| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480001 2014 $KW_{77}$ | 16.0 | X | 168.80567 | 67.77318 | 117.83071 | 17.41563 | 0.0765991 | 0.18006442 | 3.1058760 | 21 | 10 10.9 | 21.0 |
| 480002 2014 $KS_{82}$ | 15.9 | X | 121.82870 | 146.00757 | 69.53436 | 21.35000 | 0.1773137 | 0.17731585 | 3.1378897 | 21 | 10 9.1 | 21.3 |
| 480003 2014 $KY_{85}$ | 15.8 | X | 93.79614 | 132.18033 | 127.01508 | 18.68075 | 0.1819595 | 0.17860833 | 3.1227334 | 21 | 10 30.9 | 21.0 |
| 480004 2014 $KD_{91}$ | 17.2 | X | 95.27074 | 234.31204 | 202.82038 | 32.24272 | 0.5458171 | 0.27303354 | 2.3531993 | 21 | 4 22.9 | 20.8 |
| 480005 2014 $KN_{98}$ | 16.2 | X | 233.43048 | 123.08891 | 73.97417 | 18.63910 | 0.0734430 | 0.21076586 | 2.7964209 | 21 | 12 30.9 | 20.2 |
| 480006 2014 $LZ_{7}$ | 16.4 | X | 5.66220 | 260.06725 | 89.60971 | 10.76706 | 0.1116262 | 0.17758255 | 3.1347472 | 21 | 10 17.8 | 20.4 |
| 480007 2014 $LP_{11}$ | 16.5 | X | 213.58751 | 263.29497 | 214.49012 | 8.71099 | 0.0344566 | 0.17424465 | 3.1746541 | 21 | 8 29.2 | 21.2 |
| 480008 2014 $LM_{26}$ | 16.9 | X | 334.46481 | 107.55742 | 68.96744 | 23.29427 | 0.2102880 | 0.26293167 | 2.4130933 | 21 | — | — |
| 480009 2014 $MC_{10}$ | 16.2 | X | 208.23768 | 280.88845 | 219.86112 | 15.50286 | 0.0337522 | 0.17713216 | 3.1400588 | 21 | 9 19.9 | 21.0 |
| 480010 2014 $MX_{28}$ | 15.3 | X | 279.66444 | 333.12761 | 92.84265 | 29.31105 | 0.1713022 | 0.17900821 | 3.1180812 | 21 | 9 10.0 | 20.1 |
| 480011 2014 $MV_{59}$ | 16.3 | X | 187.81388 | 344.99809 | 204.86127 | 11.11175 | 0.0360040 | 0.18795657 | 3.0183137 | 21 | 11 1.2 | 20.7 |
| 480012 2014 $NP_{3}$ | 16.4 | X | 48.61440 | 5.77838 | 105.91819 | 15.28149 | 0.0663944 | 0.24300549 | 2.5432672 | 21 | 1 22.3 | 19.4 |
| 480013 2014 $OB_{51}$ | 16.3 | X | 187.46255 | 64.63162 | 120.68527 | 9.30772 | 0.1435523 | 0.17289404 | 3.1911658 | 21 | 10 22.4 | 21.6 |
| 480014 2014 $OF_{235}$ | 16.3 | X | 234.71324 | 326.48667 | 210.31875 | 14.51011 | 0.1329689 | 0.21074675 | 2.7965899 | 21 | 11 30.8 | 20.4 |
| 480015 2014 $OV_{238}$ | 16.5 | X | 298.65828 | 356.47666 | 136.03187 | 9.54802 | 0.0504478 | 0.19262801 | 2.9693161 | 21 | — | — |
| 480016 2014 $OR_{367}$ | 15.9 | X | 187.38872 | 58.71531 | 121.16583 | 18.69000 | 0.1731468 | 0.17296936 | 3.1902393 | 21 | 10 18.6 | 21.5 |
| 480017 2014 $QB_{442}$ | 6.2 | X | 17.62181 | 269.43148 | 75.26501 | 7.29346 | 0.4540194 | 0.00179520 | 67.0493010 | 21 | 10 29.4 | 22.3 |
| 480018 2014 $XK_{37}$ | 17.7 | X | 134.82057 | 228.30068 | 277.77350 | 19.40574 | 0.0592482 | 0.37541642 | 1.9030953 | 21 | 7 7.8 | 19.5 |
| 480019 2014 $YV_{14}$ | 18.2 | X | 141.51131 | 307.28844 | 204.84430 | 23.26300 | 0.1254649 | 0.38265296 | 1.8790255 | 21 | 7 26.8 | 21.2 |
| 480020 2014 $YQ_{21}$ | 18.3 | X | 108.38325 | 239.40564 | 303.71022 | 17.67858 | 0.0573595 | 0.37312221 | 1.9108884 | 21 | 7 28.9 | 20.0 |
| 480021 2014 $YX_{30}$ | 16.8 | X | 212.89754 | 295.98218 | 311.08140 | 24.49354 | 0.1642072 | 0.29285494 | 2.2457824 | 21 | — | — |
| 480022 2014 $YP_{49}$ | 17.6 | X | 58.52277 | 303.08451 | 282.15929 | 18.98117 | 0.0224267 | 0.37241248 | 1.9133154 | 21 | 7 9.4 | 19.0 |
| 480023 2015 $AA_{17}$ | 18.2 | X | 25.26435 | 234.92440 | 353.01975 | 18.27860 | 0.0584833 | 0.36468265 | 1.9402572 | 21 | 5 6.3 | 20.2 |
| 480024 2015 $AU_{120}$ | 17.8 | X | 300.62930 | 23.55929 | 294.37387 | 18.50708 | 0.0426757 | 0.36433265 | 1.9414997 | 21 | 5 11.3 | 20.2 |
| 480025 2015 $AR_{264}$ | 18.6 | X | 255.38873 | 86.00385 | 354.88263 | 20.46836 | 0.0763041 | 0.38952263 | 1.8568675 | 21 | 9 20.1 | 20.0 |
| 480026 2015 $AD_{280}$ | 17.5 | X | 111.62516 | 80.54868 | 137.44763 | 15.26868 | 0.2332785 | 0.22072101 | 2.7116914 | 21 | 10 3.3 | 22.2 |
| 480027 2015 $BL_{2}$ | 18.7 | X | 236.69995 | 83.58761 | 308.58255 | 17.05861 | 0.0774021 | 0.36903414 | 1.9249747 | 21 | 5 30.3 | 21.3 |
| 480028 2015 $BX_{4}$ | 17.2 | X | 251.96783 | 145.53691 | 285.75605 | 24.06231 | 0.0236054 | 0.39081092 | 1.8527846 | 21 | 8 22.8 | 19.6 |
| 480029 2015 $BT_{20}$ | 18.2 | X | 254.20998 | 60.69594 | 300.92883 | 17.58184 | 0.0824721 | 0.35815750 | 1.9637522 | 21 | 5 1.1 | 21.0 |
| 480030 2015 $BQ_{36}$ | 16.7 | X | 110.83710 | 349.27622 | 283.97717 | 13.53787 | 0.1611396 | 0.23815422 | 2.5776891 | 21 | 11 29.9 | 21.0 |
| 480031 2015 $BZ_{87}$ | 17.6 | X | 232.60344 | 94.65917 | 145.13233 | 4.66299 | 0.1430588 | 0.28841824 | 2.2687549 | 21 | — | — |
| 480032 2015 $BG_{91}$ | 17.1 | X | 136.52258 | 95.25297 | 143.97523 | 25.37823 | 0.2333254 | 0.23970215 | 2.5665797 | 21 | 11 21.2 | 22.1 |
| 480033 2015 $BY_{106}$ | 18.0 | X | 352.52274 | 351.27539 | 287.10276 | 11.79458 | 0.0641520 | 0.35002990 | 1.9940343 | 21 | 6 11.8 | 19.6 |
| 480034 2015 $BB_{119}$ | 18.1 | X | 296.54258 | 103.94367 | 96.24308 | 3.21545 | 0.0840044 | 0.30130828 | 2.2035792 | 21 | — | — |
| 480035 2015 $BG_{143}$ | 18.0 | X | 204.24226 | 149.61314 | 69.50788 | 5.45766 | 0.1881143 | 0.26709515 | 2.3879509 | 21 | 12 22.4 | 21.3 |
| 480036 2015 $BT_{156}$ | 16.4 | X | 12.21399 | 260.99512 | 335.82648 | 23.28835 | 0.3466671 | 0.18029669 | 3.1032079 | 21 | 5 22.5 | 19.3 |
| 480037 2015 $BU_{192}$ | 17.7 | X | 285.02942 | 89.39924 | 75.67020 | 2.91309 | 0.1153207 | 0.28484681 | 2.2876793 | 21 | — | — |
| 480038 2015 $BK_{198}$ | 18.3 | X | 237.12688 | 268.51372 | 342.45028 | 1.97843 | 0.0979938 | 0.30042848 | 2.2078792 | 21 | — | — |
| 480039 2015 $BK_{266}$ | 17.6 | X | 208.64826 | 271.69284 | 280.98485 | 2.30403 | 0.1375676 | 0.26225433 | 2.4172465 | 21 | 11 28.4 | 21.0 |
| 480040 2015 $BJ_{298}$ | 17.8 | X | 240.69304 | 140.32515 | 26.90700 | 1.52579 | 0.1281309 | 0.25885103 | 2.4383878 | 21 | 12 4.9 | 20.7 |
| 480041 2015 $BQ_{302}$ | 17.1 | X | 210.53243 | 193.53987 | 81.40513 | 7.70549 | 0.1050976 | 0.28293222 | 2.2979881 | 21 | — | — |
| 480042 2015 $BE_{425}$ | 18.9 | X | 292.14054 | 80.21720 | 140.88468 | 3.44499 | 0.0296812 | 0.30971936 | 2.1635012 | 21 | — | — |
| 480043 2015 $BQ_{425}$ | 17.8 | X | 150.73760 | 124.61942 | 148.37892 | 1.78281 | 0.1832223 | 0.26446871 | 2.4037346 | 21 | — | — |
| 480044 2015 $BK_{437}$ | 17.4 | X | 148.87070 | 146.65430 | 112.80950 | 3.11540 | 0.1823873 | 0.25644359 | 2.4536248 | 21 | 12 19.9 | 21.5 |
| 480045 2015 $BF_{444}$ | 17.8 | X | 160.62200 | 310.09632 | 0.68774 | 6.27094 | 0.1007284 | 0.29034450 | 2.2587091 | 21 | — | — |
| 480046 2015 $BX_{512}$ | 18.7 | X | 39.20591 | 139.57546 | 50.49824 | 12.69312 | 0.1271372 | 0.35068425 | 1.9915530 | 21 | 4 18.3 | 19.8 |
| 480047 2015 $BO_{514}$ | 18.4 | X | 98.83728 | 244.19599 | 341.98358 | 19.27105 | 0.0601477 | 0.38770798 | 1.8626570 | 21 | 9 19.3 | 20.3 |
| 480048 2015 $CN_{1}$ | 17.8 | X | 223.33199 | 121.30193 | 140.63879 | 6.22352 | 0.1198972 | 0.29377563 | 2.2410878 | 21 | — | — |
| 480049 2015 $CH_{9}$ | 18.0 | X | 236.54554 | 37.81654 | 170.92319 | 5.46092 | 0.1651196 | 0.27846973 | 2.3224733 | 21 | — | — |
| 480050 2015 $CY_{21}$ | 18.2 | X | 223.16676 | 109.12773 | 121.04447 | 2.63214 | 0.1585873 | 0.27977570 | 2.3152402 | 21 | — | — |
| 480051 2015 $CV_{33}$ | 18.8 | X | 174.65668 | 120.75315 | 329.19660 | 19.36080 | 0.0765966 | 0.36599606 | 1.9356126 | 21 | 6 5.6 | 21.6 |
| 480052 2015 $CV_{39}$ | 17.1 | X | 87.42466 | 262.74271 | 355.84661 | 16.64099 | 0.3070082 | 0.21432304 | 2.7653927 | 21 | 10 25.9 | 21.9 |
| 480053 2015 $CA_{46}$ | 17.7 | X | 284.80734 | 230.14973 | 352.35768 | 6.03518 | 0.0970591 | 0.29979769 | 2.2109752 | 21 | — | — |
| 480054 2015 $CL_{46}$ | 18.1 | X | 221.77245 | 38.30382 | 237.27251 | 2.62012 | 0.1563639 | 0.29219800 | 2.2491472 | 21 | — | — |
| 480055 2015 $CQ_{46}$ | 16.9 | X | 59.38323 | 312.83125 | 336.92031 | 13.41272 | 0.1704981 | 0.22792688 | 2.6542329 | 21 | 10 21.9 | 20.8 |
| 480056 2015 $CW_{51}$ | 18.2 | X | 183.07273 | 292.35073 | 170.63961 | 22.05574 | 0.0500918 | 0.36231649 | 1.9486955 | 21 | 7 8.4 | 21.0 |
| 480057 2015 $CX_{54}$ | 17.0 | X | 120.78210 | 66.14046 | 175.41490 | 5.51907 | 0.1406868 | 0.22982723 | 2.6395814 | 21 | 10 31.6 | 21.2 |
| 480058 2015 $CN_{57}$ | 17.9 | X | 306.37943 | 241.30221 | 166.73560 | 23.10618 | 0.0771391 | 0.39218141 | 1.8484656 | 21 | 11 10.3 | 19.7 |
| 480059 2015 $DV_{32}$ | 17.8 | X | 289.26046 | 168.08931 | 9.87978 | 6.97196 | 0.0476613 | 0.28619714 | 2.2804778 | 21 | — | — |
| 480060 2015 $DV_{64}$ | 18.4 | X | 353.19678 | 49.19995 | 127.68640 | 3.41116 | 0.0463326 | 0.31634637 | 2.1331799 | 21 | 1 9.7 | 20.5 |
| 480061 2015 $DZ_{75}$ | 18.4 | X | 208.28256 | 274.45924 | 14.71442 | 3.13183 | 0.1614895 | 0.29646510 | 2.2275134 | 21 | — | — |
| 480062 2015 $DH_{77}$ | 18.4 | X | 274.39351 | 251.74117 | 350.19138 | 5.73887 | 0.1466010 | 0.30324243 | 2.1941993 | 21 | — | — |
| 480063 2015 $DF_{93}$ | 18.2 | X | 161.57661 | 186.74096 | 62.47231 | 1.86054 | 0.1405944 | 0.25784857 | 2.4447037 | 21 | 12 20.3 | 22.0 |
| 480064 2015 $DN_{96}$ | 18.3 | X | 269.76057 | 209.03376 | 352.36825 | 6.03528 | 0.0456434 | 0.28413993 | 2.2914719 | 21 | — | — |
| 480065 2015 $DC_{98}$ | 17.6 | X | 157.89756 | 185.45654 | 98.49940 | 3.84435 | 0.0930693 | 0.26829387 | 2.3808327 | 21 | — | — |
| 480066 2015 $DR_{98}$ | 17.8 | X | 160.29126 | 185.93107 | 88.79684 | 2.92405 | 0.1772775 | 0.25747785 | 2.4470497 | 21 | — | — |
| 480067 2015 $DM_{101}$ | 18.9 | X | 217.53531 | 106.01410 | 336.50624 | 15.77682 | 0.0914286 | 0.38133714 | 1.8833454 | 21 | 7 28.4 | 21.1 |
| 480068 2015 $DU_{116}$ | 18.5 | X | 228.90183 | 206.75201 | 49.70950 | 7.44958 | 0.0743230 | 0.29788925 | 2.2204082 | 21 | — | — |
| 480069 2015 $DZ_{135}$ | 16.9 | X | 137.75884 | 120.55000 | 90.42995 | 14.37903 | 0.1423471 | 0.22290115 | 2.6939809 | 21 | 10 15.9 | 21.5 |
| 480070 2015 $DO_{138}$ | 15.7 | X | 241.97975 | 351.62475 | 117.32172 | 17.99069 | 0.0916797 | 0.22180573 | 2.7028434 | 21 | 9 28.9 | 19.8 |
| 480071 2015 $DC_{153}$ | 17.9 | X | 216.23906 | 200.86198 | 3.36734 | 5.76438 | 0.1280252 | 0.25889701 | 2.4380991 | 21 | 12 22.7 | 21.2 |
| 480072 2015 $DX_{153}$ | 17.7 | X | 102.48500 | 158.78187 | 1.68680 | 19.86331 | 0.0552741 | 0.35073770 | 1.9913507 | 21 | 6 7.9 | 20.4 |
| 480073 2015 $DS_{180}$ | 18.4 | X | 359.81930 | 1.87557 | 289.89943 | 18.99956 | 0.0948132 | 0.36953172 | 1.9232463 | 21 | 7 20.1 | 19.4 |
| 480074 2015 $DZ_{196}$ | 17.0 | X | 198.34235 | 317.36639 | 316.83872 | 9.56153 | 0.1443548 | 0.27802750 | 2.3249353 | 21 | — | — |
| 480075 2015 $DE_{199}$ | 18.4 | X | 314.24449 | 122.91992 | 179.14415 | 21.94854 | 0.1048881 | 0.35730139 | 1.9668878 | 21 | 5 6.7 | 20.6 |
| 480076 2015 $DR_{199}$ | 18.0 | X | 60.98506 | 55.55892 | 218.72908 | 20.20356 | 0.0779862 | 0.38226618 | 1.8802927 | 21 | 10 15.1 | 19.8 |
| 480077 2015 $DO_{205}$ | 17.8 | X | 221.95025 | 138.54075 | 74.50114 | 3.28445 | 0.1647639 | 0.25820280 | 2.4424673 | 21 | — | — |
| 480078 2015 $DQ_{205}$ | 17.7 | X | 263.52026 | 217.51175 | 62.61425 | 4.79740 | 0.1654694 | 0.29922479 | 2.2137964 | 21 | 1 27.9 | 21.0 |
| 480079 2015 $DF_{206}$ | 17.4 | X | 189.11093 | 177.06885 | 76.43572 | 4.09898 | 0.1603482 | 0.25653009 | 2.4530732 | 21 | — | — |
| 480080 2015 $DN_{206}$ | 16.8 | X | 220.51715 | 210.44759 | 38.96707 | 7.81479 | 0.0887747 | 0.27088764 | 2.3656106 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480081 2015 $DF_{210}$ | 15.8 | X | 345.19346 | 187.82132 | 96.76129 | 11.16438 | 0.1379793 | 0.17759988 | 3.1345433 | 21 | 6 10.9 | 19.5 |
| 480082 2015 $DP_{210}$ | 17.1 | X | 109.52231 | 129.61207 | 110.99045 | 12.23091 | 0.1654987 | 0.21490071 | 2.7604347 | 21 | 10 24.2 | 21.7 |
| 480083 2015 $DE_{213}$ | 16.6 | X | 79.66398 | 201.39353 | 64.52647 | 9.56644 | 0.2216439 | 0.20975444 | 2.8054031 | 21 | 10 27.9 | 20.9 |
| 480084 2015 $DO_{214}$ | 17.0 | X | 142.60162 | 359.80964 | 262.94043 | 5.01320 | 0.2075112 | 0.23371975 | 2.6101920 | 21 | 12 15.3 | 21.4 |
| 480085 2015 $DR_{214}$ | 17.9 | X | 293.98720 | 358.99218 | 189.35314 | 6.16879 | 0.1497781 | 0.27767951 | 2.3268774 | 21 | — | — |
| 480086 2015 $DT_{214}$ | 18.6 | X | 169.70907 | 299.13267 | 219.70649 | 17.07377 | 0.0756588 | 0.38508542 | 1.8711043 | 21 | 9 11.5 | 21.1 |
| 480087 2015 $DB_{220}$ | 17.4 | X | 333.80402 | 258.41687 | 252.49042 | 6.46209 | 0.0316419 | 0.28712303 | 2.2755726 | 21 | — | — |
| 480088 2015 $DT_{221}$ | 17.6 | X | 297.38224 | 154.29413 | 352.65486 | 5.74771 | 0.0571971 | 0.27399560 | 2.3476877 | 21 | — | — |
| 480089 2015 $EG_{9}$ | 17.0 | X | 166.57615 | 147.93436 | 122.94314 | 4.05531 | 0.1752828 | 0.26202250 | 2.4186721 | 21 | — | — |
| 480090 2015 $EM_{10}$ | 16.9 | X | 60.44999 | 283.92526 | 349.07897 | 12.23551 | 0.2476059 | 0.22650643 | 2.6653180 | 21 | 10 14.4 | 20.7 |
| 480091 2015 $EE_{14}$ | 17.8 | X | 135.56518 | 253.66391 | 347.53091 | 3.88829 | 0.2454632 | 0.24066669 | 2.5597177 | 21 | 11 14.9 | 22.3 |
| 480092 2015 $EV_{41}$ | 18.9 | X | 243.05115 | 133.71878 | 333.57968 | 18.60418 | 0.0494461 | 0.39514779 | 1.8392031 | 21 | 10 8.3 | 20.9 |
| 480093 2015 $EF_{46}$ | 18.1 | X | 185.32246 | 77.32711 | 172.98337 | 1.40035 | 0.1469960 | 0.26581948 | 2.3955846 | 21 | — | — |
| 480094 2015 $EZ_{51}$ | 18.1 | X | 213.43906 | 87.69381 | 337.38443 | 18.55103 | 0.1654123 | 0.36900819 | 1.9250649 | 21 | 6 15.6 | 21.2 |
| 480095 2015 $EA_{63}$ | 17.0 | X | 113.92195 | 168.22316 | 26.03899 | 1.23522 | 0.1587412 | 0.20921604 | 2.8102140 | 21 | 8 26.1 | 21.2 |
| 480096 2015 $EJ_{63}$ | 17.6 | X | 264.14039 | 257.06958 | 321.05661 | 5.77147 | 0.1814553 | 0.28080011 | 2.3096058 | 21 | — | — |
| 480097 2015 $EC_{64}$ | 16.4 | X | 95.82442 | 97.06131 | 137.45362 | 13.62639 | 0.0913614 | 0.21627394 | 2.7487374 | 21 | 9 22.8 | 20.5 |
| 480098 2015 $EF_{64}$ | 17.9 | X | 240.70541 | 144.23086 | 68.91545 | 6.03402 | 0.1663249 | 0.27000768 | 2.3707475 | 21 | — | — |
| 480099 2015 $FA_{11}$ | 16.6 | X | 50.60358 | 160.47013 | 165.44702 | 31.34057 | 0.1186852 | 0.23382631 | 2.6093989 | 21 | 11 30.9 | 20.9 |
| 480100 2015 $FF_{33}$ | 17.9 | X | 336.22171 | 130.70341 | 206.69207 | 20.74122 | 0.0954794 | 0.37082594 | 1.9187688 | 21 | 8 15.5 | 19.8 |
| 480101 2015 $FU_{36}$ | 18.5 | X | 304.77330 | 31.39056 | 311.92614 | 17.55005 | 0.0901950 | 0.36155666 | 1.9514247 | 21 | 7 1.6 | 20.4 |
| 480102 2015 $FC_{39}$ | 17.9 | X | 277.36482 | 205.27589 | 38.09148 | 6.29550 | 0.1309725 | 0.29284964 | 2.2458095 | 21 | — | — |
| 480103 2015 $FK_{42}$ | 16.3 | X | 24.91671 | 216.21667 | 26.35323 | 14.57543 | 0.2487613 | 0.17748781 | 3.1358626 | 21 | 7 8.5 | 19.8 |
| 480104 2015 $FP_{42}$ | 17.4 | X | 30.18681 | 273.73182 | 195.87996 | 5.85344 | 0.0505395 | 0.28702945 | 2.2760672 | 21 | — | — |
| 480105 2015 $FJ_{43}$ | 17.2 | X | 258.64024 | 25.74912 | 181.43409 | 6.44648 | 0.0855794 | 0.26938176 | 2.3744184 | 21 | — | — |
| 480106 2015 $FX_{43}$ | 16.6 | X | 355.38742 | 85.51170 | 194.91379 | 24.88262 | 0.2196483 | 0.17549550 | 3.1595511 | 21 | 6 18.7 | 20.4 |
| 480107 2015 $FP_{45}$ | 17.7 | X | 108.17601 | 254.41507 | 168.89493 | 7.37978 | 0.0682600 | 0.30108787 | 2.2046545 | 21 | 1 30.9 | 20.1 |
| 480108 2015 $FS_{45}$ | 16.5 | X | 351.03399 | 241.16801 | 38.30736 | 10.32847 | 0.1925233 | 0.17501872 | 3.1652867 | 21 | 6 9.1 | 20.0 |
| 480109 2015 $FT_{69}$ | 16.4 | X | 77.68048 | 135.93116 | 119.11671 | 17.57791 | 0.2906705 | 0.20478336 | 2.8506218 | 21 | 10 25.0 | 21.3 |
| 480110 2015 $FX_{69}$ | 16.3 | X | 283.30797 | 349.63916 | 110.31263 | 15.61518 | 0.0379774 | 0.23863517 | 2.5742245 | 21 | 11 19.5 | 19.9 |
| 480111 2015 $FW_{71}$ | 16.9 | X | 20.17907 | 64.17307 | 195.81039 | 11.60458 | 0.2125118 | 0.18292070 | 3.0734594 | 21 | 7 14.7 | 20.4 |
| 480112 2015 $FF_{73}$ | 17.2 | X | 63.00316 | 111.96696 | 195.26658 | 5.71574 | 0.3106969 | 0.21390437 | 2.7689999 | 21 | 12 8.4 | 21.6 |
| 480113 2015 $FY_{73}$ | 17.7 | X | 173.16515 | 61.38378 | 208.12256 | 5.85932 | 0.0518146 | 0.25910633 | 2.4367859 | 21 | — | — |
| 480114 2015 $FJ_{75}$ | 16.9 | X | 352.91039 | 79.44207 | 201.55968 | 12.87343 | 0.2674199 | 0.17372587 | 3.1809711 | 21 | 6 12.6 | 20.1 |
| 480115 2015 $FN_{76}$ | 17.3 | X | 120.95455 | 94.94347 | 187.83695 | 12.49626 | 0.1671299 | 0.23473241 | 2.6026794 | 21 | 12 20.5 | 21.8 |
| 480116 2015 $FR_{81}$ | 17.7 | X | 153.50221 | 314.45909 | 311.01490 | 14.02863 | 0.1417536 | 0.26002747 | 2.4310277 | 21 | — | — |
| 480117 2015 $FH_{85}$ | 17.5 | X | 223.44889 | 9.40031 | 227.76248 | 6.79418 | 0.2240231 | 0.27383966 | 2.3485789 | 21 | — | — |
| 480118 2015 $FG_{90}$ | 17.8 | X | 239.18316 | 326.62658 | 288.59920 | 5.45163 | 0.2010334 | 0.28668126 | 2.2779098 | 21 | — | — |
| 480119 2015 $FY_{90}$ | 17.9 | X | 251.91791 | 41.86054 | 199.53992 | 8.53726 | 0.1720386 | 0.28909845 | 2.2651947 | 21 | — | — |
| 480120 2015 $FX_{98}$ | 17.6 | X | 218.25742 | 355.01434 | 234.78613 | 6.24736 | 0.0661235 | 0.26924683 | 2.3752116 | 21 | — | — |
| 480121 2015 $FJ_{103}$ | 17.8 | X | 315.29081 | 244.87008 | 265.85012 | 5.88945 | 0.0516660 | 0.27945012 | 2.3170382 | 21 | — | — |
| 480122 2015 $FQ_{107}$ | 17.1 | X | 238.40803 | 325.55627 | 236.68289 | 4.96300 | 0.1209466 | 0.26541275 | 2.3980314 | 21 | — | — |
| 480123 2015 $FW_{107}$ | 17.9 | X | 359.43817 | 186.00534 | 331.66097 | 5.34075 | 0.0708618 | 0.30154261 | 2.2024375 | 21 | — | — |
| 480124 2015 $FL_{109}$ | 17.1 | X | 272.03986 | 302.68771 | 235.54224 | 5.93569 | 0.0551588 | 0.27064455 | 2.3670269 | 21 | — | — |
| 480125 2015 $FW_{114}$ | 17.6 | X | 262.97009 | 302.02923 | 343.53071 | 5.51362 | 0.1837322 | 0.30377091 | 2.1916537 | 21 | 2 1.3 | 20.9 |
| 480126 2015 $FP_{123}$ | 17.7 | X | 252.83698 | 99.68861 | 132.91049 | 6.62053 | 0.0975187 | 0.28296518 | 2.2978097 | 21 | — | — |
| 480127 2015 $FQ_{138}$ | 17.7 | X | 245.84020 | 114.81118 | 162.97732 | 7.52288 | 0.1440703 | 0.29542756 | 2.2327257 | 21 | 1 7.5 | 21.1 |
| 480128 2015 $FA_{142}$ | 16.2 | X | 9.55796 | 257.89243 | 12.88062 | 25.98287 | 0.2433674 | 0.18432621 | 3.0578158 | 21 | 7 21.5 | 19.8 |
| 480129 2015 $FR_{143}$ | 17.1 | X | 353.62870 | 102.78586 | 186.27562 | 20.47571 | 0.3280620 | 0.17991642 | 3.1075790 | 21 | 6 22.0 | 20.1 |
| 480130 2015 $FD_{144}$ | 17.8 | X | 117.03609 | 190.29603 | 55.68806 | 3.13769 | 0.0285477 | 0.23040003 | 2.6352047 | 21 | 10 24.7 | 21.3 |
| 480131 2015 $FQ_{147}$ | 17.6 | X | 159.96167 | 241.66562 | 36.94554 | 7.32451 | 0.1085786 | 0.25939069 | 2.4350046 | 21 | — | — |
| 480132 2015 $FY_{150}$ | 17.9 | X | 242.06639 | 202.11497 | 128.95197 | 3.35710 | 0.1996150 | 0.31479490 | 2.1401831 | 21 | 3 9.9 | 21.1 |
| 480133 2015 $FL_{152}$ | 17.8 | X | 185.32627 | 235.48922 | 22.20481 | 6.09516 | 0.1736561 | 0.25857646 | 2.4401137 | 21 | — | — |
| 480134 2015 $FN_{152}$ | 18.1 | X | 251.62647 | 33.21434 | 164.85001 | 2.30794 | 0.1424529 | 0.26850633 | 2.3795767 | 21 | — | — |
| 480135 2015 $FR_{153}$ | 17.3 | X | 126.53586 | 265.89128 | 52.25318 | 2.08754 | 0.1822716 | 0.25707273 | 2.4496200 | 21 | — | — |
| 480136 2015 $FS_{156}$ | 16.9 | X | 70.91736 | 223.77514 | 56.02395 | 6.31270 | 0.0678302 | 0.22157886 | 2.7046880 | 21 | 10 16.4 | 20.5 |
| 480137 2015 $FW_{156}$ | 17.6 | X | 186.49151 | 188.05472 | 79.74228 | 4.04084 | 0.1878157 | 0.26179920 | 2.4200472 | 21 | — | — |
| 480138 2015 $FF_{158}$ | 16.8 | X | 119.09592 | 166.29533 | 120.72478 | 4.84433 | 0.1429729 | 0.24121142 | 2.5558624 | 21 | 12 24.3 | 20.7 |
| 480139 2015 $FE_{162}$ | 17.0 | X | 49.54817 | 143.43446 | 162.14385 | 9.94841 | 0.1572060 | 0.21717171 | 2.7411568 | 21 | 11 4.6 | 20.8 |
| 480140 2015 $FX_{166}$ | 18.2 | X | 301.35514 | 122.14723 | 97.63166 | 2.44194 | 0.1092795 | 0.29709218 | 2.2243779 | 21 | — | — |
| 480141 2015 $FP_{168}$ | 18.0 | X | 32.37555 | 82.21661 | 39.80374 | 6.13821 | 0.0713478 | 0.29899025 | 2.2149539 | 21 | — | — |
| 480142 2015 $FD_{170}$ | 17.1 | X | 111.71241 | 78.78137 | 175.69341 | 11.53769 | 0.1720247 | 0.22556043 | 2.6727650 | 21 | 11 10.3 | 21.5 |
| 480143 2015 $FJ_{174}$ | 16.5 | X | 354.22391 | 217.74559 | 68.78283 | 11.53242 | 0.1219426 | 0.18558126 | 3.0440139 | 21 | 6 29.4 | 20.1 |
| 480144 2015 $FP_{176}$ | 18.1 | X | 26.00426 | 181.63687 | 305.03756 | 4.47464 | 0.0762638 | 0.30431731 | 2.1890295 | 21 | — | — |
| 480145 2015 $FA_{180}$ | 17.9 | X | 231.21323 | 285.04010 | 22.20066 | 5.40590 | 0.0549659 | 0.30894699 | 2.1671056 | 21 | 2 1.0 | 20.7 |
| 480146 2015 $FL_{195}$ | 17.0 | X | 136.36570 | 327.28891 | 266.98359 | 3.30583 | 0.2006392 | 0.23410862 | 2.6073006 | 21 | 11 6.2 | 21.4 |
| 480147 2015 $FZ_{215}$ | 17.5 | X | 196.05744 | 189.73306 | 35.23837 | 6.84203 | 0.0968153 | 0.25886403 | 2.4383062 | 21 | 12 29.8 | 21.0 |
| 480148 2015 $FD_{236}$ | 18.1 | X | 231.69416 | 140.08396 | 149.18059 | 6.00534 | 0.1129092 | 0.29722953 | 2.2236926 | 21 | 1 8.4 | 21.3 |
| 480149 2015 $FK_{246}$ | 16.5 | X | 34.90238 | 147.03333 | 131.40276 | 10.07780 | 0.1011092 | 0.20628725 | 2.8367504 | 21 | 8 28.2 | 20.0 |
| 480150 2015 $FR_{249}$ | 17.3 | X | 123.30696 | 175.59701 | 81.64482 | 4.90898 | 0.2207003 | 0.23116177 | 2.6294124 | 21 | 11 24.4 | 21.7 |
| 480151 2015 $FQ_{266}$ | 18.1 | X | 288.92972 | 144.36299 | 35.44230 | 4.56698 | 0.1492534 | 0.28411707 | 2.2915948 | 21 | — | — |
| 480152 2015 $FO_{284}$ | 16.7 | X | 3.60543 | 218.01986 | 78.53815 | 10.98834 | 0.2792188 | 0.18737059 | 3.0246033 | 21 | 8 11.2 | 19.4 |
| 480153 2015 $FS_{284}$ | 17.7 | X | 172.99259 | 155.90816 | 134.29919 | 7.68073 | 0.1245615 | 0.26630035 | 2.3926999 | 21 | — | — |
| 480154 2015 $FP_{285}$ | 17.7 | X | 160.88793 | 88.29854 | 15.35898 | 20.20453 | 0.1025151 | 0.35310035 | 1.9824578 | 21 | 6 7.4 | 20.7 |
| 480155 2015 $FB_{286}$ | 16.5 | X | 81.32213 | 204.65454 | 112.69987 | 14.95273 | 0.1879425 | 0.22990694 | 2.6389713 | 21 | 12 27.3 | 20.7 |
| 480156 2015 $FV_{289}$ | 17.1 | X | 114.77337 | 40.22717 | 230.36242 | 5.59019 | 0.0954391 | 0.23454478 | 2.6040673 | 21 | 11 27.1 | 20.9 |
| 480157 2015 $FG_{290}$ | 16.6 | X | 131.77474 | 167.42401 | 84.57332 | 5.12408 | 0.1728949 | 0.23036476 | 2.6354737 | 21 | 11 23.7 | 20.8 |
| 480158 2015 $FO_{292}$ | 17.8 | X | 229.50451 | 62.00769 | 205.13238 | 4.20550 | 0.0649787 | 0.28607335 | 2.2811357 | 21 | — | — |
| 480159 2015 $FD_{293}$ | 17.7 | X | 271.72795 | 259.03294 | 0.00999 | 4.80690 | 0.1249354 | 0.29813558 | 2.2191850 | 21 | 1 11.8 | 20.8 |
| 480160 2015 $FE_{293}$ | 17.9 | X | 296.51556 | 163.52954 | 11.87129 | 4.84306 | 0.1700481 | 0.28026714 | 2.3125330 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480161 2015 $FK_{295}$ | 17.5 | X | 203.39718 | 249.46335 | 77.40212 | 8.71126 | 0.1824053 | 0.28833009 | 2.2692172 | 21 | 2 3.3 | 21.2 |
| 480162 2015 $FZ_{297}$ | 17.8 | X | 282.22515 | 64.88984 | 106.65873 | 5.94738 | 0.1554329 | 0.26779086 | 2.3838132 | 21 | — | — |
| 480163 2015 $FT_{298}$ | 16.8 | X | 131.93183 | 156.99496 | 128.99840 | 9.54521 | 0.1682302 | 0.23778954 | 2.5803238 | 21 | — | — |
| 480164 2015 $FK_{300}$ | 16.7 | X | 12.28672 | 193.06103 | 109.23473 | 13.55848 | 0.2978984 | 0.18472461 | 3.0534177 | 21 | 9 17.6 | 19.8 |
| 480165 2015 $FM_{300}$ | 16.2 | X | 106.24773 | 194.19367 | 103.17252 | 12.96009 | 0.1579931 | 0.23206739 | 2.6225673 | 21 | 12 24.4 | 20.3 |
| 480166 2015 $FY_{300}$ | 16.1 | X | 67.04023 | 130.44096 | 164.79053 | 13.45680 | 0.2332702 | 0.21023993 | 2.8010826 | 21 | 11 21.3 | 20.5 |
| 480167 2015 $FP_{302}$ | 17.9 | X | 279.80497 | 104.62729 | 132.19706 | 8.67107 | 0.0933263 | 0.28626474 | 2.2801188 | 21 | — | — |
| 480168 2015 $FY_{302}$ | 16.3 | X | 13.52117 | 90.20450 | 173.31816 | 16.41790 | 0.2113839 | 0.17459061 | 3.1704589 | 21 | 7 6.3 | 19.9 |
| 480169 2015 $FY_{303}$ | 17.3 | X | 130.79075 | 112.45768 | 144.96995 | 11.79884 | 0.1371589 | 0.22571141 | 2.6715730 | 21 | 11 29.7 | 21.8 |
| 480170 2015 $FE_{304}$ | 16.4 | X | 142.29999 | 121.65662 | 151.26802 | 10.92969 | 0.1438394 | 0.23606141 | 2.5929017 | 21 | 12 27.7 | 20.7 |
| 480171 2015 $FJ_{304}$ | 17.0 | X | 193.45071 | 48.72221 | 172.06059 | 12.93079 | 0.1983174 | 0.24168427 | 2.5525277 | 21 | 12 10.4 | 21.3 |
| 480172 2015 $FT_{308}$ | 17.2 | X | 114.56273 | 110.96186 | 135.02247 | 6.11743 | 0.1215568 | 0.22689294 | 2.6622902 | 21 | 10 30.5 | 21.3 |
| 480173 2015 $FZ_{310}$ | 17.4 | X | 195.29939 | 199.40813 | 105.21568 | 5.03925 | 0.1739952 | 0.28313170 | 2.2969086 | 21 | — | — |
| 480174 2015 $FU_{314}$ | 17.6 | X | 211.42046 | 209.89423 | 74.25713 | 8.26724 | 0.1208736 | 0.28364641 | 2.2941291 | 21 | — | — |
| 480175 2015 $FE_{317}$ | 17.2 | X | 271.72995 | 17.02116 | 144.95870 | 6.70337 | 0.0914237 | 0.26446250 | 2.4037722 | 21 | — | — |
| 480176 2015 $FK_{317}$ | 17.9 | X | 220.64403 | 142.25007 | 113.70061 | 4.98594 | 0.1859817 | 0.27302121 | 2.3532702 | 21 | — | — |
| 480177 2015 $FW_{317}$ | 18.0 | X | 30.89804 | 78.99873 | 51.16326 | 8.26942 | 0.0407575 | 0.30164745 | 2.2019271 | 21 | 1 5.6 | 20.5 |
| 480178 2015 $FE_{318}$ | 17.5 | X | 251.49278 | 50.72835 | 132.33272 | 6.36088 | 0.0753722 | 0.26257658 | 2.4152683 | 21 | — | — |
| 480179 2015 $FD_{319}$ | 17.2 | X | 181.61323 | 218.21059 | 59.95824 | 10.37044 | 0.0943441 | 0.26833954 | 2.3805626 | 21 | — | — |
| 480180 2015 $FW_{322}$ | 16.8 | X | 66.08235 | 200.23090 | 52.65458 | 13.66273 | 0.1899377 | 0.20420810 | 2.8559728 | 21 | 9 26.6 | 21.0 |
| 480181 2015 $FN_{323}$ | 17.1 | X | 140.00954 | 72.65602 | 154.05137 | 12.78935 | 0.0580325 | 0.23027363 | 2.6361690 | 21 | 11 1.3 | 21.1 |
| 480182 2015 $FC_{331}$ | 18.1 | X | 269.57009 | 250.05155 | 301.61512 | 2.23748 | 0.1347127 | 0.27624818 | 2.3349080 | 21 | — | — |
| 480183 2015 $FY_{331}$ | 17.9 | X | 233.20788 | 40.15557 | 222.93564 | 5.80170 | 0.1307173 | 0.27980639 | 2.3150709 | 21 | — | — |
| 480184 2015 $FG_{332}$ | 17.9 | X | 47.91743 | 312.73083 | 288.49639 | 16.60753 | 0.0648783 | 0.35899077 | 1.9607122 | 21 | 7 23.8 | 19.6 |
| 480185 2015 $FT_{332}$ | 17.8 | X | 258.19397 | 32.46814 | 66.09775 | 22.63735 | 0.1138193 | 0.38718386 | 1.8643376 | 21 | 10 30.9 | 19.6 |
| 480186 2015 $FY_{332}$ | 16.8 | X | 125.73961 | 57.32714 | 151.37395 | 12.35328 | 0.1462743 | 0.21443578 | 2.7644233 | 21 | 9 26.1 | 21.2 |
| 480187 2015 $FV_{333}$ | 17.1 | X | 86.83573 | 90.16140 | 206.62283 | 10.93496 | 0.0399253 | 0.22571481 | 2.6715461 | 21 | 11 22.4 | 20.8 |
| 480188 2015 $FZ_{333}$ | 16.3 | X | 9.91843 | 86.79426 | 200.93555 | 13.92178 | 0.1729945 | 0.18128837 | 3.0918809 | 21 | 7 28.2 | 20.0 |
| 480189 2015 $FP_{336}$ | 16.8 | X | 110.66819 | 35.00900 | 162.58785 | 10.01056 | 0.1386467 | 0.19523126 | 2.9428614 | 21 | 8 22.9 | 21.4 |
| 480190 2015 $FF_{337}$ | 16.8 | X | 58.68751 | 167.74913 | 207.97209 | 15.59182 | 0.1926857 | 0.23799093 | 2.5788680 | 21 | — | — |
| 480191 2015 $FR_{337}$ | 16.3 | X | 190.34893 | 136.78148 | 86.76279 | 14.79373 | 0.1002686 | 0.23848943 | 2.5752731 | 21 | 12 17.3 | 20.0 |
| 480192 2015 $FS_{337}$ | 16.2 | X | 38.42301 | 228.23002 | 95.80157 | 16.26132 | 0.1516750 | 0.20635378 | 2.8361407 | 21 | 11 13.5 | 20.1 |
| 480193 2015 $FA_{339}$ | 16.8 | X | 163.61572 | 120.98944 | 113.31655 | 12.06285 | 0.0635060 | 0.22980272 | 2.6397691 | 21 | 12 4.8 | 20.7 |
| 480194 2015 $FG_{339}$ | 17.1 | X | 129.88288 | 338.97023 | 290.52338 | 2.30367 | 0.1809539 | 0.23482532 | 2.6019929 | 21 | 12 12.8 | 21.2 |
| 480195 2015 $FZ_{339}$ | 15.9 | X | 330.04688 | 352.22693 | 301.56242 | 15.94600 | 0.4882479 | 0.16387404 | 3.3072164 | 21 | 3 23.1 | 20.3 |
| 480196 2015 $FC_{340}$ | 16.4 | X | 86.63710 | 329.11957 | 322.17493 | 11.44388 | 0.1377009 | 0.22403376 | 2.6848935 | 21 | 11 22.2 | 20.6 |
| 480197 2015 $FH_{340}$ | 17.1 | X | 141.98366 | 284.91142 | 278.20690 | 6.36102 | 0.1677677 | 0.21764918 | 2.7371464 | 21 | 9 29.7 | 21.7 |
| 480198 2015 $FE_{342}$ | 16.0 | X | 19.44648 | 208.00480 | 35.05675 | 18.68605 | 0.2078893 | 0.18143192 | 3.0902497 | 21 | 6 17.5 | 19.5 |
| 480199 2015 $FB_{343}$ | 15.7 | X | 359.96824 | 255.95667 | 17.14139 | 26.49812 | 0.2389952 | 0.17833495 | 3.1259239 | 21 | 6 14.7 | 19.4 |
| 480200 2015 $FR_{344}$ | 16.0 | X | 120.31249 | 302.86501 | 18.34863 | 15.04176 | 0.3212381 | 0.24386492 | 2.5372884 | 21 | — | — |
| 480201 2015 $FY_{345}$ | 17.5 | X | 198.36128 | 278.34927 | 353.20938 | 25.03460 | 0.1360657 | 0.28878813 | 2.2668172 | 21 | — | — |
| 480202 2015 $FP_{353}$ | 17.4 | X | 193.40356 | 236.57377 | 355.53809 | 3.70948 | 0.0958446 | 0.25261877 | 2.4783290 | 21 | — | — |
| 480203 2015 $FL_{363}$ | 18.2 | X | 212.75786 | 105.31514 | 153.43873 | 3.45039 | 0.0667909 | 0.28965349 | 2.2623000 | 21 | — | — |
| 480204 2015 $FY_{363}$ | 17.5 | X | 223.89298 | 24.57141 | 217.39376 | 3.74505 | 0.1029198 | 0.28434435 | 2.2903735 | 21 | — | — |
| 480205 2015 $FF_{373}$ | 16.1 | X | 26.45187 | 181.91739 | 109.19416 | 16.10284 | 0.1331079 | 0.20110608 | 2.8852663 | 21 | 9 9.1 | 19.8 |
| 480206 2015 $GP$ | 18.1 | X | 141.24498 | 151.95320 | 37.62618 | 25.80257 | 0.1330160 | 0.37431880 | 1.9068138 | 21 | 10 8.6 | 20.9 |
| 480207 2015 $GW_{3}$ | 17.7 | X | 102.29761 | 216.80245 | 203.11658 | 4.53607 | 0.0737072 | 0.30343608 | 2.1932657 | 21 | 1 17.3 | 19.9 |
| 480208 2015 $GM_{5}$ | 17.7 | X | 278.53727 | 3.82206 | 203.47957 | 5.07102 | 0.1037648 | 0.27730646 | 2.3289637 | 21 | — | — |
| 480209 2015 $GG_{6}$ | 16.3 | X | 16.26634 | 240.51059 | 10.90815 | 17.70734 | 0.2759241 | 0.18006798 | 3.1058351 | 21 | 7 4.0 | 19.6 |
| 480210 2015 $GU_{12}$ | 17.9 | X | 291.61090 | 244.27836 | 159.65233 | 23.41880 | 0.1273216 | 0.38135691 | 1.8832803 | 21 | 9 17.7 | 18.9 |
| 480211 2015 $GP_{18}$ | 18.2 | X | 323.19029 | 160.40183 | 6.52673 | 5.91978 | 0.0600977 | 0.28972655 | 2.2619197 | 21 | — | — |
| 480212 2015 $GW_{19}$ | 17.8 | X | 154.62736 | 229.76627 | 81.00225 | 2.47147 | 0.1894791 | 0.26702639 | 2.3883608 | 21 | — | — |
| 480213 2015 $GB_{22}$ | 17.2 | X | 109.02043 | 94.82997 | 168.08213 | 4.43997 | 0.2269189 | 0.22266619 | 2.6958757 | 21 | 11 19.6 | 21.8 |
| 480214 2015 $GP_{23}$ | 17.3 | X | 80.30240 | 172.78422 | 127.23799 | 13.09824 | 0.2016513 | 0.21956567 | 2.7211956 | 21 | 12 7.3 | 21.7 |
| 480215 2015 $GL_{26}$ | 16.5 | X | 8.84967 | 123.00488 | 165.27684 | 13.07211 | 0.1767339 | 0.18955644 | 3.0013065 | 21 | 7 29.7 | 19.9 |
| 480216 2015 $GS_{28}$ | 18.6 | X | 194.78896 | 79.65036 | 208.04094 | 5.69141 | 0.1915745 | 0.27573224 | 2.3378197 | 21 | — | — |
| 480217 2015 $GW_{28}$ | 17.9 | X | 232.04762 | 221.87467 | 9.33428 | 2.53294 | 0.1755015 | 0.27267594 | 2.3552563 | 21 | — | — |
| 480218 2015 $GU_{29}$ | 17.8 | X | 204.00040 | 234.78847 | 25.63104 | 4.58916 | 0.1246335 | 0.27022229 | 2.3694922 | 21 | — | — |
| 480219 2015 $GO_{31}$ | 18.1 | X | 231.40476 | 267.60414 | 192.73737 | 22.12788 | 0.0652664 | 0.38104132 | 1.8843200 | 21 | 9 11.5 | 20.2 |
| 480220 2015 $GR_{31}$ | 17.1 | X | 93.34727 | 277.10873 | 14.74294 | 14.38191 | 0.1186874 | 0.23678221 | 2.5876369 | 21 | 11 29.2 | 21.2 |
| 480221 2015 $GH_{32}$ | 16.6 | X | 354.85444 | 212.41153 | 98.46976 | 12.28396 | 0.3439118 | 0.18589861 | 3.0405486 | 21 | 8 7.2 | 18.6 |
| 480222 2015 $GX_{33}$ | 16.8 | X | 72.96738 | 237.07708 | 84.42954 | 14.08044 | 0.2786945 | 0.22526073 | 2.6751351 | 21 | 12 31.5 | 21.3 |
| 480223 2015 $GC_{34}$ | 17.9 | X | 285.43505 | 135.49550 | 102.21808 | 7.03478 | 0.1105247 | 0.29519385 | 2.2339041 | 21 | — | — |
