 21.9 | 11 7 | 0 15.15 | + 1 30.0 | 1.547 | 2.387 | 15.7 | 21.0 |
| 363251 | 2002 <i>CZ</i> ₆₈ | 10 | 2.5 174°08 | 1°0/1.0 | 18 | | 172102 | 2002 <i>FK</i> ₁₅ | 10 | 2.5 102°91 | 5°9/27.9 | 18 | |
| 8 29 | 0 56.08 | + 1 49.6 | 3.097 | 3.943 | 9.1 | 22.3 | 8 29 | 1 2.13 | - 7 13.4 | 1.406 | 2.291 | 15.6 | 20.0 |
| 9 8 | 0 51.05 | + 1 11.9 | 3.022 | 3.946 | 6.6 | 22.2 | 9 8 | 0 56.62 | - 8 25.6 | 1.359 | 2.301 | 11.6 | 19.8 |
| 9 18 | 0 44.84 | + 0 28.6 | 2.972 | 3.949 | 4.0 | 22.0 | 9 18 | 0 48.64 | - 9 39.1 | 1.335 | 2.311 | 7.8 | 19.6 |
| 9 28 | 0 37.88 | - 0 17.0 | 2.952 | 3.951 | 1.4 | 21.8 | 9 28 | 0 39.12 | - 10 44.2 | 1.335 | 2.321 | 5.9 | 19.5 |
| 10 8 | 0 30.72 | - 1 1.4 | 2.963 | 3.953 | 2.3 | 21.9 | 10 8 | 0 29.34 | - 11 31.8 | 1.362 | 2.331 | 7.8 | 19.7 |
| 10 18 | 0 23.90 | - 1 41.1 | 3.004 | 3.954 | 5.0 | 22.1 | 10 18 | 0 20.53 | - 11 56.1 | 1.413 | 2.340 | 11.5 | 19.9 |
| 10 28 | 0 17.96 | - 2 12.8 | 3.074 | 3.954 | 7.6 | 22.3 | 10 28 | 0 13.77 | - 11 54.9 | 1.487 | 2.350 | 15.1 | 20.2 |
| 11 7 | 0 13.30 | - 2 34.5 | 3.170 | 3.954 | 9.8 | 22.4 | 11 7 | 0 9.67 | - 11 29.4 | 1.580 | 2.359 | 18.3 | 20.4 |
| 267990 | 2004 <i>GG</i> ₆₄ | 10 | 2.5 192°67 | 1°0/1.7 | 18 | | 371411 | 2006 <i>SF</i> ₃₄ | 10 | 2.5 49°58 | 2°3/4.1 | 16 | |
| 8 29 | 1 2.39 | + 2 45.6 | 1.680 | 2.540 | 14.7 | 20.9 | 8 29 | 1 1.98 | + 10 53.2 | 1.098 | 1.963 | 20.4 | 20.3 |
| 9 8 | 0 56.68 | + 2 26.5 | 1.608 | 2.539 | 11.0 | 20.6 | 9 8 | 0 56.87 | + 10 44.6 | 1.060 | 1.988 | 15.6 | 20.1 |
| 9 18 | 0 48.68 | + 1 57.6 | 1.560 | 2.538 | 6.6 | 20.4 | 9 18 | 0 48.88 | + 10 13.2 | 1.042 | 2.014 | 10.0 | 19.9 |
| 9 28 | 0 39.15 | + 1 23.2 | 1.537 | 2.537 | 2.0 | 20.1 | 9 28 | 0 39.19 | + 9 23.2 | 1.045 | 2.040 | 4.4 | 19.6 |
| 10 8 | 0 29.15 | + 0 48.9 | 1.542 | 2.535 | 3.2 | 20.2 | 10 8 | 0 29.33 | + 8 23.2 | 1.072 | 2.067 | 3.3 | 19.7 |
| 10 18 | 0 19.84 | + 0 20.7 | 1.575 | 2.533 | 7.8 | 20.5 | 10 18 | 0 20.79 | + 7 23.1 | 1.124 | 2.095 | 8.3 | 20.0 |
| 10 28 | 0 12.24 | + 0 3.5 | 1.633 | 2.531 | 12.0 | 20.7 | 10 28 | 0 14.73 | + 6 32.3 | 1.198 | 2.122 | 13.2 | 20.4 |
| 11 7 | 0 7.06 | + 0 0.4 | 1.713 | 2.529 | 15.5 | 20.9 | 11 7 | 0 11.73 | + 5 57.3 | 1.294 | 2.150 | 17.2 | 20.7 |
| 405855 | 2006 <i>CW</i> ₆₆ | 10 | 2.5 18°38 | 1°8/30.5 | 18 | | 316028 | Patrickwils | 10 | 2.5 80°17 | 5°1/28.5 | 17 | |
| 8 29 | 0 54.33 | + 1 19.6 | 2.060 | 2.928 | 12.1 | 20.7 | 8 29 | 1 0.57 | - 4 6.4 | 1.295 | 2.184 | 16.4 | 20.6 |
| 9 8 | 0 50.29 | + 0 28.0 | 1.994 | 2.930 | 8.9 | 20.5 | 9 8 | 0 55.61 | - 5 25.3 | 1.250 | 2.196 | 12.1 | 20.4 |
| 9 18 | 0 44.59 | - 0 31.7 | 1.951 | 2.932 | 5.3 | 20.3 | 9 18 | 0 48.08 | - 6 49.6 | 1.227 | 2.208 | 7.7 | 20.2 |
| 9 28 | 0 37.83 | - 1 34.5 | 1.935 | 2.934 | 2.0 | 20.1 | 9 28 | 0 38.96 | - 8 8.8 | 1.228 | 2.219 | 5.1 | 20.1 |
| 10 8 | 0 30.78 | - 2 34.0 | 1.948 | 2.936 | 3.5 | 20.2 | 10 8 | 0 29.57 | - 9 12.6 | 1.255 | 2.231 | 7.2 | 20.3 |
| 10 18 | 0 24.25 | - 3 24.8 | 1.988 | 2.939 | 7.1 | 20.5 | 10 18 | 0 21.20 | - 9 53.5 | 1.306 | 2.243 | 11.3 | 20.5 |
| 10 28 | 0 18.96 | - 4 2.0 | 2.055 | 2.942 | 10.4 | 20.7 | 10 28 | 0 14.94 | - 10 8.1 | 1.379 | 2.255 | 15.3 | 20.8 |
| 11 7 | 0 15.45 | - 4 23.3 | 2.144 | 2.945 | 13.3 | 20.9 | 11 7 | 0 11.42 | - 9 56.9 | 1.471 | 2.266 | 18.7 | 21.1 |
| 80870 | 2000 <i>DY</i> ₃₁ | 10 | 2.5 340°19 | 1°5/1.3 | 18 | | 219117 | 1998 <i>SB</i> ₁₁₁ | 10 | 2.5 350°86 | 1°1/3.6 | 18 | |
| 8 29 | 0 52.03 | + 4 49.9 | 1.099 | 1.994 | 18.2 | 18.3 | 8 29 | 0 51.44 | + 10 50.2 | 1.737 | 2.590 | 14.7 | 19.0 |
| 9 8 | 0 49.92 | + 3 54.3 | 1.032 | 1.981 | 13.6 | 18.0 | 9 8 | 0 48.54 | + 10 1.2 | 1.661 | 2.584 | 11.2 | 18.8 |
| 9 18 | 0 45.00 | + 2 37.9 | 0.984 | 1.969 | 8.2 | 17.7 | 9 18 | 0 43.73 | + 8 53.1 | 1.606 | 2.578 | 7.2 | 18.5 |
| 9 28 | 0 38.09 | + 1 8.5 | 0.957 | 1.958 | 2.5 | 17.3 | 9 28 | 0 37.63 | + 7 30.1 | 1.577 | 2.574 | 2.8 | 18.2 |
| 10 8 | 0 30.46 | - 0 22.2 | 0.954 | 1.948 | 4.5 | 17.4 | 10 8 | 0 31.12 | + 5 59.5 | 1.574 | 2.570 | 2.3 | 18.2 |
| 10 18 | 0 23.59 | - 1 41.7 | 0.974 | 1.940 | 10.3 | 17.7 | 10 18 | 0 25.14 | + 4 29.6 | 1.599 | 2.567 | 6.6 | 18.5 |
| 10 28 | 0 18.81 | - 2 39.3 | 1.016 | 1.933 | 15.7 | 18.0 | 10 28 | 0 20.56 | + 3 9.2 | 1.649 | 2.565 | 10.7 | 18.7 |
| 11 7 | 0 16.98 | - 3 9.4 | 1.075 | 1.927 | 20.3 | 18.3 | 11 7 | 0 18.00 | + 2 4.6 | 1.723 | 2.564 | 14.3 | 18.9 |
| 253360 | 2003 <i>GW</i> ₁₇ | 10 | 2.5 50°49 | 0°1/2.6 | 18 | | 504689 | 2009 <i>HV</i> | 10 | 2.5 136°58 | 2°7/30.4 | 17 | |
| 8 29 | 1 1.28 | + 4 18.9 | 1.872 | 2.725 | 13.8 | 20.2 | 8 29 | 1 4.86 | - 1 18.4 | 1.575 | 2.442 | 15.2 | 21.4 |
| 9 8 | 0 55.52 | + 4 25.0 | 1.811 | 2.736 | 10.3 | 20.0 | 9 8 | 0 58.48 | - 1 52.0 | 1.517 | 2.452 | 11.2 | 21.1 |
| 9 18 | 0 47.81 | + 4 22.3 | 1.772 | 2.747 | 6.3 | 19.8 | 9 18 | 0 49.74 | - 2 32.2 | 1.482 | 2.461 | 6.8 | 20.9 |
| 9 28 | 0 38.85 | + 4 13.4 | 1.759 | 2.758 | 2.0 | 19.6 | 9 28 | 0 39.49 | - 3 12.6 | 1.473 | 2.470 | 3.0 | 20.7 |
| 10 8 | 0 29.60 | + 4 2.1 | 1.775 | 2.770 | 2.4 | 19.6 | 10 8 | 0 28.92 | - 3 46.6 | 1.492 | 2.479 | 4.7 | 20.8 |
| 10 18 | 0 21.03 | + 3 52.4 | 1.819 | 2.782 | 6.5 | 19.9 | 10 18 | 0 19.24 | - 4 8.5 | 1.537 | 2.486 | 8.9 | 21.1 |
| 10 28 | 0 14.03 | + 3 48.4 | 1.889 | 2.794 | 10.3 | 20.2 | 10 28 | 0 11.48 | - 4 14.6 | 1.608 | 2.493 | 12.9 | 21.4 |
| 11 7 | 0 9.17 | + 3 53.1 | 1.983 | 2.806 | 13.4 | 20.4 | 11 7 | 0 6.28 | - 4 3.4 | 1.700 | 2.500 | 16.3 | 21.6 |
| 404563 | 2013 <i>JO</i> ₅₀ | 10 | 2.5 45°47 | 4°5/8.3 | 18 | | 485820 | 2012 <i>DF</i> ₅₆ | 10 | 2.5 155°84 | 7°0/10.9 | 17 | |
| 8 29 | 0 53.71 | + 21 56.9 | 2.092 | 2.877 | 14.9 | 20.2 | 8 29 | 1 3.14 | + 28 54.4 | 2.762 | 3.464 | 13.5 | 21.7 |
| 9 8 | 0 49.93 | + 21 26.7 | 2.016 | 2.884 | 12.2 | 20.1 | 9 8 | 0 56.78 | + 29 49.1 | 2.675 | 3.469 | 11.7 | 21.6 |
| 9 18 | 0 44.41 | + 20 33.4 | 1.961 | 2.892 | 9.1 | 19.9 | 9 18 | 0 48.60 | + 30 25.8 | 2.609 | 3.473 | 9.8 | 21.4 |
| 9 28 | 0 37.79 | + 19 18.6 | 1.930 | 2.900 | 6.1 | 19.7 | 9 28 | 0 39.16 | + 30 42.1 | 2.568 | 3.478 | 8.1 | 21.3 |
| 10 8 | 0 30.88 | + 17 46.6 | 1.927 | 2.908 | 4.5 | 19.6 | 10 8 | 0 29.24 | + 30 37.7 | 2.553 | 3.481 | 7.1 | 21.3 |
| 10 18 | 0 24.52 | + 16 4.5 | 1.951 | 2.917 | 5.9 | 19.7 | 10 18 | 0 19.67 | + 30 14.3 | 2.566 | 3.485 | 7.4 | 21.3 |
| 10 28 | 0 19.47 | + 14 20.8 | 2.004 | 2.925 | 8.8 | 19.9 | 10 28 | 0 11.30 | + 29 36.6 | 2.606 | 3.488 | 8.7 | 21.4 |
| 11 7 | 0 16.28 | + 12 43.8 | 2.082 | 2.934 | 11.8 | 20.1 | 11 7 | 0 4.75 | + 28 50.6 | 2.672 | 3.491 | 10.5 | 21.5 |
| 488048 | 2015 <i>US</i> ₄₉ | 10 | 2.5 271°27 | 3°5/27.9 | 18 | | 304184 | 2006 <i>QH</i> ₅₂ | 10 | 2.5 33°54 | 1°0/1.6 | 18 | |
| 8 29 | 0 53.82 | - 4 5.3 | 2.363 | 3.236 | 10.6 | 21.4 | 8 29 | 0 57.57 | + 3 15.0 | 1.702 | 2.569 | 14.2 | 20.3 |
| 9 8 | 0 49.84 | - 5 21.0 | 2.283 | 3.221 | 7.8 | 21.2 | 9 8 | 0 53.00 | + 2 43.2 | 1.639 | 2.573 | 10.5 | 20.1 |
| 9 18 | 0 44.32 | - 6 41.8 | 2.228 | 3.206 | 5.0 | 21.0 | 9 18 | 0 46.39 | + 2 0.9 | 1.598 | 2.578 | 6.3 | 19.9 |
| 9 28 | 0 37.77 | - 8 1.8 | 2.202 | 3.191 | 3.5 | 20.9 | 9 28 | 0 38.46 | + 1 13.0 | 1.583 | 2.582 | 2.0 | 19.6 |
| 10 8 | 0 30.87 | - 9 14.6 | 2.204 | 3.176 | 5.0 | 20.9 | 10 8 | 0 30.18 | + 0 25.8 | 1.595 | 2.588 | 3.2 | 19.7 |
| 10 18 | 0 24.33 | - 10 14.4 | 2.234 | 3.160 | 7.9 | 21.1 | 10 18 | 0 22.57 | - 0 14.5 | 1.634 | 2.593 | 7.5 | 20.0 |
| 10 28 | 0 18.85 | - 10 57.1 | 2.291 | 3.145 | 10.8 | 21.3 | 10 28 | 0 16.54 | - 0 42.5 | 1.698 | 2.599 | 11.5 | 20.2 |
| 11 7 | 0 14.96 | - 11 21.0 | 2.369 | 3.129 | 13.4 | 21.4 | 11 7 | 0 12.69 | - 0 55.3 | 1.784 | 2.604 | 14.8 | 20.5 |
| 265541 | 2005 <i>NF</i> ₁₂₂ | 10 | 2.5 77°07 | 0°8/3.0 | 18 | | 114010 | 2002 <i>UD</i> ₄₀ | 10 | 2.5 58°70 | 5°5/26.8 | 18 | |
| 8 29 | 1 3 | | | | | | | | | | | | |

EPHEMERIDES

10 2.5

10 2.5

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|------|---------------|-------------------------------|-----------------|----------|--------|----------|------|
| 99963 | 1979 <i>MO</i> ₅ | 10 | 2.5 | 91°73 | 2°3/ 4.6 | 18 | 206028 | 2002 <i>QL</i> ₁ | 10 | 2.5 | 93°68 | 1°9/ 4.3 | 18 |
| 8 29 | 1 0.39 | +12 53.5 | 1.567 | 2.403 | 16.8 | 19.9 | 8 29 | 0 58.95 | +11 10.0 | 1.861 | 2.696 | 14.6 | 20.6 |
| 9 8 | 0 55.20 | +12 27.7 | 1.510 | 2.421 | 12.9 | 19.7 | 9 8 | 0 53.90 | +10 55.4 | 1.796 | 2.707 | 11.2 | 20.4 |
| 9 18 | 0 47.74 | +11 41.5 | 1.473 | 2.438 | 8.5 | 19.5 | 9 18 | 0 46.89 | +10 25.1 | 1.752 | 2.718 | 7.3 | 20.2 |
| 9 28 | 0 38.87 | +10 38.3 | 1.461 | 2.454 | 4.1 | 19.2 | 9 28 | 0 38.63 | + 9 41.6 | 1.735 | 2.729 | 3.4 | 20.0 |
| 10 8 | 0 29.72 | + 9 24.9 | 1.477 | 2.471 | 2.9 | 19.2 | 10 8 | 0 30.06 | + 8 49.9 | 1.745 | 2.739 | 2.5 | 20.0 |
| 10 18 | 0 21.42 | + 8 9.6 | 1.519 | 2.487 | 6.9 | 19.5 | 10 18 | 0 22.14 | + 7 56.1 | 1.783 | 2.750 | 6.2 | 20.2 |
| 10 28 | 0 14.96 | + 7 1.0 | 1.587 | 2.503 | 11.1 | 19.8 | 10 28 | 0 15.75 | + 7 6.7 | 1.847 | 2.760 | 10.0 | 20.5 |
| 11 7 | 0 10.95 | + 6 5.7 | 1.678 | 2.519 | 14.7 | 20.1 | 11 7 | 0 11.46 | + 6 27.1 | 1.935 | 2.770 | 13.2 | 20.7 |
| 279507 | 2011 <i>AL</i> ₅₇ | 10 | 2.5 | 41°22 | 9°9/24.7 | 17 | 317469 | 2002 <i>RJ</i> ₁₄₃ | 10 | 2.5 | 82°49 | 3°2/ 5.0 | 17 |
| 8 29 | 0 57.53 | -12 47.8 | 1.081 | 1.988 | 17.5 | 19.3 | 8 29 | 1 2.41 | +13 18.4 | 1.458 | 2.294 | 17.8 | 20.5 |
| 9 8 | 0 53.54 | -14 52.0 | 1.061 | 2.008 | 13.5 | 19.1 | 9 8 | 0 56.87 | +13 16.9 | 1.402 | 2.311 | 13.8 | 20.3 |
| 9 18 | 0 46.83 | -16 47.3 | 1.061 | 2.029 | 10.6 | 19.0 | 9 18 | 0 48.85 | +12 54.4 | 1.366 | 2.328 | 9.4 | 20.1 |
| 9 28 | 0 38.56 | -18 19.1 | 1.084 | 2.051 | 10.0 | 19.1 | 9 28 | 0 39.26 | +12 13.3 | 1.355 | 2.345 | 4.9 | 19.9 |
| 10 8 | 0 30.20 | -19 16.7 | 1.128 | 2.074 | 12.1 | 19.3 | 10 8 | 0 29.34 | +11 19.0 | 1.369 | 2.362 | 3.5 | 19.9 |
| 10 18 | 0 23.10 | -19 35.9 | 1.194 | 2.097 | 15.3 | 19.5 | 10 18 | 0 20.35 | +10 19.4 | 1.410 | 2.379 | 7.3 | 20.2 |
| 10 28 | 0 18.33 | -19 18.3 | 1.279 | 2.121 | 18.4 | 19.8 | 10 28 | 0 13.39 | + 9 23.2 | 1.476 | 2.395 | 11.5 | 20.4 |
| 11 7 | 0 16.37 | -18 29.6 | 1.380 | 2.145 | 21.1 | 20.1 | 11 7 | 0 9.10 | + 8 37.4 | 1.565 | 2.411 | 15.2 | 20.7 |
| 258168 | 2001 <i>SE</i> ₁₁₈ | 10 | 2.5 | 352°75 | 4°0/ 5.9 | 18 | 428443 | 2007 <i>TP</i> ₃₂₅ | 10 | 2.5 | 311°51 | 3°3/ 4.7 | 17 |
| 8 29 | 0 57.37 | +15 7.3 | 1.691 | 2.519 | 16.1 | 20.2 | 8 29 | 0 57.69 | +12 1.6 | 1.194 | 2.056 | 19.3 | 21.5 |
| 9 8 | 0 53.10 | +15 21.8 | 1.615 | 2.516 | 12.9 | 20.0 | 9 8 | 0 54.30 | +12 8.2 | 1.113 | 2.038 | 15.3 | 21.2 |
| 9 18 | 0 46.60 | +15 17.1 | 1.559 | 2.513 | 9.1 | 19.8 | 9 18 | 0 47.87 | +11 51.7 | 1.049 | 2.019 | 10.4 | 20.9 |
| 9 28 | 0 38.57 | +14 53.5 | 1.527 | 2.511 | 5.5 | 19.6 | 9 28 | 0 39.12 | +11 12.4 | 1.007 | 2.001 | 5.2 | 20.6 |
| 10 8 | 0 30.02 | +14 14.6 | 1.520 | 2.510 | 4.1 | 19.5 | 10 8 | 0 29.35 | +10 15.5 | 0.988 | 1.983 | 3.9 | 20.4 |
| 10 18 | 0 22.04 | +13 25.9 | 1.541 | 2.509 | 6.9 | 19.6 | 10 18 | 0 20.15 | + 9 10.0 | 0.993 | 1.966 | 8.9 | 20.7 |
| 10 28 | 0 15.68 | +12 35.1 | 1.586 | 2.508 | 10.7 | 19.9 | 10 28 | 0 13.09 | + 8 7.2 | 1.021 | 1.950 | 14.4 | 20.9 |
| 11 7 | 0 11.64 | +11 49.6 | 1.655 | 2.508 | 14.2 | 20.1 | 11 7 | 0 9.23 | + 7 17.3 | 1.068 | 1.934 | 19.3 | 21.2 |
| 257387 | 2009 <i>SO</i> ₁₃₇ | 10 | 2.5 | 158°94 | 0°4/ 3.4 | 18 | 280301 | 2003 <i>QM</i> ₂₃ | 10 | 2.5 | 19°53 | 4°0/28.6 | 18 |
| 8 29 | 0 48.89 | + 8 3.3 | 4.354 | 5.181 | 7.0 | 21.1 | 8 29 | 0 50.83 | + 1 31.3 | 1.190 | 2.089 | 16.7 | 19.3 |
| 9 8 | 0 45.55 | + 7 38.5 | 4.271 | 5.181 | 5.2 | 21.0 | 9 8 | 0 48.58 | - 0 28.5 | 1.145 | 2.097 | 12.1 | 19.0 |
| 9 18 | 0 41.45 | + 7 7.6 | 4.213 | 5.182 | 3.3 | 20.8 | 9 18 | 0 43.92 | - 2 43.1 | 1.121 | 2.107 | 7.3 | 18.8 |
| 9 28 | 0 36.87 | + 6 32.2 | 4.185 | 5.182 | 1.2 | 20.7 | 9 28 | 0 37.73 | - 4 59.4 | 1.121 | 2.117 | 4.0 | 18.6 |
| 10 8 | 0 32.14 | + 5 54.6 | 4.187 | 5.182 | 1.1 | 20.6 | 10 8 | 0 31.21 | - 7 2.8 | 1.146 | 2.129 | 6.6 | 18.8 |
| 10 18 | 0 27.62 | + 5 17.2 | 4.219 | 5.183 | 3.1 | 20.8 | 10 18 | 0 25.55 | - 8 41.4 | 1.195 | 2.142 | 11.2 | 19.1 |
| 10 28 | 0 23.64 | + 4 42.3 | 4.281 | 5.183 | 5.1 | 21.0 | 10 28 | 0 21.79 | - 9 48.0 | 1.267 | 2.156 | 15.4 | 19.4 |
| 11 7 | 0 20.48 | + 4 12.2 | 4.370 | 5.183 | 6.8 | 21.1 | 11 7 | 0 20.51 | -10 21.2 | 1.357 | 2.170 | 19.0 | 19.7 |
| 112878 | 2002 <i>QC</i> ₄₁ | 10 | 2.5 | 106°29 | 3°4/ 5.2 | 18 | 177245 | 2003 <i>WB</i> | 10 | 2.5 | 181°67 | 4°6/28.0 | 18 |
| 8 29 | 1 5.28 | +13 28.9 | 1.615 | 2.439 | 16.9 | 20.0 | 8 29 | 1 1.76 | - 9 16.5 | 2.172 | 3.038 | 11.6 | 20.5 |
| 9 8 | 0 58.82 | +13 41.0 | 1.556 | 2.457 | 13.2 | 19.8 | 9 8 | 0 55.71 | - 9 57.0 | 2.108 | 3.038 | 8.8 | 20.3 |
| 9 18 | 0 49.96 | +13 34.4 | 1.517 | 2.475 | 9.0 | 19.6 | 9 18 | 0 47.89 | -10 36.5 | 2.069 | 3.039 | 6.0 | 20.2 |
| 9 28 | 0 39.58 | +13 10.0 | 1.504 | 2.492 | 4.9 | 19.4 | 9 28 | 0 38.95 | -11 9.3 | 2.057 | 3.039 | 4.6 | 20.1 |
| 10 8 | 0 28.87 | +12 32.2 | 1.517 | 2.509 | 3.7 | 19.3 | 10 8 | 0 29.72 | -11 30.3 | 2.074 | 3.038 | 6.0 | 20.2 |
| 10 18 | 0 19.04 | +11 47.1 | 1.559 | 2.525 | 7.0 | 19.6 | 10 18 | 0 21.09 | -11 36.0 | 2.119 | 3.037 | 8.7 | 20.3 |
| 10 28 | 0 11.16 | +11 2.5 | 1.626 | 2.541 | 11.0 | 19.9 | 10 28 | 0 13.83 | -11 24.6 | 2.189 | 3.036 | 11.6 | 20.5 |
| 11 7 | 0 5.89 | +10 24.9 | 1.717 | 2.556 | 14.5 | 20.1 | 11 7 | 0 8.51 | -10 56.6 | 2.282 | 3.034 | 14.1 | 20.7 |
| 461298 | 2015 <i>XB</i> ₁₁₈ | 10 | 2.5 | 262°19 | 2°3/ 5.6 | 18 | 478903 | 2012 <i>WH</i> ₂₃ | 10 | 2.5 | 0°10 | 2°0/ 4.1 | 18 |
| 8 29 | 0 53.35 | +15 22.2 | 2.524 | 3.333 | 12.0 | 21.4 | 8 29 | 0 57.39 | +10 8.4 | 1.456 | 2.312 | 16.8 | 20.7 |
| 9 8 | 0 49.46 | +14 43.3 | 2.430 | 3.323 | 9.4 | 21.3 | 9 8 | 0 53.32 | +10 4.0 | 1.388 | 2.311 | 12.9 | 20.5 |
| 9 18 | 0 44.09 | +13 48.0 | 2.360 | 3.313 | 6.5 | 21.1 | 9 18 | 0 46.83 | + 9 41.4 | 1.339 | 2.310 | 8.5 | 20.2 |
| 9 28 | 0 37.75 | +12 38.4 | 2.316 | 3.303 | 3.5 | 20.9 | 9 28 | 0 38.69 | + 9 3.4 | 1.314 | 2.310 | 3.7 | 20.0 |
| 10 8 | 0 31.07 | +11 18.6 | 2.301 | 3.293 | 2.4 | 20.8 | 10 8 | 0 30.02 | + 8 15.4 | 1.315 | 2.310 | 2.9 | 19.9 |
| 10 18 | 0 24.74 | + 9 54.3 | 2.316 | 3.283 | 5.0 | 20.9 | 10 18 | 0 22.05 | + 7 24.8 | 1.341 | 2.311 | 7.4 | 20.2 |
| 10 28 | 0 19.43 | + 8 31.7 | 2.359 | 3.273 | 8.1 | 21.1 | 10 28 | 0 15.90 | + 6 39.6 | 1.392 | 2.313 | 11.9 | 20.5 |
| 11 7 | 0 15.66 | + 7 16.8 | 2.428 | 3.262 | 10.9 | 21.3 | 11 7 | 0 12.29 | + 6 6.2 | 1.464 | 2.315 | 15.9 | 20.7 |
| 483101 | 2015 <i>ML</i> ₈₈ | 10 | 2.5 | 28°75 | 2°8/ 5.2 | 18 | 103090 | 1999 <i>XO</i> ₁₆₃ | 10 | 2.5 | 308°35 | 2°0/30.8 | 18 |
| 8 29 | 0 56.58 | +13 51.6 | 1.714 | 2.547 | 15.7 | 21.0 | 8 29 | 0 56.70 | + 1 25.2 | 1.594 | 2.469 | 14.6 | 19.3 |
| 9 8 | 0 52.39 | +13 36.1 | 1.643 | 2.550 | 12.3 | 20.7 | 9 8 | 0 52.76 | + 0 44.9 | 1.510 | 2.450 | 10.9 | 19.0 |
| 9 18 | 0 46.09 | +13 0.9 | 1.593 | 2.554 | 8.4 | 20.5 | 9 18 | 0 46.51 | - 0 6.7 | 1.448 | 2.430 | 6.6 | 18.7 |
| 9 28 | 0 38.41 | +12 8.2 | 1.567 | 2.557 | 4.4 | 20.3 | 9 28 | 0 38.61 | - 1 3.9 | 1.412 | 2.411 | 2.4 | 18.4 |
| 10 8 | 0 30.31 | +11 3.4 | 1.567 | 2.561 | 3.1 | 20.2 | 10 8 | 0 30.07 | - 1 59.3 | 1.401 | 2.392 | 4.2 | 18.5 |
| 10 18 | 0 22.83 | + 9 53.5 | 1.595 | 2.565 | 6.5 | 20.5 | 10 18 | 0 22.00 | - 2 45.4 | 1.417 | 2.373 | 8.8 | 18.7 |
| 10 28 | 0 16.93 | + 8 46.8 | 1.649 | 2.569 | 10.5 | 20.7 | 10 28 | 0 15.54 | - 3 15.7 | 1.457 | 2.355 | 13.2 | 18.9 |
| 11 7 | 0 13.26 | + 7 50.2 | 1.726 | 2.573 | 14.0 | 20.9 | 11 7 | 0 11.44 | - 3 26.7 | 1.518 | 2.337 | 17.0 | 19.2 |
| 299063 | 2005 <i>CK</i> ₃₆ | 10 | 2.5 | 173°19 | 6°0/ 7.9 | 18 | 89940 | 2002 <i>FG</i> ₈ | 10 | 2.5 | 201°39 | 0°4/ 1.7 | 18 |
| 8 29 | 1 2.41 | +21 2.2 | 2.000 | 2.778 | 15.7 | 20.8 | 8 29 | 0 47.91 | + 4 18.1 | 4.810 | 5.651 | 6.2 | 19.9 |
| 9 8 | 0 56.65 | +21 42.3 | 1.918 | 2.779 | 13.0 | 20.6 | 9 8 | 0 44.78 | + 3 34.0 | 4.728 | 5.649 | 4.5 | 19.8 |
| 9 18 | 0 48.72 | +22 2.9 | 1.857 | 2.780 | 10.1 | 20.4 | 9 18 | 0 40.98 | + 2 45.3 | 4.672 | 5.647 | 2.7 | 19.7 |
| 9 28 | 0 39.25 | +22 2.2 | 1.820 | 2.781 | 7.3 | 20.3 | 9 28 | 0 36.75 | + 1 53.9 | 4.646 | 5.645 | 0.8 | 19.5 |
| 10 8 | 0 29.24 | +21 41.3 | 1.810 | 2.781 | 6.0 | 20.2 | 10 8 | 0 32.40 | + 1 2.4 | 4.651 | 5.643 | 1.3 | 19.6 |
| 10 18 | 0 19.73 | +21 3.9 | 1.827 | 2.781 | 7.3 | 20.3 | 10 18 | 0 28.22 | + 0 13.1 | 4.687 | 5.641 | 3.2 | 19.7 |
| 10 28 | 0 11.76 | +20 16.7 | 1.871 | 2.781 | 10.0 | 20.4 | 10 28 | 0 24.53 | - 0 31.7 | 4.753 | 5.639 | 5.0 | 19.9 |
| 11 7 | 0 6.05 | +19 27.1 | 1.939 | 2.781 | 12.9 | 20.6 | 11 7 | 0 21.56 | - 1 10.1 | 4.846 | 5.637 | 6.5 | 20.0 |
| 17599 | 1995 <i>ON</i> ₄ | 10 | 2.5 | 114°33 | 1°3/ 1.2 | 18 | 218858 | 2006 <i>WO</i> ₈₀ | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|---------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 159021 | 2004 <i>TN</i> ₄₀ | 10 | 2.5 337°27 | 0°0/ 2.3 18 | | | 15530 | Kuber | 10 | 2.5 357°71 | 5°7/28.8 18 | | |
| 8 29 | 0 56.20 | + 5 20.8 | 1.960 | 2.816 | 13.1 | 20.1 | 8 29 | 0 57.36 | - 5 23.8 | 1.047 | 1.952 | 18.0 | 17.5 |
| 9 8 | 0 51.88 | + 5 0.9 | 1.883 | 2.811 | 9.8 | 19.9 | 9 8 | 0 53.92 | - 6 14.6 | 0.995 | 1.948 | 13.4 | 17.2 |
| 9 18 | 0 45.71 | + 4 30.2 | 1.830 | 2.806 | 6.0 | 19.6 | 9 18 | 0 47.45 | - 7 9.9 | 0.962 | 1.945 | 8.7 | 17.0 |
| 9 28 | 0 38.31 | + 3 52.1 | 1.803 | 2.802 | 1.9 | 19.3 | 9 28 | 0 38.94 | - 7 59.3 | 0.951 | 1.944 | 5.8 | 16.8 |
| 10 8 | 0 30.52 | + 3 11.5 | 1.803 | 2.798 | 2.4 | 19.4 | 10 8 | 0 29.88 | - 8 32.3 | 0.963 | 1.943 | 8.0 | 16.9 |
| 10 18 | 0 23.21 | + 2 33.8 | 1.831 | 2.794 | 6.5 | 19.6 | 10 18 | 0 21.84 | - 8 41.3 | 0.996 | 1.944 | 12.6 | 17.2 |
| 10 28 | 0 17.24 | + 2 4.0 | 1.885 | 2.790 | 10.2 | 19.9 | 10 28 | 0 16.17 | - 8 23.2 | 1.050 | 1.946 | 17.2 | 17.5 |
| 11 7 | 0 13.22 | + 1 46.0 | 1.963 | 2.787 | 13.5 | 20.1 | 11 7 | 0 13.63 | - 7 39.2 | 1.121 | 1.950 | 21.2 | 17.7 |
| 150144 | 1996 <i>AV</i> ₁₁ | 10 | 2.5 267°38 | 3°3/ 5.4 18 | | | 224666 | 2006 <i>AV</i> ₁₈ | 10 | 2.5 260°52 | 5°1/26.9 18 | | |
| 8 29 | 0 58.37 | +14 34.7 | 1.609 | 2.440 | 16.6 | 20.8 | 8 29 | 0 57.59 | -11 6.7 | 2.295 | 3.167 | 10.9 | 19.9 |
| 9 8 | 0 54.02 | +14 22.4 | 1.525 | 2.431 | 13.2 | 20.5 | 9 8 | 0 52.61 | -11 56.1 | 2.231 | 3.163 | 8.3 | 19.7 |
| 9 18 | 0 47.29 | +13 48.3 | 1.462 | 2.421 | 9.1 | 20.3 | 9 18 | 0 46.02 | -12 43.7 | 2.192 | 3.159 | 6.0 | 19.6 |
| 9 28 | 0 38.87 | +12 53.6 | 1.423 | 2.412 | 5.0 | 20.0 | 9 28 | 0 38.41 | -13 23.6 | 2.180 | 3.155 | 5.1 | 19.5 |
| 10 8 | 0 29.81 | +11 43.4 | 1.409 | 2.402 | 3.5 | 19.9 | 10 8 | 0 30.51 | -13 50.7 | 2.196 | 3.151 | 6.4 | 19.6 |
| 10 18 | 0 21.31 | +10 25.4 | 1.423 | 2.392 | 7.1 | 20.1 | 10 18 | 0 23.11 | -14 1.6 | 2.239 | 3.147 | 8.9 | 19.7 |
| 10 28 | 0 14.51 | + 9 9.2 | 1.462 | 2.383 | 11.5 | 20.3 | 10 28 | 0 16.93 | -13 54.4 | 2.307 | 3.143 | 11.4 | 19.9 |
| 11 7 | 0 10.18 | + 8 3.3 | 1.524 | 2.373 | 15.5 | 20.5 | 11 7 | 0 12.48 | -13 29.6 | 2.397 | 3.139 | 13.7 | 20.1 |
| 454803 | 2015 <i>RE</i> ₃₈ | 10 | 2.5 359°41 | 1°1/ 1.4 18 | | | 61249 | 2000 <i>OO</i> ₂₃ | 10 | 2.5 49°33 | 1°2/ 1.7 18 | | |
| 8 29 | 0 55.69 | + 3 32.2 | 1.773 | 2.640 | 13.7 | 20.7 | 8 29 | 1 0.76 | + 3 59.3 | 1.116 | 2.000 | 18.8 | 17.7 |
| 9 8 | 0 51.62 | + 2 51.3 | 1.704 | 2.639 | 10.2 | 20.5 | 9 8 | 0 56.13 | + 3 24.5 | 1.070 | 2.012 | 14.0 | 17.5 |
| 9 18 | 0 45.59 | + 1 59.3 | 1.658 | 2.638 | 6.1 | 20.3 | 9 18 | 0 48.61 | + 2 34.3 | 1.043 | 2.025 | 8.4 | 17.2 |
| 9 28 | 0 38.27 | + 1 1.2 | 1.638 | 2.638 | 1.9 | 20.0 | 9 28 | 0 39.26 | + 1 36.0 | 1.039 | 2.039 | 2.6 | 16.9 |
| 10 8 | 0 30.59 | + 0 3.7 | 1.646 | 2.638 | 3.2 | 20.1 | 10 8 | 0 29.58 | + 0 39.1 | 1.059 | 2.053 | 4.0 | 17.1 |
| 10 18 | 0 23.48 | + 0 46.6 | 1.680 | 2.638 | 7.4 | 20.4 | 10 18 | 0 21.04 | - 0 7.3 | 1.103 | 2.067 | 9.5 | 17.4 |
| 10 28 | 0 17.83 | - 1 24.2 | 1.740 | 2.639 | 11.3 | 20.6 | 10 28 | 0 14.87 | - 0 36.1 | 1.170 | 2.082 | 14.5 | 17.7 |
| 11 7 | 0 14.26 | - 1 45.6 | 1.821 | 2.640 | 14.6 | 20.8 | 11 7 | 0 11.74 | - 0 44.2 | 1.256 | 2.097 | 18.6 | 18.1 |
| 449797 | 2014 <i>OH</i> ₂₅₄ | 10 | 2.5 179°20 | 0°2/ 2.7 18 | | | 176982 | 2002 <i>YK</i> ₄ | 10 | 2.5 303°30 | 7°0/26.3 18 | | |
| 8 29 | 0 57.73 | + 6 6.8 | 2.467 | 3.306 | 11.3 | 21.9 | 8 29 | 1 0.01 | -12 53.2 | 1.749 | 2.628 | 13.3 | 19.9 |
| 9 8 | 0 52.62 | + 5 48.0 | 2.389 | 3.307 | 8.4 | 21.7 | 9 8 | 0 55.10 | -13 49.7 | 1.670 | 2.603 | 10.4 | 19.7 |
| 9 18 | 0 46.00 | + 5 20.0 | 2.335 | 3.308 | 5.2 | 21.5 | 9 18 | 0 47.90 | -14 43.7 | 1.613 | 2.578 | 7.9 | 19.5 |
| 9 28 | 0 38.38 | + 4 45.5 | 2.310 | 3.308 | 1.7 | 21.2 | 9 28 | 0 39.09 | -15 26.9 | 1.582 | 2.553 | 7.0 | 19.4 |
| 10 8 | 0 30.46 | + 4 8.4 | 2.313 | 3.308 | 1.9 | 21.2 | 10 8 | 0 29.66 | -15 51.6 | 1.577 | 2.528 | 8.7 | 19.4 |
| 10 18 | 0 22.97 | + 3 32.9 | 2.346 | 3.308 | 5.4 | 21.5 | 10 18 | 0 20.73 | -15 52.7 | 1.596 | 2.504 | 11.8 | 19.5 |
| 10 28 | 0 16.60 | + 3 3.0 | 2.408 | 3.307 | 8.6 | 21.7 | 10 28 | 0 13.39 | -15 28.2 | 1.639 | 2.480 | 15.1 | 19.7 |
| 11 7 | 0 11.84 | + 2 42.1 | 2.494 | 3.306 | 11.3 | 21.9 | 11 7 | 0 8.39 | -14 39.5 | 1.701 | 2.455 | 18.1 | 19.8 |
| 220662 | 2004 <i>RW</i> ₁₆₇ | 10 | 2.5 354°42 | 0°1/ 2.6 18 | | | 351021 | 2003 <i>SK</i> ₁₀ | 10 | 2.5 327°66 | 1°0/ 3.3 18 | | |
| 8 29 | 0 59.50 | + 4 7.7 | 1.787 | 2.645 | 14.1 | 19.6 | 8 29 | 0 56.15 | + 7 36.0 | 1.393 | 2.261 | 16.7 | 20.7 |
| 9 8 | 0 54.49 | + 4 17.0 | 1.714 | 2.642 | 10.6 | 19.3 | 9 8 | 0 52.69 | + 7 30.2 | 1.311 | 2.243 | 12.8 | 20.4 |
| 9 18 | 0 47.37 | + 4 17.3 | 1.663 | 2.639 | 6.5 | 19.1 | 9 18 | 0 46.66 | + 7 7.8 | 1.249 | 2.225 | 8.2 | 20.1 |
| 9 28 | 0 38.85 | + 4 11.3 | 1.638 | 2.637 | 2.1 | 18.8 | 9 28 | 0 38.74 | + 6 31.6 | 1.210 | 2.208 | 3.1 | 19.7 |
| 10 8 | 0 29.88 | + 4 2.6 | 1.640 | 2.635 | 2.4 | 18.8 | 10 8 | 0 30.06 | + 5 47.5 | 1.196 | 2.192 | 2.8 | 19.7 |
| 10 18 | 0 21.49 | + 3 55.6 | 1.670 | 2.635 | 6.8 | 19.1 | 10 18 | 0 21.90 | + 5 2.8 | 1.207 | 2.176 | 8.1 | 20.0 |
| 10 28 | 0 14.64 | + 3 54.5 | 1.726 | 2.634 | 10.8 | 19.4 | 10 28 | 0 15.55 | + 4 25.6 | 1.241 | 2.162 | 13.1 | 20.2 |
| 11 7 | 0 10.00 | + 4 2.3 | 1.804 | 2.634 | 14.3 | 19.6 | 11 7 | 0 11.88 | + 4 2.5 | 1.296 | 2.149 | 17.4 | 20.4 |
| 356259 | 2009 <i>UV</i> ₁₄₈ | 10 | 2.5 261°33 | 1°6/29.3 18 | | | 430461 | 2001 <i>FW</i> ₁₇₆ | 10 | 2.5 267°19 | 4°9/29.7 18 | | |
| 8 29 | 0 49.97 | - 3 55.7 | 4.357 | 5.216 | 6.4 | 21.1 | 8 29 | 1 12.60 | - 8 43.7 | 1.659 | 2.518 | 14.9 | 20.6 |
| 9 8 | 0 46.35 | - 4 23.2 | 4.280 | 5.211 | 4.7 | 20.9 | 9 8 | 1 4.75 | - 8 50.7 | 1.567 | 2.494 | 11.4 | 20.4 |
| 9 18 | 0 41.96 | - 4 52.2 | 4.229 | 5.206 | 2.9 | 20.8 | 9 18 | 0 53.98 | - 8 55.6 | 1.499 | 2.470 | 7.7 | 20.1 |
| 9 28 | 0 37.08 | - 5 20.4 | 4.208 | 5.201 | 1.7 | 20.7 | 9 28 | 0 41.06 | - 8 51.8 | 1.457 | 2.445 | 5.0 | 19.9 |
| 10 8 | 0 32.05 | - 5 45.4 | 4.217 | 5.196 | 2.5 | 20.8 | 10 8 | 0 27.24 | - 8 33.9 | 1.444 | 2.420 | 6.5 | 19.9 |
| 10 18 | 0 27.23 | - 6 5.3 | 4.256 | 5.191 | 4.2 | 20.9 | 10 18 | 0 13.99 | - 7 58.2 | 1.459 | 2.394 | 10.6 | 20.1 |
| 10 28 | 0 22.95 | - 6 18.2 | 4.323 | 5.186 | 6.0 | 21.0 | 10 28 | 0 2.68 | - 7 3.9 | 1.500 | 2.367 | 14.8 | 20.3 |
| 11 7 | 0 19.51 | - 6 23.2 | 4.415 | 5.180 | 7.6 | 21.1 | 11 7 | 23 54.28 | - 5 52.6 | 1.564 | 2.340 | 18.5 | 20.5 |
| 87555 | 2000 <i>QB</i> ₂₄₃ | 10 | 2.5 49°00 | 0°1/ 4.5 13 C | | | 298234 | 2002 <i>UE</i> ₇₈ | 10 | 2.5 355°19 | 3°2/ 5.8 18 | | |
| 8 29 | 0 38.06 | + 9 5.1 | 31.152 | 31.967 | 1.1 | 23.4 | 8 29 | 0 54.70 | +15 42.7 | 1.685 | 2.514 | 16.1 | 19.9 |
| 9 8 | 0 37.21 | + 9 0.8 | 31.083 | 31.985 | 0.8 | 23.3 | 9 8 | 0 51.11 | +15 18.0 | 1.609 | 2.512 | 12.7 | 19.7 |
| 9 18 | 0 36.27 | + 8 55.7 | 31.041 | 32.003 | 0.5 | 23.3 | 9 18 | 0 45.40 | +14 30.8 | 1.553 | 2.511 | 8.8 | 19.5 |
| 9 28 | 0 35.28 | + 8 50.0 | 31.028 | 32.020 | 0.2 | 23.3 | 9 28 | 0 38.28 | +13 23.3 | 1.522 | 2.510 | 4.9 | 19.2 |
| 10 8 | 0 34.27 | + 8 43.9 | 31.044 | 32.038 | 0.2 | 23.2 | 10 8 | 0 30.70 | +12 1.2 | 1.517 | 2.509 | 3.4 | 19.1 |
| 10 18 | 0 33.29 | + 8 37.6 | 31.090 | 32.056 | 0.4 | 23.3 | 10 18 | 0 23.71 | +10 32.7 | 1.538 | 2.509 | 6.6 | 19.3 |
| 10 28 | 0 32.36 | + 8 31.4 | 31.166 | 32.074 | 0.7 | 23.3 | 10 28 | 0 18.27 | + 9 7.0 | 1.586 | 2.509 | 10.6 | 19.6 |
| 11 7 | 0 31.53 | + 8 25.6 | 31.269 | 32.091 | 1.0 | 23.4 | 11 7 | 0 15.05 | + 7 52.5 | 1.657 | 2.509 | 14.2 | 19.8 |
| 513765 | 2012 <i>XZ</i> ₄₄ | 10 | 2.5 66°32 | 3°0/29.9 18 | | | 114022 | Bizyaev | 10 | 2.5 230°54 | 3°0/ 5.9 18 | | |
| 8 29 | 0 59.35 | - 2 15.1 | 1.712 | 2.586 | 13.8 | 21.4 | 8 29 | 0 56.32 | +16 30.4 | 2.083 | 2.893 | 14.1 | 20.4 |
| 9 8 | 0 54.30 | - 2 56.8 | 1.653 | 2.592 | 10.2 | 21.2 | 9 8 | 0 51.98 | +16 0.2 | 1.995 | 2.886 | 11.2 | 20.2 |
| 9 18 | 0 47.20 | - 3 44.0 | 1.617 | 2.597 | 6.2 | 21.0 | 9 18 | 0 45.81 | +15 10.2 | 1.928 | 2.879 | 7.9 | 20.0 |
| 9 28 | 0 38.78 | - 4 30.6 | 1.607 | 2.603 | 3.2 | 20.8 | 9 28 | 0 38.40 | +14 2.0 | 1.887 | 2.872 | 4.5 | 19.8 |
| 10 8 | 0 30.05 | - 5 9.8 | 1.624 | 2.609 | 4.8 | 20.9 | 10 8 | 0 30.55 | +12 40.3 | 1.874 | 2.865 | 3.1 | 19.7 |
| 10 18 | 0 22.03 | - 5 36.4 | 1.668 | 2.614 | 8.6 | 21.2 | 10 18 | 0 23.16 | +11 11.8 | 1.889 | 2.857 | 5.8 | 19.8 |
| 10 28 | 0 15.63 | - 5 46.5 | 1.737 | 2.620 | 12.3 | 21.4 | 10 28 | 0 17.07 | + 9 44.4 | 1.933 | 2.849 | 9.4 | 20.0 |
| 11 7 | 0 11.45 | - 5 38.9 | 1.828 | 2.626 | 15.4 | 21.7 | 11 7 | 0 12.89 | + 8 25.6 | 2.001 | 2.841 | 12.6 | 20.2 |
| 363928 | 2005 <i>TW</i> ₄ | 10 | 2.5 323°73 | 0°6/ 1.9 18 | | | 57364 | 2001 <i>RU</i> ₂₇ | 10 | 2.5 318°36 | 0°2/ 2.7 18 | | |
| 8 29 | 0 56.09 | + 4 | | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|---------|------------|------|---------------|-------------------------------|-----------------|----------|---------|------------|------|
| 506829 | 2007 <i>TT</i> ₁₃₂ | 10 | 2.5 | 48°41' | 1°9'/ 4.1 | 17 | 168172 | 2006 <i>HE</i> ₈₀ | 10 | 2.5 | 12°50' | 0°5'/ 3.0 | 18 |
| 8 29 | 0 57.07 | +12 35.1 | 1.191 | 2.052 | 19.4 | 21.1 | 8 29 | 0 57.09 | + 7 54.1 | 1.623 | 2.481 | 15.3 | 20.8 |
| 9 8 | 0 53.38 | +11 48.0 | 1.135 | 2.061 | 14.9 | 20.9 | 9 8 | 0 52.86 | + 7 25.1 | 1.555 | 2.481 | 11.6 | 20.5 |
| 9 18 | 0 46.97 | +10 34.1 | 1.098 | 2.070 | 9.7 | 20.6 | 9 18 | 0 46.47 | + 6 40.5 | 1.508 | 2.482 | 7.2 | 20.3 |
| 9 28 | 0 38.78 | + 8 58.9 | 1.084 | 2.080 | 4.1 | 20.3 | 9 28 | 0 38.64 | + 5 44.2 | 1.485 | 2.484 | 2.5 | 20.0 |
| 10 8 | 0 30.16 | + 7 12.8 | 1.094 | 2.090 | 3.0 | 20.3 | 10 8 | 0 30.38 | + 4 42.8 | 1.490 | 2.485 | 2.5 | 20.0 |
| 10 18 | 0 22.50 | + 5 28.5 | 1.129 | 2.100 | 8.3 | 20.7 | 10 18 | 0 22.76 | + 3 43.7 | 1.521 | 2.487 | 7.2 | 20.3 |
| 10 28 | 0 17.02 | + 3 58.2 | 1.188 | 2.111 | 13.3 | 21.0 | 10 28 | 0 16.78 | + 2 54.1 | 1.578 | 2.490 | 11.4 | 20.6 |
| 11 7 | 0 14.38 | + 2 49.7 | 1.267 | 2.122 | 17.6 | 21.3 | 11 7 | 0 13.09 | + 2 19.2 | 1.656 | 2.492 | 15.1 | 20.8 |
| 474080 | 2016 <i>JH</i> ₃₅ | 10 | 2.5 | 127°61' | 12°2'/18.4 | 18 | 77559 | 2001 <i>KA</i> ₁ | 10 | 2.5 | 24°71' | 19°5'/18.6 | 18 |
| 8 29 | 1 7.15 | +41 51.9 | 1.995 | 2.619 | 20.0 | 20.7 | 8 29 | 1 17.83 | -48 24.7 | 1.542 | 2.302 | 20.3 | 18.2 |
| 9 8 | 1 0.63 | +42 44.9 | 1.926 | 2.637 | 18.2 | 20.6 | 9 8 | 1 8.40 | -49 22.5 | 1.537 | 2.311 | 19.7 | 18.1 |
| 9 18 | 0 51.34 | +43 5.8 | 1.870 | 2.654 | 16.2 | 20.5 | 9 18 | 0 55.64 | -49 41.4 | 1.546 | 2.320 | 19.5 | 18.2 |
| 9 28 | 0 40.17 | +42 48.9 | 1.833 | 2.670 | 14.3 | 20.4 | 9 28 | 0 41.32 | -49 12.5 | 1.571 | 2.331 | 19.6 | 18.2 |
| 10 8 | 0 28.46 | +41 53.1 | 1.816 | 2.686 | 12.8 | 20.3 | 10 8 | 0 27.52 | -47 53.8 | 1.612 | 2.342 | 20.2 | 18.3 |
| 10 18 | 0 17.64 | +40 21.8 | 1.823 | 2.701 | 12.2 | 20.3 | 10 18 | 0 15.96 | -45 49.7 | 1.669 | 2.354 | 21.0 | 18.4 |
| 10 28 | 0 8.97 | +38 24.2 | 1.853 | 2.715 | 12.7 | 20.4 | 10 28 | 0 7.73 | -43 9.0 | 1.742 | 2.367 | 21.9 | 18.5 |
| 11 7 | 0 3.23 | +36 12.7 | 1.908 | 2.728 | 14.0 | 20.5 | 11 7 | 0 3.15 | -40 2.5 | 1.828 | 2.381 | 22.7 | 18.7 |
| 435012 | 2006 <i>VA</i> ₃₃ | 10 | 2.5 | 331°64' | 2°2'/ 1.2 | 18 | 316431 | 2010 <i>TH</i> ₁₆₇ | 10 | 2.5 | 312°18' | 6°6'/19.4 | 16 |
| 8 29 | 0 57.94 | + 0 38.2 | 1.117 | 2.011 | 18.0 | 20.7 | 8 29 | 0 54.82 | -31 1.0 | 4.028 | 4.847 | 7.7 | 20.4 |
| 9 8 | 0 54.49 | + 0 22.1 | 1.046 | 1.994 | 13.5 | 20.4 | 9 8 | 0 50.03 | -31 41.4 | 3.985 | 4.841 | 6.9 | 20.3 |
| 9 18 | 0 47.97 | - 0 5.4 | 0.995 | 1.979 | 8.3 | 20.0 | 9 18 | 0 44.24 | -32 12.1 | 3.966 | 4.835 | 6.6 | 20.3 |
| 9 28 | 0 39.20 | - 0 38.0 | 0.965 | 1.964 | 3.0 | 19.7 | 9 28 | 0 37.86 | -32 29.5 | 3.972 | 4.829 | 6.8 | 20.3 |
| 10 8 | 0 29.57 | - 1 7.4 | 0.958 | 1.951 | 4.8 | 19.8 | 10 8 | 0 31.35 | -32 31.4 | 4.003 | 4.823 | 7.5 | 20.4 |
| 10 18 | 0 20.67 | - 1 25.6 | 0.975 | 1.938 | 10.6 | 20.1 | 10 18 | 0 25.19 | -32 16.8 | 4.059 | 4.817 | 8.4 | 20.4 |
| 10 28 | 0 14.01 | - 1 26.1 | 1.012 | 1.927 | 15.9 | 20.3 | 10 28 | 0 19.83 | -31 45.8 | 4.136 | 4.811 | 9.4 | 20.5 |
| 11 7 | 0 10.55 | - 1 5.9 | 1.068 | 1.917 | 20.6 | 20.6 | 11 7 | 0 15.60 | -30 59.9 | 4.232 | 4.806 | 10.3 | 20.6 |
| 426173 | 2012 <i>JV</i> ₇ | 10 | 2.5 | 148°07' | 0°9'/ 3.4 | 17 | 514457 | 2016 <i>UW</i> ₈₉ | 10 | 2.5 | 301°77' | 6°7'/28.4 | 18 |
| 8 29 | 1 1.01 | + 9 14.8 | 1.724 | 2.566 | 15.2 | 22.1 | 8 29 | 1 8.98 | -13 59.8 | 1.697 | 2.562 | 14.4 | 21.3 |
| 9 8 | 0 55.61 | + 8 42.1 | 1.656 | 2.574 | 11.5 | 21.9 | 9 8 | 1 1.61 | -14 14.1 | 1.631 | 2.556 | 11.2 | 21.1 |
| 9 18 | 0 48.06 | + 7 53.2 | 1.610 | 2.581 | 7.3 | 21.6 | 9 18 | 0 51.76 | -14 21.3 | 1.587 | 2.550 | 8.2 | 20.9 |
| 9 28 | 0 39.10 | + 6 51.8 | 1.590 | 2.588 | 2.7 | 21.4 | 9 28 | 0 40.30 | -14 14.6 | 1.570 | 2.545 | 6.7 | 20.8 |
| 10 8 | 0 29.78 | + 5 44.4 | 1.598 | 2.594 | 2.4 | 21.4 | 10 8 | 0 28.43 | -13 49.0 | 1.580 | 2.539 | 8.0 | 20.9 |
| 10 18 | 0 21.15 | + 4 38.4 | 1.634 | 2.599 | 6.9 | 21.7 | 10 18 | 0 17.43 | -13 2.4 | 1.617 | 2.534 | 11.1 | 21.1 |
| 10 28 | 0 14.19 | + 3 41.1 | 1.697 | 2.604 | 11.0 | 21.9 | 10 28 | 0 8.38 | -11 55.8 | 1.679 | 2.529 | 14.4 | 21.3 |
| 11 7 | 0 9.54 | + 2 57.7 | 1.782 | 2.609 | 14.6 | 22.2 | 11 7 | 0 1.99 | -10 32.3 | 1.763 | 2.524 | 17.3 | 21.5 |
| 68835 | 2002 <i>GC</i> ₁₀₅ | 10 | 2.5 | 25°57' | 5°6'/26.7 | 18 | 71406 | 2000 <i>AK</i> ₁₇₃ | 10 | 2.5 | 318°28' | 7°3'/25.3 | 18 |
| 8 29 | 0 49.73 | + 0 18.9 | 1.105 | 2.012 | 17.1 | 17.4 | 8 29 | 0 54.50 | - 9 38.6 | 1.488 | 2.383 | 14.2 | 18.3 |
| 9 8 | 0 47.86 | - 2 32.5 | 1.071 | 2.027 | 12.3 | 17.2 | 9 8 | 0 51.24 | -11 21.6 | 1.421 | 2.366 | 10.9 | 18.0 |
| 9 18 | 0 43.52 | - 5 36.7 | 1.058 | 2.044 | 7.6 | 17.0 | 9 18 | 0 45.64 | -13 7.6 | 1.376 | 2.348 | 8.1 | 17.8 |
| 9 28 | 0 37.67 | - 8 35.6 | 1.070 | 2.062 | 5.6 | 17.0 | 9 28 | 0 38.42 | -14 45.2 | 1.356 | 2.332 | 7.4 | 17.7 |
| 10 8 | 0 31.56 | -11 11.2 | 1.107 | 2.081 | 8.5 | 17.2 | 10 8 | 0 30.63 | -16 3.2 | 1.362 | 2.316 | 9.6 | 17.8 |
| 10 18 | 0 26.40 | -13 10.9 | 1.169 | 2.101 | 12.9 | 17.5 | 10 18 | 0 23.42 | -16 53.4 | 1.390 | 2.300 | 13.1 | 18.0 |
| 10 28 | 0 23.17 | -14 28.9 | 1.251 | 2.122 | 16.8 | 17.8 | 10 28 | 0 17.90 | -17 11.8 | 1.440 | 2.285 | 16.6 | 18.2 |
| 11 7 | 0 22.42 | -15 6.4 | 1.351 | 2.145 | 20.1 | 18.1 | 11 7 | 0 14.80 | -16 59.0 | 1.508 | 2.271 | 19.7 | 18.4 |
| 64907 | 2001 <i>YT</i> ₈₉ | 10 | 2.5 | 72°83' | 5°9'/26.3 | 18 | 26601 | 2000 <i>FD</i> ₁ | 10 | 2.5 | 310°79' | 3°8'/25.8 | 18 |
| 8 29 | 0 57.54 | -11 39.1 | 2.013 | 2.890 | 11.9 | 19.1 | 8 29 | 0 52.89 | -15 28.7 | 4.141 | 5.000 | 6.7 | 18.5 |
| 9 8 | 0 52.70 | -12 45.8 | 1.964 | 2.898 | 9.1 | 19.0 | 9 8 | 0 48.54 | -15 54.6 | 4.075 | 4.994 | 5.2 | 18.4 |
| 9 18 | 0 46.11 | -13 49.6 | 1.940 | 2.906 | 6.7 | 18.9 | 9 18 | 0 43.33 | -16 17.2 | 4.036 | 4.988 | 4.1 | 18.3 |
| 9 28 | 0 38.46 | -14 43.5 | 1.942 | 2.914 | 5.9 | 18.8 | 9 28 | 0 37.58 | -16 33.5 | 4.025 | 4.982 | 3.8 | 18.3 |
| 10 8 | 0 30.59 | -15 21.5 | 1.971 | 2.922 | 7.4 | 18.9 | 10 8 | 0 31.69 | -16 41.3 | 4.043 | 4.976 | 4.5 | 18.3 |
| 10 18 | 0 23.36 | -15 39.6 | 2.027 | 2.930 | 9.9 | 19.1 | 10 18 | 0 26.06 | -16 39.1 | 4.089 | 4.970 | 5.9 | 18.4 |
| 10 28 | 0 17.52 | -15 36.5 | 2.106 | 2.938 | 12.5 | 19.3 | 10 28 | 0 21.08 | -16 25.8 | 4.162 | 4.965 | 7.4 | 18.5 |
| 11 7 | 0 13.60 | -15 13.1 | 2.205 | 2.946 | 14.9 | 19.5 | 11 7 | 0 17.05 | -16 1.7 | 4.258 | 4.959 | 8.7 | 18.6 |
| 166030 | 2002 <i>BJ</i> ₁₀ | 10 | 2.5 | 303°76' | 1°9'/ 3.7 | 18 | 405119 | 2002 <i>FW</i> ₃₃ | 10 | 2.5 | 183°53' | 3°0'/27.9 | 18 |
| 8 29 | 1 1.91 | + 8 18.3 | 1.265 | 2.128 | 18.4 | 19.4 | 8 29 | 0 55.15 | - 5 20.0 | 2.994 | 3.856 | 8.9 | 22.6 |
| 9 8 | 0 57.29 | + 8 32.3 | 1.187 | 2.115 | 14.2 | 19.1 | 9 8 | 0 50.50 | - 6 25.8 | 2.925 | 3.857 | 6.5 | 22.5 |
| 9 18 | 0 49.63 | + 8 29.5 | 1.129 | 2.103 | 9.3 | 18.8 | 9 18 | 0 44.64 | - 7 33.8 | 2.882 | 3.857 | 4.2 | 22.3 |
| 9 28 | 0 39.74 | + 8 11.4 | 1.094 | 2.090 | 3.9 | 18.5 | 9 28 | 0 38.01 | - 8 39.7 | 2.869 | 3.856 | 3.0 | 22.2 |
| 10 8 | 0 28.94 | + 7 42.7 | 1.083 | 2.078 | 3.2 | 18.4 | 10 8 | 0 31.17 | - 9 38.6 | 2.886 | 3.855 | 4.2 | 22.3 |
| 10 18 | 0 18.80 | + 7 10.5 | 1.096 | 2.066 | 8.7 | 18.7 | 10 18 | 0 24.67 | -10 26.7 | 2.933 | 3.853 | 6.5 | 22.5 |
| 10 28 | 0 10.81 | + 6 43.0 | 1.134 | 2.055 | 14.0 | 18.9 | 10 28 | 0 19.05 | -11 1.2 | 3.007 | 3.850 | 8.8 | 22.6 |
| 11 7 | 0 5.95 | + 6 27.0 | 1.191 | 2.044 | 18.6 | 19.2 | 11 7 | 0 14.73 | -11 21.0 | 3.104 | 3.847 | 10.9 | 22.8 |
| 495374 | 2014 <i>OC</i> ₂₈₂ | 10 | 2.5 | 33°82' | 6°2'/25.9 | 18 | 291904 | 2006 <i>QT</i> ₉ | 10 | 2.5 | 41°39' | 4°1'/ 5.4 | 18 |
| 8 29 | 0 56.44 | -12 33.1 | 1.983 | 2.863 | 11.9 | 20.4 | 8 29 | 1 4.52 | +12 48.5 | 1.462 | 2.296 | 17.9 | 19.2 |
| 9 8 | 0 51.92 | -13 39.4 | 1.935 | 2.869 | 9.2 | 20.2 | 9 8 | 0 58.44 | +13 34.5 | 1.412 | 2.318 | 14.0 | 19.0 |
| 9 18 | 0 45.66 | -14 42.0 | 1.912 | 2.876 | 6.9 | 20.1 | 9 18 | 0 49.85 | +14 2.1 | 1.383 | 2.341 | 9.7 | 18.8 |
| 9 28 | 0 38.32 | -15 33.9 | 1.914 | 2.883 | 6.2 | 20.1 | 9 28 | 0 39.69 | +14 11.2 | 1.378 | 2.364 | 5.6 | 18.6 |
| 10 8 | 0 30.77 | -16 9.0 | 1.943 | 2.890 | 7.7 | 20.2 | 10 8 | 0 29.23 | +14 4.7 | 1.399 | 2.388 | 4.3 | 18.6 |
| 10 18 | 0 23.84 | -16 23.5 | 1.998 | 2.898 | 10.2 | 20.4 | 10 18 | 0 19.76 | +13 47.7 | 1.446 | 2.413 | 7.4 | 18.8 |
| 10 28 | 0 18.31 | -16 16.3 | 2.076 | 2.906 | 12.8 | 20.6 | 10 28 | 0 12.38 | +13 27.2 | 1.518 | 2.438 | 11.2 | 19.1 |
| 11 7 | 0 14.68 | -15 48.5 | 2.174 | 2.914 | 15.1 | 20.7 | 11 7 | 0 7.73 | +13 9.7 | 1.613 | 2.463 | 14.7 | 19.4 |
| 308923 | 2006 <i>SS</i> ₃₂₅ | 10 | 2.5 | 311°34' | 1°0'/ 1.6 | 18 | 321516 | 2009 <i>SM</i> ₂₀₃ | 10 | 2.5 | 164°96' | 2°2'/29.9 | 18 |
| 8 29 | | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 511779 | 2015 <i>EF</i> ₄ | 10 | 2.5 130°99 | 0°3/ 2.8 17 | | | 244304 | 2002 <i>GE</i> ₆₉ | 10 | 2.5 217°44 | 0°1/ 2.7 18 | | |
| 8 29 | 1 1.50 | + 7 8.3 | 1.761 | 2.608 | 14.7 | 22.3 | 8 29 | 0 56.43 | + 8 20.8 | 1.782 | 2.634 | 14.4 | 20.9 |
| 9 8 | 0 55.90 | + 6 39.8 | 1.697 | 2.619 | 11.1 | 22.1 | 9 8 | 0 52.24 | + 7 26.6 | 1.708 | 2.632 | 10.8 | 20.6 |
| 9 18 | 0 48.20 | + 5 57.7 | 1.656 | 2.629 | 6.8 | 21.9 | 9 18 | 0 46.06 | + 6 15.7 | 1.656 | 2.631 | 6.7 | 20.4 |
| 9 28 | 0 39.17 | + 5 5.9 | 1.641 | 2.639 | 2.3 | 21.6 | 9 28 | 0 38.54 | + 4 53.0 | 1.630 | 2.629 | 2.2 | 20.1 |
| 10 8 | 0 29.81 | + 4 10.6 | 1.654 | 2.649 | 2.4 | 21.7 | 10 8 | 0 30.62 | + 3 25.9 | 1.632 | 2.627 | 2.5 | 20.1 |
| 10 18 | 0 21.18 | + 3 18.3 | 1.695 | 2.658 | 6.9 | 22.0 | 10 18 | 0 23.26 | + 2 2.7 | 1.662 | 2.625 | 7.0 | 20.4 |
| 10 28 | 0 14.19 | + 2 35.1 | 1.762 | 2.667 | 10.9 | 22.2 | 10 28 | 0 17.38 | + 0 51.1 | 1.718 | 2.623 | 11.1 | 20.7 |
| 11 7 | 0 9.47 | + 2 5.5 | 1.853 | 2.675 | 14.3 | 22.5 | 11 7 | 0 13.60 | - 0 3.6 | 1.796 | 2.621 | 14.6 | 20.9 |
| 488540 | 2001 <i>ST</i> ₂₁₉ | 10 | 2.5 356°20 | 0°6/ 2.2 16 | | | 204780 | 2006 <i>KA</i> ₅₂ | 10 | 2.5 189°03 | 3°0/ 5.9 18 | | |
| 8 29 | 0 54.68 | + 2 43.7 | 0.944 | 1.848 | 19.6 | 21.2 | 8 29 | 0 57.24 | +16 26.4 | 2.086 | 2.894 | 14.2 | 20.9 |
| 9 8 | 0 52.28 | + 2 55.3 | 0.887 | 1.839 | 14.8 | 20.9 | 9 8 | 0 52.64 | +15 55.6 | 2.003 | 2.894 | 11.2 | 20.7 |
| 9 18 | 0 46.67 | + 2 53.8 | 0.848 | 1.833 | 9.1 | 20.6 | 9 18 | 0 46.23 | +15 5.2 | 1.942 | 2.893 | 7.8 | 20.5 |
| 9 28 | 0 38.81 | + 2 43.8 | 0.828 | 1.829 | 2.8 | 20.2 | 9 28 | 0 38.59 | +13 57.1 | 1.906 | 2.892 | 4.4 | 20.3 |
| 10 8 | 0 30.21 | + 2 32.2 | 0.831 | 1.826 | 3.8 | 20.3 | 10 8 | 0 30.57 | +12 36.1 | 1.899 | 2.890 | 3.1 | 20.2 |
| 10 18 | 0 22.56 | + 2 26.5 | 0.855 | 1.827 | 10.0 | 20.6 | 10 18 | 0 23.05 | +11 8.9 | 1.920 | 2.888 | 5.8 | 20.4 |
| 10 28 | 0 17.36 | + 2 33.2 | 0.899 | 1.829 | 15.6 | 20.9 | 10 28 | 0 16.85 | + 9 43.3 | 1.970 | 2.885 | 9.3 | 20.6 |
| 11 7 | 0 15.50 | + 2 56.1 | 0.960 | 1.833 | 20.3 | 21.2 | 11 7 | 0 12.59 | + 8 26.5 | 2.044 | 2.883 | 12.5 | 20.8 |
| 247494 | 2002 <i>NT</i> ₇₀ | 10 | 2.5 51°57 | 4°0/27.6 18 | | | 517749 | 2015 <i>MS</i> ₁₃₇ | 10 | 2.5 252°31 | 6°3/ 9.4 18 | | |
| 8 29 | 0 54.00 | - 5 38.7 | 2.199 | 3.075 | 11.1 | 20.5 | 8 29 | 0 57.31 | +24 19.8 | 1.941 | 2.711 | 16.4 | 20.8 |
| 9 8 | 0 50.00 | - 6 55.2 | 2.142 | 3.081 | 8.2 | 20.4 | 9 8 | 0 53.01 | +24 23.9 | 1.854 | 2.706 | 13.8 | 20.6 |
| 9 18 | 0 44.47 | - 8 14.4 | 2.110 | 3.086 | 5.4 | 20.2 | 9 18 | 0 46.60 | +24 3.4 | 1.786 | 2.701 | 10.8 | 20.4 |
| 9 28 | 0 37.98 | - 9 29.7 | 2.105 | 3.091 | 4.0 | 20.1 | 9 28 | 0 38.74 | +23 17.0 | 1.740 | 2.696 | 7.9 | 20.2 |
| 10 8 | 0 31.25 | -10 34.7 | 2.129 | 3.097 | 5.6 | 20.2 | 10 8 | 0 30.36 | +22 7.3 | 1.721 | 2.691 | 6.3 | 20.1 |
| 10 18 | 0 25.01 | -11 24.4 | 2.180 | 3.102 | 8.3 | 20.4 | 10 18 | 0 22.49 | +20 40.0 | 1.728 | 2.686 | 7.3 | 20.2 |
| 10 28 | 0 19.95 | -11 55.4 | 2.257 | 3.108 | 11.1 | 20.6 | 10 28 | 0 16.10 | +19 4.0 | 1.763 | 2.681 | 10.0 | 20.3 |
| 11 7 | 0 16.55 | -12 7.0 | 2.355 | 3.114 | 13.5 | 20.8 | 11 7 | 0 11.90 | +17 28.9 | 1.821 | 2.676 | 13.1 | 20.5 |
| 286958 | 2002 <i>PR</i> ₁₇₈ | 10 | 2.5 114°37 | 7°2/12.3 18 | | | 343435 | 2010 <i>DC</i> ₄₉ | 10 | 2.5 172°35 | 2°7/29.9 18 | | |
| 8 29 | 1 2.76 | +31 11.5 | 2.839 | 3.522 | 13.5 | 21.0 | 8 29 | 0 58.04 | - 0 31.2 | 1.760 | 2.632 | 13.6 | 20.6 |
| 9 8 | 0 56.46 | +32 0.9 | 2.762 | 3.538 | 11.8 | 20.9 | 9 8 | 0 53.40 | - 1 28.2 | 1.694 | 2.632 | 10.0 | 20.4 |
| 9 18 | 0 48.43 | +32 31.3 | 2.706 | 3.554 | 10.0 | 20.8 | 9 18 | 0 46.73 | - 2 33.3 | 1.652 | 2.633 | 6.1 | 20.2 |
| 9 28 | 0 39.26 | +32 40.4 | 2.673 | 3.569 | 8.3 | 20.7 | 9 28 | 0 38.75 | - 3 39.9 | 1.637 | 2.633 | 2.9 | 20.0 |
| 10 8 | 0 29.69 | +32 28.3 | 2.666 | 3.584 | 7.3 | 20.6 | 10 8 | 0 30.40 | - 4 40.6 | 1.648 | 2.633 | 4.6 | 20.1 |
| 10 18 | 0 20.56 | +31 57.2 | 2.687 | 3.599 | 7.4 | 20.7 | 10 18 | 0 22.68 | - 5 28.8 | 1.687 | 2.633 | 8.5 | 20.3 |
| 10 28 | 0 12.65 | +31 11.7 | 2.735 | 3.613 | 8.5 | 20.8 | 10 28 | 0 16.48 | - 5 59.8 | 1.751 | 2.634 | 12.2 | 20.6 |
| 11 7 | 0 6.53 | +30 18.0 | 2.808 | 3.627 | 10.0 | 20.9 | 11 7 | 0 12.42 | - 6 11.3 | 1.836 | 2.634 | 15.4 | 20.8 |
| 31631 | Abbywilliams | 10 | 2.5 340°97 | 1°8/ 1.0 18 | | | 328724 | 2009 <i>TX</i> ₃₃ | 10 | 2.5 339°62 | 5°2/ 7.6 18 | | |
| 8 29 | 0 52.97 | + 4 25.7 | 1.256 | 2.143 | 16.9 | 17.2 | 8 29 | 0 57.49 | +19 16.4 | 2.011 | 2.806 | 15.0 | 20.2 |
| 9 8 | 0 50.38 | + 3 20.1 | 1.188 | 2.133 | 12.6 | 17.0 | 9 8 | 0 53.04 | +19 44.2 | 1.926 | 2.801 | 12.4 | 20.0 |
| 9 18 | 0 45.23 | + 1 55.8 | 1.140 | 2.124 | 7.5 | 16.7 | 9 18 | 0 46.59 | +19 53.3 | 1.862 | 2.795 | 9.3 | 19.8 |
| 9 28 | 0 38.32 | + 0 20.7 | 1.116 | 2.116 | 2.5 | 16.3 | 9 28 | 0 38.74 | +19 42.9 | 1.821 | 2.790 | 6.5 | 19.6 |
| 10 8 | 0 30.81 | - 1 14.0 | 1.116 | 2.109 | 4.4 | 16.4 | 10 8 | 0 30.37 | +19 14.8 | 1.808 | 2.786 | 5.2 | 19.5 |
| 10 18 | 0 23.99 | - 2 36.9 | 1.141 | 2.102 | 9.7 | 16.7 | 10 18 | 0 22.44 | +18 33.1 | 1.821 | 2.782 | 6.7 | 19.6 |
| 10 28 | 0 19.07 | - 3 38.4 | 1.188 | 2.097 | 14.6 | 17.0 | 10 28 | 0 15.89 | +17 44.1 | 1.860 | 2.778 | 9.6 | 19.8 |
| 11 7 | 0 16.80 | - 4 13.8 | 1.255 | 2.093 | 18.8 | 17.3 | 11 7 | 0 11.40 | +16 54.9 | 1.924 | 2.775 | 12.6 | 20.0 |
| 403156 | 2008 <i>FR</i> ₁₀₁ | 10 | 2.5 125°46 | 2°4/29.5 18 | | | 213002 | 1982 <i>QF</i> ₄ | 10 | 2.5 47°15 | 9°0/28.4 17 | | |
| 8 29 | 0 57.67 | - 3 0.5 | 2.743 | 3.600 | 9.7 | 22.0 | 8 29 | 1 10.00 | -14 46.6 | 1.053 | 1.943 | 19.2 | 19.4 |
| 9 8 | 0 52.34 | - 3 44.2 | 2.687 | 3.618 | 7.1 | 21.9 | 9 8 | 1 2.76 | -15 17.7 | 1.029 | 1.966 | 14.9 | 19.3 |
| 9 18 | 0 45.73 | - 4 30.7 | 2.658 | 3.635 | 4.4 | 21.7 | 9 18 | 0 52.44 | -15 37.2 | 1.023 | 1.990 | 10.9 | 19.1 |
| 9 28 | 0 38.36 | - 5 16.0 | 2.657 | 3.651 | 2.4 | 21.6 | 9 28 | 0 40.46 | -15 35.4 | 1.039 | 2.015 | 9.0 | 19.1 |
| 10 8 | 0 30.84 | - 5 55.7 | 2.687 | 3.666 | 3.6 | 21.7 | 10 8 | 0 28.60 | -15 6.5 | 1.079 | 2.040 | 10.6 | 19.3 |
| 10 18 | 0 23.80 | - 6 26.4 | 2.746 | 3.682 | 6.2 | 21.9 | 10 18 | 0 18.48 | -14 10.5 | 1.142 | 2.066 | 13.9 | 19.6 |
| 10 28 | 0 17.79 | - 6 45.6 | 2.832 | 3.696 | 8.7 | 22.1 | 10 28 | 0 11.24 | -12 51.0 | 1.225 | 2.092 | 17.5 | 19.9 |
| 11 7 | 0 13.24 | - 6 52.2 | 2.943 | 3.710 | 10.9 | 22.3 | 11 7 | 0 7.35 | -11 13.9 | 1.327 | 2.118 | 20.5 | 20.2 |
| 238204 | 2003 <i>TS</i> ₅₈ | 10 | 2.5 14°43 | 2°0/ 1.0 18 | | | 211744 | 2003 <i>YQ</i> ₁₅₀ | 10 | 2.5 232°54 | 1°8/30.9 18 | | |
| 8 29 | 0 59.25 | + 0 29.3 | 1.494 | 2.371 | 15.3 | 20.7 | 8 29 | 1 0.80 | - 0 15.0 | 1.951 | 2.812 | 12.9 | 20.3 |
| 9 8 | 0 54.57 | + 0 5.6 | 1.433 | 2.373 | 11.3 | 20.5 | 9 8 | 0 55.31 | - 0 34.4 | 1.878 | 2.810 | 9.6 | 20.0 |
| 9 18 | 0 47.55 | - 0 26.7 | 1.394 | 2.375 | 6.8 | 20.2 | 9 18 | 0 47.87 | - 0 59.8 | 1.828 | 2.807 | 5.8 | 19.8 |
| 9 28 | 0 39.01 | - 1 1.8 | 1.380 | 2.379 | 2.5 | 20.0 | 9 28 | 0 39.12 | - 1 27.0 | 1.805 | 2.803 | 2.2 | 19.6 |
| 10 8 | 0 30.05 | - 1 33.3 | 1.391 | 2.382 | 4.0 | 20.1 | 10 8 | 0 29.98 | - 1 51.1 | 1.811 | 2.800 | 3.5 | 19.7 |
| 10 18 | 0 21.86 | - 1 55.2 | 1.429 | 2.386 | 8.6 | 20.4 | 10 18 | 0 21.40 | - 2 7.5 | 1.844 | 2.797 | 7.4 | 19.9 |
| 10 28 | 0 15.48 | - 2 2.8 | 1.491 | 2.391 | 12.8 | 20.6 | 10 28 | 0 14.27 | - 2 12.6 | 1.904 | 2.794 | 11.0 | 20.1 |
| 11 7 | 0 11.58 | - 1 54.1 | 1.574 | 2.396 | 16.4 | 20.9 | 11 7 | 0 9.20 | - 2 4.4 | 1.987 | 2.790 | 14.2 | 20.3 |
| 409072 | 2003 <i>SL</i> ₂₆₇ | 10 | 2.5 323°51 | 0°0/ 2.4 18 | | | 487905 | 2015 <i>TC</i> ₁₈₀ | 10 | 2.5 339°09 | 6°0/26.6 17 | | |
| 8 29 | 0 53.52 | + 7 25.8 | 2.159 | 3.008 | 12.3 | 21.3 | 8 29 | 0 56.32 | -10 48.6 | 1.841 | 2.724 | 12.6 | 21.0 |
| 9 8 | 0 49.78 | + 6 37.7 | 2.079 | 3.003 | 9.2 | 21.1 | 9 8 | 0 52.09 | -11 49.5 | 1.779 | 2.717 | 9.6 | 20.9 |
| 9 18 | 0 44.43 | + 5 36.6 | 2.024 | 2.999 | 5.7 | 20.9 | 9 18 | 0 45.93 | -12 49.0 | 1.740 | 2.710 | 7.0 | 20.7 |
| 9 28 | 0 38.00 | + 4 26.6 | 1.995 | 2.994 | 1.8 | 20.6 | 9 28 | 0 38.51 | -13 39.5 | 1.728 | 2.704 | 6.0 | 20.6 |
| 10 8 | 0 31.24 | + 3 13.3 | 1.994 | 2.989 | 2.1 | 20.6 | 10 8 | 0 30.73 | -14 14.2 | 1.741 | 2.698 | 7.6 | 20.7 |
| 10 18 | 0 24.90 | + 2 3.0 | 2.022 | 2.985 | 6.0 | 20.9 | 10 18 | 0 23.52 | -14 28.6 | 1.780 | 2.692 | 10.5 | 20.9 |
| 10 28 | 0 19.72 | + 1 1.8 | 2.078 | 2.981 | 9.5 | 21.1 | 10 28 | 0 17.77 | -14 20.6 | 1.842 | 2.687 | 13.5 | 21.1 |
| 11 7 | 0 16.26 | + 0 14.1 | 2.157 | 2.977 | 12.6 | 21.3 | 11 7 | 0 14.06 | -13 50.9 | 1.924 | 2.683 | 16.1 | 21.2 |
| 173569 | 2001 <i>BL</i> ₂₀ | 10 | 2.5 290°74 | 6°8/27.0 18 | | | 211368 | 2002 <i>TV</i> ₂₄₅ | 10 | 2.5 298°17 | 2°4/30.5 18 | | |
| 8 29 | | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | | |
|---------------|-------------------------------|-----------------|----------|---------|---------|------|-------|-----------------|-------------------------------|----------|-------|---------|------|------|----|
| 434592 | 2005 <i>UU</i> ₂₂₂ | 10 | 2.6 | 187°37' | 2°1' | 4.6 | 17 | 429461 | 2010 <i>WD</i> ₂₈ | 10 | 2.6 | 74°97' | 4°5' | 29.5 | 17 |
| 8 29 | 0 59.51 | +12 26.8 | 1.878 | 2.706 | 14.7 | 21.7 | 8 29 | 1 4.35 | - 5 4.1 | 1.351 | 2.232 | 16.3 | 20.7 | | |
| 9 8 | 0 54.50 | +12 4.0 | 1.799 | 2.706 | 11.4 | 21.4 | 9 8 | 0 58.44 | - 5 42.6 | 1.302 | 2.243 | 12.1 | 20.5 | | |
| 9 18 | 0 47.45 | +11 23.5 | 1.742 | 2.705 | 7.6 | 21.2 | 9 18 | 0 49.93 | - 6 23.9 | 1.276 | 2.255 | 7.7 | 20.2 | | |
| 9 28 | 0 39.02 | +10 27.8 | 1.711 | 2.704 | 3.6 | 21.0 | 9 28 | 0 39.80 | - 7 0.2 | 1.273 | 2.266 | 4.6 | 20.1 | | |
| 10 8 | 0 30.15 | + 9 21.9 | 1.708 | 2.703 | 2.6 | 20.9 | 10 8 | 0 29.39 | - 7 23.9 | 1.297 | 2.277 | 6.4 | 20.2 | | |
| 10 18 | 0 21.83 | + 8 12.7 | 1.733 | 2.701 | 6.3 | 21.1 | 10 18 | 0 20.02 | - 7 29.8 | 1.345 | 2.289 | 10.5 | 20.5 | | |
| 10 28 | 0 15.02 | + 7 7.6 | 1.785 | 2.698 | 10.2 | 21.4 | 10 28 | 0 12.81 | - 7 15.5 | 1.417 | 2.300 | 14.5 | 20.8 | | |
| 11 7 | 0 10.34 | + 6 13.1 | 1.861 | 2.696 | 13.7 | 21.6 | 11 7 | 0 8.41 | - 6 41.7 | 1.509 | 2.311 | 17.9 | 21.0 | | |
| 40009 | 1998 <i>HG</i> ₁₁₉ | 10 | 2.6 | 45°77' | 7°8' | 26.7 | 18 | 423177 | 2004 <i>GU</i> ₃₂ | 10 | 2.6 | 108°49' | 0°0' | 2.3 | 16 |
| 8 29 | 1 1.42 | -13 4.9 | 1.407 | 2.294 | 15.4 | 18.4 | 8 29 | 1 3.99 | + 5 17.6 | 1.735 | 2.584 | 14.8 | 21.5 | | |
| 9 8 | 0 56.08 | -14 8.8 | 1.372 | 2.309 | 11.9 | 18.2 | 9 8 | 0 57.71 | + 5 0.2 | 1.679 | 2.603 | 11.1 | 21.3 | | |
| 9 18 | 0 48.36 | -15 6.3 | 1.359 | 2.326 | 8.9 | 18.1 | 9 18 | 0 49.31 | + 4 31.5 | 1.646 | 2.620 | 6.8 | 21.1 | | |
| 9 28 | 0 39.25 | -15 47.9 | 1.370 | 2.342 | 7.8 | 18.1 | 9 28 | 0 39.60 | + 3 55.4 | 1.639 | 2.638 | 2.1 | 20.8 | | |
| 10 8 | 0 30.00 | -16 6.6 | 1.406 | 2.359 | 9.5 | 18.2 | 10 8 | 0 29.64 | + 3 17.3 | 1.660 | 2.655 | 2.5 | 20.9 | | |
| 10 18 | 0 21.81 | -15 58.9 | 1.466 | 2.376 | 12.4 | 18.5 | 10 18 | 0 20.51 | + 2 42.9 | 1.709 | 2.671 | 7.0 | 21.2 | | |
| 10 28 | 0 15.66 | -15 25.3 | 1.547 | 2.394 | 15.5 | 18.7 | 10 28 | 0 13.13 | + 2 17.4 | 1.785 | 2.687 | 10.9 | 21.5 | | |
| 11 7 | 0 12.08 | -14 29.3 | 1.648 | 2.412 | 18.2 | 18.9 | 11 7 | 0 8.07 | + 2 4.2 | 1.884 | 2.702 | 14.2 | 21.7 | | |
| 511128 | 2013 <i>WN</i> ₉₇ | 10 | 2.6 | 291°63' | 3°7' | 29.7 | 18 | 393202 | 2013 <i>CC</i> ₂₀₄ | 10 | 2.6 | 303°63' | 0°8' | 30.9 | 18 |
| 8 29 | 1 0.27 | - 2 42.4 | 1.472 | 2.353 | 15.3 | 21.3 | 8 29 | 0 49.68 | + 0 43.1 | 4.270 | 5.121 | 6.7 | 21.2 | | |
| 9 8 | 0 55.65 | - 3 26.5 | 1.393 | 2.335 | 11.4 | 21.1 | 9 8 | 0 46.22 | + 0 17.4 | 4.191 | 5.118 | 4.9 | 21.1 | | |
| 9 18 | 0 48.46 | - 4 18.2 | 1.337 | 2.317 | 7.1 | 20.8 | 9 18 | 0 41.98 | - 0 11.7 | 4.137 | 5.115 | 2.9 | 20.9 | | |
| 9 28 | 0 39.41 | - 5 10.3 | 1.305 | 2.300 | 3.9 | 20.5 | 9 28 | 0 37.25 | - 0 42.1 | 4.113 | 5.111 | 1.1 | 20.8 | | |
| 10 8 | 0 29.66 | - 5 54.4 | 1.298 | 2.282 | 5.8 | 20.6 | 10 8 | 0 32.37 | - 1 11.4 | 4.119 | 5.108 | 1.8 | 20.8 | | |
| 10 18 | 0 20.48 | - 6 23.3 | 1.318 | 2.265 | 10.3 | 20.8 | 10 18 | 0 27.69 | - 1 37.4 | 4.155 | 5.105 | 3.7 | 21.0 | | |
| 10 28 | 0 13.11 | - 6 31.7 | 1.360 | 2.248 | 14.7 | 21.0 | 10 28 | 0 23.56 | - 1 58.1 | 4.220 | 5.102 | 5.7 | 21.1 | | |
| 11 7 | 0 8.40 | - 6 17.9 | 1.423 | 2.231 | 18.5 | 21.3 | 11 7 | 0 20.27 | - 2 12.0 | 4.310 | 5.098 | 7.3 | 21.2 | | |
| 270075 | 2001 <i>PQ</i> ₅₇ | 10 | 2.6 | 9°06' | 0°9' | 3.1 | 18 | 99976 | 1981 <i>EZ</i> ₆ | 10 | 2.6 | 318°64' | 5°3' | 6.5 | 18 |
| 8 29 | 0 58.33 | + 6 38.4 | 1.159 | 2.038 | 18.6 | 19.9 | 8 29 | 0 55.00 | +16 35.2 | 1.273 | 2.118 | 19.4 | 19.1 | | |
| 9 8 | 0 54.51 | + 6 39.9 | 1.101 | 2.039 | 14.1 | 19.7 | 9 8 | 0 52.35 | +16 50.3 | 1.182 | 2.091 | 15.8 | 18.8 | | |
| 9 18 | 0 47.82 | + 6 24.6 | 1.062 | 2.041 | 8.9 | 19.4 | 9 18 | 0 46.81 | +16 39.0 | 1.108 | 2.065 | 11.6 | 18.5 | | |
| 9 28 | 0 39.19 | + 5 56.1 | 1.046 | 2.044 | 3.2 | 19.1 | 9 28 | 0 39.02 | +15 59.6 | 1.055 | 2.039 | 7.2 | 18.2 | | |
| 10 8 | 0 30.00 | + 5 21.2 | 1.053 | 2.049 | 3.0 | 19.1 | 10 8 | 0 30.15 | +14 54.9 | 1.024 | 2.014 | 5.4 | 18.0 | | |
| 10 18 | 0 21.73 | + 4 47.7 | 1.084 | 2.054 | 8.6 | 19.4 | 10 18 | 0 21.69 | +13 32.9 | 1.018 | 1.990 | 8.7 | 18.1 | | |
| 10 28 | 0 15.68 | + 4 23.5 | 1.137 | 2.061 | 13.7 | 19.7 | 10 28 | 0 15.16 | +12 5.8 | 1.034 | 1.967 | 13.7 | 18.3 | | |
| 11 7 | 0 12.62 | + 4 13.9 | 1.211 | 2.069 | 18.0 | 20.0 | 11 7 | 0 11.68 | +10 46.2 | 1.070 | 1.946 | 18.5 | 18.5 | | |
| 364489 | 2007 <i>DQ</i> ₁₀₆ | 10 | 2.6 | 225°09' | 0°1' | 2.7 | 18 | 347967 | 2003 <i>SU</i> ₂₅ | 10 | 2.6 | 337°34' | 0°6' | 2.2 | 18 |
| 8 29 | 0 56.37 | + 6 26.7 | 2.444 | 3.286 | 11.3 | 22.5 | 8 29 | 0 56.00 | + 3 56.0 | 1.290 | 2.173 | 16.9 | 20.5 | | |
| 9 8 | 0 51.75 | + 5 57.2 | 2.360 | 3.279 | 8.5 | 22.3 | 9 8 | 0 52.74 | + 3 44.0 | 1.215 | 2.156 | 12.7 | 20.2 | | |
| 9 18 | 0 45.59 | + 5 17.5 | 2.300 | 3.273 | 5.2 | 22.1 | 9 18 | 0 46.80 | + 3 18.4 | 1.160 | 2.141 | 7.8 | 19.9 | | |
| 9 28 | 0 38.42 | + 4 30.7 | 2.267 | 3.266 | 1.7 | 21.9 | 9 28 | 0 38.94 | + 2 43.5 | 1.127 | 2.127 | 2.4 | 19.6 | | |
| 10 8 | 0 30.90 | + 3 41.0 | 2.264 | 3.259 | 1.9 | 21.9 | 10 8 | 0 30.34 | + 2 6.3 | 1.119 | 2.115 | 3.4 | 19.6 | | |
| 10 18 | 0 23.76 | + 2 53.2 | 2.290 | 3.251 | 5.5 | 22.1 | 10 18 | 0 22.36 | + 1 34.3 | 1.136 | 2.103 | 8.9 | 19.9 | | |
| 10 28 | 0 17.70 | + 2 11.9 | 2.344 | 3.244 | 8.8 | 22.3 | 10 28 | 0 16.29 | + 1 14.7 | 1.175 | 2.093 | 13.9 | 20.1 | | |
| 11 7 | 0 13.23 | + 1 40.8 | 2.422 | 3.236 | 11.6 | 22.5 | 11 7 | 0 13.01 | + 1 12.2 | 1.234 | 2.083 | 18.3 | 20.4 | | |
| 277360 | 2005 <i>TY</i> ₁₄₇ | 10 | 2.6 | 311°79' | 2°5' | 30.6 | 18 | 324192 | 2006 <i>AZ</i> ₆₆ | 10 | 2.6 | 271°43' | 2°3' | 5.2 | 18 |
| 8 29 | 0 57.99 | + 0 48.6 | 1.420 | 2.300 | 15.7 | 21.1 | 8 29 | 0 55.98 | +13 23.6 | 2.307 | 3.125 | 12.7 | 20.9 | | |
| 9 8 | 0 53.93 | + 0 2.2 | 1.348 | 2.290 | 11.7 | 20.9 | 9 8 | 0 51.65 | +13 10.8 | 2.215 | 3.114 | 9.9 | 20.7 | | |
| 9 18 | 0 47.36 | - 0 55.7 | 1.297 | 2.280 | 7.1 | 20.6 | 9 18 | 0 45.64 | +12 43.2 | 2.146 | 3.103 | 6.8 | 20.5 | | |
| 9 28 | 0 39.05 | - 1 58.2 | 1.271 | 2.270 | 2.9 | 20.3 | 9 28 | 0 38.49 | +12 2.2 | 2.103 | 3.092 | 3.6 | 20.3 | | |
| 10 8 | 0 30.13 | - 2 56.9 | 1.270 | 2.260 | 4.7 | 20.4 | 10 8 | 0 30.91 | +11 11.3 | 2.089 | 3.081 | 2.6 | 20.2 | | |
| 10 18 | 0 21.87 | - 3 43.3 | 1.295 | 2.250 | 9.5 | 20.7 | 10 18 | 0 23.70 | +10 15.3 | 2.103 | 3.070 | 5.4 | 20.4 | | |
| 10 28 | 0 15.43 | - 4 11.1 | 1.343 | 2.241 | 14.1 | 20.9 | 10 28 | 0 17.62 | + 9 20.2 | 2.145 | 3.059 | 8.7 | 20.6 | | |
| 11 7 | 0 11.59 | - 4 17.3 | 1.412 | 2.233 | 18.0 | 21.1 | 11 7 | 0 13.26 | + 8 31.3 | 2.211 | 3.048 | 11.7 | 20.8 | | |
| 57780 | 2001 <i>VN</i> ₇₇ | 10 | 2.6 | 276°63' | 3°5' | 29.4 | 18 | 234089 | 1999 <i>TS</i> ₁₅₈ | 10 | 2.6 | 25°99' | 6°6' | 6.9 | 18 |
| 8 29 | 0 57.54 | - 1 9.9 | 1.599 | 2.478 | 14.4 | 18.8 | 8 29 | 1 4.63 | +17 29.2 | 1.465 | 2.280 | 18.8 | 19.5 | | |
| 9 8 | 0 53.33 | - 2 19.4 | 1.527 | 2.468 | 10.6 | 18.6 | 9 8 | 0 58.97 | +18 39.2 | 1.399 | 2.286 | 15.3 | 19.3 | | |
| 9 18 | 0 46.87 | - 3 38.6 | 1.477 | 2.458 | 6.5 | 18.3 | 9 18 | 0 50.51 | +19 28.6 | 1.352 | 2.292 | 11.5 | 19.1 | | |
| 9 28 | 0 38.88 | - 4 59.7 | 1.453 | 2.448 | 3.5 | 18.1 | 9 28 | 0 40.09 | +19 54.5 | 1.328 | 2.300 | 8.0 | 18.9 | | |
| 10 8 | 0 30.36 | - 6 13.7 | 1.456 | 2.438 | 5.5 | 18.2 | 10 8 | 0 29.02 | +19 57.1 | 1.329 | 2.307 | 6.6 | 18.8 | | |
| 10 18 | 0 22.42 | - 7 12.5 | 1.485 | 2.429 | 9.6 | 18.4 | 10 18 | 0 18.71 | +19 40.6 | 1.355 | 2.316 | 8.6 | 19.0 | | |
| 10 28 | 0 16.12 | - 7 50.1 | 1.538 | 2.419 | 13.7 | 18.6 | 10 28 | 0 10.49 | +19 12.7 | 1.406 | 2.324 | 12.1 | 19.2 | | |
| 11 7 | 0 12.16 | - 8 4.2 | 1.611 | 2.409 | 17.2 | 18.9 | 11 7 | 0 5.19 | +18 42.3 | 1.479 | 2.334 | 15.5 | 19.4 | | |
| 74965 | 1999 <i>TS</i> ₂₀₅ | 10 | 2.6 | 157°30' | 0°0' | 2.4 | 18 | 81226 | 2000 <i>FF</i> ₂₄ | 10 | 2.6 | 101°57' | 6°0' | 27.4 | 18 |
| 8 29 | 1 2.93 | + 5 43.9 | 1.694 | 2.545 | 15.1 | 19.5 | 8 29 | 1 3.15 | - 9 52.2 | 1.694 | 2.569 | 13.9 | 19.2 | | |
| 9 8 | 0 57.14 | + 5 25.2 | 1.625 | 2.549 | 11.3 | 19.3 | 9 8 | 0 57.02 | -11 1.1 | 1.655 | 2.589 | 10.5 | 19.0 | | |
| 9 18 | 0 49.09 | + 4 54.0 | 1.579 | 2.554 | 7.0 | 19.0 | 9 18 | 0 48.84 | -12 7.7 | 1.639 | 2.609 | 7.3 | 18.9 | | |
| 9 28 | 0 39.55 | + 4 14.0 | 1.559 | 2.558 | 2.2 | 18.8 | 9 28 | 0 39.44 | -13 3.7 | 1.650 | 2.628 | 6.0 | 18.9 | | |
| 10 8 | 0 29.60 | + 3 30.9 | 1.567 | 2.561 | 2.6 | 18.8 | 10 8 | 0 29.91 | -13 42.1 | 1.688 | 2.647 | 7.6 | 19.0 | | |
| 10 18 | 0 20.35 | + 2 51.1 | 1.602 | 2.565 | 7.3 | 19.1 | 10 18 | 0 21.30 | -13 58.8 | 1.752 | 2.665 | 10.6 | 19.2 | | |
| 10 28 | 0 12.82 | + 2 20.3 | 1.663 | 2.567 | 11.5 | 19.4 | 10 28 | 0 14.48 | -13 52.7 | 1.839 | 2.683 | 13.6 | 19.4 | | |
| 11 7 | 0 7.69 | + 2 2.7 | 1.747 | 2.569 | 15.0 | 19.6 | 11 7 | 0 9.98 | -13 25.5 | 1.947 | 2.700 | 16.1 | 19.7 | | |
| 316146 | 2009 <i>SV</i> ₃₄₇ | 10 | 2.6 | 289°70' | | | | | | | | | | | |