| 480224 2015 $GS_{34}$ | 17.8 | X | 309.79724 | 312.51068 | 270.46758 | 2.01679 | 0.1267135 | 0.29622748 | 2.2287045 | 21 | 1 6.4 | 20.4 |
| 480225 2015 $GO_{36}$ | 16.2 | X | 73.56432 | 121.81835 | 170.14430 | 13.85621 | 0.2498533 | 0.21105058 | 2.7939053 | 21 | 11 25.3 | 20.8 |
| 480226 2015 $GP_{41}$ | 17.8 | X | 307.60788 | 71.56433 | 131.12521 | 9.00224 | 0.0899472 | 0.29397410 | 2.2400790 | 21 | — | — |
| 480227 2015 $GU_{42}$ | 18.2 | X | 301.80788 | 136.50754 | 105.19991 | 5.26395 | 0.0652914 | 0.30598808 | 2.1810538 | 21 | 1 28.9 | 20.7 |
| 480228 2015 $GS_{43}$ | 17.1 | X | 123.80943 | 129.80478 | 169.21558 | 10.92089 | 0.2602831 | 0.24077592 | 2.5589434 | 21 | — | — |
| 480229 2015 $GP_{47}$ | 17.8 | X | 320.56151 | 110.78035 | 68.23596 | 6.09748 | 0.0817948 | 0.29111934 | 2.2546996 | 21 | — | — |
| 480230 2015 $HN$ | 16.3 | X | 77.29631 | 211.94422 | 105.75976 | 12.69838 | 0.1271367 | 0.22980027 | 2.6397878 | 21 | 12 17.9 | 20.2 |
| 480231 2015 $HQ_{2}$ | 18.0 | X | 201.62359 | 205.82353 | 55.37237 | 10.58155 | 0.1004560 | 0.27508980 | 2.3414581 | 21 | — | — |
| 480232 2015 $HC_{4}$ | 17.8 | X | 183.28200 | 215.71616 | 212.56304 | 20.02957 | 0.0305551 | 0.34481049 | 2.0141064 | 21 | 5 17.1 | 20.1 |
| 480233 2015 $HA_{5}$ | 17.3 | X | 209.87144 | 299.65057 | 277.27606 | 6.84061 | 0.0783179 | 0.26028318 | 2.4294351 | 21 | — | — |
| 480234 2015 $HO_{6}$ | 18.1 | X | 252.39285 | 344.23201 | 292.57836 | 7.17056 | 0.1273149 | 0.30130687 | 2.2035861 | 21 | 1 12.9 | 21.3 |
| 480235 2015 $HH_{7}$ | 17.1 | X | 128.09652 | 163.40631 | 70.07074 | 8.55970 | 0.2071725 | 0.22224830 | 2.6992540 | 21 | 10 31.6 | 21.7 |
| 480236 2015 $HR_{8}$ | 17.4 | X | 127.95458 | 203.75067 | 68.65031 | 6.45857 | 0.1746191 | 0.24374971 | 2.5380878 | 21 | 12 15.6 | 21.5 |
| 480237 2015 $HD_{15}$ | 17.7 | X | 19.50112 | 107.37752 | 33.17335 | 8.28321 | 0.0525073 | 0.29764875 | 2.2216041 | 21 | 1 2.9 | 20.2 |
| 480238 2015 $HK_{15}$ | 17.1 | X | 156.06892 | 182.09899 | 68.68832 | 6.49704 | 0.1624396 | 0.23660546 | 2.5889254 | 21 | 12 13.1 | 21.1 |
| 480239 2015 $HG_{19}$ | 17.3 | X | 216.51894 | 214.34665 | 25.59670 | 6.01066 | 0.0701652 | 0.26802295 | 2.3824368 | 21 | — | — |
| 480240 2015 $HT_{22}$ | 17.5 | X | 105.60628 | 290.34780 | 49.45461 | 13.90837 | 0.0561420 | 0.26307436 | 2.4122207 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480241 2015 $HS_{26}$ | 16.9 | X | 323.71010 | 232.66148 | 110.49336 | 3.17547 | 0.0779562 | 0.19907807 | 2.9048281 | 21 | 7 30.3 | 20.5 |
| 480242 2015 $HN_{27}$ | 17.1 | X | 166.91079 | 256.58422 | 50.93916 | 7.35486 | 0.0794229 | 0.27162235 | 2.3613428 | 21 | — | — |
| 480243 2015 $HA_{29}$ | 17.1 | X | 165.82792 | 209.40826 | 130.35312 | 6.36047 | 0.1904779 | 0.28216801 | 2.3021354 | 21 | 1 14.4 | 20.5 |
| 480244 2015 $HG_{30}$ | 17.6 | X | 222.52003 | 224.21737 | 64.91569 | 8.23173 | 0.1095458 | 0.28693278 | 2.2765784 | 21 | 1 1.3 | 20.9 |
| 480245 2015 $HT_{33}$ | 17.5 | X | 114.88988 | 238.39513 | 64.17426 | 5.09423 | 0.2609993 | 0.23680316 | 2.5874843 | 21 | — | — |
| 480246 2015 $HD_{35}$ | 16.6 | X | 11.95459 | 103.67750 | 157.43368 | 6.46509 | 0.1360663 | 0.18073530 | 3.0981853 | 21 | 6 26.5 | 20.2 |
| 480247 2015 $HZ_{36}$ | 17.9 | X | 271.87460 | 128.03219 | 81.27831 | 7.43542 | 0.0569724 | 0.27702872 | 2.3305201 | 21 | — | — |
| 480248 2015 $HB_{39}$ | 16.3 | X | 347.25193 | 194.59699 | 91.08458 | 12.33430 | 0.1005402 | 0.17957380 | 3.1115306 | 21 | 6 17.7 | 20.0 |
| 480249 2015 $HL_{40}$ | 17.1 | X | 125.30693 | 203.64600 | 71.46833 | 8.78529 | 0.0312713 | 0.23898926 | 2.5716811 | 21 | 12 11.5 | 20.7 |
| 480250 2015 $HT_{40}$ | 17.5 | X | 220.92031 | 35.17477 | 181.27712 | 6.81315 | 0.0785126 | 0.25809285 | 2.4431609 | 21 | — | — |
| 480251 2015 $HA_{56}$ | 17.8 | X | 230.74383 | 280.89040 | 311.48571 | 4.01831 | 0.1922112 | 0.26391434 | 2.4070996 | 21 | — | — |
| 480252 2015 $HS_{56}$ | 16.3 | X | 39.29849 | 289.96048 | 23.24317 | 15.18062 | 0.1606036 | 0.20631309 | 2.8365135 | 21 | 10 25.6 | 19.8 |
| 480253 2015 $HW_{57}$ | 17.5 | X | 131.15101 | 109.27815 | 309.19766 | 6.77524 | 0.0657216 | 0.30252366 | 2.1976734 | 21 | 2 25.0 | 20.0 |
| 480254 2015 $HT_{60}$ | 16.1 | X | 358.69527 | 129.63674 | 189.86885 | 16.98024 | 0.2353614 | 0.17968303 | 3.1102694 | 21 | 8 22.2 | 19.4 |
| 480255 2015 $HZ_{60}$ | 16.4 | X | 75.40414 | 38.10590 | 187.14532 | 18.81767 | 0.1695154 | 0.18495936 | 3.0508335 | 21 | 8 18.6 | 21.0 |
| 480256 2015 $HB_{61}$ | 16.4 | X | 355.87807 | 144.47996 | 166.97677 | 14.73046 | 0.2820247 | 0.17499399 | 3.1655848 | 21 | 8 4.8 | 19.2 |
| 480257 2015 $HP_{61}$ | 17.4 | X | 100.60365 | 202.89016 | 104.36107 | 6.95046 | 0.2820249 | 0.23195002 | 2.6234519 | 21 | — | — |
| 480258 2015 $HL_{62}$ | 17.9 | X | 223.36969 | 116.09187 | 144.84515 | 1.74659 | 0.1702771 | 0.27195515 | 2.3594160 | 21 | — | — |
| 480259 2015 $HW_{62}$ | 17.1 | X | 183.26591 | 179.05534 | 75.41875 | 13.21049 | 0.1415640 | 0.25402330 | 2.4691853 | 21 | — | — |
| 480260 2015 $HR_{64}$ | 16.8 | X | 13.87792 | 59.99183 | 216.49042 | 9.57241 | 0.0702511 | 0.19006962 | 2.9959018 | 21 | 7 15.6 | 20.7 |
| 480261 2015 $HA_{71}$ | 16.5 | X | 70.45926 | 332.76781 | 42.31612 | 10.26499 | 0.2734858 | 0.25594654 | 2.4568004 | 21 | — | — |
| 480262 2015 $HR_{71}$ | 16.5 | X | 352.61346 | 244.19236 | 42.51957 | 13.51228 | 0.0956720 | 0.18367216 | 3.0650706 | 21 | 6 27.5 | 20.5 |
| 480263 2015 $HE_{75}$ | 17.3 | X | 346.78226 | 217.74469 | 190.29484 | 1.73394 | 0.0834108 | 0.23931367 | 2.5693565 | 21 | 12 9.1 | 20.3 |
| 480264 2015 $HB_{76}$ | 17.3 | X | 167.31226 | 164.82668 | 44.00151 | 4.05113 | 0.1308797 | 0.23079490 | 2.6321981 | 21 | 11 3.3 | 21.2 |
| 480265 2015 $HP_{78}$ | 17.9 | X | 25.08109 | 2.20924 | 11.65991 | 2.46690 | 0.0467017 | 0.23927065 | 2.5696646 | 21 | 12 14.8 | 21.1 |
| 480266 2015 $HQ_{78}$ | 17.9 | X | 216.11719 | 11.85706 | 224.86159 | 5.29706 | 0.1116035 | 0.26207067 | 2.4183757 | 21 | — | — |
| 480267 2015 $HY_{78}$ | 17.3 | X | 115.20883 | 330.27830 | 292.28494 | 1.15177 | 0.1618121 | 0.22534504 | 2.6744679 | 21 | 11 19.8 | 21.6 |
| 480268 2015 $HP_{81}$ | 16.8 | X | 76.71985 | 234.37524 | 34.89022 | 8.04996 | 0.1849969 | 0.20922390 | 2.8101437 | 21 | 10 22.5 | 21.0 |
| 480269 2015 $HZ_{81}$ | 18.5 | X | 250.60010 | 25.26736 | 212.94252 | 6.03211 | 0.0779221 | 0.27775481 | 2.3264568 | 21 | — | — |
| 480270 2015 $HS_{82}$ | 18.2 | X | 285.52439 | 171.37122 | 45.80791 | 6.84467 | 0.0457848 | 0.28508998 | 2.2863782 | 21 | — | — |
| 480271 2015 $HF_{83}$ | 17.7 | X | 38.77742 | 33.72869 | 46.79379 | 5.84096 | 0.0942986 | 0.27780003 | 2.3262043 | 21 | — | — |
| 480272 2015 $HH_{87}$ | 17.2 | X | 318.36978 | 321.68683 | 110.87690 | 4.91394 | 0.0832287 | 0.23834015 | 2.5763483 | 21 | 11 27.4 | 20.1 |
| 480273 2015 $HD_{88}$ | 18.3 | X | 243.22843 | 217.78191 | 70.48951 | 4.66128 | 0.0931999 | 0.29338592 | 2.2430719 | 21 | 1 21.6 | 21.4 |
| 480274 2015 $HZ_{88}$ | 17.4 | X | 83.16827 | 135.20691 | 193.63351 | 7.22848 | 0.2133120 | 0.23348340 | 2.6119531 | 21 | — | — |
| 480275 2015 $HJ_{89}$ | 17.9 | X | 192.50734 | 89.25768 | 208.52110 | 7.10427 | 0.1103913 | 0.27362190 | 2.3498248 | 21 | — | — |
| 480276 2015 $HM_{90}$ | 17.9 | X | 318.73078 | 350.64938 | 209.78345 | 6.96721 | 0.0666315 | 0.29261947 | 2.2469871 | 21 | — | — |
| 480277 2015 $HT_{92}$ | 17.2 | X | 137.23156 | 152.97918 | 82.07013 | 3.30027 | 0.1350963 | 0.22507468 | 2.6766092 | 21 | 11 6.9 | 21.4 |
| 480278 2015 $HT_{94}$ | 17.1 | X | 34.77907 | 162.82951 | 156.37949 | 5.57865 | 0.1577875 | 0.20941218 | 2.8084590 | 21 | 10 30.7 | 20.6 |
| 480279 2015 $HJ_{99}$ | 17.7 | X | 52.40835 | 268.20150 | 153.07742 | 2.46494 | 0.1682451 | 0.27620378 | 2.3351582 | 21 | — | — |
| 480280 2015 $HL_{101}$ | 17.6 | X | 164.24597 | 311.13072 | 19.29426 | 6.86274 | 0.1353361 | 0.27614615 | 2.3354831 | 21 | — | — |
| 480281 2015 $HW_{108}$ | 17.1 | X | 72.51153 | 131.44219 | 172.60246 | 15.12836 | 0.0798619 | 0.22622655 | 2.6675158 | 21 | 11 21.4 | 21.1 |
| 480282 2015 $HL_{110}$ | 17.0 | X | 69.97114 | 227.10841 | 91.29943 | 14.87716 | 0.0702141 | 0.23198303 | 2.6232031 | 21 | 12 4.9 | 20.6 |
| 480283 2015 $HC_{114}$ | 16.7 | X | 70.93772 | 272.47928 | 87.32204 | 16.09027 | 0.2335333 | 0.24665834 | 2.5180954 | 21 | — | — |
| 480284 2015 $HN_{125}$ | 17.4 | X | 122.61743 | 303.74513 | 26.74562 | 7.01326 | 0.1216226 | 0.25795430 | 2.4440357 | 21 | — | — |
| 480285 2015 $HR_{128}$ | 17.1 | X | 2.45394 | 205.83743 | 193.91422 | 7.50101 | 0.0987636 | 0.24119447 | 2.5559822 | 21 | 12 23.9 | 20.2 |
| 480286 2015 $HV_{139}$ | 17.7 | X | 181.83040 | 133.51444 | 140.77286 | 6.69143 | 0.1197917 | 0.25582367 | 2.4575870 | 21 | — | — |
| 480287 2015 $HH_{140}$ | 17.9 | X | 170.50910 | 189.74785 | 203.14923 | 1.37017 | 0.1426667 | 0.31191262 | 2.1533473 | 21 | 3 20.4 | 20.8 |
| 480288 2015 $HK_{145}$ | 18.1 | X | 312.65675 | 299.67318 | 294.29262 | 3.47859 | 0.1079661 | 0.30355317 | 2.1927016 | 21 | 1 25.8 | 20.9 |
| 480289 2015 $HP_{145}$ | 17.4 | X | 169.54163 | 351.55038 | 241.28768 | 7.96808 | 0.1711601 | 0.23932778 | 2.5692555 | 21 | 12 3.9 | 21.4 |
| 480290 2015 $HS_{147}$ | 17.7 | X | 184.74290 | 227.85926 | 359.87839 | 2.90307 | 0.0827511 | 0.24500295 | 2.5294252 | 21 | 12 19.0 | 21.4 |
| 480291 2015 $HZ_{148}$ | 17.5 | X | 241.45936 | 323.59954 | 266.73683 | 4.66197 | 0.1115259 | 0.26975650 | 2.3722190 | 21 | — | — |
| 480292 2015 $HW_{149}$ | 17.5 | X | 175.14211 | 16.71714 | 257.93546 | 1.94049 | 0.2182180 | 0.25525211 | 2.4612543 | 21 | — | — |
| 480293 2015 $HL_{150}$ | 17.6 | X | 219.35936 | 344.54603 | 316.11369 | 1.22808 | 0.1222397 | 0.28515297 | 2.2860415 | 21 | 1 13.2 | 21.0 |
| 480294 2015 $HR_{150}$ | 18.0 | X | 261.37033 | 340.64206 | 245.56054 | 5.91034 | 0.0700650 | 0.27650630 | 2.3334546 | 21 | — | — |
| 480295 2015 $HA_{152}$ | 17.2 | X | 96.52427 | 26.32169 | 16.36296 | 8.34652 | 0.1444792 | 0.28472319 | 2.2883414 | 21 | — | — |
| 480296 2015 $HS_{154}$ | 15.7 | X | 15.87756 | 26.64166 | 211.67190 | 22.26359 | 0.1651204 | 0.17013659 | 3.2255534 | 21 | 6 3.5 | 19.6 |
| 480297 2015 $HB_{155}$ | 17.1 | X | 114.76037 | 240.34947 | 326.46632 | 7.07521 | 0.1333831 | 0.21278066 | 2.7787402 | 21 | 9 7.7 | 21.3 |
| 480298 2015 $HF_{156}$ | 17.7 | X | 223.58228 | 255.85448 | 347.01554 | 5.23703 | 0.1314128 | 0.26564106 | 2.3966572 | 21 | — | — |
| 480299 2015 $HR_{164}$ | 17.1 | X | 154.08781 | 99.16581 | 77.69204 | 5.08728 | 0.1339692 | 0.21310160 | 2.7759496 | 21 | 9 13.5 | 21.5 |
| 480300 2015 $HJ_{166}$ | 16.7 | X | 58.90262 | 73.95383 | 167.74753 | 4.00326 | 0.1235755 | 0.19210796 | 2.9746724 | 21 | 8 14.4 | 20.5 |
| 480301 2015 $HM_{166}$ | 17.9 | X | 302.10929 | 128.40426 | 59.26084 | 7.67270 | 0.1151195 | 0.28113812 | 2.3077542 | 21 | — | — |
| 480302 2015 $HQ_{168}$ | 17.3 | X | 120.64709 | 198.14292 | 141.05027 | 2.78267 | 0.1394973 | 0.25878347 | 2.4388122 | 21 | — | — |
| 480303 2015 $HW_{169}$ | 18.5 | X | 284.74730 | 188.46350 | 69.03605 | 2.18059 | 0.1397110 | 0.29793415 | 2.2201852 | 21 | 1 21.9 | 21.5 |
| 480304 2015 $HA_{170}$ | 17.2 | X | 106.85117 | 85.89564 | 219.63313 | 12.12547 | 0.2932354 | 0.22985759 | 2.6393490 | 21 | — | — |
| 480305 2015 $HB_{170}$ | 16.7 | X | 149.98792 | 115.62742 | 114.20357 | 3.71563 | 0.0351972 | 0.22902904 | 2.6457107 | 21 | 11 13.3 | 20.3 |
| 480306 2015 $HL_{172}$ | 17.5 | X | 241.64003 | 194.31320 | 358.58955 | 14.29379 | 0.2042512 | 0.26200909 | 2.4187546 | 21 | 12 31.1 | 20.9 |
| 480307 2015 $HN_{172}$ | 16.7 | X | 204.54756 | 336.02683 | 269.35077 | 9.64625 | 0.1266273 | 0.26204307 | 2.4185455 | 21 | — | — |
| 480308 2015 $HO_{173}$ | 17.6 | X | 316.54221 | 304.26227 | 262.58709 | 2.21879 | 0.1041645 | 0.29751435 | 2.2222731 | 21 | — | — |
| 480309 2015 $HT_{173}$ | 16.7 | X | 89.85841 | 112.90866 | 179.07826 | 13.26626 | 0.2202995 | 0.22261634 | 2.6962781 | 21 | 12 7.4 | 21.3 |
| 480310 2015 $HV_{173}$ | 16.4 | X | 67.20206 | 44.35948 | 210.25686 | 13.21224 | 0.1143574 | 0.20019130 | 2.8940492 | 21 | 9 7.6 | 20.6 |
| 480311 2015 $HQ_{174}$ | 17.7 | X | 199.68367 | 25.77986 | 245.14389 | 1.88071 | 0.1880190 | 0.26759136 | 2.3849979 | 21 | — | — |
| 480312 2015 $HR_{174}$ | 17.6 | X | 301.70675 | 210.13592 | 17.04756 | 7.39657 | 0.0426773 | 0.30052074 | 2.2074274 | 21 | 1 14.4 | 20.4 |
| 480313 2015 $HV_{174}$ | 17.6 | X | 253.10289 | 297.58529 | 293.75831 | 4.18017 | 0.1809358 | 0.27715649 | 2.3298038 | 21 | — | — |
| 480314 2015 $HJ_{175}$ | 17.0 | X | 93.86935 | 30.40024 | 267.92518 | 2.56075 | 0.1551287 | 0.23094886 | 2.6310282 | 21 | 12 13.3 | 20.9 |
| 480315 2015 $HN_{175}$ | 17.0 | X | 131.45568 | 13.33522 | 226.59667 | 16.67249 | 0.1371990 | 0.22487612 | 2.6781845 | 21 | 11 6.5 | 21.2 |
| 480316 2015 $HY_{175}$ | 16.4 | X | 175.10334 | 165.44488 | 54.66355 | 13.58480 | 0.1712126 | 0.23617066 | 2.5921020 | 21 | 11 22.5 | 20.4 |
| 480317 2015 $HG_{176}$ | 17.1 | X | 198.73107 | 28.81554 | 232.59406 | 6.11800 | 0.1185711 | 0.26445827 | 2.4037979 | 21 | — | — |
| 480318 2015 $HL_{176}$ | 17.2 | X | 46.41293 | 33.31281 | 28.55999 | 6.57827 | 0.0545233 | 0.27368413 | 2.3494686 | 21 | — | — |
| 480319 2015 $HT_{177}$ | 16.8 | X | 146.76071 | 23.09216 | 244.93810 | 2.70986 | 0.0892382 | 0.24616852 | 2.5214346 | 21 | 12 28.3 | 20.5 |
| 480320 2015 $HP_{178}$ | 18.0 | X | 311.02698 | 2.29621 | 221.25657 | 6.79737 | 0.0640499 | 0.30105212 | 2.2048291 | 21 | 1 14.9 | 20.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480321 2015 $HR_{178}$ | 17.3 | X | 124.86060 | 145.15966 | 150.26439 | 3.52783 | 0.0835168 | 0.24752513 | 2.5122133 | 21 | — | — |
| 480322 2015 $HC_{179}$ | 16.8 | X | 85.87845 | 301.31968 | 325.08192 | 3.04450 | 0.0591019 | 0.21856914 | 2.7294605 | 21 | 10 12.7 | 20.7 |
| 480323 2015 $HJ_{179}$ | 17.1 | X | 164.06923 | 101.32782 | 110.42163 | 7.01251 | 0.1060340 | 0.22867205 | 2.6484635 | 21 | 11 6.7 | 21.2 |
| 480324 2015 $HU_{179}$ | 16.4 | X | 340.14986 | 217.91903 | 150.67497 | 6.18003 | 0.0447205 | 0.21961791 | 2.7207640 | 21 | 10 3.3 | 19.8 |
| 480325 2015 $HA_{180}$ | 17.4 | X | 252.28953 | 220.14422 | 35.69435 | 7.68661 | 0.1816171 | 0.27953493 | 2.3165695 | 21 | — | — |
| 480326 2015 $HC_{180}$ | 17.5 | X | 240.87003 | 129.64834 | 96.10295 | 5.18680 | 0.1655680 | 0.26571476 | 2.3962140 | 21 | — | — |
| 480327 2015 $HD_{180}$ | 16.0 | X | 18.29084 | 189.84370 | 103.45383 | 15.82127 | 0.1855037 | 0.18807863 | 3.0170077 | 21 | 9 2.3 | 19.6 |
| 480328 2015 $HV_{180}$ | 17.3 | X | 238.52645 | 271.88345 | 348.44614 | 6.85570 | 0.0856431 | 0.28169383 | 2.3047182 | 21 | — | — |
| 480329 2015 $HM_{181}$ | 16.8 | X | 136.01687 | 176.01064 | 63.33057 | 9.16902 | 0.2460723 | 0.22411350 | 2.6842567 | 21 | 11 13.4 | 21.4 |
| 480330 2015 $HW_{181}$ | 17.8 | X | 27.65184 | 350.42290 | 166.25195 | 6.39208 | 0.0768758 | 0.30490205 | 2.1862299 | 21 | 2 2.9 | 20.0 |
| 480331 2015 $JB$ | 17.1 | X | 178.48207 | 152.53889 | 145.15147 | 17.38996 | 0.2972123 | 0.26163774 | 2.4210427 | 21 | — | — |
| 480332 2015 $JL_{3}$ | 16.4 | X | 99.95791 | 56.08524 | 270.49044 | 12.55469 | 0.2073381 | 0.23948362 | 2.5681409 | 21 | — | — |
| 480333 2015 $JZ_{3}$ | 16.0 | X | 77.80601 | 184.93476 | 8.84793 | 15.46310 | 0.0939759 | 0.18209442 | 3.0827499 | 21 | 7 6.6 | 20.6 |
| 480334 2015 $JH_{6}$ | 17.5 | X | 189.51351 | 314.13840 | 7.43026 | 7.40131 | 0.1315734 | 0.27840465 | 2.3228352 | 21 | 1 12.8 | 21.0 |
| 480335 2015 $JC_{10}$ | 16.6 | X | 320.75771 | 196.20147 | 253.37811 | 11.54417 | 0.1359863 | 0.23806651 | 2.5783222 | 21 | 12 23.1 | 19.1 |
| 480336 2015 $KU$ | 16.9 | X | 285.48103 | 357.23433 | 235.87473 | 22.19251 | 0.1880406 | 0.28574408 | 2.2828878 | 21 | — | — |
| 480337 2015 $KA_{3}$ | 17.9 | X | 212.26902 | 104.07860 | 149.52829 | 7.29093 | 0.1648897 | 0.26150120 | 2.4218854 | 21 | — | — |
| 480338 2015 $KN_{6}$ | 16.9 | X | 330.98066 | 221.13607 | 215.50087 | 21.64515 | 0.0995357 | 0.23647701 | 2.5898629 | 21 | 12 20.0 | 20.2 |
| 480339 2015 $KH_{7}$ | 17.2 | X | 169.94011 | 217.77391 | 90.03580 | 17.11867 | 0.1349806 | 0.26034885 | 2.4290266 | 21 | — | — |
| 480340 2015 $KV_{7}$ | 16.9 | X | 100.12177 | 207.38737 | 102.46556 | 13.12359 | 0.1889760 | 0.22653539 | 2.6650908 | 21 | — | — |
| 480341 2015 $KX_{7}$ | 16.8 | X | 66.10722 | 296.90618 | 52.30165 | 11.79072 | 0.0730679 | 0.23939240 | 2.5687932 | 21 | — | — |
| 480342 2015 $KE_{8}$ | 16.5 | X | 7.47988 | 130.67241 | 146.45041 | 10.07616 | 0.0295499 | 0.17838830 | 3.1253006 | 21 | 7 7.4 | 20.8 |
| 480343 2015 $KM_{8}$ | 17.5 | X | 76.60289 | 39.93690 | 252.19509 | 3.29384 | 0.2215803 | 0.21054044 | 2.7984166 | 21 | 11 22.7 | 21.6 |
| 480344 2015 $KV_{8}$ | 17.3 | X | 145.82446 | 5.51441 | 270.27569 | 0.95387 | 0.1637653 | 0.23739492 | 2.5831825 | 21 | — | — |
| 480345 2015 $KA_{10}$ | 16.8 | X | 48.22183 | 233.33333 | 130.09808 | 12.37059 | 0.2032632 | 0.22784858 | 2.6548409 | 21 | — | — |
| 480346 2015 $KP_{10}$ | 17.4 | X | 104.27932 | 217.85140 | 122.75908 | 13.13466 | 0.2015285 | 0.24217847 | 2.5490540 | 21 | — | — |
| 480347 2015 $KE_{11}$ | 16.7 | X | 142.22062 | 193.21711 | 103.19893 | 15.22625 | 0.1361117 | 0.24397193 | 2.5365464 | 21 | — | — |
| 480348 2015 $KG_{12}$ | 15.9 | X | 246.37236 | 257.01205 | 138.42153 | 11.69853 | 0.1148108 | 0.17516892 | 3.1634770 | 21 | 6 20.3 | 20.8 |
| 480349 2015 $KK_{13}$ | 15.8 | X | 311.35200 | 179.33650 | 141.07289 | 14.55083 | 0.1989904 | 0.16433548 | 3.3010225 | 21 | 5 28.7 | 20.3 |
| 480350 2015 $KU_{13}$ | 16.5 | X | 4.45217 | 144.11256 | 153.00544 | 12.01086 | 0.1912702 | 0.17909394 | 3.1170861 | 21 | 8 3.2 | 19.9 |
| 480351 2015 $KJ_{14}$ | 15.7 | X | 354.46867 | 184.59623 | 100.64203 | 17.37315 | 0.0558985 | 0.17527645 | 3.1621830 | 21 | 6 29.9 | 19.8 |
| 480352 2015 $KA_{15}$ | 16.7 | X | 346.32490 | 176.83720 | 161.80031 | 9.97101 | 0.0730258 | 0.19193440 | 2.9764654 | 21 | 8 27.7 | 20.4 |
| 480353 2015 $KD_{18}$ | 16.7 | X | 154.32902 | 133.65806 | 156.56901 | 13.21383 | 0.2641337 | 0.24303035 | 2.5430938 | 21 | — | — |
| 480354 2015 $KP_{19}$ | 17.3 | X | 241.72951 | 348.99563 | 256.85579 | 4.81567 | 0.0717168 | 0.27086073 | 2.3657673 | 21 | — | — |
| 480355 2015 $KR_{19}$ | 18.0 | X | 159.71597 | 16.58858 | 40.62516 | 4.27780 | 0.1259371 | 0.31028797 | 2.1608573 | 21 | 4 10.5 | 20.8 |
| 480356 2015 $KS_{20}$ | 17.0 | X | 144.47310 | 231.42130 | 71.27638 | 5.46059 | 0.2056050 | 0.24277296 | 2.5448909 | 21 | — | — |
| 480357 2015 $KM_{21}$ | 17.4 | X | 131.03836 | 97.49209 | 162.22911 | 3.32573 | 0.1218965 | 0.22418488 | 2.6836868 | 21 | 11 30.1 | 21.6 |
| 480358 2015 $KE_{22}$ | 17.3 | X | 93.27790 | 268.80913 | 68.07100 | 14.63418 | 0.2505832 | 0.24389650 | 2.5370693 | 21 | — | — |
| 480359 2015 $KS_{22}$ | 16.0 | X | 22.26273 | 130.27276 | 155.84051 | 17.27267 | 0.2121653 | 0.18048552 | 3.1010431 | 21 | 8 27.6 | 19.3 |
| 480360 2015 $KH_{23}$ | 18.1 | X | 130.68451 | 91.50589 | 299.02027 | 4.97094 | 0.0323289 | 0.28923128 | 2.2645011 | 21 | 1 16.0 | 20.5 |
| 480361 2015 $KL_{23}$ | 17.1 | X | 276.32356 | 267.51046 | 256.52365 | 8.77861 | 0.0466483 | 0.25599626 | 2.4564823 | 21 | — | — |
| 480362 2015 $KR_{24}$ | 16.2 | X | 323.38324 | 265.03452 | 62.48402 | 18.94673 | 0.1059201 | 0.17776549 | 3.1325962 | 21 | 7 4.3 | 20.4 |
| 480363 2015 $KR_{25}$ | 17.0 | X | 40.64874 | 257.83718 | 45.56230 | 7.30396 | 0.1039183 | 0.20630865 | 2.8365542 | 21 | 10 10.3 | 20.7 |
| 480364 2015 $KF_{27}$ | 17.5 | X | 23.46074 | 202.58017 | 278.33931 | 7.34801 | 0.0665310 | 0.28849026 | 2.2683772 | 21 | — | — |
| 480365 2015 $KZ_{27}$ | 18.1 | X | 194.58524 | 110.58006 | 270.89430 | 4.49218 | 0.1030668 | 0.31416029 | 2.1430642 | 21 | 3 26.3 | 21.2 |
| 480366 2015 $KK_{29}$ | 16.7 | X | 167.52917 | 132.69924 | 35.75700 | 13.85949 | 0.1210666 | 0.21349696 | 2.7725215 | 21 | 9 19.6 | 21.2 |
| 480367 2015 $KR_{30}$ | 17.7 | X | 62.02295 | 207.64202 | 243.54269 | 3.97600 | 0.1084883 | 0.29149886 | 2.2527421 | 21 | 1 1.8 | 19.7 |
| 480368 2015 $KN_{31}$ | 17.1 | X | 196.63425 | 93.29547 | 49.10290 | 5.02262 | 0.0159065 | 0.21034747 | 2.8001278 | 21 | 9 18.9 | 21.0 |
| 480369 2015 $KD_{32}$ | 18.5 | X | 13.64830 | 144.56479 | 33.79629 | 5.19445 | 0.0865504 | 0.30728126 | 2.1749302 | 21 | 2 13.8 | 20.6 |
| 480370 2015 $KT_{33}$ | 18.0 | X | 159.70151 | 104.33017 | 254.20974 | 5.96811 | 0.0922233 | 0.28445851 | 2.2897607 | 21 | 1 19.2 | 21.0 |
| 480371 2015 $KC_{34}$ | 17.7 | X | 135.48366 | 267.03850 | 31.68272 | 5.63617 | 0.1160111 | 0.24534313 | 2.5270866 | 21 | — | — |
| 480372 2015 $KA_{36}$ | 15.7 | X | 7.32591 | 175.27506 | 106.14587 | 16.52964 | 0.1728668 | 0.17465272 | 3.1697072 | 21 | 7 17.9 | 19.1 |
| 480373 2015 $KC_{36}$ | 16.2 | X | 91.87074 | 210.63766 | 86.08180 | 14.24242 | 0.1477303 | 0.20996366 | 2.8035392 | 21 | 12 6.5 | 20.5 |
| 480374 2015 $KL_{36}$ | 16.0 | X | 67.09771 | 285.48439 | 97.95599 | 22.51022 | 0.0324605 | 0.23741665 | 2.5830249 | 21 | — | — |
| 480375 2015 $KL_{37}$ | 16.7 | X | 1.74472 | 246.99690 | 132.38100 | 7.00428 | 0.0494315 | 0.21984429 | 2.7188960 | 21 | 11 18.5 | 20.2 |
| 480376 2015 $KW_{37}$ | 17.8 | X | 265.10419 | 162.45259 | 117.19387 | 6.67906 | 0.1255874 | 0.29203597 | 2.2499791 | 21 | 1 31.8 | 21.0 |
| 480377 2015 $KR_{38}$ | 17.0 | X | 308.49713 | 279.93126 | 131.67171 | 6.89235 | 0.0119913 | 0.21308937 | 2.7760558 | 21 | 10 17.6 | 20.8 |
| 480378 2015 $KV_{38}$ | 15.9 | X | 199.39778 | 346.52883 | 97.57204 | 11.11118 | 0.0223607 | 0.17949694 | 3.1124187 | 21 | 7 4.7 | 20.4 |
| 480379 2015 $KJ_{39}$ | 17.5 | X | 90.18239 | 306.60349 | 20.88216 | 1.25438 | 0.0707182 | 0.23604837 | 2.5929972 | 21 | — | — |
| 480380 2015 $KP_{40}$ | 17.7 | X | 142.10645 | 75.29153 | 220.39510 | 7.59513 | 0.1315705 | 0.24355570 | 2.5394355 | 21 | — | — |
| 480381 2015 $KA_{41}$ | 17.1 | X | 91.54920 | 129.28962 | 208.18356 | 2.73451 | 0.1855269 | 0.23482672 | 2.6019825 | 21 | — | — |
| 480382 2015 $KJ_{44}$ | 17.1 | X | 212.45898 | 129.68001 | 61.62822 | 4.55842 | 0.0585870 | 0.23483680 | 2.6019081 | 21 | 12 5.9 | 20.6 |
| 480383 2015 $KC_{45}$ | 16.6 | X | 7.81115 | 230.06885 | 66.13979 | 11.90141 | 0.1210168 | 0.18250276 | 3.0781498 | 21 | 8 10.7 | 20.5 |
| 480384 2015 $KD_{45}$ | 18.5 | X | 17.08026 | 284.23695 | 242.29286 | 1.90385 | 0.0774320 | 0.29844338 | 2.2176589 | 21 | 2 1.6 | 20.7 |
| 480385 2015 $KK_{46}$ | 17.2 | X | 298.61426 | 120.96221 | 84.50501 | 6.73656 | 0.0532945 | 0.27940152 | 2.3173068 | 21 | — | — |
| 480386 2015 $KC_{47}$ | 17.0 | X | 51.61439 | 129.47587 | 226.67096 | 11.75777 | 0.1816585 | 0.22486654 | 2.6782605 | 21 | — | — |
| 480387 2015 $KS_{48}$ | 16.4 | X | 106.45901 | 68.60244 | 238.92319 | 26.79650 | 0.1381360 | 0.23004501 | 2.6379152 | 21 | 12 29.8 | 20.9 |
| 480388 2015 $KM_{49}$ | 16.4 | X | 28.57356 | 32.32233 | 233.77956 | 16.63739 | 0.1274162 | 0.18020510 | 3.1042594 | 21 | 7 25.9 | 20.6 |
| 480389 2015 $KW_{49}$ | 17.1 | X | 63.57696 | 133.86101 | 213.06705 | 2.30077 | 0.0762456 | 0.23065447 | 2.6332664 | 21 | 12 31.8 | 20.8 |
| 480390 2015 $KO_{50}$ | 17.4 | X | 30.74060 | 57.26269 | 63.11854 | 4.55595 | 0.0797564 | 0.28316847 | 2.2967098 | 21 | — | — |
| 480391 2015 $KE_{51}$ | 14.8 | X | 244.08855 | 223.14215 | 70.65093 | 3.89452 | 0.2059186 | 0.12303455 | 4.0036060 | 21 | 2 16.4 | 21.1 |
| 480392 2015 $KS_{51}$ | 17.0 | X | 85.53082 | 41.05122 | 238.86185 | 3.04238 | 0.1165267 | 0.21066245 | 2.7973359 | 21 | 11 5.4 | 21.0 |
| 480393 2015 $KW_{51}$ | 16.6 | X | 153.04823 | 206.73857 | 69.59016 | 10.83087 | 0.1832064 | 0.23814617 | 2.5777472 | 21 | — | — |
| 480394 2015 $KX_{51}$ | 16.6 | X | 119.23896 | 36.47998 | 250.30751 | 13.30537 | 0.1543430 | 0.22695559 | 2.6618002 | 21 | 12 21.7 | 21.0 |
| 480395 2015 $KL_{54}$ | 16.9 | X | 79.44977 | 100.91423 | 210.86626 | 4.88139 | 0.0577377 | 0.22429405 | 2.6828160 | 21 | 12 3.7 | 20.6 |
| 480396 2015 $KQ_{54}$ | 17.0 | X | 82.77425 | 246.76640 | 89.10022 | 7.86395 | 0.1018799 | 0.23344948 | 2.6122061 | 21 | — | — |
| 480397 2015 $KT_{58}$ | 17.3 | X | 122.12396 | 124.79186 | 163.44549 | 3.79495 | 0.0828175 | 0.24032709 | 2.5621284 | 21 | 12 26.5 | 21.1 |
| 480398 2015 $KG_{59}$ | 16.5 | X | 132.36061 | 211.28128 | 107.81506 | 7.31918 | 0.1907673 | 0.24455104 | 2.5325404 | 21 | — | — |
| 480399 2015 $KA_{60}$ | 16.6 | X | 39.28676 | 82.73521 | 171.70911 | 18.37411 | 0.1847509 | 0.17892740 | 3.1190200 | 21 | 8 8.4 | 20.6 |
| 480400 2015 $KC_{67}$ | 17.3 | X | 104.12938 | 225.65979 | 106.10690 | 7.45687 | 0.2189357 | 0.24063255 | 2.5599597 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480401 2015 $KM_{67}$ | 17.7 | $X$ | 3.73692 | 322.80986 | 115.47058 | 6.98797 | 0.1009543 | 0.25717868 | 2.4489471 | 21 | — | — |
| 480402 2015 $KC_{69}$ | 16.8 | $X$ | 123.06546 | 62.02517 | 175.76127 | 11.48608 | 0.0718328 | 0.21861690 | 2.7290630 | 21 | 10 24.7 | 20.8 |
| 480403 2015 $KU_{71}$ | 17.7 | $X$ | 180.81919 | 45.52322 | 188.66702 | 10.68773 | 0.0771093 | 0.24166728 | 2.5526473 | 21 | 12 22.5 | 21.5 |
| 480404 2015 $KK_{77}$ | 17.3 | $X$ | 153.73878 | 118.00456 | 130.58955 | 6.91690 | 0.1221105 | 0.23387281 | 2.6090529 | 21 | 12 9.9 | 21.5 |
| 480405 2015 $KN_{77}$ | 16.6 | $X$ | 181.75895 | 116.91522 | 85.89295 | 13.89772 | 0.0967859 | 0.22999044 | 2.6383325 | 21 | 11 15.2 | 20.6 |
| 480406 2015 $KZ_{80}$ | 16.7 | $X$ | 29.08353 | 136.28624 | 178.42293 | 11.42198 | 0.1067051 | 0.20335791 | 2.8639274 | 21 | 10 7.2 | 20.2 |
| 480407 2015 $KL_{81}$ | 16.8 | $X$ | 128.46696 | 155.66932 | 102.33524 | 12.98477 | 0.1362338 | 0.22576499 | 2.6711502 | 21 | 11 28.2 | 21.1 |
| 480408 2015 $KQ_{82}$ | 17.1 | $X$ | 254.00004 | 0.39147 | 167.22982 | 11.29221 | 0.0657477 | 0.24619896 | 2.5212267 | 21 | 12 30.1 | 20.5 |
| 480409 2015 $KR_{83}$ | 17.2 | $X$ | 77.96161 | 160.18198 | 165.45025 | 11.26978 | 0.1731243 | 0.22757015 | 2.6570059 | 21 | 12 31.4 | 21.5 |
| 480410 2015 $KK_{90}$ | 16.2 | $X$ | 359.93215 | 198.74656 | 89.19824 | 8.66584 | 0.1926789 | 0.17569125 | 3.1572039 | 21 | 7 12.5 | 19.5 |
| 480411 2015 $KN_{91}$ | 18.1 | $X$ | 236.10134 | 101.84242 | 170.08707 | 3.39425 | 0.0986179 | 0.27774498 | 2.3265117 | 21 | — | — |
| 480412 2015 $KT_{92}$ | 17.0 | $X$ | 97.41244 | 266.50623 | 113.37562 | 6.96823 | 0.1382934 | 0.26139563 | 2.4225375 | 21 | — | — |
| 480413 2015 $KS_{94}$ | 16.7 | $X$ | 144.96738 | 79.69127 | 119.88687 | 9.18278 | 0.0568561 | 0.20945806 | 2.8080489 | 21 | 10 1.4 | 20.9 |
| 480414 2015 $KY_{94}$ | 17.2 | $X$ | 279.08357 | 267.98396 | 205.96901 | 12.39268 | 0.0300533 | 0.23008982 | 2.6375728 | 21 | 11 26.9 | 20.7 |
| 480415 2015 $KB_{95}$ | 16.2 | $X$ | 10.64477 | 157.13166 | 109.65838 | 10.49674 | 0.0117772 | 0.17732215 | 3.1378154 | 21 | 6 28.3 | 20.5 |
| 480416 2015 $KW_{97}$ | 16.7 | $X$ | 112.92013 | 228.85393 | 82.76883 | 14.28525 | 0.1978286 | 0.23350617 | 2.6117833 | 21 | — | — |
| 480417 2015 $KZ_{98}$ | 16.4 | $X$ | 327.08175 | 269.15246 | 77.76608 | 14.73876 | 0.0557847 | 0.19047062 | 2.9916955 | 21 | 8 15.7 | 20.6 |
| 480418 2015 $KN_{99}$ | 17.0 | $X$ | 271.23519 | 350.13847 | 233.41154 | 24.45936 | 0.1596346 | 0.27614778 | 2.3354739 | 21 | — | — |
| 480419 2015 $KB_{107}$ | 17.3 | $X$ | 209.82749 | 51.44436 | 161.63149 | 3.44207 | 0.1603976 | 0.24399734 | 2.5363703 | 21 | 12 19.9 | 21.1 |
| 480420 2015 $KX_{111}$ | 16.5 | $X$ | 134.65321 | 56.47604 | 163.84217 | 9.08669 | 0.1388997 | 0.21215554 | 2.7841960 | 21 | 10 17.9 | 20.9 |
| 480421 2015 $KD_{112}$ | 17.1 | $X$ | 28.82989 | 278.81142 | 187.98894 | 9.68001 | 0.0616014 | 0.27343860 | 2.3508748 | 21 | — | — |
| 480422 2015 $KY_{112}$ | 17.0 | $X$ | 291.87777 | 284.88148 | 212.35848 | 11.83780 | 0.0885248 | 0.24657806 | 2.5186419 | 21 | — | — |
| 480423 2015 $KZ_{113}$ | 16.5 | $X$ | 25.38695 | 59.18452 | 201.17277 | 9.93106 | 0.2068080 | 0.17585294 | 3.1552683 | 21 | 7 24.7 | 20.2 |
| 480424 2015 $KK_{114}$ | 16.4 | $X$ | 325.64411 | 249.05941 | 78.19534 | 12.49581 | 0.0856689 | 0.17966690 | 3.1104556 | 21 | 7 10.6 | 20.4 |
| 480425 2015 $KL_{117}$ | 17.0 | $X$ | 119.99554 | 145.10975 | 99.45797 | 12.53782 | 0.1276588 | 0.21333939 | 2.7738865 | 21 | 11 4.6 | 21.5 |
| 480426 2015 $KC_{122}$ | 16.5 | $X$ | 180.99235 | 26.81006 | 147.16912 | 34.10547 | 0.1912310 | 0.23389301 | 2.6089028 | 21 | 10 8.2 | 21.3 |
| 480427 2015 $KR_{122}$ | 16.8 | $X$ | 35.82861 | 320.83790 | 354.81328 | 1.64731 | 0.0735669 | 0.20663742 | 2.8335447 | 21 | 10 12.6 | 20.6 |
| 480428 2015 $KZ_{122}$ | 16.2 | $X$ | 79.15442 | 210.14820 | 106.94139 | 15.25992 | 0.1556474 | 0.22670927 | 2.6637279 | 21 | 12 21.6 | 20.3 |
| 480429 2015 $KE_{123}$ | 16.7 | $X$ | 106.79570 | 196.16569 | 112.44651 | 17.29600 | 0.1975936 | 0.22784812 | 2.6548445 | 21 | — | — |
| 480430 2015 $KD_{125}$ | 17.3 | $X$ | 27.72971 | 138.05656 | 199.68827 | 5.94385 | 0.0709629 | 0.21973125 | 2.7198284 | 21 | 11 1.8 | 20.8 |
| 480431 2015 $KD_{126}$ | 16.4 | $X$ | 40.72811 | 231.10192 | 71.75597 | 9.21722 | 0.1365078 | 0.20583751 | 2.8408810 | 21 | 10 16.4 | 20.1 |
| 480432 2015 $KC_{128}$ | 17.8 | $X$ | 31.05244 | 350.87618 | 109.43158 | 5.55393 | 0.1063195 | 0.28269596 | 2.2992683 | 21 | — | — |
| 480433 2015 $KS_{128}$ | 17.3 | $X$ | 104.89904 | 97.10980 | 206.77596 | 11.85417 | 0.1840342 | 0.23181645 | 2.6244595 | 21 | 12 30.6 | 21.8 |
| 480434 2015 $KU_{128}$ | 16.4 | $X$ | 11.17726 | 95.54784 | 192.85283 | 8.33192 | 0.1592924 | 0.18540814 | 3.0459085 | 21 | 8 1.6 | 20.0 |
| 480435 2015 $KU_{129}$ | 17.6 | $X$ | 173.05471 | 157.23150 | 163.05033 | 5.30310 | 0.2060751 | 0.26734847 | 2.3864422 | 21 | 1 1.1 | 21.3 |
| 480436 2015 $KZ_{131}$ | 16.5 | $X$ | 69.79103 | 243.30197 | 82.73881 | 13.56861 | 0.1068801 | 0.21116176 | 2.7929246 | 21 | 12 13.6 | 20.3 |
| 480437 2015 $KA_{132}$ | 17.3 | $X$ | 314.39434 | 154.64641 | 70.72101 | 7.74123 | 0.0619407 | 0.28320690 | 2.2965020 | 21 | 1 30.1 | 20.2 |
| 480438 2015 $KH_{132}$ | 15.7 | $X$ | 348.46395 | 253.91202 | 84.52668 | 26.91280 | 0.2273379 | 0.17294144 | 3.1905826 | 21 | 9 12.1 | 19.6 |
| 480439 2015 $KC_{134}$ | 16.7 | $X$ | 195.77718 | 89.67590 | 119.83723 | 12.56174 | 0.2045066 | 0.24150942 | 2.5537595 | 21 | 11 30.1 | 21.0 |
| 480440 2015 $KY_{134}$ | 17.0 | $X$ | 16.10082 | 271.38180 | 30.67641 | 8.75731 | 0.3086820 | 0.18482013 | 3.0523655 | 21 | 9 24.8 | 19.9 |
| 480441 2015 $KR_{136}$ | 17.0 | $X$ | 102.08908 | 250.34927 | 59.21006 | 6.56044 | 0.2239992 | 0.22930539 | 2.6435845 | 21 | — | — |
| 480442 2015 $KE_{138}$ | 16.7 | $X$ | 53.01646 | 236.46448 | 52.75832 | 18.56695 | 0.1262730 | 0.20313315 | 2.8660396 | 21 | 10 16.8 | 20.7 |
| 480443 2015 $KC_{141}$ | 18.3 | $X$ | 343.31918 | 102.91375 | 101.05127 | 2.68549 | 0.0751807 | 0.30107048 | 2.2047394 | 21 | 2 2.8 | 20.7 |
| 480444 2015 $KA_{142}$ | 16.6 | $X$ | 69.55895 | 325.54242 | 273.81938 | 1.72755 | 0.0259524 | 0.19184182 | 2.9774230 | 21 | 8 11.3 | 20.7 |
| 480445 2015 $KF_{143}$ | 17.9 | $X$ | 227.42425 | 327.34162 | 279.07507 | 1.86445 | 0.1656696 | 0.26418143 | 2.4054769 | 21 | — | — |
| 480446 2015 $KK_{144}$ | 15.9 | $X$ | 338.56683 | 256.38022 | 62.12398 | 26.28150 | 0.2848330 | 0.17318563 | 3.1875828 | 21 | 6 26.6 | 19.3 |
| 480447 2015 $KY_{144}$ | 18.1 | $X$ | 357.42553 | 262.69708 | 277.00014 | 2.22690 | 0.0964264 | 0.29965463 | 2.2116788 | 21 | 1 17.0 | 20.1 |
| 480448 2015 $KY_{146}$ | 16.5 | $X$ | 111.29969 | 142.83813 | 196.67513 | 13.99727 | 0.1194830 | 0.24250784 | 2.5467454 | 21 | — | — |
| 480449 2015 $KV_{149}$ | 17.1 | $X$ | 122.75091 | 204.55040 | 94.22848 | 6.66002 | 0.2807080 | 0.23515590 | 2.5995537 | 21 | — | — |
| 480450 2015 $KO_{156}$ | 16.0 | $X$ | 339.72796 | 158.01513 | 134.14297 | 27.98875 | 0.1526103 | 0.17152247 | 3.2081552 | 21 | 6 15.8 | 20.3 |
| 480451 2015 $KR_{158}$ | 16.7 | $X$ | 197.56434 | 179.78865 | 330.45275 | 8.64248 | 0.1397493 | 0.21848828 | 2.7301339 | 21 | 9 17.4 | 21.0 |
| 480452 2015 $KZ_{158}$ | 16.8 | $X$ | 45.06977 | 10.09621 | 302.76483 | 4.84454 | 0.0556597 | 0.21025970 | 2.8009070 | 21 | 10 17.4 | 20.6 |
| 480453 2015 $KT_{159}$ | 16.2 | $X$ | 6.13223 | 116.74690 | 174.01351 | 14.27061 | 0.2444211 | 0.17610614 | 3.1522432 | 21 | 7 30.0 | 19.5 |
| 480454 2015 $KX_{159}$ | 16.1 | $X$ | 11.29617 | 180.38083 | 94.84002 | 16.46941 | 0.2193750 | 0.17493344 | 3.1663152 | 21 | 7 20.8 | 19.4 |
| 480455 2015 $KZ_{159}$ | 16.6 | $X$ | 155.77111 | 94.01082 | 173.88196 | 8.37985 | 0.1295806 | 0.23803404 | 2.5785566 | 21 | — | — |
| 480456 2015 $LS$ | 17.2 | $X$ | 104.46264 | 137.15040 | 157.86756 | 16.07978 | 0.1770287 | 0.22812176 | 2.6527210 | 21 | 12 21.2 | 21.8 |
| 480457 2015 $LB_{1}$ | 17.2 | $X$ | 112.44080 | 138.60895 | 180.42021 | 13.83070 | 0.2048631 | 0.23748706 | 2.5825144 | 21 | — | — |
| 480458 2015 $LJ_{1}$ | 16.8 | $X$ | 76.24310 | 162.86512 | 160.17835 | 15.64614 | 0.1656668 | 0.22366683 | 2.6878291 | 21 | 12 26.0 | 21.2 |
| 480459 2015 $LP_{2}$ | 16.5 | $X$ | 354.75972 | 76.25208 | 203.32226 | 25.47448 | 0.3059112 | 0.17371378 | 3.1811187 | 21 | 6 11.1 | 19.7 |
| 480460 2015 $LN_{3}$ | 16.7 | $X$ | 116.78644 | 263.55011 | 5.34414 | 8.63824 | 0.1880422 | 0.22475734 | 2.6791280 | 21 | 11 28.3 | 21.3 |
| 480461 2015 $LP_{3}$ | 16.3 | $X$ | 120.57100 | 246.91487 | 6.14837 | 10.90503 | 0.1680233 | 0.22188577 | 2.7021933 | 21 | 11 10.2 | 20.9 |
| 480462 2015 $LA_{4}$ | 16.3 | $X$ | 344.70001 | 274.46946 | 30.76874 | 25.59777 | 0.2371000 | 0.17576022 | 3.1563778 | 21 | 6 29.7 | 20.1 |
| 480463 2015 $LA_{5}$ | 16.0 | $X$ | 6.28956 | 351.18764 | 276.04749 | 9.29300 | 0.0496979 | 0.17803119 | 3.1294786 | 21 | 6 23.6 | 20.2 |
| 480464 2015 $LR_{7}$ | 16.1 | $X$ | 35.22841 | 50.53987 | 200.87859 | 16.29232 | 0.1880740 | 0.17837723 | 3.1254300 | 21 | 7 26.7 | 20.1 |
| 480465 2015 $LS_{7}$ | 16.3 | $X$ | 355.79975 | 152.99709 | 174.66160 | 10.93179 | 0.1325504 | 0.18721891 | 3.0262368 | 21 | 8 27.6 | 19.8 |
| 480466 2015 $LC_{8}$ | 17.1 | $X$ | 123.67803 | 99.19046 | 194.08731 | 13.80004 | 0.1035726 | 0.23086375 | 2.6316748 | 21 | 12 31.8 | 21.4 |
| 480467 2015 $LE_{8}$ | 16.3 | $X$ | 350.52164 | 103.00932 | 220.29490 | 17.31103 | 0.1794826 | 0.17834121 | 3.1258508 | 21 | 8 5.2 | 20.1 |
| 480468 2015 $LO_{8}$ | 16.6 | $X$ | 67.95154 | 199.81209 | 170.55233 | 12.75917 | 0.1338268 | 0.23612209 | 2.5924574 | 21 | — | — |
| 480469 2015 $LX_{8}$ | 16.8 | $X$ | 9.27974 | 0.81172 | 53.42490 | 13.63153 | 0.1041903 | 0.24475941 | 2.5311028 | 21 | — | — |
| 480470 2015 $LO_{9}$ | 17.6 | $X$ | 189.35850 | 183.56095 | 91.80765 | 4.12241 | 0.0711494 | 0.25913801 | 2.4365873 | 21 | — | — |
| 480471 2015 $LC_{10}$ | 17.6 | $X$ | 233.60978 | 2.38501 | 281.01190 | 4.75128 | 0.1590373 | 0.28092628 | 2.3089143 | 21 | 1 5.9 | 21.3 |
| 480472 2015 $LO_{10}$ | 16.8 | $X$ | 156.79129 | 220.65998 | 85.34180 | 14.08634 | 0.1596811 | 0.24416086 | 2.5352377 | 21 | — | — |
| 480473 2015 $LK_{11}$ | 15.9 | $X$ | 10.22868 | 247.15770 | 65.97593 | 11.28370 | 0.1166877 | 0.17728985 | 3.1381965 | 21 | 9 8.3 | 19.9 |
| 480474 2015 $LP_{14}$ | 16.4 | $X$ | 354.02376 | 214.40093 | 102.93233 | 8.72535 | 0.2685442 | 0.17595725 | 3.1540212 | 21 | 8 13.2 | 19.2 |
| 480475 2015 $LQ_{14}$ | 16.7 | $X$ | 14.26466 | 85.02136 | 214.23781 | 5.23525 | 0.1657992 | 0.18223436 | 3.0811715 | 21 | 8 23.3 | 20.3 |
| 480476 2015 $LZ_{21}$ | 17.0 | $X$ | 204.62802 | 227.27761 | 81.95343 | 7.74556 | 0.1287918 | 0.27454807 | 2.3445372 | 21 | 1 11.8 | 20.5 |
| 480477 2015 $LB_{22}$ | 16.2 | $X$ | 142.84579 | 202.78226 | 92.51947 | 15.00929 | 0.0891629 | 0.24230129 | 2.5481925 | 21 | — | — |
| 480478 2015 $LG_{22}$ | 16.1 | $X$ | 67.00925 | 172.77664 | 113.03901 | 16.42079 | 0.1266995 | 0.20469364 | 2.8514547 | 21 | 10 30.9 | 20.4 |
| 480479 2015 $LM_{22}$ | 17.6 | $X$ | 105.88583 | 262.26528 | 219.45298 | 3.06911 | 0.0143247 | 0.31381150 | 2.1446519 | 21 | 4 12.8 | 19.9 |
| 480480 2015 $LN_{22}$ | 17.2 | $X$ | 261.78103 | 322.08392 | 229.42425 | 4.14309 | 0.0598618 | 0.25543029 | 2.4601096 | 21 | — | — |

# ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480481 2015 $LV_{22}$ | 15.5 | X | 21.24917 | 167.07802 | 82.41883 | 17.28054 | 0.1365505 | 0.17072096 | 3.2181885 | 21 | 6 26.9 | 19.3 |
| 480482 2015 $LD_{24}$ | 16.0 | X | 105.48909 | 194.26799 | 55.97612 | 12.44124 | 0.0697199 | 0.20014332 | 2.8945117 | 21 | 10 19.9 | 20.3 |
| 480483 2015 $LS_{25}$ | 17.9 | X | 103.27446 | 302.11857 | 114.88302 | 6.49774 | 0.1264474 | 0.28018580 | 2.3129805 | 21 | 1 30.5 | 20.3 |
| 480484 2015 $LY_{26}$ | 16.7 | X | 274.58115 | 250.91758 | 165.25222 | 5.76142 | 0.0853626 | 0.19366734 | 2.9586832 | 21 | 8 23.4 | 20.8 |
| 480485 2015 $LC_{27}$ | 16.9 | X | 62.57123 | 186.21724 | 150.29786 | 5.55262 | 0.1193124 | 0.22020382 | 2.7159357 | 21 | 12 21.5 | 20.9 |
| 480486 2015 $LT_{28}$ | 15.9 | X | 332.14700 | 242.45749 | 118.27271 | 9.09070 | 0.0730987 | 0.17918116 | 3.1160744 | 21 | 9 6.6 | 19.9 |
| 480487 2015 $LU_{28}$ | 16.7 | X | 296.75397 | 356.34674 | 109.96968 | 5.49930 | 0.0249685 | 0.21501362 | 2.7594682 | 21 | 12 7.8 | 20.3 |
| 480488 2015 $LD_{30}$ | 15.8 | X | 267.18120 | 315.35188 | 107.71608 | 28.14171 | 0.0837906 | 0.17659263 | 3.1464512 | 21 | 8 27.4 | 20.6 |
| 480489 2015 $LH_{30}$ | 16.7 | X | 310.36866 | 167.47412 | 295.04674 | 2.35461 | 0.0292365 | 0.21851844 | 2.7298827 | 21 | 12 21.1 | 20.3 |
| 480490 2015 $LB_{31}$ | 15.8 | X | 328.06635 | 68.96713 | 296.46172 | 10.36904 | 0.0919082 | 0.17646977 | 3.1479115 | 21 | 8 28.9 | 19.9 |
| 480491 2015 $LG_{31}$ | 15.9 | X | 50.79503 | 331.04982 | 281.81092 | 15.22131 | 0.1777229 | 0.17350335 | 3.1836903 | 21 | 8 18.5 | 20.3 |
| 480492 2015 $LO_{31}$ | 17.1 | X | 133.17240 | 315.30401 | 118.47468 | 9.01230 | 0.1333885 | 0.28346736 | 2.2950950 | 21 | 4 9.4 | 20.3 |
| 480493 2015 $LR_{31}$ | 16.4 | X | 49.44525 | 11.42936 | 278.35095 | 7.14253 | 0.0659884 | 0.18367650 | 3.0650224 | 21 | 9 20.4 | 20.7 |
| 480494 2015 $LY_{31}$ | 17.5 | X | 260.74152 | 150.66323 | 71.70705 | 2.66895 | 0.1394529 | 0.25713443 | 2.4492281 | 21 | — | — |
| 480495 2015 $LS_{32}$ | 17.1 | X | 216.90164 | 286.87548 | 301.95463 | 11.43175 | 0.1485949 | 0.24037888 | 2.5617604 | 21 | — | — |
| 480496 2015 $LB_{33}$ | 16.6 | X | 143.24237 | 140.46484 | 87.42854 | 7.24083 | 0.0288916 | 0.19933047 | 2.9023754 | 21 | 10 31.1 | 20.8 |
| 480497 2015 $LV_{33}$ | 15.4 | X | 348.13001 | 226.84164 | 111.87413 | 16.70576 | 0.0516227 | 0.17400683 | 3.1775460 | 21 | 9 3.5 | 19.8 |
| 480498 2015 $LR_{34}$ | 16.6 | X | 106.12901 | 232.44279 | 98.79472 | 8.54659 | 0.1182794 | 0.22598109 | 2.6694471 | 21 | — | — |
| 480499 2015 $LQ_{35}$ | 17.2 | X | 97.51314 | 68.91166 | 208.61210 | 11.18654 | 0.1735840 | 0.21679605 | 2.7443224 | 21 | 11 22.3 | 21.5 |
| 480500 2015 $LZ_{35}$ | 16.9 | X | 210.76618 | 77.38295 | 140.29193 | 13.55723 | 0.1440026 | 0.23313249 | 2.6145735 | 21 | 12 26.9 | 20.9 |
| 480501 2015 $LO_{36}$ | 17.2 | X | 123.56104 | 70.19589 | 219.93809 | 6.88960 | 0.1787520 | 0.23256512 | 2.6188241 | 21 | 12 30.8 | 21.7 |
| 480502 2015 $LU_{36}$ | 17.3 | X | 204.40217 | 206.74802 | 86.29904 | 5.64096 | 0.1551925 | 0.27077849 | 2.3662463 | 21 | — | — |
| 480503 2015 $LK_{38}$ | 17.4 | X | 69.72329 | 192.83277 | 140.33529 | 3.78465 | 0.1137050 | 0.22650912 | 2.6652968 | 21 | 12 25.8 | 21.2 |
| 480504 2015 $LN_{38}$ | 17.1 | X | 101.88051 | 133.80945 | 165.79678 | 5.42080 | 0.1641981 | 0.22339632 | 2.6899985 | 21 | 12 21.9 | 21.5 |
| 480505 2015 $MM$ | 17.2 | X | 240.58851 | 152.13199 | 124.15365 | 5.87999 | 0.2032933 | 0.27969181 | 2.3157031 | 21 | 1 3.0 | 21.0 |
| 480506 2015 $MN$ | 16.5 | X | 3.65066 | 82.96002 | 195.91649 | 9.62253 | 0.2115556 | 0.17393254 | 3.1784507 | 21 | 7 5.9 | 19.9 |
| 480507 2015 $MR$ | 15.7 | X | 359.22417 | 228.25477 | 93.23456 | 8.24825 | 0.1191911 | 0.19045324 | 2.9918775 | 21 | 8 30.3 | 19.3 |
| 480508 2015 $MT$ | 16.4 | X | 17.48642 | 115.36619 | 229.22199 | 8.26845 | 0.1494109 | 0.20672053 | 2.8327852 | 21 | 11 2.4 | 19.6 |
| 480509 2015 $MY$ | 16.1 | X | 15.48636 | 143.74349 | 163.24142 | 7.85040 | 0.2433642 | 0.18273775 | 3.0755104 | 21 | 9 17.7 | 19.1 |
| 480510 2015 $MV_{1}$ | 17.6 | X | 192.02032 | 349.09350 | 320.90943 | 7.12851 | 0.1222503 | 0.27699096 | 2.3307319 | 21 | — | — |
| 480511 2015 $MQ_{2}$ | 16.1 | X | 0.97701 | 290.74662 | 34.04350 | 9.99388 | 0.2837571 | 0.17540298 | 3.1606621 | 21 | 9 16.8 | 19.0 |
| 480512 2015 $ML_{5}$ | 16.5 | X | 130.91664 | 27.11899 | 230.63023 | 7.57265 | 0.1063459 | 0.21132957 | 2.7914458 | 21 | 11 24.9 | 20.7 |
| 480513 2015 $MS_{5}$ | 17.5 | X | 282.06629 | 33.09595 | 185.75279 | 7.10078 | 0.0366495 | 0.26097858 | 2.4251176 | 21 | — | — |
| 480514 2015 $ME_{6}$ | 16.3 | X | 28.44729 | 30.70794 | 264.87231 | 9.53425 | 0.2096384 | 0.17757168 | 3.1348751 | 21 | 9 14.9 | 20.2 |
| 480515 2015 $MJ_{6}$ | 16.9 | X | 173.49596 | 144.88262 | 133.45668 | 5.97410 | 0.0772172 | 0.23817017 | 2.5775739 | 21 | — | — |
| 480516 2015 $MK_{6}$ | 15.7 | X | 348.75370 | 86.99358 | 258.52338 | 7.41187 | 0.0245518 | 0.18134954 | 3.0911856 | 21 | 9 5.1 | 20.0 |
| 480517 2015 $MP_{6}$ | 16.4 | X | 5.73231 | 102.87816 | 272.38531 | 10.82252 | 0.1550567 | 0.19604566 | 2.9347058 | 21 | 11 21.4 | 20.0 |
| 480518 2015 $MJ_{7}$ | 16.5 | X | 118.33107 | 323.68257 | 269.11324 | 9.77037 | 0.0587086 | 0.19122624 | 2.9838093 | 21 | 10 1.9 | 21.1 |
| 480519 2015 $MZ_{7}$ | 17.1 | X | 64.62735 | 111.58619 | 228.23475 | 4.84598 | 0.0544042 | 0.21068043 | 2.7971768 | 21 | 12 17.4 | 21.0 |
| 480520 2015 $MP_{8}$ | 16.6 | X | 33.37869 | 73.42195 | 264.97830 | 10.95257 | 0.1012303 | 0.19351553 | 2.9602303 | 21 | 11 7.4 | 20.6 |
| 480521 2015 $MC_{9}$ | 16.0 | X | 354.63706 | 70.12120 | 281.89655 | 15.65569 | 0.1080408 | 0.17986382 | 3.1081849 | 21 | 9 17.9 | 20.2 |
| 480522 2015 $MN_{9}$ | 17.1 | X | 341.93475 | 219.96316 | 197.30552 | 4.87081 | 0.0300550 | 0.21088562 | 2.7953621 | 21 | 12 5.0 | 20.7 |
| 480523 2015 $MS_{9}$ | 17.0 | X | 302.60090 | 347.48417 | 145.31009 | 7.11247 | 0.0712162 | 0.22908389 | 2.6452884 | 21 | — | — |
| 480524 2015 $MV_{9}$ | 17.4 | X | 209.94209 | 31.82435 | 210.57243 | 3.35283 | 0.0922391 | 0.23941970 | 2.5685979 | 21 | — | — |
| 480525 2015 $MJ_{10}$ | 16.3 | X | 13.71911 | 55.75806 | 262.64560 | 10.04875 | 0.1728874 | 0.17821183 | 3.1273635 | 21 | 9 14.2 | 20.1 |
| 480526 2015 $MD_{11}$ | 16.2 | X | 53.66440 | 57.22382 | 219.51717 | 9.03928 | 0.0503850 | 0.18094157 | 3.0958303 | 21 | 9 7.5 | 20.6 |
| 480527 2015 $ME_{11}$ | 16.2 | X | 323.21615 | 111.87779 | 246.33347 | 9.50161 | 0.0858198 | 0.17024175 | 3.2242249 | 21 | 8 11.9 | 20.6 |
| 480528 2015 $MM_{13}$ | 15.7 | X | 23.87077 | 186.64177 | 98.94322 | 28.65978 | 0.1388444 | 0.17292290 | 3.1908108 | 21 | 8 27.2 | 20.1 |
| 480529 2015 $MN_{13}$ | 16.3 | X | 121.91532 | 179.82067 | 85.90627 | 10.12547 | 0.0870315 | 0.21050409 | 2.7987387 | 21 | 11 25.6 | 20.5 |
| 480530 2015 $MT_{14}$ | 16.3 | X | 27.08424 | 140.08741 | 167.66025 | 13.54915 | 0.0758886 | 0.18207510 | 3.0829679 | 21 | 9 18.1 | 20.3 |
| 480531 2015 $MV_{19}$ | 17.1 | X | 63.84707 | 335.81882 | 341.64629 | 3.08751 | 0.1719571 | 0.21911512 | 2.7249246 | 21 | 12 5.5 | 21.0 |
| 480532 2015 $MP_{20}$ | 16.9 | X | 46.25899 | 102.08426 | 249.19309 | 7.65575 | 0.2210167 | 0.22477877 | 2.6789577 | 21 | — | — |
| 480533 2015 $MW_{20}$ | 18.0 | X | 16.29034 | 277.61855 | 260.64938 | 3.25233 | 0.0278974 | 0.30611199 | 2.1804652 | 21 | 2 19.1 | 20.3 |
| 480534 2015 $MQ_{25}$ | 16.5 | X | 3.61058 | 7.25763 | 269.64224 | 5.21659 | 0.1045388 | 0.17857450 | 3.1231278 | 21 | 7 2.7 | 20.3 |
| 480535 2015 $MK_{27}$ | 16.3 | X | 272.54431 | 104.18839 | 271.66633 | 9.87035 | 0.0303933 | 0.18447098 | 3.0562158 | 21 | 7 7.0 | 20.5 |
| 480536 2015 $MQ_{35}$ | 17.4 | X | 224.26803 | 107.17000 | 145.10085 | 6.74850 | 0.0691545 | 0.26696838 | 2.3887067 | 21 | — | — |
| 480537 2015 $MK_{40}$ | 16.6 | X | 77.95181 | 216.75969 | 116.49618 | 15.83191 | 0.1210383 | 0.23214529 | 2.6219805 | 21 | — | — |
| 480538 2015 $MH_{43}$ | 16.9 | X | 148.50358 | 28.53207 | 212.44345 | 13.85010 | 0.0698901 | 0.23050527 | 2.6344026 | 21 | 11 25.3 | 20.8 |
| 480539 2015 $MV_{44}$ | 15.8 | X | 91.00744 | 182.59988 | 95.08696 | 11.05792 | 0.0746617 | 0.19266890 | 2.9688959 | 21 | 11 5.9 | 20.2 |
| 480540 2015 $MH_{45}$ | 16.3 | X | 129.11640 | 139.40745 | 92.31023 | 10.87581 | 0.0417966 | 0.18820644 | 3.0156417 | 21 | 10 21.3 | 20.9 |
| 480541 2015 $MS_{45}$ | 16.4 | X | 35.85876 | 240.33343 | 103.87737 | 10.68052 | 0.0505142 | 0.19337500 | 2.9616643 | 21 | 11 16.4 | 20.5 |
| 480542 2015 $MU_{46}$ | 15.9 | X | 351.42262 | 239.22191 | 111.64385 | 13.63598 | 0.0912850 | 0.17433909 | 3.1735076 | 21 | 9 26.0 | 20.1 |
| 480543 2015 $MW_{49}$ | 15.7 | X | 70.23643 | 210.58969 | 94.20843 | 13.15614 | 0.1341368 | 0.19139747 | 2.9820294 | 21 | 11 21.5 | 20.2 |
| 480544 2015 $MG_{50}$ | 15.8 | X | 301.32878 | 321.57235 | 108.43693 | 15.09858 | 0.0734016 | 0.18174504 | 3.0866994 | 21 | 10 25.6 | 20.2 |
| 480545 2015 $MJ_{52}$ | 15.5 | X | 321.06741 | 260.33403 | 105.88328 | 22.87811 | 0.0999218 | 0.17564723 | 3.1577314 | 21 | 8 27.8 | 19.8 |
| 480546 2015 $MR_{55}$ | 16.3 | X | 29.55956 | 58.04590 | 196.29710 | 16.37623 | 0.1033838 | 0.17593366 | 3.1543032 | 21 | 7 12.2 | 20.7 |
| 480547 2015 $MY_{55}$ | 16.2 | X | 142.01630 | 7.48812 | 288.40531 | 11.70600 | 0.2486904 | 0.23812176 | 2.5779233 | 21 | — | — |
| 480548 2015 $MF_{56}$ | 17.0 | X | 230.80489 | 101.81950 | 114.22510 | 6.43154 | 0.1666565 | 0.24370541 | 2.5383954 | 21 | — | — |
| 480549 2015 $MH_{56}$ | 16.5 | X | 55.55476 | 332.89585 | 281.78911 | 10.75426 | 0.2124474 | 0.17810794 | 3.1285795 | 21 | 9 3.4 | 20.8 |
| 480550 2015 $MV_{56}$ | 16.6 | X | 85.52470 | 238.92752 | 97.72913 | 3.22570 | 0.0772120 | 0.22055748 | 2.7130317 | 21 | — | |
| 480551 2015 $MJ_{57}$ | 16.3 | X | 30.53923 | 202.96865 | 112.75148 | 11.36822 | 0.0336180 | 0.18666693 | 3.0321997 | 21 | 10 3.8 | 20.6 |
| 480552 2015 $MM_{57}$ | 16.4 | X | 37.71030 | 21.63403 | 296.92652 | 8.87319 | 0.0935802 | 0.19010218 | 2.9955597 | 21 | 10 15.1 | 20.5 |
| 480553 2015 $MD_{58}$ | 16.2 | X | 332.47719 | 87.96028 | 298.30619 | 9.27996 | 0.1444069 | 0.18550095 | 3.0448925 | 21 | 9 30.1 | 19.9 |
| 480554 2015 $MK_{59}$ | 16.5 | X | 183.18015 | 315.48198 | 303.07519 | 13.44347 | 0.1018623 | 0.23041877 | 2.6350619 | 21 | — | — |
| 480555 2015 $MP_{60}$ | 17.0 | X | 176.53209 | 67.38456 | 184.82643 | 5.95261 | 0.0322278 | 0.22678117 | 2.6631648 | 21 | — | — |
| 480556 2015 $MZ_{62}$ | 17.1 | X | 109.95456 | 82.55332 | 202.03102 | 2.20735 | 0.1546566 | 0.21280372 | 2.7785395 | 21 | 12 9.5 | 21.6 |
| 480557 2015 $MD_{63}$ | 16.4 | X | 347.33642 | 85.61902 | 278.92412 | 14.49792 | 0.1420255 | 0.18449207 | 3.0559829 | 21 | 9 24.4 | 20.3 |
| 480558 2015 $MM_{63}$ | 15.5 | X | 69.37090 | 317.55458 | 279.38815 | 17.03788 | 0.1475289 | 0.17739582 | 3.1369466 | 21 | 8 17.9 | 20.1 |
| 480559 2015 $MS_{65}$ | 16.0 | X | 53.40392 | 24.11175 | 223.18123 | 6.86146 | 0.2219644 | 0.17511659 | 3.1641072 | 21 | 8 25.8 | 20.2 |
| 480560 2015 $MB_{66}$ | 16.0 | X | 351.62320 | 68.38609 | 266.86713 | 8.17176 | 0.0967096 | 0.17468380 | 3.1693313 | 21 | 8 26.3 | 20.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480561 2015 $MH_{67}$ | 16.8 | X | 176.30858 | 66.52681 | 181.09727 | 8.69712 | 0.1193689 | 0.23752934 | 2.5822079 | 21 | 12 29.9 | 20.9 |
| 480562 2015 $MJ_{68}$ | 17.5 | X | 180.78337 | 211.34576 | 97.14200 | 7.55489 | 0.1050022 | 0.25382835 | 2.4704494 | 21 | — | — |
| 480563 2015 $ME_{69}$ | 17.2 | X | 288.95255 | 353.50598 | 237.73463 | 5.79161 | 0.0650381 | 0.27187055 | 2.3599054 | 21 | 1 4.5 | 20.4 |
| 480564 2015 $MH_{69}$ | 16.9 | X | 26.20031 | 178.86391 | 223.70111 | 5.08949 | 0.0285793 | 0.22526837 | 2.6750746 | 21 | — | — |
| 480565 2015 $MK_{69}$ | 16.6 | X | 11.61787 | 88.20606 | 264.41234 | 7.94243 | 0.1207538 | 0.19172577 | 2.9786242 | 21 | 10 26.1 | 20.3 |
| 480566 2015 $MQ_{69}$ | 16.1 | X | 283.67066 | 285.52137 | 134.29923 | 11.16289 | 0.1994810 | 0.17705342 | 3.1409896 | 21 | 8 23.6 | 20.4 |
| 480567 2015 $MT_{69}$ | 17.7 | X | 39.02414 | 289.35332 | 241.35020 | 4.90804 | 0.1265731 | 0.29726897 | 2.2234959 | 21 | 3 18.3 | 19.5 |
| 480568 2015 $MV_{69}$ | 16.9 | X | 55.10168 | 144.22240 | 199.96947 | 3.91637 | 0.0794615 | 0.20975177 | 2.8054269 | 21 | 12 14.7 | 20.7 |
| 480569 2015 $MD_{70}$ | 16.0 | X | 307.05449 | 205.34292 | 199.86397 | 6.02392 | 0.1356169 | 0.18367958 | 3.0649882 | 21 | 9 16.4 | 19.7 |
| 480570 2015 $MK_{70}$ | 15.9 | X | 19.54321 | 67.79980 | 217.85786 | 7.32522 | 0.0585785 | 0.16941769 | 3.2346717 | 21 | 8 3.6 | 20.4 |
| 480571 2015 $MD_{71}$ | 17.0 | X | 164.89112 | 61.37738 | 176.46169 | 9.08131 | 0.1011441 | 0.21842001 | 2.7307028 | 21 | 12 6.2 | 21.3 |
| 480572 2015 $MO_{72}$ | 15.8 | X | 112.97073 | 298.88622 | 263.49144 | 9.75461 | 0.1667050 | 0.18220111 | 3.0815464 | 21 | 8 29.1 | 20.8 |
| 480573 2015 $MO_{74}$ | 17.1 | X | 42.62030 | 164.26073 | 210.86082 | 3.17002 | 0.1058696 | 0.21526503 | 2.7573193 | 21 | — | — |
| 480574 2015 $MM_{75}$ | 16.5 | X | 14.06524 | 217.65156 | 122.69517 | 14.59480 | 0.1417707 | 0.18628486 | 3.0363442 | 21 | 10 24.8 | 20.5 |
| 480575 2015 $MB_{76}$ | 16.5 | X | 110.89453 | 301.28552 | 261.85414 | 8.66175 | 0.0732715 | 0.17538762 | 3.1608467 | 21 | 8 18.9 | 21.3 |
| 480576 2015 $MM_{76}$ | 15.8 | X | 149.63554 | 251.37923 | 273.76417 | 16.30317 | 0.1776090 | 0.17831534 | 3.1261531 | 21 | 8 15.9 | 21.2 |
| 480577 2015 $MY_{77}$ | 17.1 | X | 306.64533 | 357.68263 | 132.82991 | 16.42334 | 0.0170230 | 0.22868638 | 2.6483528 | 21 | — | — |
| 480578 2015 $ME_{79}$ | 17.4 | X | 12.46399 | 352.23645 | 152.17751 | 6.60666 | 0.0841585 | 0.26738489 | 2.3862255 | 21 | 1 1.5 | 20.1 |
| 480579 2015 $ML_{79}$ | 16.2 | X | 281.87022 | 166.40864 | 274.31143 | 9.95039 | 0.0882075 | 0.19039872 | 2.9924486 | 21 | 9 28.5 | 20.4 |
| 480580 2015 $MP_{79}$ | 16.6 | X | 352.97866 | 140.96185 | 213.06934 | 2.71489 | 0.0549198 | 0.18413562 | 3.0599254 | 21 | 9 25.8 | 20.5 |
| 480581 2015 $MH_{80}$ | 16.6 | X | 33.61502 | 159.94422 | 166.39607 | 3.13119 | 0.1092890 | 0.19005405 | 2.9960655 | 21 | 10 26.9 | 20.4 |
| 480582 2015 $MU_{80}$ | 16.4 | X | 308.96154 | 284.79620 | 124.16345 | 17.06325 | 0.2332711 | 0.17812860 | 3.1283376 | 21 | 9 17.5 | 20.2 |
| 480583 2015 $MB_{81}$ | 15.6 | X | 190.87812 | 215.34332 | 288.37740 | 14.88389 | 0.0497889 | 0.18044811 | 3.1014718 | 21 | 8 30.5 | 20.5 |
| 480584 2015 $MP_{81}$ | 15.8 | X | 256.82148 | 307.92533 | 133.78757 | 17.50098 | 0.1985403 | 0.17331615 | 3.1859824 | 21 | 8 18.3 | 20.5 |
| 480585 2015 $MT_{81}$ | 17.0 | X | 53.60660 | 113.50795 | 234.99367 | 5.02870 | 0.0202862 | 0.21029479 | 2.8005954 | 21 | 12 9.9 | 20.9 |
| 480586 2015 $MV_{81}$ | 16.6 | X | 316.28970 | 161.25247 | 275.06247 | 10.42263 | 0.1145568 | 0.20169272 | 2.8796690 | 21 | 11 16.7 | 20.1 |
| 480587 2015 $MF_{82}$ | 16.7 | X | 111.62959 | 307.44096 | 265.54893 | 10.98156 | 0.0801822 | 0.17894419 | 3.1188248 | 21 | 8 31.1 | 21.6 |
| 480588 2015 $MK_{82}$ | 16.9 | X | 73.84665 | 111.84663 | 235.46805 | 5.81419 | 0.0320386 | 0.21852941 | 2.7297914 | 21 | — | — |
| 480589 2015 $MS_{82}$ | 16.6 | X | 151.15748 | 326.16923 | 263.47113 | 9.94846 | 0.0892617 | 0.20497909 | 2.8488069 | 21 | 11 8.3 | 21.1 |
| 480590 2015 $MB_{84}$ | 16.9 | X | 304.66848 | 349.53525 | 142.55744 | 10.16568 | 0.1222313 | 0.22754703 | 2.6571859 | 21 | — | — |
| 480591 2015 $MF_{84}$ | 16.5 | X | 140.52876 | 286.09285 | 275.63461 | 9.93381 | 0.0839541 | 0.18677003 | 3.0310836 | 21 | 9 18.8 | 21.3 |
| 480592 2015 $MJ_{85}$ | 16.8 | X | 68.28817 | 61.01814 | 233.91021 | 0.38954 | 0.0529528 | 0.19272351 | 2.9683350 | 21 | 10 24.1 | 20.8 |
| 480593 2015 $MZ_{85}$ | 16.0 | X | 344.57161 | 182.38153 | 156.92124 | 9.78286 | 0.0972619 | 0.17411256 | 3.1762595 | 21 | 8 24.1 | 19.7 |
| 480594 2015 $MG_{86}$ | 16.4 | X | 318.77956 | 152.55913 | 237.33360 | 9.21163 | 0.0533637 | 0.18592025 | 3.0403127 | 21 | 9 20.1 | 20.6 |
| 480595 2015 $MK_{86}$ | 16.5 | X | 53.51157 | 56.63213 | 241.07076 | 8.90991 | 0.1210708 | 0.18977629 | 2.9989882 | 21 | 10 16.2 | 20.6 |
| 480596 2015 $MD_{87}$ | 16.5 | X | 298.87371 | 136.06176 | 271.60433 | 9.04462 | 0.1078682 | 0.18179449 | 3.0861397 | 21 | 9 6.7 | 20.7 |
| 480597 2015 $MS_{87}$ | 16.5 | X | 190.92655 | 232.22346 | 252.98450 | 9.91761 | 0.0102677 | 0.17156458 | 3.2076302 | 21 | 8 11.7 | 21.3 |
| 480598 2015 $MQ_{91}$ | 16.9 | X | 0.95746 | 101.27091 | 211.33501 | 9.25356 | 0.2358477 | 0.17514228 | 3.1637977 | 21 | 8 16.9 | 20.1 |
| 480599 2015 $MX_{92}$ | 16.7 | X | 127.50409 | 237.30081 | 117.21890 | 4.95896 | 0.1140039 | 0.26235711 | 2.4166151 | 21 | — | — |
| 480600 2015 $MG_{93}$ | 15.9 | X | 347.74220 | 53.69442 | 247.60628 | 25.79421 | 0.1765107 | 0.17162449 | 3.2068838 | 21 | 6 30.7 | 19.8 |
| 480601 2015 $MR_{93}$ | 16.9 | X | 143.68827 | 143.07793 | 171.65328 | 5.75282 | 0.1344076 | 0.24713381 | 2.5148646 | 21 | — | — |
| 480602 2015 $MY_{93}$ | 16.9 | X | 85.45655 | 237.82501 | 98.36365 | 14.23964 | 0.1387859 | 0.23367342 | 2.6105369 | 21 | — | — |
| 480603 2015 $MH_{97}$ | 17.3 | X | 154.62747 | 127.91193 | 139.46414 | 5.55177 | 0.1411718 | 0.22581897 | 2.6707246 | 21 | 12 30.4 | 21.7 |
| 480604 2015 $MB_{98}$ | 16.9 | X | 238.49958 | 29.02706 | 135.62848 | 4.33283 | 0.0320038 | 0.21308200 | 2.7761198 | 21 | 12 4.9 | 20.7 |
| 480605 2015 $MK_{103}$ | 16.5 | X | 61.78893 | 297.25867 | 348.11318 | 2.74057 | 0.1180184 | 0.18732752 | 3.0250669 | 21 | 10 12.1 | 20.8 |
| 480606 2015 $MT_{103}$ | 16.4 | X | 122.01640 | 114.23553 | 117.65575 | 11.62554 | 0.0635340 | 0.19103456 | 2.9858048 | 21 | 10 15.7 | 21.0 |
| 480607 2015 $MB_{104}$ | 16.8 | X | 248.79015 | 51.80471 | 126.55624 | 4.35563 | 0.0297571 | 0.22738978 | 2.6584108 | 21 | — | — |
| 480608 2015 $MG_{104}$ | 15.6 | X | 293.98778 | 294.03725 | 111.18913 | 23.13469 | 0.0762863 | 0.18120848 | 3.0927895 | 21 | 9 13.2 | 20.1 |
| 480609 2015 $MP_{104}$ | 16.9 | X | 85.40515 | 33.41310 | 292.73007 | 1.48083 | 0.0906735 | 0.21631276 | 2.7484085 | 21 | 12 29.9 | 21.0 |
| 480610 2015 $MB_{106}$ | 16.1 | X | 76.97861 | 110.19239 | 119.61455 | 16.11402 | 0.0903822 | 0.17361014 | 3.1823846 | 21 | 8 19.8 | 20.6 |
| 480611 2015 $MF_{107}$ | 16.8 | X | 260.70163 | 261.61382 | 284.29760 | 11.65937 | 0.1195566 | 0.23859547 | 2.5745100 | 21 | — | — |
| 480612 2015 $ML_{107}$ | 15.9 | X | 327.57945 | 53.85226 | 289.78172 | 7.44834 | 0.0433361 | 0.16813866 | 3.2510550 | 21 | 8 5.6 | 20.2 |
| 480613 2015 $MX_{108}$ | 16.5 | X | 262.09033 | 168.81570 | 326.94300 | 4.01492 | 0.0137456 | 0.21023302 | 2.8011439 | 21 | 11 28.9 | 20.4 |
| 480614 2015 $MD_{110}$ | 17.3 | X | 172.75114 | 246.76951 | 336.24869 | 1.12802 | 0.0498811 | 0.21141364 | 2.7907057 | 21 | 11 26.3 | 21.3 |
| 480615 2015 $MP_{110}$ | 15.8 | X | 279.52770 | 310.14905 | 99.78819 | 7.23550 | 0.1159637 | 0.17052131 | 3.2207000 | 21 | 8 18.5 | 20.2 |
| 480616 2015 $MP_{112}$ | 16.6 | X | 20.56005 | 225.82298 | 99.58779 | 10.55764 | 0.2045660 | 0.18199888 | 3.0838287 | 21 | 10 21.9 | 20.3 |
| 480617 2015 $MU_{112}$ | 17.2 | X | 115.38165 | 211.45326 | 83.30709 | 0.90893 | 0.0461641 | 0.21498404 | 2.7597214 | 21 | 12 20.8 | 21.2 |
| 480618 2015 $MV_{112}$ | 16.3 | X | 298.47379 | 273.46058 | 123.04141 | 10.12732 | 0.0863497 | 0.17407002 | 3.1767770 | 21 | 9 1.2 | 20.6 |
| 480619 2015 $MC_{113}$ | 16.2 | X | 30.03122 | 171.09421 | 119.79276 | 10.57276 | 0.0562372 | 0.17504699 | 3.1649458 | 21 | 8 30.7 | 20.5 |
| 480620 2015 $MO_{115}$ | 17.0 | X | 160.52452 | 160.99579 | 108.75346 | 14.76184 | 0.0848160 | 0.22577424 | 2.6710773 | 21 | — | — |
| 480621 2015 $MF_{123}$ | 16.4 | X | 22.16106 | 120.94749 | 207.51418 | 9.06220 | 0.1057084 | 0.18263081 | 3.0767109 | 21 | 10 9.7 | 20.3 |
| 480622 2015 $MA_{127}$ | 17.1 | X | 96.57074 | 243.52833 | 86.55220 | 7.00881 | 0.0178627 | 0.22024429 | 2.7156030 | 21 | — | — |
| 480623 2015 $MH_{127}$ | 16.3 | X | 3.49446 | 230.87048 | 114.11706 | 11.92918 | 0.0613074 | 0.18209211 | 3.0827759 | 21 | 10 5.9 | 20.5 |
| 480624 2015 $ML_{128}$ | 16.4 | X | 20.39945 | 248.10011 | 93.87051 | 6.44956 | 0.1651997 | 0.18542376 | 3.0457374 | 21 | 11 4.5 | 20.1 |
| 480625 2015 $MA_{130}$ | 16.3 | X | 31.32965 | 340.18947 | 309.99795 | 13.94699 | 0.2589136 | 0.17589100 | 3.1548132 | 21 | 9 18.2 | 20.2 |
| 480626 2015 $NX_{1}$ | 16.9 | X | 154.90098 | 80.99765 | 205.99246 | 14.52023 | 0.1011245 | 0.24033497 | 2.5620724 | 21 | — | — |
| 480627 2015 $NX_{3}$ | 16.0 | X | 51.48158 | 143.55110 | 101.80073 | 11.46987 | 0.1744709 | 0.17408806 | 3.1765575 | 21 | 8 18.8 | 20.2 |
| 480628 2015 $NR_{4}$ | 16.6 | X | 51.23490 | 298.03440 | 54.09198 | 6.70708 | 0.0422561 | 0.21276306 | 2.7788935 | 21 | 12 14.5 | 20.3 |
| 480629 2015 $NZ_{5}$ | 16.1 | X | 357.55692 | 258.48642 | 81.32818 | 11.39301 | 0.1087822 | 0.17890076 | 3.1193295 | 21 | 9 22.7 | 20.1 |
| 480630 2015 $NG_{7}$ | 16.5 | X | 292.91902 | 238.83606 | 170.31368 | 9.89525 | 0.0737170 | 0.18067725 | 3.0988489 | 21 | 9 9.3 | 20.6 |
| 480631 2015 $NL_{7}$ | 17.0 | X | 102.28672 | 67.93499 | 244.47870 | 7.26723 | 0.0348424 | 0.21713056 | 2.7415032 | 21 | 12 26.6 | 20.9 |
| 480632 2015 $NS_{7}$ | 16.8 | X | 26.80088 | 122.99116 | 261.89001 | 4.83380 | 0.0506129 | 0.21372830 | 2.7705204 | 21 | 12 26.0 | 20.4 |
| 480633 2015 $NT_{7}$ | 16.8 | X | 262.78663 | 226.14906 | 266.49440 | 5.12408 | 0.0165304 | 0.20912435 | 2.8110354 | 21 | 11 25.8 | 20.6 |
| 480634 2015 $NZ_{7}$ | 16.3 | X | 28.61088 | 26.91696 | 281.50870 | 8.08917 | 0.0512960 | 0.18058240 | 3.0999339 | 21 | 9 13.2 | 20.6 |
| 480635 2015 $NC_{8}$ | 16.9 | X | 220.37350 | 272.32816 | 288.57000 | 12.08950 | 0.2112100 | 0.23101672 | 2.6305129 | 21 | 12 7.7 | 21.0 |
| 480636 2015 $NA_{9}$ | 16.0 | X | 119.03205 | 276.08801 | 275.92035 | 14.27482 | 0.1047953 | 0.17625611 | 3.1504548 | 21 | 8 15.4 | 20.9 |
| 480637 2015 $NG_{9}$ | 16.4 | X | 342.85244 | 119.07778 | 244.52997 | 8.56032 | 0.1466548 | 0.17938430 | 3.1137214 | 21 | 9 18.6 | 20.1 |
| 480638 2015 $NQ_{9}$ | 16.3 | X | 352.05876 | 50.19506 | 307.62390 | 15.46296 | 0.1094184 | 0.18447904 | 3.0561267 | 21 | 9 22.6 | 20.4 |
| 480639 2015 $NW_{11}$ | 16.5 | X | 148.52831 | 122.37593 | 96.23280 | 14.74842 | 0.0457242 | 0.21483290 | 2.7610156 | 21 | 11 1.1 | 20.7 |
| 480640 2015 $NR_{12}$ | 16.2 | X | 107.24361 | 63.89025 | 227.20130 | 11.15948 | 0.1188955 | 0.22220544 | 2.6996011 | 21 | 12 13.5 | 20.4 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
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| | m | | ° | ° | ° | ° | | ° | | | | |
| 480641 2015 $NJ_{14}$ | 16.1 | X | 42.47947 | 194.47493 | 77.55617 | 6.55445 | 0.1161192 | 0.17457916 | 3.1705975 | 21 | 9 1.2 | 20.3 |
| 480642 2015 $NT_{14}$ | 16.7 | X | 342.89243 | 245.10930 | 79.25223 | 10.93470 | 0.2306559 | 0.17456160 | 3.1708102 | 21 | 7 27.2 | 19.9 |
| 480643 2015 $NQ_{16}$ | 16.6 | X | 81.09387 | 152.64347 | 129.20409 | 3.37841 | 0.1056844 | 0.18863581 | 3.0110638 | 21 | 10 31.3 | 21.0 |
| 480644 2015 $NX_{16}$ | 16.0 | X | 29.87903 | 167.58898 | 132.03436 | 14.48442 | 0.0238104 | 0.16928179 | 3.2364027 | 21 | 9 7.1 | 20.5 |
| 480645 2015 $NP_{20}$ | 16.1 | X | 355.30316 | 228.71968 | 78.82747 | 11.73113 | 0.1310227 | 0.17807610 | 3.1289524 | 21 | 8 2.2 | 19.9 |
| 480646 2015 $NM_{21}$ | 16.5 | X | 144.56337 | 176.47413 | 97.05729 | 15.07490 | 0.1314903 | 0.23498480 | 2.6008154 | 21 | 12 30.3 | 20.7 |
| 480647 2015 $NU_{21}$ | 16.3 | X | 29.59655 | 73.36818 | 231.32019 | 12.69376 | 0.2261647 | 0.18947864 | 3.0021281 | 21 | 10 5.4 | 20.0 |
| 480648 2015 $NG_{23}$ | 16.1 | X | 310.21802 | 262.71448 | 240.53745 | 12.59680 | 0.0439097 | 0.23191728 | 2.6236988 | 21 | — | — |
| 480649 2015 $OG_{1}$ | 16.6 | X | 265.03283 | 280.94928 | 280.34025 | 11.93079 | 0.1208138 | 0.24302469 | 2.5431332 | 21 | — | — |
| 480650 2015 $OB_{7}$ | 16.1 | X | 51.71691 | 31.13098 | 240.46664 | 7.76687 | 0.0533289 | 0.17491938 | 3.1664850 | 21 | 8 28.9 | 20.6 |
| 480651 2015 $OK_{10}$ | 16.7 | X | 86.29541 | 241.77327 | 105.26440 | 5.86762 | 0.0761168 | 0.22164386 | 2.7041592 | 21 | — | — |
| 480652 2015 $OY_{11}$ | 16.1 | X | 48.35187 | 177.90254 | 118.79555 | 11.65269 | 0.0713367 | 0.18355718 | 3.0663505 | 21 | 10 7.9 | 20.4 |
| 480653 2015 $OX_{12}$ | 16.2 | X | 163.37327 | 107.92618 | 109.80158 | 15.91812 | 0.1027537 | 0.20476723 | 2.8507715 | 21 | 11 13.5 | 20.9 |
| 480654 2015 $OG_{13}$ | 16.9 | X | 67.52546 | 341.16798 | 77.39146 | 5.38739 | 0.1888292 | 0.23753275 | 2.5821832 | 21 | — | — |
| 480655 2015 $OZ_{14}$ | 16.2 | X | 327.46401 | 44.17092 | 328.60357 | 8.72662 | 0.0935954 | 0.17392695 | 3.1785189 | 21 | 9 8.7 | 20.2 |
| 480656 2015 $OP_{15}$ | 15.8 | X | 326.95640 | 297.47376 | 103.80009 | 11.29204 | 0.1022481 | 0.18626638 | 3.0365451 | 21 | 10 23.9 | 19.7 |
| 480657 2015 $OE_{17}$ | 16.1 | X | 57.76893 | 293.50139 | 338.45682 | 11.98596 | 0.1469773 | 0.17673103 | 3.1448083 | 21 | 9 20.9 | 20.5 |
| 480658 2015 $OC_{24}$ | 16.1 | X | 18.95080 | 181.80021 | 131.09446 | 18.34464 | 0.1994748 | 0.17549922 | 3.1595065 | 21 | 10 1.6 | 20.0 |
| 480659 2015 $OW_{34}$ | 16.3 | X | 179.17430 | 74.34118 | 111.28159 | 11.32611 | 0.0468667 | 0.18879799 | 3.0093391 | 21 | 10 21.5 | 20.9 |
| 480660 2015 $OV_{35}$ | 15.5 | X | 40.57924 | 352.95623 | 266.60215 | 18.87159 | 0.2177157 | 0.18255964 | 3.0775105 | 21 | 8 15.5 | 19.6 |
| 480661 2015 $OL_{37}$ | 17.9 | X | 44.50334 | 332.95693 | 229.26057 | 6.02233 | 0.0364762 | 0.29925616 | 2.2136417 | 21 | 5 14.3 | 20.2 |
| 480662 2015 $OA_{40}$ | 16.1 | X | 278.82144 | 74.79700 | 308.18227 | 3.62870 | 0.1044789 | 0.14981594 | 3.5109990 | 21 | 7 13.8 | 21.1 |
| 480663 2015 $OW_{43}$ | 16.4 | X | 56.02545 | 243.71217 | 34.45470 | 6.04012 | 0.1356888 | 0.18378335 | 3.0638343 | 21 | 9 30.3 | 20.5 |
| 480664 2015 $OC_{45}$ | 16.2 | X | 220.68905 | 31.94809 | 85.55835 | 11.17705 | 0.0619775 | 0.18156242 | 3.0887688 | 21 | 9 12.9 | 20.9 |
| 480665 2015 $OS_{46}$ | 17.3 | X | 223.28902 | 219.48618 | 5.09605 | 4.38697 | 0.1092289 | 0.23879180 | 2.5730987 | 21 | — | — |
| 480666 2015 $OQ_{51}$ | 16.7 | X | 116.06679 | 190.91622 | 58.00670 | 9.87236 | 0.2680263 | 0.20042998 | 2.8917512 | 21 | 11 8.7 | 21.7 |
| 480667 2015 $OU_{66}$ | 16.9 | X | 162.23136 | 53.90624 | 184.71091 | 3.93109 | 0.0185370 | 0.21291663 | 2.7775571 | 21 | 12 5.7 | 20.8 |
| 480668 2015 $ON_{68}$ | 17.1 | X | 180.04488 | 83.60208 | 188.43265 | 3.18953 | 0.0866291 | 0.23537865 | 2.5979134 | 21 | — | — |