EPHEMERIDES

10 2.6

10 2.6

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|-----------|---------|------|
| 38664 | 2000 <i>OU</i> ₅₀ | 10 | 2.6 293°23 | 4.5/28.9 | 18 | | 156396 | 2001 <i>YH</i> ₁₄₆ | 10 | 2.6 349°48 | 1.4/1.7 | 18 | |
| 8 29 | 0 57.96 | - 1 56.5 | 1.308 | 2.197 | 16.2 | 18.2 | 8 29 | 0 56.69 | + 2 5.5 | 1.131 | 2.024 | 18.0 | 19.0 |
| 9 8 | 0 54.18 | - 3 12.6 | 1.234 | 2.181 | 12.1 | 17.9 | 9 8 | 0 53.46 | + 1 54.4 | 1.067 | 2.015 | 13.5 | 18.7 |
| 9 18 | 0 47.69 | - 4 40.6 | 1.182 | 2.165 | 7.6 | 17.6 | 9 18 | 0 47.32 | + 1 30.9 | 1.023 | 2.006 | 8.2 | 18.4 |
| 9 28 | 0 39.23 | - 6 10.9 | 1.154 | 2.148 | 4.5 | 17.4 | 9 28 | 0 39.14 | + 1 0.6 | 1.000 | 2.000 | 2.6 | 18.1 |
| 10 8 | 0 30.03 | - 7 31.8 | 1.150 | 2.132 | 6.9 | 17.5 | 10 8 | 0 30.27 | + 0 31.2 | 1.000 | 1.994 | 4.1 | 18.2 |
| 10 18 | 0 21.47 | - 8 32.9 | 1.171 | 2.116 | 11.6 | 17.7 | 10 18 | 0 22.20 | + 0 10.4 | 1.024 | 1.991 | 9.7 | 18.5 |
| 10 28 | 0 14.85 | - 9 7.3 | 1.214 | 2.100 | 16.2 | 17.9 | 10 28 | 0 16.32 | + 0 4.8 | 1.070 | 1.988 | 14.9 | 18.8 |
| 11 7 | 0 11.05 | - 9 12.6 | 1.276 | 2.084 | 20.2 | 18.1 | 11 7 | 0 13.46 | + 0 17.6 | 1.134 | 1.987 | 19.3 | 19.0 |
| 64570 | 2001 <i>WS</i> ₃₈ | 10 | 2.6 92°19 | 1.4/3.8 | 18 | | 517039 | 2013 <i>AG</i> ₇ | 10 | 2.6 258°59 | 6.4/25.3 | 18 | |
| 8 29 | 1 0.75 | +11 34.4 | 1.356 | 2.206 | 18.1 | 19.1 | 8 29 | 0 56.45 | -10 49.4 | 1.911 | 2.792 | 12.3 | 21.5 |
| 9 8 | 0 55.82 | +10 45.2 | 1.302 | 2.223 | 13.8 | 18.9 | 9 8 | 0 52.20 | -12 25.7 | 1.849 | 2.785 | 9.4 | 21.3 |
| 9 18 | 0 48.38 | + 9 33.4 | 1.269 | 2.240 | 8.8 | 18.7 | 9 18 | 0 46.05 | -14 1.9 | 1.812 | 2.778 | 7.1 | 21.1 |
| 9 28 | 0 39.36 | + 8 4.4 | 1.260 | 2.256 | 3.5 | 18.4 | 9 28 | 0 38.65 | -15 29.3 | 1.801 | 2.771 | 6.5 | 21.1 |
| 10 8 | 0 30.04 | + 6 27.7 | 1.277 | 2.273 | 2.7 | 18.4 | 10 8 | 0 30.87 | -16 39.5 | 1.817 | 2.764 | 8.2 | 21.2 |
| 10 18 | 0 21.69 | + 4 54.1 | 1.320 | 2.289 | 7.7 | 18.8 | 10 18 | 0 23.62 | -17 26.7 | 1.859 | 2.756 | 11.0 | 21.3 |
| 10 28 | 0 15.40 | + 3 33.6 | 1.389 | 2.304 | 12.4 | 19.1 | 10 28 | 0 17.76 | -17 48.1 | 1.924 | 2.748 | 13.9 | 21.5 |
| 11 7 | 0 11.79 | + 2 32.7 | 1.479 | 2.319 | 16.3 | 19.4 | 11 7 | 0 13.90 | -17 44.1 | 2.008 | 2.741 | 16.4 | 21.7 |
| 511254 | 2014 <i>BV</i> ₅₄ | 10 | 2.6 209°65 | 5.4/26.4 | 18 | | 487856 | 2015 <i>TZ</i> ₁₀₅ | 10 | 2.6 358°72 | 0.0/2.5 | 18 | |
| 8 29 | 0 57.50 | - 7 47.1 | 1.937 | 2.814 | 12.3 | 21.8 | 8 29 | 0 53.47 | + 7 45.4 | 1.971 | 2.824 | 13.1 | 20.6 |
| 9 8 | 0 52.92 | - 9 23.4 | 1.873 | 2.810 | 9.2 | 21.6 | 9 8 | 0 49.91 | + 6 53.9 | 1.898 | 2.823 | 9.9 | 20.4 |
| 9 18 | 0 46.46 | -11 2.4 | 1.834 | 2.806 | 6.5 | 21.5 | 9 18 | 0 44.62 | + 5 48.0 | 1.847 | 2.822 | 6.1 | 20.2 |
| 9 28 | 0 38.76 | -12 35.5 | 1.823 | 2.801 | 5.5 | 21.4 | 9 28 | 0 38.19 | + 4 32.4 | 1.823 | 2.822 | 2.0 | 19.9 |
| 10 8 | 0 30.68 | -13 54.2 | 1.839 | 2.796 | 7.2 | 21.5 | 10 8 | 0 31.42 | + 3 13.4 | 1.827 | 2.822 | 2.3 | 19.9 |
| 10 18 | 0 23.15 | -14 52.2 | 1.882 | 2.791 | 10.2 | 21.7 | 10 18 | 0 25.14 | + 1 58.2 | 1.859 | 2.822 | 6.3 | 20.2 |
| 10 28 | 0 17.00 | -15 26.0 | 1.949 | 2.785 | 13.2 | 21.8 | 10 28 | 0 20.14 | + 0 53.3 | 1.917 | 2.823 | 10.1 | 20.4 |
| 11 7 | 0 12.85 | -15 35.3 | 2.036 | 2.779 | 15.9 | 22.0 | 11 7 | 0 16.96 | + 0 3.5 | 1.999 | 2.824 | 13.3 | 20.6 |
| 225632 | 2001 <i>EX</i> ₁₉ | 10 | 2.6 297°35 | 0.8/4.1 | 18 | | 488940 | 2005 <i>UL</i> ₁₄₁ | 10 | 2.6 353°82 | 23°5/27.8 | 17 | |
| 8 29 | 0 50.80 | + 9 12.1 | 4.251 | 5.071 | 7.3 | 19.7 | 8 29 | 1 35.26 | -41 44.4 | 0.920 | 1.736 | 27.2 | 20.2 |
| 9 8 | 0 47.09 | + 9 4.5 | 4.159 | 5.064 | 5.5 | 19.6 | 9 8 | 1 23.17 | -42 27.2 | 0.886 | 1.733 | 25.4 | 20.1 |
| 9 18 | 0 42.55 | + 8 50.6 | 4.093 | 5.057 | 3.6 | 19.4 | 9 18 | 1 5.48 | -42 20.6 | 0.865 | 1.731 | 24.0 | 20.0 |
| 9 28 | 0 37.47 | + 8 31.7 | 4.056 | 5.050 | 1.6 | 19.3 | 9 28 | 0 44.69 | -41 4.2 | 0.860 | 1.730 | 23.5 | 20.0 |
| 10 8 | 0 32.21 | + 8 9.5 | 4.048 | 5.043 | 1.2 | 19.2 | 10 8 | 0 24.31 | -38 31.1 | 0.871 | 1.729 | 24.1 | 20.0 |
| 10 18 | 0 27.13 | + 7 46.1 | 4.071 | 5.036 | 3.1 | 19.4 | 10 18 | 0 7.41 | -34 51.2 | 0.901 | 1.729 | 25.7 | 20.1 |
| 10 28 | 0 22.62 | + 7 23.9 | 4.124 | 5.029 | 5.1 | 19.5 | 10 28 | 23 55.75 | -30 25.3 | 0.949 | 1.730 | 27.8 | 20.3 |
| 11 7 | 0 18.97 | + 7 5.0 | 4.203 | 5.023 | 6.9 | 19.6 | 11 7 | 23 49.59 | -25 36.6 | 1.013 | 1.731 | 29.9 | 20.5 |
| 181321 | 2006 <i>QR</i> ₆₂ | 10 | 2.6 310°35 | 4°0/29.6 | 18 | | 381071 | 2006 <i>YQ</i> ₅₃ | 10 | 2.6 10°46 | 5°4/28.9 | 18 | |
| 8 29 | 0 58.70 | - 2 1.2 | 1.293 | 2.182 | 16.4 | 19.8 | 8 29 | 0 57.70 | - 4 59.5 | 1.087 | 1.990 | 17.7 | 19.9 |
| 9 8 | 0 54.71 | - 2 56.3 | 1.223 | 2.169 | 12.2 | 19.6 | 9 8 | 0 54.08 | - 5 51.6 | 1.040 | 1.992 | 13.1 | 19.6 |
| 9 18 | 0 47.98 | - 4 1.1 | 1.175 | 2.157 | 7.6 | 19.3 | 9 18 | 0 47.57 | - 6 48.2 | 1.012 | 1.995 | 8.4 | 19.4 |
| 9 28 | 0 39.33 | - 5 6.9 | 1.150 | 2.145 | 4.1 | 19.0 | 9 28 | 0 39.17 | - 7 39.2 | 1.006 | 1.999 | 5.5 | 19.3 |
| 10 8 | 0 29.99 | - 6 3.9 | 1.149 | 2.134 | 6.2 | 19.1 | 10 8 | 0 30.34 | - 8 14.5 | 1.024 | 2.005 | 7.6 | 19.4 |
| 10 18 | 0 21.35 | - 6 43.3 | 1.173 | 2.123 | 11.0 | 19.4 | 10 18 | 0 22.55 | - 8 27.0 | 1.064 | 2.011 | 12.1 | 19.7 |
| 10 28 | 0 14.72 | - 6 59.2 | 1.220 | 2.112 | 15.6 | 19.6 | 10 28 | 0 17.04 | - 8 13.7 | 1.124 | 2.019 | 16.5 | 20.0 |
| 11 7 | 0 10.92 | - 6 50.0 | 1.285 | 2.102 | 19.6 | 19.8 | 11 7 | 0 14.52 | - 7 35.7 | 1.203 | 2.028 | 20.2 | 20.2 |
| 131246 | 2001 <i>FH</i> ₄ | 10 | 2.6 104°73 | 1°7/30.9 | 18 | | 417387 | 2006 <i>HK</i> ₉₃ | 10 | 2.6 294°91 | 2°9/6.2 | 17 | |
| 8 29 | 0 58.37 | + 1 58.1 | 1.809 | 2.675 | 13.6 | 20.1 | 8 29 | 0 53.82 | +16 54.4 | 2.289 | 3.095 | 13.1 | 20.9 |
| 9 8 | 0 53.58 | + 1 10.0 | 1.747 | 2.681 | 10.0 | 19.9 | 9 8 | 0 50.18 | +16 17.6 | 2.180 | 3.070 | 10.5 | 20.7 |
| 9 18 | 0 46.84 | + 0 12.4 | 1.709 | 2.688 | 6.0 | 19.7 | 9 18 | 0 44.84 | +15 21.1 | 2.094 | 3.044 | 7.4 | 20.5 |
| 9 28 | 0 38.87 | + 0 48.9 | 1.696 | 2.695 | 2.2 | 19.4 | 9 28 | 0 38.30 | +14 6.2 | 2.034 | 3.019 | 4.3 | 20.2 |
| 10 8 | 0 30.59 | - 1 47.3 | 1.711 | 2.701 | 3.6 | 19.6 | 10 8 | 0 31.26 | +12 37.1 | 2.003 | 2.994 | 3.0 | 20.1 |
| 10 18 | 0 22.94 | - 2 36.3 | 1.754 | 2.708 | 7.6 | 19.8 | 10 18 | 0 24.52 | +11 0.0 | 2.000 | 2.968 | 5.5 | 20.2 |
| 10 28 | 0 16.81 | - 3 11.1 | 1.823 | 2.714 | 11.3 | 20.1 | 10 28 | 0 18.86 | + 9 22.8 | 2.025 | 2.943 | 9.0 | 20.4 |
| 11 7 | 0 12.76 | - 3 28.8 | 1.914 | 2.721 | 14.5 | 20.3 | 11 7 | 0 14.93 | + 7 52.9 | 2.076 | 2.917 | 12.2 | 20.5 |
| 378182 | 2006 <i>WU</i> ₂₀₂ | 10 | 2.6 248°28 | 2°3/30.7 | 18 | | 327133 | 2005 <i>EB</i> ₁₈₅ | 10 | 2.6 104°42 | 1°3/3.7 | 17 | |
| 8 29 | 0 59.59 | + 1 3.5 | 1.543 | 2.416 | 15.1 | 21.1 | 8 29 | 1 2.90 | + 9 40.8 | 1.581 | 2.424 | 16.3 | 21.8 |
| 9 8 | 0 54.88 | + 0 15.7 | 1.476 | 2.415 | 11.2 | 20.9 | 9 8 | 0 57.14 | + 9 18.1 | 1.524 | 2.441 | 12.4 | 21.6 |
| 9 18 | 0 47.83 | - 0 42.5 | 1.432 | 2.413 | 6.7 | 20.6 | 9 18 | 0 49.09 | + 8 38.4 | 1.489 | 2.459 | 7.9 | 21.4 |
| 9 28 | 0 39.22 | - 1 44.7 | 1.412 | 2.411 | 2.7 | 20.3 | 9 28 | 0 39.61 | + 7 45.6 | 1.479 | 2.476 | 3.1 | 21.1 |
| 10 8 | 0 30.15 | - 2 42.9 | 1.420 | 2.409 | 4.4 | 20.5 | 10 8 | 0 29.84 | + 6 46.1 | 1.497 | 2.492 | 2.5 | 21.1 |
| 10 18 | 0 21.77 | - 3 29.7 | 1.453 | 2.407 | 8.9 | 20.7 | 10 18 | 0 20.94 | + 5 47.3 | 1.542 | 2.508 | 7.0 | 21.5 |
| 10 28 | 0 15.14 | - 3 59.2 | 1.511 | 2.405 | 13.1 | 21.0 | 10 28 | 0 13.91 | + 4 56.6 | 1.613 | 2.524 | 11.3 | 21.7 |
| 11 7 | 0 10.96 | - 4 9.0 | 1.590 | 2.403 | 16.7 | 21.2 | 11 7 | 0 9.37 | + 4 19.3 | 1.706 | 2.539 | 14.8 | 22.0 |
| 272627 | 2005 <i>WZ</i> ₆₃ | 10 | 2.6 341°78 | 1°7/1.1 | 18 | | 195119 | 2002 <i>CH</i> ₁₄₅ | 10 | 2.6 169°86 | 1°5/30.9 | 18 | |
| 8 29 | 0 54.14 | + 4 14.2 | 1.270 | 2.156 | 16.9 | 19.8 | 8 29 | 0 58.25 | + 2 46.9 | 2.076 | 2.933 | 12.4 | 20.9 |
| 9 8 | 0 51.26 | + 3 12.1 | 1.203 | 2.148 | 12.5 | 19.5 | 9 8 | 0 53.32 | + 1 46.8 | 2.006 | 2.936 | 9.2 | 20.7 |
| 9 18 | 0 45.83 | + 1 52.3 | 1.157 | 2.140 | 7.5 | 19.2 | 9 18 | 0 46.64 | + 0 36.8 | 1.961 | 2.939 | 5.5 | 20.4 |
| 9 28 | 0 38.63 | + 0 22.3 | 1.134 | 2.133 | 2.5 | 18.9 | 9 28 | 0 38.83 | - 0 37.7 | 1.943 | 2.942 | 1.9 | 20.2 |
| 10 8 | 0 30.84 | - 1 7.0 | 1.135 | 2.128 | 4.3 | 19.0 | 10 8 | 0 30.71 | - 1 50.1 | 1.954 | 2.943 | 3.3 | 20.3 |
| 10 18 | 0 23.77 | - 2 24.7 | 1.161 | 2.123 | 9.6 | 19.3 | 10 18 | 0 23.12 | - 2 54.0 | 1.994 | 2.945 | 7.0 | 20.6 |
| 10 28 | 0 18.59 | - 3 21.8 | 1.210 | 2.119 | 14.5 | 19.6 | 10 28 | 0 16.84 | - 3 44.1 | 2.060 | 2.946 | 10.5 | 20.8 |
| 11 7 | 0 16.07 | - 3 53.6 | 1.279 | 2.115 | 18.6 | 19.8 | 11 7 | 0 12.44 | - 4 17.6 | 2.150 | 2.946 | 13.5 | 21.0 |
| 301685 | 2010 <i>FA</i> ₈₄ | 10 | 2.6 66°13 | 0°2/2.8 | 18 | | 290607 | 2005 <i>UX</i> ₂₀₁ | 10 | 2.6 292°06 | 1°9/30.7 | 18 | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|-------------|---------|------|---------------|------------------------|-----------------|------------|-------------|---------|------|
| 397622 | 2007 VL ₃₂₁ | 10 | 2.6 327°18 | 7°0/25.5 18 | | | 342422 | 2008 US ₇₅ | 10 | 2.6 246°51 | 5°6/ 8.6 18 | | |
| 8 29 | 0 55.93 | -10 44.4 | 1.648 | 2.537 | 13.5 | 20.4 | 8 29 | 0 58.08 | +22 45.4 | 2.010 | 2.786 | 15.7 | 20.6 |
| 9 8 | 0 52.06 | -12 18.9 | 1.590 | 2.531 | 10.3 | 20.2 | 9 8 | 0 53.61 | +22 43.9 | 1.916 | 2.775 | 13.1 | 20.4 |
| 9 18 | 0 46.08 | -13 53.2 | 1.556 | 2.524 | 7.7 | 20.0 | 9 18 | 0 47.07 | +22 19.0 | 1.841 | 2.764 | 10.1 | 20.2 |
| 9 28 | 0 38.69 | -15 17.3 | 1.546 | 2.518 | 7.1 | 20.0 | 9 28 | 0 39.06 | +21 29.9 | 1.790 | 2.753 | 7.2 | 20.0 |
| 10 8 | 0 30.89 | -16 22.1 | 1.563 | 2.513 | 8.9 | 20.1 | 10 8 | 0 30.49 | +20 19.2 | 1.766 | 2.741 | 5.6 | 19.9 |
| 10 18 | 0 23.72 | -17 1.3 | 1.603 | 2.508 | 12.0 | 20.2 | 10 18 | 0 22.36 | +18 52.5 | 1.768 | 2.729 | 6.9 | 19.9 |
| 10 28 | 0 18.14 | -17 12.2 | 1.666 | 2.503 | 15.1 | 20.4 | 10 28 | 0 15.63 | +17 18.3 | 1.799 | 2.717 | 9.8 | 20.1 |
| 11 7 | 0 14.77 | -16 55.9 | 1.748 | 2.498 | 17.8 | 20.6 | 11 7 | 0 11.03 | +15 45.9 | 1.853 | 2.704 | 13.0 | 20.3 |
| 316157 | 2009 UT ₁₃ | 10 | 2.6 299°29 | 1°3/ 5.2 18 | | | 178784 | 2001 BT ₃ | 10 | 2.6 352°34 | 8°0/ 6.1 18 | | |
| 8 29 | 0 49.53 | +12 20.3 | 4.305 | 5.113 | 7.4 | 21.2 | 8 29 | 1 0 78 | +14 6.5 | 0.943 | 1.811 | 22.8 | 18.7 |
| 9 8 | 0 46.17 | +12 4.8 | 4.213 | 5.107 | 5.7 | 21.0 | 9 8 | 0 57.38 | +15 54.4 | 0.880 | 1.801 | 18.7 | 18.5 |
| 9 18 | 0 42.01 | +11 41.6 | 4.146 | 5.101 | 3.9 | 20.9 | 9 18 | 0 50.26 | +17 22.7 | 0.832 | 1.793 | 14.0 | 18.2 |
| 9 28 | 0 37.34 | +11 11.9 | 4.107 | 5.096 | 2.0 | 20.7 | 9 28 | 0 40.25 | +18 25.0 | 0.805 | 1.786 | 9.6 | 17.9 |
| 10 8 | 0 32.49 | +10 37.8 | 4.097 | 5.090 | 1.4 | 20.7 | 10 8 | 0 29.04 | +18 58.7 | 0.797 | 1.782 | 8.1 | 17.8 |
| 10 18 | 0 27.83 | +10 1.5 | 4.118 | 5.084 | 3.1 | 20.8 | 10 18 | 0 18.65 | +19 6.4 | 0.811 | 1.780 | 11.1 | 18.0 |
| 10 28 | 0 23.72 | +9 25.5 | 4.169 | 5.079 | 5.0 | 20.9 | 10 28 | 0 11.05 | +18 57.2 | 0.845 | 1.779 | 15.8 | 18.2 |
| 11 7 | 0 20.45 | +8 52.5 | 4.246 | 5.073 | 6.7 | 21.1 | 11 7 | 0 7.40 | +18 42.7 | 0.896 | 1.781 | 20.3 | 18.5 |
| 145656 | 4788 P-L | 10 | 2.6 30°67 | 3°0/30.4 17 | | | 387387 | 2013 AY ₁₂₅ | 10 | 2.6 301°84 | 6°2/ 8.6 18 | | |
| 8 29 | 1 7.25 | +7 26.1 | 0.747 | 1.641 | 24.6 | 18.0 | 8 29 | 0 56.37 | +22 10.2 | 1.721 | 2.515 | 17.3 | 20.4 |
| 9 8 | 1 0.13 | +4 29.8 | 0.763 | 1.711 | 17.2 | 17.9 | 9 8 | 0 52.68 | +22 17.4 | 1.629 | 2.500 | 14.4 | 20.2 |
| 9 18 | 0 50.34 | +1 27.1 | 0.796 | 1.781 | 9.6 | 17.8 | 9 18 | 0 46.67 | +21 58.8 | 1.555 | 2.484 | 11.1 | 19.9 |
| 9 28 | 0 39.74 | -1 21.9 | 0.853 | 1.852 | 3.4 | 17.7 | 9 28 | 0 38.97 | +21 13.2 | 1.503 | 2.469 | 7.9 | 19.7 |
| 10 8 | 0 30.13 | -3 40.6 | 0.933 | 1.923 | 5.9 | 18.1 | 10 8 | 0 30.58 | +20 2.9 | 1.477 | 2.455 | 6.2 | 19.6 |
| 10 18 | 0 22.78 | -5 20.5 | 1.037 | 1.993 | 11.2 | 18.7 | 10 18 | 0 22.64 | +18 34.3 | 1.476 | 2.440 | 7.6 | 19.6 |
| 10 28 | 0 18.38 | -6 21.0 | 1.162 | 2.063 | 15.6 | 19.2 | 10 28 | 0 16.28 | +16 57.0 | 1.502 | 2.426 | 11.0 | 19.8 |
| 11 7 | 0 17.02 | -6 46.5 | 1.305 | 2.131 | 18.9 | 19.6 | 11 7 | 0 12.30 | +15 22.0 | 1.550 | 2.412 | 14.5 | 20.0 |
| 481667 | 2007 VD ₃₁₃ | 10 | 2.6 312°98 | 2°4/ 4.8 16 | | | 451388 | 2011 CG ₁₀ | 10 | 2.6 301°85 | 0°0/ 2.6 17 | | |
| 8 29 | 0 57.01 | +12 7.3 | 1.725 | 2.564 | 15.4 | 21.3 | 8 29 | 0 57.20 | +5 24.5 | 2.109 | 2.960 | 12.5 | 21.6 |
| 9 8 | 0 52.94 | +11 58.2 | 1.642 | 2.554 | 12.0 | 21.0 | 9 8 | 0 52.73 | +5 11.3 | 2.018 | 2.942 | 9.4 | 21.4 |
| 9 18 | 0 46.70 | +11 31.0 | 1.580 | 2.545 | 8.1 | 20.8 | 9 18 | 0 46.43 | +4 47.9 | 1.949 | 2.924 | 5.9 | 21.1 |
| 9 28 | 0 38.93 | +10 47.8 | 1.543 | 2.535 | 4.0 | 20.5 | 9 28 | 0 38.85 | +4 17.1 | 1.907 | 2.906 | 1.9 | 20.8 |
| 10 8 | 0 30.60 | +9 53.0 | 1.531 | 2.526 | 2.8 | 20.4 | 10 8 | 0 30.75 | +3 43.2 | 1.893 | 2.888 | 2.2 | 20.8 |
| 10 18 | 0 22.77 | +8 53.3 | 1.547 | 2.517 | 6.7 | 20.7 | 10 18 | 0 23.02 | +3 10.8 | 1.908 | 2.871 | 6.2 | 21.1 |
| 10 28 | 0 16.46 | +7 56.5 | 1.589 | 2.508 | 10.8 | 20.9 | 10 28 | 0 16.49 | +2 45.0 | 1.949 | 2.853 | 10.0 | 21.3 |
| 11 7 | 0 12.39 | +7 9.4 | 1.653 | 2.500 | 14.6 | 21.1 | 11 7 | 0 11.83 | +2 29.5 | 2.013 | 2.836 | 13.3 | 21.5 |
| 315906 | 2008 RD ₄ | 10 | 2.6 321°31 | 0°1/ 2.8 18 | | | 260161 | 2004 RP ₅₅ | 10 | 2.6 357°37 | 0°1/ 2.8 18 | | |
| 8 29 | 0 49.52 | +6 27.0 | 3.816 | 4.653 | 7.7 | 20.3 | 8 29 | 0 53.62 | +8 9.3 | 1.864 | 2.719 | 13.7 | 20.3 |
| 9 8 | 0 46.27 | +5 59.0 | 3.726 | 4.643 | 5.7 | 20.1 | 9 8 | 0 50.14 | +7 17.7 | 1.791 | 2.717 | 10.3 | 20.1 |
| 9 18 | 0 42.11 | +5 24.6 | 3.661 | 4.633 | 3.5 | 20.0 | 9 18 | 0 44.82 | +6 10.6 | 1.741 | 2.716 | 6.4 | 19.9 |
| 9 28 | 0 37.38 | +4 45.7 | 3.625 | 4.624 | 1.2 | 19.8 | 9 28 | 0 38.31 | +4 52.8 | 1.716 | 2.715 | 2.1 | 19.6 |
| 10 8 | 0 32.46 | +4 4.9 | 3.619 | 4.614 | 1.3 | 19.8 | 10 8 | 0 31.43 | +3 31.0 | 1.719 | 2.715 | 2.3 | 19.6 |
| 10 18 | 0 27.74 | +3 25.1 | 3.643 | 4.605 | 3.6 | 20.0 | 10 18 | 0 25.06 | +2 12.9 | 1.750 | 2.715 | 6.6 | 19.9 |
| 10 28 | 0 23.63 | +2 49.0 | 3.696 | 4.596 | 5.9 | 20.1 | 10 28 | 0 20.03 | +1 5.6 | 1.807 | 2.715 | 10.5 | 20.1 |
| 11 7 | 0 20.45 | +2 19.2 | 3.776 | 4.587 | 7.8 | 20.2 | 11 7 | 0 16.93 | +0 14.0 | 1.887 | 2.716 | 13.8 | 20.3 |
| 442498 | 2011 VJ ₂₂ | 10 | 2.6 317°61 | 1°3/ 3.7 18 | | | 440108 | 2003 KG ₁ | 10 | 2.6 179°91 | 9°6/22.9 18 | | |
| 8 29 | 0 58.61 | +8 33.5 | 1.826 | 2.672 | 14.4 | 21.3 | 8 29 | 0 53.62 | -16 40.0 | 1.473 | 2.368 | 14.4 | 19.2 |
| 9 8 | 0 53.96 | +8 29.7 | 1.746 | 2.665 | 11.0 | 21.0 | 9 8 | 0 50.41 | -18 32.3 | 1.442 | 2.377 | 11.6 | 19.1 |
| 9 18 | 0 47.24 | +8 12.3 | 1.689 | 2.659 | 7.1 | 20.8 | 9 18 | 0 45.05 | -20 15.1 | 1.433 | 2.387 | 9.8 | 19.0 |
| 9 28 | 0 39.09 | +7 43.7 | 1.657 | 2.653 | 2.9 | 20.5 | 9 28 | 0 38.36 | -21 37.2 | 1.449 | 2.399 | 9.8 | 19.0 |
| 10 8 | 0 30.44 | +7 8.2 | 1.652 | 2.647 | 2.3 | 20.5 | 10 8 | 0 31.44 | -22 30.0 | 1.487 | 2.411 | 11.6 | 19.2 |
| 10 18 | 0 22.31 | +6 31.2 | 1.674 | 2.642 | 6.5 | 20.7 | 10 18 | 0 25.34 | -22 49.8 | 1.548 | 2.424 | 14.1 | 19.4 |
| 10 28 | 0 15.64 | +5 58.6 | 1.723 | 2.636 | 10.5 | 21.0 | 10 28 | 0 20.96 | -22 36.7 | 1.629 | 2.439 | 16.6 | 19.6 |
| 11 7 | 0 11.13 | +5 35.5 | 1.795 | 2.631 | 14.1 | 21.2 | 11 7 | 0 18.85 | -21 54.7 | 1.727 | 2.454 | 18.8 | 19.8 |
| 281079 | 2006 RB ₂₆ | 10 | 2.6 335°58 | 1°3/ 4.2 18 | | | 449461 | 2013 LX ₇ | 10 | 2.6 105°74 | 2°5/ 5.8 18 | | |
| 8 29 | 0 53.70 | +10 34.3 | 2.577 | 3.406 | 11.2 | 21.1 | 8 29 | 0 55.37 | +15 3.2 | 2.349 | 3.160 | 12.7 | 21.3 |
| 9 8 | 0 49.74 | +10 10.6 | 2.495 | 3.403 | 8.6 | 20.9 | 9 8 | 0 51.10 | +14 40.9 | 2.271 | 3.164 | 10.0 | 21.1 |
| 9 18 | 0 44.39 | +9 34.9 | 2.436 | 3.401 | 5.6 | 20.7 | 9 18 | 0 45.27 | +14 2.8 | 2.216 | 3.169 | 6.9 | 20.9 |
| 9 28 | 0 38.14 | +8 49.7 | 2.405 | 3.399 | 2.5 | 20.5 | 9 28 | 0 38.44 | +13 10.7 | 2.187 | 3.174 | 3.8 | 20.8 |
| 10 8 | 0 31.59 | +7 58.6 | 2.402 | 3.397 | 1.8 | 20.5 | 10 8 | 0 31.31 | +12 8.6 | 2.186 | 3.178 | 2.7 | 20.7 |
| 10 18 | 0 25.40 | +7 6.1 | 2.429 | 3.395 | 4.8 | 20.7 | 10 18 | 0 24.62 | +11 1.8 | 2.215 | 3.182 | 5.1 | 20.9 |
| 10 28 | 0 20.20 | +6 17.1 | 2.483 | 3.394 | 7.9 | 20.9 | 10 28 | 0 19.08 | +9 56.4 | 2.271 | 3.187 | 8.2 | 21.1 |
| 11 7 | 0 16.47 | +5 35.6 | 2.563 | 3.392 | 10.6 | 21.1 | 11 7 | 0 15.20 | +8 57.7 | 2.353 | 3.191 | 11.1 | 21.3 |
| 491778 | 2012 WH ₁₄ | 10 | 2.6 309°15 | 1°3/ 3.7 16 | | | 488631 | 2002 UM ₇₀ | 10 | 2.6 342°86 | 1°7/ 3.5 18 | | |
| 8 29 | 0 55.60 | +9 59.5 | 1.535 | 2.392 | 16.1 | 22.2 | 8 29 | 0 58.20 | +6 38.0 | 1.066 | 1.950 | 19.5 | 20.5 |
| 9 8 | 0 52.21 | +9 30.7 | 1.445 | 2.370 | 12.4 | 21.9 | 9 8 | 0 54.93 | +7 5.3 | 0.996 | 1.936 | 15.0 | 20.2 |
| 9 18 | 0 46.44 | +8 41.8 | 1.376 | 2.349 | 8.1 | 21.6 | 9 18 | 0 48.47 | +7 16.9 | 0.945 | 1.924 | 9.7 | 19.8 |
| 9 28 | 0 38.90 | +7 35.8 | 1.331 | 2.328 | 3.2 | 21.3 | 9 28 | 0 39.63 | +7 14.4 | 0.915 | 1.913 | 3.9 | 19.5 |
| 10 8 | 0 30.63 | +6 19.3 | 1.311 | 2.307 | 2.6 | 21.2 | 10 8 | 0 29.86 | +7 2.6 | 0.908 | 1.904 | 3.3 | 19.4 |
| 10 18 | 0 22.80 | +5 0.8 | 1.317 | 2.287 | 7.6 | 21.4 | 10 18 | 0 20.84 | +6 48.2 | 0.923 | 1.896 | 9.2 | 19.7 |
| 10 28 | 0 16.58 | +3 50.2 | 1.349 | 2.267 | 12.5 | 21.7 | 10 28 | 0 14.16 | +6 39.1 | 0.959 | 1.890 | 14.9 | 20.0 |
| 11 7 | 0 12.83 | +2 55.1 | 1.401 | 2.248 | 16.7 | 21.9 | 11 7 | 0 10.84 | +6 41.7 | 1.014 | 1.885 | 19.7 | 20.3 |
| 318280 | 2004 TA ₃₃ | 10 | 2.6 8°16 | 0°1/ 2.5 18 | | | 360077 | 2013 AK ₁₃₂ | 10 | 2.6 220°84 | 2°4/27.3 18 | | |
| 8 29 | 0 59.75 | +3 59.0 | 2.029 | 2.881 | 12.9 | 20.6 | 8 29 | 0 49.07 | -8 20.7 | 4.605 | 5.469 | 6.0 | 21.4 |
| 9 8</ | | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|----------|--------|-----------|------|---------------|------------------------|-----------------|----------|--------|----------|------|
| 242225 | 2003 SE ₅₁ | 10 | 2.6 | 2°82 | 2°6/30.1 | 18 | 359021 | 2008 UL ₃₆₁ | 10 | 2.6 | 310°11 | 4°5/ 5.6 | 18 |
| 8 29 | 0 58.56 | - 3 1.7 | 2.061 | 2.928 | 12.1 | 19.9 | 8 29 | 1 2.15 | +13 40.1 | 1.557 | 2.388 | 17.1 | 20.4 |
| 9 8 | 0 53.58 | - 3 24.5 | 1.993 | 2.928 | 8.9 | 19.7 | 9 8 | 0 57.21 | +14 22.0 | 1.469 | 2.373 | 13.7 | 20.1 |
| 9 18 | 0 46.83 | - 3 50.9 | 1.950 | 2.928 | 5.5 | 19.5 | 9 18 | 0 49.60 | +14 47.0 | 1.402 | 2.358 | 9.8 | 19.8 |
| 9 28 | 0 38.94 | - 4 16.2 | 1.933 | 2.929 | 2.8 | 19.4 | 9 28 | 0 39.98 | +14 54.0 | 1.359 | 2.344 | 5.9 | 19.6 |
| 10 8 | 0 30.74 | - 4 35.9 | 1.945 | 2.929 | 4.1 | 19.4 | 10 8 | 0 29.49 | +14 44.2 | 1.341 | 2.330 | 4.6 | 19.5 |
| 10 18 | 0 23.08 | - 4 45.8 | 1.984 | 2.930 | 7.4 | 19.7 | 10 18 | 0 19.46 | +14 22.1 | 1.349 | 2.316 | 7.8 | 19.6 |
| 10 28 | 0 16.74 | - 4 43.2 | 2.049 | 2.931 | 10.7 | 19.9 | 10 28 | 0 11.21 | +13 54.4 | 1.382 | 2.303 | 12.0 | 19.8 |
| 11 7 | 0 12.30 | - 4 27.0 | 2.137 | 2.932 | 13.6 | 20.1 | 11 7 | 0 5.67 | +13 28.9 | 1.437 | 2.290 | 16.0 | 20.1 |
| 226546 | 2003 UK ₂₇₈ | 10 | 2.6 | 269°76 | 3°0/29.6 | 17 | 20995 | 1985 VY | 10 | 2.6 | 288°88 | 4°8/23.1 | 18 R |
| 8 29 | 1 0.64 | - 5 50.9 | 2.450 | 3.310 | 10.7 | 20.3 | 8 29 | 0 52.05 | -20 39.1 | 4.140 | 4.993 | 6.8 | 18.7 |
| 9 8 | 0 54.95 | - 6 7.9 | 2.368 | 3.298 | 8.0 | 20.1 | 9 8 | 0 48.06 | -21 20.4 | 4.080 | 4.984 | 5.6 | 18.6 |
| 9 18 | 0 47.62 | - 6 25.8 | 2.311 | 3.286 | 5.1 | 19.9 | 9 18 | 0 43.19 | -21 56.5 | 4.046 | 4.976 | 4.9 | 18.5 |
| 9 28 | 0 39.20 | - 6 40.7 | 2.282 | 3.273 | 3.1 | 19.8 | 9 28 | 0 37.76 | -22 24.2 | 4.040 | 4.967 | 4.9 | 18.5 |
| 10 8 | 0 30.42 | - 6 48.8 | 2.283 | 3.261 | 4.3 | 19.8 | 10 8 | 0 32.18 | -22 41.0 | 4.061 | 4.958 | 5.6 | 18.6 |
| 10 18 | 0 22.05 | - 6 46.9 | 2.313 | 3.249 | 7.1 | 20.0 | 10 18 | 0 26.85 | -22 45.1 | 4.109 | 4.949 | 6.8 | 18.7 |
| 10 28 | 0 14.83 | - 6 32.9 | 2.369 | 3.236 | 10.1 | 20.2 | 10 28 | 0 22.16 | -22 35.9 | 4.181 | 4.941 | 8.1 | 18.7 |
| 11 7 | 0 9.30 | - 6 6.3 | 2.450 | 3.224 | 12.6 | 20.3 | 11 7 | 0 18.43 | -22 13.7 | 4.275 | 4.932 | 9.3 | 18.8 |
| 198331 | 2004 TS ₃₆₆ | 10 | 2.6 | 253°68 | 0°7/ 1.9 | 18 | 344795 | 2003 YK ₁₃₄ | 10 | 2.6 | 238°26 | 6°5/25.0 | 18 |
| 8 29 | 0 58.42 | + 4 51.3 | 1.852 | 2.708 | 13.7 | 21.3 | 8 29 | 1 0.43 | -15 34.2 | 2.336 | 3.200 | 11.0 | 21.1 |
| 9 8 | 0 53.82 | + 4 11.2 | 1.769 | 2.697 | 10.3 | 21.1 | 9 8 | 0 54.92 | -16 40.7 | 2.265 | 3.186 | 8.7 | 20.9 |
| 9 18 | 0 47.17 | + 3 18.4 | 1.709 | 2.686 | 6.3 | 20.8 | 9 18 | 0 47.66 | -17 43.1 | 2.219 | 3.171 | 7.0 | 20.8 |
| 9 28 | 0 39.10 | + 2 17.4 | 1.675 | 2.674 | 1.9 | 20.5 | 9 28 | 0 39.24 | -18 34.6 | 2.200 | 3.155 | 6.6 | 20.7 |
| 10 8 | 0 30.53 | + 1 14.6 | 1.669 | 2.663 | 2.9 | 20.5 | 10 8 | 0 30.44 | -19 9.3 | 2.209 | 3.139 | 7.9 | 20.8 |
| 10 18 | 0 22.43 | + 0 16.8 | 1.691 | 2.650 | 7.3 | 20.8 | 10 18 | 0 22.09 | -19 23.4 | 2.244 | 3.122 | 10.2 | 20.9 |
| 10 28 | 0 15.76 | - 0 29.7 | 1.739 | 2.638 | 11.3 | 21.0 | 10 28 | 0 14.97 | -19 15.5 | 2.304 | 3.105 | 12.6 | 21.0 |
| 11 7 | 0 11.19 | - 1 0.5 | 1.809 | 2.626 | 14.8 | 21.2 | 11 7 | 0 9.68 | -18 46.7 | 2.384 | 3.088 | 14.8 | 21.2 |
| 454627 | 2014 QO ₁₃₃ | 10 | 2.6 | 80°64 | 0°7/ 3.4 | 18 | 360764 | 2005 AH ₄₉ | 10 | 2.6 | 305°35 | 0°5/ 2.1 | 18 |
| 8 29 | 0 58.18 | + 7 16.7 | 2.302 | 3.141 | 12.0 | 20.8 | 8 29 | 0 56.20 | + 5 47.9 | 1.546 | 2.414 | 15.4 | 20.8 |
| 9 8 | 0 53.13 | + 7 9.1 | 2.233 | 3.149 | 9.1 | 20.6 | 9 8 | 0 52.67 | + 5 6.5 | 1.455 | 2.388 | 11.6 | 20.5 |
| 9 18 | 0 46.49 | + 6 51.5 | 2.187 | 3.158 | 5.7 | 20.5 | 9 18 | 0 46.75 | + 4 8.2 | 1.384 | 2.363 | 7.2 | 20.2 |
| 9 28 | 0 38.83 | + 6 26.3 | 2.169 | 3.166 | 2.1 | 20.2 | 9 28 | 0 39.06 | + 2 57.6 | 1.339 | 2.338 | 2.2 | 19.8 |
| 10 8 | 0 30.90 | + 5 57.2 | 2.179 | 3.174 | 1.9 | 20.2 | 10 8 | 0 30.59 | + 1 42.1 | 1.319 | 2.313 | 3.2 | 19.8 |
| 10 18 | 0 23.46 | + 5 28.3 | 2.218 | 3.183 | 5.4 | 20.5 | 10 18 | 0 22.53 | + 0 30.8 | 1.325 | 2.289 | 8.3 | 20.1 |
| 10 28 | 0 17.22 | + 5 3.7 | 2.285 | 3.191 | 8.7 | 20.7 | 10 28 | 0 16.06 | - 0 27.6 | 1.356 | 2.265 | 13.2 | 20.3 |
| 11 7 | 0 12.69 | + 4 47.0 | 2.377 | 3.199 | 11.5 | 20.9 | 11 7 | 0 12.04 | - 1 6.9 | 1.408 | 2.241 | 17.4 | 20.5 |
| 405493 | 2004 XE ₁₀₈ | 10 | 2.6 | 330°92 | 12°5/16.9 | 17 | 170665 | 2003 YU ₁₄₇ | 10 | 2.6 | 311°01 | 4°0/29.8 | 18 |
| 8 29 | 0 58.86 | +39 22.1 | 2.045 | 2.700 | 18.8 | 20.1 | 8 29 | 1 2.42 | - 5 25.2 | 1.601 | 2.477 | 14.5 | 19.7 |
| 9 8 | 0 54.78 | +40 43.6 | 1.953 | 2.687 | 17.3 | 19.9 | 9 8 | 0 57.13 | - 5 43.3 | 1.522 | 2.460 | 10.9 | 19.4 |
| 9 18 | 0 48.12 | +41 38.6 | 1.877 | 2.674 | 15.7 | 19.8 | 9 18 | 0 49.37 | - 6 3.6 | 1.465 | 2.444 | 7.0 | 19.2 |
| 9 28 | 0 39.51 | +42 0.9 | 1.818 | 2.662 | 14.1 | 19.6 | 9 28 | 0 39.87 | - 6 20.1 | 1.434 | 2.427 | 4.1 | 19.0 |
| 10 8 | 0 29.97 | +41 47.3 | 1.779 | 2.651 | 12.9 | 19.5 | 10 8 | 0 29.72 | - 6 26.7 | 1.429 | 2.411 | 5.7 | 19.0 |
| 10 18 | 0 20.79 | +40 58.6 | 1.762 | 2.640 | 12.5 | 19.5 | 10 18 | 0 20.15 | - 6 18.9 | 1.450 | 2.395 | 9.7 | 19.2 |
| 10 28 | 0 13.28 | +39 40.3 | 1.767 | 2.630 | 13.1 | 19.5 | 10 28 | 0 12.31 | - 5 53.7 | 1.496 | 2.380 | 13.8 | 19.4 |
| 11 7 | 0 8.38 | +38 2.4 | 1.794 | 2.621 | 14.5 | 19.6 | 11 7 | 0 7.01 | - 5 11.0 | 1.562 | 2.365 | 17.4 | 19.7 |
| 347203 | 2011 HT ₂₆ | 10 | 2.6 | 29°66 | 6°7/25.6 | 18 | 178253 | 2007 UA ₁₀₀ | 10 | 2.6 | 345°55 | 0°0/ 2.4 | 18 |
| 8 29 | 0 52.94 | - 4 51.1 | 1.306 | 2.207 | 15.4 | 19.5 | 8 29 | 0 56.63 | + 5 33.5 | 1.010 | 1.902 | 19.7 | 20.0 |
| 9 8 | 0 50.11 | - 7 23.9 | 1.265 | 2.216 | 11.4 | 19.3 | 9 8 | 0 53.77 | + 5 23.7 | 0.947 | 1.893 | 14.9 | 19.7 |
| 9 18 | 0 44.97 | -10 2.5 | 1.247 | 2.226 | 7.8 | 19.2 | 9 18 | 0 47.74 | + 4 55.4 | 0.902 | 1.884 | 9.3 | 19.4 |
| 9 28 | 0 38.38 | -12 32.2 | 1.255 | 2.237 | 6.8 | 19.2 | 9 28 | 0 39.42 | + 4 13.3 | 0.878 | 1.877 | 3.0 | 19.0 |
| 10 8 | 0 31.46 | -14 38.5 | 1.288 | 2.248 | 9.3 | 19.3 | 10 8 | 0 30.28 | + 3 25.9 | 0.875 | 1.872 | 3.5 | 19.0 |
| 10 18 | 0 25.38 | -16 11.8 | 1.345 | 2.261 | 13.0 | 19.6 | 10 18 | 0 22.01 | + 2 43.2 | 0.896 | 1.867 | 9.8 | 19.4 |
| 10 28 | 0 21.10 | -17 7.7 | 1.424 | 2.273 | 16.5 | 19.8 | 10 28 | 0 16.13 | + 2 14.4 | 0.937 | 1.864 | 15.5 | 19.7 |
| 11 7 | 0 19.23 | -17 27.9 | 1.520 | 2.287 | 19.4 | 20.1 | 11 7 | 0 13.55 | + 2 5.5 | 0.996 | 1.862 | 20.4 | 20.0 |
| 362549 | 2010 UD ₆₄ | 10 | 2.6 | 255°28 | 2°7/ 5.7 | 18 | 339325 | 2004 XC ₁₃₅ | 10 | 2.6 | 289°63 | 2°7/30.3 | 18 |
| 8 29 | 0 55.93 | +14 42.0 | 2.216 | 3.031 | 13.2 | 21.4 | 8 29 | 0 59.90 | - 1 7.1 | 1.684 | 2.556 | 14.1 | 20.4 |
| 9 8 | 0 51.66 | +14 24.9 | 2.133 | 3.028 | 10.4 | 21.2 | 9 8 | 0 55.21 | - 1 43.5 | 1.598 | 2.535 | 10.5 | 20.1 |
| 9 18 | 0 45.70 | +13 51.3 | 2.072 | 3.026 | 7.2 | 21.0 | 9 18 | 0 48.20 | - 2 27.9 | 1.534 | 2.514 | 6.5 | 19.8 |
| 9 28 | 0 38.61 | +13 3.0 | 2.036 | 3.023 | 4.0 | 20.8 | 9 28 | 0 39.52 | - 3 14.7 | 1.496 | 2.493 | 3.0 | 19.6 |
| 10 8 | 0 31.14 | +12 3.9 | 2.029 | 3.021 | 2.8 | 20.7 | 10 8 | 0 30.16 | - 3 56.8 | 1.484 | 2.471 | 4.7 | 19.6 |
| 10 18 | 0 24.11 | +10 59.3 | 2.051 | 3.018 | 5.4 | 20.9 | 10 18 | 0 21.25 | - 4 27.7 | 1.500 | 2.450 | 9.0 | 19.8 |
| 10 28 | 0 18.28 | + 9 55.6 | 2.100 | 3.016 | 8.8 | 21.1 | 10 28 | 0 13.89 | - 4 42.4 | 1.540 | 2.428 | 13.2 | 20.0 |
| 11 7 | 0 14.21 | + 8 58.7 | 2.173 | 3.013 | 11.8 | 21.3 | 11 7 | 0 8.90 | - 4 38.2 | 1.600 | 2.407 | 16.9 | 20.2 |
| 151488 | 2002 JG ₂₃ | 10 | 2.6 | 117°14 | 1°7/ 4.9 | 18 | 264365 | 2000 CH ₇₉ | 10 | 2.6 | 77°98 | 0°3/ 2.4 | 16 |
| 8 29 | 0 55.26 | +13 12.4 | 2.498 | 3.314 | 11.9 | 20.1 | 8 29 | 1 2.07 | + 6 6.1 | 1.490 | 2.349 | 16.3 | 21.3 |
| 9 8 | 0 50.87 | +12 32.4 | 2.425 | 3.325 | 9.2 | 19.9 | 9 8 | 0 56.53 | + 5 25.7 | 1.445 | 2.373 | 12.1 | 21.1 |
| 9 18 | 0 45.06 | +11 38.0 | 2.377 | 3.336 | 6.1 | 19.8 | 9 18 | 0 48.73 | + 4 31.1 | 1.421 | 2.397 | 7.3 | 20.9 |
| 9 28 | 0 38.37 | +10 32.1 | 2.356 | 3.347 | 2.9 | 19.6 | 9 28 | 0 39.58 | + 3 28.1 | 1.422 | 2.421 | 2.3 | 20.6 |
| 10 8 | 0 31.46 | + 9 19.2 | 2.363 | 3.358 | 2.0 | 19.5 | 10 8 | 0 30.25 | + 2 24.5 | 1.450 | 2.445 | 2.9 | 20.7 |
| 10 18 | 0 24.99 | + 8 4.7 | 2.401 | 3.368 | 4.8 | 19.8 | 10 18 | 0 21.89 | + 1 28.0 | 1.506 | 2.468 | 7.6 | 21.1 |
| 10 28 | 0 19.61 | + 6 54.4 | 2.467 | 3.378 | 7.9 | 20.0 | 10 28 | 0 15.45 | + 0 44.9 | 1.586 | 2.491 | 11.8 | 21.4 |
| 11 7 | 0 15.78 | + 5 53.0 | 2.560 | 3.388 | 10.6 | 20.2 | 11 7 | 0 11.49 | + 0 18.7 | 1.689 | 2.514 | 15.3 | 21.7 |
| 476440 | 2008 EA ₁₇ | 10 | 2.6 | 183°84 | 3°4/ 5.7 | 18 | 63255 | 2001 BX ₆₃ | 10 | 2.6 | 149°54 | 1°6/30.9 | 18 |
| 8 29 | 1 0.56 | +15 18.7 | 1.690 | 2.511 | 16.4 | 21.2 | 8 29 | 1 1.0 | | | | | |

EPHEMERIDES

10 2.6

10 2.6

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|-----------|---------|------|---------------|------------------------|-----------------|------------|-----------|---------|------|
| 351149 | 2003 YE ₃₁ | 10 | 2.6 354°70 | 11°5/12.3 | 18 | | 382728 | 2003 AD ₂₁ | 10 | 2.6 325°55 | 10°6/ 9.9 | 18 | |
| 8 29 | 0 50.52 | +27 9.0 | 1.141 | 1.951 | 23.3 | 18.9 | 8 29 | 0 58.86 | +25 6.5 | 1.312 | 2.109 | 21.5 | 20.3 |
| 9 8 | 0 49.26 | +28 22.4 | 1.072 | 1.941 | 20.4 | 18.7 | 9 8 | 0 55.47 | +26 25.9 | 1.228 | 2.091 | 18.6 | 20.0 |
| 9 18 | 0 45.04 | +29 1.0 | 1.018 | 1.932 | 17.1 | 18.5 | 9 18 | 0 48.94 | +27 17.9 | 1.160 | 2.075 | 15.4 | 19.8 |
| 9 28 | 0 38.59 | +28 58.6 | 0.981 | 1.926 | 13.8 | 18.3 | 9 28 | 0 39.92 | +27 36.0 | 1.111 | 2.059 | 12.4 | 19.5 |
| 10 8 | 0 31.25 | +28 14.1 | 0.963 | 1.922 | 11.7 | 18.2 | 10 8 | 0 29.72 | +27 17.5 | 1.084 | 2.044 | 10.7 | 19.4 |
| 10 18 | 0 24.60 | +26 53.3 | 0.965 | 1.920 | 11.9 | 18.2 | 10 18 | 0 19.97 | +26 25.5 | 1.079 | 2.030 | 11.5 | 19.4 |
| 10 28 | 0 20.18 | +25 8.9 | 0.988 | 1.921 | 14.3 | 18.3 | 10 28 | 0 12.35 | +25 9.9 | 1.095 | 2.017 | 14.3 | 19.5 |
| 11 7 | 0 18.97 | +23 17.1 | 1.031 | 1.923 | 17.6 | 18.5 | 11 7 | 0 8.03 | +23 44.6 | 1.132 | 2.005 | 17.9 | 19.7 |
| 488089 | 2015 VU ₃₆ | 10 | 2.6 274°74 | 1°7/30.8 | 18 | | 224287 | 2005 TE ₉₈ | 10 | 2.6 289°79 | 1°9/ 1.1 | 18 | |
| 8 29 | 0 57.11 | + 0 15.4 | 2.241 | 3.102 | 11.5 | 21.2 | 8 29 | 0 59.65 | + 1 36.5 | 1.529 | 2.401 | 15.3 | 20.8 |
| 9 8 | 0 52.48 | - 0 16.6 | 2.163 | 3.095 | 8.5 | 21.0 | 9 8 | 0 55.18 | + 1 0.8 | 1.449 | 2.386 | 11.4 | 20.5 |
| 9 18 | 0 46.19 | - 0 55.0 | 2.110 | 3.088 | 5.1 | 20.8 | 9 18 | 0 48.26 | + 0 13.8 | 1.391 | 2.371 | 6.9 | 20.2 |
| 9 28 | 0 38.82 | - 1 35.6 | 2.084 | 3.082 | 2.0 | 20.6 | 9 28 | 0 39.58 | - 0 38.9 | 1.358 | 2.357 | 2.5 | 19.9 |
| 10 8 | 0 31.09 | - 2 13.6 | 2.086 | 3.075 | 3.2 | 20.7 | 10 8 | 0 30.23 | - 1 29.8 | 1.351 | 2.342 | 4.1 | 20.0 |
| 10 18 | 0 23.78 | - 2 44.4 | 2.117 | 3.068 | 6.7 | 20.9 | 10 18 | 0 21.43 | - 2 11.5 | 1.370 | 2.327 | 8.9 | 20.2 |
| 10 28 | 0 17.65 | - 3 4.1 | 2.175 | 3.061 | 10.0 | 21.1 | 10 28 | 0 14.35 | - 2 37.6 | 1.413 | 2.312 | 13.4 | 20.4 |
| 11 7 | 0 13.24 | - 3 10.5 | 2.256 | 3.055 | 12.8 | 21.2 | 11 7 | 0 9.79 | - 2 44.7 | 1.477 | 2.298 | 17.3 | 20.7 |
| 263811 | 2008 RV ₉₉ | 10 | 2.6 122°97 | 0°4/ 1.8 | 18 | | 99576 | 2002 FF ₂₆ | 10 | 2.6 45°11 | 10°9/23.3 | 18 | |
| 8 29 | 0 49.56 | + 3 15.9 | 4.423 | 5.265 | 6.6 | 21.3 | 8 29 | 1 1.67 | -21 32.0 | 1.498 | 2.375 | 15.3 | 18.7 |
| 9 8 | 0 46.18 | + 2 50.5 | 4.344 | 5.266 | 4.9 | 21.2 | 9 8 | 0 56.39 | -22 59.6 | 1.467 | 2.384 | 12.8 | 18.6 |
| 9 18 | 0 42.04 | + 2 21.0 | 4.292 | 5.267 | 2.9 | 21.1 | 9 18 | 0 48.72 | -24 12.8 | 1.456 | 2.393 | 11.2 | 18.5 |
| 9 28 | 0 37.44 | + 1 49.2 | 4.268 | 5.268 | 0.9 | 20.9 | 9 28 | 0 39.62 | -25 1.0 | 1.469 | 2.403 | 11.1 | 18.5 |
| 10 8 | 0 32.70 | + 1 17.4 | 4.275 | 5.268 | 1.4 | 20.9 | 10 8 | 0 30.33 | -25 17.3 | 1.505 | 2.413 | 12.6 | 18.6 |
| 10 18 | 0 28.15 | + 0 47.7 | 4.313 | 5.269 | 3.4 | 21.1 | 10 18 | 0 22.05 | -24 59.8 | 1.563 | 2.423 | 14.8 | 18.8 |
| 10 28 | 0 24.13 | + 0 22.2 | 4.380 | 5.270 | 5.3 | 21.3 | 10 28 | 0 15.79 | -24 10.6 | 1.641 | 2.434 | 17.2 | 19.0 |
| 11 7 | 0 20.92 | + 0 2.8 | 4.472 | 5.270 | 6.9 | 21.4 | 11 7 | 0 12.11 | -22 54.9 | 1.736 | 2.445 | 19.4 | 19.2 |
| 66530 | 1999 RJ ₁₀₈ | 10 | 2.6 124°36 | 6°1/ 8.6 | 18 | | 95697 | 2002 JQ ₇₇ | 10 | 2.6 315°80 | 2°2/ 5.0 | 18 | |
| 8 29 | 1 2.68 | +22 11.5 | 1.981 | 2.752 | 16.0 | 19.2 | 8 29 | 0 53.07 | +14 0.0 | 1.840 | 2.674 | 14.7 | 19.1 |
| 9 8 | 0 56.95 | +22 41.3 | 1.907 | 2.762 | 13.3 | 19.0 | 9 8 | 0 49.99 | +13 18.1 | 1.745 | 2.654 | 11.6 | 18.8 |
| 9 18 | 0 49.08 | +22 49.9 | 1.853 | 2.772 | 10.3 | 18.8 | 9 18 | 0 44.94 | +12 14.7 | 1.671 | 2.634 | 7.8 | 18.6 |
| 9 28 | 0 39.78 | +22 35.9 | 1.824 | 2.781 | 7.5 | 18.7 | 9 28 | 0 38.49 | +10 52.1 | 1.623 | 2.615 | 3.9 | 18.3 |
| 10 8 | 0 30.01 | +22 1.1 | 1.820 | 2.790 | 6.1 | 18.6 | 10 8 | 0 31.49 | + 9 16.3 | 1.601 | 2.596 | 2.6 | 18.2 |
| 10 18 | 0 20.85 | +21 10.2 | 1.845 | 2.799 | 7.2 | 18.7 | 10 18 | 0 24.88 | + 7 35.5 | 1.607 | 2.577 | 6.4 | 18.4 |
| 10 28 | 0 13.26 | +20 10.2 | 1.895 | 2.807 | 9.8 | 18.9 | 10 28 | 0 19.60 | + 5 59.2 | 1.640 | 2.559 | 10.5 | 18.6 |
| 11 7 | 0 7.93 | +19 9.3 | 1.971 | 2.815 | 12.6 | 19.1 | 11 7 | 0 16.34 | + 4 35.6 | 1.696 | 2.542 | 14.3 | 18.8 |
| 39142 | 2000 WR ₇₈ | 10 | 2.6 60°71 | 0°7/ 3.2 | 18 | | 14791 | Atreus | 10 | 2.6 351°85 | 0°1/ 2.8 | 18 | |
| 8 29 | 1 1.69 | + 7 4.0 | 1.501 | 2.358 | 16.3 | 18.7 | 8 29 | 0 50.24 | + 6 0.9 | 3.493 | 4.333 | 8.3 | 18.3 |
| 9 8 | 0 56.36 | + 6 52.8 | 1.449 | 2.375 | 12.3 | 18.5 | 9 8 | 0 46.90 | + 5 35.8 | 3.411 | 4.330 | 6.2 | 18.1 |
| 9 18 | 0 48.71 | + 6 27.2 | 1.418 | 2.393 | 7.7 | 18.3 | 9 18 | 0 42.58 | + 5 4.0 | 3.355 | 4.328 | 3.8 | 18.0 |
| 9 28 | 0 39.63 | + 5 51.2 | 1.412 | 2.411 | 2.7 | 18.0 | 9 28 | 0 37.65 | + 4 27.7 | 3.326 | 4.325 | 1.2 | 17.8 |
| 10 8 | 0 30.26 | + 5 10.6 | 1.433 | 2.428 | 2.5 | 18.1 | 10 8 | 0 32.52 | + 3 49.8 | 3.328 | 4.323 | 1.4 | 17.8 |
| 10 18 | 0 21.78 | + 4 32.2 | 1.480 | 2.446 | 7.3 | 18.4 | 10 18 | 0 27.64 | + 3 13.2 | 3.359 | 4.321 | 3.9 | 18.0 |
| 10 28 | 0 15.19 | + 4 2.1 | 1.552 | 2.465 | 11.5 | 18.7 | 10 28 | 0 23.43 | + 2 40.8 | 3.418 | 4.319 | 6.3 | 18.1 |
| 11 7 | 0 11.10 | + 3 44.7 | 1.646 | 2.483 | 15.1 | 19.0 | 11 7 | 0 20.25 | + 2 15.2 | 3.504 | 4.317 | 8.3 | 18.3 |
| 298218 | 2002 TT ₃₈₂ | 10 | 2.6 264°00 | 1°8/30.9 | 18 | | 319204 | 2005 YH ₁₉₁ | 10 | 2.6 186°37 | 2°3/ 5.6 | 17 | |
| 8 29 | 0 59.20 | + 0 34.9 | 1.931 | 2.794 | 13.0 | 20.7 | 8 29 | 0 57.16 | +14 0.5 | 2.721 | 3.525 | 11.3 | 21.6 |
| 9 8 | 0 54.27 | + 0 4.7 | 1.856 | 2.789 | 9.6 | 20.5 | 9 8 | 0 52.30 | +13 54.3 | 2.635 | 3.525 | 8.9 | 21.4 |
| 9 18 | 0 47.40 | - 0 33.0 | 1.804 | 2.783 | 5.8 | 20.3 | 9 18 | 0 46.00 | +13 35.5 | 2.573 | 3.524 | 6.1 | 21.3 |
| 9 28 | 0 39.23 | - 1 13.6 | 1.779 | 2.778 | 2.2 | 20.0 | 9 28 | 0 38.77 | +13 5.3 | 2.538 | 3.523 | 3.4 | 21.1 |
| 10 8 | 0 30.64 | - 1 51.4 | 1.782 | 2.772 | 3.5 | 20.1 | 10 8 | 0 31.23 | +12 26.3 | 2.531 | 3.522 | 2.5 | 21.0 |
| 10 18 | 0 22.57 | - 2 21.3 | 1.813 | 2.766 | 7.4 | 20.3 | 10 18 | 0 24.03 | +11 42.5 | 2.555 | 3.521 | 4.7 | 21.2 |
| 10 28 | 0 15.90 | - 2 38.9 | 1.869 | 2.760 | 11.1 | 20.6 | 10 28 | 0 17.84 | +10 58.2 | 2.607 | 3.519 | 7.5 | 21.4 |
| 11 7 | 0 11.26 | - 2 41.8 | 1.949 | 2.755 | 14.3 | 20.8 | 11 7 | 0 13.14 | +10 18.1 | 2.685 | 3.517 | 10.1 | 21.5 |
| 242652 | 2005 OF ₁₀ | 10 | 2.6 28°92 | 5°4/ 5.7 | 18 | | 304353 | 2006 SW ₃₁₀ | 10 | 2.6 15°58 | 1°8/ 4.5 | 18 | |
| 8 29 | 1 3.90 | +13 4.0 | 1.057 | 1.915 | 21.6 | 18.8 | 8 29 | 0 56.19 | +11 46.2 | 1.789 | 2.629 | 14.9 | 20.2 |
| 9 8 | 0 58.90 | +14 8.2 | 1.011 | 1.930 | 17.1 | 18.6 | 9 8 | 0 52.18 | +11 19.6 | 1.716 | 2.630 | 11.5 | 20.0 |
| 9 18 | 0 50.67 | +14 49.2 | 0.984 | 1.946 | 12.0 | 18.3 | 9 18 | 0 46.18 | +10 35.3 | 1.665 | 2.632 | 7.6 | 19.8 |
| 9 28 | 0 40.31 | +15 5.7 | 0.976 | 1.963 | 7.2 | 18.1 | 9 28 | 0 38.86 | + 9 36.2 | 1.639 | 2.633 | 3.5 | 19.5 |
| 10 8 | 0 29.48 | +15 0.5 | 0.992 | 1.982 | 5.6 | 18.1 | 10 8 | 0 31.14 | + 8 27.9 | 1.640 | 2.635 | 2.4 | 19.4 |
| 10 18 | 0 19.87 | +14 40.3 | 1.031 | 2.002 | 9.0 | 18.4 | 10 18 | 0 23.98 | + 7 17.8 | 1.669 | 2.638 | 6.3 | 19.7 |
| 10 28 | 0 12.90 | +14 14.7 | 1.093 | 2.023 | 13.5 | 18.7 | 10 28 | 0 18.29 | + 6 13.2 | 1.723 | 2.640 | 10.3 | 19.9 |
| 11 7 | 0 9.34 | +13 52.7 | 1.174 | 2.044 | 17.6 | 19.0 | 11 7 | 0 14.70 | + 5 20.4 | 1.801 | 2.643 | 13.8 | 20.2 |
| 34577 | 2000 SP ₃₃₆ | 10 | 2.6 96°01 | 2°2/30.7 | 18 | | 382534 | 2001 TM ₁₄₇ | 10 | 2.6 9°27 | 3°3/30.0 | 18 | |
| 8 29 | 1 1.24 | + 0 9.1 | 1.723 | 2.590 | 14.1 | 18.5 | 8 29 | 0 53.92 | + 1 5.8 | 1.112 | 2.011 | 17.7 | 19.7 |
| 9 8 | 0 55.76 | - 0 32.0 | 1.670 | 2.604 | 10.4 | 18.3 | 9 8 | 0 51.28 | - 0 3.8 | 1.061 | 2.013 | 13.0 | 19.4 |
| 9 18 | 0 48.25 | - 1 20.4 | 1.639 | 2.618 | 6.2 | 18.0 | 9 18 | 0 45.94 | - 1 27.3 | 1.030 | 2.015 | 7.8 | 19.1 |
| 9 28 | 0 39.47 | - 2 10.3 | 1.634 | 2.632 | 2.5 | 17.8 | 9 28 | 0 38.82 | - 2 54.7 | 1.021 | 2.019 | 3.5 | 18.9 |
| 10 8 | 0 30.44 | - 2 55.2 | 1.658 | 2.646 | 4.0 | 18.0 | 10 8 | 0 31.23 | - 4 14.1 | 1.036 | 2.024 | 5.7 | 19.1 |
| 10 18 | 0 22.18 | - 3 29.5 | 1.708 | 2.660 | 8.0 | 18.2 | 10 18 | 0 24.54 | - 5 14.8 | 1.074 | 2.031 | 10.8 | 19.4 |
| 10 28 | 0 15.58 | - 3 48.9 | 1.784 | 2.673 | 11.7 | 18.5 | 10 28 | 0 19.95 | - 5 50.0 | 1.133 | 2.038 | 15.5 | 19.7 |
| 11 7 | 0 11.20 | - 3 51.7 | 1.883 | 2.686 | 14.8 | 18.7 | 11 7 | 0 18.14 | - 5 57.6 | 1.211 | 2.047 | 19.4 | 20.0 |
| 209642 | 2005 BP ₂₄ | 10 | 2.6 308°08 | 3°1/ 4.9 | 18 | | 37732 | 1996 TY ₆₈ | 10 | 2.6 122°39 | 0°6/ 3.9 | 18 | |
| 8 29 | 0 59 | | | | | | | | | | | | |

EPHEMERIDES

10 2.6

10 2.7

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | | | |
|---------------|------------------------|-----------------|----------|---------|---------|------|-------|-----------------|------------------------|------------------------|-------|---------|---------|------|-----|----|
| 65019 | 2002 AC ₉₉ | 10 | 2.6 | 79°07' | 3°8' | 6.5 | 18 | R | 55178 | 2001 QF ₂₆₅ | 10 | 2.6 | 131°27' | 1°0' | 3.7 | 18 |
| 8 29 | 0 59.71 | +16 11.6 | 2.101 | 2.905 | 14.2 | 19.5 | 8 29 | 0 57.84 | + 9 26.5 | 2.097 | 2.934 | 13.1 | 19.1 | | | |
| 9 8 | 0 54.54 | +16 25.5 | 2.029 | 2.915 | 11.3 | 19.4 | 9 8 | 0 53.11 | + 9 0.8 | 2.025 | 2.939 | 10.0 | 18.9 | | | |
| 9 18 | 0 47.51 | +16 22.8 | 1.979 | 2.925 | 8.1 | 19.2 | 9 18 | 0 46.64 | + 8 21.5 | 1.975 | 2.944 | 6.4 | 18.7 | | | |
| 9 28 | 0 39.28 | +16 3.9 | 1.955 | 2.935 | 5.1 | 19.0 | 9 28 | 0 39.03 | + 7 31.8 | 1.952 | 2.949 | 2.6 | 18.5 | | | |
| 10 8 | 0 30.69 | +15 31.7 | 1.958 | 2.945 | 3.8 | 19.0 | 10 8 | 0 31.10 | + 6 36.4 | 1.958 | 2.953 | 2.0 | 18.4 | | | |
| 10 18 | 0 22.65 | +14 50.7 | 1.990 | 2.955 | 5.9 | 19.1 | 10 18 | 0 23.68 | + 5 41.0 | 1.992 | 2.958 | 5.8 | 18.7 | | | |
| 10 28 | 0 15.98 | +14 6.8 | 2.049 | 2.965 | 9.0 | 19.3 | 10 28 | 0 17.56 | + 4 51.4 | 2.053 | 2.962 | 9.3 | 18.9 | | | |
| 11 7 | 0 11.28 | +13 25.9 | 2.132 | 2.975 | 11.9 | 19.5 | 11 7 | 0 13.29 | + 4 12.2 | 2.139 | 2.967 | 12.4 | 19.2 | | | |
| 319594 | 2006 ST ₁₇₃ | 10 | 2.6 | 53°04' | 3°3' | 4.8 | 17 | 340107 | 2005 WY ₁₂₈ | 10 | 2.6 | 300°92' | 0°0' | 2.6 | 16 | |
| 8 29 | 1 14.39 | +11 30.0 | 1.256 | 2.107 | 19.3 | 20.1 | 8 29 | 0 53.41 | + 5 27.1 | 2.885 | 3.728 | 9.7 | 21.5 | | | |
| 9 8 | 0 58.67 | +11 53.1 | 1.202 | 2.120 | 15.0 | 19.9 | 9 8 | 0 49.51 | + 5 2.4 | 2.788 | 3.709 | 7.3 | 21.3 | | | |
| 9 18 | 0 50.39 | +11 56.1 | 1.167 | 2.133 | 10.1 | 19.6 | 9 18 | 0 44.33 | + 4 29.7 | 2.717 | 3.690 | 4.5 | 21.1 | | | |
| 9 28 | 0 40.24 | +11 40.1 | 1.155 | 2.147 | 5.1 | 19.4 | 9 28 | 0 38.29 | + 3 51.3 | 2.673 | 3.672 | 1.4 | 20.9 | | | |
| 10 8 | 0 29.63 | +11 9.9 | 1.168 | 2.161 | 3.8 | 19.4 | 10 8 | 0 31.91 | + 3 10.8 | 2.658 | 3.653 | 1.7 | 20.9 | | | |
| 10 18 | 0 20.06 | +10 32.6 | 1.205 | 2.176 | 8.0 | 19.7 | 10 18 | 0 25.78 | + 2 31.8 | 2.673 | 3.634 | 4.8 | 21.0 | | | |
| 10 28 | 0 12.78 | + 9 56.9 | 1.267 | 2.191 | 12.6 | 20.0 | 10 28 | 0 20.49 | + 1 58.2 | 2.716 | 3.616 | 7.7 | 21.2 | | | |
| 11 7 | 0 8.53 | + 9 30.1 | 1.350 | 2.206 | 16.7 | 20.3 | 11 7 | 0 16.49 | + 1 33.1 | 2.785 | 3.598 | 10.3 | 21.4 | | | |
| 193684 | 2001 EP ₁₅ | 10 | 2.6 | 300°11' | 5°6' | 29.9 | 18 | 214612 | 2006 RS ₃₆ | 10 | 2.6 | 335°10' | 1°6' | 4.2 | 18 | |
| 8 29 | 1 14.39 | -11 41.6 | 1.631 | 2.488 | 15.2 | 18.9 | 8 29 | 0 52.81 | +11 57.5 | 1.532 | 2.385 | 16.2 | 19.8 | | | |
| 9 8 | 1 6.17 | -11 30.2 | 1.545 | 2.469 | 11.8 | 18.6 | 9 8 | 0 50.08 | +11 14.1 | 1.451 | 2.373 | 12.6 | 19.5 | | | |
| 9 18 | 0 55.02 | -11 11.7 | 1.483 | 2.451 | 8.2 | 18.4 | 9 18 | 0 45.12 | +10 7.9 | 1.391 | 2.361 | 8.2 | 19.3 | | | |
| 9 28 | 0 41.78 | -10 40.2 | 1.447 | 2.432 | 5.7 | 18.2 | 9 28 | 0 38.61 | + 8 42.8 | 1.354 | 2.350 | 3.6 | 19.0 | | | |
| 10 8 | 0 27.77 | - 9 51.2 | 1.441 | 2.413 | 7.0 | 18.2 | 10 8 | 0 31.53 | + 7 6.4 | 1.344 | 2.340 | 2.5 | 18.9 | | | |
| 10 18 | 0 14.49 | - 8 43.4 | 1.462 | 2.395 | 10.7 | 18.4 | 10 18 | 0 24.98 | + 5 28.4 | 1.360 | 2.331 | 7.2 | 19.1 | | | |
| 10 28 | 0 3.30 | - 7 18.0 | 1.511 | 2.377 | 14.7 | 18.6 | 10 28 | 0 20.02 | + 3 59.3 | 1.400 | 2.322 | 11.8 | 19.4 | | | |
| 11 7 | 23 55.08 | - 5 38.3 | 1.581 | 2.359 | 18.3 | 18.8 | 11 7 | 0 17.36 | + 2 47.2 | 1.463 | 2.314 | 15.9 | 19.6 | | | |
| 266962 | 2010 VG ₄₈ | 10 | 2.6 | 296°92' | 1°0' | 30.8 | 18 | 8666 | Reuter | 10 | 2.6 | 281°21' | 3°0' | 30.2 | 18 | |
| 8 29 | 0 50.37 | - 0 2.5 | 4.186 | 5.038 | 6.8 | 20.6 | 8 29 | 0 59.66 | + 0 5.9 | 1.432 | 2.311 | 15.7 | 17.8 | | | |
| 9 8 | 0 46.84 | - 0 27.2 | 4.104 | 5.032 | 5.0 | 20.5 | 9 8 | 0 55.37 | - 0 49.7 | 1.354 | 2.295 | 11.7 | 17.5 | | | |
| 9 18 | 0 42.49 | - 0 55.0 | 4.048 | 5.026 | 3.0 | 20.3 | 9 18 | 0 48.49 | - 1 57.3 | 1.297 | 2.279 | 7.2 | 17.2 | | | |
| 9 28 | 0 37.63 | - 1 23.8 | 4.022 | 5.020 | 1.2 | 20.2 | 9 28 | 0 39.73 | - 3 9.5 | 1.265 | 2.262 | 3.3 | 16.9 | | | |
| 10 8 | 0 32.60 | - 1 51.2 | 4.026 | 5.014 | 1.9 | 20.3 | 10 8 | 0 30.24 | - 4 16.9 | 1.258 | 2.246 | 5.2 | 17.0 | | | |
| 10 18 | 0 27.77 | - 2 15.0 | 4.060 | 5.008 | 3.9 | 20.4 | 10 18 | 0 21.32 | - 5 10.6 | 1.277 | 2.229 | 10.0 | 17.2 | | | |
| 10 28 | 0 23.51 | - 2 33.2 | 4.122 | 5.002 | 5.8 | 20.5 | 10 28 | 0 14.23 | - 5 43.7 | 1.320 | 2.212 | 14.7 | 17.4 | | | |
| 11 7 | 0 20.10 | - 2 44.2 | 4.210 | 4.997 | 7.5 | 20.7 | 11 7 | 0 9.80 | - 5 53.0 | 1.382 | 2.196 | 18.7 | 17.7 | | | |
| 411931 | 2012 GS ₇ | 10 | 2.6 | 192°53' | 2°5' | 6.2 | 18 | 4419 | Allancook | 10 | 2.7 | 212°81' | 0°1' | 2.8 | 18 | |
| 8 29 | 0 55.69 | +15 52.6 | 2.896 | 3.690 | 10.9 | 21.9 | 8 29 | 0 56.48 | + 6 27.2 | 2.828 | 3.663 | 10.1 | 18.2 | | | |
| 9 8 | 0 51.15 | +15 33.7 | 2.806 | 3.689 | 8.7 | 21.8 | 9 8 | 0 51.75 | + 5 57.9 | 2.740 | 3.656 | 7.6 | 18.0 | | | |
| 9 18 | 0 45.29 | +15 1.2 | 2.740 | 3.687 | 6.1 | 21.6 | 9 18 | 0 45.68 | + 5 19.6 | 2.677 | 3.649 | 4.7 | 17.9 | | | |
| 9 28 | 0 38.55 | +14 16.6 | 2.701 | 3.684 | 3.6 | 21.4 | 9 28 | 0 38.72 | + 4 35.1 | 2.642 | 3.641 | 1.6 | 17.6 | | | |
| 10 8 | 0 31.53 | +13 22.6 | 2.692 | 3.681 | 2.6 | 21.4 | 10 8 | 0 31.46 | + 3 48.1 | 2.637 | 3.632 | 1.7 | 17.6 | | | |
| 10 18 | 0 24.84 | +12 23.4 | 2.712 | 3.678 | 4.5 | 21.5 | 10 18 | 0 24.52 | + 3 2.5 | 2.663 | 3.624 | 4.9 | 17.8 | | | |
| 10 28 | 0 19.08 | +11 23.7 | 2.762 | 3.674 | 7.1 | 21.7 | 10 28 | 0 18.49 | + 2 22.4 | 2.717 | 3.614 | 7.8 | 18.0 | | | |
| 11 7 | 0 14.69 | +10 28.3 | 2.838 | 3.670 | 9.6 | 21.8 | 11 7 | 0 13.85 | + 1 51.1 | 2.796 | 3.605 | 10.4 | 18.2 | | | |
| 390951 | 2005 LU ₃₃ | 10 | 2.6 | 74°03' | 0°6' | 3.3 | 18 | 69323 | 1993 FZ ₄₁ | 10 | 2.7 | 243°81' | 0°5' | 3.0 | 18 | |
| 8 29 | 0 57.39 | + 8 29.3 | 1.857 | 2.704 | 14.1 | 20.9 | 8 29 | 1 3.92 | + 5 24.4 | 1.934 | 2.776 | 13.8 | 18.5 | | | |
| 9 8 | 0 52.93 | + 7 55.3 | 1.790 | 2.711 | 10.6 | 20.7 | 9 8 | 0 57.93 | + 5 31.8 | 1.848 | 2.767 | 10.5 | 18.3 | | | |
| 9 18 | 0 46.57 | + 7 7.0 | 1.747 | 2.719 | 6.7 | 20.5 | 9 18 | 0 49.77 | + 5 29.7 | 1.786 | 2.758 | 6.6 | 18.1 | | | |
| 9 28 | 0 39.00 | + 6 8.1 | 1.729 | 2.727 | 2.4 | 20.2 | 9 28 | 0 40.10 | + 5 20.1 | 1.751 | 2.749 | 2.3 | 17.8 | | | |
| 10 8 | 0 31.09 | + 5 4.6 | 1.739 | 2.735 | 2.2 | 20.2 | 10 8 | 0 29.87 | + 5 6.6 | 1.744 | 2.740 | 2.3 | 17.8 | | | |
| 10 18 | 0 23.79 | + 4 3.3 | 1.777 | 2.742 | 6.4 | 20.5 | 10 18 | 0 20.12 | + 4 53.2 | 1.766 | 2.730 | 6.6 | 18.0 | | | |
| 10 28 | 0 17.93 | + 3 10.4 | 1.841 | 2.750 | 10.2 | 20.8 | 10 28 | 0 11.86 | + 4 44.7 | 1.815 | 2.720 | 10.6 | 18.2 | | | |
| 11 7 | 0 14.10 | + 2 30.7 | 1.929 | 2.758 | 13.5 | 21.0 | 11 7 | 0 5.79 | + 4 44.5 | 1.888 | 2.710 | 14.1 | 18.4 | | | |
| 328749 | 2009 UR ₅₇ | 10 | 2.6 | 255°42' | 2°1' | 30.4 | 18 | 106145 | 2000 TQ ₄₉ | 10 | 2.7 | 254°18' | 6°2' | 25.9 | 18 | |
| 8 29 | 0 57.94 | - 1 52.8 | 2.428 | 3.288 | 10.8 | 21.1 | 8 29 | 0 59.82 | -14 15.8 | 2.230 | 3.098 | 11.3 | 19.4 | | | |
| 9 8 | 0 52.98 | - 2 18.7 | 2.351 | 3.282 | 7.9 | 20.9 | 9 8 | 0 54.54 | -15 10.6 | 2.163 | 3.088 | 8.8 | 19.2 | | | |
| 9 18 | 0 46.48 | - 2 48.8 | 2.299 | 3.277 | 4.8 | 20.7 | 9 18 | 0 47.50 | -16 1.4 | 2.120 | 3.078 | 6.8 | 19.1 | | | |
| 9 28 | 0 38.96 | - 3 19.0 | 2.274 | 3.271 | 2.3 | 20.5 | 9 28 | 0 39.32 | -16 41.8 | 2.105 | 3.068 | 6.2 | 19.0 | | | |
| 10 8 | 0 31.12 | - 3 45.3 | 2.279 | 3.265 | 3.4 | 20.6 | 10 8 | 0 30.80 | -17 6.2 | 2.117 | 3.058 | 7.6 | 19.1 | | | |
| 10 18 | 0 23.69 | - 4 3.8 | 2.313 | 3.259 | 6.5 | 20.8 | 10 18 | 0 22.77 | -17 11.3 | 2.155 | 3.047 | 9.9 | 19.2 | | | |
| 10 28 | 0 17.36 | - 4 11.6 | 2.373 | 3.253 | 9.5 | 21.0 | 10 28 | 0 16.03 | -16 55.5 | 2.217 | 3.037 | 12.4 | 19.4 | | | |
| 11 7 | 0 12.66 | - 4 7.0 | 2.457 | 3.247 | 12.2 | 21.1 | 11 7 | 0 11.14 | -16 20.1 | 2.301 | 3.026 | 14.7 | 19.5 | | | |
| 331745 | 2002 TW ₃₄₇ | 10 | 2.6 | 65°79' | 5°8' | 27.9 | 17 | 319822 | 2006 VA ₁₀₅ | 10 | 2.7 | 111°77' | 1°9' | 30.9 | 17 | |
| 8 29 | 1 0.51 | - 6 28.3 | 1.355 | 2.244 | 15.8 | 20.9 | 8 29 | 1 5.21 | + 0 34.6 | 1.861 | 2.716 | 13.8 | 20.7 | | | |
| 9 8 | 0 55.68 | - 7 47.0 | 1.312 | 2.256 | 11.8 | 20.7 | 9 8 | 0 58.49 | - 0 4.2 | 1.812 | 2.740 | 10.1 | 20.5 | | | |
| 9 18 | 0 48.39 | - 9 7.9 | 1.291 | 2.268 | 7.8 | 20.5 | 9 18 | 0 49.83 | - 0 49.9 | 1.787 | 2.765 | 6.0 | 20.3 | | | |
| 9 28 | 0 39.58 | -10 20.7 | 1.294 | 2.281 | 5.8 | 20.4 | 9 28 | 0 40.03 | - 1 37.1 | 1.790 | 2.788 | 2.3 | 20.2 | | | |
| 10 8 | 0 30.51 | -11 15.8 | 1.323 | 2.293 | 7.8 | 20.6 | 10 8 | 0 30.08 | - 2 19.8 | 1.822 | 2.810 | 3.6 | 20.3 | | | |
| 10 18 | 0 22.41 | -11 47.0 | 1.376 | 2.306 | 11.5 | 20.8 | 10 18 | 0 20.97 | - 2 53.0 | 1.882 | 2.832 | 7.4 | 20.6 | | | |
| 10 28 | 0 16.31 | -11 51.8 | 1.451 | 2.319 | 15.2 | 21.1 | 10 28 | 0 13.54 | - 3 12.8 | 1.969 | 2.853 | 11.0 | 20.8 | | | |
| 11 7 | 0 12.82 | -11 31.3 | 1.545 | 2.331 | 18.3 | 21.3 | 11 7 | 0 8.31 | - 3 17.5 | 2.079 | 2.873 | 13.9 | 21.1 | | | |
| 443752 | 2015 ML ₇ | 10 | 2.6 | 0°14' | 3°0' | 5.5 | 18 | 322706 | 2000 DB ₉₇ | 10 | 2.7 | 192°99' | 6°1' | 22.5 | 18 | |
| 8 29 | 0 57.70 | +14 10.7 | 1.752 | | | | | | | | | | | | | |