| 480669 2015 $OG_{71}$ | 16.2 | X | 153.61503 | 301.34127 | 297.45518 | 7.28246 | 0.1021519 | 0.20940873 | 2.8084899 | 21 | 11 22.6 | 20.6 |
| 480670 2015 $OL_{71}$ | 16.0 | X | 15.57207 | 217.45006 | 133.34407 | 9.96158 | 0.1250170 | 0.18806725 | 3.0171294 | 21 | 11 5.4 | 19.9 |
| 480671 2015 $OB_{73}$ | 16.8 | X | 30.77492 | 16.80766 | 280.68502 | 4.15702 | 0.1547107 | 0.17558754 | 3.1584470 | 21 | 9 16.4 | 20.7 |
| 480672 2015 $OC_{73}$ | 16.3 | X | 341.93726 | 95.15711 | 296.50518 | 8.41373 | 0.0683984 | 0.19174368 | 2.9784388 | 21 | 10 26.5 | 20.2 |
| 480673 2015 $OQ_{73}$ | 16.1 | X | 21.04740 | 145.71633 | 167.57204 | 18.04858 | 0.2372025 | 0.17798964 | 3.1299656 | 21 | 10 7.9 | 19.6 |
| 480674 2015 $PN_{1}$ | 16.0 | X | 34.70520 | 57.17578 | 246.80646 | 3.72552 | 0.1617131 | 0.17884510 | 3.1199768 | 21 | 10 3.1 | 19.9 |
| 480675 2015 $PC_{3}$ | 16.4 | X | 61.53702 | 198.91986 | 115.40219 | 12.16516 | 0.1391340 | 0.19319761 | 2.9634769 | 21 | 11 24.2 | 20.8 |
| 480676 2015 $PJ_{5}$ | 16.3 | X | 354.23946 | 218.19596 | 143.82597 | 17.17857 | 0.1679680 | 0.18021198 | 3.1041804 | 21 | 10 18.9 | 20.0 |
| 480677 2015 $PZ_{12}$ | 15.8 | X | 57.55846 | 7.68247 | 267.64971 | 14.78706 | 0.1454403 | 0.17862034 | 3.1225934 | 21 | 9 19.8 | 20.4 |
| 480678 2015 $PT_{25}$ | 17.2 | X | 138.56322 | 243.66315 | 23.05985 | 4.09512 | 0.0594517 | 0.21265643 | 2.7798223 | 21 | 12 11.9 | 21.4 |
| 480679 2015 $PB_{35}$ | 16.9 | X | 53.26197 | 147.61641 | 158.04090 | 3.04780 | 0.1294511 | 0.18909887 | 3.0061462 | 21 | 10 30.3 | 21.0 |
| 480680 2015 $PT_{39}$ | 15.8 | X | 259.06815 | 289.70429 | 130.48931 | 15.04350 | 0.0740948 | 0.15819752 | 3.3858648 | 21 | 8 9.5 | 20.6 |
| 480681 2015 $PJ_{41}$ | 15.1 | X | 190.50519 | 318.50325 | 104.73690 | 10.58778 | 0.1492536 | 0.12498805 | 3.9617803 | 21 | 5 30.8 | 21.4 |
| 480682 2015 $PQ_{42}$ | 16.3 | X | 0.22883 | 255.08362 | 78.61798 | 8.24191 | 0.1072171 | 0.16918434 | 3.2376453 | 21 | 9 15.8 | 20.4 |
| 480683 2015 $PS_{43}$ | 15.7 | X | 359.31195 | 209.04074 | 129.16182 | 23.02298 | 0.0842454 | 0.16962371 | 3.2320521 | 21 | 9 20.7 | 20.1 |
| 480684 2015 $PE_{45}$ | 15.9 | X | 46.06064 | 198.85898 | 96.17631 | 10.31054 | 0.0777432 | 0.17404276 | 3.1771087 | 21 | 10 2.6 | 20.4 |
| 480685 2015 $PV_{45}$ | 15.7 | X | 117.23081 | 114.68647 | 117.07690 | 10.77293 | 0.0259420 | 0.17694827 | 3.1422338 | 21 | 10 4.7 | 20.4 |
| 480686 2015 $PA_{49}$ | 16.8 | X | 152.91139 | 149.63458 | 129.88758 | 19.64961 | 0.1814295 | 0.22320087 | 2.6915687 | 21 | — | — |
| 480687 2015 $PB_{49}$ | 16.9 | X | 336.65397 | 12.85962 | 78.58747 | 5.47585 | 0.0358047 | 0.21309695 | 2.7759899 | 21 | — | — |
| 480688 2015 $PR_{51}$ | 16.2 | X | 158.12506 | 229.84737 | 43.72159 | 14.09987 | 0.1598464 | 0.22050176 | 2.7134886 | 21 | — | — |
| 480689 2015 $PJ_{87}$ | 16.8 | X | 10.02894 | 304.50441 | 102.40383 | 4.69101 | 0.0909089 | 0.21211124 | 2.7845836 | 21 | — | — |
| 480690 2015 $PP_{93}$ | 16.8 | X | 80.75042 | 335.63529 | 335.22848 | 5.33764 | 0.0561159 | 0.20386678 | 2.8591597 | 21 | 11 28.8 | 21.0 |
| 480691 2015 $PP_{94}$ | 17.2 | X | 215.65904 | 266.01195 | 299.97023 | 3.89263 | 0.0507186 | 0.22032922 | 2.7149051 | 21 | 12 26.6 | 20.9 |
| 480692 2015 $PB_{96}$ | 16.6 | X | 197.18380 | 282.69020 | 311.24861 | 11.32129 | 0.0721005 | 0.22538629 | 2.6741415 | 21 | — | — |
| 480693 2015 $PK_{101}$ | 17.2 | X | 239.24580 | 150.74879 | 29.50007 | 2.20350 | 0.0396518 | 0.21799877 | 2.7342194 | 21 | 12 24.5 | 20.8 |
| 480694 2015 $PK_{110}$ | 16.6 | X | 344.89228 | 332.50677 | 51.33531 | 2.72653 | 0.1045451 | 0.18782167 | 3.0197588 | 21 | 10 25.1 | 20.1 |
| 480695 2015 $PZ_{116}$ | 16.5 | X | 126.71549 | 232.83858 | 54.74972 | 3.30657 | 0.0625220 | 0.21492427 | 2.7602330 | 21 | 12 25.3 | 20.5 |
| 480696 2015 $PS_{120}$ | 16.7 | X | 62.48549 | 301.79592 | 352.98592 | 5.08786 | 0.0901574 | 0.18771319 | 3.0209221 | 21 | 10 19.9 | 21.0 |
| 480697 2015 $PY_{125}$ | 16.0 | X | 318.42315 | 268.76388 | 132.41984 | 16.35376 | 0.0817901 | 0.18325661 | 3.0697024 | 21 | 10 12.1 | 20.2 |
| 480698 2015 $PP_{127}$ | 16.8 | X | 11.37688 | 95.32006 | 318.45446 | 4.18605 | 0.0219145 | 0.21658399 | 2.7461135 | 21 | — | — |
| 480699 2015 $PH_{128}$ | 16.4 | X | 213.14790 | 2.20950 | 133.76327 | 9.09468 | 0.0241303 | 0.18216995 | 3.0818977 | 21 | 9 28.5 | 20.9 |
| 480700 2015 $PW_{131}$ | 17.4 | X | 199.22130 | 55.26116 | 315.88029 | 5.36295 | 0.0587106 | 0.28191568 | 2.3035089 | 21 | 3 20.4 | 20.5 |
| 480701 2015 $PT_{161}$ | 17.0 | X | 330.20546 | 76.03924 | 54.70277 | 4.72255 | 0.1659337 | 0.22918629 | 2.6445003 | 21 | — | — |
| 480702 2015 $PX_{173}$ | 15.9 | X | 343.00242 | 260.96845 | 91.30338 | 9.04553 | 0.0500575 | 0.17136548 | 3.2101142 | 21 | 9 13.2 | 20.3 |
| 480703 2015 $PE_{212}$ | 16.4 | X | 171.31042 | 21.43280 | 223.18331 | 16.00693 | 0.1968961 | 0.21699884 | 2.7426124 | 21 | 12 14.5 | 21.1 |
| 480704 2015 $PL_{258}$ | 16.8 | X | 16.16636 | 179.39283 | 160.38796 | 1.57528 | 0.0345740 | 0.18770880 | 3.0209692 | 21 | 10 10.3 | 20.9 |
| 480705 2015 $PY_{264}$ | 15.7 | X | 242.09552 | 150.63612 | 298.81468 | 18.38181 | 0.1302581 | 0.17406513 | 3.1768365 | 21 | 8 14.4 | 20.6 |
| 480706 2015 $PX_{284}$ | 16.0 | X | 99.81420 | 186.71119 | 59.88018 | 6.96352 | 0.0870151 | 0.17658747 | 3.1465125 | 21 | 10 7.3 | 20.6 |
| 480707 2015 $PO_{288}$ | 15.9 | X | 183.38029 | 126.52529 | 73.24622 | 9.95396 | 0.0534895 | 0.18990673 | 2.9976147 | 21 | 11 8.9 | 20.4 |
| 480708 2015 $PX_{302}$ | 15.5 | X | 50.14487 | 294.28824 | 354.57206 | 26.21760 | 0.1707785 | 0.17336458 | 3.1853890 | 21 | 10 1.4 | 20.0 |
| 480709 2015 $PC_{307}$ | 17.1 | X | 122.74183 | 199.82365 | 140.37826 | 7.90197 | 0.2119810 | 0.22178450 | 2.7030158 | 21 | — | — |
| 480710 2015 $RL_{8}$ | 16.1 | X | 50.12767 | 323.98824 | 315.42731 | 9.86421 | 0.1739501 | 0.17727763 | 3.1383407 | 21 | 9 22.6 | 20.5 |
| 480711 2015 $RT_{12}$ | 16.7 | X | 94.39255 | 105.01057 | 146.20390 | 1.41352 | 0.1256913 | 0.18194835 | 3.0843996 | 21 | 10 9.5 | 21.3 |
| 480712 2015 $RY_{107}$ | 15.6 | X | 240.56933 | 240.72726 | 172.02529 | 11.56108 | 0.2962078 | 0.12498639 | 3.9618153 | 21 | 6 19.4 | 22.2 |
| 480713 2015 $RZ_{212}$ | 16.0 | X | 348.09750 | 116.92296 | 233.32764 | 11.23341 | 0.0776093 | 0.16851732 | 3.2461832 | 21 | 9 8.0 | 20.4 |
| 480714 2015 $RN_{228}$ | 16.1 | X | 323.76667 | 322.95306 | 99.57720 | 2.24601 | 0.1203416 | 0.17032822 | 3.2231337 | 21 | 11 6.4 | 20.0 |
| 480715 2015 $SS_{11}$ | 15.8 | X | 241.66834 | 307.49436 | 188.91176 | 22.01109 | 0.0647186 | 0.17690556 | 3.1427396 | 21 | 10 25.8 | 20.4 |
| 480716 2015 $TL_{1}$ | 15.9 | X | 11.96857 | 20.88251 | 321.51225 | 7.55058 | 0.0818847 | 0.18407183 | 3.0606324 | 21 | 10 7.2 | 19.9 |
| 480717 2015 $TM_{1}$ | 15.6 | X | 29.90715 | 140.55555 | 143.81473 | 13.07159 | 0.0883018 | 0.16996086 | 3.2277763 | 21 | 8 22.9 | 19.8 |
| 480718 2015 $TB_{296}$ | 17.5 | X | 345.92363 | 36.82273 | 180.38589 | 4.85459 | 0.0913170 | 0.26317051 | 2.4116331 | 21 | 3 2.1 | 20.2 |
| 480719 2015 $TZ_{297}$ | 15.7 | X | 166.44699 | 19.23289 | 288.41335 | 13.06778 | 0.2489227 | 0.22364895 | 2.6879724 | 21 | — | — |
| 480720 2015 $TJ_{314}$ | 16.5 | X | 328.86392 | 223.10748 | 227.25463 | 3.56075 | 0.1283498 | 0.18543118 | 3.0456562 | 21 | 12 22.9 | 19.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480721 2015 $TG_{348}$ | 16.3 | X | 115.15466 | 238.88556 | 53.19002 | 9.66657 | 0.0819828 | 0.18651845 | 3.0338086 | 21 | 12 13.8 | 20.9 |
| 480722 2015 $UE_{26}$ | 15.7 | X | 257.38788 | 77.50970 | 58.45125 | 10.13875 | 0.0445255 | 0.17480626 | 3.1678509 | 21 | 11 14.3 | 20.0 |
| 480723 2015 $UT_{26}$ | 16.5 | X | 229.43938 | 154.78845 | 80.64561 | 4.96643 | 0.0411801 | 0.21185201 | 2.7868547 | 21 | — | — |
| 480724 2015 $UG_{33}$ | 15.9 | X | 349.71247 | 205.99544 | 198.46795 | 9.64647 | 0.0707849 | 0.17501592 | 3.1653204 | 21 | 11 24.7 | 20.0 |
| 480725 2015 $VU_{114}$ | 16.1 | X | 355.64738 | 338.59165 | 98.03955 | 11.18838 | 0.0382438 | 0.19204567 | 2.9753156 | 21 | — | — |
| 480726 2015 $VS_{125}$ | 15.9 | X | 48.54137 | 249.06389 | 108.99390 | 10.33707 | 0.1378260 | 0.18491410 | 3.0513313 | 21 | 12 26.7 | 20.1 |
| 480727 2016 $JK_{18}$ | 16.6 | X | 160.50984 | 22.74848 | 289.61462 | 22.70745 | 0.1467792 | 0.28704814 | 2.2759684 | 21 | — | — |
| 480728 2016 $JG_{34}$ | 16.2 | X | 331.99493 | 52.57852 | 257.99585 | 15.59808 | 0.3331626 | 0.18058426 | 3.0999127 | 21 | 5 24.7 | 19.4 |
| 480729 2016 $MN_{1}$ | 16.6 | X | 50.67427 | 132.50261 | 216.26458 | 7.51374 | 0.1404616 | 0.24574631 | 2.5243218 | 21 | 12 30.0 | 20.2 |
| 480730 2016 $NK_{1}$ | 17.2 | X | 51.31492 | 136.33253 | 176.68536 | 12.63910 | 0.3478977 | 0.23104859 | 2.6302710 | 21 | 12 11.7 | 21.4 |
| 480731 2016 $NB_{2}$ | 17.6 | X | 137.81566 | 165.38811 | 155.81981 | 6.44890 | 0.1486145 | 0.28284604 | 2.2984549 | 21 | — | — |
| 480732 2016 $NM_{3}$ | 17.3 | X | 143.01620 | 202.78933 | 129.51189 | 7.72597 | 0.1552282 | 0.28888564 | 2.2663070 | 21 | — | — |
| 480733 2016 $NB_{4}$ | 17.9 | X | 137.24652 | 162.47374 | 121.06460 | 3.38731 | 0.1840194 | 0.26753333 | 2.3853427 | 21 | — | — |
| 480734 2016 $NC_{4}$ | 17.5 | X | 87.40190 | 202.66854 | 120.61818 | 4.64093 | 0.1864306 | 0.25478048 | 2.4642908 | 21 | — | — |
| 480735 2016 $NO_{5}$ | 16.0 | X | 273.89107 | 93.46127 | 314.69520 | 10.99363 | 0.0542009 | 0.19729376 | 2.9223158 | 21 | 8 16.4 | 19.9 |
| 480736 2016 $NP_{5}$ | 16.6 | X | 338.05789 | 68.17023 | 313.54419 | 13.46910 | 0.1196765 | 0.21648586 | 2.7469432 | 21 | 10 7.2 | 20.0 |
| 480737 2016 $NO_{8}$ | 16.3 | X | 65.77580 | 181.68534 | 84.46167 | 10.46796 | 0.1292656 | 0.21715899 | 2.7412639 | 21 | 10 4.5 | 20.2 |
| 480738 2016 $NQ_{8}$ | 17.5 | X | 167.68199 | 228.59535 | 66.20786 | 8.15384 | 0.1649289 | 0.28652830 | 2.2787203 | 21 | — | — |
| 480739 2016 $NZ_{9}$ | 17.1 | X | 158.20538 | 345.26279 | 297.53954 | 5.72633 | 0.1367198 | 0.27541279 | 2.3396271 | 21 | — | — |
| 480740 2016 $NA_{10}$ | 16.9 | X | 71.85194 | 169.29948 | 131.32102 | 2.76979 | 0.0522138 | 0.23381976 | 2.6094475 | 21 | 11 11.9 | 20.5 |
| 480741 2016 $NO_{10}$ | 16.4 | X | 110.36034 | 42.52271 | 228.04151 | 13.86648 | 0.0526678 | 0.24069408 | 2.5595234 | 21 | 11 20.3 | 20.0 |
| 480742 2016 $NE_{12}$ | 16.1 | X | 17.96951 | 0.71993 | 288.21832 | 7.49492 | 0.1354135 | 0.20219166 | 2.8749296 | 21 | 8 14.2 | 19.4 |
| 480743 2016 $NV_{14}$ | 17.0 | X | 77.33286 | 169.22348 | 133.91487 | 15.96623 | 0.1259148 | 0.24224905 | 2.5485588 | 21 | 12 4.8 | 21.0 |
| 480744 2016 $NY_{16}$ | 16.5 | X | 33.97078 | 33.52824 | 253.63723 | 9.42437 | 0.2571150 | 0.21347587 | 2.7727041 | 21 | 9 26.2 | 19.8 |
| 480745 2016 $NN_{21}$ | 16.3 | X | 60.49647 | 209.51525 | 92.22087 | 16.48869 | 0.1906063 | 0.23402772 | 2.6079015 | 21 | 11 21.7 | 20.2 |
| 480746 2016 $NM_{23}$ | 16.9 | X | 113.62267 | 224.70157 | 133.28333 | 14.09319 | 0.1733431 | 0.27506068 | 2.3416234 | 21 | — | — |
| 480747 2016 $NZ_{23}$ | 15.3 | X | 29.44435 | 64.86792 | 268.12999 | 27.30105 | 0.1667880 | 0.21794039 | 2.7347077 | 21 | 11 8.1 | 19.1 |
| 480748 2016 $NQ_{26}$ | 16.3 | X | 331.90534 | 69.61175 | 252.61515 | 16.50433 | 0.0394362 | 0.19092313 | 2.9869665 | 21 | 7 13.2 | 20.5 |
| 480749 2016 $NM_{29}$ | 16.0 | X | 70.53009 | 308.84281 | 253.77693 | 15.17494 | 0.0623796 | 0.18188082 | 3.0851630 | 21 | 6 29.7 | 20.3 |
| 480750 2016 $NK_{30}$ | 17.0 | X | 148.22211 | 7.68651 | 254.29847 | 7.54460 | 0.1385682 | 0.25652961 | 2.4530762 | 21 | 12 23.0 | 20.7 |
| 480751 2016 $NV_{37}$ | 17.4 | X | 94.03666 | 96.60231 | 145.08844 | 6.74266 | 0.2445243 | 0.23068804 | 2.6330110 | 21 | 10 16.2 | 21.6 |
| 480752 2016 $NJ_{40}$ | 16.9 | X | 348.21481 | 215.66152 | 146.02821 | 6.84237 | 0.0371258 | 0.21955391 | 2.7212927 | 21 | 10 6.2 | 20.4 |
| 480753 2016 $NS_{40}$ | 16.4 | X | 262.52521 | 248.45209 | 132.76313 | 12.84680 | 0.1537722 | 0.17592980 | 3.1543492 | 21 | 6 16.3 | 21.2 |
| 480754 2016 $NV_{40}$ | 17.1 | X | 32.08738 | 199.21665 | 153.90418 | 8.66238 | 0.1238733 | 0.23656198 | 2.5892427 | 21 | 12 9.5 | 20.5 |
| 480755 2016 $NY_{41}$ | 16.5 | X | 332.09050 | 164.98494 | 142.12525 | 9.56737 | 0.2862134 | 0.18222375 | 3.0812911 | 21 | 5 30.7 | 19.8 |
| 480756 2016 $NQ_{43}$ | 17.5 | X | 148.92359 | 66.96660 | 142.62070 | 6.34187 | 0.1192632 | 0.23300929 | 2.6154950 | 21 | 10 20.3 | 21.6 |
| 480757 2016 $NR_{43}$ | 16.9 | X | 75.20479 | 106.87335 | 151.12699 | 4.83114 | 0.0218461 | 0.21184050 | 2.7869556 | 21 | 9 14.4 | 20.5 |
| 480758 2016 $NW_{43}$ | 17.1 | X | 14.12911 | 216.15806 | 128.38443 | 5.90832 | 0.0666390 | 0.22375790 | 2.6870998 | 21 | 10 24.3 | 20.5 |
| 480759 2016 $NJ_{45}$ | 15.9 | X | 352.48384 | 142.85883 | 136.57555 | 6.30414 | 0.1010460 | 0.17885756 | 3.1198318 | 21 | 6 18.1 | 19.7 |
| 480760 2016 $NU_{45}$ | 17.2 | X | 26.66642 | 240.23256 | 119.52422 | 4.18839 | 0.0743189 | 0.23664307 | 2.5886511 | 21 | 12 2.8 | 20.4 |
| 480761 2016 $NF_{46}$ | 16.1 | X | 26.54837 | 337.65674 | 282.22897 | 5.29288 | 0.1318618 | 0.18995162 | 2.9971424 | 21 | 7 20.5 | 19.6 |
| 480762 2016 $NH_{46}$ | 17.1 | X | 250.89557 | 324.55528 | 168.25809 | 3.48080 | 0.0482343 | 0.23761033 | 2.5816211 | 21 | 11 12.5 | 20.4 |
| 480763 2016 $NQ_{47}$ | 16.4 | X | 1.69917 | 27.82881 | 323.43035 | 5.41051 | 0.0337127 | 0.21853497 | 2.7297450 | 21 | 10 6.3 | 19.9 |
| 480764 2016 $NB_{52}$ | 18.3 | X | 202.84600 | 92.50106 | 167.08861 | 2.30826 | 0.1484745 | 0.29214617 | 2.2494133 | 21 | — | — |
| 480765 2016 $NZ_{53}$ | 15.7 | X | 334.17150 | 47.41074 | 282.15706 | 14.67711 | 0.0773369 | 0.17598271 | 3.1537169 | 21 | 7 24.6 | 19.9 |
| 480766 2016 $NF_{55}$ | 17.9 | X | 155.49202 | 182.87828 | 115.31006 | 5.11639 | 0.2228574 | 0.27405867 | 2.3473275 | 21 | — | — |
| 480767 2016 $OG_{3}$ | 16.1 | X | 342.79023 | 59.44300 | 269.35970 | 11.18430 | 0.1349960 | 0.18717094 | 3.0267538 | 21 | 8 2.9 | 19.8 |
| 480768 2016 $PX_{2}$ | 16.9 | X | 244.25488 | 143.88306 | 349.49267 | 12.56103 | 0.0955165 | 0.23272049 | 2.6176583 | 21 | 10 21.6 | 20.7 |
| 480769 2016 $PS_{6}$ | 17.0 | X | 323.03430 | 92.11378 | 259.61459 | 13.43877 | 0.2420257 | 0.18551482 | 3.0447406 | 21 | 7 16.9 | 20.4 |
| 480770 2016 $PX_{6}$ | 16.6 | X | 304.96123 | 252.31948 | 118.39990 | 6.92215 | 0.1289710 | 0.19155278 | 2.9804173 | 21 | 7 31.9 | 20.3 |
| 480771 2016 $PF_{9}$ | 17.0 | X | 160.79406 | 137.79980 | 113.29433 | 5.87884 | 0.0812155 | 0.25510904 | 2.4621744 | 21 | 12 24.2 | 20.4 |
| 480772 2016 $PR_{9}$ | 16.3 | X | 14.43149 | 163.49675 | 128.37594 | 11.35719 | 0.0908590 | 0.19301769 | 2.9653182 | 21 | 8 10.8 | 19.9 |
| 480773 2016 $PR_{11}$ | 17.3 | X | 22.15793 | 350.49252 | 337.91295 | 1.54840 | 0.1994274 | 0.21812561 | 2.7331593 | 21 | 10 28.6 | 20.3 |
| 480774 2016 $PF_{12}$ | 16.0 | X | 1.79452 | 347.10780 | 292.59922 | 13.57691 | 0.2467623 | 0.18176166 | 3.0865113 | 21 | 7 5.5 | 18.6 |
| 480775 2016 $PG_{12}$ | 15.9 | X | 123.74100 | 336.48437 | 247.11061 | 11.13066 | 0.0947308 | 0.21183987 | 2.7869612 | 21 | 10 2.1 | 20.4 |
| 480776 2016 $PA_{13}$ | 16.2 | X | 217.65983 | 355.63038 | 71.76421 | 11.16063 | 0.0724292 | 0.17645353 | 3.1481046 | 21 | 7 1.7 | 21.0 |
| 480777 2016 $PL_{13}$ | 15.7 | X | 337.09405 | 245.59296 | 48.89888 | 11.88756 | 0.0525827 | 0.17556130 | 3.1587617 | 21 | 6 15.7 | 19.9 |
| 480778 2016 $PC_{14}$ | 16.8 | X | 126.23036 | 193.28641 | 69.54107 | 14.31912 | 0.1347596 | 0.23781416 | 2.5801458 | 21 | 12 1.0 | 20.9 |
| 480779 2016 $PO_{17}$ | 16.8 | X | 47.85409 | 170.82404 | 117.52005 | 16.51952 | 0.0733994 | 0.21822242 | 2.7323509 | 21 | 10 2.8 | 20.7 |
| 480780 2016 $PR_{17}$ | 17.8 | X | 179.07048 | 210.01584 | 107.41660 | 5.34476 | 0.2064272 | 0.30342147 | 2.1933360 | 21 | — | — |
| 480781 2016 $PY_{20}$ | 17.1 | X | 76.86362 | 244.34541 | 95.11410 | 4.82189 | 0.2361241 | 0.25265593 | 2.4780861 | 21 | — | — |
| 480782 2016 $PS_{25}$ | 18.5 | X | 103.71662 | 323.27531 | 66.19891 | 5.70818 | 0.1282426 | 0.28991722 | 2.2609279 | 21 | — | — |
| 480783 2016 $PX_{25}$ | 15.9 | X | 311.96834 | 199.95429 | 124.16486 | 22.62029 | 0.1303128 | 0.17477975 | 3.1681712 | 21 | 6 13.7 | 20.4 |
| 480784 2016 $PK_{26}$ | 17.4 | X | 23.14129 | 329.27736 | 6.82452 | 6.36247 | 0.0309120 | 0.22131767 | 2.7068155 | 21 | 10 17.6 | 20.9 |
| 480785 2016 $PW_{27}$ | 16.1 | X | 107.19041 | 92.55862 | 75.55667 | 11.70799 | 0.0395041 | 0.17626726 | 3.1503221 | 21 | 6 30.5 | 20.6 |
| 480786 2016 $PF_{28}$ | 17.4 | X | 138.64488 | 235.21025 | 72.72372 | 7.66525 | 0.1223984 | 0.27268706 | 2.3551922 | 21 | — | — |
| 480787 2016 $PU_{28}$ | 15.9 | X | 4.01835 | 183.73604 | 99.60438 | 17.17595 | 0.0890200 | 0.18446139 | 3.0563217 | 21 | 7 12.2 | 19.7 |
| 480788 2016 $PH_{30}$ | 16.6 | X | 38.42960 | 294.44272 | 87.54238 | 12.92505 | 0.2079568 | 0.24428982 | 2.5343454 | 21 | — | — |
| 480789 2016 $PJ_{30}$ | 15.8 | X | 319.86237 | 275.71811 | 41.82475 | 12.99444 | 0.0908431 | 0.17519600 | 3.1631510 | 21 | 6 16.6 | 20.0 |
| 480790 2016 $PS_{35}$ | 15.7 | X | 199.38058 | 357.19024 | 84.73123 | 10.56675 | 0.0653149 | 0.17498910 | 3.1656439 | 21 | 6 30.0 | 20.4 |
| 480791 2016 $PA_{37}$ | 16.4 | X | 317.88845 | 258.16607 | 80.52336 | 14.41689 | 0.0700587 | 0.17845807 | 3.1244860 | 21 | 7 16.1 | 20.6 |
| 480792 2016 $PE_{40}$ | 17.9 | X | 259.98574 | 264.68555 | 115.09086 | 26.26216 | 0.1510056 | 0.37170893 | 1.9157289 | 21 | 6 10.8 | 20.6 |
| 480793 2016 $PV_{45}$ | 16.6 | X | 23.12457 | 260.24818 | 113.45731 | 13.28295 | 0.2074708 | 0.23533958 | 2.5982009 | 21 | — | — |
| 480794 2016 $PQ_{53}$ | 16.0 | X | 270.59079 | 320.51159 | 72.64641 | 9.94062 | 0.0209270 | 0.18452922 | 3.0555726 | 21 | 7 31.2 | 20.4 |
| 480795 2016 $PP_{54}$ | 17.5 | X | 213.19490 | 218.94429 | 51.01729 | 8.15065 | 0.1787467 | 0.29666459 | 2.2265148 | 21 | — | — |
| 480796 2016 $PT_{54}$ | 16.0 | X | 33.14694 | 221.69019 | 25.02965 | 12.22842 | 0.0799315 | 0.17666208 | 3.1456266 | 21 | 7 10.1 | 20.3 |
| 480797 2016 $PK_{56}$ | 18.0 | X | 148.95867 | 220.49518 | 104.06559 | 10.26478 | 0.1486929 | 0.28150637 | 2.3057412 | 21 | — | — |
| 480798 2016 $PS_{56}$ | 16.0 | X | 32.88520 | 199.53691 | 76.05730 | 11.35387 | 0.0688316 | 0.18930063 | 3.0040098 | 21 | 8 18.9 | 20.1 |
| 480799 2016 $PN_{57}$ | 15.5 | X | 327.83219 | 202.35175 | 121.80099 | 19.38392 | 0.1496976 | 0.17766580 | 3.1337679 | 21 | 7 3.4 | 19.4 |
| 480800 2016 $PE_{58}$ | 17.2 | X | 68.22170 | 221.75823 | 73.95144 | 9.52087 | 0.2148385 | 0.22502365 | 2.6770138 | 21 | 11 21.1 | 21.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480801 2016 $PX_{58}$ | 17.7 | $X$ | 45.71682 | 259.85684 | 119.19889 | 14.84733 | 0.0987568 | 0.24686122 | 2.5167156 | 21 | — | — |
| 480802 2016 $PV_{59}$ | 16.9 | $X$ | 66.26204 | 208.64879 | 56.50704 | 8.81316 | 0.1785598 | 0.21032904 | 2.8002914 | 21 | 10 7.9 | 20.9 |
| 480803 2016 $PJ_{62}$ | 15.9 | $X$ | 298.45864 | 263.73655 | 64.27586 | 11.97082 | 0.1987043 | 0.17320626 | 3.1873297 | 21 | 5 16.8 | 20.1 |
| 480804 2016 $PF_{65}$ | 16.1 | $X$ | 142.02098 | 25.22514 | 126.36270 | 28.62764 | 0.1045039 | 0.18085928 | 3.0967693 | 21 | 7 26.7 | 20.8 |
| 480805 2687 $P$–$L$ | 17.2 | $X$ | 48.39889 | 187.12059 | 185.15137 | 6.25585 | 0.3139557 | 0.22918111 | 2.6445402 | 21 | — | — |
| 480806 1083 $T$–$1$ | 16.8 | $X$ | 282.59443 | 187.34489 | 358.62698 | 6.79645 | 0.3019322 | 0.23097243 | 2.6308492 | 21 | — | — |
| 480807 1994 $SK_{7}$ | 18.3 | $X$ | 123.74815 | 205.72203 | 165.99278 | 2.35056 | 0.2331817 | 0.27062141 | 2.3671618 | 21 | 1 16.2 | 21.1 |
| 480808 1994 $XL_{1}$ | 20.9 | $X$ | 326.91512 | 356.56647 | 252.65853 | 28.16226 | 0.5263062 | 1.79388268 | 0.6708211 | 21 | — | — |
| 480809 1995 $SW_{5}$ | 17.9 | $X$ | 170.43886 | 192.43495 | 172.61340 | 10.08107 | 0.1591369 | 0.28651372 | 2.2787977 | 21 | 2 15.2 | 21.2 |
| 480810 1995 $TF_{3}$ | 17.3 | $X$ | 55.42077 | 25.57304 | 19.89358 | 4.79292 | 0.2334878 | 0.23733678 | 2.5836044 | 21 | — | — |
| 480811 1995 $UK_{81}$ | 17.3 | $X$ | 56.41981 | 87.49249 | 322.60156 | 2.26433 | 0.1687513 | 0.23879312 | 2.5730892 | 21 | — | — |
| 480812 1995 $WV_{23}$ | 16.7 | $X$ | 331.18557 | 9.35761 | 34.06702 | 11.28684 | 0.2570685 | 0.18798070 | 3.0180554 | 21 | 10 23.3 | 19.1 |
| 480813 1995 $WN_{24}$ | 17.4 | $X$ | 17.37980 | 91.45008 | 38.36841 | 12.31390 | 0.1880356 | 0.23864273 | 2.5741701 | 21 | — | — |
| 480814 1995 $XO_{4}$ | 16.9 | $X$ | 322.64047 | 295.23717 | 84.10973 | 14.09921 | 0.1782139 | 0.22346913 | 2.6894142 | 21 | 9 19.2 | 19.9 |
| 480815 1996 $AC_{10}$ | 16.3 | $X$ | 316.60582 | 137.21556 | 289.85786 | 10.27616 | 0.0862756 | 0.18375482 | 3.0641515 | 21 | 11 1.1 | 20.5 |
| 480816 1997 $ND$ | 17.5 | $X$ | 225.13590 | 14.26805 | 272.44368 | 3.69276 | 0.1567691 | 0.27070267 | 2.3666881 | 21 | 1 4.0 | 21.3 |
| 480817 1998 $SJ_{2}$ | 18.1 | $X$ | 154.01541 | 332.87378 | 8.67957 | 10.39206 | 0.5021210 | 0.27714070 | 2.3298923 | 21 | 2 5.8 | 22.6 |
| 480818 1998 $SJ_{60}$ | 16.1 | $X$ | 328.89574 | 350.28344 | 20.17605 | 6.73140 | 0.3511851 | 0.16887635 | 3.2415806 | 21 | 8 15.4 | 18.9 |
| 480819 1998 $SJ_{84}$ | 18.2 | $X$ | 146.96394 | 211.12327 | 150.11895 | 3.20495 | 0.2872786 | 0.27724767 | 2.3292930 | 21 | 2 2.7 | 21.8 |
| 480820 1998 $VF_{32}$ | 21.1 | $X$ | 197.10585 | 320.94007 | 236.27206 | 23.74475 | 0.4438434 | 1.25592488 | 0.8507989 | 21 | — | — |
| 480821 1998 $WA_{4}$ | 17.4 | $X$ | 41.11792 | 289.86308 | 132.54212 | 12.49421 | 0.4829323 | 0.22364729 | 2.6879857 | 21 | — | — |
| 480822 1998 $YM_{4}$ | 19.7 | $X$ | 236.96460 | 344.54763 | 341.75471 | 3.43399 | 0.7197213 | 0.54919644 | 1.4767860 | 21 | 2 10.2 | 22.9 |
| 480823 1998 $YW_{5}$ | 20.0 | $X$ | 57.16770 | 355.12269 | 219.79664 | 8.33624 | 0.6202355 | 0.71349144 | 1.2403480 | 21 | 10 10.7 | 21.6 |
| 480824 1999 $JO_{6}$ | 16.7 | $X$ | 92.01769 | 250.88356 | 64.36829 | 27.86156 | 0.4971475 | 0.23800327 | 2.5787788 | 21 | — | — |
| 480825 1999 $PL_{1}$ | 16.8 | $X$ | 122.25182 | 311.10691 | 40.62711 | 14.23268 | 0.3132075 | 0.24252117 | 2.5466520 | 21 | 1 7.8 | 20.6 |
| 480826 1999 $TJ_{77}$ | 18.1 | $X$ | 53.77397 | 214.20061 | 223.55246 | 3.76982 | 0.2797054 | 0.23719094 | 2.5846633 | 21 | — | — |
| 480827 1999 $TK_{133}$ | 18.2 | $X$ | 200.29086 | 330.52535 | 359.88357 | 2.55763 | 0.2655022 | 0.29397056 | 2.2400970 | 21 | 2 5.5 | 21.9 |
| 480828 1999 $TS_{191}$ | 17.8 | $X$ | 79.86219 | 91.95007 | 293.91768 | 4.74858 | 0.3407788 | 0.23646480 | 2.5899520 | 21 | — | — |
| 480829 1999 $TG_{218}$ | 17.8 | $X$ | 50.03343 | 189.41766 | 213.52610 | 4.50805 | 0.2738183 | 0.23477558 | 2.6023603 | 21 | — | — |
| 480830 1999 $TQ_{301}$ | 17.5 | $X$ | 74.49160 | 351.55221 | 23.06147 | 3.65003 | 0.1838335 | 0.23444601 | 2.6047986 | 21 | — | — |
| 480831 1999 $TC_{328}$ | 17.1 | $X$ | 82.87081 | 308.29285 | 61.13718 | 6.08968 | 0.3404060 | 0.23648344 | 2.5898159 | 21 | — | — |
| 480832 1999 $VF$ | 17.2 | $X$ | 42.88876 | 244.35144 | 220.02245 | 10.79704 | 0.3059839 | 0.23773737 | 2.5807013 | 21 | 1 1.9 | 18.8 |
| 480833 1999 $VC_{1}$ | 17.4 | $X$ | 73.04526 | 237.97969 | 151.51383 | 2.68584 | 0.3754300 | 0.23620539 | 2.5918479 | 21 | — | — |
| 480834 1999 $VH_{41}$ | 16.0 | $X$ | 328.71700 | 331.09002 | 58.52429 | 24.42492 | 0.2132669 | 0.17533790 | 3.1614441 | 21 | 10 11.8 | 19.8 |
| 480835 1999 $VL_{88}$ | 16.0 | $X$ | 320.27307 | 353.49704 | 47.26158 | 15.00348 | 0.2983595 | 0.17519409 | 3.1631740 | 21 | 9 22.8 | 19.3 |
| 480836 1999 $VC_{116}$ | 17.3 | $X$ | 93.40068 | 149.43633 | 192.05034 | 3.04301 | 0.1499776 | 0.23231547 | 2.6206999 | 21 | — | — |
| 480837 1999 $VS_{123}$ | 19.1 | $X$ | 145.42344 | 323.98134 | 88.76370 | 2.17747 | 0.2009299 | 0.29166319 | 2.2518958 | 21 | 3 29.6 | 22.2 |
| 480838 1999 $VE_{199}$ | 17.8 | $X$ | 159.72296 | 28.37832 | 8.85161 | 5.91113 | 0.2603588 | 0.29456799 | 2.2370671 | 21 | 3 26.8 | 21.5 |
| 480839 2000 $AR_{149}$ | 16.7 | $X$ | 42.76274 | 187.05761 | 220.83177 | 6.19736 | 0.3217771 | 0.23080329 | 2.6321343 | 21 | — | — |
| 480840 2000 $AX_{224}$ | 17.6 | $X$ | 275.63806 | 154.00551 | 109.38130 | 11.69183 | 0.0336815 | 0.28315493 | 2.2967830 | 21 | 2 2.8 | 20.5 |
| 480841 2000 $BY_{18}$ | 15.8 | $X$ | 251.17685 | 228.13280 | 313.41262 | 24.75972 | 0.2213580 | 0.22028414 | 2.7152755 | 21 | 12 17.9 | 19.9 |
| 480842 2000 $CO_{13}$ | 16.8 | $X$ | 18.72043 | 343.76040 | 140.27935 | 12.50302 | 0.2039617 | 0.23191455 | 2.6237194 | 21 | — | — |
| 480843 2000 $KM_{40}$ | 16.4 | $X$ | 76.93999 | 247.08439 | 57.67338 | 15.66326 | 0.1492801 | 0.20407277 | 2.8572353 | 21 | 11 28.5 | 20.7 |
| 480844 2000 $PM_{6}$ | 16.4 | $X$ | 8.93811 | 16.74347 | 327.70621 | 17.32735 | 0.4417431 | 0.19075781 | 2.9886920 | 21 | 11 27.8 | 19.6 |
| 480845 2000 $QV_{229}$ | 18.5 | $X$ | 198.51088 | 224.45963 | 148.44763 | 8.29236 | 0.2876033 | 0.31183373 | 2.1537105 | 21 | 3 28.5 | 22.2 |
| 480846 2000 $SF_{83}$ | 16.2 | $X$ | 317.04473 | 27.46277 | 2.10058 | 11.15902 | 0.2619419 | 0.18516906 | 3.0485297 | 21 | 8 31.7 | 19.4 |
| 480847 2000 $SF_{247}$ | 17.3 | $X$ | 157.11169 | 313.93714 | 44.73927 | 3.28413 | 0.2116645 | 0.25731684 | 2.4480704 | 21 | 2 5.9 | 21.0 |
| 480848 2000 $SH_{247}$ | 17.0 | $X$ | 128.28438 | 329.82727 | 47.26012 | 4.28109 | 0.1780434 | 0.25519212 | 2.4616400 | 21 | 1 25.7 | 20.3 |
| 480849 2000 $SO_{306}$ | 16.8 | $X$ | 96.04121 | 143.85045 | 261.34282 | 6.06359 | 0.1779572 | 0.25286863 | 2.4766963 | 21 | 1 16.2 | 19.4 |
| 480850 2000 $TM_{11}$ | 17.6 | $X$ | 114.06362 | 344.25957 | 41.16695 | 1.38941 | 0.2368307 | 0.25308894 | 2.4752588 | 21 | 1 26.9 | 20.5 |
| 480851 2000 $WH_{71}$ | 16.5 | $X$ | 320.78604 | 135.47396 | 261.57535 | 12.14724 | 0.2557785 | 0.18397696 | 3.0616845 | 21 | 9 9.5 | 20.0 |
| 480852 2000 $WK_{192}$ | 17.3 | $X$ | 302.87474 | 309.97785 | 115.20007 | 28.40488 | 0.4043155 | 0.17881137 | 3.1203691 | 21 | 8 28.9 | 21.3 |
| 480853 2000 $YH_{8}$ | 16.3 | $X$ | 305.62648 | 339.99694 | 96.90840 | 15.84420 | 0.2710847 | 0.18249556 | 3.0782308 | 21 | 10 17.9 | 19.9 |
| 480854 2001 $AO_{2}$ | 18.1 | $X$ | 277.84520 | 77.64728 | 104.06184 | 19.87922 | 0.6105251 | 0.18413858 | 3.0598927 | 21 | 11 20.6 | 22.9 |
| 480855 2001 $GF_{3}$ | 16.5 | $X$ | 310.65650 | 122.24580 | 67.40901 | 31.87694 | 0.3004463 | 0.23555663 | 2.5966046 | 21 | — | — |
| 480856 2001 $NZ_{1}$ | 17.9 | $X$ | 5.21291 | 359.76789 | 253.86293 | 24.60569 | 0.4041268 | 0.34414339 | 2.0167083 | 21 | 3 7.8 | 19.8 |
| 480857 2001 $OC_{79}$ | 16.9 | $X$ | 184.66557 | 354.94424 | 347.36395 | 12.28198 | 0.1522223 | 0.27385929 | 2.3484667 | 21 | 2 6.8 | 20.5 |
| 480858 2001 $PT_{9}$ | 20.8 | $X$ | 107.12396 | 261.54854 | 330.03546 | 7.18271 | 0.4548943 | 0.55410741 | 1.4680474 | 21 | 11 11.5 | 23.4 |
| 480859 2001 $QR_{118}$ | 16.4 | $X$ | 21.74645 | 141.50562 | 235.31534 | 6.08110 | 0.3347139 | 0.20242533 | 2.8727168 | 21 | — | — |
| 480860 2001 $QG_{166}$ | 17.3 | $X$ | 149.15531 | 264.79011 | 127.09473 | 10.34703 | 0.2591470 | 0.27387624 | 2.3483697 | 21 | 3 16.0 | 21.1 |
| 480861 2001 $RV_{141}$ | 18.4 | $X$ | 314.29690 | 76.84482 | 358.87862 | 19.11126 | 0.1605735 | 0.40105234 | 1.8211065 | 21 | — | — |
| 480862 2001 $RM_{145}$ | 17.3 | $X$ | 150.46681 | 49.77880 | 321.03465 | 12.27059 | 0.1730408 | 0.27199343 | 2.3591946 | 21 | 2 7.3 | 20.5 |
| 480863 2001 $SU_{5}$ | 17.8 | $X$ | 316.93434 | 69.36915 | 359.08833 | 25.21793 | 0.1449626 | 0.39921459 | 1.8266911 | 21 | — | — |
| 480864 2001 $SR_{35}$ | 18.1 | $X$ | 134.55823 | 310.33513 | 51.91145 | 2.75702 | 0.2578538 | 0.26710137 | 2.3879137 | 21 | 1 21.9 | 21.4 |
| 480865 2001 $SF_{136}$ | 18.1 | $X$ | 79.47423 | 49.20066 | 339.94618 | 4.08902 | 0.2456348 | 0.26204153 | 2.4185550 | 21 | — | — |
| 480866 2001 $SE_{185}$ | 18.2 | $X$ | 164.90512 | 328.65698 | 4.67657 | 2.21310 | 0.2189960 | 0.27046702 | 2.3680625 | 21 | 1 10.9 | 21.8 |
| 480867 2001 $SX_{213}$ | 17.8 | $X$ | 169.74699 | 309.65544 | 38.06306 | 3.13198 | 0.2206176 | 0.27124415 | 2.3635373 | 21 | 2 2.7 | 21.5 |
| 480868 2001 $SC_{229}$ | 17.8 | $X$ | 121.39376 | 220.72435 | 162.95255 | 5.06105 | 0.1945726 | 0.26708560 | 2.3880078 | 21 | 1 23.5 | 20.8 |
| 480869 2001 $SO_{232}$ | 17.9 | $X$ | 157.20621 | 308.75564 | 26.43524 | 5.64132 | 0.1677240 | 0.26692724 | 2.3889521 | 21 | — | — |
| 480870 2001 $SC_{235}$ | 17.7 | $X$ | 145.18893 | 351.82283 | 17.49388 | 3.64777 | 0.2046348 | 0.26862453 | 2.3788786 | 21 | 2 4.9 | 21.2 |
| 480871 2001 $SU_{245}$ | 18.2 | $X$ | 119.23871 | 346.73123 | 28.36384 | 5.85527 | 0.2536942 | 0.26525981 | 2.3989531 | 21 | 1 21.3 | 21.2 |
| 480872 2001 $SS_{273}$ | 18.6 | $X$ | 100.49993 | 210.77034 | 188.23591 | 2.20055 | 0.1616285 | 0.26578965 | 2.3957639 | 21 | 1 9.2 | 21.0 |
| 480873 2001 $SG_{343}$ | 18.8 | $X$ | 140.58640 | 160.47394 | 191.83537 | 0.80632 | 0.1986072 | 0.26802436 | 2.3824285 | 21 | 1 7.2 | 21.8 |
| 480874 2001 $TS_{192}$ | 15.7 | $X$ | 25.38392 | 323.15376 | 32.95555 | 18.79579 | 0.3639384 | 0.19991920 | 2.8966746 | 21 | 12 31.7 | 19.8 |
| 480875 2001 $UM_{52}$ | 17.9 | $X$ | 335.91914 | 29.03341 | 40.69369 | 18.94857 | 0.4469094 | 0.19737425 | 2.9215213 | 21 | — | — |
| 480876 2001 $VV_{113}$ | 17.9 | $X$ | 120.54529 | 27.18883 | 11.39881 | 0.78380 | 0.3096059 | 0.26616843 | 2.3934904 | 21 | 2 28.3 | 21.1 |
| 480877 2001 $VC_{134}$ | 18.0 | $X$ | 77.20550 | 354.67626 | 132.76812 | 6.74165 | 0.1004772 | 0.27263463 | 2.3554942 | 21 | 3 31.2 | 20.6 |
| 480878 2001 $WF_{42}$ | 16.6 | $X$ | 128.91267 | 133.36920 | 222.47438 | 13.53762 | 0.1340514 | 0.21308751 | 2.7760720 | 21 | — | — |
| 480879 2001 $WG_{64}$ | 17.7 | $X$ | 103.32373 | 343.09303 | 46.01601 | 2.36823 | 0.1784713 | 0.26231279 | 2.4168873 | 21 | 1 4.4 | 20.3 |
| 480880 2001 $XA_{20}$ | 17.7 | $X$ | 112.44800 | 82.27640 | 321.48798 | 4.50833 | 0.3326951 | 0.26446739 | 2.4037426 | 21 | 2 28.5 | 20.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480881 2001 $XT_{102}$ | 17.1 | X | 50.40096 | 240.12542 | 260.10271 | 22.09052 | 0.3778454 | 0.26249407 | 2.4157744 | 21 | 3 26.4 | 19.1 |
| 480882 2001 $XE_{134}$ | 17.8 | X | 132.80332 | 314.72754 | 88.21507 | 5.60405 | 0.2627802 | 0.26788012 | 2.3832836 | 21 | 3 15.3 | 21.4 |
| 480883 2001 $YE_4$ | 20.7 | X | 241.22103 | 318.87016 | 305.46764 | 4.84550 | 0.5404075 | 1.77010636 | 0.6768147 | 21 | 12 8.4 | 17.8 |
| 480884 2002 $AN_7$ | 18.6 | X | 265.06061 | 319.59942 | 130.84675 | 24.01987 | 0.1029114 | 0.38806062 | 1.8615284 | 21 | 11 3.1 | 20.9 |
| 480885 2002 $AC_{29}$ | 17.9 | X | 18.18462 | 129.66805 | 85.10516 | 26.60197 | 0.5030038 | 0.46848149 | 1.6418788 | 21 | — | — |
| 480886 2002 $CR_{67}$ | 18.0 | X | 75.89599 | 27.45952 | 88.83234 | 3.84419 | 0.2077595 | 0.26358698 | 2.4090922 | 21 | 3 30.7 | 20.3 |
| 480887 2002 $CQ_{123}$ | 16.6 | X | 268.33814 | 352.94313 | 153.00089 | 13.73567 | 0.2044851 | 0.19138278 | 2.9821820 | 21 | 11 23.4 | 20.8 |
| 480888 2002 $EH_{161}$ | 17.1 | X | 35.29310 | 211.30838 | 306.28439 | 10.01966 | 0.1710235 | 0.26006365 | 2.4308021 | 21 | 2 26.2 | 19.2 |
| 480889 2002 $FM_{21}$ | 17.5 | X | 25.23861 | 148.01176 | 355.38211 | 10.98610 | 0.1939383 | 0.25532302 | 2.4607985 | 21 | 1 20.7 | 19.8 |
| 480890 2002 $FB_{27}$ | 17.0 | X | 335.23134 | 110.69188 | 112.04022 | 10.72102 | 0.1865204 | 0.25789230 | 2.4444274 | 21 | 2 9.9 | 19.8 |