EPHEMERIDES

10 2.7

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 205429 | 2001 <i>HR</i> ₆₆ | 10 | 2.7 | 227°19 | 6°1/25.9 | 18 | 260163 | 2004 <i>RO</i> ₆₂ | 10 | 2.7 | 23°05 | 1°8/30.6 | 18 |
| 8 29 | 0 59.48 | -12 1.3 | 2.095 | 2.967 | 11.7 | 20.4 | 8 29 | 0 53.14 | + 4 13.4 | 1.853 | 2.720 | 13.2 | 19.9 |
| 9 8 | 0 54.39 | -13 15.6 | 2.028 | 2.958 | 9.1 | 20.2 | 9 8 | 0 49.80 | + 2 43.7 | 1.789 | 2.725 | 9.7 | 19.7 |
| 9 18 | 0 47.47 | -14 28.4 | 1.987 | 2.950 | 6.8 | 20.0 | 9 18 | 0 44.71 | + 1 0.7 | 1.749 | 2.729 | 5.8 | 19.5 |
| 9 28 | 0 39.34 | -15 32.1 | 1.972 | 2.940 | 6.1 | 20.0 | 9 28 | 0 38.48 | - 0 48.1 | 1.736 | 2.734 | 2.1 | 19.2 |
| 10 8 | 0 30.82 | -16 20.0 | 1.985 | 2.931 | 7.6 | 20.1 | 10 8 | 0 31.94 | - 2 34.1 | 1.751 | 2.740 | 3.7 | 19.4 |
| 10 18 | 0 22.81 | -16 47.4 | 2.024 | 2.921 | 10.2 | 20.2 | 10 18 | 0 25.95 | - 4 8.6 | 1.794 | 2.746 | 7.6 | 19.6 |
| 10 28 | 0 16.13 | -16 52.1 | 2.087 | 2.910 | 13.0 | 20.4 | 10 28 | 0 21.28 | - 5 25.0 | 1.863 | 2.752 | 11.3 | 19.8 |
| 11 7 | 0 11.39 | -16 34.7 | 2.171 | 2.900 | 15.4 | 20.5 | 11 7 | 0 18.48 | - 6 19.6 | 1.955 | 2.759 | 14.3 | 20.1 |
| 331653 | 2002 <i>PB</i> ₉ | 10 | 2.7 | 6°76 | 1°4/ 1.4 | 17 | 360043 | 2013 <i>AW</i> ₅₄ | 10 | 2.7 | 75°59 | 0°4/ 2.3 | 18 |
| 8 29 | 0 53.47 | + 4 34.0 | 1.314 | 2.198 | 16.5 | 20.3 | 8 29 | 0 58.03 | + 5 14.6 | 1.889 | 2.744 | 13.6 | 20.7 |
| 9 8 | 0 50.68 | + 3 36.7 | 1.255 | 2.198 | 12.3 | 20.0 | 9 8 | 0 53.42 | + 4 41.8 | 1.821 | 2.748 | 10.1 | 20.4 |
| 9 18 | 0 45.50 | + 2 23.2 | 1.217 | 2.200 | 7.4 | 19.8 | 9 18 | 0 46.93 | + 3 57.5 | 1.776 | 2.752 | 6.2 | 20.2 |
| 9 28 | 0 38.74 | + 1 0.8 | 1.203 | 2.203 | 2.3 | 19.5 | 9 28 | 0 39.20 | + 3 6.0 | 1.757 | 2.756 | 1.9 | 20.0 |
| 10 8 | 0 31.54 | - 0 20.4 | 1.214 | 2.207 | 3.8 | 19.6 | 10 8 | 0 31.13 | + 2 13.1 | 1.766 | 2.760 | 2.5 | 20.0 |
| 10 18 | 0 25.08 | - 1 30.7 | 1.249 | 2.212 | 8.9 | 19.9 | 10 18 | 0 23.63 | + 1 24.6 | 1.803 | 2.765 | 6.7 | 20.3 |
| 10 28 | 0 20.44 | - 2 22.3 | 1.308 | 2.218 | 13.4 | 20.2 | 10 28 | 0 17.55 | + 0 46.3 | 1.866 | 2.769 | 10.5 | 20.5 |
| 11 7 | 0 18.27 | - 2 51.0 | 1.387 | 2.225 | 17.3 | 20.5 | 11 7 | 0 13.47 | + 0 21.6 | 1.952 | 2.773 | 13.7 | 20.8 |
| 376980 | 2002 <i>OO</i> ₆ | 10 | 2.7 | 28°97 | 5°0/ 6.7 | 16 | 73095 | 2002 <i>GS</i> ₂₀ | 10 | 2.7 | 79°57 | 3°1/ 5.3 | 18 |
| 8 29 | 0 55.48 | +17 22.2 | 1.025 | 1.882 | 22.2 | 20.0 | 8 29 | 1 0.28 | +14 25.4 | 1.384 | 2.223 | 18.4 | 19.5 |
| 9 8 | 0 52.69 | +17 13.7 | 0.979 | 1.896 | 17.7 | 19.8 | 9 8 | 0 55.70 | +14 3.7 | 1.324 | 2.234 | 14.4 | 19.3 |
| 9 18 | 0 46.91 | +16 32.0 | 0.950 | 1.911 | 12.5 | 19.5 | 9 18 | 0 48.56 | +13 17.7 | 1.283 | 2.246 | 9.8 | 19.0 |
| 9 28 | 0 39.20 | +15 19.9 | 0.941 | 1.928 | 7.4 | 19.3 | 9 28 | 0 39.76 | +12 10.3 | 1.266 | 2.257 | 5.1 | 18.8 |
| 10 8 | 0 31.08 | +13 46.3 | 0.954 | 1.946 | 5.0 | 19.3 | 10 8 | 0 30.53 | +10 48.7 | 1.274 | 2.268 | 3.4 | 18.7 |
| 10 18 | 0 24.07 | +12 4.2 | 0.990 | 1.965 | 8.4 | 19.5 | 10 18 | 0 22.17 | + 9 22.7 | 1.308 | 2.279 | 7.4 | 19.0 |
| 10 28 | 0 19.44 | +10 28.1 | 1.048 | 1.985 | 13.2 | 19.9 | 10 28 | 0 15.82 | + 8 2.8 | 1.367 | 2.290 | 11.9 | 19.3 |
| 11 7 | 0 17.85 | + 9 8.9 | 1.127 | 2.006 | 17.5 | 20.2 | 11 7 | 0 12.15 | + 6 57.3 | 1.448 | 2.301 | 15.9 | 19.6 |
| 362654 | 2011 <i>SM</i> ₂₇₅ | 10 | 2.7 | 71°35 | 0°6/ 2.3 | 18 | 98995 | 2001 <i>DA</i> ₄₁ | 10 | 2.7 | 17°51 | 0°6/ 3.0 | 18 |
| 8 29 | 1 9.85 | + 0 37.2 | 1.890 | 2.735 | 14.0 | 20.6 | 8 29 | 1 6.96 | + 3 30.9 | 1.431 | 2.291 | 16.8 | 18.2 |
| 9 8 | 1 2.22 | + 1 7.7 | 1.817 | 2.738 | 10.5 | 20.3 | 9 8 | 1 0.66 | + 4 12.1 | 1.367 | 2.294 | 12.7 | 17.9 |
| 9 18 | 0 52.32 | + 1 33.9 | 1.767 | 2.741 | 6.4 | 20.1 | 9 18 | 0 51.63 | + 4 45.0 | 1.324 | 2.299 | 8.0 | 17.7 |
| 9 28 | 0 40.93 | + 1 57.8 | 1.746 | 2.745 | 2.0 | 19.8 | 9 28 | 0 40.77 | + 5 11.0 | 1.306 | 2.304 | 2.8 | 17.4 |
| 10 8 | 0 29.09 | + 2 21.6 | 1.754 | 2.748 | 2.7 | 19.9 | 10 8 | 0 29.37 | + 5 32.6 | 1.314 | 2.310 | 2.7 | 17.4 |
| 10 18 | 0 17.95 | + 2 47.7 | 1.792 | 2.751 | 7.0 | 20.2 | 10 18 | 0 18.83 | + 5 53.2 | 1.350 | 2.317 | 7.8 | 17.7 |
| 10 28 | 0 8.53 | + 3 18.3 | 1.859 | 2.755 | 10.9 | 20.4 | 10 28 | 0 10.38 | + 6 16.4 | 1.411 | 2.324 | 12.4 | 18.0 |
| 11 7 | 0 1.51 | + 3 55.3 | 1.949 | 2.758 | 14.2 | 20.7 | 11 7 | 0 4.81 | + 6 45.5 | 1.493 | 2.332 | 16.3 | 18.3 |
| 216706 | 2004 <i>TU</i> ₂₄₀ | 10 | 2.7 | 34°23 | 6°1/ 8.7 | 18 | 106960 | 2000 <i>YU</i> ₇₉ | 10 | 2.7 | 338°22 | 2°0/ 4.4 | 18 |
| 8 29 | 0 57.89 | +21 13.9 | 1.636 | 2.436 | 17.8 | 19.0 | 8 29 | 0 57.41 | +10 52.1 | 1.486 | 2.338 | 16.7 | 19.3 |
| 9 8 | 0 53.61 | +21 34.7 | 1.582 | 2.456 | 14.6 | 18.9 | 9 8 | 0 53.58 | +10 41.2 | 1.411 | 2.332 | 13.0 | 19.0 |
| 9 18 | 0 47.12 | +21 30.8 | 1.546 | 2.478 | 11.1 | 18.7 | 9 18 | 0 47.34 | +10 11.0 | 1.357 | 2.326 | 8.6 | 18.8 |
| 9 28 | 0 39.24 | +21 2.1 | 1.533 | 2.499 | 7.8 | 18.6 | 9 28 | 0 39.40 | + 9 24.2 | 1.326 | 2.321 | 3.9 | 18.5 |
| 10 8 | 0 31.05 | +20 12.2 | 1.545 | 2.522 | 6.1 | 18.5 | 10 8 | 0 30.87 | + 8 26.5 | 1.320 | 2.316 | 2.8 | 18.4 |
| 10 18 | 0 23.63 | +19 7.7 | 1.583 | 2.545 | 7.3 | 18.7 | 10 18 | 0 22.95 | + 7 25.7 | 1.341 | 2.312 | 7.3 | 18.7 |
| 10 28 | 0 17.95 | +17 57.5 | 1.646 | 2.569 | 10.2 | 18.9 | 10 28 | 0 16.78 | + 6 30.3 | 1.386 | 2.308 | 11.9 | 18.9 |
| 11 7 | 0 14.61 | +16 50.3 | 1.732 | 2.593 | 13.3 | 19.1 | 11 7 | 0 13.12 | + 5 47.4 | 1.453 | 2.305 | 15.9 | 19.2 |
| 369515 | 2010 <i>VX</i> ₁₇₃ | 10 | 2.7 | 318°53 | 3°2/ 4.9 | 18 | 449451 | 2013 <i>JW</i> ₃₃ | 10 | 2.7 | 37°29 | 5°8/ 26.4 | 18 |
| 8 29 | 0 56.39 | +12 46.5 | 1.192 | 2.054 | 19.4 | 21.1 | 8 29 | 0 57.79 | -12 23.0 | 2.147 | 3.021 | 11.4 | 20.4 |
| 9 8 | 0 53.50 | +12 43.7 | 1.112 | 2.036 | 15.3 | 20.8 | 9 8 | 0 53.02 | -13 22.3 | 2.092 | 3.023 | 8.8 | 20.2 |
| 9 18 | 0 47.66 | +12 15.7 | 1.049 | 2.018 | 10.5 | 20.5 | 9 18 | 0 46.57 | -14 18.5 | 2.062 | 3.025 | 6.6 | 20.1 |
| 9 28 | 0 39.58 | +11 23.4 | 1.008 | 2.001 | 5.4 | 20.2 | 9 28 | 0 39.07 | -15 5.2 | 2.058 | 3.028 | 5.8 | 20.0 |
| 10 8 | 0 30.53 | +10 12.7 | 0.990 | 1.985 | 3.7 | 20.0 | 10 8 | 0 31.31 | -15 36.7 | 2.081 | 3.030 | 7.2 | 20.1 |
| 10 18 | 0 22.06 | + 8 53.5 | 0.995 | 1.969 | 8.6 | 20.3 | 10 18 | 0 24.11 | -15 49.6 | 2.131 | 3.032 | 9.6 | 20.3 |
| 10 28 | 0 15.67 | + 7 37.9 | 1.023 | 1.954 | 14.1 | 20.5 | 10 28 | 0 18.20 | -15 42.3 | 2.205 | 3.035 | 12.1 | 20.5 |
| 11 7 | 0 12.36 | + 6 36.9 | 1.071 | 1.940 | 19.0 | 20.8 | 11 7 | 0 14.11 | -15 15.6 | 2.299 | 3.037 | 14.4 | 20.6 |
| 383013 | 2005 <i>MS</i> ₃₀ | 10 | 2.7 | 24°46 | 3°6/ 5.4 | 18 | 150583 | 2000 <i>UH</i> ₇₅ | 10 | 2.7 | 323°28 | 3°8/ 6.1 | 18 |
| 8 29 | 0 55.89 | +13 47.7 | 1.048 | 1.916 | 21.0 | 19.7 | 8 29 | 1 0.22 | +15 4.6 | 2.036 | 2.846 | 14.4 | 19.8 |
| 9 8 | 0 52.94 | +13 41.8 | 1.001 | 1.927 | 16.4 | 19.5 | 9 8 | 0 55.14 | +15 28.7 | 1.953 | 2.843 | 11.5 | 19.6 |
| 9 18 | 0 47.06 | +13 7.9 | 0.971 | 1.940 | 11.2 | 19.3 | 9 18 | 0 48.07 | +15 37.1 | 1.891 | 2.840 | 8.2 | 19.4 |
| 9 28 | 0 39.27 | +12 9.4 | 0.961 | 1.954 | 5.8 | 19.0 | 9 28 | 0 39.62 | +15 29.9 | 1.855 | 2.836 | 5.1 | 19.2 |
| 10 8 | 0 31.05 | +10 54.7 | 0.975 | 1.969 | 3.9 | 19.0 | 10 8 | 0 30.66 | +15 9.1 | 1.846 | 2.833 | 3.9 | 19.2 |
| 10 18 | 0 23.88 | + 9 35.2 | 1.011 | 1.986 | 8.3 | 19.3 | 10 18 | 0 22.15 | +14 38.8 | 1.865 | 2.830 | 6.2 | 19.3 |
| 10 28 | 0 19.04 | + 8 23.0 | 1.070 | 2.004 | 13.3 | 19.6 | 10 28 | 0 15.01 | +14 4.7 | 1.911 | 2.827 | 9.5 | 19.5 |
| 11 7 | 0 17.19 | + 7 27.2 | 1.148 | 2.022 | 17.6 | 20.0 | 11 7 | 0 9.92 | +13 32.6 | 1.981 | 2.824 | 12.6 | 19.7 |
| 18528 | 1996 <i>VX</i> ₃₀ | 10 | 2.7 | 259°38 | 3°7/29.4 | 18 R | 384322 | 2009 <i>SY</i> ₂₂₄ | 10 | 2.7 | 324°11 | 2°8/30.8 | 18 |
| 8 29 | 1 2.29 | - 4 42.9 | 1.904 | 2.771 | 12.9 | 19.4 | 8 29 | 0 57.87 | + 0 2.3 | 1.212 | 2.103 | 17.1 | 21.5 |
| 9 8 | 0 56.77 | - 5 21.4 | 1.820 | 2.754 | 9.7 | 19.1 | 9 8 | 0 54.48 | - 0 28.2 | 1.136 | 2.083 | 12.9 | 21.2 |
| 9 18 | 0 49.11 | - 6 3.7 | 1.760 | 2.736 | 6.2 | 18.9 | 9 18 | 0 48.19 | - 1 10.0 | 1.080 | 2.063 | 7.9 | 20.9 |
| 9 28 | 0 39.95 | - 6 44.0 | 1.726 | 2.718 | 3.8 | 18.7 | 9 28 | 0 39.76 | - 1 56.5 | 1.046 | 2.045 | 3.2 | 20.6 |
| 10 8 | 0 30.21 | - 7 16.1 | 1.721 | 2.699 | 5.3 | 18.8 | 10 8 | 0 30.46 | - 2 38.7 | 1.037 | 2.027 | 5.1 | 20.6 |
| 10 18 | 0 20.94 | - 7 34.6 | 1.742 | 2.680 | 8.9 | 18.9 | 10 18 | 0 21.77 | - 3 8.1 | 1.050 | 2.011 | 10.5 | 20.9 |
| 10 28 | 0 13.12 | - 7 36.1 | 1.790 | 2.661 | 12.6 | 19.1 | 10 28 | 0 15.11 | - 3 17.9 | 1.086 | 1.995 | 15.7 | 21.1 |
| 11 7 | 0 7.47 | - 7 19.5 | 1.859 | 2.641 | 15.8 | 19.3 | 11 7 | 0 11.46 | - 3 4.9 | 1.140 | 1.980 | 20.1 | 21.4 |
| 301881 | 1997 <i>TV</i> ₂₁ | 10 | 2.7 | 299°56 | 1°2/ 1.6 | 18 | 423924 | 2006 <i>SH</i> ₃₉₆ | 10 | 2.7 | 39°41 | 1°9/ 3.9 | 15 |
| 8 29 | | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 452687 | 2005 <i>XX</i> ₈₀ | 10 | 2.7 253°42 | 5°4/26.7 | 18 | | 290742 | 2005 <i>UF</i> ₄₇₀ | 10 | 2.7 101°64 | 2°2/ 6.3 | 18 | |
| 8 29 | 0 58.34 | -11 45.8 | 2.244 | 3.115 | 11.1 | 21.4 | 8 29 | 0 53.69 | +15 23.6 | 3.395 | 4.189 | 9.5 | 21.0 |
| 9 8 | 0 53.42 | -12 41.6 | 2.180 | 3.110 | 8.5 | 21.2 | 9 8 | 0 49.49 | +15 11.2 | 3.321 | 4.202 | 7.5 | 20.9 |
| 9 18 | 0 46.85 | -13 35.2 | 2.140 | 3.104 | 6.3 | 21.1 | 9 18 | 0 44.24 | +14 48.0 | 3.270 | 4.215 | 5.3 | 20.7 |
| 9 28 | 0 39.19 | -14 20.5 | 2.127 | 3.099 | 5.5 | 21.0 | 9 28 | 0 38.34 | +14 15.2 | 3.246 | 4.228 | 3.1 | 20.6 |
| 10 8 | 0 31.22 | -14 52.0 | 2.142 | 3.093 | 6.8 | 21.1 | 10 8 | 0 32.26 | +13 35.3 | 3.253 | 4.241 | 2.2 | 20.6 |
| 10 18 | 0 23.73 | -15 5.9 | 2.183 | 3.087 | 9.3 | 21.3 | 10 18 | 0 26.49 | +12 51.3 | 3.289 | 4.254 | 3.8 | 20.7 |
| 10 28 | 0 17.49 | -15 0.5 | 2.249 | 3.081 | 11.8 | 21.4 | 10 28 | 0 21.50 | +12 6.8 | 3.354 | 4.267 | 6.0 | 20.8 |
| 11 7 | 0 13.01 | -14 36.2 | 2.337 | 3.075 | 14.2 | 21.6 | 11 7 | 0 17.66 | +11 25.2 | 3.446 | 4.279 | 8.0 | 21.0 |
| 401833 | 1998 <i>WA</i> ₃₆ | 10 | 2.7 18°02 | 3°7/29.4 | 18 | | 39267 | 2001 <i>AU</i> ₃ | 10 | 2.7 46°88 | 4°0/27.9 | 18 | |
| 8 29 | 0 59.35 | - 5 48.7 | 1.930 | 2.803 | 12.5 | 20.6 | 8 29 | 0 55.45 | - 5 12.4 | 2.086 | 2.962 | 11.6 | 18.3 |
| 9 8 | 0 54.32 | - 6 16.4 | 1.870 | 2.806 | 9.3 | 20.4 | 9 8 | 0 51.36 | - 6 26.3 | 2.026 | 2.964 | 8.6 | 18.1 |
| 9 18 | 0 47.44 | - 6 45.4 | 1.833 | 2.810 | 6.0 | 20.2 | 9 18 | 0 45.61 | - 7 43.5 | 1.990 | 2.967 | 5.6 | 17.9 |
| 9 28 | 0 39.38 | - 7 10.6 | 1.823 | 2.814 | 3.7 | 20.1 | 9 28 | 0 38.82 | - 8 57.4 | 1.982 | 2.970 | 4.0 | 17.8 |
| 10 8 | 0 31.03 | - 7 26.6 | 1.840 | 2.819 | 5.1 | 20.2 | 10 8 | 0 31.73 | -10 1.1 | 2.002 | 2.972 | 5.6 | 17.9 |
| 10 18 | 0 23.29 | - 7 29.9 | 1.885 | 2.824 | 8.3 | 20.4 | 10 18 | 0 25.16 | -10 49.2 | 2.049 | 2.975 | 8.5 | 18.1 |
| 10 28 | 0 16.99 | - 7 18.1 | 1.955 | 2.829 | 11.5 | 20.6 | 10 28 | 0 19.82 | -11 18.4 | 2.121 | 2.978 | 11.5 | 18.3 |
| 11 7 | 0 12.68 | - 6 50.9 | 2.046 | 2.834 | 14.3 | 20.8 | 11 7 | 0 16.25 | -11 27.6 | 2.215 | 2.981 | 14.0 | 18.5 |
| 263187 | 2007 <i>YH</i> ₂₃ | 10 | 2.7 209°95 | 0°7/ 3.3 | 17 | | 123915 | 2001 <i>DK</i> ₉₅ | 10 | 2.7 128°28 | 3°2/ 6.9 | 18 | |
| 8 29 | 1 1.88 | + 8 4.1 | 1.802 | 2.644 | 14.7 | 21.5 | 8 29 | 0 56.79 | +17 51.2 | 2.689 | 3.475 | 11.9 | 19.8 |
| 9 8 | 0 56.53 | + 7 39.0 | 1.721 | 2.639 | 11.2 | 21.3 | 9 8 | 0 52.06 | +17 38.6 | 2.612 | 3.486 | 9.5 | 19.6 |
| 9 18 | 0 48.99 | + 6 59.2 | 1.662 | 2.633 | 7.1 | 21.0 | 9 18 | 0 45.93 | +17 10.9 | 2.559 | 3.497 | 6.9 | 19.5 |
| 9 28 | 0 39.94 | + 6 7.9 | 1.629 | 2.627 | 2.6 | 20.7 | 9 28 | 0 38.90 | +16 29.2 | 2.531 | 3.508 | 4.3 | 19.3 |
| 10 8 | 0 30.35 | + 5 10.7 | 1.625 | 2.620 | 2.3 | 20.7 | 10 8 | 0 31.63 | +15 36.5 | 2.532 | 3.518 | 3.2 | 19.3 |
| 10 18 | 0 21.30 | + 4 14.2 | 1.648 | 2.613 | 6.9 | 21.0 | 10 18 | 0 24.77 | +14 37.1 | 2.563 | 3.527 | 4.8 | 19.4 |
| 10 28 | 0 13.80 | + 3 25.5 | 1.698 | 2.605 | 11.1 | 21.2 | 10 28 | 0 18.96 | +13 36.1 | 2.623 | 3.537 | 7.3 | 19.6 |
| 11 7 | 0 8.57 | + 2 49.6 | 1.771 | 2.596 | 14.7 | 21.4 | 11 7 | 0 14.66 | +12 38.8 | 2.708 | 3.546 | 9.8 | 19.8 |
| 496290 | 2012 <i>YA</i> ₆ | 10 | 2.7 324°98 | 17°5/13.2 | 17 | | 75561 | 1999 <i>YR</i> ₂₂ | 10 | 2.7 242°57 | 2°3/ 4.4 | 18 | |
| 8 29 | 0 58.80 | -27 58.1 | 1.075 | 1.962 | 19.1 | 20.2 | 8 29 | 1 3.12 | +10 29.9 | 1.579 | 2.419 | 16.5 | 18.9 |
| 9 8 | 0 55.48 | -31 35.0 | 1.055 | 1.960 | 17.7 | 20.1 | 9 8 | 0 57.80 | +10 37.6 | 1.500 | 2.414 | 12.8 | 18.7 |
| 9 18 | 0 48.82 | -34 44.4 | 1.055 | 1.958 | 17.7 | 20.1 | 9 18 | 0 49.95 | +10 28.7 | 1.442 | 2.408 | 8.5 | 18.4 |
| 9 28 | 0 39.91 | -37 6.1 | 1.075 | 1.956 | 19.0 | 20.2 | 9 28 | 0 40.31 | +10 4.6 | 1.409 | 2.403 | 4.0 | 18.1 |
| 10 8 | 0 30.44 | -38 28.5 | 1.113 | 1.954 | 21.1 | 20.3 | 10 8 | 0 30.00 | + 9 29.5 | 1.402 | 2.397 | 3.0 | 18.0 |
| 10 18 | 0 22.16 | -38 49.7 | 1.166 | 1.952 | 23.4 | 20.5 | 10 18 | 0 20.30 | + 8 49.4 | 1.422 | 2.391 | 7.3 | 18.3 |
| 10 28 | 0 16.52 | -38 15.4 | 1.231 | 1.951 | 25.5 | 20.7 | 10 28 | 0 12.39 | + 8 11.7 | 1.468 | 2.385 | 11.8 | 18.5 |
| 11 7 | 0 14.24 | -36 55.9 | 1.306 | 1.949 | 27.3 | 20.9 | 11 7 | 0 7.08 | + 7 42.8 | 1.536 | 2.378 | 15.7 | 18.8 |
| 15251 | 1990 <i>EF</i> ₂ | 10 | 2.7 174°31 | 2°4/ 4.7 | 18 | | 485903 | 2012 <i>FB</i> ₇₉ | 10 | 2.7 74°22 | 5°0/ 7.7 | 18 | |
| 8 29 | 1 2.08 | +12 33.1 | 1.496 | 2.334 | 17.4 | 18.6 | 8 29 | 1 1.09 | +19 24.1 | 2.232 | 3.014 | 14.2 | 20.9 |
| 9 8 | 0 57.03 | +12 14.1 | 1.424 | 2.335 | 13.5 | 18.4 | 9 8 | 0 55.65 | +19 58.2 | 2.154 | 3.019 | 11.6 | 20.8 |
| 9 18 | 0 49.43 | +11 33.7 | 1.372 | 2.337 | 9.0 | 18.1 | 9 18 | 0 48.33 | +20 15.5 | 2.097 | 3.024 | 8.8 | 20.6 |
| 9 28 | 0 40.09 | +10 34.5 | 1.345 | 2.338 | 4.3 | 17.9 | 9 28 | 0 39.74 | +20 15.1 | 2.065 | 3.030 | 6.2 | 20.5 |
| 10 8 | 0 30.19 | + 9 22.8 | 1.343 | 2.338 | 3.0 | 17.8 | 10 8 | 0 30.71 | +19 58.4 | 2.060 | 3.035 | 5.0 | 20.4 |
| 10 18 | 0 21.01 | + 8 7.2 | 1.369 | 2.338 | 7.4 | 18.1 | 10 18 | 0 22.14 | +19 28.8 | 2.083 | 3.041 | 6.3 | 20.5 |
| 10 28 | 0 13.74 | + 6 57.3 | 1.420 | 2.338 | 12.0 | 18.3 | 10 28 | 0 14.90 | +18 51.7 | 2.134 | 3.046 | 8.9 | 20.7 |
| 11 7 | 0 9.11 | + 6 0.7 | 1.493 | 2.337 | 16.0 | 18.6 | 11 7 | 0 9.60 | +18 13.3 | 2.210 | 3.052 | 11.6 | 20.9 |
| 328827 | 2009 <i>VM</i> ₁₀₉ | 10 | 2.7 347°32 | 4°5/ 7.8 | 18 | | 237565 | 2001 <i>AV</i> ₁₁ | 10 | 2.7 326°66 | 2°9/30.3 | 18 | |
| 8 29 | 0 55.51 | +19 38.5 | 2.129 | 2.922 | 14.4 | 20.3 | 8 29 | 0 53.75 | + 1 15.9 | 1.281 | 2.173 | 16.3 | 19.4 |
| 9 8 | 0 51.58 | +19 40.3 | 2.045 | 2.919 | 11.8 | 20.1 | 9 8 | 0 51.26 | + 0 16.1 | 1.202 | 2.149 | 12.2 | 19.1 |
| 9 18 | 0 45.85 | +19 22.6 | 1.982 | 2.916 | 8.8 | 19.9 | 9 18 | 0 46.17 | - 0 59.1 | 1.142 | 2.127 | 7.4 | 18.8 |
| 9 28 | 0 38.90 | +18 45.7 | 1.943 | 2.914 | 5.9 | 19.7 | 9 28 | 0 39.14 | - 2 22.2 | 1.106 | 2.104 | 3.2 | 18.5 |
| 10 8 | 0 31.53 | +17 52.5 | 1.930 | 2.912 | 4.5 | 19.6 | 10 8 | 0 31.32 | - 3 42.3 | 1.094 | 2.083 | 5.4 | 18.5 |
| 10 18 | 0 24.60 | +16 48.0 | 1.946 | 2.910 | 6.0 | 19.7 | 10 18 | 0 24.01 | - 4 48.8 | 1.106 | 2.063 | 10.5 | 18.8 |
| 10 28 | 0 18.92 | +15 39.1 | 1.988 | 2.908 | 8.9 | 19.9 | 10 28 | 0 18.53 | - 5 32.7 | 1.140 | 2.045 | 15.5 | 19.0 |
| 11 7 | 0 15.11 | +14 32.8 | 2.055 | 2.907 | 11.9 | 20.1 | 11 7 | 0 15.76 | - 5 49.8 | 1.193 | 2.027 | 19.8 | 19.2 |
| 487380 | 2014 <i>QF</i> ₂₈₂ | 10 | 2.7 248°34 | 4°6/26.7 | 18 | | 436241 | 2010 <i>AM</i> ₈₉ | 10 | 2.7 315°38 | 5°5/21.9 | 18 | |
| 8 29 | 0 55.19 | - 8 7.7 | 2.312 | 3.187 | 10.7 | 21.1 | 8 29 | 0 52.83 | -24 5.3 | 4.044 | 4.889 | 7.1 | 21.0 |
| 9 8 | 0 51.07 | - 9 26.6 | 2.246 | 3.182 | 8.0 | 20.9 | 9 8 | 0 48.75 | -24 49.3 | 3.993 | 4.884 | 6.1 | 20.9 |
| 9 18 | 0 45.40 | -10 47.1 | 2.206 | 3.177 | 5.6 | 20.8 | 9 18 | 0 43.75 | -25 26.5 | 3.968 | 4.879 | 5.5 | 20.9 |
| 9 28 | 0 38.74 | -12 2.4 | 2.193 | 3.172 | 4.7 | 20.7 | 9 28 | 0 38.19 | -25 53.5 | 3.969 | 4.875 | 5.6 | 20.9 |
| 10 8 | 0 31.76 | -13 6.2 | 2.208 | 3.166 | 6.1 | 20.8 | 10 8 | 0 32.48 | -26 7.8 | 3.997 | 4.870 | 6.3 | 20.9 |
| 10 18 | 0 25.20 | -13 53.6 | 2.251 | 3.161 | 8.7 | 21.0 | 10 18 | 0 27.05 | -26 7.9 | 4.051 | 4.866 | 7.4 | 21.0 |
| 10 28 | 0 19.76 | -14 21.6 | 2.319 | 3.156 | 11.4 | 21.1 | 10 28 | 0 22.31 | -25 53.5 | 4.129 | 4.861 | 8.6 | 21.1 |
| 11 7 | 0 15.95 | -14 29.5 | 2.408 | 3.150 | 13.7 | 21.3 | 11 7 | 0 18.58 | -25 25.1 | 4.226 | 4.857 | 9.7 | 21.2 |
| 349621 | 2008 <i>UU</i> ₁₃₂ | 10 | 2.7 162°13 | 2°6/ 5.5 | 18 | | 445938 | 2013 <i>AY</i> ₃₉ | 10 | 2.7 261°43 | 3°7/ 6.2 | 18 | |
| 8 29 | 0 58.84 | +14 36.2 | 2.036 | 2.851 | 14.2 | 21.4 | 8 29 | 0 59.28 | +15 45.1 | 1.978 | 2.789 | 14.7 | 21.5 |
| 9 8 | 0 54.00 | +14 10.1 | 1.958 | 2.855 | 11.1 | 21.2 | 9 8 | 0 54.54 | +15 51.5 | 1.891 | 2.782 | 11.8 | 21.3 |
| 9 18 | 0 47.30 | +13 25.9 | 1.903 | 2.859 | 7.6 | 21.0 | 9 18 | 0 47.77 | +15 40.3 | 1.826 | 2.775 | 8.4 | 21.1 |
| 9 28 | 0 39.37 | +12 25.6 | 1.874 | 2.862 | 4.0 | 20.8 | 9 28 | 0 39.58 | +15 11.7 | 1.786 | 2.768 | 5.1 | 20.9 |
| 10 8 | 0 31.06 | +11 14.3 | 1.872 | 2.865 | 2.8 | 20.7 | 10 8 | 0 30.87 | +14 28.9 | 1.773 | 2.762 | 3.8 | 20.8 |
| 10 18 | 0 23.28 | + 9 58.4 | 1.899 | 2.867 | 5.8 | 20.9 | 10 18 | 0 22.60 | +13 36.9 | 1.788 | 2.755 | 6.2 | 20.9 |
| 10 28 | 0 16.88 | + 8 45.1 | 1.954 | 2.870 | 9.4 | 21.2 | 10 28 | 0 15.72 | +12 42.5 | 1.829 | 2.748 | 9.7 | 21.1 |
| 11 7 | 0 12.44 | + 7 41.0 | 2.034 | 2.871 | 12.6 | 21.4 | 11 7 | 0 10.91 | +11 52.4 | 1.895 | 2.741 | 13.0 | 21.3 |
| 299597 | 2006 <i>HH</i> ₄₂ | 10 | 2.7 195°91 | 3°1/ 6.3 | 18 | | 62044 | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|-----------|---------|------|
| 220432 | 2003 <i>UL</i> ₆₁ | 10 | 2.7 295°00 | 5°1/28.4 | 17 | | 22522 | 1998 <i>EF</i> ₆ | 10 | 2.7 113°59 | 10°1/12.3 | 18 | |
| 8 29 | 1 5.38 | -12 1.0 | 2.235 | 3.094 | 11.6 | 19.8 | 8 29 | 1 11.65 | +31 15.4 | 1.862 | 2.567 | 19.0 | 18.9 |
| 9 8 | 0 58.81 | -12 15.7 | 2.148 | 3.071 | 9.0 | 19.6 | 9 8 | 1 4.10 | +32 30.4 | 1.797 | 2.589 | 16.6 | 18.7 |
| 9 18 | 0 50.28 | -12 26.5 | 2.085 | 3.049 | 6.4 | 19.4 | 9 18 | 0 53.79 | +33 18.2 | 1.751 | 2.610 | 14.0 | 18.6 |
| 9 28 | 0 40.38 | -12 28.4 | 2.050 | 3.027 | 5.1 | 19.3 | 9 28 | 0 41.58 | +33 33.7 | 1.727 | 2.631 | 11.6 | 18.5 |
| 10 8 | 0 29.99 | -12 16.9 | 2.043 | 3.005 | 6.3 | 19.3 | 10 8 | 0 28.77 | +33 16.0 | 1.727 | 2.651 | 10.2 | 18.5 |
| 10 18 | 0 20.05 | -11 49.6 | 2.066 | 2.983 | 9.0 | 19.5 | 10 18 | 0 16.78 | +32 28.9 | 1.753 | 2.670 | 10.3 | 18.5 |
| 10 28 | 0 11.45 | -11 5.4 | 2.114 | 2.961 | 11.9 | 19.6 | 10 28 | 0 6.89 | +31 20.9 | 1.804 | 2.688 | 11.8 | 18.6 |
| 11 7 | 0 4.85 | -10 5.5 | 2.186 | 2.939 | 14.6 | 19.8 | 11 7 | 23 59.89 | +30 2.9 | 1.878 | 2.705 | 13.9 | 18.8 |
| 488199 | 2015 <i>XO</i> ₂₂₄ | 10 | 2.7 330°30 | 2°1/30.4 | 18 | | 161617 | 2005 <i>UJ</i> ₅₁₃ | 10 | 2.7 297°66 | 2°9/29.9 | 18 | |
| 8 29 | 0 55.51 | + 0 1.0 | 2.163 | 3.029 | 11.7 | 21.4 | 8 29 | 0 59.73 | - 3 30.7 | 2.070 | 2.936 | 12.1 | 20.1 |
| 9 8 | 0 51.41 | - 0 44.6 | 2.090 | 3.025 | 8.6 | 21.2 | 9 8 | 0 54.61 | - 3 58.5 | 1.998 | 2.932 | 9.0 | 19.9 |
| 9 18 | 0 45.67 | - 1 37.1 | 2.041 | 3.021 | 5.2 | 21.0 | 9 18 | 0 47.67 | - 4 29.7 | 1.951 | 2.929 | 5.6 | 19.7 |
| 9 28 | 0 38.87 | - 2 31.6 | 2.020 | 3.017 | 2.3 | 20.8 | 9 28 | 0 39.55 | - 4 59.6 | 1.931 | 2.925 | 3.0 | 19.6 |
| 10 8 | 0 31.73 | - 3 22.5 | 2.027 | 3.014 | 3.6 | 20.9 | 10 8 | 0 31.06 | - 5 23.2 | 1.939 | 2.921 | 4.3 | 19.6 |
| 10 18 | 0 25.03 | - 4 4.7 | 2.062 | 3.011 | 7.0 | 21.1 | 10 18 | 0 23.09 | - 5 36.2 | 1.974 | 2.918 | 7.6 | 19.8 |
| 10 28 | 0 19.52 | - 4 33.9 | 2.123 | 3.008 | 10.3 | 21.3 | 10 28 | 0 16.44 | - 5 35.9 | 2.036 | 2.914 | 10.9 | 20.1 |
| 11 7 | 0 15.72 | - 4 47.8 | 2.207 | 3.005 | 13.1 | 21.5 | 11 7 | 0 11.69 | - 5 20.9 | 2.120 | 2.911 | 13.8 | 20.2 |
| 15816 | 1994 <i>PV</i> ₃₉ | 10 | 2.7 105°61 | 0°8/ 3.4 | 18 | | 237239 | 2008 <i>WN</i> ₃₂ | 10 | 2.7 338°37 | 1°6/ 1.4 | 18 | |
| 8 29 | 1 2.57 | + 8 47.5 | 1.665 | 2.509 | 15.6 | 18.8 | 8 29 | 0 58.38 | + 2 22.0 | 1.534 | 2.407 | 15.2 | 20.2 |
| 9 8 | 0 56.93 | + 8 18.3 | 1.608 | 2.527 | 11.8 | 18.6 | 9 8 | 0 54.18 | + 1 44.8 | 1.465 | 2.403 | 11.3 | 19.9 |
| 9 18 | 0 49.13 | + 7 33.4 | 1.573 | 2.544 | 7.4 | 18.3 | 9 18 | 0 47.67 | + 0 56.1 | 1.418 | 2.399 | 6.8 | 19.7 |
| 9 28 | 0 39.98 | + 6 37.1 | 1.564 | 2.562 | 2.8 | 18.1 | 9 28 | 0 39.59 | + 0 1.7 | 1.396 | 2.395 | 2.4 | 19.4 |
| 10 8 | 0 30.55 | + 5 35.8 | 1.583 | 2.578 | 2.3 | 18.1 | 10 8 | 0 31.01 | - 0 51.1 | 1.400 | 2.392 | 3.7 | 19.5 |
| 10 18 | 0 21.93 | + 4 36.6 | 1.629 | 2.595 | 6.8 | 18.4 | 10 18 | 0 23.07 | - 1 34.8 | 1.430 | 2.389 | 8.4 | 19.7 |
| 10 28 | 0 15.07 | + 3 46.4 | 1.702 | 2.611 | 10.9 | 18.7 | 10 28 | 0 16.84 | - 2 3.7 | 1.484 | 2.386 | 12.7 | 20.0 |
| 11 7 | 0 10.55 | + 3 10.0 | 1.797 | 2.626 | 14.4 | 19.0 | 11 7 | 0 13.00 | - 2 14.3 | 1.560 | 2.384 | 16.4 | 20.2 |
| 147769 | 2005 <i>QJ</i> ₄₇ | 10 | 2.7 334°34 | 3°3/30.1 | 18 | | 50137 | 2000 <i>AT</i> ₁₂₈ | 10 | 2.7 167°50 | 4°2/ 7.3 | 18 | |
| 8 29 | 0 57.19 | - 0 19.1 | 1.275 | 2.165 | 16.5 | 19.4 | 8 29 | 1 0.44 | +18 36.9 | 2.273 | 3.059 | 13.8 | 19.3 |
| 9 8 | 0 53.70 | - 1 13.5 | 1.209 | 2.155 | 12.3 | 19.1 | 9 8 | 0 55.12 | +18 44.7 | 2.191 | 3.062 | 11.2 | 19.1 |
| 9 18 | 0 47.56 | - 2 19.3 | 1.163 | 2.147 | 7.5 | 18.8 | 9 18 | 0 48.00 | +18 35.1 | 2.130 | 3.065 | 8.3 | 18.9 |
| 9 28 | 0 39.57 | - 3 28.4 | 1.141 | 2.139 | 3.6 | 18.6 | 9 28 | 0 39.67 | +18 8.2 | 2.095 | 3.067 | 5.5 | 18.8 |
| 10 8 | 0 30.96 | - 4 30.8 | 1.144 | 2.131 | 5.6 | 18.7 | 10 8 | 0 30.92 | +17 26.5 | 2.088 | 3.070 | 4.2 | 18.7 |
| 10 18 | 0 23.06 | - 5 17.4 | 1.171 | 2.125 | 10.4 | 18.9 | 10 18 | 0 22.64 | +16 34.4 | 2.109 | 3.071 | 5.8 | 18.8 |
| 10 28 | 0 17.12 | - 5 41.7 | 1.220 | 2.119 | 15.1 | 19.2 | 10 28 | 0 15.64 | +15 38.1 | 2.158 | 3.073 | 8.7 | 19.0 |
| 11 7 | 0 13.92 | - 5 41.5 | 1.288 | 2.114 | 19.1 | 19.4 | 11 7 | 0 10.51 | +14 43.7 | 2.233 | 3.073 | 11.5 | 19.2 |
| 429780 | 2012 <i>GB</i> ₃₇ | 10 | 2.7 118°95 | 3°2/30.5 | 16 | | 170906 | Coluche | 10 | 2.7 317°60 | 1°5/ 3.8 | 18 | |
| 8 29 | 1 5.76 | - 2 49.6 | 1.531 | 2.401 | 15.4 | 21.4 | 8 29 | 0 58.39 | + 9 8.5 | 1.181 | 2.052 | 18.9 | 19.9 |
| 9 8 | 0 59.51 | - 3 15.6 | 1.473 | 2.409 | 11.4 | 21.2 | 9 8 | 0 55.00 | + 8 59.1 | 1.106 | 2.038 | 14.6 | 19.6 |
| 9 18 | 0 50.82 | - 3 46.2 | 1.438 | 2.416 | 7.0 | 20.9 | 9 18 | 0 48.61 | + 8 28.4 | 1.049 | 2.024 | 9.5 | 19.3 |
| 9 28 | 0 40.55 | - 4 15.5 | 1.428 | 2.424 | 3.4 | 20.7 | 9 28 | 0 40.00 | + 7 39.1 | 1.014 | 2.011 | 3.9 | 18.9 |
| 10 8 | 0 29.93 | - 4 36.9 | 1.445 | 2.431 | 5.0 | 20.8 | 10 8 | 0 30.50 | + 6 38.3 | 1.002 | 1.998 | 3.0 | 18.8 |
| 10 18 | 0 20.17 | - 4 45.5 | 1.489 | 2.438 | 9.2 | 21.1 | 10 18 | 0 21.64 | + 5 35.6 | 1.014 | 1.986 | 8.8 | 19.1 |
| 10 28 | 0 12.38 | - 4 38.1 | 1.558 | 2.444 | 13.2 | 21.4 | 10 28 | 0 14.91 | + 4 41.8 | 1.049 | 1.975 | 14.4 | 19.4 |
| 11 7 | 0 7.20 | - 4 14.1 | 1.648 | 2.451 | 16.6 | 21.6 | 11 7 | 0 11.29 | + 4 4.9 | 1.103 | 1.965 | 19.2 | 19.7 |
| 285848 | 2001 <i>FS</i> ₁₁₁ | 10 | 2.7 118°61 | 0°9/ 1.6 | 18 | | 510037 | 2010 <i>CS</i> ₁₈₂ | 10 | 2.7 193°93 | 3°3/ 6.0 | 18 | |
| 8 29 | 0 57.31 | + 5 32.8 | 2.003 | 2.856 | 13.0 | 20.7 | 8 29 | 1 0.54 | +15 35.6 | 2.084 | 2.890 | 14.2 | 22.3 |
| 9 8 | 0 52.76 | + 4 22.2 | 1.940 | 2.867 | 9.6 | 20.6 | 9 8 | 0 55.35 | +15 31.1 | 2.000 | 2.888 | 11.3 | 22.1 |
| 9 18 | 0 46.49 | + 2 59.4 | 1.902 | 2.879 | 5.8 | 20.4 | 9 18 | 0 48.21 | +15 9.2 | 1.937 | 2.886 | 8.0 | 21.9 |
| 9 28 | 0 39.13 | + 1 29.9 | 1.890 | 2.890 | 1.8 | 20.1 | 9 28 | 0 39.76 | +14 30.7 | 1.900 | 2.884 | 4.7 | 21.7 |
| 10 8 | 0 31.51 | + 0 1.1 | 1.908 | 2.901 | 2.8 | 20.2 | 10 8 | 0 30.84 | +13 39.2 | 1.891 | 2.881 | 3.4 | 21.6 |
| 10 18 | 0 24.47 | - 1 19.7 | 1.955 | 2.911 | 6.7 | 20.5 | 10 18 | 0 22.39 | +12 39.9 | 1.911 | 2.878 | 5.9 | 21.8 |
| 10 28 | 0 18.77 | - 2 26.4 | 2.028 | 2.921 | 10.3 | 20.7 | 10 28 | 0 15.31 | +11 39.6 | 1.958 | 2.874 | 9.3 | 22.0 |
| 11 7 | 0 14.93 | - 3 15.6 | 2.125 | 2.931 | 13.3 | 20.9 | 11 7 | 0 10.23 | +10 44.9 | 2.030 | 2.869 | 12.5 | 22.2 |
| 56109 | 1999 <i>BB</i> ₃₂ | 10 | 2.7 346°32 | 4°9/ 5.9 | 18 | | 437697 | 2014 <i>DQ</i> ₃₂ | 10 | 2.7 8°12 | 1°2/ 2.1 | 18 | |
| 8 29 | 0 57.99 | +13 52.7 | 1.183 | 2.038 | 19.9 | 18.8 | 8 29 | 1 1.27 | + 0 37.9 | 1.131 | 2.020 | 18.3 | 19.2 |
| 9 8 | 0 54.70 | +14 30.1 | 1.111 | 2.029 | 15.9 | 18.5 | 9 8 | 0 56.90 | + 0 56.4 | 1.077 | 2.021 | 13.7 | 19.0 |
| 9 18 | 0 48.41 | +14 45.1 | 1.058 | 2.021 | 11.3 | 18.2 | 9 18 | 0 49.56 | + 1 6.7 | 1.042 | 2.024 | 8.3 | 18.7 |
| 9 28 | 0 39.91 | +14 36.7 | 1.026 | 2.013 | 6.8 | 18.0 | 9 28 | 0 40.23 | + 1 13.0 | 1.029 | 2.029 | 2.7 | 18.4 |
| 10 8 | 0 30.55 | +14 7.8 | 1.016 | 2.007 | 5.1 | 17.9 | 10 8 | 0 30.37 | + 1 20.4 | 1.040 | 2.035 | 3.7 | 18.5 |
| 10 18 | 0 21.88 | +13 25.4 | 1.030 | 2.003 | 8.6 | 18.1 | 10 18 | 0 21.49 | + 1 33.9 | 1.075 | 2.043 | 9.3 | 18.8 |
| 10 28 | 0 15.39 | +12 39.4 | 1.066 | 1.999 | 13.4 | 18.3 | 10 28 | 0 14.94 | + 1 57.5 | 1.133 | 2.052 | 14.2 | 19.1 |
| 11 7 | 0 12.01 | +11 59.7 | 1.122 | 1.997 | 17.9 | 18.6 | 11 7 | 0 11.48 | + 2 33.3 | 1.210 | 2.062 | 18.4 | 19.4 |
| 482629 | 2013 <i>AX</i> ₆₉ | 10 | 2.7 302°15 | 2°4/ 4.9 | 18 | | 364001 | 2005 <i>UO</i> ₄₀₇ | 10 | 2.7 337°33 | 2°8/30.2 | 18 | |
| 8 29 | 0 58.45 | +12 22.2 | 1.849 | 2.680 | 14.8 | 21.2 | 8 29 | 0 58.48 | - 2 22.3 | 1.828 | 2.701 | 13.1 | 20.5 |
| 9 8 | 0 53.98 | +12 16.0 | 1.768 | 2.676 | 11.6 | 21.0 | 9 8 | 0 53.91 | - 2 54.0 | 1.758 | 2.696 | 9.7 | 20.3 |
| 9 18 | 0 47.45 | +11 53.0 | 1.709 | 2.671 | 7.8 | 20.8 | 9 18 | 0 47.36 | - 3 30.9 | 1.711 | 2.690 | 6.0 | 20.1 |
| 9 28 | 0 39.50 | +11 14.9 | 1.675 | 2.667 | 4.0 | 20.5 | 9 28 | 0 39.48 | - 4 7.5 | 1.690 | 2.686 | 3.0 | 19.9 |
| 10 8 | 0 31.06 | +10 25.9 | 1.668 | 2.662 | 2.8 | 20.4 | 10 8 | 0 31.18 | - 4 38.1 | 1.696 | 2.681 | 4.5 | 20.0 |
| 10 18 | 0 23.12 | + 9 32.0 | 1.689 | 2.658 | 6.3 | 20.6 | 10 18 | 0 23.43 | - 4 57.6 | 1.729 | 2.677 | 8.2 | 20.2 |
| 10 28 | 0 16.63 | + 8 40.1 | 1.736 | 2.654 | 10.2 | 20.9 | 10 28 | 0 17.14 | - 5 2.4 | 1.787 | 2.674 | 11.8 | 20.4 |
| 11 7 | 0 12.26 | + 7 56.5 | 1.806 | 2.650 | 13.7 | 21.1 | 11 7 | 0 12.92 | - 4 50.9 | 1.867 | 2.670 | 14.9 | 20.6 |
| 121172 | 1999 <i>KZ</i> ₁₁ | 10 | 2.7 77°79 | 4°6/29.1 | 18 | | 494275 | 2016 <i>QQ</i> ₈₃ | 10 | 2.7 357°88 | 2°6/ 4.7 | 18 | |
| 8 29 | | | | | | | | | | | | | |

EPHEMERIDES

10 2.7

10 2.7

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|-----------|---------|------|
| 511988 | 2015 <i>KC</i> ₁₀₂ | 10 | 2.7 141°59 | 9°3/24.2 | 18 | | 16099 | 1999 <i>VQ</i> ₂₄ | 10 | 2.7 351°03 | 3°5/26.1 | 18 | |
| 8 29 | 1 3.16 | -19 33.9 | 1.740 | 2.609 | 13.9 | 21.5 | 8 29 | 0 50.99 | -12 24.4 | 3.900 | 4.766 | 6.9 | 17.6 |
| 9 8 | 0 57.41 | -20 50.9 | 1.696 | 2.612 | 11.4 | 21.3 | 9 8 | 0 47.43 | -13 6.9 | 3.838 | 4.765 | 5.3 | 17.4 |
| 9 18 | 0 49.46 | -21 57.6 | 1.674 | 2.615 | 9.6 | 21.2 | 9 18 | 0 43.00 | -13 47.6 | 3.803 | 4.764 | 4.0 | 17.4 |
| 9 28 | 0 40.13 | -22 44.8 | 1.677 | 2.618 | 9.4 | 21.2 | 9 28 | 0 38.02 | -14 23.2 | 3.796 | 4.763 | 3.5 | 17.3 |
| 10 8 | 0 30.53 | -23 5.6 | 1.704 | 2.620 | 10.8 | 21.3 | 10 8 | 0 32.88 | -14 50.8 | 3.817 | 4.761 | 4.4 | 17.4 |
| 10 18 | 0 21.75 | -22 57.4 | 1.756 | 2.623 | 13.2 | 21.5 | 10 18 | 0 28.00 | -15 8.3 | 3.867 | 4.760 | 5.9 | 17.5 |
| 10 28 | 0 14.75 | -22 20.6 | 1.829 | 2.625 | 15.6 | 21.7 | 10 28 | 0 23.74 | -15 14.5 | 3.943 | 4.760 | 7.5 | 17.6 |
| 11 7 | 0 10.13 | -21 19.3 | 1.920 | 2.627 | 17.8 | 21.8 | 11 7 | 0 20.43 | -15 8.8 | 4.042 | 4.759 | 8.9 | 17.7 |
| 298240 | 2002 <i>VS</i> ₂₂ | 10 | 2.7 354°83 | 4°9/29.7 | 18 | | 9351 | Neumayer | 10 | 2.7 15°27 | 2°2/4.4 | 18 | |
| 8 29 | 0 58.98 | -6 16.2 | 1.227 | 2.123 | 16.6 | 19.3 | 8 29 | 0 57.12 | +11 4.4 | 1.158 | 2.026 | 19.4 | 17.9 |
| 9 8 | 0 55.08 | -6 33.8 | 1.168 | 2.116 | 12.5 | 19.0 | 9 8 | 0 53.82 | +10 51.6 | 1.100 | 2.030 | 15.0 | 17.7 |
| 9 18 | 0 48.42 | -6 52.5 | 1.129 | 2.110 | 8.1 | 18.8 | 9 18 | 0 47.70 | +10 15.4 | 1.061 | 2.034 | 9.8 | 17.4 |
| 9 28 | 0 39.88 | -7 5.0 | 1.112 | 2.105 | 5.0 | 18.6 | 9 28 | 0 39.67 | +9 19.3 | 1.043 | 2.039 | 4.4 | 17.1 |
| 10 8 | 0 30.78 | -7 4.3 | 1.119 | 2.102 | 6.7 | 18.7 | 10 8 | 0 31.08 | +8 11.3 | 1.049 | 2.045 | 3.1 | 17.1 |
| 10 18 | 0 22.52 | -6 45.5 | 1.150 | 2.101 | 11.0 | 18.9 | 10 18 | 0 23.39 | +7 1.4 | 1.079 | 2.052 | 8.2 | 17.4 |
| 10 28 | 0 16.36 | -6 6.6 | 1.203 | 2.101 | 15.4 | 19.2 | 10 28 | 0 17.85 | +6 0.4 | 1.131 | 2.060 | 13.3 | 17.7 |
| 11 7 | 0 13.05 | -5 8.5 | 1.275 | 2.103 | 19.2 | 19.4 | 11 7 | 0 15.24 | +5 15.9 | 1.204 | 2.068 | 17.7 | 18.0 |
| 212719 | 2007 <i>RN</i> ₁₂₇ | 10 | 2.7 337°48 | 0°2/2.6 | 17 | | 107024 | 2000 <i>YR</i> ₁₁₇ | 10 | 2.7 289°85 | 5°5/27.6 | 18 | |
| 8 29 | 1 2.66 | +5 2.0 | 1.270 | 2.140 | 17.9 | 21.2 | 8 29 | 0 58.52 | -7 3.5 | 1.674 | 2.556 | 13.7 | 19.3 |
| 9 8 | 0 57.83 | +4 49.0 | 1.204 | 2.139 | 13.5 | 20.9 | 9 8 | 0 54.25 | -8 15.5 | 1.599 | 2.539 | 10.3 | 19.1 |
| 9 18 | 0 50.14 | +4 21.0 | 1.158 | 2.137 | 8.4 | 20.6 | 9 18 | 0 47.75 | -9 31.5 | 1.546 | 2.522 | 7.0 | 18.9 |
| 9 28 | 0 40.45 | +3 42.5 | 1.136 | 2.135 | 2.7 | 20.3 | 9 28 | 0 39.68 | -10 43.1 | 1.520 | 2.504 | 5.5 | 18.7 |
| 10 8 | 0 30.12 | +3 0.8 | 1.139 | 2.134 | 3.2 | 20.3 | 10 8 | 0 31.03 | -11 41.3 | 1.519 | 2.487 | 7.3 | 18.8 |
| 10 18 | 0 20.61 | +2 23.6 | 1.166 | 2.133 | 8.8 | 20.7 | 10 18 | 0 22.88 | -12 19.3 | 1.544 | 2.470 | 10.9 | 19.0 |
| 10 28 | 0 13.26 | +1 58.3 | 1.218 | 2.132 | 13.9 | 21.0 | 10 28 | 0 16.30 | -12 32.9 | 1.593 | 2.452 | 14.5 | 19.2 |
| 11 7 | 0 8.88 | +1 49.5 | 1.289 | 2.131 | 18.1 | 21.2 | 11 7 | 0 12.00 | -12 21.6 | 1.661 | 2.435 | 17.7 | 19.4 |
| 483944 | 2006 <i>BS</i> ₁₂₃ | 10 | 2.7 164°14 | 2°3/5.4 | 17 | | 209308 | 2003 <i>YN</i> ₁₆₁ | 10 | 2.7 355°19 | 0°1/2.8 | 18 | |
| 8 29 | 0 58.22 | +13 0.7 | 2.608 | 3.418 | 11.6 | 22.4 | 8 29 | 1 0.64 | +3 40.3 | 1.284 | 2.161 | 17.3 | 19.0 |
| 9 8 | 0 53.22 | +13 1.2 | 2.526 | 3.420 | 9.1 | 22.2 | 9 8 | 0 56.32 | +4 1.4 | 1.218 | 2.155 | 13.1 | 18.8 |
| 9 18 | 0 46.73 | +12 49.4 | 2.468 | 3.422 | 6.2 | 22.0 | 9 18 | 0 49.22 | +4 12.1 | 1.171 | 2.150 | 8.2 | 18.5 |
| 9 28 | 0 39.25 | +12 26.7 | 2.436 | 3.424 | 3.4 | 21.8 | 9 28 | 0 40.18 | +4 14.9 | 1.148 | 2.147 | 2.7 | 18.1 |
| 10 8 | 0 31.46 | +11 55.6 | 2.434 | 3.426 | 2.4 | 21.8 | 10 8 | 0 30.49 | +4 14.4 | 1.149 | 2.145 | 2.9 | 18.2 |
| 10 18 | 0 24.05 | +11 19.7 | 2.461 | 3.427 | 4.8 | 21.9 | 10 18 | 0 21.54 | +4 15.6 | 1.175 | 2.144 | 8.4 | 18.5 |
| 10 28 | 0 17.69 | +10 43.6 | 2.517 | 3.428 | 7.7 | 22.1 | 10 28 | 0 14.66 | +4 23.8 | 1.225 | 2.145 | 13.3 | 18.8 |
| 11 7 | 0 12.88 | +10 11.5 | 2.598 | 3.430 | 10.4 | 22.3 | 11 7 | 0 10.66 | +4 42.5 | 1.294 | 2.146 | 17.5 | 19.0 |
| 51472 | 2001 <i>FU</i> ₅₃ | 10 | 2.7 48°19 | 1°7/1.5 | 18 | | 335439 | 2005 <i>UP</i> ₂₉₆ | 10 | 2.7 26°90 | 4°4/6.9 | 18 | |
| 8 29 | 1 4.50 | +0 33.4 | 1.429 | 2.299 | 16.3 | 17.3 | 8 29 | 0 56.67 | +18 15.5 | 1.443 | 2.269 | 18.5 | 20.0 |
| 9 8 | 0 58.40 | +0 21.6 | 1.393 | 2.328 | 11.9 | 17.1 | 9 8 | 0 53.11 | +17 52.8 | 1.375 | 2.273 | 14.8 | 19.8 |
| 9 18 | 0 50.00 | +0 2.3 | 1.378 | 2.357 | 7.1 | 16.9 | 9 18 | 0 47.11 | +17 2.3 | 1.325 | 2.277 | 10.6 | 19.6 |
| 9 28 | 0 40.27 | -0 19.3 | 1.388 | 2.387 | 2.5 | 16.7 | 9 28 | 0 39.46 | +15 45.6 | 1.297 | 2.281 | 6.4 | 19.3 |
| 10 8 | 0 30.46 | -0 37.4 | 1.425 | 2.417 | 3.7 | 16.8 | 10 8 | 0 31.31 | +14 9.3 | 1.295 | 2.285 | 4.4 | 19.2 |
| 10 18 | 0 21.75 | -0 47.2 | 1.488 | 2.447 | 8.1 | 17.2 | 10 18 | 0 23.89 | +12 23.4 | 1.319 | 2.290 | 7.3 | 19.4 |
| 10 28 | 0 15.08 | -0 45.1 | 1.576 | 2.477 | 12.1 | 17.5 | 10 28 | 0 18.30 | +10 39.9 | 1.367 | 2.295 | 11.5 | 19.7 |
| 11 7 | 0 10.97 | -0 29.6 | 1.686 | 2.508 | 15.5 | 17.8 | 11 7 | 0 15.26 | +9 9.0 | 1.439 | 2.301 | 15.4 | 19.9 |
| 236430 | 2006 <i>DB</i> ₁₂₂ | 10 | 2.7 267°86 | 2°0/30.8 | 18 | | 132854 | 2002 <i>RZ</i> ₅₅ | 10 | 2.7 9°78 | 3°0/5.4 | 18 | |
| 8 29 | 0 58.28 | +1 56.1 | 1.745 | 2.612 | 13.9 | 20.2 | 8 29 | 0 57.72 | +13 27.9 | 1.642 | 2.477 | 16.2 | 19.8 |
| 9 8 | 0 53.94 | +1 2.7 | 1.666 | 2.601 | 10.3 | 19.9 | 9 8 | 0 53.63 | +13 23.0 | 1.570 | 2.478 | 12.7 | 19.6 |
| 9 18 | 0 47.48 | -0 2.0 | 1.610 | 2.590 | 6.3 | 19.7 | 9 18 | 0 47.33 | +12 58.7 | 1.519 | 2.480 | 8.7 | 19.4 |
| 9 28 | 0 39.56 | -1 12.2 | 1.580 | 2.579 | 2.4 | 19.4 | 9 28 | 0 39.53 | +12 16.7 | 1.491 | 2.481 | 4.6 | 19.1 |
| 10 8 | 0 31.11 | -2 20.3 | 1.578 | 2.567 | 3.9 | 19.5 | 10 8 | 0 31.24 | +11 21.9 | 1.490 | 2.483 | 3.2 | 19.1 |
| 10 18 | 0 23.16 | -3 18.8 | 1.602 | 2.556 | 8.2 | 19.7 | 10 18 | 0 23.56 | +10 21.2 | 1.515 | 2.486 | 6.7 | 19.3 |
| 10 28 | 0 16.69 | -4 1.6 | 1.652 | 2.544 | 12.2 | 20.0 | 10 28 | 0 17.51 | +9 22.5 | 1.566 | 2.489 | 10.7 | 19.5 |
| 11 7 | 0 12.41 | -4 25.2 | 1.724 | 2.533 | 15.7 | 20.2 | 11 7 | 0 13.76 | +8 33.0 | 1.640 | 2.492 | 14.4 | 19.8 |
| 470549 | 2008 <i>EW</i> ₁₀₈ | 10 | 2.7 155°96 | 0°8/3.5 | 16 | | 173186 | 1998 <i>FT</i> ₉₂ | 10 | 2.7 190°39 | 1°2/1.8 | 17 | |
| 8 29 | 1 2.89 | +8 35.5 | 1.840 | 2.678 | 14.6 | 22.6 | 8 29 | 1 4.25 | +2 31.5 | 1.663 | 2.520 | 15.0 | 20.7 |
| 9 8 | 0 57.15 | +8 10.8 | 1.770 | 2.685 | 11.1 | 22.4 | 9 8 | 0 58.42 | +2 7.4 | 1.591 | 2.520 | 11.2 | 20.5 |
| 9 18 | 0 49.32 | +7 31.8 | 1.723 | 2.692 | 7.0 | 22.2 | 9 18 | 0 50.25 | +1 33.1 | 1.541 | 2.519 | 6.8 | 20.3 |
| 9 28 | 0 40.12 | +6 41.6 | 1.701 | 2.698 | 2.6 | 21.9 | 9 28 | 0 40.48 | +0 53.4 | 1.518 | 2.517 | 2.2 | 20.0 |
| 10 8 | 0 30.54 | +5 45.8 | 1.708 | 2.704 | 2.2 | 21.9 | 10 8 | 0 30.21 | +0 14.4 | 1.522 | 2.515 | 3.3 | 20.0 |
| 10 18 | 0 21.59 | +4 51.0 | 1.744 | 2.709 | 6.5 | 22.2 | 10 18 | 0 20.60 | -0 17.8 | 1.554 | 2.513 | 7.9 | 20.3 |
| 10 28 | 0 14.24 | +4 3.4 | 1.806 | 2.713 | 10.5 | 22.4 | 10 28 | 0 12.74 | -0 38.0 | 1.612 | 2.510 | 12.2 | 20.6 |
| 11 7 | 0 9.09 | +3 28.0 | 1.892 | 2.717 | 13.9 | 22.7 | 11 7 | 0 7.32 | -0 43.0 | 1.692 | 2.506 | 15.8 | 20.8 |
| 472211 | 2014 <i>EL</i> ₂₆ | 10 | 2.7 228°80 | 1°3/29.9 | 18 | | 317378 | 2002 <i>OT</i> ₂₂ | 10 | 2.7 350°34 | 12°1/17.8 | 18 | |
| 8 29 | 0 49.43 | -1 37.0 | 4.504 | 5.359 | 6.3 | 21.6 | 8 29 | 0 41.81 | +38 22.1 | 1.042 | 1.806 | 27.9 | 18.0 |
| 9 8 | 0 46.18 | -2 13.6 | 4.428 | 5.357 | 4.6 | 21.5 | 9 8 | 0 43.12 | +38 1.3 | 0.964 | 1.793 | 25.2 | 17.7 |
| 9 18 | 0 42.20 | -2 52.7 | 4.378 | 5.355 | 2.8 | 21.3 | 9 18 | 0 41.51 | +36 38.6 | 0.896 | 1.781 | 21.7 | 17.5 |
| 9 28 | 0 37.75 | -3 32.0 | 4.358 | 5.353 | 1.4 | 21.2 | 9 28 | 0 37.74 | +34 4.4 | 0.842 | 1.772 | 17.6 | 17.2 |
| 10 8 | 0 33.17 | -4 9.0 | 4.368 | 5.351 | 2.1 | 21.3 | 10 8 | 0 33.22 | +30 18.8 | 0.808 | 1.765 | 13.8 | 17.0 |
| 10 18 | 0 28.76 | -4 41.6 | 4.408 | 5.349 | 3.9 | 21.4 | 10 18 | 0 29.53 | +25 36.1 | 0.795 | 1.760 | 12.1 | 16.9 |
| 10 28 | 0 24.87 | -5 7.8 | 4.476 | 5.346 | 5.6 | 21.5 | 10 28 | 0 28.09 | +20 26.1 | 0.808 | 1.757 | 14.0 | 17.0 |
| 11 7 | 0 21.76 | -5 26.2 | 4.571 | 5.344 | 7.2 | 21.7 | 11 7 | 0 29.71 | +15 24.5 | 0.844 | 1.757 | 18.1 | 17.2 |
| 114829 | Chierchia | 10 | 2.7 17°58 | 9°9/10.4 | 18 | | 81100 | 2000 <i>EO</i> ₁₀₉ | 10 | 2.7 178°65 | 5°2/28.2 | 18 | |
| 8 29 | 1 1.31 | +24 57.2 | 1.357 | 2.148 | 21.2 | 18.5 | 8 29 | 1 1.50 | -6 41.6 | 1.663 | | | |