| 480891 2002 $JH_{114}$ | 17.7 | X | 80.71787 | 181.50235 | 72.96792 | 24.11231 | 0.0669694 | 0.37437476 | 1.9066238 | 21 | 10 26.8 | 20.3 |
| 480892 2002 $NR_{73}$ | 18.0 | X | 174.05457 | 91.77113 | 279.90929 | 9.59138 | 0.1680279 | 0.29232895 | 2.2484755 | 21 | 2 24.1 | 21.6 |
| 480893 2002 $OV_7$ | 17.3 | X | 76.92438 | 330.69636 | 299.15582 | 19.00114 | 0.0613234 | 0.36975923 | 1.9224573 | 21 | 10 17.2 | 20.0 |
| 480894 2002 $PO_7$ | 18.2 | X | 54.79066 | 9.68027 | 308.71353 | 17.31429 | 0.0738590 | 0.37288043 | 1.9117143 | 21 | 12 13.2 | 20.5 |
| 480895 2002 $PW_{111}$ | 18.4 | X | 203.81448 | 197.35652 | 121.94718 | 2.27216 | 0.2416755 | 0.29016556 | 2.2596377 | 21 | 1 24.9 | 22.3 |
| 480896 2002 $PW_{112}$ | 17.2 | X | 84.65165 | 217.49452 | 159.35183 | 18.72792 | 0.2709141 | 0.22499847 | 2.6772135 | 21 | — | — |
| 480897 2002 $QA_7$ | 18.1 | X | 174.18583 | 114.92560 | 267.54242 | 5.42907 | 0.3029134 | 0.28973265 | 2.2618880 | 21 | 3 19.7 | 22.1 |
| 480898 2002 $QP_{15}$ | 17.5 | X | 291.52192 | 280.88167 | 335.61559 | 7.66308 | 0.1293675 | 0.29472215 | 2.2362869 | 21 | 1 30.8 | 20.4 |
| 480899 2002 $QG_{76}$ | 17.0 | X | 76.25618 | 196.69161 | 162.80565 | 12.47976 | 0.1992319 | 0.22396332 | 2.6854564 | 21 | — | — |
| 480900 2002 $QA_{129}$ | 18.6 | X | 187.09585 | 294.32422 | 38.97299 | 1.38343 | 0.2361511 | 0.28957777 | 2.2626944 | 21 | 1 28.8 | 22.1 |
| 480901 2002 $QX_{132}$ | 18.7 | X | 144.76568 | 122.68592 | 278.91371 | 2.97824 | 0.2151808 | 0.28942464 | 2.2634925 | 21 | 3 13.2 | 22.0 |
| 480902 2002 $RV_{59}$ | 17.9 | X | 185.92894 | 34.61736 | 306.21549 | 5.59473 | 0.1740769 | 0.28801534 | 2.2708702 | 21 | 2 1.8 | 21.4 |
| 480903 2002 $RF_{213}$ | 17.2 | X | 61.42545 | 200.43582 | 147.05722 | 12.82187 | 0.3173133 | 0.21819129 | 2.7326108 | 21 | — | — |
| 480904 2002 $RQ_{242}$ | 17.9 | X | 157.04777 | 86.42660 | 339.06546 | 21.91449 | 0.2908024 | 0.29217848 | 2.2492474 | 21 | 4 19.6 | 22.2 |
| 480905 2002 $RS_{257}$ | 18.2 | X | 167.42773 | 339.37161 | 27.56688 | 7.44110 | 0.2332892 | 0.28848191 | 2.2684210 | 21 | 2 25.2 | 21.8 |
| 480906 2002 $SD_{29}$ | 18.2 | X | 157.91226 | 349.21352 | 27.24831 | 6.69294 | 0.1781000 | 0.28645162 | 2.2791270 | 21 | 2 23.4 | 21.5 |
| 480907 2002 $SB_{65}$ | 17.3 | X | 29.33520 | 309.66971 | 48.30230 | 8.70345 | 0.2520587 | 0.21530070 | 2.7570147 | 21 | 12 25.3 | 20.9 |
| 480908 2002 $TB_{31}$ | 16.7 | X | 57.20031 | 342.48970 | 40.26191 | 14.09468 | 0.2817802 | 0.21819751 | 2.7325588 | 21 | — | — |
| 480909 2002 $TB_{64}$ | 17.3 | X | 29.57993 | 33.39363 | 354.86514 | 5.74436 | 0.2269841 | 0.21557863 | 2.7546446 | 21 | — | — |
| 480910 2002 $TT_{182}$ | 18.0 | X | 175.46779 | 113.97283 | 269.96496 | 5.09389 | 0.1671241 | 0.28990272 | 2.2610033 | 21 | 3 15.3 | 21.6 |
| 480911 2002 $TN_{186}$ | 16.9 | X | 16.09050 | 205.82146 | 206.49766 | 8.52864 | 0.2803649 | 0.21585616 | 2.7522830 | 21 | — | — |
| 480912 2002 $TV_{221}$ | 15.9 | X | 67.91483 | 89.93345 | 263.69124 | 12.13545 | 0.2910022 | 0.21971988 | 2.7199222 | 21 | — | — |
| 480913 2002 $TF_{306}$ | 17.0 | X | 34.26939 | 222.82074 | 151.15094 | 7.40289 | 0.1348294 | 0.21498356 | 2.7597255 | 21 | — | — |
| 480914 2002 $UA_{63}$ | 16.7 | X | 65.81343 | 347.27314 | 2.26202 | 14.33588 | 0.1962391 | 0.21868022 | 2.7285362 | 21 | — | — |
| 480915 2002 $VT_7$ | 17.4 | X | 150.41233 | 170.81314 | 251.23157 | 9.93479 | 0.1720253 | 0.28898475 | 2.2657888 | 21 | 4 8.6 | 20.8 |
| 480916 2002 $VD_{59}$ | 16.5 | X | 348.53509 | 235.07889 | 228.82107 | 32.08435 | 0.1699472 | 0.21585797 | 2.7522676 | 21 | — | — |
| 480917 2002 $VU_{98}$ | 19.1 | X | 147.74051 | 321.61758 | 48.11574 | 5.25826 | 0.2627860 | 0.28299339 | 2.2976569 | 21 | 2 13.3 | 22.6 |
| 480918 2002 $VF_{118}$ | 17.1 | X | 172.54750 | 80.44411 | 295.21670 | 23.90690 | 0.3332657 | 0.28675342 | 2.2775276 | 21 | 3 1.8 | 21.6 |
| 480919 2002 $WA$ | 18.0 | X | 22.35645 | 103.34581 | 276.64074 | 8.39551 | 0.3287878 | 0.21227536 | 2.7831482 | 21 | — | — |
| 480920 2002 $WE_{26}$ | 17.7 | X | 101.10243 | 12.23904 | 87.64192 | 6.73122 | 0.1501786 | 0.28412354 | 2.2915600 | 21 | 4 5.0 | 20.4 |
| 480921 2002 $XL_{31}$ | 16.6 | X | 35.48075 | 178.60226 | 261.80915 | 16.37563 | 0.2118352 | 0.21839722 | 2.7308928 | 21 | — | — |
| 480922 2002 $XP_{37}$ | 20.4 | X | 205.36534 | 317.61484 | 265.89557 | 21.53036 | 0.3592763 | 1.05613808 | 0.9549682 | 21 | — | — |
| 480923 2002 $XH_{49}$ | 16.9 | X | 342.91393 | 358.11805 | 78.90479 | 10.39764 | 0.2386836 | 0.21020857 | 2.8013612 | 21 | — | — |
| 480924 2002 $XA_{53}$ | 16.5 | X | 74.16725 | 55.87838 | 91.97890 | 23.32177 | 0.3236385 | 0.28094618 | 2.3088052 | 21 | 6 4.2 | 19.2 |
| 480925 2002 $XT_{60}$ | 16.5 | X | 39.18274 | 269.35703 | 252.73184 | 23.17115 | 0.1461068 | 0.28144995 | 2.3060494 | 21 | 2 24.7 | 19.4 |
| 480926 2002 $XE_{120}$ | 17.8 | X | 127.87151 | 301.65813 | 89.94380 | 6.93254 | 0.1413118 | 0.27965898 | 2.3158844 | 21 | 2 3.4 | 20.7 |
| 480927 2002 $YZ_3$ | 18.1 | X | 316.38300 | 358.77024 | 350.14401 | 19.93511 | 0.7961999 | 0.36385372 | 1.9432030 | 21 | 3 27.7 | 21.8 |
| 480928 2003 $AT_{55}$ | 16.7 | X | 56.74145 | 253.10703 | 304.40882 | 22.01885 | 0.2517870 | 0.28258349 | 2.2998783 | 21 | 7 7.6 | 19.1 |
| 480929 2003 $BM_{24}$ | 17.0 | X | 67.79561 | 211.80046 | 296.45116 | 23.42580 | 0.2110171 | 0.27856879 | 2.3219226 | 21 | 4 15.1 | 20.0 |
| 480930 2003 $BD_{87}$ | 17.0 | X | 74.62189 | 189.79068 | 297.12923 | 12.09430 | 0.1359774 | 0.27700810 | 2.3306358 | 21 | 3 19.5 | 19.7 |
| 480931 2003 $GY_{55}$ | 17.7 | X | 54.81880 | 333.22218 | 211.99898 | 10.15124 | 0.2490389 | 0.27685291 | 2.3315066 | 21 | 6 9.9 | 19.8 |
| 480932 2003 $HE_{33}$ | 17.9 | X | 12.11375 | 328.30284 | 204.89165 | 11.30644 | 0.1585221 | 0.26917336 | 2.3756438 | 21 | 1 29.6 | 20.4 |
| 480933 2003 $JO_2$ | 17.6 | X | 338.48154 | 208.31730 | 64.24475 | 4.48412 | 0.2742595 | 0.27250631 | 2.3562336 | 21 | 4 11.4 | 19.6 |
| 480934 2003 $LX_5$ | 17.5 | X | 334.15732 | 148.84010 | 38.62381 | 1.26188 | 0.5413621 | 0.21194514 | 2.7860382 | 21 | — | — |
| 480935 2003 $OO_{20}$ | 16.6 | X | 144.64882 | 309.30346 | 8.41628 | 5.04212 | 0.1982228 | 0.24350107 | 2.5398153 | 21 | — | — |
| 480936 2003 $QH_5$ | 20.1 | X | 271.20844 | 321.15200 | 299.23014 | 17.61727 | 0.2201039 | 0.69711645 | 1.2596962 | 21 | — | — |
| 480937 2003 $QY_{35}$ | 17.2 | X | 109.67300 | 14.05844 | 340.12073 | 13.58482 | 0.2710883 | 0.23862428 | 2.5743028 | 21 | — | — |
| 480938 2003 $QO_{80}$ | 16.8 | X | 141.83701 | 320.12947 | 341.31171 | 11.21592 | 0.2501948 | 0.23916847 | 2.5703964 | 21 | — | — |
| 480939 2003 $RB_{21}$ | 18.4 | X | 225.71909 | 322.26713 | 14.12295 | 1.69262 | 0.2162940 | 0.31006028 | 2.1619150 | 21 | 3 2.1 | 21.8 |
| 480940 2003 $SP_{102}$ | 16.2 | X | 103.23565 | 340.53292 | 352.67394 | 32.58734 | 0.1535594 | 0.23434230 | 2.6055671 | 21 | — | — |
| 480941 2003 $SO_{103}$ | 17.0 | X | 111.28831 | 322.34042 | 12.73260 | 3.33042 | 0.2433232 | 0.23554445 | 2.5966941 | 21 | — | — |
| 480942 2003 $SO_{122}$ | 16.5 | X | 129.09630 | 6.02000 | 308.50224 | 12.10734 | 0.2578377 | 0.23815501 | 2.5776833 | 21 | — | — |
| 480943 2003 $SP_{163}$ | 17.1 | X | 63.43011 | 235.03366 | 155.05165 | 4.86557 | 0.1317260 | 0.23486303 | 2.6017143 | 21 | — | — |
| 480944 2003 $SX_{199}$ | 16.7 | X | 64.96182 | 8.16234 | 5.01746 | 7.31122 | 0.2902312 | 0.23053717 | 2.6341595 | 21 | — | — |
| 480945 2003 $SD_{217}$ | 17.2 | X | 38.92725 | 203.27931 | 194.36899 | 7.48883 | 0.2865900 | 0.22903414 | 2.6456714 | 21 | — | — |
| 480946 2003 $SR_{237}$ | 17.0 | X | 83.77925 | 8.52132 | 20.19989 | 13.72565 | 0.2780713 | 0.23567571 | 2.5957299 | 21 | — | — |
| 480947 2003 $SG_{278}$ | 16.9 | X | 56.89463 | 86.16855 | 301.98181 | 6.89048 | 0.1737971 | 0.23163473 | 2.6258320 | 21 | — | — |
| 480948 2003 $SD_{292}$ | 17.6 | X | 50.78673 | 99.95329 | 283.10436 | 5.12245 | 0.2644521 | 0.23033955 | 2.6356660 | 21 | — | — |
| 480949 2003 $SY_{294}$ | 16.2 | X | 72.10342 | 325.87906 | 47.50412 | 30.93402 | 0.2872552 | 0.23081829 | 2.6320203 | 21 | — | — |
| 480950 2003 $SU_{322}$ | 17.1 | X | 134.78998 | 330.53999 | 336.36839 | 11.58935 | 0.2116152 | 0.23804205 | 2.5784987 | 21 | — | — |
| 480951 2003 $SE_{324}$ | 18.3 | X | 64.45519 | 230.08850 | 170.46919 | 1.76091 | 0.2428427 | 0.23487591 | 2.6016192 | 21 | — | — |
| 480952 2003 $SN_{324}$ | 17.1 | X | 84.82248 | 59.26122 | 290.73488 | 0.83069 | 0.1284387 | 0.23392022 | 2.6087004 | 21 | — | — |
| 480953 2003 $SA_{337}$ | 17.2 | X | 94.48613 | 266.06349 | 82.57357 | 14.25888 | 0.1080207 | 0.23125598 | 2.6286982 | 21 | — | — |
| 480954 2003 $SL_{341}$ | 17.3 | X | 56.15793 | 76.63245 | 341.47665 | 5.64573 | 0.1158843 | 0.23831708 | 2.5765146 | 21 | — | — |
| 480955 2003 $SR_{350}$ | 17.4 | X | 32.66513 | 170.79224 | 256.14545 | 2.90841 | 0.2118713 | 0.23407767 | 2.6075305 | 21 | — | — |
| 480956 2003 $SD_{417}$ | 16.2 | X | 168.59720 | 92.10543 | 169.15097 | 12.65475 | 0.2489820 | 0.17855327 | 3.1233753 | 21 | 12 25.4 | 21.8 |
| 480957 2003 $TY_{44}$ | 17.6 | X | 41.78779 | 162.12334 | 290.07607 | 5.73285 | 0.1952842 | 0.23682785 | 2.5873044 | 21 | — | — |
| 480958 2003 $TM_{48}$ | 17.3 | X | 48.72391 | 175.22741 | 235.92985 | 3.16096 | 0.1497177 | 0.23538650 | 2.5978556 | 21 | — | — |
| 480959 2003 $UZ_3$ | 17.5 | X | 26.01243 | 346.29574 | 53.62867 | 4.48437 | 0.0965622 | 0.22884953 | 2.6470940 | 21 | — | — |
| 480960 2003 $UU_{30}$ | 18.7 | X | 229.15753 | 36.55207 | 291.15375 | 3.62831 | 0.2340079 | 0.30886296 | 2.1674986 | 21 | 2 20.3 | 22.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 480961 2003 $US_{32}$ | 18.3 | X | 74.01966 | 6.96872 | 29.47044 | 2.72601 | 0.1704308 | 0.23510392 | 2.5999369 | 21 | — | — |
| 480962 2003 $UP_{87}$ | 17.0 | X | 25.08755 | 100.83973 | 348.74600 | 27.73842 | 0.3863120 | 0.23220956 | 2.6214967 | 21 | — | — |
| 480963 2003 $UH_{90}$ | 17.3 | X | 33.94149 | 337.86380 | 73.87368 | 5.91450 | 0.2010552 | 0.23072394 | 2.6327378 | 21 | — | — |
| 480964 2003 $UH_{146}$ | 17.2 | X | 51.74374 | 344.54821 | 67.47231 | 8.47583 | 0.2845468 | 0.23187076 | 2.6240497 | 21 | — | — |
| 480965 2003 $UV_{159}$ | 17.4 | X | 54.17852 | 75.75888 | 316.76592 | 12.17295 | 0.2143500 | 0.23333204 | 2.6130825 | 21 | — | — |
| 480966 2003 $UP_{206}$ | 17.0 | X | 60.25477 | 342.77385 | 45.13440 | 15.67358 | 0.2879134 | 0.23019597 | 2.6367618 | 21 | — | — |
| 480967 2003 $UB_{207}$ | 17.0 | X | 79.75117 | 306.60199 | 31.16192 | 12.29530 | 0.1968722 | 0.23024755 | 2.6363680 | 21 | — | — |
| 480968 2003 $UB_{256}$ | 16.9 | X | 5.01486 | 225.17462 | 229.51772 | 11.36009 | 0.2607905 | 0.22928822 | 2.6437165 | 21 | — | — |
| 480969 2003 $UQ_{299}$ | 17.4 | X | 30.01089 | 71.04101 | 32.57154 | 13.33382 | 0.2182575 | 0.23544160 | 2.5974503 | 21 | — | — |
| 480970 2003 $UD_{308}$ | 17.2 | X | 32.28018 | 233.53245 | 189.25472 | 9.50078 | 0.2688772 | 0.22996944 | 2.6384931 | 21 | — | — |
| 480971 2003 $UN_{317}$ | 17.1 | X | 123.70112 | 31.83058 | 294.96493 | 7.92217 | 0.1712768 | 0.23846477 | 2.5754506 | 21 | — | — |
| 480972 2003 $UW_{344}$ | 18.2 | X | 36.58158 | 98.67377 | 345.04447 | 4.17219 | 0.2624571 | 0.23623216 | 2.5916521 | 21 | — | — |
| 480973 2003 $UH_{366}$ | 17.3 | X | 55.37661 | 147.34979 | 251.10395 | 1.96775 | 0.1872129 | 0.23059417 | 2.6337254 | 21 | — | — |
| 480974 2003 $WZ_{2}$ | 16.9 | X | 78.15795 | 130.67085 | 267.21675 | 12.72224 | 0.1831464 | 0.23403379 | 2.6078564 | 21 | — | — |
| 480975 2003 $WL_{12}$ | 18.1 | X | 313.73466 | 148.16383 | 241.95528 | 20.03002 | 0.0924032 | 0.38118579 | 1.8838439 | 21 | 10 6.3 | 19.8 |
| 480976 2003 $WX_{63}$ | 17.8 | X | 74.33513 | 331.09545 | 53.43261 | 3.71361 | 0.2956059 | 0.23201087 | 2.6229932 | 21 | — | — |
| 480977 2003 $WN_{105}$ | 18.5 | X | 168.58500 | 145.66189 | 267.34394 | 3.92891 | 0.1488318 | 0.30459701 | 2.1876892 | 21 | 4 14.1 | 21.7 |
| 480978 2003 $WR_{149}$ | 16.9 | X | 359.91358 | 252.24059 | 222.18114 | 10.79080 | 0.2554834 | 0.22896015 | 2.6462413 | 21 | — | — |
| 480979 2003 $WC_{154}$ | 16.5 | X | 58.66583 | 345.11318 | 80.14915 | 35.65548 | 0.2207970 | 0.23367614 | 2.6105167 | 21 | — | — |
| 480980 2003 $WR_{154}$ | 17.4 | X | 51.95311 | 311.32825 | 106.65486 | 7.25922 | 0.2842945 | 0.23195255 | 2.6234328 | 21 | — | — |
| 480981 2003 $XY_{8}$ | 16.0 | X | 13.68165 | 214.27216 | 270.48653 | 31.96131 | 0.2062823 | 0.23225867 | 2.6211271 | 21 | — | — |
| 480982 2003 $YR_{2}$ | 18.0 | X | 262.47462 | 356.69335 | 82.76170 | 23.85137 | 0.0704809 | 0.37718595 | 1.8971385 | 21 | 10 19.3 | 20.4 |
| 480983 2003 $YL_{26}$ | 16.8 | X | 36.73656 | 166.19436 | 286.17067 | 11.91613 | 0.2472610 | 0.22898115 | 2.6460795 | 21 | — | — |
| 480984 2003 $YR_{70}$ | 20.1 | X | 231.67737 | 222.98792 | 301.29273 | 2.65456 | 0.4314446 | 0.37763428 | 1.8956367 | 21 | 10 24.9 | 22.5 |
| 480985 2003 $YY_{80}$ | 16.8 | X | 14.43079 | 194.87120 | 305.44756 | 12.64230 | 0.1850391 | 0.23015964 | 2.6370393 | 21 | 1 1.3 | 19.5 |
| 480986 2004 $BL_{28}$ | 17.5 | X | 191.07549 | 201.64035 | 311.27615 | 18.51151 | 0.0737802 | 0.37193481 | 1.9149532 | 21 | 9 23.6 | 20.1 |
| 480987 2004 $BJ_{41}$ | 17.8 | X | 195.75398 | 76.85938 | 103.65745 | 24.21050 | 0.0568742 | 0.37714044 | 1.8972912 | 21 | 12 4.2 | 20.0 |
| 480988 2004 $BX_{52}$ | 16.8 | X | 29.61047 | 348.05091 | 127.98517 | 15.81170 | 0.0267153 | 0.22922795 | 2.6441799 | 21 | 1 3.8 | 20.4 |
| 480989 2004 $BR_{85}$ | 18.4 | X | 304.65609 | 107.31903 | 331.54715 | 19.13983 | 0.1166720 | 0.37998483 | 1.8878111 | 21 | 12 27.0 | 20.0 |
| 480990 2004 $BV_{114}$ | 17.8 | X | 5.50240 | 358.12733 | 135.60348 | 10.59207 | 0.3856109 | 0.22547793 | 2.6734169 | 21 | — | — |
| 480991 2004 $BB_{138}$ | 17.3 | X | 335.28912 | 102.27842 | 0.89308 | 1.78451 | 0.0343362 | 0.21878861 | 2.7276350 | 21 | — | — |
| 480992 2004 $BD_{144}$ | 17.2 | X | 82.63907 | 349.17169 | 311.84861 | 11.40414 | 0.0669428 | 0.20971444 | 2.8057599 | 21 | 11 19.6 | 21.5 |
| 480993 2004 $CC_{1}$ | 16.2 | X | 353.35773 | 68.46007 | 94.68352 | 30.15095 | 0.3031858 | 0.22651424 | 2.6652567 | 21 | — | — |
| 480994 2004 $CQ_{27}$ | 16.6 | X | 349.76646 | 151.12297 | 322.87348 | 10.20088 | 0.0819781 | 0.22282930 | 2.6945599 | 21 | — | — |
| 480995 2004 $CW_{127}$ | 17.1 | X | 17.69069 | 51.46789 | 31.62577 | 9.43969 | 0.2096445 | 0.22066960 | 2.7121125 | 21 | — | — |
| 480996 2004 $DU_{14}$ | 16.6 | X | 295.14307 | 208.67591 | 326.34128 | 11.93505 | 0.1175602 | 0.21927918 | 2.7235653 | 21 | — | — |
| 480997 2004 $DT_{39}$ | 16.9 | X | 26.38560 | 265.26194 | 167.56489 | 28.72309 | 0.4805764 | 0.22394776 | 2.6855808 | 21 | — | — |
| 480998 2004 $DE_{46}$ | 16.9 | X | 318.30668 | 234.60111 | 294.12308 | 7.58204 | 0.1669654 | 0.22219139 | 2.6997149 | 21 | — | — |
| 480999 2004 $EL_{70}$ | 17.2 | X | 312.12595 | 317.64258 | 189.54413 | 3.96002 | 0.1671615 | 0.21707491 | 2.7419716 | 21 | — | — |
| 481000 2004 $FL_{89}$ | 16.7 | X | 275.43856 | 151.86118 | 13.79672 | 8.24706 | 0.1532062 | 0.21394783 | 2.7686249 | 21 | — | — |
| 481001 2004 $FX_{97}$ | 18.1 | X | 258.27707 | 72.29966 | 24.35971 | 20.70617 | 0.1398620 | 0.37193355 | 1.9149575 | 21 | 10 11.1 | 19.6 |
| 481002 2004 $GR_{25}$ | 16.9 | X | 318.76542 | 264.35763 | 207.32128 | 11.17970 | 0.1144772 | 0.20919453 | 2.8104067 | 21 | — | — |
| 481003 2004 $HV_{24}$ | 17.0 | X | 285.37780 | 144.02172 | 0.13779 | 8.86617 | 0.0904917 | 0.21094923 | 2.7948001 | 21 | — | — |
| 481004 2004 $JU_{30}$ | 16.3 | X | 31.30914 | 231.54170 | 67.61888 | 26.24371 | 0.4115911 | 0.18190173 | 3.0849265 | 21 | 11 9.8 | 20.3 |
| 481005 2004 $PX_{82}$ | 16.1 | X | 37.36863 | 59.91429 | 272.25197 | 8.53953 | 0.0735225 | 0.18251529 | 3.0780090 | 21 | 10 29.8 | 20.4 |
| 481006 2004 $RV_{7}$ | 15.8 | X | 337.99360 | 187.22295 | 176.94774 | 15.90847 | 0.2804800 | 0.17485211 | 3.1672970 | 21 | 9 5.5 | 18.6 |
| 481007 2004 $RS_{86}$ | 16.3 | X | 5.12744 | 198.59623 | 169.82697 | 11.62143 | 0.0886441 | 0.17959066 | 3.1113358 | 21 | 11 5.7 | 20.4 |
| 481008 2004 $RS_{99}$ | 17.0 | X | 235.43465 | 326.05885 | 329.92541 | 12.40339 | 0.1915035 | 0.26674597 | 2.3900343 | 21 | 1 26.9 | 20.9 |
| 481009 2004 $RQ_{123}$ | 16.6 | X | 353.61735 | 72.50929 | 293.53653 | 14.90923 | 0.2670410 | 0.17600952 | 3.1533967 | 21 | 10 13.4 | 19.9 |
| 481010 2004 $RU_{149}$ | 18.2 | X | 96.65801 | 79.60956 | 292.12457 | 0.63752 | 0.2780113 | 0.25161283 | 2.4849302 | 21 | — | — |
| 481011 2004 $RS_{151}$ | 17.7 | X | 116.80850 | 235.94935 | 182.37697 | 6.13386 | 0.1093778 | 0.26331695 | 2.4107389 | 21 | 2 19.8 | 20.7 |
| 481012 2004 $RW_{161}$ | 15.7 | X | 59.83835 | 14.78160 | 280.26661 | 16.15549 | 0.1931059 | 0.17911867 | 3.1167992 | 21 | 10 26.5 | 20.4 |
| 481013 2004 $RB_{206}$ | 16.5 | X | 196.83806 | 325.07664 | 346.97014 | 23.95405 | 0.2435864 | 0.26117502 | 2.4239015 | 21 | 1 22.9 | 21.0 |
| 481014 2004 $RG_{208}$ | 17.3 | X | 311.57329 | 59.56335 | 308.96775 | 14.82913 | 0.0872154 | 0.34592216 | 2.0097890 | 21 | 8 20.9 | 19.0 |
| 481015 2004 $RK_{246}$ | 16.9 | X | 326.43523 | 354.52545 | 4.04022 | 6.52517 | 0.3465882 | 0.16931465 | 3.2359839 | 21 | 7 21.7 | 20.1 |
| 481016 2004 $RE_{260}$ | 16.7 | X | 312.13103 | 216.85605 | 178.87154 | 8.24260 | 0.1598453 | 0.17225534 | 3.1990492 | 21 | 9 8.3 | 20.6 |
| 481017 2004 $TF_{35}$ | 17.6 | X | 158.94716 | 96.09396 | 235.97326 | 1.83647 | 0.1932362 | 0.25585960 | 2.4573569 | 21 | 1 2.9 | 21.3 |
| 481018 2004 $TK_{62}$ | 17.0 | X | 307.18548 | 210.65470 | 221.65652 | 6.10441 | 0.2838097 | 0.17141432 | 3.2095045 | 21 | 9 29.7 | 20.6 |
| 481019 2004 $TO_{85}$ | 16.4 | X | 328.89046 | 58.09365 | 11.47651 | 9.23734 | 0.0464950 | 0.17990666 | 3.1076914 | 21 | 11 23.9 | 20.6 |
| 481020 2004 $TZ_{105}$ | 15.4 | X | 16.87697 | 308.08044 | 15.92265 | 26.18114 | 0.1130200 | 0.17342875 | 3.1846031 | 21 | 9 30.6 | 19.4 |
| 481021 2004 $TH_{168}$ | 17.3 | X | 98.23883 | 211.91931 | 191.31279 | 12.30097 | 0.1699367 | 0.25435479 | 2.4670395 | 21 | 1 13.9 | 20.4 |
| 481022 2004 $TL_{287}$ | 17.2 | X | 146.84608 | 268.17109 | 96.73486 | 2.47523 | 0.2005549 | 0.25730347 | 2.4481552 | 21 | 2 1.6 | 20.8 |
| 481023 2004 $TJ_{370}$ | 16.3 | X | 271.14995 | 83.08045 | 28.29821 | 8.16205 | 0.1692778 | 0.17234890 | 3.1978913 | 21 | 10 14.7 | 20.5 |
| 481024 2004 $UH_{6}$ | 15.6 | X | 356.85808 | 318.49265 | 49.30865 | 28.43992 | 0.2013509 | 0.17183834 | 3.2042225 | 21 | 10 31.8 | 19.2 |
| 481025 2004 $VA_{1}$ | 20.5 | X | 244.10297 | 20.88469 | 250.73859 | 14.90375 | 0.5123042 | 0.91430920 | 1.0513339 | 21 | — | — |
| 481026 2004 $VL_{56}$ | 15.9 | X | 301.13078 | 49.95888 | 55.66557 | 20.13252 | 0.1787924 | 0.17420052 | 3.1751902 | 21 | 11 18.7 | 19.7 |
| 481027 2004 $XN_{44}$ | 18.5 | X | 168.30936 | 83.82198 | 178.16785 | 2.76402 | 0.5752216 | 0.26023329 | 2.4297457 | 21 | 12 25.0 | 23.8 |
| 481028 2004 $XB_{73}$ | 15.7 | X | 296.58877 | 230.80799 | 238.59292 | 13.26927 | 0.2592966 | 0.17410975 | 3.1762938 | 21 | 11 3.5 | 19.3 |
| 481029 2004 $XB_{76}$ | 17.3 | X | 82.95431 | 127.62719 | 269.24837 | 4.45188 | 0.1784725 | 0.24705490 | 2.5154000 | 21 | — | — |
| 481030 2004 $YE_{12}$ | 17.1 | X | 80.02160 | 89.56110 | 293.47790 | 7.61171 | 0.1266721 | 0.23978866 | 2.5659624 | 21 | — | — |
| 481031 2004 $YL_{23}$ | 13.8 | X | 233.63134 | 261.17631 | 129.58990 | 17.04024 | 0.0149617 | 0.08213915 | 5.2412624 | 21 | 6 14.4 | 20.9 |
| 481032 2004 $YZ_{23}$ | 15.1 | X | 203.69831 | 300.84989 | 253.04487 | 56.14102 | 0.6767678 | 0.15571355 | 3.4217776 | 21 | 10 15.7 | 22.8 |
| 481033 2005 $AM_{29}$ | 17.2 | X | 55.57937 | 321.06474 | 97.75182 | 5.23866 | 0.2862454 | 0.24192099 | 2.5508623 | 21 | — | — |
| 481034 2005 $AP_{73}$ | 17.1 | X | 303.78214 | 67.29870 | 114.06643 | 8.67996 | 0.1763348 | 0.23668047 | 2.5883784 | 21 | — | — |
| 481035 2005 $AM_{76}$ | 17.9 | X | 58.96642 | 106.30507 | 342.85814 | 5.01849 | 0.1851624 | 0.24495021 | 2.5297883 | 21 | 1 15.3 | 20.2 |
| 481036 2005 $BO_{35}$ | 16.9 | X | 339.01652 | 226.31945 | 293.96557 | 7.50931 | 0.1903316 | 0.24018473 | 2.5631407 | 21 | — | — |
| 481037 2005 $CJ_{31}$ | 17.5 | X | 17.78304 | 160.08517 | 329.08764 | 16.38127 | 0.0638476 | 0.24098423 | 2.5574685 | 21 | 1 1.8 | 20.9 |
| 481038 2005 $CP_{68}$ | 17.2 | X | 315.69825 | 230.74397 | 298.62219 | 3.76571 | 0.2085349 | 0.23597119 | 2.5935626 | 21 | — | — |
| 481039 2005 $EE_{41}$ | 16.8 | X | 330.40400 | 62.12910 | 87.16461 | 12.78349 | 0.1957585 | 0.23485912 | 2.6017432 | 21 | — | — |
| 481040 2005 $EG_{77}$ | 18.6 | X | 67.89658 | 275.49571 | 254.11595 | 1.08192 | 0.0794067 | 0.31305745 | 2.1480943 | 21 | 5 6.8 | 20.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481041 2005 $EC_{184}$ | 17.8 | $X$ | 7.25428 | 151.21111 | 358.78364 | 11.94011 | 0.1361871 | 0.23884320 | 2.5727295 | 21 | 1 5.7 | 20.9 |
| 481042 2005 $EK_{190}$ | 17.6 | $X$ | 298.11970 | 344.81458 | 180.64468 | 3.67683 | 0.1247233 | 0.23343489 | 2.6123150 | 21 | — | — |
| 481043 2005 $ER_{192}$ | 17.2 | $X$ | 321.20471 | 315.70577 | 176.22604 | 13.22826 | 0.0978977 | 0.22956236 | 2.6416114 | 21 | — | — |
| 481044 2005 $EG_{225}$ | 16.9 | $X$ | 329.37635 | 82.12729 | 80.52681 | 28.00423 | 0.4076954 | 0.23373819 | 2.6100546 | 21 | — | — |
| 481045 2005 $EW_{283}$ | 17.5 | $X$ | 319.00888 | 198.57105 | 323.73276 | 3.81530 | 0.1746590 | 0.23469197 | 2.6029784 | 21 | — | — |
| 481046 2005 $FE_{4}$ | 17.0 | $X$ | 299.08673 | 24.46748 | 154.26657 | 14.33854 | 0.1891613 | 0.23065253 | 2.6332812 | 21 | — | — |
| 481047 2005 $FT_{8}$ | 17.0 | $X$ | 291.95166 | 77.35447 | 86.29573 | 21.95392 | 0.1973214 | 0.22852369 | 2.6496097 | 21 | — | — |
| 481048 2005 $GA_{10}$ | 16.2 | $X$ | 190.36224 | 1.86355 | 224.37911 | 27.52017 | 0.2417549 | 0.21890478 | 2.7266698 | 21 | 12 5.7 | 21.0 |
| 481049 2005 $GS_{12}$ | 16.8 | $X$ | 295.28869 | 152.18049 | 11.36488 | 13.90026 | 0.2011934 | 0.22795530 | 2.6540122 | 21 | — | — |
| 481050 2005 $GV_{32}$ | 18.3 | $X$ | 358.04189 | 354.66529 | 191.11577 | 5.17425 | 0.3749897 | 0.24067076 | 2.5596888 | 21 | — | — |
| 481051 2005 $GU_{109}$ | 17.2 | $X$ | 329.63161 | 281.27956 | 194.06447 | 11.20792 | 0.1155590 | 0.22495850 | 2.6775306 | 21 | — | — |
| 481052 2005 $HD_{4}$ | 20.7 | $X$ | 128.86723 | 349.68989 | 224.70097 | 22.47416 | 0.2623716 | 0.57012028 | 1.4404286 | 21 | 11 10.5 | 22.1 |
| 481053 2005 $JP_{45}$ | 18.1 | $X$ | 333.61570 | 339.51637 | 79.95259 | 20.64455 | 0.0634889 | 0.39799785 | 1.8304122 | 21 | — | — |
| 481054 2005 $JV_{57}$ | 17.0 | $X$ | 272.80601 | 323.18332 | 234.67242 | 11.84950 | 0.1177460 | 0.22528551 | 2.6749389 | 21 | — | — |
| 481055 2005 $JP_{102}$ | 16.1 | $X$ | 59.50728 | 203.20661 | 103.02461 | 11.74258 | 0.0959963 | 0.20336076 | 2.8639006 | 21 | 11 8.6 | 20.2 |
| 481056 2005 $LH_{31}$ | 16.6 | $X$ | 302.29449 | 310.39076 | 282.07298 | 12.14570 | 0.2195927 | 0.23007558 | 2.6376816 | 21 | 1 10.9 | 20.5 |
| 481057 2005 $LS_{41}$ | 16.1 | $X$ | 19.78397 | 82.16818 | 284.14378 | 17.36715 | 0.2283374 | 0.19697969 | 2.9254213 | 21 | 12 15.1 | 19.7 |
| 481058 2005 $MM_{24}$ | 18.2 | $X$ | 110.26200 | 312.44073 | 299.11743 | 20.40768 | 0.0389066 | 0.38070975 | 1.8854139 | 21 | 11 10.5 | 20.8 |
| 481059 2005 $MW_{29}$ | 16.6 | $X$ | 42.81377 | 56.82206 | 282.22447 | 10.85356 | 0.1606281 | 0.19594080 | 2.9357526 | 21 | 12 1.3 | 20.7 |
| 481060 2005 $MX_{36}$ | 16.5 | $X$ | 323.62926 | 291.69989 | 301.28472 | 27.26641 | 0.1289965 | 0.23106833 | 2.6301212 | 21 | 2 10.7 | 20.2 |
| 481061 2005 $NA_{14}$ | 17.5 | $X$ | 203.84526 | 42.26686 | 309.48840 | 6.35427 | 0.1424707 | 0.28516860 | 2.2859580 | 21 | 3 1.8 | 21.0 |
| 481062 2005 $NG_{80}$ | 17.7 | $X$ | 195.19126 | 351.70753 | 330.09514 | 8.63900 | 0.2613348 | 0.28282651 | 2.2985607 | 21 | 1 24.3 | 21.7 |
| 481063 2005 $OC_{3}$ | 17.7 | $X$ | 158.75109 | 230.93563 | 90.50269 | 9.59034 | 0.3606952 | 0.27483758 | 2.3428904 | 21 | 1 2.9 | 21.6 |
| 481064 2005 $QU_{4}$ | 17.7 | $X$ | 194.65336 | 319.74664 | 30.34486 | 7.08171 | 0.2397731 | 0.28569723 | 2.2831373 | 21 | 2 27.5 | 21.6 |
| 481065 2005 $QY_{23}$ | 18.5 | $X$ | 177.78442 | 222.08122 | 102.41040 | 1.76095 | 0.2315018 | 0.27673069 | 2.3321931 | 21 | 1 11.3 | 22.2 |
| 481066 2005 $QW_{54}$ | 18.2 | $X$ | 139.59063 | 46.82685 | 344.44230 | 3.37017 | 0.2487576 | 0.27818665 | 2.3240486 | 21 | 3 1.5 | 21.5 |
| 481067 2005 $QA_{59}$ | 17.8 | $X$ | 113.24678 | 296.33374 | 102.33645 | 3.41111 | 0.1987964 | 0.27416850 | 2.3467006 | 21 | 2 2.3 | 20.5 |
| 481068 2005 $QW_{133}$ | 18.5 | $X$ | 153.43816 | 239.04387 | 155.04865 | 1.19859 | 0.1885482 | 0.28076120 | 2.3098192 | 21 | 3 12.4 | 21.8 |
| 481069 2005 $QU_{139}$ | 17.2 | $X$ | 339.50306 | 293.61759 | 60.76356 | 1.45312 | 0.2621387 | 0.18310613 | 3.0713841 | 21 | 8 30.6 | 19.9 |
| 481070 2005 $QM_{140}$ | 17.8 | $X$ | 146.13940 | 10.39983 | 22.24959 | 1.50025 | 0.2689420 | 0.27866538 | 2.3213860 | 21 | 3 11.7 | 21.3 |
| 481071 2005 $QJ_{163}$ | 17.9 | $X$ | 149.72813 | 266.05803 | 136.94645 | 4.67314 | 0.1510505 | 0.28153101 | 2.3056067 | 21 | 3 17.5 | 21.0 |
| 481072 2005 $QM_{187}$ | 16.9 | $X$ | 322.22252 | 11.38853 | 359.17755 | 1.69135 | 0.2283100 | 0.18144734 | 3.0900747 | 21 | 8 16.8 | 20.0 |
| 481073 2005 $RK$ | 16.4 | $X$ | 299.74764 | 184.27253 | 190.55345 | 25.99969 | 0.3596062 | 0.17841072 | 3.1250388 | 21 | 6 20.6 | 21.2 |
| 481074 2005 $SL_{11}$ | 16.7 | $X$ | 336.94081 | 39.71410 | 20.14765 | 8.34976 | 0.1624485 | 0.18921269 | 3.0049404 | 21 | 11 26.9 | 20.1 |
| 481075 2005 $ST_{14}$ | 16.2 | $X$ | 5.06704 | 4.16495 | 350.78033 | 11.05602 | 0.2119898 | 0.18630647 | 3.0361094 | 21 | 10 24.7 | 19.5 |
| 481076 2005 $SV_{19}$ | 16.4 | $X$ | 1.20335 | 356.83610 | 0.52132 | 11.27166 | 0.2248267 | 0.18594796 | 3.0400106 | 21 | 10 22.3 | 19.7 |
| 481077 2005 $SC_{35}$ | 17.8 | $X$ | 140.55683 | 242.57069 | 134.46091 | 2.88761 | 0.2260419 | 0.27474852 | 2.3433967 | 21 | 2 10.2 | 21.1 |
| 481078 2005 $SB_{37}$ | 16.7 | $X$ | 338.47702 | 24.38678 | 12.81232 | 9.60015 | 0.1070033 | 0.18758743 | 3.0222721 | 21 | 10 29.4 | 20.4 |
| 481079 2005 $SC_{85}$ | 15.9 | $X$ | 106.31041 | 232.85597 | 13.64911 | 16.69648 | 0.0232448 | 0.18429597 | 3.0581503 | 21 | 10 5.7 | 20.1 |
| 481080 2005 $SE_{92}$ | 16.5 | $X$ | 322.90062 | 215.83531 | 204.16593 | 11.38860 | 0.0692304 | 0.18692754 | 3.0293807 | 21 | 11 7.7 | 20.4 |
| 481081 2005 $SX_{95}$ | 17.9 | $X$ | 178.57615 | 347.10199 | 19.83844 | 7.12621 | 0.1453177 | 0.28069674 | 2.3101728 | 21 | 3 1.8 | 21.3 |
| 481082 2005 $SA_{98}$ | 18.3 | $X$ | 120.59791 | 61.23934 | 325.88403 | 4.82385 | 0.2276045 | 0.27232520 | 2.3572782 | 21 | 2 1.3 | 21.2 |
| 481083 2005 $SQ_{131}$ | 16.2 | $X$ | 15.34740 | 285.20474 | 18.00568 | 14.21401 | 0.0602137 | 0.17737681 | 3.1371707 | 21 | 8 30.1 | 20.5 |
| 481084 2005 $SV_{134}$ | 18.1 | $X$ | 154.17467 | 349.99434 | 37.85332 | 1.07885 | 0.2232273 | 0.27778402 | 2.3262937 | 21 | 3 8.9 | 21.5 |
| 481085 2005 $SA_{135}$ | 16.9 | $X$ | 118.20584 | 98.92594 | 340.48599 | 21.80117 | 0.2997173 | 0.27668585 | 2.3324450 | 21 | 4 5.9 | 20.7 |
| 481086 2005 $SL_{141}$ | 17.0 | $X$ | 319.62916 | 44.06251 | 28.12924 | 8.84366 | 0.2003741 | 0.18758781 | 3.0222681 | 21 | 11 8.4 | 20.2 |
| 481087 2005 $SC_{150}$ | 18.0 | $X$ | 163.11227 | 224.40279 | 116.01806 | 2.00135 | 0.2115498 | 0.27414490 | 2.3468353 | 21 | 1 16.2 | 21.2 |
| 481088 2005 $SW_{168}$ | 16.6 | $X$ | 344.74959 | 102.14440 | 337.33514 | 8.28218 | 0.0422460 | 0.19632714 | 2.9319000 | 21 | — | — |
| 481089 2005 $SB_{172}$ | 17.1 | $X$ | 325.26201 | 55.53398 | 319.22119 | 3.11121 | 0.1976487 | 0.18149769 | 3.0895032 | 21 | 8 31.6 | 20.5 |
| 481090 2005 $SY_{173}$ | 18.1 | $X$ | 135.85374 | 154.42050 | 210.02032 | 2.97394 | 0.3361886 | 0.27393390 | 2.3480402 | 21 | 2 1.4 | 21.6 |
| 481091 2005 $SU_{174}$ | 16.8 | $X$ | 295.21681 | 96.36494 | 332.60418 | 7.31853 | 0.0524806 | 0.18507594 | 3.0495523 | 21 | 10 8.2 | 21.0 |
| 481092 2005 $SB_{186}$ | 18.3 | $X$ | 96.90588 | 52.68348 | 24.26806 | 1.23288 | 0.1574651 | 0.27597741 | 2.3364350 | 21 | 2 23.9 | 20.8 |
| 481093 2005 $SO_{207}$ | 17.3 | $X$ | 266.08390 | 81.28284 | 237.01929 | 5.75427 | 0.1531660 | 0.28874748 | 2.2670299 | 21 | 3 19.1 | 20.6 |
| 481094 2005 $SU_{230}$ | 16.6 | $X$ | 226.54513 | 305.38804 | 195.30653 | 10.94850 | 0.0307118 | 0.18621925 | 3.0370574 | 21 | 10 17.5 | 20.8 |
| 481095 2005 $SX_{233}$ | 16.7 | $X$ | 304.69738 | 173.13611 | 213.06174 | 9.47996 | 0.1940908 | 0.17648761 | 3.1476993 | 21 | 8 7.0 | 20.8 |
| 481096 2005 $SN_{235}$ | 18.3 | $X$ | 114.88378 | 115.30110 | 284.64190 | 2.02928 | 0.1827553 | 0.27229374 | 2.3574597 | 21 | 2 3.0 | 21.1 |
| 481097 2005 $SW_{235}$ | 18.1 | $X$ | 110.83107 | 80.15449 | 2.45674 | 4.55397 | 0.1840596 | 0.27704957 | 2.3304032 | 21 | 3 27.5 | 20.7 |
| 481098 2005 $SE_{263}$ | 18.1 | $X$ | 184.40099 | 260.63399 | 55.21275 | 3.06199 | 0.2195116 | 0.27542597 | 2.3395525 | 21 | 1 6.1 | 21.7 |
| 481099 2005 $ST_{289}$ | 15.8 | $X$ | 324.86905 | 340.43075 | 78.66994 | 19.26128 | 0.1911367 | 0.18653912 | 3.0335845 | 21 | 11 9.6 | 19.2 |
| 481100 2005 $SJ_{290}$ | 18.7 | $X$ | 105.02855 | 75.84210 | 27.56587 | 4.54346 | 0.2330450 | 0.27812320 | 2.3244020 | 21 | 4 25.1 | 21.7 |
| 481101 2005 $TL_{2}$ | 18.1 | $X$ | 187.35484 | 5.37580 | 353.63328 | 2.80830 | 0.2082325 | 0.28171721 | 2.3045907 | 21 | 2 28.9 | 21.7 |
| 481102 2005 $TG_{3}$ | 17.9 | $X$ | 151.35359 | 190.95992 | 191.89062 | 12.58625 | 0.2912361 | 0.27617857 | 2.3353003 | 21 | 3 3.6 | 21.8 |
| 481103 2005 $TY_{20}$ | 18.2 | $X$ | 51.54619 | 286.28680 | 209.64461 | 2.33163 | 0.1361504 | 0.27948371 | 2.3168525 | 21 | 2 23.4 | 20.3 |
| 481104 2005 $TD_{54}$ | 18.0 | $X$ | 130.96645 | 210.70578 | 176.53356 | 5.34075 | 0.1948082 | 0.27456509 | 2.3444403 | 21 | 2 7.3 | 21.0 |
| 481105 2005 $TK_{78}$ | 16.3 | $X$ | 302.07950 | 10.04703 | 37.16563 | 12.62663 | 0.1595941 | 0.18006311 | 3.1058911 | 21 | 9 15.2 | 20.3 |
| 481106 2005 $TK_{95}$ | 16.3 | $X$ | 270.17509 | 272.06469 | 208.72625 | 25.52629 | 0.2060833 | 0.18608628 | 3.0385040 | 21 | 10 20.8 | 20.5 |
| 481107 2005 $TH_{102}$ | 16.2 | $X$ | 7.94643 | 339.27965 | 3.53757 | 6.41990 | 0.1924177 | 0.18386427 | 3.0629353 | 21 | 10 14.3 | 19.4 |
| 481108 2005 $TA_{103}$ | 18.1 | $X$ | 102.09909 | 228.60933 | 197.56531 | 8.09069 | 0.0674941 | 0.27480635 | 2.3430679 | 21 | 1 30.6 | 21.0 |
| 481109 2005 $TT_{111}$ | 18.2 | $X$ | 154.04258 | 81.47672 | 325.85004 | 2.31547 | 0.1871661 | 0.28124095 | 2.3071917 | 21 | 3 28.8 | 21.5 |
| 481110 2005 $TY_{119}$ | 16.8 | $X$ | 24.87747 | 310.62918 | 19.03025 | 2.51631 | 0.1757742 | 0.18590155 | 3.0405166 | 21 | 10 25.5 | 20.3 |
| 481111 2005 $TG_{121}$ | 16.6 | $X$ | 292.05614 | 16.77027 | 50.04508 | 2.16767 | 0.1591490 | 0.18108557 | 3.0941889 | 21 | 9 20.2 | 20.5 |
| 481112 2005 $TZ_{124}$ | 16.5 | $X$ | 19.48515 | 143.51118 | 211.36819 | 11.83839 | 0.0877293 | 0.18681781 | 3.0305668 | 21 | 11 8.5 | 20.4 |
| 481113 2005 $TD_{125}$ | 18.1 | $X$ | 152.08706 | 69.80215 | 344.75883 | 1.37664 | 0.1955384 | 0.28085797 | 2.3092886 | 21 | 4 6.5 | 21.4 |
| 481114 2005 $TY_{127}$ | 16.9 | $X$ | 337.31413 | 124.50504 | 265.18225 | 0.67803 | 0.2547506 | 0.18403949 | 3.0609909 | 21 | 10 16.6 | 19.5 |