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10 2.7

10 2.7

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|-----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 33531 | 1999 <i>HG</i> ₂ | 10 | 2.7 | 92°15 | 1.2/ 3.8 | 18 R | 338001 | 2002 <i>EK</i> ₃₃ | 10 | 2.7 | 109°23 | 1.6/ 1.2 | 17 |
| 8 29 | 1 2.17 | +10 12.4 | 1.412 | 2.262 | 17.6 | 18.3 | 8 29 | 1 2.23 | +1 14.6 | 1.935 | 2.791 | 13.2 | 20.8 |
| 9 8 | 0 57.00 | +9 37.4 | 1.358 | 2.279 | 13.3 | 18.1 | 9 8 | 0 56.41 | +0 37.9 | 1.881 | 2.810 | 9.7 | 20.7 |
| 9 18 | 0 49.37 | +8 42.6 | 1.324 | 2.295 | 8.5 | 17.9 | 9 18 | 0 48.74 | -0 6.2 | 1.850 | 2.828 | 5.8 | 20.5 |
| 9 28 | 0 40.17 | +7 32.8 | 1.314 | 2.311 | 3.3 | 17.6 | 9 28 | 0 39.94 | -0 52.8 | 1.847 | 2.845 | 2.1 | 20.3 |
| 10 8 | 0 30.64 | +6 16.0 | 1.331 | 2.327 | 2.6 | 17.6 | 10 8 | 0 30.93 | -1 36.0 | 1.872 | 2.862 | 3.3 | 20.4 |
| 10 18 | 0 22.04 | +5 1.5 | 1.375 | 2.343 | 7.5 | 18.0 | 10 18 | 0 22.62 | -2 10.8 | 1.926 | 2.878 | 7.1 | 20.6 |
| 10 28 | 0 15.44 | +3 58.0 | 1.443 | 2.358 | 12.0 | 18.3 | 10 28 | 0 15.83 | -2 33.3 | 2.006 | 2.894 | 10.6 | 20.9 |
| 11 7 | 0 11.47 | +3 11.4 | 1.533 | 2.373 | 15.9 | 18.6 | 11 7 | 0 11.08 | -2 41.3 | 2.109 | 2.910 | 13.5 | 21.1 |
| 506902 | 2008 <i>CT</i> ₁₄₂ | 10 | 2.7 | 212°17 | 1.7/ 1.1 | 17 | 18814 | Ivanovsky | 10 | 2.7 | 106°78 | 0.7/ 3.4 | 18 R |
| 8 29 | 1 0.31 | +3 9.1 | 1.846 | 2.704 | 13.7 | 22.2 | 8 29 | 1 0.97 | +9 25.8 | 1.486 | 2.337 | 16.8 | 18.1 |
| 9 8 | 0 55.34 | +2 6.9 | 1.768 | 2.698 | 10.2 | 21.9 | 9 8 | 0 56.08 | +8 41.5 | 1.427 | 2.349 | 12.7 | 17.9 |
| 9 18 | 0 48.30 | +0 52.5 | 1.713 | 2.691 | 6.1 | 21.7 | 9 18 | 0 48.81 | +7 38.2 | 1.388 | 2.361 | 8.0 | 17.6 |
| 9 28 | 0 39.85 | -0 28.3 | 1.685 | 2.684 | 2.2 | 21.4 | 9 28 | 0 40.01 | +6 21.1 | 1.374 | 2.372 | 2.9 | 17.4 |
| 10 8 | 0 30.92 | -1 47.9 | 1.685 | 2.675 | 3.6 | 21.5 | 10 8 | 0 30.85 | +4 58.4 | 1.387 | 2.383 | 2.5 | 17.4 |
| 10 18 | 0 22.51 | -2 58.7 | 1.714 | 2.667 | 7.8 | 21.8 | 10 18 | 0 22.50 | +3 39.3 | 1.427 | 2.394 | 7.5 | 17.7 |
| 10 28 | 0 15.56 | -3 54.0 | 1.769 | 2.657 | 11.8 | 22.0 | 10 28 | 0 16.02 | +2 32.4 | 1.492 | 2.404 | 11.9 | 18.0 |
| 11 7 | 0 10.75 | -4 30.2 | 1.846 | 2.647 | 15.2 | 22.2 | 11 7 | 0 12.05 | +1 43.3 | 1.580 | 2.414 | 15.7 | 18.3 |
| 402573 | 2006 <i>RB</i> ₅₂ | 10 | 2.7 | 164°89 | 0.3/ 3.1 | 18 | 383348 | 2006 <i>QJ</i> ₁₇₀ | 10 | 2.7 | 333°13 | 18.9/23.2 | 18 |
| 8 29 | 0 56.77 | +8 20.2 | 2.205 | 3.045 | 12.4 | 21.7 | 8 29 | 1 17.66 | -35 51.2 | 1.137 | 1.975 | 21.7 | 19.5 |
| 9 8 | 0 52.34 | +7 32.1 | 2.130 | 3.047 | 9.4 | 21.5 | 9 8 | 1 9.82 | -36 44.3 | 1.088 | 1.958 | 20.1 | 19.3 |
| 9 18 | 0 46.28 | +6 30.9 | 2.078 | 3.050 | 5.8 | 21.3 | 9 18 | 0 57.75 | -37 3.0 | 1.056 | 1.942 | 19.1 | 19.2 |
| 9 28 | 0 39.16 | +5 20.3 | 2.054 | 3.052 | 2.0 | 21.0 | 9 28 | 0 42.96 | -36 31.4 | 1.042 | 1.927 | 19.1 | 19.2 |
| 10 8 | 0 31.71 | +4 6.1 | 2.058 | 3.054 | 2.0 | 21.0 | 10 8 | 0 27.70 | -35 0.8 | 1.046 | 1.913 | 20.2 | 19.2 |
| 10 18 | 0 24.74 | +2 54.4 | 2.092 | 3.055 | 5.8 | 21.3 | 10 18 | 0 14.25 | -32 33.3 | 1.069 | 1.901 | 22.2 | 19.3 |
| 10 28 | 0 18.95 | +1 51.2 | 2.153 | 3.056 | 9.3 | 21.5 | 10 28 | 0 4.34 | -29 19.5 | 1.109 | 1.890 | 24.5 | 19.4 |
| 11 7 | 0 14.90 | +1 0.9 | 2.239 | 3.057 | 12.3 | 21.7 | 11 7 | 23 58.68 | -25 34.8 | 1.166 | 1.880 | 26.8 | 19.6 |
| 484926 | 2009 <i>SV</i> ₁₀₈ | 10 | 2.7 | 10°43 | 5°4/ 9.1 | 18 | 251854 | 1999 <i>UB</i> ₂₁ | 10 | 2.7 | 123°87 | 0°6/ 2.0 | 18 |
| 8 29 | 0 52.03 | +23 1.9 | 1.700 | 2.497 | 17.3 | 19.8 | 8 29 | 0 56.19 | +5 6.0 | 2.316 | 3.165 | 11.6 | 20.9 |
| 9 8 | 0 49.38 | +22 34.4 | 1.627 | 2.500 | 14.3 | 19.6 | 9 8 | 0 51.81 | +4 18.8 | 2.247 | 3.171 | 8.6 | 20.8 |
| 9 18 | 0 44.70 | +21 38.3 | 1.572 | 2.505 | 10.9 | 19.4 | 9 18 | 0 45.90 | +3 21.6 | 2.202 | 3.178 | 5.2 | 20.6 |
| 9 28 | 0 38.67 | +20 14.8 | 1.541 | 2.510 | 7.4 | 19.2 | 9 28 | 0 39.04 | +2 18.7 | 2.185 | 3.184 | 1.6 | 20.3 |
| 10 8 | 0 32.25 | +18 29.4 | 1.534 | 2.516 | 5.4 | 19.1 | 10 8 | 0 31.91 | +1 15.3 | 2.197 | 3.191 | 2.3 | 20.4 |
| 10 18 | 0 26.43 | +16 30.7 | 1.555 | 2.523 | 6.8 | 19.2 | 10 18 | 0 25.23 | +0 16.9 | 2.238 | 3.197 | 5.8 | 20.6 |
| 10 28 | 0 22.12 | +14 30.0 | 1.601 | 2.531 | 10.0 | 19.4 | 10 28 | 0 19.69 | -0 31.8 | 2.307 | 3.202 | 9.1 | 20.9 |
| 11 7 | 0 19.92 | +12 37.9 | 1.672 | 2.540 | 13.3 | 19.6 | 11 7 | 0 15.78 | -1 7.5 | 2.399 | 3.208 | 11.8 | 21.1 |
| 163026 | 2001 <i>XR</i> ₃₀ | 10 | 2.7 | 198°64 | 12°1/ 9.9 | 14 C | 409062 | 2003 <i>SZ</i> ₁₈₃ | 10 | 2.7 | 312°30 | 0°9/ 3.4 | 17 |
| 8 29 | 1 21.86 | +29 36.4 | 1.002 | 1.771 | 28.5 | 23.5 | 8 29 | 1 1.79 | +5 52.4 | 1.978 | 2.822 | 13.5 | 20.9 |
| 9 8 | 1 14.30 | +30 8.1 | 0.923 | 1.770 | 24.7 | 23.2 | 9 8 | 0 56.63 | +6 10.8 | 1.872 | 2.791 | 10.4 | 20.7 |
| 9 18 | 1 1.54 | +29 53.4 | 0.855 | 1.765 | 20.0 | 22.9 | 9 18 | 0 49.28 | +6 20.5 | 1.789 | 2.760 | 6.7 | 20.4 |
| 9 28 | 0 44.54 | +28 39.1 | 0.806 | 1.757 | 15.2 | 22.6 | 9 28 | 0 40.27 | +6 22.7 | 1.732 | 2.730 | 2.6 | 20.1 |
| 10 8 | 0 25.57 | +26 21.1 | 0.778 | 1.746 | 12.2 | 22.4 | 10 8 | 0 30.45 | +6 20.3 | 1.704 | 2.699 | 2.2 | 20.0 |
| 10 18 | 0 7.66 | +23 11.1 | 0.774 | 1.731 | 13.7 | 22.4 | 10 18 | 0 20.86 | +6 16.6 | 1.703 | 2.669 | 6.6 | 20.2 |
| 10 28 | 23 53.59 | +19 36.8 | 0.793 | 1.713 | 18.6 | 22.6 | 10 28 | 0 12.55 | +6 15.9 | 1.730 | 2.639 | 10.7 | 20.4 |
| 11 7 | 23 44.85 | +16 9.6 | 0.833 | 1.691 | 24.1 | 22.9 | 11 7 | 0 6.36 | +6 22.2 | 1.780 | 2.610 | 14.4 | 20.5 |
| 234720 | 2002 <i>JF</i> ₁₁₉ | 10 | 2.7 | 215°02 | 3°8/28.3 | 18 | 506900 | 2008 <i>CX</i> ₁₀₈ | 10 | 2.7 | 198°39 | 2°1/30.6 | 17 |
| 8 29 | 0 58.13 | -3 33.8 | 2.092 | 2.961 | 11.9 | 21.1 | 8 29 | 1 1.30 | +1 12.2 | 1.946 | 2.804 | 13.1 | 22.8 |
| 9 8 | 0 53.48 | -4 56.2 | 2.019 | 2.955 | 8.8 | 20.9 | 9 8 | 0 55.95 | +0 13.5 | 1.871 | 2.801 | 9.7 | 22.5 |
| 9 18 | 0 47.05 | -6 24.6 | 1.971 | 2.948 | 5.6 | 20.7 | 9 18 | 0 48.62 | -0 54.7 | 1.819 | 2.797 | 5.9 | 22.3 |
| 9 28 | 0 39.43 | -7 52.0 | 1.950 | 2.940 | 3.8 | 20.5 | 9 28 | 0 39.97 | -2 6.7 | 1.795 | 2.792 | 2.4 | 22.1 |
| 10 8 | 0 31.41 | -9 10.9 | 1.959 | 2.932 | 5.4 | 20.6 | 10 8 | 0 30.88 | -3 15.4 | 1.799 | 2.787 | 3.9 | 22.2 |
| 10 18 | 0 23.85 | -10 14.9 | 1.995 | 2.923 | 8.6 | 20.8 | 10 18 | 0 22.32 | -4 14.0 | 1.832 | 2.780 | 7.8 | 22.4 |
| 10 28 | 0 17.55 | -10 59.3 | 2.057 | 2.914 | 11.8 | 21.0 | 10 28 | 0 15.18 | -4 57.4 | 1.892 | 2.773 | 11.5 | 22.6 |
| 11 7 | 0 13.10 | -11 22.6 | 2.141 | 2.904 | 14.6 | 21.2 | 11 7 | 0 10.10 | -5 22.5 | 1.973 | 2.765 | 14.6 | 22.8 |
| 193525 | 2000 <i>YL</i> ₈₀ | 10 | 2.7 | 2°27 | 13°4/15.0 | 18 | 363675 | 2004 <i>TE</i> ₈₀ | 10 | 2.7 | 347°91 | 1°5/ 4.5 | 18 |
| 8 29 | 0 50.66 | +30 49.9 | 1.071 | 1.868 | 25.4 | 18.2 | 8 29 | 0 54.20 | +12 21.8 | 2.000 | 2.834 | 13.7 | 20.6 |
| 9 8 | 0 49.68 | +32 15.3 | 1.011 | 1.864 | 22.5 | 18.0 | 9 8 | 0 50.66 | +11 37.3 | 1.921 | 2.831 | 10.6 | 20.3 |
| 9 18 | 0 45.55 | +33 0.8 | 0.965 | 1.863 | 19.4 | 17.8 | 9 18 | 0 45.37 | +10 35.1 | 1.864 | 2.829 | 7.0 | 20.1 |
| 9 28 | 0 39.09 | +32 59.0 | 0.934 | 1.864 | 16.2 | 17.6 | 9 28 | 0 38.90 | +9 18.5 | 1.833 | 2.827 | 3.1 | 19.9 |
| 10 8 | 0 31.75 | +32 8.3 | 0.920 | 1.867 | 14.0 | 17.5 | 10 8 | 0 32.06 | +7 53.4 | 1.830 | 2.825 | 2.1 | 19.8 |
| 10 18 | 0 25.23 | +30 34.7 | 0.926 | 1.873 | 13.5 | 17.5 | 10 18 | 0 25.69 | +6 27.0 | 1.855 | 2.824 | 5.8 | 20.1 |
| 10 28 | 0 21.13 | +28 32.6 | 0.951 | 1.880 | 15.1 | 17.6 | 10 28 | 0 20.57 | +5 7.0 | 1.907 | 2.823 | 9.5 | 20.3 |
| 11 7 | 0 20.38 | +26 20.2 | 0.996 | 1.890 | 17.9 | 17.8 | 11 7 | 0 17.29 | +3 59.5 | 1.984 | 2.822 | 12.8 | 20.5 |
| 402406 | 2005 <i>YR</i> ₁₃₄ | 10 | 2.7 | 238°62 | 3°9/ 6.9 | 17 | 435487 | 2008 <i>GJ</i> ₉ | 10 | 2.7 | 118°34 | 0°0/ 2.5 | 16 |
| 8 29 | 0 58.98 | +17 21.6 | 2.365 | 3.158 | 13.2 | 21.4 | 8 29 | 0 59.74 | +7 37.7 | 1.589 | 2.444 | 15.7 | 22.0 |
| 9 8 | 0 54.05 | +17 36.1 | 2.278 | 3.154 | 10.6 | 21.3 | 9 8 | 0 55.07 | +6 49.6 | 1.525 | 2.451 | 11.8 | 21.8 |
| 9 18 | 0 47.40 | +17 35.1 | 2.212 | 3.150 | 7.8 | 21.1 | 9 18 | 0 48.18 | +5 44.9 | 1.482 | 2.457 | 7.3 | 21.5 |
| 9 28 | 0 39.55 | +17 18.6 | 2.172 | 3.147 | 5.1 | 20.9 | 9 28 | 0 39.83 | +4 28.9 | 1.465 | 2.464 | 2.4 | 21.3 |
| 10 8 | 0 31.28 | +16 48.6 | 2.159 | 3.143 | 3.9 | 20.8 | 10 8 | 0 31.08 | +3 9.5 | 1.475 | 2.470 | 2.6 | 21.3 |
| 10 18 | 0 23.37 | +16 9.0 | 2.176 | 3.139 | 5.6 | 20.9 | 10 18 | 0 23.04 | +1 55.3 | 1.512 | 2.477 | 7.4 | 21.6 |
| 10 28 | 0 16.64 | +15 24.9 | 2.220 | 3.135 | 8.4 | 21.1 | 10 28 | 0 16.72 | +0 53.9 | 1.575 | 2.483 | 11.7 | 21.9 |
| 11 7 | 0 11.68 | +14 42.1 | 2.289 | 3.131 | 11.2 | 21.3 | 11 7 | 0 12.74 | +0 10.3 | 1.660 | 2.488 | 15.4 | 22.1 |
| 243283 | 2008 <i>CB</i> ₁₄₈ | 10 | 2.7 | 24°74 | 1°0/ 3.7 | 18 | 33022 | 1997 <i>NN</i> | 10 | 2.7 | 113°62 | 3°3/ 5.5 | 18 |
| 8 29 | 0 56.10 | +9 20.3 | 1.623 | 2.477 | 15.4 | 20.1 | 8 29 | 1 | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|------------|---------|------|
| 191206 | 2002 <i>PP</i> ₁₀₉ | 10 | 2.7 216°10 | 6°0/10.9 | 17 | | 386127 | 2007 <i>RQ</i> ₃₂₂ | 10 | 2.7 83°12 | 1°8/ 4.1 | 18 | |
| 8 29 | 0 57.70 | +27 32.1 | 2.795 | 3.516 | 13.0 | 20.4 | 8 29 | 1 5.01 | +8 33.8 | 1.771 | 2.607 | 15.2 | 20.1 |
| 9 8 | 0 52.99 | +27 49.7 | 2.699 | 3.511 | 11.1 | 20.3 | 9 8 | 0 58.87 | +8 55.8 | 1.703 | 2.615 | 11.6 | 19.9 |
| 9 18 | 0 46.71 | +27 48.8 | 2.624 | 3.506 | 9.1 | 20.1 | 9 18 | 0 50.48 | +9 5.5 | 1.656 | 2.622 | 7.6 | 19.6 |
| 9 28 | 0 39.34 | +27 28.3 | 2.573 | 3.501 | 7.2 | 20.0 | 9 28 | 0 40.61 | +9 4.0 | 1.635 | 2.630 | 3.4 | 19.4 |
| 10 8 | 0 31.57 | +26 49.2 | 2.548 | 3.496 | 6.1 | 19.9 | 10 8 | 0 30.28 | +8 54.4 | 1.642 | 2.637 | 2.6 | 19.4 |
| 10 18 | 0 24.12 | +25 54.3 | 2.551 | 3.490 | 6.4 | 19.9 | 10 18 | 0 20.63 | +8 41.0 | 1.678 | 2.645 | 6.5 | 19.6 |
| 10 28 | 0 17.71 | +24 48.7 | 2.581 | 3.484 | 7.9 | 20.0 | 10 28 | 0 12.67 | +8 29.0 | 1.740 | 2.652 | 10.5 | 19.9 |
| 11 7 | 0 12.90 | +23 38.7 | 2.638 | 3.478 | 10.0 | 20.2 | 11 7 | 0 7.07 | +8 22.8 | 1.825 | 2.659 | 13.9 | 20.1 |
| 286901 | 2002 <i>PU</i> ₆₄ | 10 | 2.7 36°08 | 3°2/ 5.6 | 16 R | | 303151 | 2004 <i>EL</i> ₂ | 10 | 2.7 214°38 | 2°6/ 5.3 | 18 | |
| 8 29 | 0 55.01 | +16 19.0 | 1.094 | 1.951 | 21.1 | 19.6 | 8 29 | 1 0.57 | +12 46.1 | 2.156 | 2.973 | 13.5 | 20.9 |
| 9 8 | 0 52.23 | +15 25.8 | 1.047 | 1.967 | 16.5 | 19.4 | 9 8 | 0 55.35 | +12 51.0 | 2.071 | 2.969 | 10.6 | 20.7 |
| 9 18 | 0 46.67 | +13 59.9 | 1.017 | 1.983 | 11.2 | 19.1 | 9 18 | 0 48.26 | +12 41.6 | 2.009 | 2.965 | 7.3 | 20.5 |
| 9 28 | 0 39.35 | +12 7.0 | 1.009 | 2.001 | 5.7 | 18.9 | 9 28 | 0 39.89 | +12 18.9 | 1.973 | 2.961 | 3.9 | 20.3 |
| 10 8 | 0 31.68 | +9 59.3 | 1.024 | 2.019 | 3.5 | 18.8 | 10 8 | 0 31.05 | +11 45.9 | 1.965 | 2.957 | 2.8 | 20.2 |
| 10 18 | 0 25.04 | +7 51.5 | 1.064 | 2.038 | 8.0 | 19.1 | 10 18 | 0 22.64 | +11 7.2 | 1.986 | 2.953 | 5.7 | 20.4 |
| 10 28 | 0 20.61 | +5 58.0 | 1.127 | 2.058 | 13.0 | 19.5 | 10 28 | 0 15.52 | +10 28.1 | 2.034 | 2.948 | 9.1 | 20.6 |
| 11 7 | 0 18.99 | +4 28.6 | 1.211 | 2.079 | 17.3 | 19.8 | 11 7 | 0 10.33 | +9 54.2 | 2.107 | 2.943 | 12.3 | 20.8 |
| 399929 | 2005 <i>YW</i> ₁₄₁ | 10 | 2.7 358°69 | 4°4/ 7.3 | 17 | | 84014 | 2002 <i>PG</i> ₃₀ | 10 | 2.7 71°79 | 0°8/ 3.5 | 18 | |
| 8 29 | 0 58.32 | +18 7.8 | 2.129 | 2.925 | 14.3 | 20.8 | 8 29 | 0 58.66 | +8 40.0 | 1.783 | 2.630 | 14.6 | 20.1 |
| 9 8 | 0 53.72 | +18 23.2 | 2.047 | 2.925 | 11.6 | 20.6 | 9 8 | 0 54.10 | +8 13.8 | 1.715 | 2.635 | 11.1 | 19.9 |
| 9 18 | 0 47.27 | +18 21.0 | 1.987 | 2.925 | 8.6 | 20.4 | 9 18 | 0 47.53 | +7 32.6 | 1.669 | 2.640 | 7.0 | 19.6 |
| 9 28 | 0 39.55 | +18 1.1 | 1.951 | 2.924 | 5.7 | 20.2 | 9 28 | 0 39.64 | +6 40.2 | 1.648 | 2.645 | 2.7 | 19.4 |
| 10 8 | 0 31.38 | +17 26.0 | 1.942 | 2.924 | 4.4 | 20.2 | 10 8 | 0 31.36 | +5 42.2 | 1.655 | 2.651 | 2.2 | 19.4 |
| 10 18 | 0 23.65 | +16 39.9 | 1.961 | 2.924 | 6.1 | 20.3 | 10 18 | 0 23.69 | +4 45.4 | 1.689 | 2.656 | 6.5 | 19.7 |
| 10 28 | 0 17.22 | +15 48.9 | 2.007 | 2.925 | 9.0 | 20.4 | 10 28 | 0 17.53 | +3 56.3 | 1.750 | 2.661 | 10.5 | 19.9 |
| 11 7 | 0 12.72 | +14 59.6 | 2.077 | 2.925 | 11.9 | 20.6 | 11 7 | 0 13.50 | +3 19.9 | 1.833 | 2.667 | 13.9 | 20.1 |
| 389064 | 2008 <i>WJ</i> ₃₀ | 10 | 2.7 355°29 | 1°4/ 3.8 | 16 | | 115836 | 2003 <i>UJ</i> ₂₆₀ | 10 | 2.7 307°43 | 5°2/ 8.0 | 18 | |
| 8 29 | 0 58.05 | +8 51.0 | 1.407 | 2.268 | 17.0 | 20.8 | 8 29 | 0 55.37 | +20 44.2 | 1.699 | 2.503 | 17.1 | 19.0 |
| 9 8 | 0 54.20 | +8 43.7 | 1.338 | 2.265 | 13.0 | 20.6 | 9 8 | 0 52.11 | +20 32.5 | 1.604 | 2.485 | 14.1 | 18.8 |
| 9 18 | 0 47.86 | +8 18.9 | 1.289 | 2.262 | 8.4 | 20.3 | 9 18 | 0 46.58 | +19 54.4 | 1.529 | 2.467 | 10.6 | 18.6 |
| 9 28 | 0 39.78 | +7 39.8 | 1.264 | 2.261 | 3.4 | 20.0 | 9 28 | 0 39.41 | +18 49.1 | 1.476 | 2.450 | 7.1 | 18.3 |
| 10 8 | 0 31.13 | +6 52.1 | 1.263 | 2.260 | 2.6 | 20.0 | 10 8 | 0 31.54 | +17 20.5 | 1.448 | 2.433 | 5.2 | 18.2 |
| 10 18 | 0 23.16 | +6 3.5 | 1.289 | 2.259 | 7.6 | 20.3 | 10 18 | 0 24.11 | +15 36.1 | 1.447 | 2.416 | 7.2 | 18.2 |
| 10 28 | 0 17.02 | +5 22.0 | 1.338 | 2.260 | 12.3 | 20.5 | 10 28 | 0 18.20 | +13 46.6 | 1.472 | 2.400 | 10.9 | 18.4 |
| 11 7 | 0 13.48 | +4 53.7 | 1.409 | 2.261 | 16.3 | 20.8 | 11 7 | 0 14.62 | +12 3.1 | 1.521 | 2.384 | 14.7 | 18.6 |
| 516039 | 2015 <i>TF</i> ₇₅ | 10 | 2.7 30°54 | 0°5/ 2.3 | 18 | | 229435 | 2005 <i>TO</i> ₁₆₁ | 10 | 2.8 211°35 | 2°9/ 5.8 | 18 | |
| 8 29 | 0 57.55 | +4 29.0 | 1.545 | 2.414 | 15.3 | 20.7 | 8 29 | 0 59.44 | +15 41.0 | 1.940 | 2.753 | 14.9 | 21.0 |
| 9 8 | 0 53.35 | +4 3.7 | 1.497 | 2.431 | 11.4 | 20.5 | 9 8 | 0 54.72 | +15 13.1 | 1.854 | 2.747 | 11.8 | 20.8 |
| 9 18 | 0 47.04 | +3 26.8 | 1.470 | 2.448 | 6.9 | 20.3 | 9 18 | 0 47.97 | +14 24.9 | 1.788 | 2.742 | 8.2 | 20.5 |
| 9 28 | 0 39.44 | +2 43.0 | 1.467 | 2.467 | 2.1 | 20.0 | 9 28 | 0 39.82 | +13 17.9 | 1.749 | 2.736 | 4.5 | 20.3 |
| 10 8 | 0 31.59 | +1 59.1 | 1.492 | 2.486 | 2.8 | 20.1 | 10 8 | 0 31.17 | +11 57.3 | 1.737 | 2.729 | 3.1 | 20.2 |
| 10 18 | 0 24.52 | +1 21.3 | 1.542 | 2.506 | 7.3 | 20.5 | 10 18 | 0 23.00 | +10 30.1 | 1.753 | 2.722 | 6.1 | 20.4 |
| 10 28 | 0 19.14 | +0 54.9 | 1.617 | 2.527 | 11.3 | 20.8 | 10 28 | 0 16.26 | +9 4.7 | 1.797 | 2.714 | 9.9 | 20.6 |
| 11 7 | 0 16.01 | +0 43.2 | 1.714 | 2.548 | 14.7 | 21.0 | 11 7 | 0 11.61 | +7 48.9 | 1.866 | 2.706 | 13.4 | 20.8 |
| 252110 | 2000 <i>WR</i> ₂₀ | 10 | 2.7 43°42 | 3°8/ 7.1 | 18 | | 260701 | 2005 <i>JV</i> ₁₂₀ | 10 | 2.8 27°82 | 1°9/ 6.6 | 18 R | |
| 8 29 | 0 55.90 | +18 20.3 | 2.021 | 2.824 | 14.7 | 20.4 | 8 29 | 0 49.98 | +16 16.2 | 4.063 | 4.851 | 8.2 | 20.3 |
| 9 8 | 0 51.94 | +18 0.3 | 1.944 | 2.828 | 11.8 | 20.2 | 9 8 | 0 46.73 | +15 49.7 | 3.976 | 4.853 | 6.5 | 20.2 |
| 9 18 | 0 46.16 | +17 19.7 | 1.889 | 2.832 | 8.6 | 20.0 | 9 18 | 0 42.63 | +15 13.4 | 3.912 | 4.855 | 4.6 | 20.1 |
| 9 28 | 0 39.17 | +16 19.9 | 1.858 | 2.837 | 5.3 | 19.8 | 9 28 | 0 38.00 | +14 28.4 | 3.876 | 4.857 | 2.7 | 20.0 |
| 10 8 | 0 31.83 | +15 5.4 | 1.854 | 2.842 | 3.8 | 19.8 | 10 8 | 0 33.20 | +13 37.1 | 3.870 | 4.859 | 1.9 | 19.9 |
| 10 18 | 0 25.00 | +13 42.6 | 1.878 | 2.846 | 5.8 | 19.9 | 10 18 | 0 28.62 | +12 42.2 | 3.895 | 4.861 | 3.2 | 20.0 |
| 10 28 | 0 19.50 | +12 19.3 | 1.930 | 2.851 | 9.1 | 20.1 | 10 28 | 0 24.64 | +11 47.0 | 3.949 | 4.863 | 5.1 | 20.1 |
| 11 7 | 0 15.91 | +11 3.0 | 2.006 | 2.856 | 12.2 | 20.3 | 11 7 | 0 21.56 | +10 54.6 | 4.030 | 4.865 | 6.9 | 20.3 |
| 436107 | 2009 <i>SR</i> ₃₁₉ | 10 | 2.7 9°32 | 1°3/ 5.2 | 18 | | 267716 | 2003 <i>BS</i> ₃₇ | 10 | 2.8 299°22 | 13°1/ 17.9 | 16 | |
| 8 29 | 0 50.32 | +12 16.2 | 4.191 | 4.999 | 7.6 | 21.4 | 8 29 | 0 53.33 | -11 38.3 | 0.956 | 1.874 | 18.1 | 19.4 |
| 9 8 | 0 46.94 | +11 58.8 | 4.105 | 4.999 | 5.9 | 21.2 | 9 8 | 0 51.68 | -16 10.5 | 0.908 | 1.860 | 14.6 | 19.2 |
| 9 18 | 0 42.74 | +11 33.6 | 4.044 | 4.999 | 4.0 | 21.1 | 9 18 | 0 46.81 | -20 50.2 | 0.884 | 1.846 | 13.1 | 19.0 |
| 9 28 | 0 38.01 | +11 1.9 | 4.010 | 5.000 | 2.0 | 21.0 | 9 28 | 0 39.57 | -25 6.6 | 0.884 | 1.832 | 14.7 | 19.1 |
| 10 8 | 0 33.12 | +10 25.8 | 4.007 | 5.000 | 1.4 | 20.9 | 10 8 | 0 31.43 | -28 32.7 | 0.907 | 1.819 | 18.3 | 19.2 |
| 10 18 | 0 28.43 | +9 47.6 | 4.034 | 5.000 | 3.1 | 21.0 | 10 18 | 0 24.10 | -30 53.0 | 0.949 | 1.806 | 22.4 | 19.4 |
| 10 28 | 0 24.31 | +9 10.1 | 4.090 | 5.001 | 5.0 | 21.2 | 10 28 | 0 19.17 | -32 5.2 | 1.005 | 1.793 | 26.0 | 19.7 |
| 11 7 | 0 21.05 | +8 35.8 | 4.173 | 5.001 | 6.8 | 21.3 | 11 7 | 0 17.59 | -32 17.2 | 1.072 | 1.781 | 29.0 | 19.9 |
| 478582 | 2012 <i>TX</i> ₉₃ | 10 | 2.7 291°06 | 2°1/30.9 | 18 | | 179696 | 2002 <i>RT</i> ₂₃ | 10 | 2.8 36°72 | 2°6/30.8 | 17 | |
| 8 29 | 0 58.86 | +1 22.1 | 1.628 | 2.499 | 14.6 | 21.5 | 8 29 | 0 57.07 | +3 33.3 | 0.976 | 1.873 | 19.7 | 19.2 |
| 9 8 | 0 54.62 | +0 38.8 | 1.545 | 2.482 | 10.9 | 21.2 | 9 8 | 0 53.74 | +2 14.0 | 0.945 | 1.895 | 14.4 | 19.0 |
| 9 18 | 0 48.07 | -0 15.7 | 1.485 | 2.465 | 6.6 | 20.9 | 9 18 | 0 47.54 | +0 38.8 | 0.934 | 1.919 | 8.5 | 18.8 |
| 9 28 | 0 39.87 | -1 15.7 | 1.449 | 2.447 | 2.6 | 20.6 | 9 28 | 0 39.63 | -1 0.6 | 0.944 | 1.943 | 3.1 | 18.5 |
| 10 8 | 0 31.02 | -2 13.6 | 1.440 | 2.430 | 4.1 | 20.7 | 10 8 | 0 31.54 | -2 30.7 | 0.977 | 1.968 | 5.2 | 18.7 |
| 10 18 | 0 22.64 | -3 2.0 | 1.458 | 2.413 | 8.7 | 20.9 | 10 18 | 0 24.70 | -3 40.5 | 1.033 | 1.995 | 10.5 | 19.1 |
| 10 28 | 0 15.84 | -3 34.4 | 1.500 | 2.396 | 13.0 | 21.1 | 10 28 | 0 20.21 | -4 23.4 | 1.111 | 2.022 | 15.3 | 19.5 |
| 11 7 | 0 11.39 | -3 47.5 | 1.563 | 2.379 | 16.8 | 21.3 | 11 7 | 0 18.63 | -4 38.2 | 1.208 | 2.049 | 19.1 | 19.8 |
| 180091 | 2003 <i>ED</i> ₃₂ | 10 | 2.7 260°01 | 0°0/ 2.5 | 18 | | 373642 | 2002 <i>PM</i> ₂₈ | 10 | 2.8 44°08 | 3°1/ 5.1 | 15 | |
| 8 29 | 0 58.15 | +5 57.1 | 2.136 | 2.982 | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|-----------|---------|------|---------------|------------------------|-----------------|------------|-----------|---------|------|
| 97304 | 1999 XQ ₁₉₀ | 10 | 2.8 269°65 | 3°6/28.9 | 18 | | 319108 | 2005 WE ₂₁₁ | 10 | 2.8 353°21 | 1°7/ 4.6 | 18 | |
| 8 29 | 0 58.88 | - 6 15.4 | 2.264 | 3.131 | 11.2 | 19.6 | 8 29 | 0 57.08 | +10 52.7 | 2.117 | 2.949 | 13.2 | 20.2 |
| 9 8 | 0 53.90 | - 6 52.3 | 2.192 | 3.126 | 8.3 | 19.5 | 9 8 | 0 52.74 | +10 42.3 | 2.039 | 2.948 | 10.2 | 20.0 |
| 9 18 | 0 47.27 | - 7 30.6 | 2.146 | 3.120 | 5.4 | 19.3 | 9 18 | 0 46.66 | +10 18.1 | 1.983 | 2.947 | 6.7 | 19.8 |
| 9 28 | 0 39.56 | - 8 5.4 | 2.126 | 3.115 | 3.6 | 19.2 | 9 28 | 0 39.40 | + 9 42.2 | 1.953 | 2.946 | 3.1 | 19.6 |
| 10 8 | 0 31.51 | - 8 31.8 | 2.135 | 3.109 | 4.9 | 19.2 | 10 8 | 0 31.76 | + 8 58.6 | 1.951 | 2.946 | 2.2 | 19.5 |
| 10 18 | 0 23.92 | - 8 45.9 | 2.172 | 3.104 | 7.8 | 19.4 | 10 18 | 0 24.56 | + 8 12.2 | 1.977 | 2.945 | 5.6 | 19.8 |
| 10 28 | 0 17.54 | - 8 45.2 | 2.235 | 3.099 | 10.7 | 19.6 | 10 28 | 0 18.61 | + 7 28.7 | 2.030 | 2.945 | 9.1 | 20.0 |
| 11 7 | 0 12.89 | - 8 29.0 | 2.320 | 3.093 | 13.3 | 19.8 | 11 7 | 0 14.48 | + 6 53.0 | 2.107 | 2.945 | 12.2 | 20.2 |
| 323598 | 2004 TO ₂₉₆ | 10 | 2.8 279°11 | 3°2/ 6.7 | 18 | | 244356 | 2002 NC ₇ | 10 | 2.8 0°49 | 6°0/27.2 | 18 | |
| 8 29 | 0 55.16 | +17 24.7 | 2.322 | 3.122 | 13.1 | 21.0 | 8 29 | 0 53.49 | - 5 19.7 | 1.317 | 2.217 | 15.4 | 19.2 |
| 9 8 | 0 51.28 | +17 0.1 | 2.226 | 3.110 | 10.5 | 20.8 | 9 8 | 0 50.82 | - 6 58.5 | 1.264 | 2.214 | 11.5 | 18.9 |
| 9 18 | 0 45.76 | +16 17.1 | 2.152 | 3.098 | 7.6 | 20.6 | 9 18 | 0 45.77 | - 8 43.3 | 1.233 | 2.213 | 7.7 | 18.7 |
| 9 28 | 0 39.10 | +15 17.0 | 2.104 | 3.086 | 4.6 | 20.4 | 9 28 | 0 39.15 | -10 22.5 | 1.226 | 2.213 | 6.0 | 18.6 |
| 10 8 | 0 32.01 | +14 3.6 | 2.084 | 3.073 | 3.2 | 20.3 | 10 8 | 0 32.08 | -11 44.5 | 1.243 | 2.213 | 8.2 | 18.8 |
| 10 18 | 0 25.27 | +12 42.3 | 2.093 | 3.061 | 5.3 | 20.4 | 10 18 | 0 25.74 | -12 40.7 | 1.284 | 2.215 | 12.1 | 19.0 |
| 10 28 | 0 19.64 | +11 20.2 | 2.130 | 3.049 | 8.5 | 20.5 | 10 28 | 0 21.20 | -13 6.5 | 1.346 | 2.218 | 15.9 | 19.2 |
| 11 7 | 0 15.70 | +10 3.9 | 2.192 | 3.037 | 11.5 | 20.7 | 11 7 | 0 19.10 | -13 2.2 | 1.427 | 2.222 | 19.1 | 19.5 |
| 163846 | 2003 SW ₆₃ | 10 | 2.8 12°89 | 11°0/10.1 | 18 | | 318263 | 2004 SF ₁₄ | 10 | 2.8 337°85 | 1°5/ 4.3 | 18 | |
| 8 29 | 1 3.46 | +24 23.7 | 1.264 | 2.061 | 22.2 | 19.0 | 8 29 | 0 53.46 | +13 41.2 | 1.444 | 2.294 | 17.2 | 19.6 |
| 9 8 | 0 58.93 | +26 16.4 | 1.203 | 2.065 | 19.0 | 18.8 | 9 8 | 0 50.78 | +12 30.6 | 1.368 | 2.287 | 13.4 | 19.4 |
| 9 18 | 0 51.16 | +27 41.7 | 1.160 | 2.071 | 15.7 | 18.7 | 9 18 | 0 45.78 | +10 52.3 | 1.311 | 2.281 | 8.8 | 19.1 |
| 9 28 | 0 40.99 | +28 32.7 | 1.136 | 2.079 | 12.7 | 18.5 | 9 28 | 0 39.18 | + 8 51.4 | 1.279 | 2.275 | 3.8 | 18.8 |
| 10 8 | 0 29.91 | +28 46.7 | 1.133 | 2.087 | 11.1 | 18.5 | 10 8 | 0 32.03 | + 6 37.8 | 1.273 | 2.269 | 2.5 | 18.7 |
| 10 18 | 0 19.62 | +28 26.9 | 1.153 | 2.097 | 11.7 | 18.5 | 10 18 | 0 25.49 | + 4 24.4 | 1.294 | 2.265 | 7.5 | 19.0 |
| 10 28 | 0 11.74 | +27 43.0 | 1.194 | 2.108 | 14.1 | 18.7 | 10 28 | 0 20.63 | + 2 24.0 | 1.340 | 2.260 | 12.3 | 19.2 |
| 11 7 | 0 7.24 | +26 47.6 | 1.256 | 2.121 | 17.1 | 18.9 | 11 7 | 0 18.17 | + 0 46.2 | 1.408 | 2.257 | 16.5 | 19.5 |
| 467849 | 2010 VR ₉₃ | 10 | 2.8 16°32 | 3°6/30.7 | 16 | | 115658 | 2003 UT ₁₃₈ | 10 | 2.8 74°47 | 0°9/ 1.8 | 18 | |
| 8 29 | 0 56.40 | - 1 0.1 | 0.813 | 1.728 | 20.7 | 20.3 | 8 29 | 0 57.15 | + 3 27.5 | 2.220 | 3.073 | 11.9 | 20.0 |
| 9 8 | 0 53.86 | - 1 27.6 | 0.777 | 1.735 | 15.3 | 20.0 | 9 8 | 0 52.56 | + 2 52.2 | 2.159 | 3.086 | 8.8 | 19.8 |
| 9 18 | 0 47.93 | - 2 5.4 | 0.758 | 1.745 | 9.3 | 19.7 | 9 18 | 0 46.42 | + 2 8.6 | 2.122 | 3.098 | 5.3 | 19.6 |
| 9 28 | 0 39.85 | - 2 43.7 | 0.758 | 1.757 | 4.1 | 19.5 | 9 28 | 0 39.30 | + 1 20.7 | 2.112 | 3.111 | 1.7 | 19.4 |
| 10 8 | 0 31.34 | - 3 12.0 | 0.779 | 1.770 | 6.1 | 19.7 | 10 8 | 0 31.95 | + 0 33.6 | 2.131 | 3.124 | 2.5 | 19.5 |
| 10 18 | 0 24.15 | - 3 22.0 | 0.820 | 1.786 | 11.7 | 20.0 | 10 18 | 0 25.11 | - 0 8.0 | 2.178 | 3.136 | 6.0 | 19.7 |
| 10 28 | 0 19.64 | - 3 9.4 | 0.881 | 1.803 | 16.9 | 20.4 | 10 28 | 0 19.48 | - 0 39.9 | 2.253 | 3.149 | 9.3 | 20.0 |
| 11 7 | 0 18.48 | - 2 34.1 | 0.959 | 1.822 | 21.2 | 20.7 | 11 7 | 0 15.54 | - 0 59.4 | 2.351 | 3.161 | 12.0 | 20.2 |
| 94558 | 2001 VP ₂₁ | 10 | 2.8 95°87 | 3°4/30.0 | 17 | | 263828 | 2008 SG ₁₉₁ | 10 | 2.8 338°06 | 1°0/ 4.8 | 18 | |
| 8 29 | 1 3.26 | - 3 5.5 | 1.625 | 2.496 | 14.6 | 18.9 | 8 29 | 0 50.14 | +11 4.3 | 4.128 | 4.942 | 7.6 | 20.4 |
| 9 8 | 0 57.55 | - 3 45.1 | 1.571 | 2.508 | 10.8 | 18.7 | 9 8 | 0 46.85 | +10 43.7 | 4.040 | 4.939 | 5.8 | 20.3 |
| 9 18 | 0 49.64 | - 4 29.2 | 1.541 | 2.519 | 6.7 | 18.4 | 9 18 | 0 42.73 | +10 15.5 | 3.978 | 4.937 | 3.9 | 20.1 |
| 9 28 | 0 40.35 | - 5 11.4 | 1.536 | 2.531 | 3.6 | 18.3 | 9 28 | 0 38.08 | + 9 41.1 | 3.943 | 4.935 | 1.8 | 20.0 |
| 10 8 | 0 30.76 | - 5 44.9 | 1.559 | 2.542 | 5.1 | 18.4 | 10 8 | 0 33.26 | + 9 2.9 | 3.939 | 4.933 | 1.3 | 19.9 |
| 10 18 | 0 22.00 | - 6 4.6 | 1.608 | 2.553 | 8.9 | 18.7 | 10 18 | 0 28.64 | + 8 23.2 | 3.965 | 4.932 | 3.1 | 20.1 |
| 10 28 | 0 15.02 | - 6 7.1 | 1.682 | 2.564 | 12.6 | 18.9 | 10 28 | 0 24.58 | + 7 44.8 | 4.020 | 4.930 | 5.1 | 20.2 |
| 11 7 | 0 10.41 | - 5 52.0 | 1.777 | 2.575 | 15.8 | 19.2 | 11 7 | 0 21.40 | + 7 10.3 | 4.102 | 4.928 | 7.0 | 20.3 |
| 494742 | 2005 VM | 10 | 2.8 327°68 | 23°2/27.4 | 17 | | 473516 | 2015 XO ₁₄₄ | 10 | 2.8 350°08 | 4°0/ 7.1 | 17 | |
| 8 29 | 1 36.99 | -41 15.6 | 0.949 | 1.761 | 26.8 | 20.3 | 8 29 | 0 55.41 | +17 54.8 | 1.993 | 2.800 | 14.8 | 21.3 |
| 9 8 | 1 24.98 | -42 0.6 | 0.908 | 1.754 | 25.1 | 20.2 | 9 8 | 0 51.69 | +17 48.6 | 1.911 | 2.797 | 11.9 | 21.1 |
| 9 18 | 1 7.23 | -41 58.1 | 0.881 | 1.747 | 23.7 | 20.1 | 9 18 | 0 46.11 | +17 22.6 | 1.850 | 2.794 | 8.7 | 20.9 |
| 9 28 | 0 46.04 | -40 46.3 | 0.869 | 1.740 | 23.2 | 20.0 | 9 28 | 0 39.25 | +16 37.6 | 1.813 | 2.792 | 5.5 | 20.7 |
| 10 8 | 0 24.93 | -38 16.6 | 0.876 | 1.735 | 23.9 | 20.0 | 10 8 | 0 31.96 | +15 37.1 | 1.803 | 2.790 | 4.0 | 20.6 |
| 10 18 | 0 7.12 | -34 37.1 | 0.901 | 1.730 | 25.6 | 20.1 | 10 18 | 0 25.12 | +14 27.0 | 1.820 | 2.788 | 6.0 | 20.7 |
| 10 28 | 23 54.55 | -30 8.5 | 0.944 | 1.725 | 27.8 | 20.3 | 10 28 | 0 19.60 | +13 14.7 | 1.864 | 2.787 | 9.3 | 20.9 |
| 11 7 | 23 47.60 | -25 14.9 | 1.003 | 1.722 | 30.1 | 20.5 | 11 7 | 0 16.01 | +12 7.5 | 1.932 | 2.786 | 12.4 | 21.1 |
| 460222 | 2014 QU ₂₀₅ | 10 | 2.8 27°87 | 0°2/ 2.5 | 18 | | 187967 | 2001 QA ₄₁ | 10 | 2.8 7°22 | 2°5/ 1.0 | 18 | |
| 8 29 | 0 55.89 | + 5 43.7 | 2.064 | 2.917 | 12.7 | 21.5 | 8 29 | 0 55.23 | + 1 29.4 | 1.020 | 1.922 | 18.7 | 19.9 |
| 9 8 | 0 51.81 | + 5 9.6 | 1.995 | 2.921 | 9.4 | 21.4 | 9 8 | 0 52.64 | + 0 50.4 | 0.970 | 1.922 | 13.9 | 19.6 |
| 9 18 | 0 46.04 | + 4 24.6 | 1.950 | 2.926 | 5.8 | 21.1 | 9 18 | 0 47.12 | - 0 2.3 | 0.939 | 1.924 | 8.4 | 19.4 |
| 9 28 | 0 39.18 | + 3 32.5 | 1.931 | 2.930 | 1.8 | 20.9 | 9 28 | 0 39.63 | - 1 0.4 | 0.928 | 1.928 | 3.2 | 19.1 |
| 10 8 | 0 32.01 | + 2 38.6 | 1.940 | 2.935 | 2.2 | 20.9 | 10 8 | 0 31.60 | - 1 53.3 | 0.941 | 1.933 | 5.0 | 19.2 |
| 10 18 | 0 25.33 | + 1 48.7 | 1.978 | 2.940 | 6.1 | 21.2 | 10 18 | 0 24.54 | - 2 31.6 | 0.976 | 1.940 | 10.5 | 19.6 |
| 10 28 | 0 19.91 | + 1 7.7 | 2.042 | 2.946 | 9.6 | 21.4 | 10 28 | 0 19.74 | - 2 48.5 | 1.031 | 1.948 | 15.5 | 19.9 |
| 11 7 | 0 16.26 | + 0 39.4 | 2.129 | 2.952 | 12.7 | 21.6 | 11 7 | 0 17.93 | - 2 41.7 | 1.105 | 1.958 | 19.7 | 20.2 |
| 511749 | 2015 DG ₁₃₃ | 10 | 2.8 133°18 | 8°3/24.8 | 18 | | 447077 | 2004 SS ₅₈ | 10 | 2.8 40°36 | 22°9/21.9 | 16 | |
| 8 29 | 1 2.63 | -16 20.0 | 1.767 | 2.640 | 13.5 | 20.9 | 8 29 | 1 23.69 | -42 18.0 | 1.021 | 1.839 | 24.9 | 20.4 |
| 9 8 | 0 56.98 | -17 49.3 | 1.726 | 2.649 | 10.8 | 20.8 | 9 8 | 1 14.33 | -43 42.2 | 1.003 | 1.843 | 23.7 | 20.3 |
| 9 18 | 0 49.24 | -19 11.3 | 1.708 | 2.658 | 8.8 | 20.7 | 9 18 | 1 0.31 | -44 21.0 | 0.999 | 1.846 | 23.0 | 20.3 |
| 9 28 | 0 40.21 | -20 16.6 | 1.715 | 2.667 | 8.4 | 20.7 | 9 28 | 0 43.75 | -43 58.5 | 1.010 | 1.850 | 23.1 | 20.4 |
| 10 8 | 0 30.93 | -20 57.8 | 1.749 | 2.675 | 9.9 | 20.8 | 10 8 | 0 27.48 | -42 29.5 | 1.037 | 1.854 | 23.9 | 20.4 |
| 10 18 | 0 22.45 | -21 11.4 | 1.807 | 2.683 | 12.4 | 21.0 | 10 18 | 0 13.95 | -40 0.2 | 1.078 | 1.859 | 25.3 | 20.6 |
| 10 28 | 0 15.68 | -20 57.3 | 1.887 | 2.690 | 14.9 | 21.2 | 10 28 | 0 4.69 | -36 44.2 | 1.135 | 1.864 | 26.8 | 20.7 |
| 11 7 | 0 11.18 | -20 18.3 | 1.985 | 2.697 | 17.1 | 21.4 | 11 7 | 0 0.03 | -32 58.1 | 1.204 | 1.869 | 28.4 | 20.9 |
| 220531 | 2004 FS ₂₃ | 10 | 2.8 135°20 | 0°7/ 2.1 | 17 | | 498691 | 2008 ST ₂₇₅ | 10 | 2.8 314°40 | 0°3/ 3.3 | 18 | |
| 8 29 | 1 1.31 | + 5 4.2 | 1.746 | 2.600 | 14.5 | 21.2 | 8 29 | 0 50. | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 480692 | 2015 <i>PB</i> ₉₆ | 10 | 2.8 133°98 | 5°5/ 8.2 18 | | | 207304 | 2005 <i>GK</i> ₅₆ | 10 | 2.8 259°66 | 0°4/ 3.2 18 | | |
| 8 29 | 1 1.92 | +20 46.4 | 2.019 | 2.799 | 15.5 | 21.2 | 8 29 | 0 58.98 | + 7 18.6 | 1.871 | 2.718 | 14.0 | 20.6 |
| 9 8 | 0 56.55 | +21 11.8 | 1.942 | 2.804 | 12.8 | 21.0 | 9 8 | 0 54.38 | + 6 54.8 | 1.793 | 2.714 | 10.6 | 20.4 |
| 9 18 | 0 49.10 | +21 17.3 | 1.884 | 2.810 | 9.8 | 20.9 | 9 18 | 0 47.79 | + 6 17.6 | 1.737 | 2.710 | 6.7 | 20.2 |
| 9 28 | 0 40.24 | +21 1.8 | 1.851 | 2.815 | 6.9 | 20.7 | 9 28 | 0 39.83 | + 5 30.5 | 1.708 | 2.706 | 2.4 | 19.9 |
| 10 8 | 0 30.90 | +20 27.3 | 1.845 | 2.820 | 5.5 | 20.6 | 10 8 | 0 31.40 | + 4 38.7 | 1.706 | 2.702 | 2.2 | 19.9 |
| 10 18 | 0 22.09 | +19 38.2 | 1.866 | 2.824 | 6.8 | 20.7 | 10 18 | 0 23.49 | + 3 48.5 | 1.732 | 2.697 | 6.5 | 20.1 |
| 10 28 | 0 14.76 | +18 41.5 | 1.914 | 2.829 | 9.6 | 20.9 | 10 28 | 0 16.99 | + 3 5.9 | 1.784 | 2.693 | 10.5 | 20.4 |
| 11 7 | 0 9.57 | +17 44.6 | 1.986 | 2.833 | 12.5 | 21.1 | 11 7 | 0 12.57 | + 2 35.6 | 1.860 | 2.689 | 13.9 | 20.6 |
| 295904 | 2008 <i>WP</i> ₉₂ | 10 | 2.8 274°74 | 1°0/30.8 18 | | | 209318 | 2004 <i>BQ</i> ₃₃ | 10 | 2.8 276°80 | 3°7/29.1 18 | | |
| 8 29 | 0 50.19 | - 0 16.6 | 4.515 | 5.366 | 6.3 | 20.2 | 8 29 | 0 58.25 | - 3 36.2 | 1.866 | 2.740 | 12.9 | 20.9 |
| 9 8 | 0 46.80 | - 0 42.4 | 4.436 | 5.363 | 4.6 | 20.1 | 9 8 | 0 53.76 | - 4 35.3 | 1.800 | 2.738 | 9.5 | 20.7 |
| 9 18 | 0 42.66 | - 1 11.0 | 4.384 | 5.361 | 2.8 | 19.9 | 9 18 | 0 47.35 | - 5 39.5 | 1.758 | 2.736 | 6.0 | 20.5 |
| 9 28 | 0 38.06 | - 1 40.3 | 4.361 | 5.358 | 1.1 | 19.8 | 9 28 | 0 39.67 | - 6 42.2 | 1.742 | 2.734 | 3.7 | 20.3 |
| 10 8 | 0 33.31 | - 2 8.3 | 4.368 | 5.355 | 1.8 | 19.9 | 10 8 | 0 31.61 | - 7 36.1 | 1.754 | 2.732 | 5.3 | 20.4 |
| 10 18 | 0 28.74 | - 2 32.7 | 4.405 | 5.353 | 3.6 | 20.0 | 10 18 | 0 24.11 | - 8 15.6 | 1.792 | 2.730 | 8.7 | 20.6 |
| 10 28 | 0 24.69 | - 2 51.7 | 4.471 | 5.350 | 5.4 | 20.1 | 10 28 | 0 18.02 | - 8 36.7 | 1.856 | 2.728 | 12.1 | 20.9 |
| 11 7 | 0 21.42 | - 3 4.0 | 4.563 | 5.347 | 7.0 | 20.3 | 11 7 | 0 13.95 | - 8 38.1 | 1.941 | 2.726 | 15.1 | 21.1 |
| 265719 | 2005 <i>UY</i> ₃₅₇ | 10 | 2.8 117°12 | 1°8/ 4.2 16 | | | 16705 | Reinhardt | 10 | 2.8 178°21 | 0°4/ 2.5 18 | | |
| 8 29 | 1 3.69 | + 9 46.7 | 1.657 | 2.495 | 15.9 | 21.0 | 8 29 | 1 3.04 | + 4 21.8 | 1.876 | 2.725 | 13.9 | 18.6 |
| 9 8 | 0 58.03 | + 9 47.0 | 1.590 | 2.503 | 12.2 | 20.8 | 9 8 | 0 57.34 | + 4 5.0 | 1.803 | 2.726 | 10.4 | 18.4 |
| 9 18 | 0 50.06 | + 9 31.8 | 1.545 | 2.511 | 8.0 | 20.6 | 9 18 | 0 49.57 | + 3 38.0 | 1.752 | 2.727 | 6.4 | 18.2 |
| 9 28 | 0 40.55 | + 9 3.2 | 1.525 | 2.519 | 3.5 | 20.4 | 9 28 | 0 40.41 | + 3 4.4 | 1.729 | 2.728 | 2.0 | 17.9 |
| 10 8 | 0 30.60 | + 8 26.1 | 1.532 | 2.527 | 2.6 | 20.3 | 10 8 | 0 30.81 | + 2 29.2 | 1.733 | 2.728 | 2.5 | 17.9 |
| 10 18 | 0 21.37 | + 7 46.2 | 1.566 | 2.534 | 6.8 | 20.6 | 10 18 | 0 21.79 | + 1 57.6 | 1.766 | 2.727 | 6.8 | 18.2 |
| 10 28 | 0 13.90 | + 7 10.4 | 1.627 | 2.541 | 11.0 | 20.9 | 10 28 | 0 14.30 | + 1 34.7 | 1.826 | 2.727 | 10.8 | 18.5 |
| 11 7 | 0 8.86 | + 6 44.1 | 1.710 | 2.548 | 14.6 | 21.1 | 11 7 | 0 8.98 | + 1 23.8 | 1.908 | 2.726 | 14.1 | 18.7 |
| 305397 | 2008 <i>CB</i> ₇₄ | 10 | 2.8 307°67 | 2°9/30.0 18 | | | 459698 | 2013 <i>OV</i> ₈ | 10 | 2.8 302°88 | 3°5/ 7.4 17 | | |
| 8 29 | 0 56.45 | - 0 23.3 | 1.739 | 2.614 | 13.6 | 20.8 | 8 29 | 0 55.82 | +18 15.9 | 2.636 | 3.422 | 12.1 | 21.9 |
| 9 8 | 0 52.67 | - 1 21.2 | 1.659 | 2.599 | 10.1 | 20.5 | 9 8 | 0 51.57 | +18 13.9 | 2.549 | 3.422 | 9.8 | 21.7 |
| 9 18 | 0 46.82 | - 2 28.5 | 1.603 | 2.584 | 6.2 | 20.3 | 9 18 | 0 45.86 | +17 56.7 | 2.485 | 3.421 | 7.2 | 21.6 |
| 9 28 | 0 39.52 | - 3 39.0 | 1.572 | 2.569 | 3.0 | 20.0 | 9 28 | 0 39.17 | +17 24.9 | 2.447 | 3.420 | 4.7 | 21.4 |
| 10 8 | 0 31.69 | - 4 44.7 | 1.569 | 2.554 | 4.7 | 20.1 | 10 8 | 0 32.15 | +16 40.9 | 2.436 | 3.420 | 3.5 | 21.3 |
| 10 18 | 0 24.31 | - 5 38.4 | 1.591 | 2.540 | 8.7 | 20.3 | 10 18 | 0 25.47 | +15 48.6 | 2.455 | 3.419 | 5.0 | 21.4 |
| 10 28 | 0 18.37 | - 6 14.2 | 1.639 | 2.526 | 12.6 | 20.5 | 10 28 | 0 19.81 | +14 53.2 | 2.502 | 3.418 | 7.5 | 21.6 |
| 11 7 | 0 14.56 | - 6 29.5 | 1.708 | 2.512 | 16.0 | 20.7 | 11 7 | 0 15.67 | +14 0.0 | 2.574 | 3.418 | 10.1 | 21.8 |
| 472289 | 2014 <i>WM</i> ₁₂₄ | 10 | 2.8 127°39 | 3°2/ 5.6 17 | | | 33847 | 2000 <i>GO</i> ₁₈₂ | 10 | 2.8 274°61 | 3°8/29.3 18 | | |
| 8 29 | 1 3.93 | +14 49.5 | 1.591 | 2.413 | 17.2 | 21.6 | 8 29 | 0 58.53 | - 1 31.5 | 1.564 | 2.443 | 14.6 | 19.4 |
| 9 8 | 0 58.27 | +14 34.6 | 1.527 | 2.427 | 13.5 | 21.4 | 9 8 | 0 54.39 | - 2 45.0 | 1.493 | 2.434 | 10.8 | 19.2 |
| 9 18 | 0 50.22 | +13 57.9 | 1.483 | 2.440 | 9.3 | 21.2 | 9 18 | 0 47.95 | - 4 8.3 | 1.445 | 2.425 | 6.7 | 18.9 |
| 9 28 | 0 40.60 | +13 1.6 | 1.464 | 2.452 | 5.0 | 21.0 | 9 28 | 0 39.92 | - 5 33.2 | 1.421 | 2.416 | 3.8 | 18.7 |
| 10 8 | 0 30.58 | +11 51.4 | 1.472 | 2.464 | 3.4 | 20.9 | 10 8 | 0 31.34 | - 6 50.1 | 1.425 | 2.407 | 5.8 | 18.8 |
| 10 18 | 0 21.37 | +10 35.4 | 1.507 | 2.475 | 6.9 | 21.2 | 10 18 | 0 23.35 | - 7 50.6 | 1.454 | 2.397 | 9.9 | 19.1 |
| 10 28 | 0 14.03 | + 9 22.7 | 1.568 | 2.486 | 11.0 | 21.4 | 10 28 | 0 17.00 | - 8 28.7 | 1.507 | 2.388 | 13.9 | 19.3 |
| 11 7 | 0 9.24 | + 8 21.1 | 1.653 | 2.496 | 14.7 | 21.7 | 11 7 | 0 13.03 | - 8 42.4 | 1.581 | 2.379 | 17.4 | 19.5 |
| 300432 | 2007 <i>TT</i> ₁₇ | 10 | 2.8 65°83 | 1°5/ 1.7 18 | | | 275400 | 2011 <i>BV</i> ₃₉ | 10 | 2.8 111°45 | 0°3/ 3.1 16 | | |
| 8 29 | 1 4.84 | + 0 6.4 | 1.702 | 2.563 | 14.5 | 19.8 | 8 29 | 1 0.79 | + 8 22.2 | 1.735 | 2.581 | 15.0 | 21.4 |
| 9 8 | 0 58.69 | + 0 4.3 | 1.643 | 2.574 | 10.8 | 19.6 | 9 8 | 0 55.67 | + 7 38.0 | 1.675 | 2.595 | 11.3 | 21.2 |
| 9 18 | 0 50.35 | - 0 3.9 | 1.607 | 2.585 | 6.5 | 19.4 | 9 18 | 0 48.50 | + 6 38.3 | 1.637 | 2.610 | 7.0 | 21.0 |
| 9 28 | 0 40.62 | - 0 14.1 | 1.597 | 2.596 | 2.3 | 19.1 | 9 28 | 0 40.04 | + 5 28.0 | 1.626 | 2.624 | 2.4 | 20.7 |
| 10 8 | 0 30.58 | - 0 22.0 | 1.615 | 2.607 | 3.3 | 19.2 | 10 8 | 0 31.28 | + 4 14.0 | 1.642 | 2.637 | 2.3 | 20.7 |
| 10 18 | 0 21.31 | - 0 23.3 | 1.661 | 2.619 | 7.5 | 19.5 | 10 18 | 0 23.24 | + 3 3.9 | 1.686 | 2.651 | 6.8 | 21.1 |
| 10 28 | 0 13.79 | - 0 14.8 | 1.733 | 2.630 | 11.5 | 19.8 | 10 28 | 0 16.82 | + 2 4.6 | 1.756 | 2.663 | 10.8 | 21.3 |
| 11 7 | 0 8.63 | + 0 5.3 | 1.827 | 2.642 | 14.7 | 20.0 | 11 7 | 0 12.59 | + 1 20.8 | 1.850 | 2.676 | 14.2 | 21.6 |
| 309558 | 2007 <i>YN</i> ₇₁ | 10 | 2.8 140°14 | 0°5/ 3.3 18 | | | 385333 | 2002 <i>GH</i> ₆ | 10 | 2.8 115°54 | 4°8/28.6 16 | | |
| 8 29 | 0 59.38 | + 7 20.8 | 2.037 | 2.879 | 13.2 | 21.4 | 8 29 | 1 5.21 | - 9 6.2 | 2.011 | 2.874 | 12.5 | 21.4 |
| 9 8 | 0 54.47 | + 7 2.9 | 1.964 | 2.882 | 10.0 | 21.2 | 9 8 | 0 58.58 | - 9 45.5 | 1.962 | 2.891 | 9.4 | 21.2 |
| 9 18 | 0 47.73 | + 6 33.2 | 1.913 | 2.884 | 6.3 | 21.0 | 9 18 | 0 50.11 | -10 23.2 | 1.938 | 2.908 | 6.4 | 21.0 |
| 9 28 | 0 39.78 | + 5 54.7 | 1.889 | 2.887 | 2.3 | 20.7 | 9 28 | 0 40.53 | -10 53.3 | 1.942 | 2.924 | 4.8 | 21.0 |
| 10 8 | 0 31.46 | + 5 11.9 | 1.893 | 2.889 | 2.0 | 20.7 | 10 8 | 0 30.79 | -11 10.8 | 1.973 | 2.940 | 6.0 | 21.1 |
| 10 18 | 0 23.65 | + 4 30.1 | 1.926 | 2.891 | 6.0 | 21.0 | 10 18 | 0 21.81 | -11 12.6 | 2.033 | 2.955 | 8.8 | 21.3 |
| 10 28 | 0 17.17 | + 3 54.6 | 1.986 | 2.893 | 9.7 | 21.2 | 10 28 | 0 14.39 | -10 57.2 | 2.119 | 2.970 | 11.7 | 21.5 |
| 11 7 | 0 12.62 | + 3 29.4 | 2.069 | 2.895 | 12.8 | 21.4 | 11 7 | 0 9.05 | -10 25.6 | 2.226 | 2.984 | 14.2 | 21.7 |
| 275070 | 2009 <i>US</i> ₁₃₆ | 10 | 2.8 290°18 | 6°0/26.1 18 | | | 271156 | 2003 <i>SV</i> ₁₉₇ | 10 | 2.8 321°90 | 2°2/ 1.2 18 | | |
| 8 29 | 0 59.38 | -14 11.6 | 2.297 | 3.164 | 11.0 | 20.4 | 8 29 | 0 57.01 | + 2 20.6 | 1.133 | 2.024 | 18.0 | 20.3 |
| 9 8 | 0 54.39 | -15 2.0 | 2.220 | 3.145 | 8.7 | 20.2 | 9 8 | 0 54.12 | + 1 40.5 | 1.058 | 2.005 | 13.6 | 20.0 |
| 9 18 | 0 47.67 | -15 48.9 | 2.168 | 3.126 | 6.7 | 20.1 | 9 18 | 0 48.24 | + 0 44.3 | 1.003 | 1.987 | 8.3 | 19.7 |
| 9 28 | 0 39.77 | -16 26.1 | 2.143 | 3.107 | 6.1 | 20.0 | 9 28 | 0 40.13 | - 0 21.3 | 0.970 | 1.969 | 3.0 | 19.3 |
| 10 8 | 0 31.46 | -16 48.1 | 2.146 | 3.088 | 7.4 | 20.0 | 10 8 | 0 31.09 | - 1 25.9 | 0.959 | 1.952 | 4.8 | 19.4 |
| 10 18 | 0 23.56 | -16 51.3 | 2.174 | 3.069 | 9.7 | 20.2 | 10 18 | 0 22.66 | - 2 18.9 | 0.973 | 1.936 | 10.6 | 19.6 |
| 10 28 | 0 16.86 | -16 34.2 | 2.228 | 3.050 | 12.3 | 20.3 | 10 28 | 0 16.36 | - 2 51.2 | 1.007 | 1.921 | 16.1 | 19.9 |
| 11 7 | 0 11.94 | -15 57.6 | 2.302 | 3.031 | 14.6 | 20.4 | 11 7 | 0 13.16 | - 2 58.3 | 1.059 | 1.907 | 20.8 | 20.2 |
| 453724 | 2011 <i>BC</i> ₂ | 10 | 2.8 299°99 | 0°6/ 2.2 17 | | | 121797 | 2000 <i>AQ</i> ₁₅₀ | 10 | 2.8 289°65 | 6°6/23.9 18 | | |
| 8 29 | 0 56.85 | + | | | | | | | | | | | |

EPHEMERIDES

10 2.8

10 2.8

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|---------|-------------|------|---------------|-------------------------------|-----------------|----------|---------|-------------|------|
| 493580 | 2015 <i>LA</i> ₆ | 10 | 2.8 | 98°28' | 5°7' / 8.3 | 18 | 211720 | 2003 <i>YX</i> ₃₈ | 10 | 2.8 | 186°71' | 3°6' / 7.1 | 18 |
| 8 29 | 1 1.20 | +21 4.6 | 1.759 | 2.548 | 17.1 | 21.5 | 8 29 | 0 59.89 | +18 3.5 | 2.560 | 3.342 | 12.5 | 20.8 |
| 9 8 | 0 56.21 | +21 16.7 | 1.689 | 2.558 | 14.1 | 21.3 | 9 8 | 0 54.65 | +18 1.5 | 2.472 | 3.342 | 10.1 | 20.6 |
| 9 18 | 0 48.98 | +21 5.2 | 1.638 | 2.568 | 10.6 | 21.1 | 9 18 | 0 47.79 | +17 43.7 | 2.405 | 3.341 | 7.4 | 20.5 |
| 9 28 | 0 40.24 | +20 29.6 | 1.611 | 2.578 | 7.4 | 20.9 | 9 28 | 0 39.84 | +17 10.6 | 2.365 | 3.340 | 4.8 | 20.3 |
| 10 8 | 0 31.06 | +19 33.0 | 1.609 | 2.588 | 5.7 | 20.9 | 10 8 | 0 31.52 | +16 24.8 | 2.354 | 3.338 | 3.6 | 20.2 |
| 10 18 | 0 22.53 | +18 21.9 | 1.635 | 2.597 | 7.2 | 21.0 | 10 18 | 0 23.57 | +15 30.3 | 2.372 | 3.335 | 5.2 | 20.3 |
| 10 28 | 0 15.69 | +17 4.9 | 1.687 | 2.607 | 10.2 | 21.2 | 10 28 | 0 16.74 | +14 32.6 | 2.419 | 3.332 | 7.9 | 20.5 |
| 11 7 | 0 11.22 | +15 51.2 | 1.762 | 2.616 | 13.5 | 21.4 | 11 7 | 0 11.56 | +13 37.3 | 2.492 | 3.328 | 10.6 | 20.7 |
| 272441 | 2005 <i>UR</i> ₁ | 10 | 2.8 | 8°33' | 0°1' / 2.7 | 18 | 45967 | 2001 <i>BF</i> ₂₄ | 10 | 2.8 | 161°76' | 2°1' / 4.6 | 18 |
| 8 29 | 0 57.81 | + 5 24.1 | 1.804 | 2.661 | 14.0 | 20.3 | 8 29 | 1 2.79 | +11 34.4 | 1.658 | 2.491 | 16.1 | 20.1 |
| 9 8 | 0 53.51 | + 5 4.2 | 1.734 | 2.662 | 10.5 | 20.1 | 9 8 | 0 57.46 | +11 21.9 | 1.585 | 2.495 | 12.5 | 19.8 |
| 9 18 | 0 47.25 | + 4 32.7 | 1.687 | 2.663 | 6.5 | 19.9 | 9 18 | 0 49.79 | +10 51.2 | 1.534 | 2.498 | 8.3 | 19.6 |
| 9 28 | 0 39.67 | + 3 53.4 | 1.666 | 2.665 | 2.1 | 19.6 | 9 28 | 0 40.54 | +10 4.7 | 1.508 | 2.501 | 3.9 | 19.3 |
| 10 8 | 0 31.69 | + 3 11.7 | 1.671 | 2.667 | 2.4 | 19.6 | 10 8 | 0 30.79 | + 9 7.8 | 1.509 | 2.504 | 2.7 | 19.3 |
| 10 18 | 0 24.27 | + 2 33.3 | 1.704 | 2.669 | 6.7 | 19.9 | 10 18 | 0 21.71 | + 8 7.6 | 1.538 | 2.506 | 6.8 | 19.5 |
| 10 28 | 0 18.30 | + 2 3.6 | 1.763 | 2.672 | 10.6 | 20.1 | 10 28 | 0 14.35 | + 7 11.9 | 1.592 | 2.508 | 11.1 | 19.8 |
| 11 7 | 0 14.40 | + 1 46.6 | 1.845 | 2.675 | 14.0 | 20.4 | 11 7 | 0 9.42 | + 6 27.1 | 1.670 | 2.509 | 14.8 | 20.0 |
| 116672 | 2004 <i>CZ</i> ₅₆ | 10 | 2.8 | 89°79' | 2°0' / 1.7 | 18 | 362287 | 2009 <i>SS</i> ₇₈ | 10 | 2.8 | 94°07' | 2°6' / 5.8 | 18 |
| 8 29 | 1 14.87 | - 2 20.4 | 1.579 | 2.429 | 16.0 | 19.2 | 8 29 | 0 58.89 | +14 13.3 | 2.363 | 3.171 | 12.7 | 20.6 |
| 9 8 | 1 6.13 | - 2 2.0 | 1.527 | 2.452 | 11.9 | 19.0 | 9 8 | 0 53.87 | +14 9.8 | 2.294 | 3.186 | 10.0 | 20.5 |
| 9 18 | 0 54.88 | - 1 46.6 | 1.499 | 2.474 | 7.2 | 18.8 | 9 18 | 0 47.26 | +13 52.1 | 2.248 | 3.200 | 6.9 | 20.3 |
| 9 28 | 0 42.11 | - 1 30.9 | 1.498 | 2.496 | 2.8 | 18.6 | 9 28 | 0 39.65 | +13 21.6 | 2.229 | 3.215 | 3.9 | 20.1 |
| 10 8 | 0 29.16 | - 1 11.3 | 1.526 | 2.517 | 3.8 | 18.7 | 10 8 | 0 31.77 | +12 41.6 | 2.238 | 3.229 | 2.7 | 20.1 |
| 10 18 | 0 17.34 | - 0 45.3 | 1.583 | 2.538 | 8.2 | 19.0 | 10 18 | 0 24.39 | +11 56.4 | 2.276 | 3.243 | 5.1 | 20.3 |
| 10 28 | 0 7.75 | - 0 11.0 | 1.667 | 2.558 | 12.2 | 19.3 | 10 28 | 0 18.20 | +11 11.3 | 2.342 | 3.257 | 8.1 | 20.5 |
| 11 7 | 0 1.00 | + 0 32.1 | 1.775 | 2.578 | 15.6 | 19.6 | 11 7 | 0 13.72 | +10 31.1 | 2.434 | 3.270 | 10.8 | 20.7 |
| 295537 | 2008 <i>RF</i> ₁₃₈ | 10 | 2.8 | 300°95' | 4°3' / 6.4 | 17 | 44704 | 1999 <i>SA</i> ₁₁ | 10 | 2.8 | 226°40' | 2°9' / 29.9 | 18 |
| 8 29 | 1 3.64 | +15 48.3 | 2.273 | 3.067 | 13.6 | 20.2 | 8 29 | 0 58.91 | + 1 29.7 | 1.660 | 2.529 | 14.4 | 18.8 |
| 9 8 | 0 57.79 | +16 36.0 | 2.176 | 3.054 | 11.0 | 20.0 | 9 8 | 0 54.56 | + 0 3.2 | 1.586 | 2.523 | 10.6 | 18.6 |
| 9 18 | 0 49.92 | +17 10.8 | 2.102 | 3.042 | 8.1 | 19.8 | 9 18 | 0 48.02 | - 1 36.5 | 1.535 | 2.515 | 6.5 | 18.3 |
| 9 28 | 0 40.60 | +17 31.4 | 2.055 | 3.029 | 5.4 | 19.6 | 9 28 | 0 39.97 | - 3 21.4 | 1.511 | 2.508 | 3.0 | 18.1 |
| 10 8 | 0 30.63 | +17 38.2 | 2.035 | 3.017 | 4.3 | 19.5 | 10 8 | 0 31.40 | - 5 1.6 | 1.515 | 2.500 | 4.9 | 18.2 |
| 10 18 | 0 20.95 | +17 33.5 | 2.045 | 3.005 | 6.2 | 19.6 | 10 18 | 0 23.40 | - 6 27.6 | 1.546 | 2.492 | 9.1 | 18.4 |
| 10 28 | 0 12.50 | +17 21.4 | 2.082 | 2.992 | 9.1 | 19.8 | 10 28 | 0 16.96 | - 7 32.3 | 1.602 | 2.483 | 13.2 | 18.7 |
| 11 7 | 0 6.00 | +17 7.3 | 2.145 | 2.981 | 12.1 | 20.0 | 11 7 | 0 12.79 | - 8 12.2 | 1.678 | 2.474 | 16.7 | 18.9 |
| 99144 | 2001 <i>FE</i> ₁₁₃ | 10 | 2.8 | 119°81' | 2°5' / 30.2 | 18 | 513208 | 2005 <i>TH</i> ₁₃₆ | 10 | 2.8 | 314°77' | 1°8' / 1.4 | 18 |
| 8 29 | 1 0.11 | - 1 5.5 | 2.048 | 2.910 | 12.4 | 19.8 | 8 29 | 0 58.17 | + 2 34.1 | 1.353 | 2.233 | 16.4 | 21.5 |
| 9 8 | 0 54.87 | - 1 56.8 | 1.991 | 2.923 | 9.1 | 19.6 | 9 8 | 0 54.56 | + 1 55.5 | 1.276 | 2.217 | 12.3 | 21.2 |
| 9 18 | 0 47.89 | - 2 53.8 | 1.958 | 2.936 | 5.5 | 19.4 | 9 18 | 0 48.30 | + 1 3.0 | 1.219 | 2.201 | 7.5 | 20.9 |
| 9 28 | 0 39.84 | - 3 50.9 | 1.952 | 2.948 | 2.7 | 19.3 | 9 28 | 0 40.14 | + 0 2.5 | 1.186 | 2.186 | 2.6 | 20.6 |
| 10 8 | 0 31.55 | - 4 42.2 | 1.975 | 2.960 | 4.0 | 19.4 | 10 8 | 0 31.21 | - 0 57.3 | 1.178 | 2.171 | 4.1 | 20.6 |
| 10 18 | 0 23.86 | - 5 22.5 | 2.027 | 2.972 | 7.4 | 19.6 | 10 18 | 0 22.85 | - 1 47.7 | 1.195 | 2.156 | 9.4 | 20.9 |
| 10 28 | 0 17.54 | - 5 48.1 | 2.105 | 2.983 | 10.6 | 19.9 | 10 28 | 0 16.34 | - 2 20.9 | 1.235 | 2.142 | 14.3 | 21.1 |
| 11 7 | 0 13.11 | - 5 57.4 | 2.205 | 2.994 | 13.4 | 20.1 | 11 7 | 0 12.54 | - 2 32.7 | 1.294 | 2.129 | 18.5 | 21.4 |
| 308132 | 2004 <i>XS</i> ₁₇₃ | 10 | 2.8 | 331°35' | 1°5' / 4.0 | 18 | 228829 | 2003 <i>CO</i> ₁₄ | 10 | 2.8 | 184°47' | 0°9' / 3.7 | 18 |
| 8 29 | 0 57.11 | + 9 59.6 | 1.489 | 2.344 | 16.5 | 19.8 | 8 29 | 1 0.66 | + 9 27.5 | 1.976 | 2.810 | 13.9 | 21.6 |
| 9 8 | 0 53.51 | + 9 39.9 | 1.412 | 2.335 | 12.7 | 19.5 | 9 8 | 0 55.54 | + 8 55.1 | 1.898 | 2.811 | 10.6 | 21.4 |
| 9 18 | 0 47.51 | + 9 1.1 | 1.356 | 2.327 | 8.3 | 19.3 | 9 18 | 0 48.47 | + 8 7.7 | 1.842 | 2.811 | 6.8 | 21.2 |
| 9 28 | 0 39.82 | + 8 6.5 | 1.323 | 2.320 | 3.5 | 19.0 | 9 28 | 0 40.10 | + 7 8.7 | 1.813 | 2.810 | 2.6 | 20.9 |
| 10 8 | 0 31.51 | + 7 2.2 | 1.316 | 2.312 | 2.5 | 18.9 | 10 8 | 0 31.30 | + 6 3.4 | 1.813 | 2.809 | 2.1 | 20.9 |
| 10 18 | 0 23.77 | + 5 56.6 | 1.335 | 2.306 | 7.4 | 19.2 | 10 18 | 0 23.02 | + 4 58.4 | 1.841 | 2.807 | 6.2 | 21.1 |
| 10 28 | 0 17.74 | + 4 58.3 | 1.379 | 2.300 | 12.0 | 19.4 | 10 28 | 0 16.15 | + 4 0.4 | 1.897 | 2.804 | 10.1 | 21.4 |
| 11 7 | 0 14.19 | + 4 14.2 | 1.444 | 2.294 | 16.1 | 19.7 | 11 7 | 0 11.30 | + 3 14.5 | 1.976 | 2.801 | 13.4 | 21.6 |
| 391948 | 2008 <i>VA</i> ₇₆ | 10 | 2.8 | 258°19' | 3°6' / 5.9 | 18 | 40317 | 1999 <i>LO</i> ₇ | 10 | 2.8 | 10°36' | 4°5' / 29.6 | 18 |
| 8 29 | 1 1.13 | +14 54.1 | 1.893 | 2.707 | 15.2 | 20.9 | 8 29 | 0 51.53 | - 0 11.0 | 0.842 | 1.761 | 19.8 | 16.5 |
| 9 8 | 0 56.20 | +15 2.1 | 1.800 | 2.694 | 12.1 | 20.7 | 9 8 | 0 50.23 | - 1 23.9 | 0.802 | 1.763 | 14.6 | 16.2 |
| 9 18 | 0 49.06 | +14 52.4 | 1.729 | 2.681 | 8.6 | 20.4 | 9 18 | 0 45.79 | - 2 50.8 | 0.780 | 1.768 | 8.9 | 15.9 |
| 9 28 | 0 40.33 | +14 25.2 | 1.683 | 2.667 | 5.0 | 20.2 | 9 28 | 0 39.28 | - 4 18.8 | 0.777 | 1.775 | 4.6 | 15.7 |
| 10 8 | 0 30.93 | +13 43.3 | 1.663 | 2.653 | 3.7 | 20.1 | 10 8 | 0 32.26 | - 5 33.3 | 0.796 | 1.784 | 7.1 | 15.9 |
| 10 18 | 0 21.94 | +12 52.1 | 1.672 | 2.639 | 6.5 | 20.2 | 10 18 | 0 26.33 | - 6 22.7 | 0.834 | 1.795 | 12.4 | 16.2 |
| 10 28 | 0 14.39 | +11 58.5 | 1.707 | 2.625 | 10.3 | 20.4 | 10 28 | 0 22.83 | - 6 40.9 | 0.892 | 1.808 | 17.5 | 16.6 |
| 11 7 | 0 9.05 | +11 9.8 | 1.766 | 2.611 | 13.9 | 20.6 | 11 7 | 0 22.42 | - 6 27.5 | 0.966 | 1.822 | 21.7 | 16.9 |
| 287600 | 2003 <i>FH</i> ₁₃₃ | 10 | 2.8 | 193°91' | 0°8' / 1.1 | 18 | 363526 | 2003 <i>UN</i> ₂₂₅ | 10 | 2.8 | 23°80' | 4°3' / 7.7 | 17 |
| 8 29 | 0 51.17 | + 0 0.1 | 4.730 | 5.577 | 6.1 | 21.2 | 8 29 | 0 54.15 | +19 34.5 | 1.824 | 2.631 | 15.9 | 20.4 |
| 9 8 | 0 47.49 | - 0 19.1 | 4.651 | 5.575 | 4.5 | 21.1 | 9 8 | 0 50.83 | +19 14.3 | 1.756 | 2.640 | 12.9 | 20.2 |
| 9 18 | 0 43.09 | - 0 41.0 | 4.598 | 5.574 | 2.7 | 20.9 | 9 18 | 0 45.61 | +18 31.0 | 1.708 | 2.650 | 9.4 | 20.0 |
| 9 28 | 0 38.24 | - 1 3.7 | 4.575 | 5.573 | 1.0 | 20.8 | 9 28 | 0 39.15 | +17 26.0 | 1.684 | 2.661 | 6.0 | 19.8 |
| 10 8 | 0 33.26 | - 1 25.2 | 4.583 | 5.571 | 1.6 | 20.8 | 10 8 | 0 32.35 | +16 4.4 | 1.686 | 2.673 | 4.3 | 19.8 |
| 10 18 | 0 28.45 | - 1 43.8 | 4.620 | 5.570 | 3.4 | 21.0 | 10 18 | 0 26.13 | +14 33.6 | 1.715 | 2.685 | 6.2 | 19.9 |
| 10 28 | 0 24.14 | - 1 57.6 | 4.687 | 5.568 | 5.2 | 21.1 | 10 28 | 0 21.35 | +13 2.5 | 1.771 | 2.697 | 9.4 | 20.1 |
| 11 7 | 0 20.59 | - 2 5.5 | 4.781 | 5.567 | 6.7 | 21.2 | 11 7 | 0 18.56 | +11 39.3 | 1.851 | 2.711 | 12.6 | 20.4 |
| 383125 | 2005 <i>TE</i> ₇₁ | 10 | 2.8 | 309°35' | 0°0' / 2.6 | 18 | 32 | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|---------|---------|------|------|-----------------|-----------------|----------|-----|---------|-----|
| 512029 | 2015 <i>MG</i> ₅₂ | 10 | 2.8 | 93°08' | 5°1' | 8.2 | 18 | | | | | | |
| 8 29 | 1 1.88 | +20 36.8 | 1.976 | 2.758 | 15.7 | 21.7 | | | | | | | |
| 9 8 | 0 56.43 | +20 48.7 | 1.911 | 2.777 | 12.8 | 21.6 | | | | | | | |
| 9 18 | 0 48.98 | +20 39.6 | 1.867 | 2.796 | 9.6 | 21.4 | | | | | | | |
| 9 28 | 0 40.25 | +20 9.6 | 1.847 | 2.814 | 6.6 | 21.3 | | | | | | | |
| 10 8 | 0 31.19 | +19 21.6 | 1.854 | 2.832 | 5.1 | 21.2 | | | | | | | |
| 10 18 | 0 22.79 | +18 21.1 | 1.888 | 2.849 | 6.5 | 21.3 | | | | | | | |
| 10 28 | 0 15.93 | +17 15.6 | 1.950 | 2.867 | 9.3 | 21.6 | | | | | | | |
| 11 7 | 0 11.21 | +16 12.5 | 2.037 | 2.884 | 12.2 | 21.8 | | | | | | | |
| 99068 | 2001 <i>FZ</i> ₇ | 10 | 2.8 | 248°25' | 1°5' | 1.0 | 18 | | | | | | |
| 8 29 | 0 57.19 | + 3 52.6 | 2.013 | 2.870 | 12.8 | 20.1 | | | | | | | |
| 9 8 | 0 53.00 | + 2 40.9 | 1.928 | 2.858 | 9.5 | 19.8 | | | | | | | |
| 9 18 | 0 46.95 | + 1 16.1 | 1.866 | 2.844 | 5.7 | 19.6 | | | | | | | |
| 9 28 | 0 39.62 | - 0 16.0 | 1.832 | 2.831 | 2.0 | 19.3 | | | | | | | |
| 10 8 | 0 31.82 | - 1 47.9 | 1.827 | 2.817 | 3.4 | 19.4 | | | | | | | |
| 10 18 | 0 24.43 | - 3 11.8 | 1.850 | 2.803 | 7.4 | 19.6 | | | | | | | |
| 10 28 | 0 18.29 | - 4 21.1 | 1.900 | 2.788 | 11.1 | 19.8 | | | | | | | |
| 11 7 | 0 14.04 | - 5 11.4 | 1.973 | 2.773 | 14.4 | 20.0 | | | | | | | |
| 481051 | 2005 <i>GU</i> ₁₀₉ | 10 | 2.8 | 266°58' | 0°4' | 3.3 | 18 | | | | | | |
| 8 29 | 0 56.46 | + 9 29.0 | 1.922 | 2.765 | 13.8 | 21.6 | | | | | | | |
| 9 8 | 0 52.55 | + 8 34.3 | 1.835 | 2.754 | 10.5 | 21.4 | | | | | | | |
| 9 18 | 0 46.72 | + 7 22.2 | 1.770 | 2.742 | 6.7 | 21.1 | | | | | | | |
| 9 28 | 0 39.55 | + 5 56.8 | 1.733 | 2.730 | 2.4 | 20.8 | | | | | | | |
| 10 8 | 0 31.90 | + 4 25.0 | 1.723 | 2.719 | 2.2 | 20.8 | | | | | | | |
| 10 18 | 0 24.68 | + 2 54.8 | 1.741 | 2.707 | 6.5 | 21.1 | | | | | | | |
| 10 28 | 0 18.77 | + 1 34.1 | 1.787 | 2.695 | 10.6 | 21.3 | | | | | | | |
| 11 7 | 0 14.83 | + 0 29.1 | 1.856 | 2.683 | 14.1 | 21.5 | | | | | | | |
| 203891 | 2003 <i>FR</i> ₄₃ | 10 | 2.8 | 176°09' | 0°5' | 1.9 | 18 | | | | | | |
| 8 29 | 0 51.33 | + 2 17.9 | 4.618 | 5.459 | 6.4 | 20.4 | | | | | | | |
| 9 8 | 0 47.64 | + 2 2.0 | 4.538 | 5.459 | 4.7 | 20.3 | | | | | | | |
| 9 18 | 0 43.21 | + 1 42.7 | 4.485 | 5.459 | 2.8 | 20.1 | | | | | | | |
| 9 28 | 0 38.32 | + 1 21.6 | 4.461 | 5.460 | 0.9 | 20.0 | | | | | | | |
| 10 8 | 0 33.28 | + 1 0.7 | 4.467 | 5.460 | 1.3 | 20.0 | | | | | | | |
| 10 18 | 0 28.43 | + 0 41.9 | 4.504 | 5.460 | 3.3 | 20.2 | | | | | | | |
| 10 28 | 0 24.09 | + 0 26.9 | 4.571 | 5.460 | 5.1 | 20.3 | | | | | | | |
| 11 7 | 0 20.53 | + 0 17.2 | 4.663 | 5.460 | 6.7 | 20.4 | | | | | | | |
| 355339 | 2007 <i>TS</i> ₉₀ | 10 | 2.8 | 340°43' | 2°4' | 30.9 | 16 | | | | | | |
| 8 29 | 0 53.95 | + 1 28.0 | 1.240 | 2.133 | 16.7 | 20.4 | | | | | | | |
| 9 8 | 0 51.54 | + 0 48.6 | 1.168 | 2.115 | 12.5 | 20.1 | | | | | | | |
| 9 18 | 0 46.50 | - 0 4.4 | 1.115 | 2.099 | 7.6 | 19.8 | | | | | | | |
| 9 28 | 0 39.56 | - 1 4.0 | 1.085 | 2.084 | 2.9 | 19.5 | | | | | | | |
| 10 8 | 0 31.89 | - 2 0.9 | 1.078 | 2.070 | 4.7 | 19.5 | | | | | | | |
| 10 18 | 0 24.82 | - 2 46.0 | 1.096 | 2.058 | 9.9 | 19.8 | | | | | | | |
| 10 28 | 0 19.62 | - 3 11.8 | 1.135 | 2.047 | 14.8 | 20.1 | | | | | | | |
| 11 7 | 0 17.14 | - 3 14.4 | 1.193 | 2.038 | 19.1 | 20.3 | | | | | | | |
| 29467 | Shandongdaxue | 10 | 2.8 | 344°38' | 3°7' | 30.2 | 18 | | | | | | |
| 8 29 | 1 0.96 | - 4 30.0 | 1.507 | 2.388 | 15.0 | 17.9 | | | | | | | |
| 9 8 | 0 56.27 | - 4 47.8 | 1.439 | 2.380 | 11.2 | 17.7 | | | | | | | |
| 9 18 | 0 49.15 | - 5 8.6 | 1.393 | 2.373 | 7.1 | 17.4 | | | | | | | |
| 9 28 | 0 40.37 | - 5 26.5 | 1.371 | 2.366 | 3.9 | 17.2 | | | | | | | |
| 10 8 | 0 31.06 | - 5 35.2 | 1.376 | 2.360 | 5.4 | 17.3 | | | | | | | |
| 10 18 | 0 22.41 | - 5 30.1 | 1.405 | 2.355 | 9.5 | 17.5 | | | | | | | |
| 10 28 | 0 15.55 | - 5 8.3 | 1.459 | 2.351 | 13.6 | 17.8 | | | | | | | |
| 11 7 | 0 11.21 | - 4 29.3 | 1.533 | 2.347 | 17.1 | 18.0 | | | | | | | |
| 449645 | 2014 <i>KX</i> ₃₄ | 10 | 2.8 | 32°93' | 5°5' | 27.4 | 18 | | | | | | |
| 8 29 | 0 56.58 | - 6 56.5 | 1.644 | 2.530 | 13.6 | 20.6 | | | | | | | |
| 9 8 | 0 52.66 | - 8 19.6 | 1.595 | 2.538 | 10.2 | 20.4 | | | | | | | |
| 9 18 | 0 46.73 | - 9 44.6 | 1.570 | 2.546 | 6.9 | 20.2 | | | | | | | |
| 9 28 | 0 39.52 | - 11 2.6 | 1.571 | 2.555 | 5.5 | 20.2 | | | | | | | |
| 10 8 | 0 32.03 | - 12 5.2 | 1.598 | 2.564 | 7.2 | 20.3 | | | | | | | |
| 10 18 | 0 25.23 | - 12 46.4 | 1.650 | 2.573 | 10.4 | 20.5 | | | | | | | |
| 10 28 | 0 19.99 | - 13 3.3 | 1.725 | 2.583 | 13.6 | 20.7 | | | | | | | |
| 11 7 | 0 16.88 | - 12 56.2 | 1.820 | 2.593 | 16.4 | 21.0 | | | | | | | |
| 76360 | 2000 <i>EV</i> ₁₇₀ | 10 | 2.8 | 31°63' | 6°5' | 27.2 | 18 | | | | | | |
| 8 29 | 0 57.11 | - 8 4.9 | 1.367 | 2.262 | 15.3 | 17.6 | | | | | | | |
| 9 8 | 0 53.28 | - 9 29.7 | 1.331 | 2.277 | 11.5 | 17.4 | | | | | | | |
| 9 18 | 0 47.17 | - 10 54.1 | 1.317 | 2.293 | 7.9 | 17.3 | | | | | | | |
| 9 28 | 0 39.66 | - 12 7.8 | 1.328 | 2.310 | 6.5 | 17.2 | | | | | | | |
| 10 8 | 0 31.94 | - 13 1.7 | 1.362 | 2.327 | 8.3 | 17.4 | | | | | | | |
| 10 18 | 0 25.11 | - 13 30.1 | 1.421 | 2.346 | 11.7 | 17.6 | | | | | | | |
| 10 28 | 0 20.14 | - 13 31.3 | 1.502 | 2.365 | 15.0 | 17.9 | | | | | | | |
| 11 7 | 0 17.56 | - 13 7.0 | 1.601 | 2.384 | 17.9 | 18.1 | | | | | | | |
| 484227 | 2007 <i>EK</i> ₂₉ | 10 | 2.8 | 12°96' | 1°9' | 4.5 | 18 | | | | | | |
| 8 29 | 1 1.13 | + 9 40.7 | 2.080 | 2.910 | 13.4 | 20.8 | | | | | | | |
| 9 8 | 0 55.84 | + 9 56.4 | 2.003 | 2.910 | 10.4 | 20.6 | | | | | | | |
| 9 18 | 0 48.65 | + 10 0.4 | 1.948 | 2.911 | 6.9 | 20.4 | | | | | | | |
| 9 28 | 0 40.19 | + 9 53.8 | 1.920 | 2.913 | 3.3 | 20.2 | | | | | | | |
| 10 8 | 0 31.30 | + 9 39.5 | 1.920 | 2.914 | 2.4 | 20.1 | | | | | | | |
| 10 18 | 0 22.89 | + 9 21.3 | 1.948 | 2.916 | 5.7 | 20.3 | | | | | | | |
| 10 28 | 0 15.81 | + 9 3.8 | 2.004 | 2.917 | 9.3 | 20.6 | | | | | | | |
| 11 7 | 0 10.70 | + 8 51.3 | 2.084 | 2.919 | 12.4 | 20.8 | | | | | | | |
| 354306 | 2002 <i>TK</i> ₂₄₃ | 10 | 2.8 | 279°71' | 1°1' | 1.9 | 18 | | | | | | |
| 8 29 | 1 0.28 | + 2 26.6 | 1.885 | 2.743 | 13.4 | 21.0 | | | | | | | |
| 9 8 | 0 55.37 | + 2 5.4 | 1.807 | 2.736 | 10.0 | 20.8 | | | | | | | |
| 9 18 | 0 48.45 | + 1 35.4 | 1.752 | 2.729 | 6.1 | 20.6 | | | | | | | |
| 9 28 | 0 40.14 | + 1 0.5 | 1.723 | 2.723 | 2.0 | 20.3 | | | | | | | |
| 10 8 | 0 31.36 | + 0 25.9 | 1.723 | 2.716 | 2.9 | 20.4 | | | | | | | |
| 10 18 | 0 23.07 | - 0 3.0 | 1.750 | 2.709 | 7.1 | 20.6 | | | | | | | |
| 10 28 | 0 16.21 | - 0 21.6 | 1.803 | 2.702 | 11.0 | 20.8 | | | | | | | |
| 11 7 | 0 11.42 | - 0 26.8 | 1.879 | 2.695 | 14.3 | 21.0 | | | | | | | |
| 62795 | 2000 <i>UY</i> ₃₄ | 10 | 2.8 | 19°86' | 1°7' | 1.4 | 18 | | | | | | |
| 8 29 | 1 0.94 | - 0 1.2 | 1.881 | 2.744 | 13.3 | 18.9 | | | | | | | |
| 9 8 | 0 55.76 | - 0 14.2 | 1.814 | 2.746 | 9.8 | 18.7 | | | | | | | |
| 9 18 | 0 48.60 | - 0 33.2 | 1.771 | 2.749 | 6.0 | 18.5 | | | | | | | |
| 9 28 | 0 40.17 | - 0 54.1 | 1.753 | 2.752 | 2.2 | 18.3 | | | | | | | |
| 10 8 | 0 31.36 | - 1 12.2 | 1.764 | 2.755 | 3.3 | 18.4 | | | | | | | |
| 10 18 | 0 23.15 | - 1 23.2 | 1.802 | 2.758 | 7.2 | 18.6 | | | | | | | |
| 10 28 | 0 16.40 | - 1 23.6 | 1.866 | 2.761 | 10.9 | 18.8 | | | | | | | |
| 11 7 | 0 11.74 | - 1 11.4 | 1.953 | 2.765 | 14.0 | 19.1 | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|------------|--------------|---------|------|---------------|------------------------|-----------------|------------|--------------|---------|------|
| 205093 | 1999 TY ₁₅₈ | 10 | 2.8 323°14 | 3°5/ 4.9 18 | | | 254964 | 2005 SR ₂₁₇ | 10 | 2.8 5°12 | 0°6/ 2.1 18 | | |
| 8 29 | 1 6.52 | +10 14.4 | 1.547 | 2.384 | 17.0 | 19.4 | 8 29 | 0 55.69 | + 5 41.5 | 1.925 | 2.782 | 13.3 | 20.0 |
| 9 8 | 1 0.72 | +11 10.5 | 1.464 | 2.373 | 13.4 | 19.2 | 9 8 | 0 51.88 | + 4 49.4 | 1.853 | 2.782 | 9.9 | 19.8 |
| 9 18 | 0 52.14 | +11 54.2 | 1.401 | 2.362 | 9.2 | 18.9 | 9 18 | 0 46.27 | + 3 44.5 | 1.805 | 2.782 | 6.0 | 19.6 |
| 9 28 | 0 41.49 | +12 24.2 | 1.363 | 2.352 | 5.0 | 18.7 | 9 28 | 0 39.48 | + 2 31.8 | 1.783 | 2.783 | 1.9 | 19.3 |
| 10 8 | 0 29.95 | +12 41.3 | 1.351 | 2.343 | 3.9 | 18.6 | 10 8 | 0 32.31 | + 1 17.9 | 1.789 | 2.783 | 2.6 | 19.4 |
| 10 18 | 0 18.92 | +12 48.4 | 1.366 | 2.334 | 7.6 | 18.8 | 10 18 | 0 25.65 | + 0 9.6 | 1.823 | 2.784 | 6.7 | 19.6 |
| 10 28 | 0 9.75 | +12 50.8 | 1.407 | 2.325 | 12.1 | 19.0 | 10 28 | 0 20.30 | - 0 46.7 | 1.883 | 2.785 | 10.4 | 19.9 |
| 11 7 | 0 3.38 | +12 54.4 | 1.470 | 2.317 | 16.0 | 19.2 | 11 7 | 0 16.83 | - 1 26.9 | 1.966 | 2.787 | 13.6 | 20.1 |
| 510546 | 2012 JJ ₆₇ | 10 | 2.8 290°28 | 1°0/ 4.7 18 | | | 62262 | 2000 SO ₈₆ | 10 | 2.8 268°83 | 4°6/ 28.4 18 | | |
| 8 29 | 0 51.21 | +10 15.5 | 4.276 | 5.090 | 7.3 | 21.3 | 8 29 | 1 1.14 | - 8 56.2 | 2.154 | 3.021 | 11.7 | 19.2 |
| 9 8 | 0 47.67 | +10 3.9 | 4.185 | 5.085 | 5.6 | 21.2 | 9 8 | 0 55.80 | - 9 33.6 | 2.079 | 3.010 | 8.8 | 19.0 |
| 9 18 | 0 43.31 | + 9 45.5 | 4.120 | 5.081 | 3.7 | 21.1 | 9 18 | 0 48.64 | -10 10.5 | 2.029 | 3.000 | 6.1 | 18.8 |
| 9 28 | 0 38.41 | + 9 21.6 | 4.084 | 5.076 | 1.7 | 20.9 | 9 28 | 0 40.26 | -10 41.5 | 2.006 | 2.989 | 4.6 | 18.7 |
| 10 8 | 0 33.34 | + 8 54.2 | 4.077 | 5.072 | 1.2 | 20.9 | 10 8 | 0 31.48 | -11 1.3 | 2.011 | 2.978 | 5.9 | 18.8 |
| 10 18 | 0 28.45 | + 8 25.2 | 4.101 | 5.067 | 3.0 | 21.0 | 10 18 | 0 23.17 | -11 6.1 | 2.044 | 2.967 | 8.7 | 18.9 |
| 10 28 | 0 24.11 | + 7 57.3 | 4.154 | 5.063 | 5.0 | 21.1 | 10 28 | 0 16.15 | -10 53.7 | 2.102 | 2.956 | 11.7 | 19.1 |
| 11 7 | 0 20.61 | + 7 32.6 | 4.234 | 5.059 | 6.8 | 21.3 | 11 7 | 0 11.02 | -10 24.2 | 2.182 | 2.945 | 14.3 | 19.2 |
| 284254 | 2006 GC ₁₄ | 10 | 2.8 226°62 | 2°1/ 30.9 18 | | | 385544 | 2004 RH ₂₃₀ | 10 | 2.8 176°55 | 1°0/ 3.9 18 | | |
| 8 29 | 1 0.36 | + 0 34.1 | 1.905 | 2.767 | 13.2 | 21.1 | 8 29 | 0 58.11 | +11 25.5 | 1.901 | 2.735 | 14.4 | 21.0 |
| 9 8 | 0 55.40 | - 0 7.6 | 1.830 | 2.762 | 9.8 | 20.9 | 9 8 | 0 53.74 | +10 31.0 | 1.824 | 2.736 | 11.0 | 20.8 |
| 9 18 | 0 48.47 | - 0 57.4 | 1.777 | 2.756 | 5.9 | 20.6 | 9 18 | 0 47.45 | + 9 18.0 | 1.770 | 2.737 | 7.1 | 20.5 |
| 9 28 | 0 40.18 | - 1 50.4 | 1.752 | 2.750 | 2.4 | 20.4 | 9 28 | 0 39.88 | + 7 50.8 | 1.742 | 2.738 | 2.9 | 20.3 |
| 10 8 | 0 31.45 | - 2 40.1 | 1.754 | 2.743 | 3.7 | 20.5 | 10 8 | 0 31.90 | + 6 16.2 | 1.742 | 2.738 | 2.1 | 20.2 |
| 10 18 | 0 23.22 | - 3 20.8 | 1.785 | 2.736 | 7.6 | 20.7 | 10 18 | 0 24.46 | + 4 42.2 | 1.771 | 2.738 | 6.3 | 20.5 |
| 10 28 | 0 16.40 | - 3 47.6 | 1.841 | 2.729 | 11.4 | 20.9 | 10 28 | 0 18.42 | + 3 17.2 | 1.827 | 2.738 | 10.2 | 20.8 |
| 11 7 | 0 11.64 | - 3 57.9 | 1.920 | 2.722 | 14.6 | 21.1 | 11 7 | 0 14.39 | + 2 7.3 | 1.908 | 2.737 | 13.6 | 21.0 |
| 393020 | 2012 XS ₁₅₃ | 10 | 2.8 57°59 | 0°7/ 1.4 18 | | | 205152 | 1999 XK ₁₅₆ | 10 | 2.8 223°56 | 7°5/ 24.6 18 | | |
| 8 29 | 0 51.19 | + 1 11.8 | 4.313 | 5.159 | 6.7 | 21.3 | 8 29 | 1 1.07 | -16 44.2 | 2.088 | 2.955 | 12.0 | 20.7 |
| 9 8 | 0 47.61 | + 0 50.9 | 4.237 | 5.162 | 4.9 | 21.2 | 9 8 | 0 55.81 | -18 1.4 | 2.028 | 2.948 | 9.6 | 20.5 |
| 9 18 | 0 43.24 | + 0 26.8 | 4.188 | 5.164 | 3.0 | 21.1 | 9 18 | 0 48.65 | -19 13.0 | 1.993 | 2.941 | 7.9 | 20.4 |
| 9 28 | 0 38.39 | + 0 1.2 | 4.168 | 5.166 | 1.0 | 20.9 | 9 28 | 0 40.26 | -20 11.0 | 1.984 | 2.934 | 7.6 | 20.4 |
| 10 8 | 0 33.39 | - 0 23.6 | 4.178 | 5.168 | 1.6 | 21.0 | 10 8 | 0 31.50 | -20 49.0 | 2.002 | 2.926 | 9.0 | 20.4 |
| 10 18 | 0 28.59 | - 0 45.5 | 4.218 | 5.171 | 3.6 | 21.1 | 10 18 | 0 23.29 | -21 3.0 | 2.045 | 2.917 | 11.3 | 20.6 |
| 10 28 | 0 24.34 | - 1 2.5 | 4.287 | 5.173 | 5.5 | 21.3 | 10 28 | 0 16.47 | -20 52.1 | 2.110 | 2.909 | 13.7 | 20.7 |
| 11 7 | 0 20.93 | - 1 13.2 | 4.382 | 5.175 | 7.1 | 21.4 | 11 7 | 0 11.63 | -20 17.9 | 2.196 | 2.900 | 15.9 | 20.9 |
| 291379 | 2006 CU ₁₂ | 10 | 2.8 96°37 | 5°7/ 25.0 18 | | | 92201 | 1999 XU ₂₄₂ | 10 | 2.8 272°83 | 2°1/ 30.6 17 | | |
| 8 29 | 0 55.91 | -12 30.5 | 2.384 | 3.257 | 10.4 | 20.5 | 8 29 | 1 0.65 | - 2 2.7 | 2.563 | 3.416 | 10.5 | 19.5 |
| 9 8 | 0 51.64 | -14 1.7 | 2.339 | 3.269 | 8.1 | 20.4 | 9 8 | 0 55.31 | - 2 26.0 | 2.462 | 3.389 | 7.8 | 19.3 |
| 9 18 | 0 45.92 | -15 30.1 | 2.321 | 3.280 | 6.2 | 20.3 | 9 18 | 0 48.33 | - 2 53.6 | 2.387 | 3.363 | 4.9 | 19.0 |
| 9 28 | 0 39.29 | -16 48.8 | 2.330 | 3.291 | 5.8 | 20.3 | 9 28 | 0 40.18 | - 3 21.7 | 2.340 | 3.336 | 2.3 | 18.8 |
| 10 8 | 0 32.46 | -17 51.8 | 2.366 | 3.302 | 7.2 | 20.4 | 10 8 | 0 31.55 | - 3 46.4 | 2.323 | 3.308 | 3.4 | 18.9 |
| 10 18 | 0 26.11 | -18 35.1 | 2.429 | 3.313 | 9.3 | 20.5 | 10 18 | 0 23.17 | - 4 3.8 | 2.335 | 3.281 | 6.5 | 19.0 |
| 10 28 | 0 20.89 | -18 56.9 | 2.517 | 3.324 | 11.5 | 20.7 | 10 28 | 0 15.78 | - 4 10.7 | 2.375 | 3.252 | 9.6 | 19.2 |
| 11 7 | 0 17.24 | -18 57.9 | 2.625 | 3.335 | 13.4 | 20.9 | 11 7 | 0 9.99 | - 4 5.3 | 2.439 | 3.224 | 12.4 | 19.3 |
| 14143 | Hadfield | 10 | 2.8 15°81 | 1°8/ 1.3 18 | | | 254486 | 2005 EO ₂₆ | 10 | 2.8 327°12 | 2°6/ 4.3 18 | | |
| 8 29 | 0 55.73 | + 4 28.9 | 1.171 | 2.058 | 17.9 | 17.4 | 8 29 | 1 1.56 | + 8 28.1 | 1.120 | 1.992 | 19.7 | 20.0 |
| 9 8 | 0 52.79 | + 3 22.2 | 1.117 | 2.061 | 13.3 | 17.2 | 9 8 | 0 57.79 | + 9 1.1 | 1.044 | 1.976 | 15.4 | 19.7 |
| 9 18 | 0 47.18 | + 1 57.6 | 1.082 | 2.065 | 8.0 | 16.9 | 9 18 | 0 50.73 | + 9 17.4 | 0.987 | 1.960 | 10.3 | 19.4 |
| 9 28 | 0 39.80 | + 0 23.7 | 1.071 | 2.070 | 2.7 | 16.6 | 9 28 | 0 41.15 | + 9 17.4 | 0.950 | 1.946 | 4.7 | 19.0 |
| 10 8 | 0 31.94 | - 1 7.6 | 1.084 | 2.076 | 4.3 | 16.7 | 10 8 | 0 30.47 | + 9 4.7 | 0.937 | 1.932 | 3.5 | 18.9 |
| 10 18 | 0 24.94 | - 2 25.2 | 1.121 | 2.083 | 9.7 | 17.1 | 10 18 | 0 20.40 | + 8 45.7 | 0.947 | 1.920 | 9.1 | 19.2 |
| 10 28 | 0 19.97 | - 3 20.2 | 1.180 | 2.091 | 14.5 | 17.4 | 10 28 | 0 12.62 | + 8 28.6 | 0.978 | 1.908 | 14.7 | 19.5 |
| 11 7 | 0 17.74 | - 3 49.1 | 1.259 | 2.099 | 18.6 | 17.7 | 11 7 | 0 8.24 | + 8 21.2 | 1.029 | 1.898 | 19.6 | 19.7 |
| 101321 | 1998 SP ₁₅₄ | 10 | 2.8 14°48 | 2°1/ 4.5 18 | | | 41298 | 1999 XT ₁₂₃ | 10 | 2.8 2°15 | 5°1/ 8.5 18 | | |
| 8 29 | 0 59.04 | +10 19.3 | 1.508 | 2.358 | 16.6 | 19.0 | 8 29 | 0 57.36 | +21 7.2 | 2.105 | 2.888 | 14.9 | 17.7 |
| 9 8 | 0 54.86 | +10 19.0 | 1.441 | 2.361 | 12.8 | 18.8 | 9 8 | 0 53.18 | +21 16.1 | 2.023 | 2.888 | 12.3 | 17.6 |
| 9 18 | 0 48.32 | +10 1.4 | 1.395 | 2.364 | 8.5 | 18.6 | 9 18 | 0 47.12 | +21 4.8 | 1.961 | 2.888 | 9.4 | 17.4 |
| 9 28 | 0 40.18 | + 9 28.8 | 1.373 | 2.368 | 3.9 | 18.3 | 9 28 | 0 39.79 | +20 33.1 | 1.923 | 2.888 | 6.6 | 17.2 |
| 10 8 | 0 31.53 | + 8 46.3 | 1.377 | 2.372 | 2.7 | 18.3 | 10 8 | 0 32.02 | +19 43.3 | 1.911 | 2.888 | 5.1 | 17.1 |
| 10 18 | 0 23.57 | + 8 0.7 | 1.406 | 2.377 | 7.0 | 18.5 | 10 18 | 0 24.69 | +18 40.3 | 1.927 | 2.889 | 6.3 | 17.2 |
| 10 28 | 0 17.36 | + 7 19.6 | 1.461 | 2.383 | 11.4 | 18.8 | 10 28 | 0 18.67 | +17 31.1 | 1.970 | 2.889 | 9.0 | 17.4 |
| 11 7 | 0 13.62 | + 6 48.9 | 1.538 | 2.389 | 15.2 | 19.1 | 11 7 | 0 14.58 | +16 23.2 | 2.037 | 2.890 | 11.9 | 17.6 |
| 282986 | 2007 TA ₁₃₆ | 10 | 2.8 41°91 | 9°4/ 11.3 18 | | | 67258 | 2000 EX ₁₁₉ | 10 | 2.8 23°22 | 1°1/ 1.8 18 | | |
| 8 29 | 1 2.60 | +27 0.7 | 1.543 | 2.309 | 20.1 | 19.8 | 8 29 | 1 0.19 | + 1 16.5 | 2.131 | 2.986 | 12.2 | 18.4 |
| 9 8 | 0 57.74 | +28 3.3 | 1.482 | 2.322 | 17.2 | 19.6 | 9 8 | 0 55.04 | + 1 8.1 | 2.061 | 2.989 | 9.1 | 18.2 |
| 9 18 | 0 50.20 | +28 37.4 | 1.439 | 2.337 | 14.1 | 19.4 | 9 18 | 0 48.14 | + 0 53.6 | 2.015 | 2.992 | 5.5 | 17.9 |
| 9 28 | 0 40.82 | +28 39.0 | 1.416 | 2.352 | 11.2 | 19.3 | 9 28 | 0 40.10 | + 0 36.3 | 1.996 | 2.995 | 1.9 | 17.7 |
| 10 8 | 0 30.85 | +28 8.9 | 1.415 | 2.368 | 9.5 | 19.3 | 10 8 | 0 31.73 | + 0 20.1 | 2.005 | 2.998 | 2.7 | 17.8 |
| 10 18 | 0 21.67 | +27 12.1 | 1.439 | 2.384 | 9.9 | 19.3 | 10 18 | 0 23.86 | + 0 8.7 | 2.043 | 3.001 | 6.3 | 18.0 |
| 10 28 | 0 14.52 | +25 58.3 | 1.487 | 2.400 | 11.9 | 19.5 | 10 28 | 0 17.29 | + 0 5.7 | 2.108 | 3.005 | 9.7 | 18.2 |
| 11 7 | 0 10.18 | +24 39.0 | 1.558 | 2.417 | 14.6 | 19.7 | 11 7 | 0 12.55 | + 0 13.0 | 2.197 | 3.009 | 12.7 | 18.5 |
| 262085 | 2006 RK ₇₅ | 10 | 2.8 93°26 | 0°7/ 2.2 17 | | | 192217 | 2007 PT ₉ | 10 | 2.8 17°10 | 0°5/ 3.8 18 | | |
| 8 29 | 1 2.63 | + 5 43.9 | 1.473 | 2.333 | 16.4 | 21.1 | 8 29 | 0 50.80 | + 8 18.9 | 3.785 | | | |

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10 2.8

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 99090 | 2001 <i>FG</i> ₃₄ | 10 | 2.8 308°33 | 1.4/ 1.6 | 18 | | 428567 | 2008 <i>CP</i> ₁₅₈ | 10 | 2.9 234°30 | 4.0/29.3 | 17 | |
| 8 29 | 0 56.83 | + 3 53.4 | 1.540 | 2.411 | 15.2 | 19.2 | 8 29 | 1 0.14 | - 1 49.8 | 1.520 | 2.398 | 15.0 | 21.7 |
| 9 8 | 0 53.38 | + 3 5.7 | 1.453 | 2.390 | 11.4 | 18.9 | 9 8 | 0 55.69 | - 3 4.6 | 1.454 | 2.394 | 11.1 | 21.5 |
| 9 18 | 0 47.57 | + 2 2.7 | 1.388 | 2.368 | 7.0 | 18.6 | 9 18 | 0 48.86 | - 4 28.6 | 1.410 | 2.390 | 7.0 | 21.3 |
| 9 28 | 0 40.03 | + 0 50.1 | 1.347 | 2.347 | 2.3 | 18.3 | 9 28 | 0 40.42 | - 5 53.3 | 1.392 | 2.386 | 4.0 | 21.1 |
| 10 8 | 0 31.75 | - 0 24.1 | 1.333 | 2.326 | 3.6 | 18.3 | 10 8 | 0 31.46 | - 7 8.8 | 1.400 | 2.381 | 5.9 | 21.2 |
| 10 18 | 0 23.91 | - 1 30.9 | 1.344 | 2.305 | 8.6 | 18.5 | 10 18 | 0 23.16 | - 8 6.9 | 1.434 | 2.376 | 10.1 | 21.4 |
| 10 28 | 0 17.64 | - 2 22.2 | 1.380 | 2.285 | 13.3 | 18.8 | 10 28 | 0 16.60 | - 8 42.0 | 1.492 | 2.371 | 14.1 | 21.6 |
| 11 7 | 0 13.79 | - 2 53.0 | 1.436 | 2.265 | 17.3 | 19.0 | 11 7 | 0 12.48 | - 8 52.2 | 1.569 | 2.366 | 17.6 | 21.9 |
| 228000 | 2007 <i>MJ</i> ₁ | 10 | 2.8 293°08 | 6.2/11.7 | 18 | | 142035 | 2002 <i>QT</i> ₉ | 10 | 2.9 53°52 | 3.7/ 5.6 | 18 | |
| 8 29 | 0 55.56 | +28 40.0 | 2.404 | 3.132 | 14.7 | 20.0 | 8 29 | 1 3.02 | +13 34.6 | 1.269 | 2.113 | 19.5 | 19.7 |
| 9 8 | 0 51.71 | +28 25.7 | 2.310 | 3.128 | 12.6 | 19.8 | 9 8 | 0 58.11 | +13 45.3 | 1.217 | 2.129 | 15.3 | 19.5 |
| 9 18 | 0 46.16 | +27 47.6 | 2.236 | 3.124 | 10.2 | 19.7 | 9 18 | 0 50.42 | +13 32.9 | 1.183 | 2.145 | 10.5 | 19.3 |
| 9 28 | 0 39.47 | +26 44.9 | 2.185 | 3.120 | 7.9 | 19.5 | 9 28 | 0 40.92 | +12 59.2 | 1.172 | 2.162 | 5.7 | 19.1 |
| 10 8 | 0 32.40 | +25 20.0 | 2.160 | 3.116 | 6.4 | 19.4 | 10 8 | 0 31.00 | +12 9.9 | 1.186 | 2.179 | 3.9 | 19.0 |
| 10 18 | 0 25.75 | +23 37.9 | 2.162 | 3.113 | 6.6 | 19.4 | 10 18 | 0 22.08 | +11 13.2 | 1.224 | 2.196 | 7.7 | 19.3 |
| 10 28 | 0 20.29 | +21 46.3 | 2.193 | 3.109 | 8.5 | 19.6 | 10 28 | 0 15.37 | +10 18.9 | 1.287 | 2.213 | 12.2 | 19.6 |
| 11 7 | 0 16.59 | +19 53.8 | 2.251 | 3.105 | 10.9 | 19.7 | 11 7 | 0 11.56 | + 9 34.9 | 1.371 | 2.231 | 16.2 | 19.9 |
| 136982 | 1998 <i>SK</i> ₃ | 10 | 2.8 149°36 | 3.0/30.1 | 18 | | 130016 | 1999 <i>VU</i> ₅₉ | 10 | 2.9 29°79 | 2.0/ 4.6 | 18 | |
| 8 29 | 1 3.62 | - 2 10.3 | 1.865 | 2.727 | 13.4 | 20.1 | 8 29 | 0 56.79 | +11 45.1 | 1.326 | 2.184 | 18.0 | 18.9 |
| 9 8 | 0 57.74 | - 2 59.3 | 1.804 | 2.736 | 9.9 | 19.9 | 9 8 | 0 53.33 | +11 17.4 | 1.272 | 2.195 | 13.9 | 18.7 |
| 9 18 | 0 49.84 | - 3 53.6 | 1.767 | 2.744 | 6.1 | 19.7 | 9 18 | 0 47.42 | +10 27.4 | 1.238 | 2.208 | 9.1 | 18.5 |
| 9 28 | 0 40.67 | - 4 47.4 | 1.758 | 2.752 | 3.2 | 19.5 | 9 28 | 0 39.93 | + 9 19.7 | 1.226 | 2.221 | 4.1 | 18.2 |
| 10 8 | 0 31.18 | - 5 33.9 | 1.776 | 2.759 | 4.6 | 19.7 | 10 8 | 0 32.05 | + 8 2.2 | 1.240 | 2.236 | 2.7 | 18.2 |
| 10 18 | 0 22.37 | - 6 7.8 | 1.823 | 2.766 | 8.2 | 19.9 | 10 18 | 0 25.00 | + 6 44.6 | 1.278 | 2.251 | 7.3 | 18.5 |
| 10 28 | 0 15.12 | - 6 25.4 | 1.896 | 2.772 | 11.7 | 20.1 | 10 28 | 0 19.85 | + 5 36.4 | 1.341 | 2.266 | 11.9 | 18.8 |
| 11 7 | 0 10.02 | - 6 25.5 | 1.990 | 2.777 | 14.7 | 20.3 | 11 7 | 0 17.24 | + 4 44.6 | 1.426 | 2.283 | 15.8 | 19.1 |
| 383570 | 2007 <i>EY</i> ₁₆₉ | 10 | 2.8 250°57 | 1.3/ 1.7 | 18 | | 219070 | 1997 <i>TL</i> ₂₀ | 10 | 2.9 213°52 | 0.1/ 3.0 | 18 | |
| 8 29 | 1 0.69 | + 3 32.9 | 1.718 | 2.578 | 14.5 | 21.9 | 8 29 | 0 50.38 | + 5 53.8 | 4.598 | 5.429 | 6.6 | 20.7 |
| 9 8 | 0 55.97 | + 2 50.0 | 1.636 | 2.566 | 10.8 | 21.7 | 9 8 | 0 47.02 | + 5 32.2 | 4.513 | 5.427 | 4.9 | 20.6 |
| 9 18 | 0 49.01 | + 1 54.5 | 1.576 | 2.554 | 6.6 | 21.4 | 9 18 | 0 42.93 | + 5 5.6 | 4.455 | 5.426 | 3.0 | 20.4 |
| 9 28 | 0 40.47 | + 0 51.6 | 1.542 | 2.541 | 2.2 | 21.1 | 9 28 | 0 38.37 | + 4 35.8 | 4.426 | 5.424 | 1.0 | 20.3 |
| 10 8 | 0 31.33 | - 0 11.8 | 1.536 | 2.528 | 3.3 | 21.2 | 10 8 | 0 33.67 | + 4 4.6 | 4.427 | 5.422 | 1.0 | 20.3 |
| 10 18 | 0 22.67 | - 1 8.2 | 1.557 | 2.515 | 7.9 | 21.4 | 10 18 | 0 29.13 | + 3 34.3 | 4.459 | 5.421 | 3.0 | 20.4 |
| 10 28 | 0 15.55 | - 1 51.0 | 1.603 | 2.501 | 12.2 | 21.6 | 10 28 | 0 25.10 | + 3 7.0 | 4.520 | 5.419 | 4.9 | 20.6 |
| 11 7 | 0 10.72 | - 2 16.1 | 1.671 | 2.487 | 15.9 | 21.9 | 11 7 | 0 21.84 | + 2 44.4 | 4.608 | 5.417 | 6.6 | 20.7 |
| 320311 | 2007 <i>TT</i> | 10 | 2.8 337°89 | 0.2/ 2.7 | 18 | | 2201 | <i>Oljato</i> | 10 | 2.9 240°03 | 1.0/ 1.8 | 18 | |
| 8 29 | 0 57.03 | + 6 37.2 | 1.615 | 2.477 | 15.1 | 20.7 | 8 29 | 1 6.38 | + 3 43.5 | 2.688 | 3.513 | 10.9 | 20.8 |
| 9 8 | 0 53.29 | + 5 57.1 | 1.542 | 2.472 | 11.4 | 20.5 | 9 8 | 0 59.58 | + 2 55.2 | 2.574 | 3.487 | 8.2 | 20.6 |
| 9 18 | 0 47.34 | + 5 1.6 | 1.491 | 2.468 | 7.1 | 20.3 | 9 18 | 0 51.01 | + 1 57.0 | 2.487 | 3.458 | 5.0 | 20.3 |
| 9 28 | 0 39.90 | + 3 55.4 | 1.465 | 2.464 | 2.3 | 19.9 | 9 28 | 0 41.14 | + 0 52.6 | 2.429 | 3.428 | 1.7 | 20.1 |
| 10 8 | 0 31.97 | + 2 45.6 | 1.465 | 2.460 | 2.6 | 20.0 | 10 8 | 0 30.68 | - 0 13.3 | 2.405 | 3.396 | 2.5 | 20.1 |
| 10 18 | 0 24.59 | + 1 40.4 | 1.491 | 2.457 | 7.4 | 20.3 | 10 18 | 0 20.43 | - 1 15.3 | 2.412 | 3.362 | 6.0 | 20.3 |
| 10 28 | 0 18.79 | + 0 47.0 | 1.543 | 2.454 | 11.7 | 20.5 | 10 28 | 0 11.18 | - 2 8.4 | 2.451 | 3.327 | 9.4 | 20.4 |
| 11 7 | 0 15.24 | + 0 10.5 | 1.617 | 2.451 | 15.4 | 20.7 | 11 7 | 0 3.59 | - 2 48.9 | 2.515 | 3.290 | 12.3 | 20.6 |
| 42621 | 1998 <i>FW</i> ₂₀ | 10 | 2.8 98°12 | 1.8/ 1.4 | 18 | | 181005 | 2005 <i>NX</i> ₄₈ | 10 | 2.9 358°56 | 5.2/ 7.1 | 18 | |
| 8 29 | 1 3.77 | + 2 30.5 | 1.496 | 2.361 | 16.0 | 18.2 | 8 29 | 1 1.36 | +17 1.9 | 1.742 | 2.552 | 16.4 | 19.7 |
| 9 8 | 0 58.15 | + 1 43.5 | 1.446 | 2.378 | 11.8 | 18.0 | 9 8 | 0 56.55 | +17 43.1 | 1.664 | 2.550 | 13.4 | 19.5 |
| 9 18 | 0 50.19 | + 0 45.5 | 1.417 | 2.396 | 7.1 | 17.8 | 9 18 | 0 49.42 | +18 5.9 | 1.607 | 2.549 | 9.9 | 19.3 |
| 9 28 | 0 40.79 | - 0 16.8 | 1.415 | 2.413 | 2.5 | 17.5 | 9 28 | 0 40.64 | +18 9.0 | 1.574 | 2.549 | 6.6 | 19.1 |
| 10 8 | 0 31.11 | - 1 15.5 | 1.439 | 2.430 | 3.8 | 17.7 | 10 8 | 0 31.25 | +17 53.9 | 1.566 | 2.549 | 5.2 | 19.0 |
| 10 18 | 0 22.34 | - 2 3.3 | 1.490 | 2.447 | 8.3 | 18.0 | 10 18 | 0 22.38 | +17 24.7 | 1.585 | 2.549 | 7.2 | 19.2 |
| 10 28 | 0 15.48 | - 2 34.9 | 1.566 | 2.463 | 12.5 | 18.3 | 10 28 | 0 15.13 | +16 48.3 | 1.629 | 2.550 | 10.5 | 19.4 |
| 11 7 | 0 11.14 | - 2 47.7 | 1.663 | 2.479 | 16.0 | 18.5 | 11 7 | 0 10.25 | +16 12.0 | 1.697 | 2.551 | 13.9 | 19.6 |
| 25128 | 1998 <i>SK</i> ₁ | 10 | 2.8 280°02 | 0.6/ 2.2 | 18 | | 131054 | 2000 <i>YA</i> ₅₃ | 10 | 2.9 307°21 | 3.7/29.8 | 18 | |
| 8 29 | 0 57.13 | + 4 3.4 | 2.308 | 3.158 | 11.6 | 18.8 | 8 29 | 0 58.27 | - 1 51.1 | 1.519 | 2.401 | 14.8 | 19.4 |
| 9 8 | 0 52.80 | + 3 34.1 | 2.219 | 3.144 | 8.7 | 18.6 | 9 8 | 0 54.47 | - 2 45.9 | 1.439 | 2.380 | 11.1 | 19.2 |
| 9 18 | 0 46.82 | + 2 55.6 | 2.154 | 3.129 | 5.3 | 18.4 | 9 18 | 0 48.26 | - 3 50.1 | 1.380 | 2.360 | 6.9 | 18.9 |
| 9 28 | 0 39.70 | + 2 11.3 | 2.116 | 3.115 | 1.7 | 18.1 | 9 28 | 0 40.29 | - 4 56.3 | 1.345 | 2.341 | 3.8 | 18.6 |
| 10 8 | 0 32.16 | + 1 25.7 | 2.107 | 3.101 | 2.3 | 18.1 | 10 8 | 0 31.61 | - 5 55.7 | 1.337 | 2.321 | 5.6 | 18.7 |
| 10 18 | 0 24.96 | + 0 43.9 | 2.127 | 3.086 | 6.0 | 18.4 | 10 18 | 0 23.41 | - 6 40.3 | 1.354 | 2.302 | 10.0 | 18.9 |
| 10 28 | 0 18.84 | + 0 10.3 | 2.173 | 3.072 | 9.4 | 18.5 | 10 28 | 0 16.86 | - 7 4.1 | 1.394 | 2.283 | 14.3 | 19.1 |
| 11 7 | 0 14.39 | - 0 11.5 | 2.244 | 3.057 | 12.4 | 18.7 | 11 7 | 0 12.76 | - 7 4.5 | 1.455 | 2.265 | 18.1 | 19.3 |
| 185443 | 2006 <i>XG</i> ₅₇ | 10 | 2.8 278°68 | 4.9/ 7.6 | 18 | | 358549 | 2007 <i>TQ</i> ₁₅₄ | 10 | 2.9 332°65 | 2.1/ 4.5 | 18 | |
| 8 29 | 0 59.80 | +19 8.0 | 2.077 | 2.867 | 14.8 | 20.0 | 8 29 | 0 58.44 | + 9 58.1 | 1.483 | 2.337 | 16.7 | 20.6 |
| 9 8 | 0 55.11 | +19 28.2 | 1.985 | 2.857 | 12.2 | 19.8 | 9 8 | 0 54.67 | +10 3.2 | 1.403 | 2.325 | 13.0 | 20.3 |
| 9 18 | 0 48.41 | +19 29.9 | 1.914 | 2.848 | 9.2 | 19.6 | 9 18 | 0 48.40 | + 9 51.3 | 1.344 | 2.313 | 8.6 | 20.1 |
| 9 28 | 0 40.27 | +19 12.5 | 1.868 | 2.838 | 6.3 | 19.4 | 9 28 | 0 40.34 | + 9 23.9 | 1.307 | 2.302 | 4.0 | 19.8 |
| 10 8 | 0 31.54 | +18 37.6 | 1.848 | 2.828 | 4.9 | 19.3 | 10 8 | 0 31.56 | + 8 45.8 | 1.296 | 2.292 | 2.8 | 19.7 |
| 10 18 | 0 23.19 | +17 49.6 | 1.856 | 2.818 | 6.5 | 19.4 | 10 18 | 0 23.31 | + 8 3.5 | 1.311 | 2.282 | 7.3 | 19.9 |
| 10 28 | 0 16.16 | +16 54.8 | 1.891 | 2.809 | 9.5 | 19.6 | 10 28 | 0 16.78 | + 7 24.6 | 1.350 | 2.274 | 12.0 | 20.2 |
| 11 7 | 0 11.15 | +16 0.4 | 1.950 | 2.799 | 12.6 | 19.7 | 11 7 | 0 12.80 | + 6 56.0 | 1.410 | 2.266 | 16.1 | 20.4 |
| 92103 | 1999 <i>XX</i> ₄₉ | 10 | 2.9 242°63 | 0.2/ 3.1 | 18 | | 327770 | 2006 <i>UF</i> ₈₇ | 10 | 2.9 5°41 | 3.6/ 5.7 | 18 | |
| 8 29 | 0 57.46 | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|------------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 210643 | 2000 <i>GM</i> ₁₅₁ | 10 | 2.9 126°10 | 0°5/ 3.4 18 | | | 237449 | 1999 <i>TJ</i> ₁₅₂ | 10 | 2.9 349°15 | 0°9/ 2.2 18 | | |
| 8 29 | 0 58.53 | + 7 55.7 | 1.950 | 2.794 | 13.6 | 20.5 | 8 29 | 0 57.77 | + 3 48.1 | 1.336 | 2.214 | 16.7 | 19.9 |
| 9 8 | 0 54.02 | + 7 26.5 | 1.876 | 2.796 | 10.3 | 20.3 | 9 8 | 0 54.25 | + 3 28.0 | 1.268 | 2.207 | 12.5 | 19.7 |
| 9 18 | 0 47.63 | + 6 44.0 | 1.826 | 2.797 | 6.5 | 20.0 | 9 18 | 0 48.16 | + 2 54.5 | 1.220 | 2.201 | 7.7 | 19.4 |
| 9 28 | 0 40.00 | + 5 51.5 | 1.801 | 2.799 | 2.4 | 19.8 | 9 28 | 0 40.27 | + 2 12.6 | 1.196 | 2.196 | 2.5 | 19.1 |
| 10 8 | 0 31.98 | + 4 54.5 | 1.804 | 2.800 | 2.1 | 19.8 | 10 8 | 0 31.78 | + 1 29.5 | 1.197 | 2.192 | 3.3 | 19.1 |
| 10 18 | 0 24.47 | + 3 59.1 | 1.836 | 2.802 | 6.2 | 20.0 | 10 18 | 0 23.95 | + 0 52.9 | 1.222 | 2.189 | 8.5 | 19.4 |
| 10 28 | 0 18.33 | + 3 11.3 | 1.894 | 2.803 | 10.0 | 20.3 | 10 28 | 0 17.99 | + 0 29.6 | 1.271 | 2.186 | 13.3 | 19.7 |
| 11 7 | 0 14.14 | + 2 35.7 | 1.976 | 2.805 | 13.3 | 20.5 | 11 7 | 0 14.68 | + 0 23.5 | 1.340 | 2.185 | 17.4 | 19.9 |
| 352898 | 2008 <i>YL</i> ₇₁ | 10 | 2.9 215°22 | 2°7/ 5.7 18 | | | 101250 | 1998 <i>SR</i> ₉₁ | 10 | 2.9 338°65 | 3°1/ 4.9 18 | | |
| 8 29 | 1 1.26 | +14 4.9 | 2.443 | 3.245 | 12.5 | 22.0 | 8 29 | 0 59.24 | +11 11.9 | 1.226 | 2.087 | 19.0 | 18.9 |
| 9 8 | 0 55.85 | +14 6.7 | 2.349 | 3.237 | 9.9 | 21.8 | 9 8 | 0 55.73 | +11 29.8 | 1.153 | 2.076 | 14.9 | 18.6 |
| 9 18 | 0 48.70 | +13 54.6 | 2.279 | 3.229 | 6.9 | 21.6 | 9 18 | 0 49.29 | +11 27.3 | 1.098 | 2.067 | 10.2 | 18.3 |
| 9 28 | 0 40.37 | +13 29.6 | 2.235 | 3.220 | 3.9 | 21.4 | 9 28 | 0 40.71 | +11 5.3 | 1.065 | 2.059 | 5.1 | 18.0 |
| 10 8 | 0 31.57 | +12 54.1 | 2.221 | 3.211 | 2.8 | 21.4 | 10 8 | 0 31.28 | +10 28.2 | 1.056 | 2.051 | 3.6 | 17.9 |
| 10 18 | 0 23.11 | +12 12.1 | 2.236 | 3.201 | 5.2 | 21.5 | 10 18 | 0 22.50 | + 9 43.5 | 1.071 | 2.044 | 8.2 | 18.2 |
| 10 28 | 0 15.78 | +11 28.8 | 2.279 | 3.191 | 8.4 | 21.7 | 10 28 | 0 15.80 | + 9 0.8 | 1.109 | 2.039 | 13.3 | 18.4 |
| 11 7 | 0 10.17 | +10 49.3 | 2.348 | 3.180 | 11.3 | 21.9 | 11 7 | 0 12.11 | + 8 28.4 | 1.166 | 2.034 | 17.9 | 18.7 |
| 392046 | 2009 <i>BF</i> ₁₁₀ | 10 | 2.9 108°41 | 0°9/ 3.8 18 | | | 426148 | 2012 <i>HT</i> ₃₉ | 10 | 2.9 110°44 | 1°4/ 1.6 17 | | |
| 8 29 | 1 1.93 | + 8 8.4 | 2.108 | 2.941 | 13.2 | 21.3 | 8 29 | 1 3.82 | + 3 10.5 | 1.666 | 2.523 | 15.0 | 21.3 |
| 9 8 | 0 56.32 | + 7 59.4 | 2.044 | 2.956 | 10.0 | 21.2 | 9 8 | 0 58.01 | + 2 23.9 | 1.613 | 2.542 | 11.1 | 21.2 |
| 9 18 | 0 48.92 | + 7 39.0 | 2.002 | 2.970 | 6.4 | 21.0 | 9 18 | 0 50.07 | + 1 26.8 | 1.583 | 2.560 | 6.7 | 20.9 |
| 9 28 | 0 40.40 | + 7 9.6 | 1.988 | 2.984 | 2.5 | 20.7 | 9 28 | 0 40.81 | + 0 24.8 | 1.579 | 2.578 | 2.2 | 20.7 |
| 10 8 | 0 31.60 | + 6 35.3 | 2.002 | 2.998 | 1.9 | 20.7 | 10 8 | 0 31.30 | + 0 34.7 | 1.603 | 2.595 | 3.3 | 20.8 |
| 10 18 | 0 23.38 | + 6 0.8 | 2.045 | 3.011 | 5.7 | 21.0 | 10 18 | 0 22.60 | + 1 25.0 | 1.655 | 2.612 | 7.7 | 21.1 |
| 10 28 | 0 16.53 | + 5 31.0 | 2.116 | 3.024 | 9.1 | 21.2 | 10 28 | 0 15.65 | + 2 0.7 | 1.733 | 2.628 | 11.6 | 21.4 |
| 11 7 | 0 11.59 | + 5 9.6 | 2.211 | 3.037 | 12.2 | 21.5 | 11 7 | 0 11.02 | + 2 19.3 | 1.833 | 2.643 | 14.9 | 21.7 |
| 212463 | 2006 <i>QP</i> ₃₂ | 10 | 2.9 | 2°85 3°1/29.8 18 | | | 220854 | 2004 <i>VP</i> ₆₁ | 10 | 2.9 350°92 | 1°0/ 1.6 18 | | |
| 8 29 | 0 53.08 | + 1 44.6 | 1.404 | 2.291 | 15.5 | 19.1 | 8 29 | 0 53.90 | + 5 56.4 | 2.019 | 2.876 | 12.7 | 19.7 |
| 9 8 | 0 50.51 | + 0 15.7 | 1.344 | 2.290 | 11.4 | 18.8 | 9 8 | 0 50.54 | + 4 38.3 | 1.945 | 2.874 | 9.4 | 19.5 |
| 9 18 | 0 45.70 | + 1 27.1 | 1.306 | 2.290 | 6.9 | 18.6 | 9 18 | 0 45.48 | + 3 6.4 | 1.895 | 2.873 | 5.7 | 19.2 |
| 9 28 | 0 39.40 | + 3 14.5 | 1.293 | 2.290 | 3.2 | 18.4 | 9 28 | 0 39.32 | + 1 26.3 | 1.872 | 2.871 | 1.8 | 19.0 |
| 10 8 | 0 32.66 | + 4 55.2 | 1.306 | 2.292 | 5.3 | 18.5 | 10 8 | 0 32.81 | + 0 14.2 | 1.877 | 2.870 | 2.8 | 19.1 |
| 10 18 | 0 26.57 | + 6 19.1 | 1.344 | 2.295 | 9.7 | 18.8 | 10 18 | 0 26.74 | + 1 47.2 | 1.911 | 2.869 | 6.8 | 19.3 |
| 10 28 | 0 22.14 | + 7 18.7 | 1.405 | 2.299 | 13.9 | 19.0 | 10 28 | 0 21.88 | + 3 5.9 | 1.972 | 2.868 | 10.4 | 19.5 |
| 11 7 | 0 20.02 | + 7 51.2 | 1.486 | 2.303 | 17.4 | 19.3 | 11 7 | 0 18.78 | + 4 5.9 | 2.057 | 2.868 | 13.5 | 19.7 |
| 259572 | 2003 <i>UA</i> ₁₈₅ | 10 | 2.9 328°91 | 2°7/ 1.2 18 | | | 392564 | 2011 <i>SW</i> ₆₁ | 10 | 2.9 20°62 | 1°0/ 3.8 18 | | |
| 8 29 | 0 59.65 | + 0 16.4 | 1.130 | 2.021 | 18.1 | 19.9 | 8 29 | 0 59.12 | + 8 23.0 | 1.681 | 2.531 | 15.2 | 20.7 |
| 9 8 | 0 56.16 | + 0 8.9 | 1.060 | 2.007 | 13.6 | 19.6 | 9 8 | 0 54.74 | + 8 10.4 | 1.613 | 2.534 | 11.6 | 20.5 |
| 9 18 | 0 49.61 | + 0 45.6 | 1.010 | 1.993 | 8.4 | 19.3 | 9 18 | 0 48.21 | + 7 43.0 | 1.566 | 2.537 | 7.4 | 20.2 |
| 9 28 | 0 40.81 | + 1 27.1 | 0.981 | 1.980 | 3.3 | 19.0 | 9 28 | 0 40.25 | + 7 4.1 | 1.544 | 2.541 | 2.9 | 20.0 |
| 10 8 | 0 31.13 | + 2 4.3 | 0.976 | 1.968 | 5.0 | 19.0 | 10 8 | 0 31.84 | + 6 18.9 | 1.549 | 2.545 | 2.2 | 19.9 |
| 10 18 | 0 22.16 | + 2 28.8 | 0.994 | 1.957 | 10.6 | 19.3 | 10 18 | 0 24.05 | + 5 33.8 | 1.580 | 2.549 | 6.7 | 20.2 |
| 10 28 | 0 15.40 | + 2 33.8 | 1.034 | 1.947 | 15.9 | 19.6 | 10 28 | 0 17.83 | + 4 55.2 | 1.638 | 2.553 | 10.8 | 20.5 |
| 11 7 | 0 11.79 | + 2 16.6 | 1.092 | 1.938 | 20.4 | 19.8 | 11 7 | 0 13.85 | + 4 28.2 | 1.718 | 2.558 | 14.4 | 20.7 |
| 508388 | 2016 <i>GK</i> ₁ | 10 | 2.9 56°86 | 6°0/29.2 17 | | | 22203 | Prothoenor | 10 | 2.9 71°86 | 0°0/ 2.7 18 | | |
| 8 29 | 1 6.01 | + 6 36.9 | 1.101 | 1.993 | 18.4 | 19.8 | 8 29 | 0 50.91 | + 5 32.3 | 4.229 | 5.063 | 7.1 | 18.8 |
| 9 8 | 1 0.31 | + 7 29.5 | 1.068 | 2.013 | 13.7 | 19.5 | 9 8 | 0 47.47 | + 5 9.0 | 4.155 | 5.070 | 5.2 | 18.7 |
| 9 18 | 0 51.68 | + 8 22.8 | 1.055 | 2.033 | 9.0 | 19.4 | 9 18 | 0 43.24 | + 4 40.6 | 4.107 | 5.078 | 3.2 | 18.5 |
| 9 28 | 0 41.32 | + 9 6.6 | 1.064 | 2.054 | 6.1 | 19.3 | 9 28 | 0 38.52 | + 4 8.9 | 4.087 | 5.086 | 1.1 | 18.3 |
| 10 8 | 0 30.79 | + 9 31.8 | 1.097 | 2.075 | 7.9 | 19.4 | 10 8 | 0 33.66 | + 3 36.2 | 4.098 | 5.093 | 1.1 | 18.4 |
| 10 18 | 0 21.62 | + 9 33.6 | 1.154 | 2.096 | 12.0 | 19.7 | 10 18 | 0 29.01 | + 3 4.7 | 4.139 | 5.101 | 3.3 | 18.5 |
| 10 28 | 0 14.95 | + 9 10.6 | 1.233 | 2.117 | 16.1 | 20.1 | 10 28 | 0 24.92 | + 2 36.7 | 4.210 | 5.108 | 5.2 | 18.7 |
| 11 7 | 0 11.38 | + 8 25.5 | 1.330 | 2.139 | 19.5 | 20.4 | 11 7 | 0 21.68 | + 2 14.3 | 4.307 | 5.116 | 7.0 | 18.8 |
| 185017 | 2006 <i>QU</i> ₂₇ | 10 | 2.9 25°24 | 6°4/27.9 17 | | | 376219 | 2011 <i>ER</i> ₁₂ | 10 | 2.9 241°16 | 2°0/ 1.1 18 | | |
| 8 29 | 0 57.26 | + 4 53.2 | 1.057 | 1.962 | 17.9 | 19.7 | 8 29 | 1 1.50 | + 1 31.3 | 1.751 | 2.613 | 14.1 | 21.3 |
| 9 8 | 0 54.09 | + 6 27.8 | 1.017 | 1.970 | 13.3 | 19.5 | 9 8 | 0 56.56 | + 0 45.5 | 1.670 | 2.602 | 10.5 | 21.1 |
| 9 18 | 0 48.05 | + 8 8.0 | 0.996 | 1.978 | 8.8 | 19.3 | 9 18 | 0 49.39 | + 0 10.7 | 1.612 | 2.591 | 6.4 | 20.8 |
| 9 28 | 0 40.19 | + 9 40.5 | 0.998 | 1.987 | 6.4 | 19.2 | 9 28 | 0 40.67 | + 1 11.9 | 1.581 | 2.579 | 2.5 | 20.5 |
| 10 8 | 0 31.93 | +10 52.5 | 1.023 | 1.998 | 8.7 | 19.3 | 10 8 | 0 31.37 | + 2 11.0 | 1.577 | 2.567 | 3.9 | 20.6 |
| 10 18 | 0 24.72 | +11 35.3 | 1.070 | 2.009 | 13.0 | 19.6 | 10 18 | 0 22.57 | + 3 0.8 | 1.600 | 2.554 | 8.2 | 20.8 |
| 10 28 | 0 19.75 | +11 45.3 | 1.137 | 2.021 | 17.2 | 19.9 | 10 28 | 0 15.29 | + 3 35.6 | 1.649 | 2.541 | 12.3 | 21.0 |
| 11 7 | 0 17.68 | +11 24.4 | 1.221 | 2.034 | 20.7 | 20.2 | 11 7 | 0 10.27 | + 3 52.1 | 1.720 | 2.527 | 15.8 | 21.3 |
| 174144 | 2002 <i>NT</i> ₆₅ | 10 | 2.9 115°68 | 1°3/ 3.9 17 | | | 391197 | 2006 <i>FX</i> ₁₁ | 10 | 2.9 164°56 | 1°0/ 1.7 18 | | |
| 8 29 | 1 3.14 | + 9 45.5 | 1.566 | 2.409 | 16.5 | 21.4 | 8 29 | 0 59.90 | + 3 52.0 | 2.178 | 3.026 | 12.3 | 22.2 |
| 9 8 | 0 57.80 | + 9 24.9 | 1.504 | 2.420 | 12.6 | 21.2 | 9 8 | 0 54.82 | + 3 3.0 | 2.107 | 3.031 | 9.1 | 22.0 |
| 9 18 | 0 50.10 | + 8 47.0 | 1.462 | 2.431 | 8.1 | 20.9 | 9 18 | 0 48.04 | + 2 4.2 | 2.060 | 3.036 | 5.5 | 21.8 |
| 9 28 | 0 40.86 | + 7 55.3 | 1.445 | 2.441 | 3.3 | 20.7 | 9 28 | 0 40.16 | + 1 0.1 | 2.041 | 3.040 | 1.8 | 21.6 |
| 10 8 | 0 31.20 | + 6 56.0 | 1.455 | 2.451 | 2.4 | 20.6 | 10 8 | 0 31.96 | + 0 3.4 | 2.051 | 3.043 | 2.7 | 21.7 |
| 10 18 | 0 22.31 | + 5 56.7 | 1.492 | 2.461 | 7.0 | 20.9 | 10 18 | 0 24.25 | + 1 0.7 | 2.090 | 3.046 | 6.4 | 21.9 |
| 10 28 | 0 15.25 | + 5 5.0 | 1.556 | 2.470 | 11.4 | 21.2 | 10 28 | 0 17.80 | + 1 46.7 | 2.157 | 3.048 | 9.8 | 22.1 |
| 11 7 | 0 10.67 | + 4 26.7 | 1.641 | 2.479 | 15.1 | 21.5 | 11 7 | 0 13.15 | + 2 18.2 | 2.247 | 3.050 | 12.7 | 22.3 |
| 488097 | 2015 <i>VW</i> ₆₂ | 10 | 2.9 244°15 | 3°7/28.2 18 | | | 507971 | 2015 <i>BS</i> ₇₆ | 10 | 2.9 157°52 | 4°9/28.8 17 | | |
| 8 29 | 0 56.01 | + | | | | | | | | | | | |