| 481115 2005 $TL_{129}$ | 17.3 | $X$ | 310.33694 | 345.51695 | 75.90859 | 0.77810 | 0.1869824 | 0.18269491 | 3.0759911 | 21 | 10 8.9 | 20.8 |
| 481116 2005 $TW_{130}$ | 16.7 | $X$ | 331.91331 | 190.32630 | 196.23206 | 10.51214 | 0.1132677 | 0.18208928 | 3.0828079 | 21 | 10 5.5 | 20.3 |
| 481117 2005 $TM_{140}$ | 16.9 | $X$ | 0.05864 | 207.91550 | 169.11246 | 5.22279 | 0.1699747 | 0.18702185 | 3.0283621 | 21 | 11 15.8 | 20.3 |
| 481118 2005 $TM_{141}$ | 16.8 | $X$ | 4.09395 | 341.83372 | 34.08483 | 15.42142 | 0.0802864 | 0.18761140 | 3.0220147 | 21 | 11 9.5 | 20.7 |
| 481119 2005 $TS_{143}$ | 18.2 | $X$ | 139.69188 | 247.66772 | 131.66925 | 3.13544 | 0.1982446 | 0.27452235 | 2.3446836 | 21 | 2 8.9 | 21.3 |
| 481120 2005 $TF_{145}$ | 17.5 | $X$ | 40.65471 | 67.66336 | 71.47913 | 6.04199 | 0.1073748 | 0.27601611 | 2.3362165 | 21 | 2 10.9 | 19.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481121 2005 $TU_{153}$ | 17.2 | X | 276.70651 | 183.55825 | 249.61503 | 3.09591 | 0.2334188 | 0.17689113 | 3.1429105 | 21 | 8 23.8 | 21.7 |
| 481122 2005 $TL_{163}$ | 18.1 | X | 86.13469 | 55.75221 | 343.55283 | 2.34746 | 0.1764812 | 0.26741211 | 2.3860635 | 21 | — | — |
| 481123 2005 $TR_{171}$ | 17.1 | X | 188.76656 | 80.88699 | 278.76034 | 6.30517 | 0.1511815 | 0.28009367 | 2.3134877 | 21 | 2 25.3 | 20.6 |
| 481124 2005 $TX_{186}$ | 16.5 | X | 299.41638 | 75.24862 | 9.53990 | 9.83825 | 0.0826717 | 0.18700821 | 3.0285094 | 21 | 10 31.4 | 20.6 |
| 481125 2005 $TL_{190}$ | 18.1 | X | 142.29047 | 240.40469 | 121.17482 | 4.90399 | 0.2094722 | 0.27235934 | 2.3570811 | 21 | 1 21.7 | 21.3 |
| 481126 2005 $UV_{2}$ | 17.0 | X | 218.80796 | 265.16247 | 80.06418 | 22.96969 | 0.2241705 | 0.28517896 | 2.2859026 | 21 | 3 22.5 | 21.4 |
| 481127 2005 $UJ_{6}$ | 21.5 | X | 331.59235 | 131.36717 | 42.37670 | 18.99707 | 0.4161769 | 0.89247278 | 1.0684136 | 21 | — | — |
| 481128 2005 $UA_{8}$ | 18.0 | X | 143.21954 | 124.92884 | 237.56268 | 2.30646 | 0.2794182 | 0.27294392 | 2.3537144 | 21 | 1 31.0 | 21.5 |
| 481129 2005 $UV_{10}$ | 16.1 | X | 321.45325 | 333.26020 | 42.71374 | 10.49671 | 0.0669203 | 0.17763216 | 3.1341635 | 21 | 9 13.4 | 20.3 |
| 481130 2005 $UF_{11}$ | 17.7 | X | 136.48292 | 313.83330 | 48.88841 | 2.32277 | 0.2003096 | 0.27137001 | 2.3628065 | 21 | 1 16.0 | 20.7 |
| 481131 2005 $UB_{21}$ | 18.3 | X | 133.51683 | 133.14730 | 278.23950 | 1.87012 | 0.1987176 | 0.27657520 | 2.3330671 | 21 | 3 14.3 | 21.6 |
| 481132 2005 $UU_{24}$ | 17.2 | X | 142.41090 | 319.88324 | 28.15543 | 6.71306 | 0.1390283 | 0.26938323 | 2.3744098 | 21 | — | — |
| 481133 2005 $UE_{25}$ | 17.9 | X | 166.59252 | 313.90804 | 24.58553 | 3.57496 | 0.2565366 | 0.27396315 | 2.3478731 | 21 | 1 22.0 | 21.6 |
| 481134 2005 $UC_{39}$ | 18.3 | X | 77.72424 | 30.23960 | 73.40020 | 2.73078 | 0.1376854 | 0.27227991 | 2.3575395 | 21 | 3 1.2 | 20.6 |
| 481135 2005 $UO_{43}$ | 18.4 | X | 303.96205 | 154.51807 | 224.15069 | 21.22093 | 0.0821724 | 0.36405427 | 1.9424893 | 21 | 8 19.4 | 20.8 |
| 481136 2005 $UG_{57}$ | 17.9 | X | 140.28095 | 344.65186 | 66.37893 | 5.70174 | 0.2182585 | 0.27759785 | 2.3273337 | 21 | 3 27.1 | 21.3 |
| 481137 2005 $UU_{59}$ | 16.0 | X | 324.38951 | 164.96819 | 202.85911 | 10.74986 | 0.1064514 | 0.17755848 | 3.1350305 | 21 | 8 26.1 | 20.0 |
| 481138 2005 $UJ_{63}$ | 16.0 | X | 40.96481 | 282.01497 | 55.99654 | 13.02049 | 0.0637190 | 0.18400590 | 3.0613634 | 21 | 11 12.9 | 20.0 |
| 481139 2005 $UM_{67}$ | 17.9 | X | 130.47814 | 331.68359 | 74.92323 | 2.30985 | 0.1817083 | 0.27559842 | 2.3385764 | 21 | 3 4.8 | 21.0 |
| 481140 2005 $UN_{79}$ | 16.6 | X | 315.90408 | 351.71644 | 86.04660 | 5.13051 | 0.2320515 | 0.18438635 | 3.0571508 | 21 | 11 7.7 | 19.6 |
| 481141 2005 $UZ_{83}$ | 16.5 | X | 47.63922 | 90.23569 | 214.21791 | 10.81091 | 0.0972274 | 0.18260766 | 3.0769709 | 21 | 10 13.8 | 20.6 |
| 481142 2005 $UL_{92}$ | 17.8 | X | 154.61120 | 10.66365 | 355.42599 | 4.52613 | 0.1335232 | 0.27333587 | 2.3514638 | 21 | 2 1.9 | 21.0 |
| 481143 2005 $UE_{103}$ | 17.9 | X | 235.86266 | 185.71832 | 219.17856 | 20.35069 | 0.0891967 | 0.35529652 | 1.9742800 | 21 | 6 17.1 | 20.6 |
| 481144 2005 $UM_{104}$ | 17.7 | X | 76.98147 | 31.90837 | 61.91887 | 8.14679 | 0.0515064 | 0.27189963 | 2.3597372 | 21 | 2 4.8 | 20.5 |
| 481145 2005 $UX_{113}$ | 16.6 | X | 299.15264 | 33.14720 | 46.50599 | 4.81846 | 0.1228846 | 0.18149305 | 3.0895559 | 21 | 10 22.4 | 20.5 |
| 481146 2005 $UJ_{119}$ | 17.9 | X | 324.77549 | 85.57999 | 358.30089 | 1.35195 | 0.1883055 | 0.18865898 | 3.0108173 | 21 | 12 7.0 | 21.0 |
| 481147 2005 $UM_{121}$ | 17.6 | X | 310.47504 | 130.45978 | 298.15299 | 0.43166 | 0.1556565 | 0.18338354 | 3.0682858 | 21 | 10 21.9 | 21.3 |
| 481148 2005 $UT_{129}$ | 18.0 | X | 60.91737 | 74.85981 | 39.56948 | 6.91032 | 0.0837701 | 0.27284182 | 2.3543016 | 21 | 2 11.3 | 20.5 |
| 481149 2005 $UA_{131}$ | 16.0 | X | 355.85071 | 149.50313 | 237.03456 | 13.96238 | 0.0643255 | 0.18373628 | 3.0643575 | 21 | 11 10.9 | 20.1 |
| 481150 2005 $UQ_{147}$ | 16.7 | X | 293.03557 | 92.85989 | 30.29742 | 9.46400 | 0.0619919 | 0.18963588 | 3.0004683 | 21 | 12 13.6 | 20.7 |
| 481151 2005 $UQ_{152}$ | 17.8 | X | 124.59688 | 138.06338 | 249.51491 | 1.48910 | 0.2101114 | 0.27100998 | 2.3648986 | 21 | 2 3.6 | 20.9 |
| 481152 2005 $UH_{160}$ | 17.9 | X | 153.97042 | 277.65745 | 123.72583 | 3.65570 | 0.2098197 | 0.27942094 | 2.3171995 | 21 | 3 25.8 | 21.5 |
| 481153 2005 $UW_{162}$ | 17.2 | X | 329.69478 | 101.74579 | 288.11970 | 1.75620 | 0.1854105 | 0.18182590 | 3.0857843 | 21 | 10 1.5 | 20.6 |
| 481154 2005 $UT_{167}$ | 17.0 | X | 246.13155 | 253.17910 | 220.75919 | 9.23762 | 0.2400237 | 0.17771088 | 3.1332379 | 21 | 9 6.9 | 22.0 |
| 481155 2005 $UD_{174}$ | 16.0 | X | 301.65410 | 1.12344 | 33.89042 | 12.36826 | 0.1213827 | 0.17520639 | 3.1630260 | 21 | 9 3.4 | 20.3 |
| 481156 2005 $UU_{182}$ | 16.7 | X | 329.71291 | 325.67340 | 56.03063 | 8.85418 | 0.1982063 | 0.17880366 | 3.1204588 | 21 | 9 24.8 | 20.1 |
| 481157 2005 $UT_{183}$ | 17.7 | X | 219.65070 | 291.78953 | 44.82283 | 12.01904 | 0.0912060 | 0.27952228 | 2.3166394 | 21 | 3 7.6 | 21.2 |
| 481158 2005 $UY_{188}$ | 18.6 | X | 67.34041 | 84.27795 | 12.37329 | 2.25991 | 0.1675763 | 0.27094313 | 2.3652876 | 21 | 2 2.5 | 20.6 |
| 481159 2005 $UO_{191}$ | 18.6 | X | 112.27378 | 45.38420 | 35.60568 | 4.19097 | 0.0728607 | 0.27655517 | 2.3331797 | 21 | 3 11.7 | 21.3 |
| 481160 2005 $UX_{194}$ | 16.9 | X | 327.57319 | 349.07887 | 73.90326 | 3.47043 | 0.2032946 | 0.18441762 | 3.0568053 | 21 | 11 13.2 | 19.8 |
| 481161 2005 $UW_{196}$ | 16.6 | X | 3.07759 | 123.29505 | 225.33603 | 6.38614 | 0.0759029 | 0.18007887 | 3.1057098 | 21 | 10 2.9 | 20.7 |
| 481162 2005 $UJ_{202}$ | 18.3 | X | 117.63936 | 274.13427 | 146.20361 | 1.41731 | 0.1771704 | 0.27415197 | 2.3467949 | 21 | 3 5.8 | 21.3 |
| 481163 2005 $UF_{203}$ | 18.4 | X | 69.69233 | 18.48731 | 77.70948 | 2.16978 | 0.1482885 | 0.27059714 | 2.3673033 | 21 | 2 4.3 | 20.6 |
| 481164 2005 $UF_{210}$ | 16.6 | X | 164.14811 | 114.68353 | 112.22034 | 5.12273 | 0.0838691 | 0.18645241 | 3.0345250 | 21 | 11 18.7 | 21.3 |
| 481165 2005 $UZ_{211}$ | 16.7 | X | 298.61020 | 244.58879 | 149.17649 | 1.23732 | 0.1755169 | 0.17507204 | 3.1646439 | 21 | 8 13.7 | 20.8 |
| 481166 2005 $UO_{212}$ | 17.1 | X | 282.63274 | 355.96747 | 70.56333 | 4.57328 | 0.1684166 | 0.17584783 | 3.1553294 | 21 | 9 5.8 | 21.3 |
| 481167 2005 $UE_{221}$ | 17.9 | X | 174.43334 | 135.11531 | 242.76717 | 5.54488 | 0.1448550 | 0.27906605 | 2.3191635 | 21 | 3 6.3 | 21.5 |
| 481168 2005 $UK_{221}$ | 17.7 | X | 252.32511 | 356.40276 | 275.93058 | 3.69113 | 0.0985536 | 0.27457009 | 2.3444118 | 21 | 1 12.9 | 21.1 |
| 481169 2005 $UB_{229}$ | 16.8 | X | 163.71006 | 78.96038 | 217.23907 | 11.36711 | 0.0164054 | 0.19802876 | 2.9150804 | 21 | — | — |
| 481170 2005 $UJ_{230}$ | 16.1 | X | 160.09623 | 132.76018 | 55.02557 | 12.88578 | 0.0804457 | 0.17744990 | 3.1363092 | 21 | 10 2.7 | 21.1 |
| 481171 2005 $UM_{231}$ | 17.4 | X | 272.87101 | 47.23533 | 51.76641 | 1.30379 | 0.1373777 | 0.18088201 | 3.0965098 | 21 | 10 7.1 | 21.5 |
| 481172 2005 $UF_{232}$ | 18.1 | X | 55.15513 | 78.48191 | 50.27887 | 4.89744 | 0.1505631 | 0.27276127 | 2.3547651 | 21 | 2 26.8 | 20.1 |
| 481173 2005 $UF_{237}$ | 17.0 | X | 327.72281 | 261.66772 | 139.92677 | 4.16418 | 0.1220152 | 0.18142789 | 3.0902956 | 21 | 10 19.9 | 20.7 |
| 481174 2005 $UQ_{239}$ | 16.4 | X | 297.80170 | 2.23156 | 72.74421 | 13.23941 | 0.1077334 | 0.18128042 | 3.0919712 | 21 | 10 21.3 | 20.5 |
| 481175 2005 $UB_{246}$ | 17.6 | X | 162.16811 | 236.29008 | 132.83209 | 2.95585 | 0.1928117 | 0.27574440 | 2.3377510 | 21 | 2 18.5 | 21.0 |
| 481176 2005 $UP_{261}$ | 16.9 | X | 24.54584 | 296.59245 | 38.50631 | 8.13804 | 0.1006296 | 0.18557889 | 3.0440398 | 21 | 10 23.1 | 20.6 |
| 481177 2005 $UO_{264}$ | 18.2 | X | 57.38652 | 97.11734 | 52.02079 | 5.78145 | 0.1656831 | 0.27786938 | 2.3258173 | 21 | 4 4.8 | 20.2 |
| 481178 2005 $UM_{267}$ | 16.2 | X | 1.00126 | 297.94657 | 63.12920 | 11.01567 | 0.0567348 | 0.18107803 | 3.0942748 | 21 | 10 20.7 | 20.3 |
| 481179 2005 $UD_{277}$ | 16.6 | X | 349.48326 | 337.20436 | 35.61687 | 5.15700 | 0.1869224 | 0.18286918 | 3.0740366 | 21 | 10 20.1 | 19.8 |
| 481180 2005 $UX_{279}$ | 16.6 | X | 281.78964 | 234.11248 | 216.61243 | 9.39220 | 0.1238311 | 0.18160103 | 3.0883310 | 21 | 10 8.9 | 20.7 |
| 481181 2005 $UY_{291}$ | 17.9 | X | 54.75097 | 278.83636 | 230.64825 | 21.27719 | 0.2823096 | 0.27363576 | 2.3497455 | 21 | 4 13.1 | 19.8 |
| 481182 2005 $UK_{307}$ | 16.9 | X | 300.20420 | 35.29939 | 38.87085 | 2.77230 | 0.0499022 | 0.18219169 | 3.0816525 | 21 | 10 24.5 | 20.8 |
| 481183 2005 $UP_{316}$ | 17.9 | X | 67.29951 | 68.93263 | 28.26033 | 5.44104 | 0.0659912 | 0.26967613 | 2.3726903 | 21 | 1 26.2 | 20.5 |
| 481184 2005 $UO_{323}$ | 16.4 | X | 300.50974 | 183.50864 | 241.74634 | 9.77206 | 0.1026451 | 0.17968462 | 3.1102510 | 21 | 10 3.8 | 20.5 |
| 481185 2005 $UG_{327}$ | 16.4 | X | 317.49726 | 144.90255 | 251.49375 | 10.07291 | 0.1278165 | 0.17786472 | 3.1314310 | 21 | 9 18.0 | 20.5 |
| 481186 2005 $UU_{333}$ | 16.3 | X | 12.44483 | 125.22897 | 222.36515 | 15.39518 | 0.0429658 | 0.17996987 | 3.1069637 | 21 | 10 12.3 | 20.7 |
| 481187 2005 $UR_{336}$ | 18.0 | X | 138.23669 | 281.08973 | 74.68289 | 3.65965 | 0.2630207 | 0.27055305 | 2.3675605 | 21 | 1 17.5 | 21.2 |
| 481188 2005 $US_{338}$ | 17.1 | X | 318.55003 | 65.82652 | 16.96301 | 10.35586 | 0.0923506 | 0.18734797 | 3.0248468 | 21 | 11 25.6 | 21.0 |
| 481189 2005 $UP_{347}$ | 16.3 | X | 31.58536 | 310.26565 | 52.41839 | 14.32749 | 0.1430156 | 0.18852971 | 3.0121933 | 21 | 12 10.6 | 20.4 |
| 481190 2005 $UU_{353}$ | 17.8 | X | 113.78299 | 79.05013 | 352.68328 | 4.29525 | 0.2751724 | 0.27437936 | 2.3454981 | 21 | 3 29.5 | 20.8 |
| 481191 2005 $UA_{374}$ | 16.4 | X | 246.86690 | 266.15321 | 239.49839 | 15.27556 | 0.1892064 | 0.18175255 | 3.0866143 | 21 | 10 23.3 | 21.0 |
| 481192 2005 $UB_{399}$ | 16.3 | X | 26.44968 | 75.94280 | 220.15685 | 8.27132 | 0.1135876 | 0.17533893 | 3.1614318 | 21 | 9 1.5 | 20.5 |
| 481193 2005 $UW_{402}$ | 18.3 | X | 45.87314 | 186.54232 | 294.10571 | 1.44023 | 0.1600163 | 0.26933923 | 2.3746684 | 21 | 1 23.7 | 20.2 |
| 481194 2005 $UT_{424}$ | 18.4 | X | 97.63883 | 218.74412 | 225.28811 | 3.46089 | 0.1274039 | 0.27517359 | 2.3409828 | 21 | 2 28.0 | 21.0 |
| 481195 2005 $UL_{447}$ | 16.5 | X | 325.95153 | 116.43576 | 301.39185 | 6.41621 | 0.2423794 | 0.18294649 | 3.0731706 | 21 | 10 26.9 | 19.5 |
| 481196 2005 $UX_{460}$ | 17.2 | X | 347.83929 | 122.76660 | 255.27230 | 4.31270 | 0.1882299 | 0.18101632 | 3.0949780 | 21 | 10 21.6 | 20.6 |
| 481197 2005 $UD_{461}$ | 17.9 | X | 66.73875 | 191.86255 | 268.09747 | 1.70126 | 0.1549338 | 0.26878477 | 2.3779330 | 21 | 2 4.0 | 20.1 |
| 481198 2005 $UW_{471}$ | 18.4 | X | 104.66895 | 117.17757 | 325.40324 | 1.83860 | 0.2047306 | 0.27428740 | 2.3460224 | 21 | 3 22.3 | 21.2 |
| 481199 2005 $UE_{474}$ | 17.3 | X | 302.55742 | 300.39361 | 117.89735 | 2.10720 | 0.1680111 | 0.18050376 | 3.1008342 | 21 | 9 24.2 | 20.9 |
| 481200 2005 $UC_{480}$ | 17.1 | X | 186.54178 | 287.82649 | 73.54314 | 22.15964 | 0.2599188 | 0.28147208 | 2.3059285 | 21 | 3 17.5 | 21.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481201 2005 $UA_{483}$ | 17.9 | $X$ | 133.86695 | 223.68123 | 130.10343 | 3.08725 | 0.1819331 | 0.27003766 | 2.3705721 | 21 | — | — |
| 481202 2005 $US_{487}$ | 18.2 | $X$ | 157.67293 | 61.13722 | 291.44798 | 8.25773 | 0.2561367 | 0.27511013 | 2.3413427 | 21 | 1 29.1 | 21.8 |
| 481203 2005 $UB_{490}$ | 17.1 | $X$ | 165.06152 | 335.50723 | 26.32450 | 24.99636 | 0.1501468 | 0.27553095 | 2.3389582 | 21 | 2 22.5 | 21.1 |
| 481204 2005 $UG_{515}$ | 16.5 | $X$ | 348.73855 | 273.84098 | 89.26994 | 15.53900 | 0.0463312 | 0.18036031 | 3.1024782 | 21 | 10 10.3 | 20.9 |
| 481205 2005 $UH_{517}$ | 16.7 | $X$ | 2.19111 | 210.83600 | 174.04417 | 10.63764 | 0.1169912 | 0.18870690 | 3.0103075 | 21 | 11 25.6 | 20.5 |
| 481206 2005 $UE_{527}$ | 18.3 | $X$ | 111.32409 | 175.70153 | 227.00172 | 4.64919 | 0.1804886 | 0.27002396 | 2.3706522 | 21 | 1 31.5 | 21.1 |
| 481207 2005 $UC_{529}$ | 18.0 | $X$ | 64.39638 | 304.65052 | 154.52377 | 2.38188 | 0.1545395 | 0.26967000 | 2.3727262 | 21 | 1 29.0 | 19.9 |
| 481208 2005 $VY$ | 17.7 | $X$ | 281.32958 | 202.68500 | 240.15261 | 18.79723 | 0.0806966 | 0.36918515 | 1.9244497 | 21 | 11 6.4 | 19.1 |
| 481209 2005 $VH_{3}$ | 17.6 | $X$ | 153.52028 | 173.89920 | 232.82209 | 7.52249 | 0.1767280 | 0.27986608 | 2.3147417 | 21 | 3 24.8 | 21.2 |
| 481210 2005 $VA_{32}$ | 17.6 | $X$ | 72.74751 | 203.18362 | 225.20559 | 5.42766 | 0.1234527 | 0.26592758 | 2.3949353 | 21 | — | — |
| 481211 2005 $VK_{32}$ | 17.2 | $X$ | 312.26612 | 351.33498 | 74.02667 | 2.48608 | 0.1458981 | 0.18094828 | 3.0957538 | 21 | 10 22.3 | 20.9 |
| 481212 2005 $VZ_{32}$ | 15.8 | $X$ | 353.84955 | 310.62036 | 68.45520 | 12.19748 | 0.0972609 | 0.18135963 | 3.0910709 | 21 | 11 3.5 | 19.7 |
| 481213 2005 $VB_{36}$ | 16.5 | $X$ | 306.34178 | 173.66795 | 237.84536 | 16.19632 | 0.2674640 | 0.18019525 | 3.1043725 | 21 | 8 28.4 | 20.5 |
| 481214 2005 $VP_{37}$ | 16.4 | $X$ | 287.56615 | 241.17983 | 220.93285 | 25.83254 | 0.2160655 | 0.18392461 | 3.0622653 | 21 | 10 18.5 | 20.4 |
| 481215 2005 $VC_{40}$ | 17.2 | $X$ | 192.03925 | 65.79549 | 236.39239 | 3.89563 | 0.1114155 | 0.26975135 | 2.3722492 | 21 | — | — |
| 481216 2005 $VK_{41}$ | 17.6 | $X$ | 209.06736 | 129.69866 | 210.35687 | 5.80118 | 0.1674140 | 0.27805582 | 2.3247775 | 21 | 2 21.1 | 21.4 |
| 481217 2005 $VP_{45}$ | 17.7 | $X$ | 137.37449 | 357.55935 | 47.82995 | 10.80932 | 0.1057643 | 0.27567502 | 2.3381432 | 21 | 3 5.9 | 20.9 |
| 481218 2005 $VY_{49}$ | 17.6 | $X$ | 97.23990 | 171.59960 | 275.68682 | 3.88864 | 0.2054703 | 0.27461218 | 2.3441722 | 21 | 3 16.6 | 20.4 |
| 481219 2005 $VA_{50}$ | 16.7 | $X$ | 279.14794 | 179.50132 | 228.22305 | 26.67386 | 0.1444163 | 0.17526110 | 3.1623677 | 21 | 7 30.0 | 21.7 |
| 481220 2005 $VR_{80}$ | 16.5 | $X$ | 335.24263 | 191.91804 | 201.02429 | 11.77385 | 0.2472963 | 0.18242066 | 3.0790733 | 21 | 10 16.5 | 19.2 |
| 481221 2005 $VE_{96}$ | 18.0 | $X$ | 146.21610 | 42.55103 | 344.38565 | 2.12438 | 0.1998818 | 0.27525252 | 2.3405352 | 21 | 2 25.7 | 21.1 |
| 481222 2005 $VS_{103}$ | 18.1 | $X$ | 147.63568 | 201.57517 | 203.21469 | 4.95934 | 0.2086509 | 0.27661481 | 2.3328443 | 21 | 3 21.6 | 21.6 |
| 481223 2005 $WK_{5}$ | 16.9 | $X$ | 321.85445 | 340.81367 | 85.42886 | 15.23095 | 0.2935760 | 0.18213079 | 3.0823394 | 21 | 11 3.5 | 19.8 |
| 481224 2005 $WV_{15}$ | 16.3 | $X$ | 223.06195 | 280.14543 | 246.75058 | 14.68190 | 0.1854119 | 0.18002297 | 3.1063527 | 21 | 10 24.5 | 21.3 |
| 481225 2005 $WR_{24}$ | 16.2 | $X$ | 345.38232 | 150.37129 | 256.35944 | 11.29644 | 0.1443030 | 0.18418962 | 3.0593273 | 21 | 11 24.5 | 19.6 |
| 481226 2005 $WU_{24}$ | 18.0 | $X$ | 123.21814 | 157.84011 | 275.47718 | 2.88291 | 0.1763423 | 0.27524641 | 2.3405699 | 21 | 3 28.1 | 21.0 |
| 481227 2005 $WP_{29}$ | 15.6 | $X$ | 168.50423 | 319.48398 | 254.69501 | 12.79553 | 0.0837883 | 0.18104516 | 3.0946493 | 21 | 11 4.2 | 20.4 |
| 481228 2005 $WT_{29}$ | 16.5 | $X$ | 292.84540 | 154.46462 | 288.88698 | 4.29168 | 0.0240083 | 0.18013366 | 3.1050800 | 21 | 10 26.7 | 20.8 |
| 481229 2005 $WN_{40}$ | 16.6 | $X$ | 275.00552 | 69.77152 | 76.48086 | 9.97250 | 0.0881639 | 0.18571984 | 3.0424995 | 21 | 12 14.6 | 20.5 |
| 481230 2005 $WP_{48}$ | 18.0 | $X$ | 142.21426 | 319.52201 | 65.16152 | 5.95815 | 0.2179272 | 0.27206084 | 2.3588049 | 21 | 2 23.9 | 21.5 |
| 481231 2005 $WN_{55}$ | 16.8 | $X$ | 329.41465 | 310.72325 | 66.46338 | 12.73922 | 0.3422942 | 0.17885420 | 3.1198709 | 21 | 9 4.4 | 19.6 |
| 481232 2005 $WN_{67}$ | 17.9 | $X$ | 30.57938 | 288.99079 | 219.52039 | 2.15798 | 0.1366690 | 0.26968476 | 2.3726396 | 21 | 2 2.9 | 20.1 |
| 481233 2005 $WJ_{80}$ | 16.8 | $X$ | 325.19533 | 3.73490 | 73.85776 | 9.68731 | 0.1477072 | 0.18402935 | 3.0611034 | 21 | 11 29.9 | 20.3 |
| 481234 2005 $WS_{86}$ | 17.4 | $X$ | 113.95679 | 4.47059 | 75.91649 | 7.03625 | 0.0895881 | 0.27481569 | 2.3430148 | 21 | 3 18.6 | 20.3 |
| 481235 2005 $WU_{86}$ | 18.3 | $X$ | 46.20172 | 354.11033 | 105.03963 | 1.88265 | 0.1965264 | 0.26479316 | 2.4017707 | 21 | — | — |
| 481236 2005 $WN_{91}$ | 15.9 | $X$ | 348.19966 | 292.53113 | 76.21376 | 18.67507 | 0.3017667 | 0.18058462 | 3.0999085 | 21 | 10 25.8 | 18.8 |
| 481237 2005 $WM_{105}$ | 17.7 | $X$ | 120.50161 | 130.04259 | 290.30629 | 1.50260 | 0.1985915 | 0.27351198 | 2.3504543 | 21 | 3 11.7 | 20.7 |
| 481238 2005 $WG_{108}$ | 17.2 | $X$ | 343.86062 | 83.86292 | 275.13650 | 18.31261 | 0.0839201 | 0.36181601 | 1.9504921 | 21 | 10 6.1 | 19.4 |
| 481239 2005 $WS_{110}$ | 16.1 | $X$ | 330.99973 | 342.14644 | 76.59216 | 9.38075 | 0.0694380 | 0.18308706 | 3.0715973 | 21 | 11 17.5 | 20.0 |
| 481240 2005 $WT_{120}$ | 18.4 | $X$ | 262.79313 | 338.23780 | 53.87724 | 12.51950 | 0.2321779 | 0.35962209 | 1.9584169 | 21 | 6 14.4 | 21.0 |
| 481241 2005 $WD_{130}$ | 16.9 | $X$ | 300.11068 | 350.80483 | 65.38269 | 1.99949 | 0.1741016 | 0.17770480 | 3.1333093 | 21 | 9 16.3 | 20.6 |
| 481242 2005 $WM_{135}$ | 16.5 | $X$ | 248.43678 | 190.17831 | 284.55403 | 9.57755 | 0.1877212 | 0.17234658 | 3.1979201 | 21 | 9 14.1 | 21.5 |
| 481243 2005 $WW_{140}$ | 17.9 | $X$ | 38.37255 | 23.36298 | 92.74253 | 10.04511 | 0.2202255 | 0.26193210 | 2.4192286 | 21 | — | — |
| 481244 2005 $WZ_{144}$ | 18.3 | $X$ | 111.37112 | 37.31353 | 32.85027 | 1.10822 | 0.1747720 | 0.27240736 | 2.3568041 | 21 | 3 10.9 | 21.1 |
| 481245 2005 $WD_{146}$ | 18.5 | $X$ | 77.24347 | 154.24242 | 299.42608 | 1.57048 | 0.1974836 | 0.26938587 | 2.3743943 | 21 | 2 21.2 | 20.6 |
| 481246 2005 $WJ_{146}$ | 16.5 | $X$ | 350.22501 | 85.15133 | 256.09003 | 14.82529 | 0.0948889 | 0.17371343 | 3.1811230 | 21 | 8 28.0 | 20.8 |
| 481247 2005 $WB_{150}$ | 17.5 | $X$ | 148.79482 | 84.63698 | 285.93469 | 4.83907 | 0.1248786 | 0.27005941 | 2.3704447 | 21 | 1 29.5 | 20.6 |
| 481248 2005 $WR_{153}$ | 16.4 | $X$ | 326.60087 | 322.02917 | 82.25855 | 11.58718 | 0.1651874 | 0.18213081 | 3.0823392 | 21 | 10 23.2 | 20.0 |
| 481249 2005 $WP_{154}$ | 16.9 | $X$ | 313.81551 | 327.61815 | 74.07370 | 11.55249 | 0.2139190 | 0.17612249 | 3.1520481 | 21 | 9 20.7 | 20.7 |
| 481250 2005 $WA_{155}$ | 17.4 | $X$ | 115.09752 | 144.50881 | 260.70982 | 5.61542 | 0.1247703 | 0.26857292 | 2.3791833 | 21 | 1 31.6 | 20.3 |
| 481251 2005 $WX_{160}$ | 16.0 | $X$ | 214.31813 | 96.72929 | 52.42343 | 10.42533 | 0.0379647 | 0.17707924 | 3.1406843 | 21 | 10 14.3 | 20.6 |
| 481252 2005 $WW_{168}$ | 18.6 | $X$ | 110.30198 | 229.55147 | 167.28670 | 1.20345 | 0.1117569 | 0.26686553 | 2.3893204 | 21 | 1 13.4 | 21.4 |
| 481253 2005 $WY_{172}$ | 18.3 | $X$ | 39.94222 | 44.56743 | 86.06096 | 3.70091 | 0.1641520 | 0.26803575 | 2.3823610 | 21 | 1 27.7 | 20.1 |
| 481254 2005 $WO_{180}$ | 17.6 | $X$ | 43.48682 | 270.50249 | 60.86735 | 22.48724 | 0.0833210 | 0.37513137 | 1.9040593 | 21 | 12 14.9 | 19.6 |
| 481255 2005 $WL_{181}$ | 16.2 | $X$ | 291.60243 | 231.93610 | 210.87915 | 14.70673 | 0.2236719 | 0.17804744 | 3.1292882 | 21 | 9 26.5 | 20.2 |
| 481256 2005 $WK_{184}$ | 16.3 | $X$ | 287.70612 | 35.30800 | 68.97550 | 13.05580 | 0.2619711 | 0.17859546 | 3.1228834 | 21 | 10 20.5 | 20.3 |
| 481257 2005 $WV_{203}$ | 15.5 | $X$ | 275.11784 | 78.29105 | 33.24563 | 21.99081 | 0.2371366 | 0.17558135 | 3.1585212 | 21 | 10 14.2 | 19.8 |
| 481258 2005 $WR_{205}$ | 17.2 | $X$ | 274.81112 | 19.04766 | 142.69164 | 2.15937 | 0.2913135 | 0.18689292 | 3.0297548 | 21 | 12 4.8 | 20.9 |
| 481259 2005 $XM_{6}$ | 17.6 | $X$ | 178.66610 | 355.15469 | 31.12880 | 4.77291 | 0.1871210 | 0.27869326 | 2.3212313 | 21 | 3 27.5 | 21.1 |
| 481260 2005 $XD_{36}$ | 18.2 | $X$ | 84.09505 | 167.83223 | 312.47918 | 1.45054 | 0.1624267 | 0.27195273 | 2.3594300 | 21 | 4 7.3 | 20.6 |
| 481261 2005 $XB_{43}$ | 18.3 | $X$ | 121.94912 | 352.45737 | 28.49876 | 2.73985 | 0.2216355 | 0.26842280 | 2.3800703 | 21 | 1 26.2 | 21.2 |
| 481262 2005 $XR_{52}$ | 17.9 | $X$ | 96.16301 | 19.88720 | 43.40665 | 4.13471 | 0.1137400 | 0.26639316 | 2.3921441 | 21 | 1 30.7 | 20.5 |
| 481263 2005 $XH_{62}$ | 16.0 | $X$ | 294.36353 | 228.62115 | 263.34696 | 12.78503 | 0.2238920 | 0.18574803 | 3.0421917 | 21 | 12 8.3 | 19.4 |
| 481264 2005 $XO_{62}$ | 18.5 | $X$ | 94.44460 | 113.50605 | 305.36177 | 1.70053 | 0.1792151 | 0.26762074 | 2.3848233 | 21 | 1 30.1 | 20.8 |
| 481265 2005 $XV_{72}$ | 17.5 | $X$ | 89.49361 | 87.30242 | 287.98926 | 7.10659 | 0.2236091 | 0.25995315 | 2.4314910 | 21 | — | — |
| 481266 2005 $XU_{73}$ | 16.5 | $X$ | 3.06542 | 85.60489 | 302.62663 | 10.23829 | 0.1375315 | 0.18136785 | 3.0909775 | 21 | 11 28.2 | 20.4 |
| 481267 2005 $XG_{81}$ | 16.3 | $X$ | 276.34672 | 184.65117 | 273.64887 | 10.50880 | 0.0448162 | 0.17779896 | 3.1322030 | 21 | 10 18.8 | 20.8 |
| 481268 2005 $XQ_{82}$ | 16.3 | $X$ | 290.13864 | 127.57442 | 287.23953 | 7.62531 | 0.0715543 | 0.17334423 | 3.1856382 | 21 | 9 8.7 | 20.8 |
| 481269 2005 $XG_{92}$ | 15.5 | $X$ | 272.09060 | 233.80610 | 268.73128 | 25.59959 | 0.3470255 | 0.17796228 | 3.1302864 | 21 | 10 21.7 | 20.5 |
| 481270 2005 $YF_{5}$ | 16.5 | $X$ | 339.34314 | 154.80940 | 270.96038 | 9.31541 | 0.1092136 | 0.18462349 | 3.0545325 | 21 | 12 8.1 | 20.2 |
| 481271 2005 $YR_{5}$ | 16.7 | $X$ | 11.58844 | 285.24997 | 79.38172 | 15.49846 | 0.2569488 | 0.18300493 | 3.0725162 | 21 | 11 30.4 | 20.1 |
| 481272 2005 $YC_{18}$ | 18.2 | $X$ | 100.47914 | 59.46755 | 40.57407 | 3.06891 | 0.1777487 | 0.27438086 | 2.3454896 | 21 | 4 6.9 | 20.8 |
| 481273 2005 $YL_{18}$ | 16.9 | $X$ | 308.31832 | 48.53251 | 75.55216 | 25.28700 | 0.3306501 | 0.18647329 | 3.0342985 | 21 | 12 11.7 | 19.5 |
| 481274 2005 $YN_{19}$ | 16.5 | $X$ | 297.96204 | 122.68820 | 308.54235 | 3.86033 | 0.1330891 | 0.17651341 | 3.1473925 | 21 | 10 4.9 | 20.5 |
| 481275 2005 $YA_{26}$ | 15.3 | $X$ | 115.92586 | 350.50531 | 295.82500 | 24.98411 | 0.0988539 | 0.17743310 | 3.1365072 | 21 | 12 9.7 | 20.4 |
| 481276 2005 $YH_{29}$ | 17.1 | $X$ | 283.18085 | 9.95117 | 79.44813 | 2.07350 | 0.1319564 | 0.17484757 | 3.1673518 | 21 | 10 9.5 | 21.3 |
| 481277 2005 $YA_{33}$ | 18.0 | $X$ | 97.31409 | 264.71141 | 134.19455 | 3.22572 | 0.1786207 | 0.26154132 | 2.4216378 | 21 | 1 8.0 | 20.4 |
| 481278 2005 $YD_{42}$ | 16.3 | $X$ | 229.25698 | 235.09374 | 297.18318 | 8.91374 | 0.0555834 | 0.17764519 | 3.1340103 | 21 | 11 21.3 | 21.0 |
| 481279 2005 $YR_{45}$ | 15.9 | $X$ | 19.07304 | 237.57437 | 114.90032 | 13.19263 | 0.0104118 | 0.17394142 | 3.1783426 | 21 | 10 31.2 | 20.6 |
| 481280 2005 $YA_{46}$ | 15.9 | $X$ | 263.27662 | 30.93303 | 112.65154 | 18.81718 | 0.1554729 | 0.17893916 | 3.1188832 | 21 | 11 21.6 | 20.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481281 2005 $YK_{47}$ | 15.5 | X | 296.63217 | 123.46916 | 296.47839 | 25.80561 | 0.2564861 | 0.17257204 | 3.1951342 | 21 | 8 20.4 | 20.0 |
| 481282 2005 $YE_{49}$ | 16.5 | X | 345.19661 | 277.69550 | 118.89383 | 15.87453 | 0.1876853 | 0.17743383 | 3.1364986 | 21 | 11 17.2 | 20.2 |
| 481283 2005 $YP_{63}$ | 18.0 | X | 84.13181 | 343.66918 | 89.60542 | 3.55958 | 0.1627508 | 0.26514185 | 2.3996645 | 21 | 1 31.9 | 20.3 |
| 481284 2005 $YB_{65}$ | 17.8 | X | 232.21082 | 354.99012 | 99.62605 | 24.90140 | 0.0648633 | 0.35733367 | 1.9667693 | 21 | 9 17.7 | 20.6 |
| 481285 2005 $YM_{79}$ | 17.1 | X | 87.46917 | 299.71571 | 100.95380 | 7.66887 | 0.1014155 | 0.25981567 | 2.4323486 | 21 | — | — |
| 481286 2005 $YQ_{81}$ | 18.2 | X | 13.98000 | 331.51113 | 149.24520 | 0.85999 | 0.1772587 | 0.25829148 | 2.4419082 | 21 | — | — |
| 481287 2005 $YB_{86}$ | 16.2 | X | 1.97506 | 283.47159 | 103.35770 | 12.27173 | 0.0851759 | 0.17869290 | 3.1217481 | 21 | 11 23.9 | 20.3 |
| 481288 2005 $YN_{86}$ | 16.0 | X | 52.25675 | 185.20883 | 103.77518 | 11.27066 | 0.0258338 | 0.16866718 | 3.2442600 | 21 | 9 25.5 | 20.7 |
| 481289 2005 $YX_{88}$ | 18.1 | X | 89.77080 | 328.77022 | 132.84013 | 2.65632 | 0.1691935 | 0.26896655 | 2.3768614 | 21 | 3 23.9 | 20.7 |
| 481290 2005 $YF_{91}$ | 17.7 | X | 25.83976 | 348.69119 | 124.66591 | 8.38055 | 0.0673891 | 0.25841979 | 2.4410998 | 21 | — | — |
| 481291 2005 $YL_{104}$ | 17.7 | X | 81.66002 | 306.14181 | 101.57819 | 8.11673 | 0.1816160 | 0.26183131 | 2.4198493 | 21 | — | — |
| 481292 2005 $YK_{120}$ | 16.4 | X | 312.74137 | 330.18976 | 113.39231 | 21.07221 | 0.2624614 | 0.18086984 | 3.0966487 | 21 | 11 12.6 | 20.0 |
| 481293 2005 $YT_{132}$ | 15.9 | X | 252.56527 | 66.30373 | 89.23801 | 18.69045 | 0.1952212 | 0.17890495 | 3.1192809 | 21 | 11 16.9 | 20.6 |
| 481294 2005 $YR_{149}$ | 15.8 | X | 106.66779 | 157.89683 | 102.00271 | 17.31545 | 0.0900535 | 0.17071529 | 3.2182599 | 21 | 11 3.8 | 20.9 |
| 481295 2005 $YO_{153}$ | 17.0 | X | 46.74009 | 235.69515 | 300.96250 | 21.87326 | 0.2505012 | 0.26999378 | 2.3708289 | 21 | 4 25.7 | 19.6 |
| 481296 2005 $YP_{167}$ | 15.8 | X | 11.16360 | 80.92717 | 287.95928 | 23.06319 | 0.1056776 | 0.17604902 | 3.1529250 | 21 | 11 8.3 | 20.3 |
| 481297 2005 $YM_{201}$ | 15.8 | X | 218.59298 | 264.48219 | 282.27869 | 14.84701 | 0.2113278 | 0.17782961 | 3.1318431 | 21 | 11 9.4 | 21.1 |
| 481298 2005 $YG_{203}$ | 16.7 | X | 320.62485 | 124.27292 | 270.65211 | 7.41878 | 0.2656710 | 0.17431314 | 3.1738225 | 21 | 9 6.3 | 20.1 |
| 481299 2005 $YM_{214}$ | 16.9 | X | 27.37832 | 232.46851 | 320.06896 | 19.49359 | 0.2982295 | 0.26783300 | 2.3835631 | 21 | 3 24.8 | 18.6 |
| 481300 2005 $YC_{218}$ | 16.1 | X | 195.52209 | 268.02036 | 245.90233 | 14.44600 | 0.1797428 | 0.17426468 | 3.1744108 | 21 | 9 10.8 | 21.7 |
| 481301 2005 $YM_{218}$ | 16.8 | X | 313.01078 | 106.54410 | 311.54685 | 8.90306 | 0.2039168 | 0.17569929 | 3.1571076 | 21 | 9 30.8 | 20.6 |
| 481302 2005 $YY_{218}$ | 16.4 | X | 272.87149 | 20.06233 | 81.89570 | 12.10102 | 0.1605899 | 0.17734866 | 3.1375027 | 21 | 10 12.8 | 20.9 |
| 481303 2005 $YD_{222}$ | 16.3 | X | 244.72999 | 206.23989 | 277.82990 | 14.69242 | 0.1530711 | 0.17541533 | 3.1605137 | 21 | 9 23.0 | 21.3 |
| 481304 2005 $YA_{223}$ | 16.6 | X | 316.29236 | 327.67821 | 64.79953 | 12.05841 | 0.1576259 | 0.17673772 | 3.1447289 | 21 | 9 20.0 | 20.5 |
| 481305 2005 $YB_{223}$ | 16.4 | X | 239.21850 | 54.47972 | 71.26158 | 11.02266 | 0.1070519 | 0.17734463 | 3.1375502 | 21 | 10 8.3 | 21.1 |
| 481306 2005 $YX_{227}$ | 16.5 | X | 232.81592 | 235.36963 | 286.38727 | 5.81577 | 0.2294697 | 0.17551200 | 3.1593531 | 21 | 10 22.9 | 21.7 |
| 481307 2005 $YW_{246}$ | 16.6 | X | 278.09818 | 174.14260 | 323.94366 | 10.14449 | 0.1287849 | 0.17899057 | 3.1182861 | 21 | 11 30.5 | 20.9 |
| 481308 2005 $YA_{248}$ | 16.9 | X | 291.59778 | 344.25577 | 76.83662 | 5.50280 | 0.2218307 | 0.17406056 | 3.1768921 | 21 | 9 3.6 | 21.0 |
| 481309 2005 $YS_{269}$ | 15.9 | X | 10.98216 | 55.82853 | 305.72237 | 14.25707 | 0.0643208 | 0.17333275 | 3.1857789 | 21 | 10 23.7 | 20.4 |
| 481310 2005 $YE_{273}$ | 15.9 | X | 355.29417 | 92.14389 | 289.05605 | 23.91333 | 0.2927321 | 0.17785921 | 3.1314956 | 21 | 11 17.2 | 19.3 |
| 481311 2006 $AN_{5}$ | 15.7 | X | 239.88715 | 62.75035 | 99.27052 | 26.77560 | 0.1355875 | 0.17464553 | 3.1697942 | 21 | 11 21.4 | 20.7 |
| 481312 2006 $AQ_{14}$ | 16.4 | X | 286.44581 | 355.62827 | 126.01683 | 14.20099 | 0.1846298 | 0.17875244 | 3.1210549 | 21 | 11 20.5 | 20.6 |
| 481313 2006 $AY_{16}$ | 17.7 | X | 70.78145 | 35.16294 | 124.44280 | 2.39629 | 0.2391317 | 0.27274446 | 2.3548618 | 21 | 5 28.9 | 20.0 |
| 481314 2006 $AG_{17}$ | 17.0 | X | 307.19160 | 125.90427 | 284.98937 | 8.94047 | 0.1666796 | 0.17285804 | 3.1916089 | 21 | 9 15.1 | 21.0 |
| 481315 2006 $AU_{23}$ | 17.3 | X | 23.70995 | 249.22369 | 317.95917 | 3.81557 | 0.3102916 | 0.26547141 | 2.3976781 | 21 | 4 26.8 | 18.0 |
| 481316 2006 $AR_{30}$ | 16.1 | X | 351.10638 | 96.28098 | 314.31980 | 11.45440 | 0.0690511 | 0.17817195 | 3.1278302 | 21 | 12 2.4 | 20.3 |
| 481317 2006 $AV_{34}$ | 17.7 | X | 71.40739 | 132.07941 | 298.70628 | 3.98565 | 0.0455870 | 0.26038930 | 2.4287751 | 21 | — | — |
| 481318 2006 $AB_{68}$ | 17.6 | X | 50.12348 | 222.34702 | 298.83865 | 10.90304 | 0.1822158 | 0.26813628 | 2.3817655 | 21 | 4 2.2 | 20.0 |
| 481319 2006 $AG_{74}$ | 15.6 | X | 257.47551 | 163.32924 | 326.52530 | 25.74975 | 0.0799643 | 0.17449842 | 3.1715755 | 21 | 10 17.7 | 20.6 |
| 481320 2006 $AU_{85}$ | 16.9 | X | 76.38083 | 175.02078 | 324.04307 | 25.63474 | 0.2144074 | 0.27183962 | 2.3600845 | 21 | 4 13.9 | 20.2 |
| 481321 2006 $AF_{86}$ | 17.6 | X | 72.47819 | 337.94165 | 301.97839 | 17.54536 | 0.0685415 | 0.35991296 | 1.9573616 | 21 | 10 28.4 | 20.3 |
| 481322 2006 $BT$ | 17.8 | X | 50.23124 | 152.86309 | 333.60123 | 5.39291 | 0.1861589 | 0.26602564 | 2.3943468 | 21 | 2 14.5 | 19.7 |
| 481323 2006 $BX_{10}$ | 17.2 | X | 80.51867 | 300.71288 | 128.01046 | 10.71672 | 0.1704566 | 0.26125617 | 2.4233995 | 21 | 1 19.8 | 19.4 |
| 481324 2006 $BO_{14}$ | 16.6 | X | 277.30981 | 211.04784 | 304.79331 | 8.10171 | 0.2146388 | 0.18091955 | 3.0960815 | 21 | 12 10.9 | 20.6 |
| 481325 2006 $BD_{25}$ | 18.7 | X | 113.24891 | 282.63278 | 147.22338 | 2.77696 | 0.1662000 | 0.26838989 | 2.3802648 | 21 | 3 12.6 | 21.6 |
| 481326 2006 $BC_{26}$ | 16.0 | X | 284.05325 | 345.73168 | 131.42630 | 18.48885 | 0.2009997 | 0.17721903 | 3.1390325 | 21 | 11 10.9 | 20.4 |
| 481327 2006 $BB_{27}$ | 20.0 | X | 142.88444 | 144.66267 | 132.18743 | 27.15749 | 0.2457416 | 0.61988800 | 1.3622617 | 21 | — | — |
| 481328 2006 $BS_{35}$ | 16.1 | X | 334.28691 | 327.32297 | 85.53099 | 23.59327 | 0.1689367 | 0.18226740 | 3.0807991 | 21 | 11 19.7 | 19.8 |
| 481329 2006 $BT_{48}$ | 17.9 | X | 94.72955 | 305.88489 | 105.40359 | 4.59002 | 0.0270237 | 0.25923356 | 2.4359885 | 21 | — | — |
| 481330 2006 $BY_{51}$ | 18.3 | X | 43.03203 | 126.88074 | 338.48969 | 1.24449 | 0.1369314 | 0.25928323 | 2.4356774 | 21 | — | — |
| 481331 2006 $BK_{58}$ | 16.2 | X | 303.52431 | 111.66768 | 332.11763 | 16.19162 | 0.2258989 | 0.17604707 | 3.1529482 | 21 | 10 11.1 | 20.2 |
| 481332 2006 $BJ_{76}$ | 15.9 | X | 7.85818 | 258.20428 | 119.30712 | 12.75397 | 0.0798430 | 0.17362407 | 3.1822144 | 21 | 11 20.3 | 20.3 |