EPHEMERIDES

10 2.9

10 2.9

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 452260 | 2015 <i>TY</i> ₁₂₇ | 10 | 2.9 174°12 | 4°0/27.8 18 | | | 316579 | 2011 <i>TD</i> ₅ | 10 | 2.9 338°69 | 6°4/ 7.5 17 | | |
| 8 29 | 0 56.27 | - 6 24.3 | 2.348 | 3.218 | 10.7 | 20.5 | 8 29 | 1 1.04 | +18 16.5 | 1.558 | 2.371 | 17.9 | 20.5 |
| 9 8 | 0 52.04 | - 7 34.8 | 2.284 | 3.219 | 7.9 | 20.3 | 9 8 | 0 56.73 | +19 12.0 | 1.476 | 2.361 | 14.8 | 20.2 |
| 9 18 | 0 46.30 | - 8 47.6 | 2.246 | 3.220 | 5.3 | 20.1 | 9 18 | 0 49.80 | +19 47.4 | 1.413 | 2.351 | 11.3 | 20.0 |
| 9 28 | 0 39.59 | - 9 56.5 | 2.236 | 3.220 | 4.0 | 20.1 | 9 28 | 0 40.92 | +20 0.1 | 1.372 | 2.343 | 7.9 | 19.8 |
| 10 8 | 0 32.59 | -10 55.7 | 2.254 | 3.220 | 5.4 | 20.1 | 10 8 | 0 31.21 | +19 50.4 | 1.355 | 2.334 | 6.4 | 19.7 |
| 10 18 | 0 26.02 | -11 40.4 | 2.300 | 3.220 | 8.0 | 20.3 | 10 18 | 0 21.95 | +19 22.3 | 1.364 | 2.327 | 8.2 | 19.8 |
| 10 28 | 0 20.55 | -12 7.5 | 2.371 | 3.221 | 10.7 | 20.5 | 10 28 | 0 14.46 | +18 43.2 | 1.397 | 2.321 | 11.7 | 20.0 |
| 11 7 | 0 16.68 | -12 16.2 | 2.465 | 3.221 | 13.1 | 20.7 | 11 7 | 0 9.63 | +18 2.0 | 1.453 | 2.315 | 15.3 | 20.2 |
| 191405 | 2003 <i>SZ</i> ₈₁ | 10 | 2.9 170°05 | 0°0/ 2.7 18 | | | 324314 | 2006 <i>DF</i> ₁₉₆ | 10 | 2.9 278°50 | 0°8/ 1.9 18 | | |
| 8 29 | 0 59.36 | + 4 47.5 | 2.458 | 3.298 | 11.3 | 20.0 | 8 29 | 0 55.39 | + 5 19.9 | 2.298 | 3.148 | 11.6 | 20.9 |
| 9 8 | 0 54.29 | + 4 36.4 | 2.380 | 3.299 | 8.5 | 19.9 | 9 8 | 0 51.58 | + 4 20.4 | 2.205 | 3.130 | 8.7 | 20.7 |
| 9 18 | 0 47.68 | + 4 17.4 | 2.327 | 3.300 | 5.2 | 19.7 | 9 18 | 0 46.15 | + 3 8.7 | 2.136 | 3.112 | 5.3 | 20.4 |
| 9 28 | 0 40.05 | + 3 53.1 | 2.302 | 3.301 | 1.7 | 19.4 | 9 28 | 0 39.61 | + 1 49.1 | 2.094 | 3.093 | 1.7 | 20.2 |
| 10 8 | 0 32.11 | + 3 26.9 | 2.306 | 3.301 | 1.9 | 19.4 | 10 8 | 0 32.63 | + 0 27.6 | 2.082 | 3.075 | 2.5 | 20.2 |
| 10 18 | 0 24.57 | + 3 2.7 | 2.340 | 3.302 | 5.3 | 19.7 | 10 18 | 0 25.95 | - 0 49.4 | 2.098 | 3.056 | 6.2 | 20.4 |
| 10 28 | 0 18.12 | + 2 44.0 | 2.401 | 3.302 | 8.5 | 19.9 | 10 28 | 0 20.33 | - 1 55.9 | 2.143 | 3.037 | 9.7 | 20.6 |
| 11 7 | 0 13.29 | + 2 33.9 | 2.487 | 3.303 | 11.3 | 20.1 | 11 7 | 0 16.33 | - 2 47.5 | 2.211 | 3.018 | 12.8 | 20.8 |
| 450332 | 2004 <i>TA</i> ₉₄ | 10 | 2.9 293°65 | 0°8/ 3.8 17 | | | 176142 | 2001 <i>FG</i> ₇₇ | 10 | 2.9 115°91 | 2°5/30.7 17 | | |
| 8 29 | 0 56.09 | + 9 22.4 | 2.158 | 2.996 | 12.7 | 21.8 | 8 29 | 1 4.07 | + 0 5.0 | 1.708 | 2.569 | 14.4 | 20.6 |
| 9 8 | 0 52.18 | + 8 51.2 | 2.070 | 2.985 | 9.7 | 21.6 | 9 8 | 0 58.19 | - 0 45.2 | 1.655 | 2.587 | 10.6 | 20.4 |
| 9 18 | 0 46.54 | + 8 5.9 | 2.004 | 2.973 | 6.3 | 21.4 | 9 18 | 0 50.20 | - 1 42.9 | 1.626 | 2.604 | 6.4 | 20.2 |
| 9 28 | 0 39.72 | + 7 9.6 | 1.965 | 2.961 | 2.5 | 21.1 | 9 28 | 0 40.91 | - 2 41.9 | 1.623 | 2.620 | 2.8 | 20.0 |
| 10 8 | 0 32.46 | + 6 7.1 | 1.954 | 2.950 | 1.9 | 21.0 | 10 8 | 0 31.37 | - 3 35.1 | 1.649 | 2.636 | 4.2 | 20.2 |
| 10 18 | 0 25.56 | + 5 4.2 | 1.971 | 2.938 | 5.7 | 21.3 | 10 18 | 0 22.63 | - 4 16.2 | 1.702 | 2.651 | 8.1 | 20.4 |
| 10 28 | 0 19.81 | + 4 7.1 | 2.016 | 2.927 | 9.4 | 21.5 | 10 28 | 0 15.59 | - 4 41.2 | 1.780 | 2.666 | 11.9 | 20.7 |
| 11 7 | 0 15.82 | + 3 20.7 | 2.085 | 2.916 | 12.6 | 21.7 | 11 7 | 0 10.84 | - 4 48.2 | 1.881 | 2.680 | 15.0 | 20.9 |
| 77492 | 2001 <i>HF</i> ₃₆ | 10 | 2.9 134°14 | 1°6/ 4.7 18 | | | 7071 | 1995 <i>BH</i> ₄ | 10 | 2.9 137°13 | 3°5/28.0 18 | | |
| 8 29 | 1 0.89 | +11 18.3 | 2.268 | 3.087 | 12.8 | 20.2 | 8 29 | 0 56.83 | - 6 40.5 | 2.752 | 3.616 | 9.5 | 18.5 |
| 9 8 | 0 55.50 | +11 0.7 | 2.197 | 3.099 | 9.9 | 20.0 | 9 8 | 0 52.20 | - 7 42.9 | 2.696 | 3.627 | 7.1 | 18.4 |
| 9 18 | 0 48.45 | +10 29.6 | 2.150 | 3.111 | 6.5 | 19.8 | 9 18 | 0 46.30 | - 8 46.4 | 2.665 | 3.637 | 4.7 | 18.2 |
| 9 28 | 0 40.32 | + 9 47.4 | 2.130 | 3.123 | 3.0 | 19.6 | 9 28 | 0 39.60 | - 9 46.1 | 2.663 | 3.646 | 3.5 | 18.2 |
| 10 8 | 0 31.90 | + 8 58.1 | 2.139 | 3.134 | 2.1 | 19.6 | 10 8 | 0 32.70 | -10 37.3 | 2.690 | 3.655 | 4.7 | 18.3 |
| 10 18 | 0 23.99 | + 8 6.8 | 2.177 | 3.144 | 5.3 | 19.8 | 10 18 | 0 26.21 | -11 16.1 | 2.746 | 3.664 | 7.0 | 18.4 |
| 10 28 | 0 17.35 | + 7 18.9 | 2.244 | 3.154 | 8.6 | 20.0 | 10 28 | 0 20.69 | -11 40.2 | 2.828 | 3.673 | 9.3 | 18.6 |
| 11 7 | 0 12.49 | + 6 38.8 | 2.335 | 3.164 | 11.5 | 20.2 | 11 7 | 0 16.57 | -11 48.8 | 2.934 | 3.681 | 11.4 | 18.8 |
| 580 | <i>Selene</i> | 10 | 2.9 299°02 | 1°7/30.9 18 | | | 28451 | <i>Tylerhoward</i> | 10 | 2.9 133°89 | 0°3/ 3.2 18 | | |
| 8 29 | 0 56.60 | + 0 36.0 | 2.274 | 3.134 | 11.4 | 15.2 | 8 29 | 1 2.38 | + 7 45.7 | 1.838 | 2.679 | 14.5 | 19.7 |
| 9 8 | 0 52.40 | - 0 2.6 | 2.195 | 3.126 | 8.4 | 15.0 | 9 8 | 0 56.92 | + 7 9.1 | 1.773 | 2.691 | 10.9 | 19.5 |
| 9 18 | 0 46.60 | - 0 48.0 | 2.140 | 3.118 | 5.1 | 14.7 | 9 18 | 0 49.45 | + 6 18.4 | 1.732 | 2.703 | 6.8 | 19.3 |
| 9 28 | 0 39.73 | - 1 36.2 | 2.113 | 3.110 | 2.1 | 14.5 | 9 28 | 0 40.68 | + 5 17.8 | 1.716 | 2.714 | 2.4 | 19.0 |
| 10 8 | 0 32.49 | - 2 21.8 | 2.114 | 3.103 | 3.2 | 14.6 | 10 8 | 0 31.59 | + 4 13.6 | 1.729 | 2.725 | 2.2 | 19.0 |
| 10 18 | 0 25.63 | - 3 0.2 | 2.143 | 3.095 | 6.6 | 14.8 | 10 18 | 0 23.15 | + 3 12.5 | 1.771 | 2.735 | 6.5 | 19.3 |
| 10 28 | 0 19.88 | - 3 27.2 | 2.199 | 3.087 | 9.8 | 15.0 | 10 28 | 0 16.27 | + 2 20.9 | 1.839 | 2.744 | 10.5 | 19.6 |
| 11 7 | 0 15.78 | - 3 40.4 | 2.278 | 3.080 | 12.6 | 15.2 | 11 7 | 0 11.53 | + 1 43.2 | 1.931 | 2.753 | 13.8 | 19.8 |
| 252869 | 2002 <i>JE</i> ₂₁ | 10 | 2.9 184°09 | 3°5/ 7.9 18 | | | 94158 | 2001 <i>AR</i> ₁₃ | 10 | 2.9 36°57 | 6°6/10.2 18 | | |
| 8 29 | 0 56.65 | +20 7.8 | 2.736 | 3.509 | 12.1 | 21.0 | 8 29 | 0 59.91 | +25 13.0 | 2.242 | 2.991 | 15.0 | 19.4 |
| 9 8 | 0 52.25 | +19 44.6 | 2.646 | 3.509 | 9.8 | 20.9 | 9 8 | 0 55.13 | +25 45.2 | 2.158 | 2.992 | 12.8 | 19.2 |
| 9 18 | 0 46.42 | +19 4.5 | 2.579 | 3.509 | 7.3 | 20.7 | 9 18 | 0 48.42 | +25 57.0 | 2.094 | 2.993 | 10.3 | 19.0 |
| 9 28 | 0 39.65 | +18 8.3 | 2.537 | 3.508 | 4.8 | 20.6 | 9 28 | 0 40.38 | +25 46.8 | 2.053 | 2.994 | 7.9 | 18.9 |
| 10 8 | 0 32.57 | +16 59.4 | 2.525 | 3.507 | 3.5 | 20.5 | 10 8 | 0 31.84 | +25 15.4 | 2.037 | 2.995 | 6.6 | 18.8 |
| 10 18 | 0 25.86 | +15 42.1 | 2.542 | 3.506 | 4.8 | 20.6 | 10 18 | 0 23.72 | +24 26.4 | 2.049 | 2.996 | 7.2 | 18.9 |
| 10 28 | 0 20.13 | +14 22.4 | 2.588 | 3.504 | 7.3 | 20.7 | 10 28 | 0 16.90 | +23 25.9 | 2.088 | 2.998 | 9.1 | 19.0 |
| 11 7 | 0 15.78 | +13 6.1 | 2.661 | 3.502 | 9.8 | 20.9 | 11 7 | 0 12.05 | +22 21.5 | 2.151 | 2.999 | 11.6 | 19.2 |
| 244371 | 2002 <i>OL</i> ₁₆ | 10 | 2.9 66°08 | 6°9/10.1 18 | | | 480555 | 2015 <i>MP</i> ₆₀ | 10 | 2.9 112°92 | 0°3/ 2.6 18 | | |
| 8 29 | 1 0.50 | +24 49.5 | 1.740 | 2.510 | 18.0 | 20.0 | 8 29 | 0 58.13 | + 6 41.0 | 1.837 | 2.689 | 14.0 | 21.2 |
| 9 8 | 0 55.82 | +25 4.6 | 1.676 | 2.527 | 15.0 | 19.9 | 9 8 | 0 53.83 | + 5 52.6 | 1.768 | 2.693 | 10.5 | 21.0 |
| 9 18 | 0 48.90 | +24 53.2 | 1.631 | 2.544 | 11.8 | 19.7 | 9 18 | 0 47.60 | + 4 50.1 | 1.721 | 2.696 | 6.5 | 20.7 |
| 9 28 | 0 40.51 | +24 14.2 | 1.608 | 2.561 | 8.7 | 19.6 | 9 28 | 0 40.09 | + 3 38.6 | 1.700 | 2.699 | 2.1 | 20.5 |
| 10 8 | 0 31.72 | +23 10.8 | 1.610 | 2.578 | 6.9 | 19.5 | 10 8 | 0 32.19 | + 2 24.7 | 1.707 | 2.702 | 2.4 | 20.5 |
| 10 18 | 0 23.65 | +21 49.6 | 1.638 | 2.595 | 7.7 | 19.6 | 10 18 | 0 24.86 | + 1 15.7 | 1.742 | 2.705 | 6.8 | 20.8 |
| 10 28 | 0 17.31 | +20 20.0 | 1.692 | 2.612 | 10.2 | 19.8 | 10 28 | 0 18.94 | + 0 18.2 | 1.803 | 2.708 | 10.7 | 21.0 |
| 11 7 | 0 13.33 | +18 51.9 | 1.770 | 2.629 | 13.2 | 20.0 | 11 7 | 0 15.06 | - 0 23.3 | 1.887 | 2.711 | 14.0 | 21.2 |
| 716 | <i>Berkeley</i> | 10 | 2.9 161°39 | 2°7/29.7 18 | | | 138071 | 2000 <i>DH</i> ₅₄ | 10 | 2.9 58°54 | 3°0/29.7 18 | | |
| 8 29 | 0 57.89 | - 1 18.1 | 2.172 | 3.036 | 11.7 | 15.6 | 8 29 | 0 57.39 | + 1 8.6 | 1.626 | 2.500 | 14.4 | 19.3 |
| 9 8 | 0 53.34 | - 2 21.6 | 2.106 | 3.039 | 8.6 | 15.5 | 9 8 | 0 53.25 | - 0 28.4 | 1.585 | 2.524 | 10.5 | 19.1 |
| 9 18 | 0 47.16 | - 3 31.4 | 2.064 | 3.042 | 5.3 | 15.3 | 9 18 | 0 47.15 | - 2 14.7 | 1.567 | 2.547 | 6.3 | 18.9 |
| 9 28 | 0 39.91 | - 4 41.6 | 2.050 | 3.045 | 2.8 | 15.1 | 9 28 | 0 39.90 | - 4 1.2 | 1.575 | 2.571 | 3.1 | 18.8 |
| 10 8 | 0 32.35 | - 5 46.0 | 2.065 | 3.047 | 4.2 | 15.2 | 10 8 | 0 32.46 | - 5 38.2 | 1.611 | 2.595 | 4.9 | 18.9 |
| 10 18 | 0 25.27 | - 6 39.0 | 2.108 | 3.049 | 7.4 | 15.4 | 10 18 | 0 25.78 | - 6 57.9 | 1.674 | 2.619 | 8.7 | 19.2 |
| 10 28 | 0 19.40 | - 7 16.4 | 2.177 | 3.051 | 10.5 | 15.6 | 10 28 | 0 20.69 | - 7 55.1 | 1.762 | 2.643 | 12.2 | 19.5 |
| 11 7 | 0 15.27 | - 7 36.3 | 2.269 | 3.052 | 13.3 | 15.8 | 11 7 | 0 17.69 | - 8 28.2 | 1.872 | 2.667 | 15.2 | 19.7 |
| 414930 | 2011 <i>AH</i> ₅₇ | 10 | 2.9 239°77 | 4°8/ 8.5 17 | | | 29616 | 1998 <i>SG</i> ₆₄ | 10 | 2.9 252°24 | 1°5/ 1.5 18 | | |
| 8 29 | 0 59.34 | +21 6.1 | 2.543 | 3.309 | 1 | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|--------------|---------|------|---------------|-------------------------------|-----------------|------------|---------------|---------|------|
| 306692 | 2000 <i>UN</i> ₉₇ | 10 | 2.9 332°61 | 9°0/11.5 18 | | | 346560 | 2008 <i>UP</i> ₃₅₅ | 10 | 2.9 231°56 | 7°4/25.7 18 | | |
| 8 29 | 0 53.06 | +27 14.0 | 1.364 | 2.154 | 21.2 | 19.6 | 8 29 | 1 3.59 | -16 7.8 | 2.006 | 2.871 | 12.5 | 21.8 |
| 9 8 | 0 51.14 | +27 31.3 | 1.277 | 2.136 | 18.3 | 19.3 | 9 8 | 0 57.83 | -17 10.8 | 1.942 | 2.862 | 10.0 | 21.7 |
| 9 18 | 0 46.53 | +27 13.5 | 1.205 | 2.120 | 14.9 | 19.1 | 9 18 | 0 50.05 | -18 8.2 | 1.902 | 2.853 | 8.0 | 21.5 |
| 9 28 | 0 39.87 | +26 16.1 | 1.153 | 2.105 | 11.5 | 18.8 | 9 28 | 0 40.94 | -18 52.1 | 1.889 | 2.844 | 7.4 | 21.5 |
| 10 8 | 0 32.35 | +24 40.5 | 1.122 | 2.091 | 9.2 | 18.7 | 10 8 | 0 31.42 | -19 16.3 | 1.902 | 2.835 | 8.8 | 21.6 |
| 10 18 | 0 25.35 | +22 34.2 | 1.115 | 2.078 | 9.7 | 18.7 | 10 18 | 0 22.48 | -19 17.0 | 1.940 | 2.825 | 11.2 | 21.7 |
| 10 28 | 0 20.25 | +20 11.1 | 1.131 | 2.066 | 12.7 | 18.8 | 10 28 | 0 15.03 | -18 53.4 | 2.003 | 2.815 | 13.9 | 21.8 |
| 11 7 | 0 17.99 | +17 47.9 | 1.169 | 2.055 | 16.5 | 19.0 | 11 7 | 0 9.70 | -18 7.5 | 2.085 | 2.804 | 16.2 | 22.0 |
| 451831 | 2013 <i>JB</i> ₉ | 10 | 2.9 93°54 | 3°7/28.8 18 | | | 362981 | 2013 <i>CK</i> ₅₈ | 10 | 2.9 279°13 | 2°6/27.2 18 | | |
| 8 29 | 0 58.97 | - 6 29.7 | 2.311 | 3.177 | 11.0 | 20.8 | 8 29 | 0 49.90 | - 7 34.8 | 4.349 | 5.213 | 6.3 | 19.8 |
| 9 8 | 0 53.98 | - 7 16.6 | 2.258 | 3.190 | 8.2 | 20.7 | 9 8 | 0 46.78 | - 8 34.2 | 4.276 | 5.206 | 4.7 | 19.6 |
| 9 18 | 0 47.46 | - 8 4.5 | 2.229 | 3.203 | 5.4 | 20.5 | 9 18 | 0 42.89 | - 9 34.4 | 4.230 | 5.200 | 3.2 | 19.5 |
| 9 28 | 0 40.00 | - 8 48.0 | 2.228 | 3.215 | 3.7 | 20.4 | 9 28 | 0 38.50 | -10 32.2 | 4.213 | 5.193 | 2.6 | 19.5 |
| 10 8 | 0 32.34 | - 9 22.3 | 2.256 | 3.227 | 5.0 | 20.5 | 10 8 | 0 33.94 | -11 24.7 | 4.227 | 5.186 | 3.4 | 19.5 |
| 10 18 | 0 25.22 | - 9 43.7 | 2.312 | 3.240 | 7.6 | 20.7 | 10 18 | 0 29.56 | -12 9.3 | 4.270 | 5.180 | 5.0 | 19.6 |
| 10 28 | 0 19.29 | - 9 49.9 | 2.393 | 3.252 | 10.3 | 20.9 | 10 28 | 0 25.70 | -12 44.0 | 4.341 | 5.173 | 6.6 | 19.8 |
| 11 7 | 0 15.02 | - 9 40.6 | 2.497 | 3.264 | 12.6 | 21.1 | 11 7 | 0 22.65 | -13 7.6 | 4.436 | 5.167 | 8.0 | 19.9 |
| 373197 | 2012 <i>DH</i> ₇₈ | 10 | 2.9 113°49 | 2°6/30.8 17 | | | 160256 | 2002 <i>PD</i> ₁₄₉ | 10 | 2.9 231°88 | 0°1/30.8 07 C | | |
| 8 29 | 1 5.98 | - 0 37.5 | 1.639 | 2.501 | 14.9 | 21.0 | 8 29 | 0 38.57 | - 1 15.5 | 43.879 | 44.730 | 0.7 | 22.9 |
| 9 8 | 0 59.66 | - 1 20.8 | 1.589 | 2.520 | 11.0 | 20.8 | 9 8 | 0 37.97 | - 1 19.9 | 43.801 | 44.729 | 0.5 | 22.9 |
| 9 18 | 0 51.12 | - 2 11.1 | 1.561 | 2.539 | 6.7 | 20.6 | 9 18 | 0 37.32 | - 1 24.5 | 43.751 | 44.728 | 0.3 | 22.8 |
| 9 28 | 0 41.23 | - 3 1.8 | 1.560 | 2.557 | 3.0 | 20.4 | 9 28 | 0 36.62 | - 1 29.1 | 43.730 | 44.727 | 0.1 | 22.8 |
| 10 8 | 0 31.11 | - 3 46.0 | 1.587 | 2.574 | 4.4 | 20.5 | 10 8 | 0 35.92 | - 1 33.6 | 43.738 | 44.726 | 0.2 | 22.8 |
| 10 18 | 0 21.85 | - 4 18.1 | 1.641 | 2.591 | 8.4 | 20.8 | 10 18 | 0 35.22 | - 1 37.8 | 43.776 | 44.725 | 0.4 | 22.8 |
| 10 28 | 0 14.43 | - 4 33.9 | 1.721 | 2.607 | 12.2 | 21.1 | 10 28 | 0 34.57 | - 1 41.5 | 43.843 | 44.724 | 0.6 | 22.9 |
| 11 7 | 0 9.43 | - 4 32.3 | 1.822 | 2.622 | 15.4 | 21.3 | 11 7 | 0 33.98 | - 1 44.6 | 43.937 | 44.723 | 0.8 | 22.9 |
| 232892 | 2004 <i>XR</i> ₂₉ | 10 | 2.9 0°98 | 4°8/29.9 18 | | | 522928 | 2016 <i>PS</i> ₁₁₁ | 10 | 2.9 265°95 | 0°8/ 3.6 18 | | |
| 8 29 | 0 55.97 | - 4 2.2 | 1.017 | 1.925 | 18.2 | 18.8 | 8 29 | 0 59.00 | + 9 8.8 | 1.689 | 2.537 | 15.2 | 21.5 |
| 9 8 | 0 53.40 | - 4 35.0 | 0.966 | 1.921 | 13.6 | 18.5 | 9 8 | 0 54.74 | + 8 34.7 | 1.613 | 2.534 | 11.6 | 21.3 |
| 9 18 | 0 47.84 | - 5 13.3 | 0.934 | 1.919 | 8.6 | 18.3 | 9 18 | 0 48.32 | + 7 43.5 | 1.559 | 2.531 | 7.4 | 21.0 |
| 9 28 | 0 40.26 | - 5 48.0 | 0.923 | 1.918 | 4.9 | 18.1 | 9 28 | 0 40.40 | + 6 39.1 | 1.530 | 2.527 | 2.8 | 20.7 |
| 10 8 | 0 32.09 | - 6 9.6 | 0.934 | 1.920 | 6.9 | 18.2 | 10 8 | 0 31.98 | + 5 28.0 | 1.528 | 2.524 | 2.3 | 20.7 |
| 10 18 | 0 24.86 | - 6 11.2 | 0.967 | 1.924 | 11.7 | 18.5 | 10 18 | 0 24.11 | + 4 17.9 | 1.554 | 2.521 | 6.9 | 21.0 |
| 10 28 | 0 19.91 | - 5 49.3 | 1.020 | 1.930 | 16.4 | 18.8 | 10 28 | 0 17.80 | + 3 16.7 | 1.605 | 2.518 | 11.2 | 21.2 |
| 11 7 | 0 17.98 | - 5 4.3 | 1.091 | 1.937 | 20.4 | 19.0 | 11 7 | 0 13.72 | + 2 30.2 | 1.679 | 2.515 | 14.9 | 21.5 |
| 216779 | 2006 <i>QL</i> ₂₆ | 10 | 2.9 34°45 | 4°2/ 6.2 17 | | | 444269 | 2005 <i>UD</i> ₃₁₁ | 10 | 2.9 0°99 | 3°8/30.1 17 | | |
| 8 29 | 0 58.59 | +15 50.6 | 1.135 | 1.985 | 20.9 | 20.3 | 8 29 | 1 0.27 | - 4 43.2 | 1.509 | 2.391 | 14.9 | 21.0 |
| 9 8 | 0 55.16 | +15 42.5 | 1.082 | 1.996 | 16.5 | 20.1 | 9 8 | 0 55.79 | - 5 3.1 | 1.448 | 2.389 | 11.1 | 20.8 |
| 9 18 | 0 48.82 | +15 5.4 | 1.046 | 2.008 | 11.6 | 19.8 | 9 18 | 0 48.97 | - 5 25.7 | 1.409 | 2.388 | 7.0 | 20.6 |
| 9 28 | 0 40.56 | +14 1.5 | 1.031 | 2.020 | 6.5 | 19.6 | 9 28 | 0 40.61 | - 5 45.0 | 1.394 | 2.388 | 4.0 | 20.4 |
| 10 8 | 0 31.80 | +12 38.6 | 1.040 | 2.033 | 4.3 | 19.5 | 10 8 | 0 31.80 | - 5 54.7 | 1.405 | 2.389 | 5.4 | 20.5 |
| 10 18 | 0 24.01 | +11 8.0 | 1.073 | 2.047 | 8.1 | 19.8 | 10 18 | 0 23.70 | - 5 50.5 | 1.442 | 2.391 | 9.3 | 20.7 |
| 10 28 | 0 18.48 | + 9 42.6 | 1.128 | 2.061 | 12.9 | 20.1 | 10 28 | 0 17.37 | - 5 29.7 | 1.502 | 2.394 | 13.3 | 21.0 |
| 11 7 | 0 15.92 | + 8 32.4 | 1.205 | 2.076 | 17.1 | 20.4 | 11 7 | 0 13.46 | - 4 51.9 | 1.584 | 2.398 | 16.7 | 21.2 |
| 141693 | 2002 <i>JZ</i> ₁₄₆ | 10 | 2.9 46°81 | 6°8/28.3 18 | | | 448488 | 2010 <i>JG</i> ₇₈ | 10 | 2.9 62°43 | 0°0/ 2.8 18 | | |
| 8 29 | 1 2.88 | - 7 59.4 | 1.177 | 2.071 | 17.3 | 19.2 | 8 29 | 0 59.27 | + 7 14.6 | 1.686 | 2.539 | 15.0 | 20.7 |
| 9 8 | 0 58.04 | - 9 6.8 | 1.137 | 2.082 | 13.0 | 19.0 | 9 8 | 0 54.70 | + 6 35.0 | 1.633 | 2.557 | 11.2 | 20.5 |
| 9 18 | 0 50.41 | -10 14.3 | 1.118 | 2.094 | 8.9 | 18.8 | 9 18 | 0 48.12 | + 5 41.4 | 1.601 | 2.575 | 6.9 | 20.3 |
| 9 28 | 0 41.04 | -11 10.8 | 1.121 | 2.107 | 6.8 | 18.8 | 9 28 | 0 40.28 | + 4 38.5 | 1.595 | 2.593 | 2.3 | 20.0 |
| 10 8 | 0 31.36 | -11 46.8 | 1.149 | 2.120 | 8.6 | 18.9 | 10 8 | 0 32.18 | + 3 33.2 | 1.616 | 2.612 | 2.3 | 20.1 |
| 10 18 | 0 22.80 | -11 56.7 | 1.200 | 2.133 | 12.5 | 19.2 | 10 18 | 0 24.80 | + 2 32.8 | 1.665 | 2.630 | 6.8 | 20.4 |
| 10 28 | 0 16.52 | -11 38.9 | 1.272 | 2.147 | 16.3 | 19.5 | 10 28 | 0 19.02 | + 1 43.4 | 1.739 | 2.648 | 10.7 | 20.7 |
| 11 7 | 0 13.14 | -10 56.1 | 1.362 | 2.161 | 19.7 | 19.7 | 11 7 | 0 15.39 | + 1 9.3 | 1.836 | 2.667 | 14.0 | 20.9 |
| 110044 | 2001 <i>SO</i> ₈₃ | 10 | 2.9 97°51 | 2°6/ 5.0 17 | | | 365335 | 2009 <i>SO</i> ₂₀₉ | 10 | 2.9 8°80 | 0°8/ 3.8 18 | | |
| 8 29 | 1 3.38 | +11 56.2 | 1.598 | 2.432 | 16.6 | 20.2 | 8 29 | 0 54.95 | + 9 59.3 | 2.013 | 2.854 | 13.4 | 20.8 |
| 9 8 | 0 58.04 | +11 58.0 | 1.533 | 2.441 | 12.9 | 20.0 | 9 8 | 0 51.37 | + 9 14.4 | 1.938 | 2.855 | 10.2 | 20.6 |
| 9 18 | 0 50.33 | +11 41.8 | 1.488 | 2.450 | 8.7 | 19.8 | 9 18 | 0 46.07 | + 8 14.0 | 1.886 | 2.856 | 6.5 | 20.4 |
| 9 28 | 0 41.04 | +11 9.5 | 1.468 | 2.459 | 4.3 | 19.6 | 9 28 | 0 39.62 | + 7 2.0 | 1.861 | 2.858 | 2.5 | 20.1 |
| 10 8 | 0 31.29 | +10 25.7 | 1.474 | 2.468 | 3.0 | 19.5 | 10 8 | 0 32.82 | + 5 44.3 | 1.863 | 2.859 | 1.9 | 20.1 |
| 10 18 | 0 22.26 | + 9 37.1 | 1.508 | 2.477 | 6.8 | 19.8 | 10 18 | 0 26.49 | + 4 27.7 | 1.894 | 2.861 | 5.8 | 20.3 |
| 10 28 | 0 15.03 | + 8 51.1 | 1.567 | 2.486 | 11.0 | 20.0 | 10 28 | 0 21.39 | + 3 19.1 | 1.951 | 2.864 | 9.5 | 20.6 |
| 11 7 | 0 10.29 | + 8 14.1 | 1.649 | 2.494 | 14.7 | 20.3 | 11 7 | 0 18.10 | + 2 23.7 | 2.033 | 2.866 | 12.7 | 20.8 |
| 453517 | 2009 <i>UE</i> ₁₃₁ | 10 | 2.9 352°01 | 15°5/15.5 17 | | | 195257 | 2002 <i>EM</i> ₅₂ | 10 | 2.9 77°21 | 1°7/ 1.3 18 | | |
| 8 29 | 1 4.62 | -39 32.2 | 1.744 | 2.554 | 16.4 | 19.9 | 8 29 | 1 0.19 | + 2 49.9 | 1.644 | 2.509 | 14.7 | 20.2 |
| 9 8 | 0 59.07 | -40 51.0 | 1.718 | 2.547 | 15.7 | 19.9 | 9 8 | 0 55.40 | + 1 53.1 | 1.593 | 2.526 | 10.9 | 20.0 |
| 9 18 | 0 50.91 | -41 42.6 | 1.710 | 2.541 | 15.6 | 19.8 | 9 18 | 0 48.55 | + 0 45.7 | 1.565 | 2.544 | 6.5 | 19.8 |
| 9 28 | 0 41.17 | -41 57.8 | 1.720 | 2.536 | 16.0 | 19.9 | 9 28 | 0 40.43 | - 0 25.9 | 1.563 | 2.561 | 2.3 | 19.6 |
| 10 8 | 0 31.23 | -41 32.1 | 1.750 | 2.532 | 17.0 | 19.9 | 10 8 | 0 32.05 | - 1 33.7 | 1.588 | 2.579 | 3.6 | 19.7 |
| 10 18 | 0 22.38 | -40 25.9 | 1.796 | 2.529 | 18.2 | 20.0 | 10 18 | 0 24.43 | - 2 30.9 | 1.640 | 2.596 | 7.8 | 20.0 |
| 10 28 | 0 15.71 | -38 43.5 | 1.859 | 2.527 | 19.5 | 20.1 | 10 28 | 0 18.46 | - 3 11.8 | 1.717 | 2.613 | 11.7 | 20.3 |
| 11 7 | 0 11.77 | -36 32.1 | 1.936 | 2.526 | 20.7 | 20.3 | 11 7 | 0 14.69 | - 3 34.0 | 1.817 | 2.630 | 14.9 | 20.5 |
| 313411 | 2002 <i>PE</i> ₁₇₁ | 10 | 2.9 121°43 | 6°7/22.3 18 | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|------------------------|-----------------|----------|--------|-----------|------|---------------|------------------------|-----------------|----------|--------|-----------|------|
| 353546 | 2011 SS ₁₈₁ | 10 | 2.9 | 34°81 | 1°8/ 4.5 | 18 | 226450 | 2003 SG ₉₇ | 10 | 2.9 | 341°56 | 4°2/ 7.5 | 18 |
| 8 29 | 0 58.88 | +10 43.7 | 1.692 | 2.534 | 15.5 | 20.7 | 8 29 | 0 57.57 | +18 18.0 | 2.159 | 2.955 | 14.1 | 19.9 |
| 9 8 | 0 54.58 | +10 30.4 | 1.625 | 2.540 | 11.9 | 20.5 | 9 8 | 0 53.37 | +18 26.7 | 2.074 | 2.951 | 11.5 | 19.7 |
| 9 18 | 0 48.17 | +10 0.3 | 1.579 | 2.546 | 7.8 | 20.3 | 9 18 | 0 47.36 | +18 17.6 | 2.011 | 2.948 | 8.5 | 19.5 |
| 9 28 | 0 40.35 | +9 16.2 | 1.559 | 2.553 | 3.5 | 20.0 | 9 28 | 0 40.10 | +17 50.8 | 1.972 | 2.946 | 5.6 | 19.4 |
| 10 8 | 0 32.11 | +8 23.5 | 1.564 | 2.560 | 2.4 | 20.0 | 10 8 | 0 32.39 | +17 8.9 | 1.960 | 2.943 | 4.2 | 19.3 |
| 10 18 | 0 24.50 | +7 28.8 | 1.597 | 2.567 | 6.4 | 20.3 | 10 18 | 0 25.08 | +16 16.3 | 1.976 | 2.941 | 5.9 | 19.4 |
| 10 28 | 0 18.45 | +6 39.3 | 1.656 | 2.575 | 10.5 | 20.5 | 10 28 | 0 19.00 | +15 19.5 | 2.018 | 2.939 | 8.8 | 19.6 |
| 11 7 | 0 14.62 | +6 0.6 | 1.737 | 2.582 | 14.0 | 20.8 | 11 7 | 0 14.78 | +14 24.8 | 2.086 | 2.937 | 11.8 | 19.8 |
| 433444 | 2013 TF ₁₃₃ | 10 | 2.9 | 8°78 | 3°8/29.8 | 17 | 469803 | 2005 SD ₅₆ | 10 | 2.9 | 323°91 | 2°5/ 1.7 | 18 |
| 8 29 | 0 56.40 | +0 18.6 | 1.167 | 2.062 | 17.4 | 20.1 | 8 29 | 1 4.70 | -1 55.3 | 1.221 | 2.104 | 17.6 | 20.4 |
| 9 8 | 0 53.41 | -0 59.7 | 1.113 | 2.062 | 12.8 | 19.9 | 9 8 | 1 0.07 | -1 42.3 | 1.140 | 2.081 | 13.4 | 20.1 |
| 9 18 | 0 47.73 | -2 31.3 | 1.080 | 2.064 | 7.8 | 19.6 | 9 18 | 0 52.22 | -1 33.7 | 1.078 | 2.059 | 8.4 | 19.7 |
| 9 28 | 0 40.24 | -4 5.8 | 1.069 | 2.066 | 3.9 | 19.4 | 9 28 | 0 41.90 | -1 24.7 | 1.039 | 2.037 | 3.3 | 19.4 |
| 10 8 | 0 32.24 | -5 30.9 | 1.083 | 2.069 | 6.1 | 19.5 | 10 8 | 0 30.46 | -1 9.8 | 1.024 | 2.016 | 4.6 | 19.4 |
| 10 18 | 0 25.08 | -6 36.0 | 1.120 | 2.073 | 10.9 | 19.8 | 10 18 | 0 19.56 | -0 44.1 | 1.034 | 1.997 | 10.2 | 19.6 |
| 10 28 | 0 19.97 | -7 14.3 | 1.179 | 2.078 | 15.5 | 20.1 | 10 28 | 0 10.82 | -0 4.4 | 1.066 | 1.978 | 15.6 | 19.9 |
| 11 7 | 0 17.60 | -7 24.0 | 1.257 | 2.084 | 19.4 | 20.4 | 11 7 | 0 5.33 | +0 50.8 | 1.117 | 1.961 | 20.2 | 20.1 |
| 186470 | 2002 TQ ₄₅ | 10 | 2.9 | 298°87 | 1°2/ 3.9 | 18 | 416632 | 2004 RO ₃₁₆ | 10 | 2.9 | 44°18 | 6°9/ 8.2 | 17 |
| 8 29 | 0 58.08 | +10 16.9 | 1.438 | 2.293 | 17.0 | 20.0 | 8 29 | 1 1.76 | +20 5.9 | 0.978 | 1.820 | 24.1 | 19.8 |
| 9 8 | 0 54.53 | +9 42.6 | 1.356 | 2.280 | 13.1 | 19.7 | 9 8 | 0 57.80 | +20 24.0 | 0.939 | 1.842 | 19.6 | 19.6 |
| 9 18 | 0 48.45 | +8 46.7 | 1.295 | 2.267 | 8.5 | 19.4 | 9 18 | 0 50.53 | +20 6.2 | 0.915 | 1.864 | 14.5 | 19.4 |
| 9 28 | 0 40.53 | +7 32.8 | 1.257 | 2.253 | 3.5 | 19.1 | 9 28 | 0 41.17 | +19 12.6 | 0.910 | 1.888 | 9.5 | 19.2 |
| 10 8 | 0 31.87 | +6 8.2 | 1.244 | 2.240 | 2.5 | 19.0 | 10 8 | 0 31.42 | +17 50.8 | 0.926 | 1.912 | 6.9 | 19.2 |
| 10 18 | 0 23.74 | +4 42.9 | 1.257 | 2.228 | 7.8 | 19.3 | 10 18 | 0 23.01 | +16 13.4 | 0.965 | 1.937 | 9.2 | 19.4 |
| 10 28 | 0 17.37 | +3 27.0 | 1.295 | 2.215 | 12.7 | 19.5 | 10 28 | 0 17.28 | +14 35.8 | 1.026 | 1.963 | 13.5 | 19.7 |
| 11 7 | 0 13.58 | +2 28.6 | 1.354 | 2.203 | 17.0 | 19.8 | 11 7 | 0 14.91 | +13 10.9 | 1.108 | 1.988 | 17.6 | 20.0 |
| 287720 | 2003 QA ₁₀₅ | 10 | 2.9 | 41°58 | 1°7/ 4.7 | 18 | 314564 | 2005 YF ₁₇₆ | 10 | 2.9 | 141°52 | 9°2/ 17.7 | 18 |
| 8 29 | 0 57.33 | +11 8.2 | 2.018 | 2.851 | 13.7 | 20.2 | 8 29 | 1 3.01 | +40 34.7 | 2.901 | 3.503 | 14.6 | 21.0 |
| 9 8 | 0 53.10 | +10 51.4 | 1.950 | 2.860 | 10.5 | 20.0 | 9 8 | 0 57.36 | +41 24.9 | 2.817 | 3.511 | 13.3 | 20.9 |
| 9 18 | 0 47.11 | +10 19.8 | 1.904 | 2.868 | 6.9 | 19.8 | 9 18 | 0 49.81 | +41 53.0 | 2.749 | 3.519 | 11.9 | 20.8 |
| 9 28 | 0 39.98 | +9 36.2 | 1.884 | 2.878 | 3.2 | 19.6 | 9 28 | 0 40.93 | +41 55.9 | 2.702 | 3.527 | 10.6 | 20.7 |
| 10 8 | 0 32.52 | +8 45.1 | 1.892 | 2.887 | 2.2 | 19.5 | 10 8 | 0 31.54 | +41 32.7 | 2.677 | 3.534 | 9.6 | 20.6 |
| 10 18 | 0 25.58 | +7 52.0 | 1.927 | 2.897 | 5.6 | 19.8 | 10 18 | 0 22.56 | +40 44.9 | 2.676 | 3.541 | 9.2 | 20.6 |
| 10 28 | 0 19.95 | +7 3.0 | 1.990 | 2.907 | 9.1 | 20.0 | 10 28 | 0 14.85 | +39 37.1 | 2.700 | 3.547 | 9.6 | 20.6 |
| 11 7 | 0 16.17 | +6 23.0 | 2.077 | 2.917 | 12.3 | 20.2 | 11 7 | 0 9.07 | +38 16.3 | 2.749 | 3.554 | 10.6 | 20.7 |
| 444482 | 2006 QK ₁₁₈ | 10 | 2.9 | 66°60 | 4°5/ 7.3 | 18 | 329279 | 1999 VD ₁₁₇ | 10 | 2.9 | 275°25 | 2°9/ 6.6 | 17 |
| 8 29 | 1 2.03 | +17 57.6 | 1.776 | 2.579 | 16.4 | 20.6 | 8 29 | 0 56.55 | +16 57.3 | 2.444 | 3.241 | 12.7 | 21.2 |
| 9 8 | 0 56.79 | +18 7.8 | 1.719 | 2.601 | 13.2 | 20.4 | 9 8 | 0 52.51 | +16 31.7 | 2.336 | 3.219 | 10.2 | 21.0 |
| 9 18 | 0 49.44 | +17 57.2 | 1.682 | 2.623 | 9.6 | 20.3 | 9 18 | 0 46.81 | +15 48.4 | 2.250 | 3.195 | 7.3 | 20.8 |
| 9 28 | 0 40.75 | +17 26.4 | 1.669 | 2.645 | 6.1 | 20.1 | 9 28 | 0 39.93 | +14 48.4 | 2.190 | 3.172 | 4.3 | 20.6 |
| 10 8 | 0 31.76 | +16 39.1 | 1.682 | 2.667 | 4.5 | 20.1 | 10 8 | 0 32.55 | +13 35.2 | 2.159 | 3.148 | 3.0 | 20.5 |
| 10 18 | 0 23.51 | +15 41.7 | 1.723 | 2.689 | 6.5 | 20.2 | 10 18 | 0 25.43 | +12 13.8 | 2.156 | 3.124 | 5.2 | 20.6 |
| 10 28 | 0 16.92 | +14 41.6 | 1.790 | 2.711 | 9.7 | 20.5 | 10 28 | 0 19.33 | +10 51.1 | 2.183 | 3.100 | 8.4 | 20.7 |
| 11 7 | 0 12.58 | +13 46.3 | 1.882 | 2.733 | 12.9 | 20.7 | 11 7 | 0 14.87 | +9 33.7 | 2.235 | 3.076 | 11.5 | 20.9 |
| 192128 | 2006 DV ₉₄ | 10 | 2.9 | 5°88 | 0°5/ 2.5 | 18 | 248797 | 2006 SS ₁₁₃ | 10 | 2.9 | 115°63 | 0°0/ 2.8 | 17 |
| 8 29 | 0 58.89 | +5 13.0 | 1.478 | 2.345 | 16.0 | 20.0 | 8 29 | 0 59.13 | +6 41.4 | 2.126 | 2.969 | 12.7 | 21.5 |
| 9 8 | 0 54.86 | +4 44.1 | 1.413 | 2.345 | 12.0 | 19.7 | 9 8 | 0 54.30 | +6 0.2 | 2.062 | 2.982 | 9.5 | 21.3 |
| 9 18 | 0 48.47 | +4 1.1 | 1.368 | 2.346 | 7.4 | 19.5 | 9 18 | 0 47.78 | +5 7.4 | 2.021 | 2.994 | 5.9 | 21.1 |
| 9 28 | 0 40.48 | +3 8.9 | 1.348 | 2.347 | 2.4 | 19.2 | 9 28 | 0 40.21 | +4 7.2 | 2.007 | 3.006 | 1.9 | 20.8 |
| 10 8 | 0 32.00 | +2 14.6 | 1.353 | 2.348 | 2.9 | 19.2 | 10 8 | 0 32.37 | +3 5.0 | 2.023 | 3.018 | 2.1 | 20.9 |
| 10 18 | 0 24.18 | +1 25.8 | 1.385 | 2.350 | 7.8 | 19.5 | 10 18 | 0 25.06 | +2 6.7 | 2.067 | 3.029 | 5.9 | 21.1 |
| 10 28 | 0 18.11 | +0 49.3 | 1.441 | 2.353 | 12.3 | 19.8 | 10 28 | 0 19.04 | +1 17.5 | 2.138 | 3.040 | 9.4 | 21.4 |
| 11 7 | 0 14.48 | +0 29.5 | 1.518 | 2.356 | 16.1 | 20.0 | 11 7 | 0 14.81 | +0 41.2 | 2.234 | 3.051 | 12.3 | 21.6 |
| 403462 | 2009 SA ₃₄₃ | 10 | 2.9 | 60°42 | 2°2/ 30.7 | 18 | 226459 | 2003 SG ₁₃₉ | 10 | 2.9 | 3°30 | 0°6/ 3.6 | 18 |
| 8 29 | 0 59.76 | -1 44.1 | 2.168 | 3.029 | 11.8 | 20.6 | 8 29 | 0 54.60 | +9 15.8 | 1.974 | 2.820 | 13.4 | 19.9 |
| 9 8 | 0 54.74 | -2 9.9 | 2.103 | 3.035 | 8.7 | 20.4 | 9 8 | 0 51.16 | +8 30.8 | 1.900 | 2.820 | 10.2 | 19.7 |
| 9 18 | 0 48.05 | -2 39.9 | 2.063 | 3.040 | 5.3 | 20.2 | 9 18 | 0 45.98 | +7 30.7 | 1.849 | 2.820 | 6.5 | 19.5 |
| 9 28 | 0 40.28 | -3 10.0 | 2.050 | 3.046 | 2.5 | 20.0 | 9 28 | 0 39.65 | +6 19.4 | 1.823 | 2.821 | 2.4 | 19.2 |
| 10 8 | 0 32.23 | -3 35.6 | 2.065 | 3.052 | 3.6 | 20.1 | 10 8 | 0 32.95 | +5 3.0 | 1.826 | 2.822 | 1.9 | 19.2 |
| 10 18 | 0 24.69 | -3 52.7 | 2.108 | 3.057 | 6.9 | 20.4 | 10 18 | 0 26.71 | +3 48.4 | 1.856 | 2.823 | 6.0 | 19.5 |
| 10 28 | 0 18.41 | -3 58.2 | 2.179 | 3.063 | 10.0 | 20.6 | 10 28 | 0 21.73 | +2 42.4 | 1.913 | 2.825 | 9.7 | 19.7 |
| 11 7 | 0 13.91 | -3 50.6 | 2.272 | 3.069 | 12.8 | 20.8 | 11 7 | 0 18.55 | +1 50.1 | 1.994 | 2.828 | 13.0 | 19.9 |
| 281506 | 2008 SZ ₃₀₇ | 10 | 2.9 | 40°32 | 2°2/ 1.3 | 16 | 177140 | 2003 QQ ₃₅ | 10 | 2.9 | 353°81 | 3°0/ 30.8 | 18 |
| 8 29 | 1 0.94 | +1 3.6 | 1.370 | 2.248 | 16.4 | 20.9 | 8 29 | 0 54.31 | +1 43.5 | 0.951 | 1.857 | 19.3 | 19.1 |
| 9 8 | 0 56.35 | +0 29.1 | 1.320 | 2.259 | 12.1 | 20.7 | 9 8 | 0 52.43 | +0 50.7 | 0.895 | 1.849 | 14.4 | 18.8 |
| 9 18 | 0 49.32 | -0 15.1 | 1.291 | 2.272 | 7.3 | 20.5 | 9 18 | 0 47.43 | -0 18.8 | 0.857 | 1.844 | 8.8 | 18.5 |
| 9 28 | 0 40.74 | -1 2.6 | 1.286 | 2.285 | 2.8 | 20.2 | 9 28 | 0 40.25 | -1 35.7 | 0.840 | 1.839 | 3.5 | 18.2 |
| 10 8 | 0 31.81 | -1 45.5 | 1.307 | 2.298 | 4.1 | 20.4 | 10 8 | 0 32.34 | -2 47.2 | 0.845 | 1.837 | 5.6 | 18.3 |
| 10 18 | 0 23.76 | -2 17.1 | 1.353 | 2.312 | 8.8 | 20.7 | 10 18 | 0 25.31 | -3 41.4 | 0.871 | 1.836 | 11.3 | 18.6 |
| 10 28 | 0 17.65 | -2 32.5 | 1.423 | 2.326 | 13.1 | 21.0 | 10 28 | 0 20.61 | -4 9.8 | 0.918 | 1.837 | 16.7 | 18.9 |
| 11 7 | 0 14.10 | -2 29.6 | 1.513 | 2.341 | 16.7 | 21.2 | 11 7 | 0 19.07 | -4 9.5 | 0.981 | 1.839 | 21.3 | 19.2 |
| 246342 | 2007 TY ₂₈₇ | 10 | 2.9 | 354°08 | 7°3/ 27.1 | 18 | 224764 | 2006 EW ₁₆ | 10 | 2.9 | 209°42 | 0°9/ 1.7 | 18 |
| 8 29 | 0 58.57 | -10 37.9 | 1.353 | 2.247 | 15.5 | 19.4 | 8 29 | 0 57.11 | +2 29.1 | 2.818 | 3.664 | 9.9 | 21.5 |
| 9 8 | | | | | | | | | | | | | |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|-------------------------|----------------------------|---------|------|---------------|-------------------------------|-----------------|-------------------------|--------------------------|---------|------|
| 33250 | 1998 <i>HO</i> ₂₃ | 10 | 2.9 171 ^o 29 | 1 ^o 8/30.6 18 | | | 161818 | 2006 <i>WB</i> ₈₆ | 10 | 2.9 3 ^o 47 | 4 ^o 9/29.6 18 | | |
| 8 29 | 0 57.53 | + 0 27.7 | 2.668 | 3.520 | 10.1 | 19.4 | 8 29 | 0 52.58 | - 1 44.1 | 0.875 | 1.793 | 19.4 | 18.9 |
| 9 8 | 0 52.85 | - 0 26.8 | 2.596 | 3.524 | 7.5 | 19.2 | 9 8 | 0 51.19 | - 2 45.1 | 0.830 | 1.790 | 14.4 | 18.6 |
| 9 18 | 0 46.81 | - 1 27.4 | 2.550 | 3.527 | 4.5 | 19.1 | 9 18 | 0 46.65 | - 3 57.6 | 0.802 | 1.789 | 9.0 | 18.3 |
| 9 28 | 0 39.89 | - 2 29.8 | 2.532 | 3.529 | 2.0 | 18.9 | 9 28 | 0 39.98 | - 5 9.7 | 0.794 | 1.791 | 5.0 | 18.1 |
| 10 8 | 0 32.72 | - 3 29.2 | 2.545 | 3.531 | 3.1 | 19.0 | 10 8 | 0 32.70 | - 6 8.0 | 0.808 | 1.795 | 7.3 | 18.2 |
| 10 18 | 0 25.92 | - 4 20.9 | 2.587 | 3.532 | 5.9 | 19.2 | 10 18 | 0 26.42 | - 6 42.3 | 0.841 | 1.801 | 12.5 | 18.5 |
| 10 28 | 0 20.11 | - 5 1.2 | 2.656 | 3.533 | 8.7 | 19.4 | 10 28 | 0 22.53 | - 6 46.7 | 0.894 | 1.809 | 17.5 | 18.9 |
| 11 7 | 0 15.73 | - 5 28.0 | 2.750 | 3.534 | 11.2 | 19.5 | 11 7 | 0 21.77 | - 6 21.3 | 0.963 | 1.818 | 21.8 | 19.2 |
| 152723 | 1998 <i>UM</i> ₃₁ | 10 | 2.9 343 ^o 28 | 1 ^o 0/ 3.6 18 | | | 18242 | <i>Peebles</i> | 10 | 2.9 209 ^o 77 | 0 ^o 3/ 2.6 18 | | |
| 8 29 | 0 54.88 | + 7 26.4 | 1.037 | 1.925 | 19.6 | 19.6 | 8 29 | 1 3.04 | + 5 18.0 | 1.835 | 2.682 | 14.2 | 19.7 |
| 9 8 | 0 52.86 | + 7 25.7 | 0.968 | 1.910 | 15.1 | 19.3 | 9 8 | 0 57.66 | + 4 49.5 | 1.755 | 2.677 | 10.7 | 19.4 |
| 9 18 | 0 47.78 | + 7 4.7 | 0.916 | 1.896 | 9.7 | 18.9 | 9 18 | 0 50.12 | + 4 8.7 | 1.697 | 2.672 | 6.6 | 19.2 |
| 9 28 | 0 40.41 | + 6 26.9 | 0.885 | 1.883 | 3.7 | 18.6 | 9 28 | 0 41.08 | + 3 19.6 | 1.667 | 2.665 | 2.2 | 18.9 |
| 10 8 | 0 32.13 | + 5 39.4 | 0.876 | 1.873 | 3.0 | 18.5 | 10 8 | 0 31.52 | + 2 28.0 | 1.664 | 2.659 | 2.5 | 18.9 |
| 10 18 | 0 24.52 | + 4 52.0 | 0.889 | 1.864 | 9.2 | 18.8 | 10 18 | 0 22.46 | + 1 40.1 | 1.689 | 2.652 | 7.0 | 19.2 |
| 10 28 | 0 19.12 | + 4 15.0 | 0.923 | 1.857 | 14.9 | 19.1 | 10 28 | 0 14.92 | + 1 2.0 | 1.742 | 2.644 | 11.1 | 19.4 |
| 11 7 | 0 16.91 | + 3 55.7 | 0.975 | 1.851 | 19.8 | 19.4 | 11 7 | 0 9.58 | + 0 37.9 | 1.817 | 2.635 | 14.7 | 19.6 |
| 171048 | 2005 <i>EN</i> ₁₀₁ | 10 | 2.9 112 ^o 60 | 4 ^o 9/27.6 18 | | | 154213 | 2002 <i>JO</i> ₃₉ | 10 | 2.9 145 ^o 49 | 6 ^o 5/24.5 18 | | |
| 8 29 | 0 59.34 | - 7 27.9 | 1.966 | 2.839 | 12.3 | 19.8 | 8 29 | 1 0.28 | - 18 53.6 | 2.664 | 3.520 | 10.0 | 20.6 |
| 9 8 | 0 54.56 | - 8 44.1 | 1.914 | 2.849 | 9.2 | 19.6 | 9 8 | 0 54.86 | - 19 53.8 | 2.618 | 3.527 | 8.2 | 20.5 |
| 9 18 | 0 47.99 | - 10 1.3 | 1.887 | 2.859 | 6.3 | 19.4 | 9 18 | 0 48.01 | - 20 47.0 | 2.597 | 3.535 | 6.8 | 20.4 |
| 9 28 | 0 40.30 | - 11 12.1 | 1.886 | 2.868 | 4.9 | 19.4 | 9 28 | 0 40.29 | - 21 27.7 | 2.603 | 3.542 | 6.6 | 20.4 |
| 10 8 | 0 32.34 | - 12 9.7 | 1.914 | 2.877 | 6.4 | 19.5 | 10 8 | 0 32.39 | - 21 51.5 | 2.637 | 3.549 | 7.7 | 20.5 |
| 10 18 | 0 24.99 | - 12 48.9 | 1.968 | 2.886 | 9.3 | 19.7 | 10 18 | 0 24.98 | - 21 56.1 | 2.697 | 3.555 | 9.4 | 20.6 |
| 10 28 | 0 19.02 | - 13 7.1 | 2.046 | 2.895 | 12.2 | 19.9 | 10 28 | 0 18.71 | - 21 41.2 | 2.781 | 3.561 | 11.2 | 20.8 |
| 11 7 | 0 14.97 | - 13 4.3 | 2.146 | 2.903 | 14.7 | 20.1 | 11 7 | 0 14.01 | - 21 8.2 | 2.885 | 3.567 | 12.9 | 20.9 |
| 273501 | 2007 <i>AK</i> ₂₆ | 10 | 2.9 181 ^o 58 | 2 ^o 3/ 5.3 18 | | | 261676 | 2005 <i>YD</i> ₁₈₀ | 10 | 2.9 271 ^o 79 | 0 ^o 6/ 2.2 18 | | |
| 8 29 | 1 2.00 | + 13 16.4 | 2.027 | 2.843 | 14.3 | 21.6 | 8 29 | 0 56.90 | + 4 49.6 | 2.318 | 3.166 | 11.6 | 20.8 |
| 9 8 | 0 56.70 | + 12 58.3 | 1.946 | 2.844 | 11.2 | 21.4 | 9 8 | 0 52.74 | + 4 9.4 | 2.226 | 3.150 | 8.7 | 20.6 |
| 9 18 | 0 49.43 | + 12 23.4 | 1.887 | 2.844 | 7.6 | 21.2 | 9 18 | 0 46.94 | + 3 18.8 | 2.159 | 3.134 | 5.3 | 20.4 |
| 9 28 | 0 40.82 | + 11 33.5 | 1.854 | 2.844 | 3.9 | 21.0 | 9 28 | 0 40.01 | + 2 21.4 | 2.119 | 3.118 | 1.7 | 20.1 |
| 10 8 | 0 31.77 | + 10 33.1 | 1.850 | 2.844 | 2.6 | 20.9 | 10 8 | 0 32.64 | + 1 22.3 | 2.108 | 3.102 | 2.3 | 20.1 |
| 10 18 | 0 23.21 | + 9 28.1 | 1.874 | 2.842 | 5.9 | 21.1 | 10 18 | 0 25.58 | + 0 26.8 | 2.125 | 3.085 | 6.0 | 20.4 |
| 10 28 | 0 16.05 | + 8 25.5 | 1.926 | 2.840 | 9.6 | 21.3 | 10 28 | 0 19.59 | - 0 19.8 | 2.171 | 3.069 | 9.4 | 20.5 |
| 11 7 | 0 10.91 | + 7 31.6 | 2.003 | 2.838 | 12.9 | 21.5 | 11 7 | 0 15.24 | - 0 53.7 | 2.240 | 3.052 | 12.5 | 20.7 |
| 183785 | 2004 <i>BG</i> ₂₉ | 10 | 2.9 160 ^o 42 | 1 ^o 1/ 3.9 18 R | | | 386856 | 2010 <i>XZ</i> ₇ | 10 | 2.9 316 ^o 48 | 1 ^o 6/29.8 18 | | |
| 8 29 | 1 4.31 | + 8 51.1 | 1.856 | 2.690 | 14.7 | 21.3 | 8 29 | 0 50.71 | - 2 27.3 | 4.188 | 5.045 | 6.7 | 20.6 |
| 9 8 | 0 58.50 | + 8 37.8 | 1.784 | 2.696 | 11.2 | 21.1 | 9 8 | 0 47.42 | - 3 4.6 | 4.113 | 5.042 | 4.9 | 20.5 |
| 9 18 | 0 50.56 | + 8 10.4 | 1.734 | 2.701 | 7.2 | 20.9 | 9 18 | 0 43.34 | - 3 44.2 | 4.064 | 5.040 | 3.0 | 20.4 |
| 9 28 | 0 41.20 | + 7 31.7 | 1.710 | 2.706 | 2.9 | 20.6 | 9 28 | 0 38.74 | - 4 23.7 | 4.044 | 5.038 | 1.6 | 20.3 |
| 10 8 | 0 31.40 | + 6 46.6 | 1.714 | 2.710 | 2.2 | 20.6 | 10 8 | 0 33.99 | - 5 0.4 | 4.055 | 5.036 | 2.4 | 20.3 |
| 10 18 | 0 22.21 | + 6 0.8 | 1.747 | 2.713 | 6.4 | 20.9 | 10 18 | 0 29.43 | - 5 31.9 | 4.095 | 5.034 | 4.2 | 20.4 |
| 10 28 | 0 14.58 | + 5 20.5 | 1.807 | 2.716 | 10.4 | 21.1 | 10 28 | 0 25.42 | - 5 56.2 | 4.164 | 5.032 | 6.0 | 20.6 |
| 11 7 | 0 9.18 | + 4 50.7 | 1.890 | 2.718 | 13.8 | 21.3 | 11 7 | 0 22.25 | - 6 11.9 | 4.257 | 5.030 | 7.7 | 20.7 |
| 385840 | 2006 <i>HF</i> ₁₀₅ | 10 | 2.9 184 ^o 44 | 9 ^o 7/18.2 15 | | | 443250 | 2014 <i>DG</i> ₁₄₂ | 10 | 2.9 126 ^o 47 | 3 ^o 7/ 7.3 18 | | |
| 8 29 | 1 0.68 | - 25 18.5 | 2.295 | 3.144 | 11.7 | 21.7 | 8 29 | 1 1.25 | + 18 24.5 | 2.322 | 3.105 | 13.6 | 21.6 |
| 9 8 | 0 55.60 | - 27 37.9 | 2.258 | 3.145 | 10.3 | 21.6 | 9 8 | 0 55.86 | + 18 18.5 | 2.250 | 3.121 | 11.0 | 21.4 |
| 9 18 | 0 48.69 | - 29 45.4 | 2.247 | 3.144 | 9.7 | 21.6 | 9 18 | 0 48.77 | + 17 55.0 | 2.199 | 3.136 | 8.0 | 21.3 |
| 9 28 | 0 40.56 | - 31 31.8 | 2.262 | 3.143 | 10.3 | 21.6 | 9 28 | 0 40.60 | + 17 15.0 | 2.175 | 3.150 | 5.1 | 21.1 |
| 10 8 | 0 32.05 | - 32 50.3 | 2.303 | 3.142 | 11.6 | 21.7 | 10 8 | 0 32.13 | + 16 21.7 | 2.179 | 3.164 | 3.7 | 21.0 |
| 10 18 | 0 24.05 | - 33 37.5 | 2.366 | 3.140 | 13.2 | 21.8 | 10 18 | 0 24.17 | + 15 20.0 | 2.213 | 3.177 | 5.4 | 21.2 |
| 10 28 | 0 17.37 | - 33 53.4 | 2.449 | 3.137 | 14.9 | 22.0 | 10 28 | 0 17.49 | + 14 16.1 | 2.274 | 3.190 | 8.2 | 21.4 |
| 11 7 | 0 12.60 | - 33 41.3 | 2.548 | 3.134 | 16.3 | 22.1 | 11 7 | 0 12.62 | + 13 16.2 | 2.362 | 3.202 | 11.0 | 21.6 |
| 346448 | 2008 <i>TL</i> ₂₁ | 10 | 2.9 63 ^o 99 | 0 ^o 8/ 2.3 18 | | | 175485 | 2006 <i>RE</i> ₃₁ | 10 | 2.9 354 ^o 64 | 1 ^o 5/ 4.2 18 | | |
| 8 29 | 1 1.70 | + 3 41.5 | 1.614 | 2.476 | 15.2 | 20.9 | 8 29 | 0 55.70 | + 9 49.2 | 1.435 | 2.296 | 16.7 | 19.4 |
| 9 8 | 0 56.74 | + 3 17.8 | 1.552 | 2.482 | 11.3 | 20.7 | 9 8 | 0 52.65 | + 9 32.1 | 1.365 | 2.291 | 12.9 | 19.1 |
| 9 18 | 0 49.53 | + 2 43.0 | 1.511 | 2.488 | 6.9 | 20.5 | 9 18 | 0 47.23 | + 8 56.0 | 1.314 | 2.287 | 8.4 | 18.9 |
| 9 28 | 0 40.86 | + 2 1.8 | 1.496 | 2.495 | 2.2 | 20.2 | 9 28 | 0 40.17 | + 8 4.3 | 1.287 | 2.283 | 3.6 | 18.6 |
| 10 8 | 0 31.78 | + 1 20.3 | 1.507 | 2.501 | 2.9 | 20.3 | 10 8 | 0 32.54 | + 7 3.5 | 1.285 | 2.281 | 2.5 | 18.5 |
| 10 18 | 0 23.39 | + 0 44.9 | 1.546 | 2.508 | 7.5 | 20.6 | 10 18 | 0 25.51 | + 6 1.8 | 1.308 | 2.280 | 7.3 | 18.8 |
| 10 28 | 0 16.70 | + 0 20.9 | 1.609 | 2.515 | 11.7 | 20.8 | 10 28 | 0 20.18 | + 5 7.6 | 1.356 | 2.280 | 11.9 | 19.1 |
| 11 7 | 0 12.35 | + 0 11.6 | 1.695 | 2.522 | 15.2 | 21.1 | 11 7 | 0 17.30 | + 4 27.6 | 1.425 | 2.281 | 15.9 | 19.3 |
| 100792 | 1998 <i>FZ</i> ₇₅ | 10 | 2.9 86 ^o 61 | 1 ^o 5/ 4.3 17 | | | 141586 | 2002 <i>HQ</i> | 10 | 2.9 61 ^o 70 | 5 ^o 5/29.0 18 | | |
| 8 29 | 1 0.98 | + 11 38.2 | 1.430 | 2.276 | 17.6 | 19.8 | 8 29 | 1 3.58 | - 5 8.4 | 1.223 | 2.111 | 17.2 | 19.1 |
| 9 8 | 0 56.41 | + 10 56.5 | 1.372 | 2.289 | 13.5 | 19.6 | 9 8 | 0 58.46 | - 6 15.8 | 1.185 | 2.129 | 12.7 | 18.9 |
| 9 18 | 0 49.40 | + 9 53.2 | 1.334 | 2.303 | 8.7 | 19.3 | 9 18 | 0 50.66 | - 7 26.3 | 1.168 | 2.147 | 8.2 | 18.7 |
| 9 28 | 0 40.82 | + 8 33.0 | 1.320 | 2.316 | 3.7 | 19.1 | 9 28 | 0 41.24 | - 8 29.8 | 1.174 | 2.165 | 5.5 | 18.6 |
| 10 8 | 0 31.84 | + 7 4.1 | 1.333 | 2.329 | 2.5 | 19.0 | 10 8 | 0 31.58 | - 9 16.7 | 1.206 | 2.183 | 7.3 | 18.7 |
| 10 18 | 0 23.71 | + 5 36.5 | 1.372 | 2.342 | 7.3 | 19.4 | 10 18 | 0 23.04 | - 9 40.6 | 1.261 | 2.201 | 11.4 | 19.0 |
| 10 28 | 0 17.47 | + 4 19.9 | 1.436 | 2.355 | 11.8 | 19.7 | 10 28 | 0 16.72 | - 9 39.2 | 1.339 | 2.220 | 15.3 | 19.3 |
| 11 7 | 0 13.79 | + 3 20.8 | 1.523 | 2.367 | 15.7 | 19.9 | 11 7 | 0 13.20 | - 9 13.7 | 1.436 | 2.238 | 18.6 | 19 |