| 481333 2006 $BV_{88}$ | 16.6 | X | 314.41015 | 315.36987 | 120.25233 | 5.42646 | 0.1185314 | 0.17528124 | 3.1621254 | 21 | 11 10.5 | 20.6 |
| 481334 2006 $BX_{92}$ | 16.4 | X | 235.40173 | 37.05479 | 149.35944 | 10.36875 | 0.2200936 | 0.17404634 | 3.1770652 | 21 | 11 28.3 | 21.4 |
| 481335 2006 $BH_{114}$ | 18.2 | X | 97.22634 | 108.82632 | 333.43453 | 1.42152 | 0.1352314 | 0.26553057 | 2.3973220 | 21 | 3 1.7 | 20.8 |
| 481336 2006 $BN_{153}$ | 16.9 | X | 289.86009 | 3.74273 | 131.58738 | 12.43898 | 0.2098690 | 0.17945180 | 3.1129406 | 21 | 12 7.5 | 20.8 |
| 481337 2006 $BG_{190}$ | 18.1 | X | 35.79607 | 140.97113 | 20.93295 | 2.47240 | 0.1401093 | 0.26349015 | 2.4096823 | 21 | 3 9.7 | 20.1 |
| 481338 2006 $BH_{218}$ | 15.9 | X | 338.86830 | 74.67572 | 276.29289 | 17.91346 | 0.2212562 | 0.17469485 | 3.1691976 | 21 | 8 15.4 | 19.5 |
| 481339 2006 $BM_{223}$ | 18.1 | X | 13.48904 | 346.07577 | 145.13453 | 2.81669 | 0.1571524 | 0.25674342 | 2.4517142 | 21 | — | — |
| 481340 2006 $BK_{240}$ | 13.4 | X | 331.47688 | 319.01560 | 326.43053 | 29.75916 | 0.0312505 | 0.08422042 | 5.1545543 | 21 | 5 31.1 | 20.5 |
| 481341 2006 $BA_{242}$ | 18.1 | X | 350.25310 | 144.15809 | 55.58695 | 2.15049 | 0.1122630 | 0.26253854 | 2.4155017 | 21 | 2 11.4 | 20.7 |
| 481342 2006 $BL_{265}$ | 18.1 | X | 32.22569 | 25.19453 | 146.30402 | 2.71900 | 0.1511558 | 0.26398867 | 2.4066477 | 21 | 3 17.1 | 19.9 |
| 481343 2006 $BM_{265}$ | 16.4 | X | 266.75506 | 348.99878 | 152.90223 | 16.03105 | 0.2111779 | 0.17455881 | 3.1708440 | 21 | 11 13.6 | 21.0 |
| 481344 2006 $CM_{13}$ | 16.9 | X | 177.57386 | 307.35050 | 319.23599 | 11.10253 | 0.1648733 | 0.24294671 | 2.5436774 | 21 | — | — |
| 481345 2006 $CE_{19}$ | 16.4 | X | 266.44485 | 208.50184 | 298.41540 | 7.48648 | 0.1382533 | 0.17743847 | 3.1364439 | 21 | 11 24.5 | 20.7 |
| 481346 2006 $CQ_{24}$ | 18.3 | X | 108.96477 | 117.40625 | 325.89275 | 3.05109 | 0.1992029 | 0.26919595 | 2.3755109 | 21 | 3 28.3 | 21.2 |
| 481347 2006 $CM_{58}$ | 18.0 | X | 108.72636 | 61.27071 | 329.00028 | 0.89319 | 0.1824223 | 0.25983863 | 2.4322053 | 21 | 1 15.5 | 20.8 |
| 481348 2006 $DN_{44}$ | 16.6 | X | 286.23354 | 299.02705 | 157.13424 | 9.41167 | 0.2875139 | 0.17496362 | 3.1659512 | 21 | 9 29.8 | 20.7 |
| 481349 2006 $DV_{47}$ | 18.0 | X | 51.94485 | 291.21983 | 167.17486 | 2.29416 | 0.1397093 | 0.25794534 | 2.4440922 | 21 | 1 5.9 | 20.4 |
| 481350 2006 $DK_{48}$ | 16.7 | X | 186.31706 | 87.17544 | 155.14743 | 9.81480 | 0.0482190 | 0.17575063 | 3.1564927 | 21 | 12 28.2 | 21.5 |
| 481351 2006 $DG_{62}$ | 17.1 | X | 69.87680 | 293.92196 | 169.32118 | 21.93613 | 0.2685193 | 0.26318735 | 2.4115302 | 21 | 3 6.8 | 19.1 |
| 481352 2006 $DP_{65}$ | 17.7 | X | 55.14815 | 40.48146 | 111.60104 | 8.30481 | 0.2337714 | 0.26574390 | 2.3960388 | 21 | 4 20.1 | 19.8 |
| 481353 2006 $DL_{68}$ | 16.4 | X | 317.57058 | 103.31960 | 334.52780 | 15.18723 | 0.0518383 | 0.17332558 | 3.1858668 | 21 | 11 14.3 | 21.0 |
| 481354 2006 $DS_{78}$ | 18.1 | X | 79.73894 | 169.29192 | 297.32438 | 1.87898 | 0.1412322 | 0.26299926 | 2.4126799 | 21 | 3 8.9 | 20.5 |
| 481355 2006 $DR_{90}$ | 18.6 | X | 73.64675 | 8.32328 | 101.33848 | 0.84451 | 0.1713180 | 0.26148419 | 2.4219904 | 21 | 3 9.1 | 20.8 |
| 481356 2006 $DH_{205}$ | 18.1 | X | 64.01412 | 42.58320 | 85.36096 | 2.72391 | 0.1407290 | 0.26379301 | 2.4078376 | 21 | 3 14.8 | 20.4 |
| 481357 2006 $EY_{22}$ | 17.8 | X | 30.97496 | 165.80804 | 9.33579 | 2.49686 | 0.1459069 | 0.26431906 | 2.4046418 | 21 | 3 19.5 | 19.7 |
| 481358 2006 $ES_{69}$ | 17.1 | X | 56.12247 | 78.05835 | 52.14912 | 23.96008 | 0.3231109 | 0.26263575 | 2.4149056 | 21 | 4 12.3 | 19.2 |
| 481359 2006 $FO_{9}$ | 15.2 | X | 272.31209 | 70.08624 | 34.34443 | 19.11558 | 0.1042097 | 0.16839581 | 3.2477446 | 21 | 10 18.4 | 19.7 |
| 481360 2006 $FM_{25}$ | 16.3 | X | 89.50568 | 186.98566 | 205.59749 | 4.31945 | 0.2235034 | 0.24517171 | 2.5282644 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481361 2006 $FH_{41}$ | 17.1 | X | 60.21928 | 245.96042 | 169.13557 | 4.42114 | 0.1371395 | 0.24398905 | 2.5364277 | 21 | — | — |
| 481362 2006 $FT_{50}$ | 15.9 | X | 244.26148 | 262.30693 | 300.04814 | 21.15539 | 0.2674852 | 0.17413093 | 3.1760362 | 21 | 12 19.6 | 20.9 |
| 481363 2006 $GS_{49}$ | 16.7 | X | 297.56677 | 118.70509 | 26.18450 | 24.87508 | 0.4284494 | 0.17981620 | 3.1087335 | 21 | 11 17.4 | 20.2 |
| 481364 2006 $HN_{19}$ | 17.2 | X | 338.00944 | 100.21315 | 109.01850 | 4.46479 | 0.0921591 | 0.25465948 | 2.4650713 | 21 | 2 10.4 | 20.1 |
| 481365 2006 $HJ_{33}$ | 17.3 | X | 128.47021 | 226.35195 | 77.14008 | 1.12070 | 0.0972434 | 0.23192867 | 2.6236129 | 21 | — | — |
| 481366 2006 $HY_{70}$ | 16.7 | X | 169.00257 | 208.22025 | 58.01436 | 15.25389 | 0.0858268 | 0.23215308 | 2.6219219 | 21 | — | — |
| 481367 2006 $HQ_{129}$ | 18.4 | X | 34.99013 | 49.74597 | 111.92524 | 3.36282 | 0.1260437 | 0.26420855 | 2.4053123 | 21 | 3 8.1 | 20.5 |
| 481368 2006 $HQ_{132}$ | 16.8 | X | 216.97474 | 57.33479 | 109.66871 | 0.66585 | 0.2221284 | 0.16744014 | 3.2600905 | 21 | 10 17.7 | 22.1 |
| 481369 2006 $HN_{142}$ | 17.7 | X | 131.75727 | 226.93701 | 163.16797 | 2.09469 | 0.2355888 | 0.26177273 | 2.4202104 | 21 | 2 20.3 | 21.1 |
| 481370 2006 $JD_{20}$ | 16.8 | X | 68.82749 | 269.76083 | 81.96805 | 15.52360 | 0.1523160 | 0.22650270 | 2.6653472 | 21 | — | — |
| 481371 2006 $JY_{49}$ | 17.6 | X | 51.08158 | 75.28907 | 57.00974 | 2.92155 | 0.1653253 | 0.25757912 | 2.4464083 | 21 | 2 27.9 | 19.6 |
| 481372 2006 $KP_{5}$ | 17.4 | X | 16.08206 | 99.03850 | 70.55400 | 3.34198 | 0.1180186 | 0.25352684 | 2.4724077 | 21 | 2 14.8 | 20.0 |
| 481373 2006 $KJ_{12}$ | 16.5 | X | 109.67258 | 193.83493 | 124.77586 | 11.83456 | 0.1997865 | 0.22824239 | 2.6517863 | 21 | — | — |
| 481374 2006 $KD_{24}$ | 16.8 | X | 53.87336 | 294.51675 | 64.10923 | 13.74333 | 0.2325250 | 0.22252297 | 2.6970323 | 21 | — | — |
| 481375 2006 $KG_{33}$ | 16.7 | X | 100.99522 | 127.67594 | 228.87592 | 11.87393 | 0.2846024 | 0.22936552 | 2.6431225 | 21 | — | — |
| 481376 2006 $KO_{48}$ | 16.9 | X | 141.67920 | 229.98694 | 77.45086 | 11.07883 | 0.0789820 | 0.23244941 | 2.6196931 | 21 | — | — |
| 481377 2006 $KS_{54}$ | 16.8 | X | 96.99486 | 242.50201 | 73.86441 | 14.85711 | 0.2779295 | 0.22179387 | 2.7029397 | 21 | — | — |
| 481378 2006 $KD_{87}$ | 17.2 | X | 303.88703 | 49.44622 | 154.87018 | 10.69654 | 0.0871036 | 0.24709918 | 2.5150996 | 21 | — | — |
| 481379 2006 $KE_{102}$ | 17.3 | X | 353.68102 | 339.18520 | 99.18964 | 15.87256 | 0.0430975 | 0.22991605 | 2.6389016 | 21 | — | — |
| 481380 2006 $MP_{8}$ | 16.9 | X | 72.15545 | 64.65546 | 267.32774 | 7.65298 | 0.2452636 | 0.21414159 | 2.7669546 | 21 | — | — |
| 481381 2006 $OS_{5}$ | 18.3 | X | 20.52742 | 58.23050 | 293.16861 | 26.46270 | 0.5917318 | 0.20360492 | 2.8616106 | 21 | — | — |
| 481382 2006 $PM_{19}$ | 16.9 | X | 50.07891 | 135.75088 | 212.53438 | 1.02489 | 0.2341135 | 0.21035369 | 2.8000726 | 21 | — | — |
| 481383 2006 $PX_{26}$ | 16.3 | X | 31.64474 | 69.40059 | 317.50811 | 12.82432 | 0.2251564 | 0.21001617 | 2.8030719 | 21 | — | — |
| 481384 2006 $QZ_{29}$ | 16.5 | X | 193.05029 | 162.79434 | 141.76775 | 18.56356 | 0.2166212 | 0.23143278 | 2.6273593 | 21 | 1 6.1 | 21.1 |
| 481385 2006 $QG_{43}$ | 18.2 | X | 248.36803 | 352.48281 | 342.89186 | 6.22124 | 0.2665606 | 0.31083656 | 2.1583141 | 21 | 3 16.0 | 21.9 |
| 481386 2006 $QM_{65}$ | 17.2 | X | 36.84758 | 207.18061 | 166.48463 | 9.20153 | 0.1724739 | 0.21025385 | 2.8009590 | 21 | — | — |
| 481387 2006 $QD_{89}$ | 18.3 | X | 199.37167 | 213.34040 | 145.22796 | 3.79398 | 0.2017846 | 0.30364849 | 2.1922427 | 21 | 3 8.5 | 21.6 |
| 481388 2006 $RD_{1}$ | 16.9 | X | 124.29519 | 97.22170 | 256.95638 | 21.54231 | 0.2639972 | 0.28830921 | 2.2693268 | 21 | — | — |
| 481389 2006 $RX_{38}$ | 17.1 | X | 27.62567 | 201.34381 | 140.65732 | 9.96289 | 0.2733686 | 0.20363256 | 2.8613517 | 21 | 12 5.5 | 20.8 |
| 481390 2006 $RV_{64}$ | 17.5 | X | 29.02755 | 191.69701 | 232.04078 | 6.73805 | 0.2151759 | 0.21639610 | 2.7477029 | 21 | — | — |
| 481391 2006 $RE_{78}$ | 17.4 | X | 18.31969 | 256.28740 | 133.34103 | 2.88960 | 0.1082884 | 0.20698357 | 2.8303847 | 21 | 12 26.9 | 21.0 |
| 481392 2006 $RG_{90}$ | 18.5 | X | 174.34729 | 33.04818 | 357.67211 | 2.60275 | 0.1734684 | 0.30178107 | 2.2012771 | 21 | 3 24.8 | 21.8 |
| 481393 2006 $RO_{122}$ | 17.2 | X | 347.88306 | 346.31311 | 81.70903 | 1.71764 | 0.0528943 | 0.20940166 | 2.8085531 | 21 | 12 27.1 | 20.7 |
| 481394 2006 $SF_{6}$ | 19.9 | X | 184.83320 | 305.54880 | 227.97336 | 5.83903 | 0.2805933 | 1.06430529 | 0.9500765 | 21 | — | — |
| 481395 2006 $SP_{38}$ | 17.5 | X | 36.89116 | 108.37391 | 277.81874 | 3.58522 | 0.0623349 | 0.20984443 | 2.8046010 | 21 | — | — |
| 481396 2006 $SB_{59}$ | 16.5 | X | 98.36500 | 66.87971 | 241.02020 | 12.01665 | 0.2195368 | 0.21215656 | 2.7841871 | 21 | 12 29.1 | 21.3 |
| 481397 2006 $SS_{59}$ | 16.8 | X | 93.80788 | 18.47962 | 297.00970 | 8.35984 | 0.1916089 | 0.21203673 | 2.7852359 | 21 | — | — |
| 481398 2006 $SP_{61}$ | 17.8 | X | 24.46324 | 105.53001 | 238.37238 | 5.55324 | 0.3294674 | 0.20254739 | 2.8715625 | 21 | 12 10.3 | 21.3 |
| 481399 2006 $SA_{80}$ | 19.0 | X | 48.73967 | 125.51047 | 185.77698 | 22.22077 | 0.0666257 | 0.40042145 | 1.8230188 | 21 | 11 30.0 | 21.3 |
| 481400 2006 $SC_{115}$ | 16.6 | X | 63.11738 | 129.86001 | 187.61974 | 14.89942 | 0.1646641 | 0.20508289 | 2.8478456 | 21 | 12 3.2 | 21.0 |
| 481401 2006 $SY_{154}$ | 16.6 | X | 337.98003 | 231.51171 | 307.96674 | 14.22074 | 0.1024586 | 0.23362835 | 2.6108726 | 21 | 1 6.0 | 19.9 |
| 481402 2006 $SJ_{185}$ | 18.7 | X | 233.13657 | 353.09148 | 336.48507 | 3.16041 | 0.1198189 | 0.30277010 | 2.1964807 | 21 | 3 2.3 | 21.8 |
| 481403 2006 $SU_{200}$ | 17.4 | X | 71.36020 | 358.29249 | 21.19361 | 6.21740 | 0.0519641 | 0.21297627 | 2.7770385 | 21 | — | — |
| 481404 2006 $SO_{241}$ | 17.8 | X | 21.83703 | 265.98544 | 171.73592 | 7.52991 | 0.2071958 | 0.21473145 | 2.7618851 | 21 | — | — |
| 481405 2006 $SB_{275}$ | 18.4 | X | 207.57557 | 306.89151 | 41.50809 | 4.07576 | 0.1814605 | 0.30183149 | 2.2010320 | 21 | 3 3.8 | 21.8 |
| 481406 2006 $SJ_{291}$ | 16.2 | X | 85.54275 | 242.68359 | 65.53293 | 16.06604 | 0.2720303 | 0.21145504 | 2.7903414 | 21 | 12 22.9 | 20.9 |
| 481407 2006 $SS_{297}$ | 17.8 | X | 3.09744 | 213.96568 | 188.00552 | 3.35190 | 0.1990386 | 0.20482997 | 2.8501893 | 21 | 12 30.9 | 21.0 |
| 481408 2006 $SL_{323}$ | 17.1 | X | 42.06290 | 315.72813 | 27.35628 | 11.30327 | 0.1503863 | 0.20363820 | 2.8612989 | 21 | 12 3.8 | 21.0 |
| 481409 2006 $SV_{396}$ | 17.0 | X | 43.74856 | 41.41276 | 20.58076 | 6.73390 | 0.0363256 | 0.21685202 | 2.7438502 | 21 | — | — |
| 481410 2006 $SG_{405}$ | 16.7 | X | 21.87109 | 230.28533 | 235.78664 | 11.61262 | 0.1147240 | 0.21281580 | 2.7784344 | 21 | — | — |
| 481411 2006 $TJ_{8}$ | 17.9 | X | 176.94079 | 174.07584 | 204.82597 | 7.36856 | 0.2078386 | 0.29922381 | 2.2138012 | 21 | 3 12.7 | 21.4 |
| 481412 2006 $TL_{11}$ | 17.8 | X | 178.75197 | 282.88212 | 27.03958 | 6.41544 | 0.2321031 | 0.28928371 | 2.2642275 | 21 | — | — |
| 481413 2006 $TX_{53}$ | 17.9 | X | 172.66855 | 337.81958 | 48.90874 | 6.83760 | 0.1452376 | 0.29821447 | 2.2187936 | 21 | 3 19.9 | 21.1 |
| 481414 2006 $TK_{82}$ | 17.3 | X | 22.18670 | 90.83865 | 336.94147 | 3.82423 | 0.0382315 | 0.21061604 | 2.7977469 | 21 | — | — |
| 481415 2006 $TW_{98}$ | 16.7 | X | 324.49130 | 115.44733 | 34.17829 | 17.42602 | 0.2256582 | 0.21192495 | 2.7862152 | 21 | — | — |
| 481416 2006 $TS_{115}$ | 16.9 | X | 266.09921 | 162.08497 | 133.47723 | 12.79623 | 0.1880747 | 0.23533508 | 2.5982340 | 21 | 2 25.8 | 21.0 |
| 481417 2006 $UX_{23}$ | 18.6 | X | 114.31546 | 218.86627 | 219.92320 | 5.23272 | 0.1402885 | 0.29656285 | 2.2270239 | 21 | 3 15.3 | 21.3 |
| 481418 2006 $UM_{49}$ | 18.2 | X | 231.91817 | 311.95570 | 359.13792 | 4.56609 | 0.2188810 | 0.30283224 | 2.1961802 | 21 | 2 5.4 | 21.7 |
| 481419 2006 $UJ_{54}$ | 18.4 | X | 177.75642 | 62.97298 | 314.29232 | 3.80284 | 0.2209645 | 0.30002107 | 2.2098775 | 21 | 3 12.5 | 21.9 |
| 481420 2006 $UH_{60}$ | 17.4 | X | 90.78580 | 75.54495 | 290.97072 | 5.14928 | 0.0573036 | 0.21404321 | 2.7678024 | 21 | — | — |
| 481421 2006 $UX_{94}$ | 17.2 | X | 350.38858 | 295.54983 | 85.91822 | 4.28330 | 0.1163396 | 0.19698952 | 2.9253240 | 21 | 11 3.1 | 20.5 |
| 481422 2006 $UK_{96}$ | 18.3 | X | 157.52366 | 338.17517 | 89.32502 | 2.84563 | 0.1338039 | 0.30239898 | 2.1982774 | 21 | 4 23.9 | 21.3 |
| 481423 2006 $UC_{101}$ | 16.9 | X | 45.75297 | 250.16579 | 147.22766 | 4.29518 | 0.0994012 | 0.20953157 | 2.8073921 | 21 | — | — |
| 481424 2006 $UA_{129}$ | 17.3 | X | 35.82286 | 22.63346 | 344.46517 | 1.41715 | 0.0799403 | 0.20306652 | 2.8666665 | 21 | 12 17.3 | 21.1 |
| 481425 2006 $UB_{130}$ | 17.2 | X | 41.40993 | 15.58835 | 338.58709 | 1.23511 | 0.0765393 | 0.20219540 | 2.8748943 | 21 | 12 7.7 | 21.1 |
| 481426 2006 $UU_{132}$ | 18.2 | X | 156.64692 | 201.95689 | 208.28001 | 3.39940 | 0.1581080 | 0.29945750 | 2.2126493 | 21 | 3 31.2 | 21.2 |
| 481427 2006 $UG_{142}$ | 18.6 | X | 184.32577 | 73.06719 | 339.50792 | 3.37171 | 0.1570426 | 0.30439585 | 2.1886529 | 21 | 4 30.4 | 21.9 |
| 481428 2006 $UQ_{147}$ | 18.1 | X | 180.28020 | 150.61905 | 243.92682 | 3.80512 | 0.1535587 | 0.30259169 | 2.1973440 | 21 | 4 2.1 | 21.4 |
| 481429 2006 $UF_{164}$ | 17.0 | X | 4.12751 | 200.43736 | 196.26727 | 11.93178 | 0.0864522 | 0.20276472 | 2.8695103 | 21 | 12 12.2 | 20.8 |
| 481430 2006 $UR_{164}$ | 17.2 | X | 328.23300 | 47.46289 | 40.96870 | 15.54565 | 0.1176210 | 0.20401425 | 2.8577817 | 21 | 12 23.6 | 20.7 |
| 481431 2006 $UR_{185}$ | 18.0 | X | 167.29620 | 341.11517 | 72.99220 | 6.23803 | 0.1947282 | 0.30297156 | 2.1955069 | 21 | 4 21.4 | 21.3 |
| 481432 2006 $UD_{191}$ | 16.7 | X | 10.36062 | 45.20415 | 333.57337 | 7.34264 | 0.1871570 | 0.20117127 | 2.8846431 | 21 | 12 9.5 | 20.2 |
| 481433 2006 $UF_{272}$ | 16.2 | X | 2.41322 | 125.99045 | 231.64913 | 8.95582 | 0.1138838 | 0.19260459 | 2.9695567 | 21 | 10 18.3 | 19.8 |
| 481434 2006 $UE_{328}$ | 16.8 | X | 355.67457 | 72.99013 | 56.36079 | 8.97816 | 0.2350264 | 0.21098629 | 2.7944729 | 21 | — | — |
| 481435 2006 $VN_{7}$ | 18.1 | X | 153.63503 | 162.93112 | 232.27228 | 4.66735 | 0.1572715 | 0.29520994 | 2.2338229 | 21 | 3 6.7 | 21.4 |
| 481436 2006 $VW_{17}$ | 18.1 | X | 165.97846 | 40.22647 | 27.46804 | 3.30539 | 0.1255061 | 0.30289532 | 2.1958753 | 21 | 5 1.3 | 21.1 |
| 481437 2006 $VA_{38}$ | 16.8 | X | 22.79057 | 47.96569 | 54.88028 | 9.23705 | 0.0566945 | 0.21483371 | 2.7610087 | 21 | — | — |
| 481438 2006 $VL_{64}$ | 18.3 | X | 196.83583 | 139.98947 | 215.28142 | 1.61697 | 0.2210747 | 0.29777990 | 2.2209518 | 21 | 3 2.0 | 21.9 |
| 481439 2006 $VU_{67}$ | 18.2 | X | 159.55838 | 325.84781 | 63.82897 | 3.33928 | 0.1531070 | 0.29463743 | 2.2367156 | 21 | 3 9.5 | 21.2 |
| 481440 2006 $VX_{72}$ | 17.8 | X | 195.80491 | 304.15904 | 55.80967 | 5.33248 | 0.2043086 | 0.29828530 | 2.2184423 | 21 | 3 9.9 | 21.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481441 2006 $VZ_{136}$ | 18.8 | X | 142.80233 | 183.56398 | 240.46441 | 6.10718 | 0.1597183 | 0.29668359 | 2.2264197 | 21 | 4 2.2 | 21.9 |
| 481442 2006 $WO_{3}$ | 21.6 | X | 300.73239 | 9.68642 | 252.62336 | 21.21125 | 0.4474147 | 1.37812455 | 0.7997306 | 21 | 11 28.1 | 19.1 |
| 481443 2006 $WA_{7}$ | 17.3 | X | 322.68625 | 9.09684 | 77.13304 | 10.74550 | 0.2179748 | 0.19888483 | 2.9067094 | 21 | 12 8.6 | 20.0 |
| 481444 2006 $WV_{145}$ | 16.6 | X | 295.35530 | 215.29458 | 270.33972 | 6.50598 | 0.1690162 | 0.19866488 | 2.9088544 | 21 | 12 12.3 | 19.7 |
| 481445 2006 $WV_{147}$ | 18.3 | X | 175.21916 | 3.34184 | 49.32392 | 4.15259 | 0.1104210 | 0.30076804 | 2.2062171 | 21 | 4 21.3 | 21.3 |
| 481446 2006 $WH_{162}$ | 16.6 | X | 3.22956 | 354.77847 | 71.44450 | 6.79264 | 0.0624233 | 0.20376326 | 2.8601279 | 21 | — | — |
| 481447 2006 $WR_{166}$ | 18.5 | X | 174.77523 | 171.32695 | 255.69477 | 2.44549 | 0.1427574 | 0.30291891 | 2.1957613 | 21 | 5 10.8 | 21.6 |
| 481448 2006 $WQ_{172}$ | 18.0 | X | 339.01666 | 328.39734 | 74.35218 | 9.50093 | 0.3217981 | 0.19507542 | 2.9444285 | 21 | 11 17.4 | 19.9 |
| 481449 2006 $WV_{173}$ | 18.5 | X | 124.62298 | 343.46327 | 89.31514 | 3.63167 | 0.1627486 | 0.29344442 | 2.2427738 | 21 | 3 28.8 | 21.3 |
| 481450 2006 $WT_{188}$ | 18.4 | X | 104.34708 | 42.23059 | 66.70715 | 6.64288 | 0.1057878 | 0.29518438 | 2.2339518 | 21 | 4 13.0 | 21.0 |
| 481451 2006 $WV_{199}$ | 16.3 | X | 241.05397 | 130.13460 | 83.75643 | 11.57485 | 0.0368859 | 0.20660131 | 2.8338749 | 21 | — | — |
| 481452 2006 $WE_{200}$ | 18.9 | X | 140.26138 | 125.49285 | 287.43147 | 3.34486 | 0.2277595 | 0.29257379 | 2.2472209 | 21 | 3 24.2 | 22.2 |
| 481453 2006 $WK_{201}$ | 16.8 | X | 283.75615 | 167.67917 | 297.15377 | 8.94763 | 0.0680501 | 0.18873788 | 3.0099781 | 21 | 11 5.3 | 21.0 |
| 481454 2006 $WL_{204}$ | 17.7 | X | 170.08162 | 113.70559 | 295.81013 | 6.49641 | 0.1652649 | 0.29565308 | 2.2315902 | 21 | 4 11.0 | 21.2 |
| 481455 2006 $WX_{204}$ | 16.3 | X | 8.65167 | 135.92003 | 275.51356 | 7.06937 | 0.2068518 | 0.20119854 | 2.8843824 | 21 | — | — |
| 481456 2006 $WV_{205}$ | 17.3 | X | 314.62024 | 339.64557 | 87.92816 | 4.32460 | 0.0592848 | 0.19335808 | 2.9618371 | 21 | 11 7.3 | 21.1 |
| 481457 2006 $XD_{2}$ | 21.0 | X | 27.44842 | 109.47117 | 65.62035 | 3.56074 | 0.4251602 | 0.69135728 | 1.2666823 | 21 | — | — |
| 481458 2006 $XT_{27}$ | 17.8 | X | 56.79094 | 191.00021 | 81.89224 | 23.16757 | 0.0293505 | 0.38617740 | 1.8675754 | 21 | 10 17.5 | 20.3 |
| 481459 2006 $XN_{38}$ | 17.8 | X | 124.13571 | 186.33868 | 293.81309 | 4.78944 | 0.0881204 | 0.29716233 | 2.2240278 | 21 | 5 19.9 | 20.6 |
| 481460 2006 $XF_{41}$ | 17.7 | X | 22.65442 | 255.98838 | 278.36322 | 2.57976 | 0.0933505 | 0.28759995 | 2.2730562 | 21 | 2 24.0 | 20.0 |
| 481461 2006 $XV_{55}$ | 15.8 | X | 199.14575 | 256.59177 | 295.64404 | 14.62532 | 0.1677727 | 0.18388719 | 3.0626808 | 21 | 10 31.5 | 21.1 |
| 481462 2006 $XO_{65}$ | 16.0 | X | 33.88433 | 308.98044 | 276.33699 | 25.64027 | 0.1813089 | 0.29541635 | 2.2327822 | 21 | 6 19.2 | 17.6 |
| 481463 2006 $XJ_{72}$ | 17.8 | X | 22.66826 | 175.28531 | 346.93542 | 4.59159 | 0.0809075 | 0.28459586 | 2.2890239 | 21 | 2 9.9 | 20.0 |
| 481464 2006 $YA_{6}$ | 15.8 | X | 19.43065 | 37.95140 | 264.74541 | 11.83642 | 0.1555737 | 0.18211443 | 3.0825241 | 21 | 8 31.8 | 19.7 |
| 481465 2006 $YB_{35}$ | 16.4 | X | 283.10808 | 0.77556 | 90.99000 | 10.76666 | 0.1166101 | 0.18617781 | 3.0375080 | 21 | 10 20.6 | 20.5 |
| 481466 2006 $YQ_{38}$ | 18.9 | X | 115.98258 | 118.87600 | 318.95791 | 3.87428 | 0.1727351 | 0.28889127 | 2.2662776 | 21 | 3 22.9 | 21.7 |
| 481467 2007 $AN_{9}$ | 18.5 | X | 57.26433 | 242.69301 | 265.06925 | 2.90178 | 0.2684983 | 0.28691334 | 2.2766812 | 21 | 4 13.0 | 19.9 |
| 481468 2007 $AE_{14}$ | 16.4 | X | 321.09979 | 310.03476 | 120.74579 | 13.16117 | 0.1025136 | 0.19032006 | 2.9932731 | 21 | 11 21.2 | 20.3 |
| 481469 2007 $BT_{10}$ | 16.5 | X | 244.60956 | 153.91145 | 336.91884 | 7.86576 | 0.1329012 | 0.18370075 | 3.0647526 | 21 | 10 9.5 | 21.1 |
| 481470 2007 $BA_{29}$ | 18.2 | X | 133.55714 | 317.20156 | 138.12040 | 9.77261 | 0.2491552 | 0.29463189 | 2.2367436 | 21 | 5 19.5 | 21.8 |
| 481471 2007 $BB_{29}$ | 18.4 | X | 128.98492 | 183.25045 | 265.62546 | 2.05075 | 0.1920449 | 0.29222380 | 2.2490149 | 21 | 4 26.3 | 21.3 |
| 481472 2007 $BT_{33}$ | 17.3 | X | 290.14803 | 287.47432 | 142.43126 | 0.56299 | 0.1694827 | 0.18391000 | 3.0624275 | 21 | 9 19.3 | 21.2 |
| 481473 2007 $BO_{46}$ | 17.5 | X | 105.79250 | 321.81056 | 120.92605 | 6.65610 | 0.0988123 | 0.28403160 | 2.2920545 | 21 | 3 8.4 | 20.1 |
| 481474 2007 $BS_{46}$ | 16.3 | X | 136.93355 | 115.17542 | 131.57722 | 12.52234 | 0.0410508 | 0.18162342 | 3.0880772 | 21 | 11 15.3 | 21.0 |
| 481475 2007 $BO_{73}$ | 17.7 | X | 108.21405 | 267.12494 | 322.96923 | 18.83923 | 0.0558724 | 0.37851137 | 1.8927072 | 21 | 9 30.4 | 20.2 |
| 481476 2007 $BN_{76}$ | 16.9 | X | 330.10107 | 75.86122 | 318.32469 | 7.78786 | 0.2932202 | 0.18817598 | 3.0159670 | 21 | 9 28.6 | 19.5 |
| 481477 2007 $BX_{79}$ | 17.8 | X | 51.00844 | 157.53260 | 334.51702 | 6.38980 | 0.0534384 | 0.28169029 | 2.3047375 | 21 | 2 13.8 | 20.3 |
| 481478 2007 $BV_{100}$ | 16.4 | X | 328.97351 | 108.69297 | 312.18276 | 14.89807 | 0.1155709 | 0.18740779 | 3.0242031 | 21 | 11 10.6 | 20.4 |
| 481479 2007 $CO_{6}$ | 16.6 | X | 237.49729 | 33.02983 | 109.99061 | 9.65797 | 0.0622202 | 0.18618259 | 3.0374560 | 21 | 11 1.8 | 21.1 |
| 481480 2007 $CZ_{8}$ | 16.5 | X | 229.18907 | 10.47355 | 130.65785 | 14.41739 | 0.1071535 | 0.18323530 | 3.0699404 | 21 | 10 16.8 | 21.3 |
| 481481 2007 $CP_{18}$ | 18.5 | X | 27.71644 | 126.14805 | 19.60795 | 2.79876 | 0.1536522 | 0.27928577 | 2.3179470 | 21 | 1 21.6 | 20.4 |
| 481482 2007 $CA_{19}$ | 17.6 | X | 4.69504 | 102.53488 | 170.00658 | 9.59620 | 0.8213226 | 0.20927654 | 2.8096724 | 21 | 2 8.1* | 19.8 |
| 481483 2007 $CQ_{27}$ | 17.3 | X | 256.35252 | 279.31450 | 120.89185 | 2.89089 | 0.0613316 | 0.23941449 | 2.5686352 | 21 | 7 14.5 | 20.8 |
| 481484 2007 $CT_{37}$ | 17.2 | X | 317.82592 | 128.56796 | 325.03504 | 7.99655 | 0.1749650 | 0.19205469 | 2.9752224 | 21 | 12 7.4 | 20.5 |
| 481485 2007 $CV_{37}$ | 17.9 | X | 37.72389 | 140.85156 | 2.48203 | 1.37099 | 0.1260043 | 0.28194072 | 2.3033725 | 21 | 2 7.5 | 19.7 |
| 481486 2007 $CX_{41}$ | 17.7 | X | 136.77564 | 232.13666 | 333.37790 | 18.28281 | 0.0330061 | 0.37989635 | 1.8881042 | 21 | 10 3.6 | 20.0 |
| 481487 2007 $CD_{43}$ | 17.4 | X | 313.90039 | 145.10966 | 307.23786 | 0.55591 | 0.1949447 | 0.19247899 | 2.9708485 | 21 | 11 27.6 | 20.4 |
| 481488 2007 $CZ_{53}$ | 18.1 | X | 41.03444 | 4.81013 | 158.69874 | 2.52690 | 0.1378513 | 0.28206116 | 2.3027168 | 21 | 3 18.3 | 19.7 |
| 481489 2007 $CK_{57}$ | 17.5 | X | 358.83720 | 66.37904 | 92.44517 | 6.37157 | 0.1245316 | 0.27692761 | 2.3310873 | 21 | — | — |
| 481490 2007 DB | 16.4 | X | 175.30615 | 108.27762 | 80.49847 | 10.89982 | 0.1721318 | 0.17731969 | 3.1378444 | 21 | 10 16.3 | 21.7 |
| 481491 2007 $DD_{15}$ | 17.3 | X | 249.67237 | 227.23926 | 65.61052 | 4.26525 | 0.0242064 | 0.28034641 | 2.3120970 | 21 | 2 11.0 | 20.2 |
| 481492 2007 $DB_{34}$ | 18.2 | X | 70.87600 | 160.73724 | 19.75127 | 2.03202 | 0.1562791 | 0.28999216 | 2.2605384 | 21 | 6 13.5 | 20.6 |
| 481493 2007 $DM_{35}$ | 16.4 | X | 220.94093 | 232.55009 | 343.78855 | 17.78238 | 0.1996083 | 0.18614166 | 3.0379013 | 21 | 12 21.6 | 21.5 |
| 481494 2007 $DG_{47}$ | 15.9 | X | 244.99971 | 356.33525 | 155.30168 | 17.41871 | 0.2533198 | 0.18344334 | 3.0676190 | 21 | 10 27.9 | 20.8 |
| 481495 2007 $DP_{47}$ | 15.9 | X | 168.13629 | 47.18551 | 163.09082 | 13.91976 | 0.1023145 | 0.17752200 | 3.1354600 | 21 | 11 3.7 | 21.0 |
| 481496 2007 $DV_{62}$ | 17.9 | X | 319.50700 | 260.96485 | 354.11924 | 8.18924 | 0.0812265 | 0.28477105 | 2.2880850 | 21 | 3 14.0 | 20.5 |
| 481497 2007 $DE_{88}$ | 16.9 | X | 229.51375 | 15.26886 | 128.66272 | 4.43691 | 0.1492419 | 0.17984637 | 3.1083859 | 21 | 10 11.7 | 21.7 |
| 481498 2007 $DM_{89}$ | 16.6 | X | 186.62741 | 217.86401 | 336.99201 | 2.47762 | 0.1451524 | 0.17968496 | 3.1102472 | 21 | 10 28.4 | 21.6 |
| 481499 2007 $DO_{89}$ | 15.7 | X | 190.26564 | 256.20098 | 333.08822 | 25.80485 | 0.1870112 | 0.18431926 | 3.0578926 | 21 | 12 7.7 | 21.2 |
| 481500 2007 $DA_{114}$ | 16.9 | X | 241.78692 | 22.50050 | 170.93388 | 12.35417 | 0.0474852 | 0.18833749 | 3.0142425 | 21 | — | — |
| 481501 2007 $EC_{22}$ | 18.2 | X | 38.89672 | 177.10354 | 340.91446 | 2.14294 | 0.1615255 | 0.28078387 | 2.3096949 | 21 | 3 5.2 | 20.0 |
| 481502 2007 $EJ_{27}$ | 16.6 | X | 272.50011 | 113.97994 | 9.49348 | 9.80087 | 0.1343504 | 0.18468742 | 3.0538276 | 21 | 11 3.9 | 20.7 |
| 481503 2007 $ED_{53}$ | 16.4 | X | 251.01265 | 162.95658 | 349.06666 | 14.36856 | 0.0868732 | 0.18232863 | 3.0801094 | 21 | 11 15.8 | 21.0 |
| 481504 2007 $EL_{62}$ | 12.9 | X | 7.08962 | 98.06302 | 158.23905 | 17.63648 | 0.0393017 | 0.08535208 | 5.1088909 | 21 | 6 14.8 | 19.7 |
| 481505 2007 $EN_{64}$ | 16.6 | X | 238.22036 | 179.89330 | 327.19821 | 11.85415 | 0.1112076 | 0.18325609 | 3.0697082 | 21 | 10 22.1 | 21.4 |
| 481506 2007 $ES_{67}$ | 18.3 | X | 64.78502 | 98.19750 | 172.42139 | 23.77712 | 0.0686440 | 0.37308622 | 1.9110112 | 21 | 10 17.9 | 20.4 |
| 481507 2007 $EK_{80}$ | 15.7 | X | 205.90435 | 198.02648 | 5.90631 | 17.15494 | 0.1786572 | 0.17946466 | 3.1127920 | 21 | 11 18.4 | 21.0 |
| 481508 2007 $EW_{87}$ | 15.8 | X | 222.66266 | 265.05996 | 253.86531 | 14.86214 | 0.2120738 | 0.18007110 | 3.1057992 | 21 | 10 10.1 | 21.1 |
| 481509 2007 $EP_{143}$ | 16.1 | X | 211.26022 | 220.07692 | 351.52271 | 16.83059 | 0.1620799 | 0.18210114 | 3.0826740 | 21 | 12 6.7 | 21.2 |
| 481510 2007 $ED_{159}$ | 18.1 | X | 79.08363 | 121.01875 | 324.55727 | 2.23570 | 0.1533465 | 0.27539582 | 2.3397232 | 21 | 2 4.9 | 20.3 |
| 481511 2007 $ED_{160}$ | 18.4 | X | 80.56880 | 95.44914 | 357.13995 | 6.52839 | 0.1541808 | 0.27794985 | 2.3253683 | 21 | 2 19.3 | 20.5 |
| 481512 2007 $EP_{172}$ | 17.7 | X | 245.77297 | 92.27399 | 186.82151 | 13.36735 | 0.0426880 | 0.27042492 | 2.3683083 | 21 | 1 15.6 | 21.3 |
| 481513 2007 $EM_{202}$ | 16.4 | X | 271.52450 | 106.24247 | 0.02356 | 7.60547 | 0.1511007 | 0.17953980 | 3.1119233 | 21 | 10 10.4 | 20.7 |
| 481514 2007 $EL_{212}$ | 16.6 | X | 269.60106 | 24.45487 | 152.16411 | 7.57164 | 0.1692960 | 0.19064504 | 2.9898704 | 21 | — | — |
| 481515 2007 $ES_{216}$ | 18.2 | X | 27.85040 | 56.14854 | 94.26235 | 3.35701 | 0.1218395 | 0.27845410 | 2.3225602 | 21 | 1 31.4 | 20.2 |
| 481516 2007 $FY_{11}$ | 17.1 | X | 133.67474 | 145.27983 | 354.45954 | 24.56869 | 0.1403973 | 0.29647478 | 2.2274650 | 21 | 7 14.2 | 20.9 |
| 481517 2007 $FA_{34}$ | 16.0 | X | 18.60378 | 345.76205 | 359.54169 | 8.11946 | 0.1758845 | 0.17163314 | 3.2067760 | 21 | 10 30.6 | 20.0 |
| 481518 2007 $FW_{39}$ | 16.0 | X | 216.05361 | 134.32701 | 50.42133 | 13.15399 | 0.2573580 | 0.17958901 | 3.1113548 | 21 | 11 5.3 | 21.1 |
| 481519 2007 $FY_{44}$ | 16.7 | X | 293.92779 | 102.78864 | 2.25602 | 9.08604 | 0.0365642 | 0.18093375 | 3.0959195 | 21 | 11 21.8 | 21.1 |
| 481520 2007 $FZ_{44}$ | 16.1 | X | 210.51361 | 155.84290 | 353.74137 | 16.49661 | 0.1456697 | 0.17579304 | 3.1559850 | 21 | 9 25.7 | 21.1 |

* The additional opposition: 11 15.0, $V = 20.6$

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481521 2007 $FV_{48}$ | 15.9 | X | 267.53486 | 264.00690 | 194.21412 | 11.88255 | 0.0415521 | 0.17225866 | 3.1990081 | 21 | 10 11.8 | 20.4 |
| 481522 2007 $FS_{49}$ | 15.9 | X | 193.90646 | 171.74417 | 43.38981 | 18.31393 | 0.1570485 | 0.17893211 | 3.1189652 | 21 | 11 24.8 | 21.0 |
| 481523 2007 $GF_{45}$ | 16.5 | X | 248.59117 | 105.28684 | 60.40453 | 5.83541 | 0.0954618 | 0.17778508 | 3.1323660 | 21 | 12 2.1 | 20.7 |
| 481524 2007 $HO_{18}$ | 16.1 | X | 191.88280 | 44.73326 | 209.37811 | 16.66555 | 0.1722357 | 0.18095958 | 3.0956249 | 21 | — | — |
| 481525 2007 $HG_{53}$ | 15.8 | X | 208.50874 | 102.97450 | 62.70931 | 18.42954 | 0.2187432 | 0.17152097 | 3.2081739 | 21 | 10 17.2 | 21.3 |
| 481526 2007 $HK_{68}$ | 15.6 | X | 355.76892 | 358.10688 | 29.69456 | 22.82707 | 0.0379247 | 0.17345914 | 3.1842312 | 21 | 11 5.6 | 20.0 |
| 481527 2007 $HC_{71}$ | 16.2 | X | 220.81803 | 134.20121 | 51.82071 | 28.16136 | 0.1867358 | 0.17649628 | 3.1475963 | 21 | 11 15.3 | 21.1 |
| 481528 2007 $HX_{79}$ | 15.7 | X | 254.46426 | 88.44208 | 41.99616 | 26.24047 | 0.1832842 | 0.17742746 | 3.1365737 | 21 | 10 21.8 | 20.4 |
| 481529 2007 $HJ_{82}$ | 17.1 | X | 117.09824 | 309.67043 | 90.29519 | 7.33146 | 0.1226214 | 0.26281100 | 2.4138319 | 21 | 1 31.6 | 20.1 |
| 481530 2007 $HV_{92}$ | 17.8 | X | 154.79701 | 99.77879 | 127.44683 | 24.05094 | 0.1072232 | 0.37860238 | 1.8924038 | 21 | 12 12.4 | 20.6 |
| 481531 2007 $JP_{35}$ | 15.8 | X | 191.20927 | 103.23529 | 90.28907 | 26.78421 | 0.2765889 | 0.17460649 | 3.1702666 | 21 | 11 6.1 | 21.8 |
| 481532 2007 $LE$ | 19.7 | X | 249.86854 | 120.13900 | 73.71849 | 29.52672 | 0.5166573 | 0.39545068 | 1.8382638 | 21 | 12 19.3 | 20.5 |
| 481533 2007 $LH_{4}$ | 16.0 | X | 177.19658 | 22.80560 | 220.45692 | 10.33781 | 0.0430582 | 0.17342289 | 3.1846749 | 21 | 12 19.1 | 20.8 |
| 481534 2007 $LX_{16}$ | 17.5 | X | 106.67106 | 98.22682 | 233.75817 | 4.27558 | 0.3001028 | 0.24154970 | 2.5534756 | 21 | — | — |
| 481535 2007 $MY_{19}$ | 17.1 | X | 96.58092 | 195.31359 | 123.68370 | 15.34404 | 0.2658073 | 0.23277957 | 2.6172155 | 21 | — | — |
| 481536 2007 $MH_{24}$ | 13.7 | X | 277.71188 | 243.81401 | 90.68591 | 37.96268 | 0.0506456 | 0.08476237 | 5.1325595 | 21 | 6 1.6 | 20.7 |
| 481537 2007 $NK_{6}$ | 16.4 | X | 123.79576 | 342.33847 | 11.12240 | 13.19496 | 0.2744645 | 0.24220787 | 2.5488477 | 21 | 1 7.4 | 20.2 |
| 481538 2007 $OP_{4}$ | 16.3 | X | 341.60230 | 307.48252 | 290.07126 | 21.78669 | 0.2944683 | 0.26970706 | 2.3725088 | 21 | 2 8.9 | 19.2 |
| 481539 2007 $PG_{20}$ | 16.4 | X | 117.69508 | 185.10473 | 143.41927 | 14.43844 | 0.2566168 | 0.23596715 | 2.5935922 | 21 | — | — |
| 481540 2007 $PT_{21}$ | 16.8 | X | 111.93072 | 170.66147 | 158.86917 | 15.50288 | 0.2875659 | 0.23385606 | 2.6091775 | 21 | — | — |
| 481541 2007 $QF_{8}$ | 17.7 | X | 72.49242 | 248.20289 | 114.49756 | 5.27269 | 0.3358345 | 0.22929508 | 2.6436638 | 21 | — | — |
| 481542 2007 $RF_{5}$ | 18.4 | X | 295.66029 | 221.44716 | 12.67798 | 31.91828 | 0.3834057 | 0.89778273 | 1.0641966 | 21 | — | — |
| 481543 2007 $RN_{7}$ | 21.7 | X | 95.82294 | 232.55596 | 152.59707 | 9.83978 | 0.1118251 | 0.66700609 | 1.2973272 | 21 | — | — |
| 481544 2007 $RN_{31}$ | 17.6 | X | 57.97952 | 139.21864 | 228.34681 | 6.29740 | 0.3115827 | 0.22738053 | 2.6584829 | 21 | — | — |
| 481545 2007 $RJ_{84}$ | 16.8 | X | 79.58175 | 335.89532 | 18.69790 | 9.54171 | 0.2363705 | 0.22775146 | 2.6555956 | 21 | — | — |
| 481546 2007 $RU_{134}$ | 16.6 | X | 69.26814 | 161.54803 | 173.58212 | 13.88047 | 0.2590084 | 0.22596735 | 2.6695553 | 21 | — | — |
| 481547 2007 $RW_{145}$ | 17.0 | X | 66.91399 | 47.27645 | 335.01926 | 3.35409 | 0.3034128 | 0.22750911 | 2.6574811 | 21 | — | — |
| 481548 2007 $RW_{148}$ | 17.7 | X | 87.33213 | 315.05619 | 51.54928 | 5.13390 | 0.3014487 | 0.23209134 | 2.6223868 | 21 | — | — |
| 481549 2007 $RU_{155}$ | 17.8 | X | 40.98570 | 88.68838 | 342.88425 | 14.81325 | 0.1156949 | 0.23630806 | 2.5910971 | 21 | — | — |
| 481550 2007 $RH_{171}$ | 17.4 | X | 90.56919 | 322.26345 | 37.21414 | 3.95800 | 0.1409468 | 0.23319884 | 2.6140775 | 21 | — | — |
| 481551 2007 $RA_{177}$ | 17.3 | X | 49.54906 | 32.42637 | 355.11946 | 6.42507 | 0.1893384 | 0.22777899 | 2.6553816 | 21 | — | — |
| 481552 2007 $RA_{179}$ | 17.0 | X | 54.18371 | 181.38594 | 203.08402 | 11.66925 | 0.1938961 | 0.22379416 | 2.6868096 | 21 | — | — |
| 481553 2007 $RC_{189}$ | 16.9 | X | 78.36315 | 46.93453 | 297.23990 | 11.07327 | 0.3103689 | 0.22896115 | 2.6462336 | 21 | — | — |
| 481554 2007 $RF_{215}$ | 17.5 | X | 40.56601 | 50.70222 | 334.68548 | 3.72726 | 0.1234400 | 0.22591615 | 2.6699586 | 21 | — | — |
| 481555 2007 $RE_{233}$ | 17.0 | X | 86.95757 | 298.89290 | 80.82501 | 4.25772 | 0.2030741 | 0.23422881 | 2.6064087 | 21 | — | — |