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|-----------|---------|------|---------------|-------------------------------|-----------------|------------|----------|---------|------|
| 296235 | 2009 <i>CK</i> ₅₁ | 10 | 2.9 309°26 | 10°2/11.0 | 18 | | 408246 | 2013 <i>EL</i> ₁₂₁ | 10 | 2.9 138°94 | 0°2/ 3.3 | 18 | |
| 8 29 | 1 7.87 | +28 57.4 | 1.865 | 2.591 | 18.4 | 20.8 | 8 29 | 0 58.77 | + 7 3.4 | 2.509 | 3.343 | 11.3 | 22.2 |
| 9 8 | 1 1.92 | +30 32.6 | 1.779 | 2.587 | 16.1 | 20.6 | 9 8 | 0 53.87 | + 6 35.8 | 2.437 | 3.352 | 8.5 | 22.0 |
| 9 18 | 0 53.17 | +31 45.6 | 1.712 | 2.582 | 13.7 | 20.4 | 9 18 | 0 47.50 | + 5 58.4 | 2.390 | 3.360 | 5.3 | 21.9 |
| 9 28 | 0 42.27 | +32 30.5 | 1.667 | 2.578 | 11.6 | 20.3 | 9 28 | 0 40.21 | + 5 14.2 | 2.371 | 3.369 | 1.9 | 21.6 |
| 10 8 | 0 30.34 | +32 44.2 | 1.645 | 2.573 | 10.3 | 20.2 | 10 8 | 0 32.64 | + 4 27.2 | 2.381 | 3.377 | 1.7 | 21.6 |
| 10 18 | 0 18.76 | +32 27.8 | 1.649 | 2.569 | 10.6 | 20.2 | 10 18 | 0 25.50 | + 3 41.9 | 2.421 | 3.384 | 5.1 | 21.9 |
| 10 28 | 0 8.92 | +31 47.5 | 1.677 | 2.565 | 12.3 | 20.3 | 10 28 | 0 19.44 | + 3 2.6 | 2.489 | 3.391 | 8.2 | 22.1 |
| 11 7 | 0 1.82 | +30 53.0 | 1.727 | 2.561 | 14.6 | 20.4 | 11 7 | 0 14.94 | + 2 32.7 | 2.582 | 3.398 | 10.9 | 22.3 |
| 227840 | 2007 <i>DC</i> ₁ | 10 | 2.9 236°64 | 0°2/ 3.2 | 18 | | 94065 | 2000 <i>YJ</i> ₂₆ | 10 | 2.9 10°87 | 2°9/30.7 | 18 | |
| 8 29 | 1 1.84 | + 6 59.5 | 1.815 | 2.661 | 14.4 | 21.5 | 8 29 | 0 56.37 | + 0 59.1 | 1.197 | 2.089 | 17.2 | 18.4 |
| 9 8 | 0 56.86 | + 6 34.1 | 1.731 | 2.651 | 11.0 | 21.3 | 9 8 | 0 53.36 | + 0 6.0 | 1.145 | 2.092 | 12.7 | 18.1 |
| 9 18 | 0 49.70 | + 5 54.9 | 1.669 | 2.641 | 6.9 | 21.0 | 9 18 | 0 47.73 | - 0 59.4 | 1.112 | 2.095 | 7.7 | 17.9 |
| 9 28 | 0 41.01 | + 5 5.3 | 1.632 | 2.631 | 2.4 | 20.7 | 9 28 | 0 40.36 | - 2 8.5 | 1.102 | 2.100 | 3.3 | 17.6 |
| 10 8 | 0 31.72 | + 4 10.7 | 1.624 | 2.620 | 2.3 | 20.7 | 10 8 | 0 32.51 | - 3 11.3 | 1.116 | 2.106 | 5.0 | 17.8 |
| 10 18 | 0 22.89 | + 3 17.8 | 1.643 | 2.608 | 6.9 | 21.0 | 10 18 | 0 25.49 | - 3 58.9 | 1.154 | 2.114 | 9.9 | 18.1 |
| 10 28 | 0 15.55 | + 2 33.1 | 1.689 | 2.597 | 11.1 | 21.2 | 10 28 | 0 20.47 | - 4 24.8 | 1.215 | 2.122 | 14.5 | 18.4 |
| 11 7 | 0 10.41 | + 2 1.6 | 1.758 | 2.585 | 14.7 | 21.4 | 11 7 | 0 18.12 | - 4 27.1 | 1.294 | 2.131 | 18.4 | 18.7 |
| 41164 | 1999 <i>VO</i> ₁₆₉ | 10 | 2.9 349°94 | 0°4/ 3.3 | 18 | | 328944 | 2010 <i>VO</i> ₆₂ | 10 | 2.9 276°86 | 0°7/ 2.2 | 18 | |
| 8 29 | 0 57.54 | + 6 45.3 | 1.853 | 2.705 | 13.9 | 19.6 | 8 29 | 0 58.90 | + 3 14.3 | 2.243 | 3.093 | 11.9 | 21.5 |
| 9 8 | 0 53.52 | + 6 29.1 | 1.777 | 2.701 | 10.5 | 19.4 | 9 8 | 0 54.27 | + 2 52.0 | 2.156 | 3.081 | 8.9 | 21.3 |
| 9 18 | 0 47.55 | + 6 0.5 | 1.724 | 2.698 | 6.6 | 19.1 | 9 18 | 0 47.93 | + 2 21.3 | 2.093 | 3.068 | 5.5 | 21.1 |
| 9 28 | 0 40.25 | + 5 22.7 | 1.697 | 2.695 | 2.4 | 18.9 | 9 28 | 0 40.39 | + 1 45.6 | 2.057 | 3.056 | 1.8 | 20.8 |
| 10 8 | 0 32.51 | + 4 40.7 | 1.696 | 2.692 | 2.1 | 18.8 | 10 8 | 0 32.41 | + 1 9.3 | 2.049 | 3.043 | 2.4 | 20.8 |
| 10 18 | 0 25.25 | + 4 0.2 | 1.723 | 2.690 | 6.4 | 19.1 | 10 18 | 0 24.79 | + 0 37.0 | 2.071 | 3.030 | 6.1 | 21.1 |
| 10 28 | 0 19.36 | + 3 26.8 | 1.776 | 2.689 | 10.3 | 19.4 | 10 28 | 0 18.30 | + 0 13.0 | 2.119 | 3.018 | 9.6 | 21.3 |
| 11 7 | 0 15.49 | + 3 4.9 | 1.852 | 2.688 | 13.7 | 19.6 | 11 7 | 0 13.55 | + 0 0.5 | 2.191 | 3.005 | 12.7 | 21.4 |
| 74597 | 1999 <i>RG</i> | 10 | 2.9 348°89 | 5°6/29.1 | 18 | | 118605 | 2000 <i>GR</i> ₁₁₆ | 10 | 2.9 83°30 | 0°5/ 3.4 | 18 | |
| 8 29 | 0 53.91 | - 3 6.7 | 0.942 | 1.856 | 18.7 | 17.6 | 8 29 | 1 1.60 | + 8 42.0 | 1.541 | 2.391 | 16.3 | 20.2 |
| 9 8 | 0 52.20 | - 4 11.4 | 0.886 | 1.844 | 14.0 | 17.3 | 9 8 | 0 56.67 | + 8 0.2 | 1.487 | 2.409 | 12.3 | 20.0 |
| 9 18 | 0 47.37 | - 5 26.6 | 0.849 | 1.835 | 9.0 | 17.0 | 9 18 | 0 49.48 | + 7 1.5 | 1.454 | 2.427 | 7.7 | 19.8 |
| 9 28 | 0 40.30 | - 6 40.6 | 0.832 | 1.826 | 5.6 | 16.8 | 9 28 | 0 40.89 | + 5 50.9 | 1.447 | 2.445 | 2.8 | 19.5 |
| 10 8 | 0 32.47 | - 7 40.1 | 0.836 | 1.820 | 8.0 | 16.9 | 10 8 | 0 32.00 | + 4 36.3 | 1.466 | 2.463 | 2.4 | 19.6 |
| 10 18 | 0 25.49 | - 8 14.2 | 0.861 | 1.816 | 13.1 | 17.1 | 10 18 | 0 23.92 | + 3 25.9 | 1.513 | 2.480 | 7.1 | 19.9 |
| 10 28 | 0 20.84 | - 8 17.0 | 0.905 | 1.813 | 18.1 | 17.4 | 10 28 | 0 17.64 | + 2 27.2 | 1.586 | 2.497 | 11.4 | 20.2 |
| 11 7 | 0 19.37 | - 7 48.3 | 0.965 | 1.812 | 22.4 | 17.7 | 11 7 | 0 13.75 | + 1 45.2 | 1.680 | 2.515 | 15.0 | 20.5 |
| 512118 | 2015 <i>OV</i> ₈₄ | 10 | 2.9 41°26 | 4°5/29.6 | 18 | | 78920 | 2003 <i>SM</i> ₁₀₈ | 10 | 2.9 346°76 | 2°5/ 4.9 | 18 | |
| 8 29 | 1 4.98 | - 8 4.5 | 1.751 | 2.620 | 13.8 | 19.4 | 8 29 | 0 55.61 | +12 56.8 | 1.139 | 2.004 | 19.9 | 19.1 |
| 9 8 | 0 58.93 | - 8 21.3 | 1.697 | 2.630 | 10.4 | 19.2 | 9 8 | 0 53.16 | +12 28.2 | 1.071 | 1.998 | 15.5 | 18.8 |
| 9 18 | 0 50.77 | - 8 36.9 | 1.666 | 2.639 | 6.8 | 19.0 | 9 18 | 0 47.84 | +11 31.4 | 1.021 | 1.992 | 10.4 | 18.5 |
| 9 28 | 0 41.29 | - 8 45.7 | 1.661 | 2.649 | 4.6 | 18.9 | 9 28 | 0 40.47 | +10 9.7 | 0.993 | 1.987 | 4.9 | 18.2 |
| 10 8 | 0 31.54 | - 8 42.9 | 1.684 | 2.660 | 5.8 | 19.0 | 10 8 | 0 32.35 | + 8 32.0 | 0.987 | 1.984 | 3.1 | 18.1 |
| 10 18 | 0 22.57 | - 8 25.6 | 1.734 | 2.670 | 9.1 | 19.2 | 10 18 | 0 24.97 | + 6 50.9 | 1.006 | 1.981 | 8.3 | 18.4 |
| 10 28 | 0 15.30 | - 7 52.5 | 1.808 | 2.681 | 12.4 | 19.5 | 10 28 | 0 19.68 | + 5 19.8 | 1.047 | 1.979 | 13.7 | 18.7 |
| 11 7 | 0 10.32 | - 7 4.6 | 1.905 | 2.692 | 15.3 | 19.7 | 11 7 | 0 17.35 | + 4 8.8 | 1.108 | 1.978 | 18.5 | 19.0 |
| 324570 | 2006 <i>WW</i> ₁₅₅ | 10 | 2.9 81°00 | 1°2/ 2.0 | 17 | | 179828 | 2002 <i>TP</i> ₁₃₃ | 10 | 2.9 69°83 | 5°9/ 7.8 | 18 | |
| 8 29 | 1 4.21 | + 3 38.2 | 1.439 | 2.303 | 16.5 | 20.9 | 8 29 | 1 3.44 | +19 26.4 | 1.413 | 2.224 | 19.5 | 20.0 |
| 9 8 | 0 58.66 | + 3 1.9 | 1.391 | 2.323 | 12.3 | 20.7 | 9 8 | 0 58.47 | +19 45.9 | 1.354 | 2.239 | 15.9 | 19.8 |
| 9 18 | 0 50.71 | + 2 13.5 | 1.365 | 2.343 | 7.4 | 20.5 | 9 18 | 0 50.82 | +19 38.9 | 1.313 | 2.254 | 11.8 | 19.6 |
| 9 28 | 0 41.28 | + 1 19.3 | 1.363 | 2.362 | 2.4 | 20.2 | 9 28 | 0 41.39 | +19 5.0 | 1.295 | 2.269 | 7.8 | 19.4 |
| 10 8 | 0 31.57 | + 0 26.7 | 1.388 | 2.382 | 3.3 | 20.3 | 10 8 | 0 31.47 | +18 8.4 | 1.301 | 2.284 | 5.9 | 19.3 |
| 10 18 | 0 22.82 | - 0 17.1 | 1.440 | 2.401 | 8.1 | 20.7 | 10 18 | 0 22.43 | +16 56.7 | 1.332 | 2.299 | 7.9 | 19.5 |
| 10 28 | 0 16.03 | - 0 46.4 | 1.516 | 2.420 | 12.4 | 21.0 | 10 28 | 0 15.45 | +15 40.7 | 1.388 | 2.314 | 11.6 | 19.7 |
| 11 7 | 0 11.81 | - 0 58.3 | 1.614 | 2.438 | 15.9 | 21.2 | 11 7 | 0 11.27 | +14 30.5 | 1.467 | 2.329 | 15.2 | 20.0 |
| 511291 | 2014 <i>DW</i> ₆₁ | 10 | 2.9 232°05 | 2°9/29.8 | 18 | | 321622 | 2009 <i>WU</i> ₇₂ | 10 | 2.9 34°53 | 1°0/ 1.9 | 17 | |
| 8 29 | 0 58.70 | - 0 22.2 | 1.989 | 2.854 | 12.6 | 21.8 | 8 29 | 0 56.67 | + 3 33.7 | 2.012 | 2.871 | 12.7 | 21.0 |
| 9 8 | 0 54.28 | - 1 35.3 | 1.911 | 2.845 | 9.3 | 21.6 | 9 8 | 0 52.61 | + 2 55.1 | 1.950 | 2.879 | 9.4 | 20.8 |
| 9 18 | 0 47.98 | - 2 57.5 | 1.857 | 2.836 | 5.7 | 21.4 | 9 18 | 0 46.85 | + 2 7.0 | 1.910 | 2.888 | 5.7 | 20.6 |
| 9 28 | 0 40.41 | - 4 22.2 | 1.831 | 2.826 | 3.0 | 21.2 | 9 28 | 0 40.01 | + 1 14.1 | 1.898 | 2.897 | 1.9 | 20.3 |
| 10 8 | 0 32.38 | - 5 41.8 | 1.833 | 2.816 | 4.5 | 21.3 | 10 8 | 0 32.87 | + 0 21.8 | 1.913 | 2.906 | 2.7 | 20.4 |
| 10 18 | 0 24.79 | - 6 49.3 | 1.864 | 2.806 | 8.1 | 21.5 | 10 18 | 0 26.25 | - 0 24.1 | 1.956 | 2.915 | 6.4 | 20.7 |
| 10 28 | 0 18.49 | - 7 39.2 | 1.920 | 2.795 | 11.6 | 21.7 | 10 28 | 0 20.91 | - 0 59.1 | 2.025 | 2.925 | 9.9 | 20.9 |
| 11 7 | 0 14.11 | - 8 8.8 | 1.998 | 2.784 | 14.7 | 21.8 | 11 7 | 0 17.36 | - 1 20.1 | 2.118 | 2.935 | 12.9 | 21.1 |
| 482092 | 2010 <i>JF</i> ₁₁₈ | 10 | 2.9 180°66 | 4°4/28.9 | 18 | | 91594 | 1999 <i>TN</i> ₈ | 10 | 2.9 328°35 | 0°7/ 2.2 | 18 | |
| 8 29 | 1 2.95 | - 7 26.9 | 2.014 | 2.879 | 12.4 | 21.7 | 8 29 | 0 55.95 | + 4 53.9 | 1.866 | 2.726 | 13.5 | 19.1 |
| 9 8 | 0 57.30 | - 8 9.6 | 1.949 | 2.880 | 9.3 | 21.5 | 9 8 | 0 52.36 | + 4 13.3 | 1.786 | 2.716 | 10.1 | 18.9 |
| 9 18 | 0 49.76 | - 8 53.1 | 1.908 | 2.880 | 6.2 | 21.3 | 9 18 | 0 46.87 | + 3 20.2 | 1.729 | 2.706 | 6.2 | 18.6 |
| 9 28 | 0 40.98 | - 9 31.2 | 1.895 | 2.881 | 4.4 | 21.2 | 9 28 | 0 40.06 | + 2 19.3 | 1.698 | 2.697 | 2.0 | 18.3 |
| 10 8 | 0 31.85 | - 9 58.3 | 1.909 | 2.880 | 5.8 | 21.3 | 10 8 | 0 32.78 | + 1 16.7 | 1.694 | 2.688 | 2.7 | 18.4 |
| 10 18 | 0 23.29 | -10 10.3 | 1.952 | 2.880 | 8.8 | 21.4 | 10 18 | 0 25.93 | + 0 19.2 | 1.718 | 2.680 | 6.9 | 18.6 |
| 10 28 | 0 16.16 | -10 4.8 | 2.019 | 2.879 | 11.9 | 21.6 | 10 28 | 0 20.40 | - 0 27.1 | 1.767 | 2.672 | 10.8 | 18.8 |
| 11 7 | 0 11.04 | - 9 41.9 | 2.109 | 2.878 | 14.6 | 21.8 | 11 7 | 0 16.82 | - 0 57.9 | 1.839 | 2.664 | 14.2 | 19.1 |
| 241581 | 1996 <i>RF</i> ₁₄ | 10 | 2.9 177°40 | 0°4/ 3.7 | 18 | | 219893 | 2002 <i>EQ</i> ₉₆ | 10 | 2.9 62°64 | 1°3/ 1.4 | 18 | |
| 8 29 | 0 51 | | | | | | | | | | | | |

EPHEMERIDES

10 2.9

10 2.9

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|---------------|---------|------|---------------|-------------------------------|-----------------|------------|-------------|---------|------|
| 99064 | 2001 <i>FT</i> ₂ | 10 | 2.9 220°33 | 0°3/ 3.3 18 | | | 100581 | 1997 <i>HA</i> ₁₇ | 10 | 2.9 126°24 | 0°6/ 2.4 18 | | |
| 8 29 | 0 59.47 | + 7 56.0 | 2.099 | 2.938 | 13.0 | 20.4 | 8 29 | 0 59.72 | + 5 25.8 | 2.022 | 2.870 | 13.1 | 21.2 |
| 9 8 | 0 54.79 | + 7 19.5 | 2.015 | 2.931 | 9.9 | 20.2 | 9 8 | 0 54.88 | + 4 39.8 | 1.957 | 2.880 | 9.7 | 21.0 |
| 9 18 | 0 48.29 | + 6 29.7 | 1.953 | 2.924 | 6.2 | 20.0 | 9 18 | 0 48.26 | + 3 42.4 | 1.915 | 2.890 | 5.9 | 20.8 |
| 9 28 | 0 40.53 | + 5 29.8 | 1.919 | 2.917 | 2.2 | 19.7 | 9 28 | 0 40.51 | + 2 38.3 | 1.900 | 2.899 | 1.9 | 20.5 |
| 10 8 | 0 32.32 | + 4 25.2 | 1.913 | 2.909 | 2.0 | 19.7 | 10 8 | 0 32.45 | + 1 33.5 | 1.914 | 2.908 | 2.4 | 20.6 |
| 10 18 | 0 24.53 | + 3 22.2 | 1.936 | 2.901 | 6.0 | 19.9 | 10 18 | 0 24.94 | + 0 34.1 | 1.956 | 2.917 | 6.4 | 20.9 |
| 10 28 | 0 17.98 | + 2 26.8 | 1.987 | 2.892 | 9.8 | 20.1 | 10 28 | 0 18.78 | - 0 14.4 | 2.026 | 2.925 | 10.0 | 21.1 |
| 11 7 | 0 13.30 | + 1 43.8 | 2.061 | 2.883 | 13.0 | 20.3 | 11 7 | 0 14.50 | - 0 48.3 | 2.119 | 2.933 | 13.0 | 21.3 |
| 213532 | 2002 <i>JF</i> ₁₉ | 10 | 2.9 79°31 | 1°4/ 1.8 17 | | | 13379 | 1998 <i>WX</i> ₉ | 10 | 2.9 307°79 | 1°2/30.7 18 | | |
| 8 29 | 1 1.57 | + 4 59.9 | 1.355 | 2.224 | 17.1 | 20.4 | 8 29 | 0 51.48 | - 0 53.9 | 4.125 | 4.977 | 6.9 | 18.6 |
| 9 8 | 0 56.87 | + 3 57.1 | 1.306 | 2.240 | 12.7 | 20.2 | 9 8 | 0 48.03 | - 1 22.5 | 4.046 | 4.973 | 5.0 | 18.4 |
| 9 18 | 0 49.70 | + 2 38.8 | 1.277 | 2.257 | 7.6 | 19.9 | 9 18 | 0 43.76 | - 1 54.0 | 3.992 | 4.969 | 3.1 | 18.3 |
| 9 28 | 0 40.98 | + 1 12.8 | 1.274 | 2.273 | 2.5 | 19.7 | 9 28 | 0 38.96 | - 2 26.0 | 3.968 | 4.964 | 1.4 | 18.2 |
| 10 8 | 0 31.95 | - 0 11.1 | 1.296 | 2.289 | 3.6 | 19.8 | 10 8 | 0 33.99 | - 2 56.2 | 3.974 | 4.960 | 2.0 | 18.2 |
| 10 18 | 0 23.83 | - 1 23.2 | 1.344 | 2.305 | 8.6 | 20.1 | 10 18 | 0 29.21 | - 3 22.2 | 4.010 | 4.956 | 4.0 | 18.4 |
| 10 28 | 0 17.69 | - 2 16.5 | 1.417 | 2.321 | 13.0 | 20.4 | 10 28 | 0 24.99 | - 3 41.9 | 4.074 | 4.952 | 5.9 | 18.5 |
| 11 7 | 0 14.14 | - 2 47.5 | 1.511 | 2.337 | 16.7 | 20.7 | 11 7 | 0 21.64 | - 3 53.9 | 4.164 | 4.948 | 7.7 | 18.6 |
| 229468 | 2005 <i>UE</i> ₂₅₃ | 10 | 2.9 302°14 | 0°1/ 3.1 18 R | | | 74865 | 1999 <i>TG</i> ₉₁ | 10 | 2.9 89°14 | 2°0/ 1.3 18 | | |
| 8 29 | 1 0.07 | + 6 25.8 | 1.469 | 2.331 | 16.3 | 20.9 | 8 29 | 1 2.51 | + 2 48.6 | 1.427 | 2.296 | 16.3 | 19.4 |
| 9 8 | 0 56.08 | + 6 6.7 | 1.385 | 2.314 | 12.5 | 20.6 | 9 8 | 0 57.48 | + 1 50.8 | 1.377 | 2.312 | 12.1 | 19.1 |
| 9 18 | 0 49.51 | + 5 31.9 | 1.321 | 2.297 | 7.9 | 20.3 | 9 18 | 0 50.06 | + 0 40.8 | 1.348 | 2.327 | 7.3 | 18.9 |
| 9 28 | 0 41.05 | + 4 44.9 | 1.281 | 2.280 | 2.7 | 19.9 | 9 28 | 0 41.12 | - 0 34.1 | 1.343 | 2.342 | 2.7 | 18.7 |
| 10 8 | 0 31.78 | + 3 52.1 | 1.267 | 2.263 | 2.7 | 19.9 | 10 8 | 0 31.87 | - 1 44.7 | 1.366 | 2.357 | 4.0 | 18.8 |
| 10 18 | 0 22.98 | + 3 1.3 | 1.279 | 2.247 | 8.0 | 20.2 | 10 18 | 0 23.50 | - 2 43.0 | 1.415 | 2.372 | 8.7 | 19.1 |
| 10 28 | 0 15.91 | + 2 20.4 | 1.315 | 2.231 | 12.9 | 20.4 | 10 28 | 0 17.04 | - 3 22.8 | 1.488 | 2.386 | 12.9 | 19.4 |
| 11 7 | 0 11.44 | + 1 55.4 | 1.372 | 2.215 | 17.2 | 20.6 | 11 7 | 0 13.12 | - 3 41.6 | 1.582 | 2.401 | 16.5 | 19.7 |
| 316359 | 2010 <i>RV</i> ₁₇₇ | 10 | 2.9 278°46 | 2°0/30.9 18 | | | 325455 | Della Valle | 10 | 2.9 347°50 | 4°5/28.8 18 | | |
| 8 29 | 0 58.25 | + 0 30.5 | 2.079 | 2.941 | 12.2 | 21.5 | 8 29 | 0 59.56 | - 7 43.9 | 1.923 | 2.797 | 12.5 | 20.6 |
| 9 8 | 0 53.82 | - 0 11.7 | 2.007 | 2.939 | 9.0 | 21.3 | 9 8 | 0 54.92 | - 8 21.1 | 1.857 | 2.793 | 9.4 | 20.4 |
| 9 18 | 0 47.64 | - 1 1.3 | 1.958 | 2.936 | 5.5 | 21.0 | 9 18 | 0 48.36 | - 8 58.6 | 1.815 | 2.789 | 6.3 | 20.2 |
| 9 28 | 0 40.31 | - 1 53.4 | 1.936 | 2.934 | 2.3 | 20.8 | 9 28 | 0 40.56 | - 9 30.5 | 1.799 | 2.786 | 4.6 | 20.1 |
| 10 8 | 0 32.60 | - 2 42.4 | 1.943 | 2.931 | 3.5 | 20.9 | 10 8 | 0 32.38 | - 9 51.3 | 1.811 | 2.783 | 5.9 | 20.2 |
| 10 18 | 0 25.34 | - 3 22.9 | 1.977 | 2.929 | 7.0 | 21.1 | 10 18 | 0 24.75 | - 9 56.7 | 1.848 | 2.780 | 8.9 | 20.4 |
| 10 28 | 0 19.34 | - 3 50.5 | 2.038 | 2.927 | 10.4 | 21.3 | 10 28 | 0 18.50 | - 9 44.5 | 1.911 | 2.778 | 12.1 | 20.6 |
| 11 7 | 0 15.15 | - 4 3.0 | 2.122 | 2.924 | 13.4 | 21.5 | 11 7 | 0 14.24 | - 9 14.8 | 1.995 | 2.776 | 14.9 | 20.7 |
| 485875 | 2012 <i>FV</i> ₂₈ | 10 | 2.9 297°32 | 0°1/ 2.8 18 | | | 330559 | 2008 <i>BQ</i> ₃₉ | 10 | 2.9 233°89 | 3°8/29.8 17 | | |
| 8 29 | 1 0.68 | + 4 12.4 | 2.187 | 3.032 | 12.3 | 21.2 | 8 29 | 1 3.26 | - 2 44.8 | 1.594 | 2.466 | 14.8 | 21.8 |
| 9 8 | 0 55.61 | + 4 7.9 | 2.105 | 3.027 | 9.3 | 21.0 | 9 8 | 0 58.13 | - 3 39.0 | 1.521 | 2.458 | 11.0 | 21.6 |
| 9 18 | 0 48.75 | + 3 55.3 | 2.048 | 3.021 | 5.7 | 20.8 | 9 18 | 0 50.59 | - 4 40.3 | 1.472 | 2.450 | 7.0 | 21.3 |
| 9 28 | 0 40.69 | + 3 37.1 | 2.018 | 3.016 | 1.9 | 20.6 | 9 28 | 0 41.37 | - 5 41.5 | 1.447 | 2.441 | 3.9 | 21.1 |
| 10 8 | 0 32.20 | + 3 17.1 | 2.016 | 3.011 | 2.1 | 20.6 | 10 8 | 0 31.56 | - 6 34.3 | 1.450 | 2.432 | 5.6 | 21.2 |
| 10 18 | 0 24.13 | + 2 59.1 | 2.043 | 3.006 | 5.9 | 20.8 | 10 18 | 0 22.35 | - 7 11.6 | 1.479 | 2.423 | 9.7 | 21.4 |
| 10 28 | 0 17.28 | + 2 47.2 | 2.097 | 3.001 | 9.4 | 21.0 | 10 28 | 0 14.86 | - 7 28.7 | 1.532 | 2.413 | 13.7 | 21.6 |
| 11 7 | 0 12.25 | + 2 44.4 | 2.175 | 2.996 | 12.5 | 21.2 | 11 7 | 0 9.83 | - 7 24.1 | 1.606 | 2.403 | 17.2 | 21.8 |
| 487233 | 2014 <i>PS</i> ₈ | 10 | 2.9 24°82 | 8°0/22.5 18 | | | 290564 | 2005 <i>UX</i> ₁₁₁ | 10 | 2.9 78°31 | 0°9/ 3.6 17 | | |
| 8 29 | 0 56.23 | -17 13.0 | 2.069 | 2.944 | 11.7 | 20.0 | 8 29 | 1 4.08 | + 8 20.4 | 1.202 | 2.065 | 19.2 | 20.5 |
| 9 8 | 0 52.34 | -19 4.7 | 2.024 | 2.946 | 9.5 | 19.9 | 9 8 | 0 59.23 | + 8 2.8 | 1.145 | 2.073 | 14.6 | 20.3 |
| 9 18 | 0 46.73 | -20 50.0 | 2.004 | 2.948 | 8.1 | 19.8 | 9 18 | 0 51.43 | + 7 25.6 | 1.106 | 2.081 | 9.3 | 20.0 |
| 9 28 | 0 39.99 | -22 20.3 | 2.011 | 2.950 | 8.2 | 19.8 | 9 28 | 0 41.65 | + 6 33.0 | 1.091 | 2.089 | 3.5 | 19.7 |
| 10 8 | 0 32.94 | -23 28.2 | 2.043 | 2.952 | 9.7 | 19.9 | 10 8 | 0 31.32 | + 5 33.1 | 1.100 | 2.097 | 2.8 | 19.7 |
| 10 18 | 0 26.42 | -24 9.5 | 2.100 | 2.954 | 11.8 | 20.1 | 10 18 | 0 21.95 | + 4 35.3 | 1.134 | 2.104 | 8.4 | 20.1 |
| 10 28 | 0 21.17 | -24 23.0 | 2.178 | 2.957 | 14.0 | 20.2 | 10 28 | 0 14.85 | + 3 48.6 | 1.192 | 2.112 | 13.6 | 20.4 |
| 11 7 | 0 17.75 | -24 10.5 | 2.275 | 2.959 | 15.9 | 20.4 | 11 7 | 0 10.79 | + 3 19.1 | 1.270 | 2.120 | 17.9 | 20.7 |
| 188331 | 2003 <i>OZ</i> ₃₂ | 10 | 2.9 63°37 | 5°5/26.6 18 | | | 147478 | 2004 <i>CZ</i> ₂₉ | 10 | 2.9 136°82 | 1°4/ 1.7 17 | | |
| 8 29 | 0 57.50 | - 9 9.0 | 2.008 | 2.885 | 11.9 | 19.9 | 8 29 | 1 2.78 | + 3 23.3 | 1.758 | 2.613 | 14.4 | 21.2 |
| 9 8 | 0 53.11 | -10 41.3 | 1.972 | 2.907 | 9.0 | 19.8 | 9 8 | 0 57.38 | + 2 34.9 | 1.696 | 2.624 | 10.7 | 21.0 |
| 9 18 | 0 47.08 | -12 12.1 | 1.962 | 2.930 | 6.4 | 19.7 | 9 18 | 0 49.90 | + 1 35.4 | 1.657 | 2.634 | 6.5 | 20.8 |
| 9 28 | 0 40.07 | -13 33.7 | 1.979 | 2.953 | 5.5 | 19.7 | 9 28 | 0 41.07 | + 0 30.5 | 1.644 | 2.643 | 2.2 | 20.5 |
| 10 8 | 0 32.91 | -14 39.2 | 2.023 | 2.976 | 7.0 | 19.8 | 10 8 | 0 31.90 | - 0 32.7 | 1.660 | 2.652 | 3.2 | 20.6 |
| 10 18 | 0 26.38 | -15 24.1 | 2.094 | 2.999 | 9.5 | 20.0 | 10 18 | 0 23.41 | - 1 27.5 | 1.704 | 2.661 | 7.5 | 20.9 |
| 10 28 | 0 21.18 | -15 46.5 | 2.189 | 3.022 | 12.1 | 20.2 | 10 28 | 0 16.53 | - 2 8.2 | 1.773 | 2.669 | 11.4 | 21.2 |
| 11 7 | 0 17.78 | -15 47.0 | 2.304 | 3.045 | 14.3 | 20.4 | 11 7 | 0 11.85 | - 2 31.8 | 1.866 | 2.676 | 14.7 | 21.4 |
| 458389 | 2010 <i>XA</i> ₉ | 10 | 2.9 309°29 | 5°6/26.5 17 | | | 115724 | 2003 <i>UW</i> ₁₇₉ | 10 | 2.9 295°27 | 3°4/29.1 18 | | |
| 8 29 | 0 57.37 | -10 38.4 | 2.107 | 2.982 | 11.5 | 21.7 | 8 29 | 0 57.01 | - 4 19.0 | 2.243 | 3.112 | 11.2 | 19.9 |
| 9 8 | 0 53.16 | -11 50.1 | 2.044 | 2.977 | 8.8 | 21.5 | 9 8 | 0 52.87 | - 5 9.9 | 2.163 | 3.098 | 8.3 | 19.7 |
| 9 18 | 0 47.23 | -13 1.0 | 2.006 | 2.972 | 6.5 | 21.4 | 9 18 | 0 47.07 | - 6 4.7 | 2.107 | 3.084 | 5.3 | 19.5 |
| 9 28 | 0 40.17 | -14 4.1 | 1.995 | 2.968 | 5.6 | 21.3 | 9 28 | 0 40.14 | - 6 58.3 | 2.079 | 3.069 | 3.4 | 19.4 |
| 10 8 | 0 32.77 | -14 52.9 | 2.010 | 2.963 | 7.1 | 21.4 | 10 8 | 0 32.80 | - 7 44.9 | 2.078 | 3.055 | 4.8 | 19.4 |
| 10 18 | 0 25.83 | -15 22.8 | 2.052 | 2.958 | 9.7 | 21.5 | 10 18 | 0 25.83 | - 8 19.6 | 2.106 | 3.041 | 7.8 | 19.6 |
| 10 28 | 0 20.14 | -15 31.3 | 2.118 | 2.954 | 12.3 | 21.7 | 10 28 | 0 19.96 | - 8 38.8 | 2.159 | 3.027 | 10.8 | 19.8 |
| 11 7 | 0 16.23 | -15 18.7 | 2.205 | 2.950 | 14.7 | 21.9 | 11 7 | 0 15.78 | - 8 40.9 | 2.234 | 3.014 | 13.5 | 19.9 |
| 225023 | 2007 <i>FF</i> ₁₅ | 10 | 2.9 92°85 | 0°9/ 4.3 18 | | | 452044 | 2014 <i>OX</i> ₂₀₉ | 10 | 2.9 331°87 | 1°1/ 1.8 17 | | |
| 8 29 | 0 55.60 | +1 | | | | | | | | | | | |

EPHEMERIDES

10 2.9

10 2.9

| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|----------|--------|-----------|------|---------------|-------------------------------|-----------------|----------|--------|-----------|------|
| 65740 | 1993 <i>TO</i> ₁₀ | 10 | 2.9 | 45°01 | 1.6°/ 4.8 | 18 | 270989 | 2002 <i>XT</i> ₁₇ | 10 | 2.9 | 304°97 | 0.3°/ 3.2 | 18 |
| 8 29 | 0 57.30 | +11 22.1 | 2.071 | 2.901 | 13.5 | 19.7 | 8 29 | 0 59.53 | + 7 3.2 | 1.394 | 2.259 | 16.9 | 20.8 |
| 9 8 | 0 53.13 | +11 0.8 | 1.999 | 2.908 | 10.4 | 19.5 | 9 8 | 0 55.82 | + 6 40.8 | 1.311 | 2.241 | 13.0 | 20.5 |
| 9 18 | 0 47.23 | +10 24.7 | 1.950 | 2.914 | 6.9 | 19.3 | 9 18 | 0 49.44 | + 6 0.7 | 1.248 | 2.224 | 8.2 | 20.2 |
| 9 28 | 0 40.19 | + 9 36.5 | 1.927 | 2.920 | 3.2 | 19.1 | 9 28 | 0 41.09 | + 5 6.8 | 1.208 | 2.207 | 2.9 | 19.8 |
| 10 8 | 0 32.81 | + 8 40.6 | 1.931 | 2.927 | 2.1 | 19.0 | 10 8 | 0 31.90 | + 4 6.0 | 1.194 | 2.190 | 2.7 | 19.8 |
| 10 18 | 0 25.91 | + 7 42.9 | 1.964 | 2.934 | 5.5 | 19.2 | 10 18 | 0 23.19 | + 3 6.9 | 1.205 | 2.174 | 8.2 | 20.1 |
| 10 28 | 0 20.28 | + 6 49.3 | 2.024 | 2.941 | 9.0 | 19.5 | 10 28 | 0 16.28 | + 2 18.5 | 1.240 | 2.158 | 13.3 | 20.3 |
| 11 7 | 0 16.47 | + 6 5.1 | 2.109 | 2.948 | 12.1 | 19.7 | 11 7 | 0 12.07 | + 1 47.1 | 1.295 | 2.142 | 17.8 | 20.5 |
| 375230 | 2008 <i>FJ</i> ₈₇ | 10 | 2.9 | 251°37 | 0.7°/ 2.4 | 16 | 17151 | 1999 <i>JB</i> ₁₁₄ | 10 | 2.9 | 8°99 | 1°1/ 1.9 | 18 |
| 8 29 | 1 3.88 | + 3 45.2 | 1.549 | 2.409 | 15.8 | 22.0 | 8 29 | 0 57.38 | + 3 52.2 | 1.739 | 2.603 | 14.1 | 18.0 |
| 9 8 | 0 58.71 | + 3 27.4 | 1.473 | 2.402 | 11.9 | 21.8 | 9 8 | 0 53.47 | + 3 12.6 | 1.672 | 2.604 | 10.5 | 17.8 |
| 9 18 | 0 51.02 | + 2 57.9 | 1.418 | 2.395 | 7.4 | 21.5 | 9 18 | 0 47.57 | + 2 21.4 | 1.627 | 2.605 | 6.4 | 17.5 |
| 9 28 | 0 41.55 | + 2 20.7 | 1.388 | 2.387 | 2.4 | 21.2 | 9 28 | 0 40.35 | + 1 23.9 | 1.608 | 2.607 | 2.1 | 17.3 |
| 10 8 | 0 31.42 | + 1 42.1 | 1.385 | 2.379 | 3.0 | 21.2 | 10 8 | 0 32.72 | + 0 26.5 | 1.616 | 2.609 | 3.0 | 17.3 |
| 10 18 | 0 21.88 | + 1 8.6 | 1.408 | 2.371 | 8.0 | 21.5 | 10 18 | 0 25.64 | - 0 24.0 | 1.651 | 2.612 | 7.2 | 17.6 |
| 10 28 | 0 14.11 | + 0 46.4 | 1.457 | 2.363 | 12.6 | 21.7 | 10 28 | 0 20.03 | - 1 1.8 | 1.711 | 2.615 | 11.2 | 17.8 |
| 11 7 | 0 8.91 | + 0 39.2 | 1.527 | 2.355 | 16.5 | 22.0 | 11 7 | 0 16.48 | - 1 23.4 | 1.793 | 2.618 | 14.6 | 18.1 |
| 520519 | 2014 <i>LO</i> ₃₂ | 10 | 2.9 | 65°32 | 0.2°/ 2.8 | 18 | 348367 | 2005 <i>EN</i> ₂₆₀ | 10 | 2.9 | 263°79 | 2°5/30.9 | 18 |
| 8 29 | 1 1.56 | + 4 11.7 | 2.043 | 2.890 | 13.0 | 21.2 | 8 29 | 1 3.32 | - 1 57.7 | 1.917 | 2.778 | 13.1 | 20.9 |
| 9 8 | 0 56.26 | + 4 5.7 | 1.977 | 2.899 | 9.7 | 21.0 | 9 8 | 0 57.85 | - 2 18.5 | 1.837 | 2.768 | 9.8 | 20.7 |
| 9 18 | 0 49.13 | + 3 51.0 | 1.934 | 2.907 | 6.0 | 20.8 | 9 18 | 0 50.29 | - 2 44.1 | 1.780 | 2.757 | 6.1 | 20.4 |
| 9 28 | 0 40.82 | + 3 30.8 | 1.917 | 2.916 | 2.0 | 20.6 | 9 28 | 0 41.29 | - 3 10.2 | 1.749 | 2.745 | 2.8 | 20.2 |
| 10 8 | 0 32.19 | + 3 8.9 | 1.930 | 2.925 | 2.1 | 20.6 | 10 8 | 0 31.75 | - 3 31.4 | 1.747 | 2.734 | 4.0 | 20.3 |
| 10 18 | 0 24.11 | + 2 49.7 | 1.970 | 2.934 | 6.1 | 20.9 | 10 18 | 0 22.69 | - 3 43.2 | 1.772 | 2.723 | 7.8 | 20.5 |
| 10 28 | 0 17.40 | + 2 37.2 | 2.038 | 2.943 | 9.6 | 21.1 | 10 28 | 0 15.06 | - 3 42.1 | 1.824 | 2.711 | 11.5 | 20.7 |
| 11 7 | 0 12.61 | + 2 34.2 | 2.130 | 2.952 | 12.7 | 21.3 | 11 7 | 0 9.54 | - 3 26.3 | 1.898 | 2.699 | 14.8 | 20.9 |
| 120078 | 2003 <i>EH</i> ₄ | 10 | 2.9 | 180°42 | 4°4/ 6.9 | 18 | 240220 | 2002 <i>SC</i> ₆₀ | 10 | 2.9 | 358°26 | 5°7/27.6 | 18 |
| 8 29 | 1 3.89 | +17 4.6 | 1.881 | 2.681 | 15.8 | 20.2 | 8 29 | 0 58.06 | - 7 20.1 | 1.604 | 2.489 | 14.0 | 19.7 |
| 9 8 | 0 58.40 | +17 21.8 | 1.800 | 2.681 | 12.7 | 20.0 | 9 8 | 0 54.12 | - 8 37.7 | 1.547 | 2.488 | 10.5 | 19.5 |
| 9 18 | 0 50.68 | +17 20.0 | 1.740 | 2.682 | 9.3 | 19.8 | 9 18 | 0 48.02 | - 9 57.8 | 1.512 | 2.487 | 7.2 | 19.3 |
| 9 28 | 0 41.41 | +16 59.1 | 1.705 | 2.682 | 5.9 | 19.6 | 9 28 | 0 40.51 | -11 11.3 | 1.503 | 2.486 | 5.7 | 19.2 |
| 10 8 | 0 31.56 | +16 21.5 | 1.696 | 2.682 | 4.4 | 19.5 | 10 8 | 0 32.58 | -12 9.5 | 1.519 | 2.486 | 7.5 | 19.3 |
| 10 18 | 0 22.24 | +15 32.3 | 1.716 | 2.681 | 6.6 | 19.6 | 10 18 | 0 25.29 | -12 46.0 | 1.561 | 2.486 | 10.8 | 19.5 |
| 10 28 | 0 14.46 | +14 38.7 | 1.762 | 2.680 | 10.0 | 19.8 | 10 28 | 0 19.60 | -12 57.7 | 1.626 | 2.487 | 14.2 | 19.7 |
| 11 7 | 0 8.96 | +13 48.1 | 1.833 | 2.679 | 13.4 | 20.0 | 11 7 | 0 16.14 | -12 44.7 | 1.710 | 2.488 | 17.1 | 20.0 |
| 486985 | 2014 <i>NC</i> ₄₂ | 10 | 2.9 | 65°98 | 2°9/ 6.5 | 18 | 75056 | 1999 <i>VJ</i> ₄ | 10 | 2.9 | 321°58 | 4°8/29.7 | 18 |
| 8 29 | 0 56.45 | +16 23.1 | 2.207 | 3.014 | 13.5 | 21.3 | 8 29 | 1 1.38 | - 4 3.0 | 1.239 | 2.129 | 16.9 | 18.7 |
| 9 8 | 0 52.46 | +15 56.8 | 2.129 | 3.017 | 10.8 | 21.1 | 9 8 | 0 57.34 | - 4 47.3 | 1.171 | 2.117 | 12.7 | 18.4 |
| 9 18 | 0 46.81 | +15 12.5 | 2.072 | 3.021 | 7.6 | 20.9 | 9 18 | 0 50.41 | - 5 38.1 | 1.124 | 2.105 | 8.2 | 18.1 |
| 9 28 | 0 40.05 | +14 12.1 | 2.040 | 3.024 | 4.4 | 20.7 | 9 28 | 0 41.40 | - 6 26.7 | 1.099 | 2.093 | 4.9 | 17.9 |
| 10 8 | 0 32.96 | +13 0.0 | 2.037 | 3.028 | 2.9 | 20.7 | 10 8 | 0 31.63 | - 7 3.8 | 1.099 | 2.082 | 6.7 | 18.0 |
| 10 18 | 0 26.30 | +11 42.0 | 2.062 | 3.032 | 5.3 | 20.8 | 10 18 | 0 22.58 | - 7 21.5 | 1.122 | 2.072 | 11.4 | 18.2 |
| 10 28 | 0 20.84 | +10 25.2 | 2.116 | 3.036 | 8.5 | 21.0 | 10 28 | 0 15.60 | - 7 15.4 | 1.168 | 2.062 | 16.0 | 18.5 |
| 11 7 | 0 17.11 | + 9 15.8 | 2.194 | 3.039 | 11.5 | 21.2 | 11 7 | 0 11.56 | - 6 44.9 | 1.232 | 2.053 | 20.0 | 18.7 |
| 115659 | 2003 <i>UP</i> ₁₃₉ | 10 | 2.9 | 211°22 | 1°4/ 1.0 | 18 | 477555 | 2010 <i>GF</i> ₇₅ | 10 | 2.9 | 141°40 | 4°5/29.0 | 18 |
| 8 29 | 0 55.42 | + 2 46.1 | 2.603 | 3.455 | 10.4 | 19.8 | 8 29 | 1 5.54 | - 8 33.6 | 2.071 | 2.932 | 12.3 | 21.3 |
| 9 8 | 0 51.42 | + 1 41.3 | 2.524 | 3.451 | 7.7 | 19.6 | 9 8 | 0 59.13 | - 9 7.0 | 2.013 | 2.940 | 9.3 | 21.1 |
| 9 18 | 0 46.05 | + 0 28.0 | 2.470 | 3.447 | 4.6 | 19.5 | 9 18 | 0 50.85 | - 9 39.4 | 1.978 | 2.948 | 6.3 | 20.9 |
| 9 28 | 0 39.79 | - 0 49.4 | 2.445 | 3.443 | 1.7 | 19.2 | 9 28 | 0 41.41 | -10 5.3 | 1.972 | 2.956 | 4.5 | 20.8 |
| 10 8 | 0 33.22 | - 2 5.2 | 2.450 | 3.439 | 2.8 | 19.3 | 10 8 | 0 31.70 | -10 19.8 | 1.994 | 2.963 | 5.7 | 20.9 |
| 10 18 | 0 26.99 | - 3 14.4 | 2.484 | 3.435 | 5.9 | 19.5 | 10 18 | 0 22.64 | -10 19.5 | 2.044 | 2.970 | 8.6 | 21.1 |
| 10 28 | 0 21.71 | - 4 12.1 | 2.547 | 3.430 | 8.8 | 19.7 | 10 28 | 0 15.05 | -10 3.0 | 2.120 | 2.976 | 11.5 | 21.3 |
| 11 7 | 0 17.85 | - 4 55.5 | 2.633 | 3.425 | 11.4 | 19.9 | 11 7 | 0 9.49 | - 9 30.7 | 2.218 | 2.982 | 14.1 | 21.5 |
| 423150 | 2004 <i>ET</i> ₄₇ | 10 | 2.9 | 87°71 | 2°2/30.8 | 16 | 518363 | 2017 <i>DD</i> ₁₁₇ | 10 | 2.9 | 228°18 | 4°3/ 8.9 | 18 |
| 8 29 | 1 0.60 | + 4 3.0 | 1.575 | 2.438 | 15.3 | 21.4 | 8 29 | 0 57.06 | +22 12.7 | 2.785 | 3.543 | 12.2 | 21.5 |
| 9 8 | 0 55.80 | + 2 26.6 | 1.529 | 2.462 | 11.2 | 21.2 | 9 8 | 0 52.73 | +22 6.7 | 2.687 | 3.535 | 10.1 | 21.3 |
| 9 18 | 0 48.90 | + 0 37.2 | 1.506 | 2.485 | 6.7 | 21.0 | 9 18 | 0 46.93 | +21 43.8 | 2.611 | 3.528 | 7.8 | 21.2 |
| 9 28 | 0 40.73 | + 1 16.4 | 1.509 | 2.507 | 2.6 | 20.8 | 9 28 | 0 40.12 | +21 3.9 | 2.560 | 3.519 | 5.5 | 21.0 |
| 10 8 | 0 32.36 | - 3 3.7 | 1.541 | 2.530 | 4.1 | 20.9 | 10 8 | 0 32.94 | +20 9.3 | 2.537 | 3.511 | 4.3 | 20.9 |
| 10 18 | 0 24.81 | - 4 35.6 | 1.600 | 2.552 | 8.4 | 21.2 | 10 18 | 0 26.05 | +19 3.5 | 2.543 | 3.502 | 5.2 | 21.0 |
| 10 28 | 0 18.98 | - 5 45.5 | 1.685 | 2.573 | 12.3 | 21.5 | 10 28 | 0 20.13 | +17 52.2 | 2.578 | 3.493 | 7.4 | 21.1 |
| 11 7 | 0 15.40 | - 6 30.9 | 1.791 | 2.594 | 15.5 | 21.8 | 11 7 | 0 15.69 | +16 41.1 | 2.639 | 3.484 | 9.8 | 21.3 |
| 170993 | 2005 <i>CU</i> ₆₉ | 10 | 2.9 | 165°87 | 2°8/ 5.5 | 18 | 27399 | 2000 <i>EC</i> ₁₀₆ | 10 | 2.9 | 20°03 | 6°4/28.2 | 18 |
| 8 29 | 1 2.74 | +12 58.0 | 2.021 | 2.837 | 14.3 | 20.4 | 8 29 | 0 57.26 | - 5 33.6 | 1.077 | 1.982 | 17.7 | 17.4 |
| 9 8 | 0 57.32 | +13 7.1 | 1.942 | 2.839 | 11.2 | 20.2 | 9 8 | 0 54.18 | - 6 54.7 | 1.037 | 1.989 | 13.2 | 17.1 |
| 9 18 | 0 49.91 | +13 1.2 | 1.885 | 2.841 | 7.7 | 20.0 | 9 18 | 0 48.30 | - 8 20.0 | 1.017 | 1.998 | 8.7 | 16.9 |
| 9 28 | 0 41.13 | +12 41.1 | 1.855 | 2.842 | 4.2 | 19.8 | 9 28 | 0 40.61 | - 9 37.1 | 1.018 | 2.008 | 6.4 | 16.8 |
| 10 8 | 0 31.88 | +12 10.0 | 1.851 | 2.844 | 3.0 | 19.7 | 10 8 | 0 32.54 | -10 34.6 | 1.043 | 2.019 | 8.5 | 17.0 |
| 10 18 | 0 23.12 | +11 32.5 | 1.877 | 2.845 | 5.9 | 19.9 | 10 18 | 0 25.48 | -11 4.6 | 1.090 | 2.031 | 12.6 | 17.3 |
| 10 28 | 0 15.77 | +10 54.4 | 1.930 | 2.846 | 9.4 | 20.1 | 10 28 | 0 20.61 | -11 4.2 | 1.157 | 2.044 | 16.7 | 17.6 |
| 11 7 | 0 10.46 | +10 21.4 | 2.007 | 2.846 | 12.7 | 20.3 | 11 7 | 0 18.57 | -10 35.3 | 1.242 | 2.059 | 20.2 | 17.8 |
| 169764 | 2002 <i>PC</i> ₅₇ | 10 | 2.9 | 50°14 | 5°2/ 7.3 | 18 | 124030 | 2001 <i>FN</i> ₁₂₁ | 10 | 2.9 | 238°21 | 2°9/29.9 | 18 |
| 8 29 | 1 3.89 | | | | | | | | | | | | |

EPHEMERIDES

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| 2020 | α_{2000} | δ_{2000} | Δ | r | β | V | 2020 | α_{2000} | δ_{2000} | Δ | r | β | V |
|---------------|-------------------------------|-----------------|------------|----------|---------|------|---------------|-------------------------------|-----------------|------------|-----------|---------|------|
| 515038 | 2009 <i>WF</i> ₅₆ | 10 | 2.9 286°01 | 2.7/30.8 | 18 | | 15535 | 2000 <i>AT</i> ₁₇₇ | 10 | 2.9 279°51 | 1.7/29.5 | 18 | |
| 8 29 | 1 0.93 | + 0 5.6 | 1.556 | 2.428 | 15.0 | 22.0 | 8 29 | 0 50.52 | - 3 0.1 | 4.306 | 5.163 | 6.5 | 17.8 |
| 9 8 | 0 56.59 | - 0 39.4 | 1.473 | 2.410 | 11.3 | 21.7 | 9 8 | 0 47.33 | - 3 42.7 | 4.227 | 5.157 | 4.8 | 17.7 |
| 9 18 | 0 49.78 | - 1 34.8 | 1.412 | 2.392 | 7.0 | 21.5 | 9 18 | 0 43.37 | - 4 27.5 | 4.175 | 5.151 | 3.0 | 17.6 |
| 9 28 | 0 41.18 | - 2 34.4 | 1.377 | 2.374 | 3.1 | 21.2 | 9 28 | 0 38.90 | - 5 12.1 | 4.152 | 5.144 | 1.7 | 17.5 |
| 10 8 | 0 31.85 | - 3 30.2 | 1.367 | 2.356 | 4.6 | 21.2 | 10 8 | 0 34.26 | - 5 53.6 | 4.159 | 5.138 | 2.5 | 17.5 |
| 10 18 | 0 22.99 | - 4 14.5 | 1.384 | 2.338 | 9.2 | 21.5 | 10 18 | 0 29.80 | - 6 29.8 | 4.196 | 5.131 | 4.2 | 17.6 |
| 10 28 | 0 15.78 | - 4 41.0 | 1.425 | 2.319 | 13.7 | 21.7 | 10 28 | 0 25.87 | - 6 58.4 | 4.261 | 5.125 | 6.0 | 17.8 |
| 11 7 | 0 11.05 | - 4 46.6 | 1.486 | 2.301 | 17.5 | 21.9 | 11 7 | 0 22.74 | - 7 18.1 | 4.351 | 5.119 | 7.6 | 17.9 |
| 395707 | 2012 <i>TB</i> ₅ | 10 | 2.9 305°43 | 4.6/ 7.8 | 16 | | 53612 | 2000 <i>CD</i> ₈₅ | 10 | 2.9 199°91 | 1.9/ 1.3 | 18 | |
| 8 29 | 0 52.38 | +25 31.0 | 1.015 | 1.842 | 24.5 | 20.4 | 8 29 | 1 1.71 | + 2 9.2 | 1.691 | 2.554 | 14.5 | 20.0 |
| 9 8 | 0 51.31 | +23 42.5 | 0.929 | 1.826 | 20.3 | 20.1 | 9 8 | 0 56.82 | + 1 21.2 | 1.620 | 2.552 | 10.8 | 19.8 |
| 9 18 | 0 47.04 | +20 50.3 | 0.859 | 1.810 | 14.9 | 19.7 | 9 18 | 0 49.72 | + 0 22.3 | 1.572 | 2.550 | 6.6 | 19.5 |
| 9 28 | 0 40.35 | +16 53.5 | 0.809 | 1.794 | 8.8 | 19.3 | 9 28 | 0 41.12 | - 0 41.7 | 1.549 | 2.548 | 2.5 | 19.3 |
| 10 8 | 0 32.69 | +12 6.2 | 0.785 | 1.779 | 4.6 | 19.0 | 10 8 | 0 32.04 | - 1 43.4 | 1.554 | 2.545 | 3.7 | 19.3 |
| 10 18 | 0 25.75 | + 6 58.1 | 0.787 | 1.765 | 9.3 | 19.2 | 10 18 | 0 23.55 | - 2 35.7 | 1.587 | 2.542 | 8.0 | 19.6 |
| 10 28 | 0 21.15 | + 2 6.4 | 0.814 | 1.751 | 16.0 | 19.5 | 10 28 | 0 16.65 | - 3 12.6 | 1.644 | 2.539 | 12.1 | 19.8 |
| 11 7 | 0 19.88 | - 2 0.2 | 0.864 | 1.737 | 22.0 | 19.8 | 11 7 | 0 12.02 | - 3 31.1 | 1.724 | 2.535 | 15.6 | 20.1 |
| 478707 | 2012 <i>UH</i> ₃₈ | 10 | 2.9 258°22 | 2°3/ 4.9 | 18 | | 101346 | 1998 <i>TY</i> ₁₅ | 10 | 2.9 271°62 | 4°0/ 8.5 | 18 | |
| 8 29 | 1 0.97 | +11 46.0 | 1.780 | 2.611 | 15.3 | 21.5 | 8 29 | 0 56.35 | +21 57.0 | 2.599 | 3.365 | 12.8 | 20.0 |
| 9 8 | 0 56.29 | +11 40.5 | 1.699 | 2.607 | 11.9 | 21.3 | 9 8 | 0 52.37 | +21 25.0 | 2.487 | 3.343 | 10.6 | 19.8 |
| 9 18 | 0 49.42 | +11 18.2 | 1.640 | 2.602 | 8.0 | 21.0 | 9 18 | 0 46.81 | +20 32.8 | 2.397 | 3.321 | 8.0 | 19.6 |
| 9 28 | 0 41.02 | +10 40.8 | 1.605 | 2.597 | 4.0 | 20.8 | 9 28 | 0 40.13 | +19 20.8 | 2.332 | 3.299 | 5.4 | 19.4 |
| 10 8 | 0 32.06 | + 9 52.8 | 1.598 | 2.593 | 2.7 | 20.7 | 10 8 | 0 33.00 | +17 52.0 | 2.296 | 3.276 | 4.0 | 19.2 |
| 10 18 | 0 23.59 | + 9 0.0 | 1.618 | 2.588 | 6.4 | 20.9 | 10 18 | 0 26.14 | +16 11.7 | 2.289 | 3.254 | 5.2 | 19.3 |
| 10 28 | 0 16.64 | + 8 9.8 | 1.664 | 2.583 | 10.5 | 21.1 | 10 28 | 0 20.27 | +14 26.9 | 2.312 | 3.231 | 7.9 | 19.4 |
| 11 7 | 0 11.92 | + 7 28.5 | 1.734 | 2.578 | 14.1 | 21.4 | 11 7 | 0 15.97 | +12 45.1 | 2.361 | 3.207 | 10.8 | 19.6 |
| 20252 | Eyjafjallajökull | 10 | 2.9 291°97 | 0°3/ 2.8 | 18 | | 494491 | 2016 <i>WQ</i> ₄₃ | 10 | 2.9 112°39 | 1°4/ 4.4 | 18 | |
| 8 29 | 1 4.93 | + 3 54.0 | 1.380 | 2.245 | 17.1 | 18.7 | 8 29 | 0 59.70 | +10 22.5 | 1.947 | 2.781 | 14.1 | 20.9 |
| 9 8 | 0 59.82 | + 3 52.5 | 1.306 | 2.236 | 12.9 | 18.4 | 9 8 | 0 55.05 | +10 1.1 | 1.875 | 2.786 | 10.8 | 20.7 |
| 9 18 | 0 51.88 | + 3 39.0 | 1.251 | 2.228 | 8.1 | 18.1 | 9 18 | 0 48.50 | + 9 24.8 | 1.825 | 2.791 | 7.0 | 20.5 |
| 9 28 | 0 41.91 | + 3 17.3 | 1.221 | 2.220 | 2.7 | 17.8 | 9 28 | 0 40.69 | + 8 36.2 | 1.801 | 2.796 | 3.1 | 20.2 |
| 10 8 | 0 31.16 | + 2 52.9 | 1.217 | 2.212 | 3.0 | 17.8 | 10 8 | 0 32.50 | + 7 40.5 | 1.805 | 2.800 | 2.1 | 20.2 |
| 10 18 | 0 21.06 | + 2 32.4 | 1.238 | 2.204 | 8.4 | 18.1 | 10 18 | 0 24.82 | + 6 43.7 | 1.837 | 2.805 | 5.9 | 20.4 |
| 10 28 | 0 12.95 | + 2 21.7 | 1.283 | 2.196 | 13.4 | 18.3 | 10 28 | 0 18.54 | + 5 52.0 | 1.896 | 2.810 | 9.7 | 20.7 |
| 11 7 | 0 7.71 | + 2 25.1 | 1.350 | 2.189 | 17.6 | 18.6 | 11 7 | 0 14.23 | + 5 10.8 | 1.978 | 2.814 | 13.0 | 20.9 |
| 145300 | 2005 <i>KK</i> ₈ | 10 | 2.9 234°15 | 3°1/ 5.7 | 18 | | 15834 | McBride | 10 | 2.9 161°71 | 10°6/22.3 | 18 | |
| 8 29 | 1 0.80 | +14 43.5 | 1.586 | 2.413 | 17.0 | 20.1 | 8 29 | 1 6.06 | +48 3.0 | 2.928 | 3.452 | 15.6 | 19.3 |
| 9 8 | 0 56.43 | +14 24.9 | 1.506 | 2.409 | 13.5 | 19.9 | 9 8 | 0 59.93 | +48 46.5 | 2.841 | 3.459 | 14.6 | 19.2 |
| 9 18 | 0 49.63 | +13 43.8 | 1.446 | 2.404 | 9.3 | 19.6 | 9 18 | 0 51.61 | +49 5.3 | 2.767 | 3.465 | 13.4 | 19.1 |
| 9 28 | 0 41.12 | +12 41.7 | 1.409 | 2.398 | 5.0 | 19.4 | 9 28 | 0 41.77 | +48 55.3 | 2.711 | 3.471 | 12.2 | 19.0 |
| 10 8 | 0 31.97 | +11 24.2 | 1.399 | 2.393 | 3.3 | 19.2 | 10 8 | 0 31.40 | +48 14.8 | 2.674 | 3.476 | 11.2 | 18.9 |
| 10 18 | 0 23.38 | + 9 59.6 | 1.416 | 2.387 | 7.0 | 19.5 | 10 18 | 0 21.56 | +47 5.2 | 2.660 | 3.480 | 10.7 | 18.9 |
| 10 28 | 0 16.49 | + 8 37.9 | 1.459 | 2.381 | 11.4 | 19.7 | 10 28 | 0 13.26 | +45 31.2 | 2.670 | 3.484 | 10.7 | 18.9 |
| 11 7 | 0 12.08 | + 7 27.8 | 1.524 | 2.375 | 15.3 | 19.9 | 11 7 | 0 7.20 | +43 40.5 | 2.704 | 3.487 | 11.3 | 19.0 |
| 318477 | 2005 <i>EZ</i> ₇₂ | 10 | 2.9 87°90 | 2°1/ 1.5 | 17 | | 90476 | 2004 <i>CE</i> ₁₀₅ | 10 | 2.9 130°86 | 0°8/ 2.3 | 18 | |
| 8 29 | 1 6.58 | + 1 9.7 | 1.448 | 2.313 | 16.4 | 20.2 | 8 29 | 1 3.45 | + 4 25.8 | 1.742 | 2.594 | 14.7 | 20.1 |
| 9 8 | 1 0.40 | + 0 33.9 | 1.403 | 2.336 | 12.1 | 20.0 | 9 8 | 0 57.94 | + 3 51.1 | 1.679 | 2.604 | 10.9 | 19.9 |
| 9 18 | 0 51.81 | - 0 11.0 | 1.380 | 2.358 | 7.3 | 19.8 | 9 18 | 0 50.31 | + 3 4.9 | 1.639 | 2.615 | 6.7 | 19.7 |
| 9 28 | 0 41.74 | - 0 58.6 | 1.382 | 2.380 | 2.7 | 19.6 | 9 28 | 0 41.30 | + 2 12.0 | 1.625 | 2.624 | 2.2 | 19.4 |
| 10 8 | 0 31.46 | - 1 41.6 | 1.411 | 2.402 | 4.0 | 19.7 | 10 8 | 0 31.93 | + 1 18.8 | 1.639 | 2.633 | 2.8 | 19.5 |
| 10 18 | 0 22.20 | - 2 13.4 | 1.467 | 2.423 | 8.5 | 20.0 | 10 18 | 0 23.24 | + 0 31.6 | 1.681 | 2.642 | 7.2 | 19.8 |
| 10 28 | 0 14.96 | - 2 29.8 | 1.547 | 2.444 | 12.6 | 20.3 | 10 28 | 0 16.19 | - 0 3.7 | 1.749 | 2.650 | 11.2 | 20.0 |
| 11 7 | 0 10.34 | - 2 28.9 | 1.649 | 2.465 | 16.1 | 20.6 | 11 7 | 0 11.38 | - 0 24.0 | 1.840 | 2.658 | 14.5 | 20.3 |
| 429593 | 2011 <i>EV</i> ₆₃ | 10 | 2.9 80°86 | 0°2/ 2.8 | 16 | | 184234 | 2004 <i>RK</i> ₁₅₂ | 10 | 2.9 47°95 | 1°7/ 4.8 | 18 | |
| 8 29 | 1 4.25 | + 5 9.6 | 1.574 | 2.429 | 15.8 | 21.4 | 8 29 | 0 57.72 | +11 33.3 | 1.883 | 2.717 | 14.4 | 20.3 |
| 9 8 | 0 58.63 | + 4 50.8 | 1.521 | 2.446 | 11.8 | 21.2 | 9 8 | 0 53.57 | +11 8.5 | 1.819 | 2.730 | 11.1 | 20.1 |
| 9 18 | 0 50.74 | + 4 19.8 | 1.489 | 2.464 | 7.3 | 21.0 | 9 18 | 0 47.56 | +10 27.5 | 1.778 | 2.742 | 7.3 | 19.9 |
| 9 28 | 0 41.41 | + 3 40.9 | 1.483 | 2.481 | 2.4 | 20.7 | 9 28 | 0 40.37 | + 9 33.4 | 1.762 | 2.755 | 3.4 | 19.7 |
| 10 8 | 0 31.79 | + 3 0.3 | 1.503 | 2.499 | 2.6 | 20.8 | 10 8 | 0 32.85 | + 8 31.6 | 1.773 | 2.768 | 2.2 | 19.6 |
| 10 18 | 0 23.00 | + 2 24.2 | 1.551 | 2.516 | 7.2 | 21.1 | 10 18 | 0 25.92 | + 7 28.4 | 1.812 | 2.782 | 5.8 | 19.9 |
| 10 28 | 0 16.03 | + 1 58.2 | 1.625 | 2.533 | 11.4 | 21.4 | 10 28 | 0 20.39 | + 6 30.7 | 1.878 | 2.795 | 9.5 | 20.1 |
| 11 7 | 0 11.49 | + 1 45.8 | 1.721 | 2.550 | 14.9 | 21.6 | 11 7 | 0 16.81 | + 5 43.8 | 1.967 | 2.809 | 12.8 | 20.4 |
| 66549 | 1999 <i>RS</i> ₁₂₄ | 10 | 2.9 7°99 | 2°4/30.9 | 18 | | 50858 | 2000 <i>FC</i> ₆₄ | 10 | 3.0 328°41 | 1°8/ 1.4 | 18 | |
| 8 29 | 0 53.24 | + 3 46.4 | 1.183 | 2.075 | 17.4 | 18.1 | 8 29 | 0 58.03 | + 2 0.3 | 1.579 | 2.451 | 14.8 | 18.8 |
| 9 8 | 0 51.10 | + 2 30.4 | 1.129 | 2.076 | 12.9 | 17.8 | 9 8 | 0 54.28 | + 1 22.3 | 1.504 | 2.441 | 11.1 | 18.5 |
| 9 18 | 0 46.41 | + 0 56.9 | 1.095 | 2.079 | 7.8 | 17.5 | 9 18 | 0 48.28 | + 0 33.1 | 1.450 | 2.430 | 6.8 | 18.2 |
| 9 28 | 0 40.02 | - 0 44.6 | 1.084 | 2.083 | 2.9 | 17.3 | 9 28 | 0 40.68 | - 0 21.7 | 1.422 | 2.420 | 2.5 | 18.0 |
| 10 8 | 0 33.14 | - 2 21.9 | 1.097 | 2.088 | 4.7 | 17.4 | 10 8 | 0 32.51 | - 1 14.9 | 1.419 | 2.411 | 3.7 | 18.0 |
| 10 18 | 0 27.04 | - 3 43.4 | 1.134 | 2.095 | 9.8 | 17.7 | 10 18 | 0 24.86 | - 1 59.2 | 1.443 | 2.402 | 8.3 | 18.3 |
| 10 28 | 0 22.84 | - 4 40.8 | 1.193 | 2.102 | 14.5 | 18.0 | 10 28 | 0 18.80 | - 2 28.5 | 1.491 | 2.394 | 12.6 | 18.5 |
| 11 7 | 0 21.20 | - 5 10.4 | 1.271 | 2.112 | 18.4 | 18.3 | 11 7 | 0 15.04 | - 2 39.4 | 1.560 | 2.387 | 16.3 | 18.7 |
| 412600 | 2014 <i>ON</i> ₇₁ | 10 | 2.9 4°10 | 1°8/ 4.7 | 18 | | 2696 | Magion | 10 | 3.0 271°50 | 0°9/ 1.9 | 18 | |
| 8 29 | 1 0.21 | +10 5.4 | 2.146 | 2.974</ | | | | | | | | | |