| 481556 2007 $RH_{239}$ | 15.8 | X | 249.93034 | 1.43056 | 36.34973 | 11.39532 | 0.3456010 | 0.12494135 | 3.9627673 | 21 | 6 3.5 | 22.5 |
| 481557 2007 $RG_{258}$ | 17.4 | X | 69.37051 | 322.67297 | 57.83311 | 3.20143 | 0.1272391 | 0.23227526 | 2.6210024 | 21 | — | — |
| 481558 2007 $RC_{280}$ | 16.5 | X | 71.93600 | 114.05988 | 261.14876 | 12.36757 | 0.1645012 | 0.23208249 | 2.6224536 | 21 | — | — |
| 481559 2007 $RE_{292}$ | 17.4 | X | 17.11848 | 60.25058 | 17.85164 | 4.52454 | 0.0540845 | 0.23057033 | 2.6339070 | 21 | — | — |
| 481560 2007 $RA_{314}$ | 17.0 | X | 52.93160 | 106.74240 | 307.28728 | 11.98449 | 0.2633020 | 0.23107192 | 2.6300940 | 21 | — | — |
| 481561 2007 $RK_{316}$ | 16.6 | X | 42.00233 | 199.17956 | 218.38016 | 12.03484 | 0.2924240 | 0.22894077 | 2.6463907 | 21 | — | — |
| 481562 2007 $RU_{324}$ | 16.9 | X | 92.80382 | 354.19269 | 18.61771 | 15.65559 | 0.1429257 | 0.23463755 | 2.6033808 | 21 | — | — |
| 481563 2007 $RV_{324}$ | 16.6 | X | 127.78878 | 349.90842 | 349.54463 | 12.88724 | 0.1731082 | 0.23472412 | 2.6027407 | 21 | — | — |
| 481564 2007 $RY_{325}$ | 17.1 | X | 63.52364 | 305.48621 | 39.19346 | 9.61332 | 0.1782141 | 0.21846804 | 2.7303025 | 21 | — | — |
| 481565 2007 $SC$ | 16.8 | X | 72.57892 | 172.66041 | 197.85821 | 7.13347 | 0.3672347 | 0.22969897 | 2.6405639 | 21 | — | — |
| 481566 2007 $SV$ | 17.0 | X | 54.58647 | 298.94329 | 86.44151 | 9.13702 | 0.1953036 | 0.22495303 | 2.6775740 | 21 | — | — |
| 481567 2007 $SB_{13}$ | 18.0 | X | 94.45213 | 185.23763 | 208.14778 | 6.96286 | 0.1824205 | 0.23655573 | 2.5892882 | 21 | 1 2.9 | 21.0 |
| 481568 2007 $TB_{12}$ | 16.6 | X | 73.13697 | 162.03098 | 208.66142 | 15.60886 | 0.1761916 | 0.22761121 | 2.6566863 | 21 | — | — |
| 481569 2007 $TK_{13}$ | 16.4 | X | 54.60627 | 347.61235 | 31.37306 | 14.21754 | 0.3064283 | 0.22471051 | 2.6795002 | 21 | — | — |
| 481570 2007 $TF_{25}$ | 17.9 | X | 58.06242 | 223.60317 | 187.10674 | 4.77343 | 0.2563306 | 0.23202618 | 2.6228778 | 21 | — | — |
| 481571 2007 $TZ_{27}$ | 15.3 | X | 255.01317 | 336.34685 | 51.16281 | 9.67998 | 0.2783375 | 0.12544482 | 3.9521573 | 21 | 6 2.1 | 21.6 |
| 481572 2007 $TR_{40}$ | 16.3 | X | 67.25785 | 283.43120 | 38.74883 | 13.00220 | 0.2157189 | 0.21847872 | 2.7302135 | 21 | 12 18.9 | 20.6 |
| 481573 2007 $TX_{50}$ | 17.0 | X | 109.66679 | 305.32522 | 10.61253 | 4.25358 | 0.2280442 | 0.22790549 | 2.6543989 | 21 | — | — |
| 481574 2007 $TV_{53}$ | 17.2 | X | 32.62951 | 172.71314 | 202.74575 | 4.62735 | 0.1256673 | 0.21949474 | 2.7217818 | 21 | — | — |
| 481575 2007 $TS_{74}$ | 16.9 | X | 103.24041 | 303.84536 | 15.90037 | 7.80819 | 0.1192784 | 0.22502667 | 2.6769898 | 21 | — | — |
| 481576 2007 $TV_{93}$ | 16.8 | X | 8.10968 | 338.55907 | 52.39433 | 7.42325 | 0.0593851 | 0.21618009 | 2.7495329 | 21 | 12 9.7 | 20.4 |
| 481577 2007 $TN_{103}$ | 16.2 | X | 356.41752 | 237.75732 | 214.75284 | 21.07506 | 0.0960028 | 0.22337899 | 2.6901377 | 21 | — | — |
| 481578 2007 $TM_{111}$ | 16.5 | X | 111.17319 | 316.96568 | 356.40099 | 14.07964 | 0.2672869 | 0.22968005 | 2.6407089 | 21 | — | — |
| 481579 2007 $TS_{114}$ | 16.9 | X | 83.28706 | 144.57383 | 231.56230 | 4.86448 | 0.2973194 | 0.23065678 | 2.6332488 | 21 | — | — |
| 481580 2007 $TR_{130}$ | 17.1 | X | 22.20821 | 225.03762 | 199.94751 | 12.34524 | 0.2113992 | 0.22448749 | 2.6812746 | 21 | — | — |
| 481581 2007 $TA_{132}$ | 17.4 | X | 330.91024 | 87.50918 | 46.90140 | 7.39289 | 0.2057727 | 0.22462253 | 2.6801999 | 21 | — | — |
| 481582 2007 $TP_{132}$ | 17.9 | X | 39.90210 | 341.28909 | 45.86137 | 2.84354 | 0.2112104 | 0.22258970 | 2.6964932 | 21 | — | — |
| 481583 2007 $TF_{137}$ | 16.9 | X | 79.66247 | 2.69784 | 17.14258 | 13.81593 | 0.1794453 | 0.22978271 | 2.6399223 | 21 | — | — |
| 481584 2007 $TA_{145}$ | 17.5 | X | 69.66480 | 195.81445 | 205.76587 | 4.96321 | 0.2901825 | 0.23125636 | 2.6286954 | 21 | — | — |
| 481585 2007 $TX_{149}$ | 16.7 | X | 21.65718 | 173.23064 | 203.88139 | 13.84013 | 0.2124292 | 0.22115349 | 2.7081550 | 21 | — | — |
| 481586 2007 $TD_{155}$ | 16.8 | X | 53.10808 | 144.17014 | 228.53556 | 6.81422 | 0.2543080 | 0.22473668 | 2.6792922 | 21 | — | — |
| 481587 2007 $TE_{160}$ | 16.7 | X | 37.25914 | 31.05929 | 23.74541 | 13.96197 | 0.2504927 | 0.22496987 | 2.6774404 | 21 | — | — |
| 481588 2007 $TN_{164}$ | 17.7 | X | 20.32494 | 218.47789 | 194.63763 | 3.64995 | 0.2743929 | 0.22285695 | 2.6943371 | 21 | — | — |
| 481589 2007 $TT_{165}$ | 17.4 | X | 180.83316 | 103.45915 | 32.38840 | 20.77178 | 0.0381667 | 0.34281426 | 2.0219176 | 21 | 9 9.8 | 20.2 |
| 481590 2007 $TJ_{169}$ | 17.0 | X | 22.50383 | 187.04546 | 220.83857 | 8.95577 | 0.1972793 | 0.22189033 | 2.7021563 | 21 | — | — |
| 481591 2007 $TN_{202}$ | 16.7 | X | 150.49947 | 284.84153 | 43.54314 | 22.59443 | 0.0290561 | 0.23202793 | 2.6228646 | 21 | — | — |
| 481592 2007 $TS_{205}$ | 17.8 | X | 75.61705 | 23.11080 | 17.58151 | 3.80503 | 0.2285694 | 0.23644281 | 2.5901126 | 21 | — | — |
| 481593 2007 $TD_{208}$ | 17.3 | X | 49.54700 | 250.21550 | 111.14122 | 9.74982 | 0.3339562 | 0.22272003 | 2.6954412 | 21 | — | — |
| 481594 2007 $TT_{218}$ | 16.8 | X | 30.18283 | 307.78877 | 40.90168 | 10.60479 | 0.1953924 | 0.21383381 | 2.7696090 | 21 | 12 4.3 | 20.3 |
| 481595 2007 $TM_{232}$ | 17.6 | X | 32.61409 | 344.76533 | 108.50801 | 1.10812 | 0.0966190 | 0.23014765 | 2.6371309 | 21 | — | — |
| 481596 2007 $TY_{235}$ | 17.4 | X | 81.73848 | 199.53500 | 147.18055 | 2.03809 | 0.1349848 | 0.22557515 | 2.6726487 | 21 | — | — |
| 481597 2007 $TL_{242}$ | 16.9 | X | 57.45437 | 25.31430 | 348.12104 | 9.64179 | 0.2176741 | 0.22615395 | 2.6680867 | 21 | — | — |
| 481598 2007 $TQ_{255}$ | 16.6 | X | 15.07130 | 165.63224 | 228.82772 | 8.72907 | 0.0998372 | 0.21966385 | 2.7203847 | 21 | 12 29.6 | 20.1 |
| 481599 2007 $TX_{259}$ | 16.6 | X | 356.31380 | 106.66092 | 38.91124 | 27.40568 | 0.2606856 | 0.23027818 | 2.6361342 | 21 | — | — |
| 481600 2007 $TJ_{276}$ | 17.1 | X | 57.64946 | 49.76169 | 10.00181 | 10.70182 | 0.1690308 | 0.23262572 | 2.6183693 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481601 2007 $TU_{319}$ | 17.3 | $X$ | 60.94623 | 170.57436 | 204.06091 | 6.11754 | 0.1535162 | 0.22316380 | 2.6918667 | 21 | — | — |
| 481602 2007 $TN_{335}$ | 17.2 | $X$ | 32.81255 | 327.26608 | 30.55126 | 2.82556 | 0.1012975 | 0.21421078 | 2.7663588 | 21 | 12 6.9 | 20.8 |
| 481603 2007 $TF_{337}$ | 17.6 | $X$ | 38.60797 | 244.70935 | 143.02232 | 3.46610 | 0.1994257 | 0.22702540 | 2.6612546 | 21 | — | — |
| 481604 2007 $TP_{364}$ | 16.7 | $X$ | 68.01115 | 329.16377 | 34.73268 | 12.54782 | 0.1880433 | 0.22531969 | 2.6746684 | 21 | — | — |
| 481605 2007 $TH_{398}$ | 16.7 | $X$ | 187.00096 | 217.08107 | 46.20888 | 15.25169 | 0.0503558 | 0.22886763 | 2.6469544 | 21 | — | — |
| 481606 2007 $TA_{406}$ | 16.5 | $X$ | 82.09664 | 268.22549 | 45.59067 | 14.26789 | 0.1802198 | 0.21968429 | 2.7202160 | 21 | 12 19.8 | 20.9 |
| 481607 2007 $TB_{428}$ | 16.6 | $X$ | 95.64255 | 258.59015 | 78.14825 | 10.83910 | 0.2229923 | 0.22668370 | 2.6639283 | 21 | — | — |
| 481608 2007 $TN_{443}$ | 16.7 | $X$ | 47.87077 | 136.02044 | 237.84300 | 8.83231 | 0.1196213 | 0.22382747 | 2.6865430 | 21 | — | — |
| 481609 2007 $TD_{445}$ | 17.3 | $X$ | 90.97856 | 244.92641 | 104.77678 | 4.47095 | 0.2241392 | 0.22914519 | 2.6448165 | 21 | — | — |
| 481610 2007 $TY_{445}$ | 17.2 | $X$ | 128.38025 | 297.09623 | 50.67396 | 13.70057 | 0.2740410 | 0.23676698 | 2.5877478 | 21 | 1 4.7 | 21.1 |
| 481611 2007 $TF_{446}$ | 17.2 | $X$ | 27.50941 | 306.28281 | 71.26706 | 2.73466 | 0.0853446 | 0.21608871 | 2.7503080 | 21 | 12 23.2 | 20.6 |
| 481612 2007 $TX_{452}$ | 16.9 | $X$ | 42.89206 | 207.49074 | 215.25474 | 13.08169 | 0.2380879 | 0.22528954 | 2.6749071 | 21 | — | — |
| 481613 2007 $UD_{2}$ | 16.7 | $X$ | 69.44695 | 69.52809 | 288.34895 | 8.94789 | 0.2260674 | 0.22547919 | 2.6734069 | 21 | — | — |
| 481614 2007 $UJ_{5}$ | 16.6 | $X$ | 16.42877 | 147.78340 | 238.86830 | 5.67886 | 0.0766217 | 0.21876167 | 2.7278589 | 21 | 12 18.9 | 20.1 |
| 481615 2007 $UN_{5}$ | 17.4 | $X$ | 9.03181 | 298.53842 | 151.79757 | 2.61105 | 0.2348168 | 0.22595390 | 2.6696612 | 21 | — | — |
| 481616 2007 $UX_{10}$ | 16.9 | $X$ | 42.60003 | 181.33714 | 233.21387 | 13.00447 | 0.2384271 | 0.22696984 | 2.6616888 | 21 | — | — |
| 481617 2007 $UT_{28}$ | 16.9 | $X$ | 89.91223 | 331.89299 | 47.10700 | 15.64455 | 0.0924226 | 0.22957533 | 2.6415119 | 21 | — | — |
| 481618 2007 $UM_{36}$ | 17.4 | $X$ | 27.34087 | 356.80779 | 49.32445 | 7.98535 | 0.2583055 | 0.22377898 | 2.6869310 | 21 | — | — |
| 481619 2007 $UG_{42}$ | 17.4 | $X$ | 326.30484 | 133.55576 | 341.97884 | 4.48250 | 0.1168529 | 0.22139890 | 2.7061534 | 21 | — | — |
| 481620 2007 $UR_{65}$ | 16.7 | $X$ | 64.22243 | 300.50413 | 121.73319 | 31.39007 | 0.3618225 | 0.23330237 | 2.6133041 | 21 | 1 14.4 | 18.3 |
| 481621 2007 $UD_{80}$ | 17.1 | $X$ | 107.68035 | 106.23030 | 223.76377 | 5.56918 | 0.0393689 | 0.22480393 | 2.6787578 | 21 | — | — |
| 481622 2007 $UD_{84}$ | 17.0 | $X$ | 167.25678 | 187.94540 | 54.03417 | 10.09937 | 0.0641028 | 0.21653949 | 2.7464897 | 21 | 12 12.9 | 21.0 |
| 481623 2007 $UF_{85}$ | 17.2 | $X$ | 45.29571 | 337.28437 | 58.36575 | 5.67701 | 0.0443350 | 0.22319404 | 2.6916236 | 21 | — | — |
| 481624 2007 $UD_{93}$ | 17.6 | $X$ | 6.36906 | 50.12050 | 28.18694 | 4.02736 | 0.1128711 | 0.22350648 | 2.6891146 | 21 | — | — |
| 481625 2007 $UA_{95}$ | 17.6 | $X$ | 351.67034 | 109.71494 | 11.94301 | 2.66471 | 0.0511674 | 0.22907174 | 2.6453819 | 21 | — | — |
| 481626 2007 $UV_{97}$ | 16.5 | $X$ | 124.60383 | 67.72509 | 217.00517 | 3.13079 | 0.0753928 | 0.21836027 | 2.7312008 | 21 | 12 20.7 | 20.6 |
| 481627 2007 $UZ_{112}$ | 17.2 | $X$ | 37.74547 | 15.78042 | 45.87004 | 14.66673 | 0.1452783 | 0.22549687 | 2.6732672 | 21 | — | — |
| 481628 2007 $UY_{123}$ | 16.6 | $X$ | 67.95511 | 247.00923 | 112.38067 | 14.55824 | 0.2407029 | 0.22398438 | 2.6852882 | 21 | — | — |
| 481629 2007 $US_{133}$ | 17.3 | $X$ | 12.77997 | 354.35570 | 72.42809 | 6.30499 | 0.1396741 | 0.22046620 | 2.7137804 | 21 | — | — |
| 481630 2007 $UK_{136}$ | 17.7 | $X$ | 31.51115 | 303.71319 | 93.34430 | 8.91696 | 0.2646889 | 0.22243701 | 2.6977271 | 21 | — | — |
| 481631 2007 $UM_{141}$ | 16.9 | $X$ | 339.11527 | 288.24310 | 232.08669 | 12.02243 | 0.1585216 | 0.22791683 | 2.6543108 | 21 | — | — |
| 481632 2007 $VY_{5}$ | 16.8 | $X$ | 38.27348 | 356.07334 | 65.36852 | 9.67748 | 0.2843873 | 0.22526042 | 2.6751376 | 21 | — | — |
| 481633 2007 $VT_{7}$ | 16.7 | $X$ | 16.97534 | 128.24962 | 245.02827 | 10.94186 | 0.1523091 | 0.21672473 | 2.7449245 | 21 | 12 12.4 | 19.9 |
| 481634 2007 $VE_{33}$ | 17.8 | $X$ | 28.40242 | 130.29324 | 244.36114 | 5.75317 | 0.2272602 | 0.21833321 | 2.7314265 | 21 | — | — |
| 481635 2007 $VO_{38}$ | 16.3 | $X$ | 70.55019 | 107.19391 | 264.94240 | 10.74312 | 0.1827670 | 0.22612913 | 2.6682819 | 21 | — | — |
| 481636 2007 $VJ_{56}$ | 16.6 | $X$ | 31.91794 | 25.59904 | 61.22439 | 22.74962 | 0.0410011 | 0.22928115 | 2.6437709 | 21 | — | — |
| 481637 2007 $VM_{74}$ | 17.8 | $X$ | 340.65288 | 49.84043 | 60.47085 | 4.79682 | 0.0694629 | 0.22433067 | 2.6825240 | 21 | — | — |
| 481638 2007 $VO_{83}$ | 16.8 | $X$ | 348.23587 | 4.39169 | 85.66626 | 11.58928 | 0.1953209 | 0.21425947 | 2.7659396 | 21 | — | — |
| 481639 2007 $VQ_{85}$ | 16.8 | $X$ | 67.01493 | 136.86460 | 230.19193 | 13.28346 | 0.1985255 | 0.22605196 | 2.6688891 | 21 | — | — |
| 481640 2007 $VJ_{91}$ | 16.9 | $X$ | 104.35953 | 333.65933 | 22.37549 | 8.15169 | 0.1719407 | 0.22922264 | 2.6442208 | 21 | — | — |
| 481641 2007 $VY_{97}$ | 17.5 | $X$ | 348.63095 | 80.90039 | 40.99923 | 13.58606 | 0.2630982 | 0.22293311 | 2.6937234 | 21 | — | — |
| 481642 2007 $VC_{114}$ | 17.4 | $X$ | 35.43432 | 300.12848 | 90.56461 | 5.04510 | 0.1146151 | 0.21873800 | 2.7280556 | 21 | — | — |
| 481643 2007 $VD_{116}$ | 17.2 | $X$ | 1.13405 | 208.28902 | 224.27291 | 11.47637 | 0.1579086 | 0.21827678 | 2.7318972 | 21 | — | — |
| 481644 2007 $VT_{126}$ | 17.1 | $X$ | 83.99906 | 61.52583 | 295.86179 | 3.49204 | 0.3504217 | 0.22765905 | 2.6563142 | 21 | — | — |
| 481645 2007 $VT_{135}$ | 16.9 | $X$ | 14.44321 | 323.70638 | 80.95496 | 15.25684 | 0.2589770 | 0.21758463 | 2.7376877 | 21 | — | — |
| 481646 2007 $VH_{142}$ | 17.5 | $X$ | 19.57273 | 201.07914 | 189.91134 | 3.40836 | 0.2002847 | 0.21721074 | 2.7408284 | 21 | — | — |
| 481647 2007 $VS_{144}$ | 16.8 | $X$ | 54.43470 | 147.77732 | 220.95671 | 9.08359 | 0.2132101 | 0.22064426 | 2.7123202 | 21 | — | — |
| 481648 2007 $VZ_{154}$ | 17.9 | $X$ | 350.52248 | 183.78817 | 281.85921 | 4.52273 | 0.1978869 | 0.22226476 | 2.6991207 | 21 | — | — |
| 481649 2007 $VA_{157}$ | 18.1 | $X$ | 303.75061 | 333.49591 | 127.09770 | 2.73023 | 0.1146556 | 0.28532650 | 2.2851146 | 21 | 12 23.2 | 19.9 |
| 481650 2007 $VK_{165}$ | 16.4 | $X$ | 136.23173 | 59.03203 | 238.80135 | 15.23755 | 0.1811632 | 0.22258833 | 2.6965044 | 21 | — | — |
| 481651 2007 $VJ_{175}$ | 17.2 | $X$ | 204.16342 | 168.34881 | 70.57430 | 5.63636 | 0.1070523 | 0.22487847 | 2.6781658 | 21 | — | — |
| 481652 2007 $VR_{181}$ | 18.1 | $X$ | 32.53961 | 121.80063 | 311.85048 | 1.91703 | 0.1869286 | 0.22744356 | 2.6579917 | 21 | — | — |
| 481653 2007 $VA_{193}$ | 16.2 | $X$ | 359.71662 | 200.37558 | 273.01753 | 12.55070 | 0.1185532 | 0.21946541 | 2.7220243 | 21 | — | — |
| 481654 2007 $VS_{197}$ | 16.7 | $X$ | 335.53854 | 249.46883 | 226.82747 | 21.08723 | 0.0688275 | 0.22560721 | 2.6723955 | 21 | — | — |
| 481655 2007 $VX_{223}$ | 17.1 | $X$ | 76.50385 | 208.02297 | 100.64741 | 9.48065 | 0.2008302 | 0.21616935 | 2.7496240 | 21 | 12 11.7 | 21.4 |
| 481656 2007 $VL_{224}$ | 16.7 | $X$ | 86.54243 | 118.25804 | 254.64262 | 10.46041 | 0.3135789 | 0.22885654 | 2.6470400 | 21 | — | — |
| 481657 2007 $VJ_{226}$ | 16.9 | $X$ | 93.28243 | 212.01199 | 151.26570 | 6.19737 | 0.2559020 | 0.22913951 | 2.6448603 | 21 | — | — |
| 481658 2007 $VU_{232}$ | 17.3 | $X$ | 93.96555 | 285.55196 | 67.77916 | 5.96790 | 0.0641354 | 0.22362953 | 2.6881280 | 21 | — | — |
| 481659 2007 $VR_{270}$ | 17.3 | $X$ | 23.60580 | 12.50769 | 80.59673 | 6.98475 | 0.2780884 | 0.22448841 | 2.6812672 | 21 | — | — |
| 481660 2007 $VO_{272}$ | 17.5 | $X$ | 15.66572 | 255.39945 | 233.75891 | 6.51136 | 0.1442569 | 0.23242024 | 2.6199123 | 21 | — | — |
| 481661 2007 $VG_{277}$ | 17.2 | $X$ | 343.74658 | 172.50757 | 250.55060 | 7.35728 | 0.1964687 | 0.21594736 | 2.7515080 | 21 | 12 26.7 | 19.8 |
| 481662 2007 $VE_{282}$ | 16.5 | $X$ | 66.92419 | 358.25681 | 62.21796 | 19.37088 | 0.0891011 | 0.22993602 | 2.6387487 | 21 | — | — |
| 481663 2007 $VM_{292}$ | 17.4 | $X$ | 45.60332 | 320.24584 | 74.95154 | 10.33132 | 0.3107884 | 0.22254685 | 2.6968394 | 21 | — | — |
| 481664 2007 $VV_{298}$ | 17.2 | $X$ | 52.19655 | 239.62285 | 128.67490 | 13.07484 | 0.3163812 | 0.22237654 | 2.6982162 | 21 | — | — |
| 481665 2007 $VX_{300}$ | 16.9 | $X$ | 62.86511 | 277.20335 | 103.10838 | 13.69289 | 0.2869619 | 0.22534011 | 2.6745069 | 21 | — | — |
| 481666 2007 $VJ_{310}$ | 17.3 | $X$ | 29.11531 | 359.86960 | 62.95502 | 5.25972 | 0.2007392 | 0.21803949 | 2.7338789 | 21 | — | — |
| 481667 2007 $VD_{313}$ | 17.2 | $X$ | 14.66323 | 156.26363 | 270.54900 | 3.74126 | 0.1070570 | 0.22034323 | 2.7147900 | 21 | — | — |
| 481668 2007 $VJ_{316}$ | 16.9 | $X$ | 42.74041 | 319.61475 | 80.28471 | 17.00185 | 0.1630874 | 0.21668394 | 2.7452689 | 21 | — | — |
| 481669 2007 $VF_{317}$ | 17.5 | $X$ | 12.38679 | 87.86561 | 14.14426 | 2.70926 | 0.2248411 | 0.21964153 | 2.7205690 | 21 | — | — |
| 481670 2007 $VZ_{318}$ | 18.2 | $X$ | 45.66431 | 60.51955 | 348.95920 | 1.71805 | 0.2038261 | 0.22596739 | 2.6695550 | 21 | — | — |
| 481671 2007 $VP_{324}$ | 17.2 | $X$ | 25.70151 | 55.79011 | 30.40562 | 13.49495 | 0.1471826 | 0.22669340 | 2.6638522 | 21 | — | — |
| 481672 2007 $WY_{10}$ | 16.7 | $X$ | 359.20971 | 33.15873 | 76.45506 | 14.42823 | 0.2720579 | 0.22342176 | 2.6897943 | 21 | — | — |
| 481673 2007 $WF_{53}$ | 17.7 | $X$ | 109.55482 | 316.01382 | 42.91344 | 13.53854 | 0.1754031 | 0.23026070 | 2.6362677 | 21 | — | — |
| 481674 2007 $XB_{51}$ | 17.3 | $X$ | 94.85145 | 299.90467 | 68.33172 | 9.77706 | 0.2054073 | 0.22672238 | 2.6636253 | 21 | — | — |
| 481675 2007 $XR_{56}$ | 16.6 | $X$ | 39.79308 | 90.86102 | 298.40806 | 22.61039 | 0.2781588 | 0.21753050 | 2.7381418 | 21 | — | — |
| 481676 2007 $YT_{3}$ | 15.6 | $X$ | 318.27129 | 238.50287 | 253.40525 | 30.67148 | 0.2692827 | 0.21437950 | 2.7649071 | 21 | — | — |
| 481677 2007 $YP_{20}$ | 17.2 | $X$ | 346.87660 | 195.70202 | 255.15794 | 2.76385 | 0.1465368 | 0.21473219 | 2.7618787 | 21 | — | — |
| 481678 2007 $YW_{34}$ | 17.0 | $X$ | 346.69754 | 249.73627 | 232.72501 | 11.89058 | 0.2105465 | 0.22563974 | 2.6721386 | 21 | — | — |
| 481679 2007 $YZ_{36}$ | 17.2 | $X$ | 0.08841 | 7.92699 | 90.67994 | 8.09865 | 0.2518299 | 0.21838071 | 2.7310304 | 21 | — | — |
| 481680 2007 $YF_{49}$ | 16.5 | $X$ | 263.04355 | 250.63951 | 276.27484 | 7.91341 | 0.0876966 | 0.21028350 | 2.8006957 | 21 | 12 30.0 | 20.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481681 2007 $YG_{53}$ | 16.4 | X | 343.78888 | 134.87244 | 311.64353 | 12.24200 | 0.1806530 | 0.21133295 | 2.7914160 | 21 | — | — |
| 481682 2007 $YJ_{53}$ | 16.8 | X | 352.52779 | 153.39250 | 306.17035 | 13.26712 | 0.2800604 | 0.21647166 | 2.7470634 | 21 | — | — |
| 481683 2007 $YT_{62}$ | 17.1 | X | 3.59000 | 155.56671 | 303.17664 | 3.66370 | 0.0595530 | 0.21585736 | 2.7522728 | 21 | — | — |
| 481684 2008 $AP_{7}$ | 17.0 | X | 16.27216 | 162.55016 | 272.03610 | 2.52414 | 0.2979274 | 0.21848568 | 2.7301556 | 21 | — | — |
| 481685 2008 $AU_{8}$ | 17.8 | X | 338.27475 | 334.03926 | 123.56948 | 4.03093 | 0.2349054 | 0.21200812 | 2.7854864 | 21 | — | — |
| 481686 2008 $AJ_{17}$ | 18.4 | X | 216.10224 | 239.33006 | 138.79878 | 2.85204 | 0.1973770 | 0.31947779 | 2.1192178 | 21 | 4 16.5 | 21.6 |
| 481687 2008 $AT_{18}$ | 17.5 | X | 286.57903 | 212.43956 | 337.20809 | 3.44195 | 0.1427926 | 0.21410424 | 2.7672764 | 21 | — | — |
| 481688 2008 $AX_{21}$ | 17.9 | X | 208.89372 | 333.20074 | 62.35786 | 2.31639 | 0.0883230 | 0.31740211 | 2.1284470 | 21 | 5 4.1 | 20.7 |
| 481689 2008 $AE_{35}$ | 16.5 | X | 305.81880 | 206.89218 | 299.50437 | 11.03652 | 0.0935472 | 0.21292919 | 2.7774479 | 21 | — | — |
| 481690 2008 $AO_{39}$ | 17.4 | X | 33.30796 | 319.77767 | 106.79114 | 5.30699 | 0.2178779 | 0.21772752 | 2.7364898 | 21 | — | — |
| 481691 2008 $AF_{56}$ | 17.4 | X | 36.05245 | 133.89339 | 251.87915 | 1.32709 | 0.2278891 | 0.21317626 | 2.7753014 | 21 | — | — |
| 481692 2008 $AD_{62}$ | 16.8 | X | 37.93110 | 311.94800 | 122.62049 | 10.57080 | 0.1427791 | 0.21915227 | 2.7246166 | 21 | — | — |
| 481693 2008 $AL_{74}$ | 17.5 | X | 54.44895 | 270.17618 | 115.49148 | 12.90483 | 0.2747005 | 0.21734243 | 2.7397212 | 21 | — | — |
| 481694 2008 $AZ_{80}$ | 16.5 | X | 19.57978 | 109.11434 | 303.88873 | 11.96573 | 0.1764413 | 0.21126022 | 2.7920567 | 21 | — | — |
| 481695 2008 $AN_{109}$ | 17.4 | X | 19.02676 | 139.86925 | 293.27303 | 13.49804 | 0.2167367 | 0.21705113 | 2.7421719 | 21 | — | — |
| 481696 2008 $AE_{115}$ | 16.7 | X | 275.94431 | 229.24235 | 318.86632 | 13.84627 | 0.1436156 | 0.21269688 | 2.7794699 | 21 | — | — |
| 481697 2008 $AS_{136}$ | 16.5 | X | 352.54709 | 343.15139 | 136.36446 | 10.31391 | 0.1593791 | 0.21860726 | 2.7291432 | 21 | — | — |
| 481698 2008 $BM_{9}$ | 17.4 | X | 299.92082 | 93.44671 | 86.84569 | 6.96013 | 0.2386999 | 0.21334490 | 2.7738387 | 21 | — | — |
| 481699 2008 $BY_{12}$ | 16.7 | X | 258.76319 | 218.62422 | 308.21048 | 14.09628 | 0.1094275 | 0.20562701 | 2.8428194 | 21 | 12 21.1 | 20.7 |
| 481700 2008 $BL_{34}$ | 17.0 | X | 327.67114 | 342.26141 | 157.49712 | 9.87326 | 0.1464431 | 0.21175923 | 2.7876686 | 21 | — | — |
| 481701 2008 $BC_{49}$ | 16.6 | X | 41.87247 | 7.43081 | 108.22124 | 22.55314 | 0.0457671 | 0.22921761 | 2.6442594 | 21 | 1 20.1 | 19.9 |
| 481702 2008 $CF_{8}$ | 16.6 | X | 53.94980 | 316.89438 | 120.86432 | 13.64554 | 0.1197865 | 0.22218955 | 2.6997298 | 21 | — | — |
| 481703 2008 $CH_{12}$ | 17.4 | X | 303.45506 | 109.83781 | 59.49474 | 2.80613 | 0.1332170 | 0.21262024 | 2.7801377 | 21 | — | — |
| 481704 2008 $CJ_{28}$ | 17.0 | X | 352.94924 | 139.87832 | 332.64155 | 13.07572 | 0.2279054 | 0.21573222 | 2.7533371 | 21 | — | — |
| 481705 2008 $CY_{31}$ | 17.0 | X | 297.76700 | 111.21356 | 330.06061 | 9.98803 | 0.0487220 | 0.19570677 | 2.9380927 | 21 | 10 27.6 | 21.1 |
| 481706 2008 $CT_{35}$ | 17.0 | X | 288.90883 | 139.93400 | 331.06544 | 10.17255 | 0.1052636 | 0.20001333 | 2.8957657 | 21 | 11 17.7 | 20.9 |
| 481707 2008 $CM_{53}$ | 18.6 | X | 190.91555 | 13.60776 | 17.82833 | 1.70100 | 0.0829205 | 0.31594909 | 2.1349677 | 21 | 4 6.6 | 21.1 |
| 481708 2008 $CY_{139}$ | 17.2 | X | 307.27889 | 230.80898 | 306.35928 | 1.78699 | 0.1349696 | 0.21314303 | 2.7755899 | 21 | — | — |
| 481709 2008 $CU_{149}$ | 17.2 | X | 294.23240 | 358.74013 | 168.25673 | 9.63514 | 0.0962571 | 0.20942451 | 2.8083488 | 21 | — | — |
| 481710 2008 $CT_{177}$ | 17.2 | X | 329.02830 | 66.50595 | 75.26537 | 7.66846 | 0.1802368 | 0.21613290 | 2.7499331 | 21 | — | — |
| 481711 2008 $CF_{184}$ | 17.0 | X | 358.18000 | 11.88217 | 124.50895 | 11.43905 | 0.2485328 | 0.21848056 | 2.7301982 | 21 | — | — |
| 481712 2008 $CD_{202}$ | 18.5 | X | 156.60457 | 207.90216 | 228.79941 | 2.22484 | 0.0185058 | 0.31115255 | 2.1568526 | 21 | 4 21.6 | 20.9 |
| 481713 2008 $CZ_{205}$ | 18.4 | X | 156.93908 | 299.37010 | 121.56588 | 4.65188 | 0.0878580 | 0.31037984 | 2.1604309 | 21 | 4 10.1 | 21.1 |
| 481714 2008 $DT$ | 17.4 | X | 24.16565 | 282.83058 | 147.59061 | 10.81025 | 0.1096533 | 0.21287280 | 2.7779383 | 21 | — | — |
| 481715 2008 $EY_{11}$ | 16.8 | X | 336.75329 | 109.20028 | 15.26173 | 15.08294 | 0.1611502 | 0.20990119 | 2.8040954 | 21 | — | — |
| 481716 2008 $EZ_{46}$ | 17.0 | X | 306.08586 | 341.73563 | 169.44022 | 10.91329 | 0.0796603 | 0.20321988 | 2.8652241 | 21 | — | — |
| 481717 2008 $EF_{70}$ | 17.2 | X | 296.51472 | 163.12078 | 13.15239 | 12.96142 | 0.1356173 | 0.21079920 | 2.7961261 | 21 | — | — |
| 481718 2008 $EV_{96}$ | 17.5 | X | 18.19748 | 104.68753 | 331.98387 | 6.96993 | 0.2131161 | 0.21423584 | 2.7661430 | 21 | — | — |
| 481719 2008 $EA_{97}$ | 17.8 | X | 307.32751 | 233.96088 | 28.11438 | 4.95791 | 0.1177088 | 0.29964680 | 2.2117173 | 21 | 2 28.5 | 20.4 |
| 481720 2008 $EP_{117}$ | 16.4 | X | 300.68712 | 44.82584 | 134.14614 | 26.08502 | 0.0879556 | 0.21684585 | 2.7439023 | 21 | — | — |
| 481721 2008 $ER_{154}$ | 16.5 | X | 302.01291 | 248.56971 | 218.79390 | 8.84561 | 0.0779273 | 0.19616048 | 2.9335604 | 21 | 12 7.9 | 20.3 |
| 481722 2008 $EO_{160}$ | 16.9 | X | 166.44861 | 37.21040 | 170.65031 | 10.24110 | 0.0645228 | 0.18786537 | 3.0192904 | 21 | 10 30.9 | 21.5 |
| 481723 2008 $EO_{167}$ | 16.6 | X | 186.11758 | 49.74503 | 114.41976 | 10.24333 | 0.0034727 | 0.18177471 | 3.0863635 | 21 | 10 3.9 | 21.1 |
| 481724 2008 $EU_{167}$ | 17.0 | X | 292.01532 | 282.45657 | 186.93801 | 10.27958 | 0.1250702 | 0.19612336 | 2.9339306 | 21 | 11 22.1 | 20.7 |
| 481725 2008 $ER_{168}$ | 16.0 | X | 234.53632 | 101.81198 | 17.45561 | 11.54969 | 0.1263274 | 0.18414268 | 3.0598472 | 21 | 9 20.8 | 20.6 |
| 481726 2008 $FW_{22}$ | 16.2 | X | 268.87096 | 88.59588 | 44.88272 | 11.46704 | 0.0745710 | 0.19299459 | 2.9655548 | 21 | 11 22.9 | 20.1 |
| 481727 2008 $FE_{23}$ | 17.5 | X | 264.76840 | 226.06158 | 61.28252 | 5.85534 | 0.1520142 | 0.29266912 | 2.2467329 | 21 | 2 10.2 | 20.8 |
| 481728 2008 $FM_{26}$ | 15.6 | X | 112.02991 | 218.96202 | 30.22630 | 28.57394 | 0.1276228 | 0.17838917 | 3.1252905 | 21 | 10 24.2 | 20.3 |
| 481729 2008 $FP_{70}$ | 16.0 | X | 161.27568 | 344.85599 | 217.18890 | 27.65437 | 0.1112042 | 0.17973361 | 3.1096858 | 21 | 10 13.7 | 21.0 |
| 481730 2008 $FJ_{100}$ | 16.8 | X | 259.36648 | 330.12941 | 174.82437 | 10.59569 | 0.0881262 | 0.19170869 | 2.9788012 | 21 | 11 25.9 | 21.0 |
| 481731 2008 $FU_{101}$ | 15.8 | X | 47.25891 | 224.46080 | 73.09543 | 9.89975 | 0.0729865 | 0.17459326 | 3.1704268 | 21 | 10 6.4 | 20.2 |
| 481732 2008 $FD_{107}$ | 16.7 | X | 276.89489 | 85.57495 | 32.83838 | 13.73119 | 0.0635059 | 0.19111186 | 2.9849997 | 21 | 11 14.9 | 20.7 |
| 481733 2008 $GJ_{2}$ | 16.2 | X | 0.23154 | 174.43040 | 286.21772 | 29.97256 | 0.2423952 | 0.22282936 | 2.6945594 | 21 | — | — |
| 481734 2008 $GS_{19}$ | 15.9 | X | 10.60122 | 297.48060 | 94.81861 | 11.11700 | 0.1110129 | 0.18860987 | 3.0113398 | 21 | 12 15.5 | 19.6 |
| 481735 2008 $GP_{21}$ | 15.6 | X | 168.77001 | 153.31871 | 51.84613 | 31.11998 | 0.2937999 | 0.18324274 | 3.0698574 | 21 | 10 31.1 | 21.3 |
| 481736 2008 $GS_{22}$ | 17.5 | X | 289.03790 | 58.35696 | 168.45426 | 8.16856 | 0.1714618 | 0.21300197 | 2.7768151 | 21 | — | — |
| 481737 2008 $GX_{22}$ | 18.3 | X | 0.98751 | 64.62866 | 149.48224 | 4.43334 | 0.0675409 | 0.30113387 | 2.2044300 | 21 | 3 20.2 | 20.3 |
| 481738 2008 $GP_{23}$ | 16.4 | X | 215.03163 | 99.89577 | 39.27077 | 11.43676 | 0.0790301 | 0.18333401 | 3.0688385 | 21 | 9 30.2 | 21.0 |
| 481739 2008 $GB_{51}$ | 16.9 | X | 188.80748 | 161.37597 | 30.05975 | 8.49959 | 0.0998800 | 0.18763814 | 3.0217275 | 21 | 10 30.0 | 21.6 |
| 481740 2008 $GK_{80}$ | 16.5 | X | 336.46232 | 263.40613 | 125.93102 | 7.49290 | 0.0762851 | 0.18388057 | 3.0627543 | 21 | 10 21.3 | 20.5 |
| 481741 2008 $GL_{103}$ | 15.8 | X | 11.28788 | 302.61483 | 46.36358 | 18.07560 | 0.1349554 | 0.17908219 | 3.1172223 | 21 | 10 26.0 | 19.6 |
| 481742 2008 $GH_{115}$ | 16.2 | X | 6.97896 | 279.36654 | 53.63579 | 16.73741 | 0.0939091 | 0.17381545 | 3.1798781 | 21 | 9 29.9 | 20.5 |
| 481743 2008 $GC_{120}$ | 17.8 | X | 299.70449 | 181.02051 | 47.82680 | 7.43938 | 0.0562075 | 0.28939325 | 2.2636561 | 21 | 1 14.2 | 20.8 |
| 481744 2008 $GT_{126}$ | 14.0 | X | 356.96337 | 126.45631 | 126.36058 | 11.00628 | 0.1211397 | 0.08362195 | 5.1791185 | 21 | 5 28.4 | 20.3 |
| 481745 2008 $GN_{130}$ | 16.2 | X | 123.10814 | 216.37372 | 33.53645 | 11.43763 | 0.0325370 | 0.18213144 | 3.0823321 | 21 | 10 29.6 | 20.7 |
| 481746 2008 $GX_{132}$ | 16.1 | X | 113.89571 | 139.01117 | 126.26380 | 10.93578 | 0.0531785 | 0.18008869 | 3.1055970 | 21 | 11 12.3 | 20.8 |
| 481747 2008 $GD_{140}$ | 13.8 | X | 40.82531 | 358.89982 | 218.03776 | 9.73876 | 0.1008166 | 0.08295902 | 5.2066732 | 21 | 6 15.3 | 20.4 |
| 481748 2008 $GE_{144}$ | 16.7 | X | 276.86482 | 64.84766 | 79.46233 | 10.01645 | 0.0444144 | 0.19281539 | 2.9673919 | 21 | 12 21.6 | 20.8 |
| 481749 2008 $HP_{19}$ | 16.1 | X | 163.65578 | 354.46898 | 207.61452 | 29.38391 | 0.1530814 | 0.17937248 | 3.1138583 | 21 | 10 17.0 | 21.2 |
| 481750 2008 $HN_{23}$ | 16.0 | X | 333.10207 | 307.92530 | 100.55268 | 13.64148 | 0.1000901 | 0.18414887 | 3.0597787 | 21 | 11 11.2 | 20.0 |
| 481751 2008 $HQ_{37}$ | 15.5 | X | 124.34018 | 3.69167 | 230.78224 | 14.16741 | 0.1292179 | 0.17802236 | 3.1295821 | 21 | 10 16.9 | 20.5 |
| 481752 2008 $HE_{53}$ | 16.1 | X | 143.29205 | 126.14359 | 111.54085 | 10.52496 | 0.0377613 | 0.18167806 | 3.0874580 | 21 | 11 11.0 | 20.8 |
| 481753 2008 $HU_{57}$ | 16.6 | X | 128.82639 | 152.90868 | 131.33374 | 11.53075 | 0.0739978 | 0.18736234 | 3.0246921 | 21 | 12 19.9 | 21.3 |
| 481754 2008 $HK_{69}$ | 15.4 | X | 108.69231 | 158.46577 | 102.52401 | 17.77876 | 0.1651353 | 0.17862852 | 3.1224981 | 21 | 11 13.3 | 20.6 |
| 481755 2008 $JM_{3}$ | 18.4 | X | 298.52013 | 54.54474 | 39.14282 | 22.31300 | 0.0907935 | 0.41296782 | 1.7859059 | 21 | — | — |
| 481756 2008 $JM_{13}$ | 16.1 | X | 320.90800 | 309.06690 | 92.28560 | 11.02349 | 0.1029694 | 0.17763709 | 3.1341056 | 21 | 10 13.3 | 20.2 |
| 481757 2008 $JC_{29}$ | 17.3 | X | 208.89580 | 193.80706 | 82.41996 | 12.38012 | 0.2232511 | 0.27323844 | 2.3520227 | 21 | — | — |
| 481758 2008 $KF$ | 16.2 | X | 128.38312 | 187.74275 | 44.30858 | 12.03232 | 0.1597518 | 0.17904161 | 3.1176934 | 21 | 10 23.5 | 21.2 |
| 481759 2008 $KZ_{1}$ | 15.4 | X | 135.38401 | 6.54582 | 231.57964 | 26.95832 | 0.0813326 | 0.17752048 | 3.1354778 | 21 | 10 30.6 | 20.3 |
| 481760 2008 $KG_{24}$ | 15.8 | X | 327.08210 | 257.74357 | 135.55112 | 16.81679 | 0.0774138 | 0.17331878 | 3.1859500 | 21 | 10 13.5 | 20.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481761 2008 $KQ_{27}$ | 18.1 | X | 45.76837 | 60.93126 | 101.18288 | 6.08772 | 0.0686463 | 0.29740611 | 2.2228123 | 21 | 3 22.0 | 20.3 |
| 481762 2008 $LB_{12}$ | 16.5 | X | 230.28053 | 100.61663 | 94.01835 | 11.69514 | 0.1216356 | 0.19063287 | 2.9899978 | 21 | 12 15.1 | 20.8 |
| 481763 2008 $MD$ | 17.8 | X | 241.00718 | 105.23317 | 201.39001 | 6.69315 | 0.1294787 | 0.28627331 | 2.2800733 | 21 | 2 8.6 | 21.3 |
| 481764 2008 $MB_2$ | 16.1 | X | 80.29664 | 157.83085 | 130.79835 | 10.14332 | 0.0682759 | 0.17572659 | 3.1567806 | 21 | 11 3.6 | 20.8 |
| 481765 2008 $ON_3$ | 17.3 | X | 117.54917 | 165.04361 | 209.65204 | 6.49152 | 0.3811840 | 0.25897253 | 2.4376251 | 21 | 2 2.9 | 20.9 |
| 481766 2008 $PD_9$ | 17.4 | X | 142.35596 | 224.05603 | 158.48209 | 6.58479 | 0.2369831 | 0.26788421 | 2.3832594 | 21 | 2 20.8 | 20.9 |
| 481767 2008 $QN_8$ | 18.0 | X | 129.16405 | 169.40976 | 176.38287 | 1.25963 | 0.2051932 | 0.25879215 | 2.4387577 | 21 | — | — |
| 481768 2008 $QZ_{34}$ | 18.0 | X | 117.64589 | 22.34763 | 350.24448 | 1.78939 | 0.2210121 | 0.26024046 | 2.4297011 | 21 | 1 10.6 | 20.9 |
| 481769 2008 $RL_{37}$ | 18.0 | X | 108.62678 | 243.26992 | 185.95125 | 2.64440 | 0.1759930 | 0.26570456 | 2.3962753 | 21 | 3 6.3 | 21.0 |
| 481770 2008 $RY_{40}$ | 17.8 | X | 150.80276 | 171.46868 | 175.12812 | 6.83566 | 0.1653401 | 0.26096952 | 2.4251737 | 21 | 1 7.8 | 21.3 |
| 481771 2008 $RY_{76}$ | 17.6 | X | 235.68460 | 126.68110 | 153.24463 | 7.57002 | 0.1960044 | 0.26958621 | 2.3732178 | 21 | 1 4.7 | 21.7 |
| 481772 2008 $RC_{89}$ | 17.3 | X | 142.77832 | 117.91987 | 233.56824 | 5.67937 | 0.1397760 | 0.25915545 | 2.4364780 | 21 | 1 2.1 | 20.6 |
| 481773 2008 $SO_4$ | 17.3 | X | 141.75557 | 3.71683 | 29.72148 | 5.80185 | 0.3257332 | 0.26485130 | 2.4014192 | 21 | 3 16.9 | 21.3 |
| 481774 2008 $SW_4$ | 17.2 | X | 108.37472 | 350.47987 | 66.06427 | 5.62313 | 0.1727706 | 0.26249538 | 2.4157664 | 21 | 2 20.1 | 20.1 |
| 481775 2008 $SX_7$ | 18.4 | X | 126.44504 | 6.07317 | 347.94894 | 6.48787 | 0.4834374 | 0.25919239 | 2.4362464 | 21 | 2 1.0 | 22.4 |
| 481776 2008 $SB_{32}$ | 17.2 | X | 211.24508 | 308.45862 | 320.62381 | 5.93305 | 0.1525213 | 0.25804279 | 2.4434769 | 21 | — | — |
| 481777 2008 $SQ_{89}$ | 17.9 | X | 125.11633 | 164.35339 | 235.84782 | 2.40985 | 0.1702035 | 0.26363589 | 2.4087942 | 21 | 2 15.7 | 20.9 |
| 481778 2008 $SW_{98}$ | 17.5 | X | 113.57319 | 273.36821 | 104.61211 | 2.62372 | 0.1237861 | 0.25532586 | 2.4607804 | 21 | — | — |
| 481779 2008 $SR_{114}$ | 18.7 | X | 68.40762 | 280.74854 | 143.82531 | 4.33159 | 0.2392238 | 0.25308204 | 2.4753037 | 21 | — | — |
| 481780 2008 $SL_{116}$ | 17.7 | X | 96.78770 | 18.29991 | 66.00402 | 3.76264 | 0.1893853 | 0.26224229 | 2.4173205 | 21 | 3 15.7 | 20.5 |
| 481781 2008 $SM_{131}$ | 17.6 | X | 135.22322 | 18.02407 | 10.61772 | 6.66901 | 0.1556242 | 0.26127429 | 2.4232874 | 21 | 2 14.8 | 21.0 |
| 481782 2008 $SM_{138}$ | 17.6 | X | 119.43175 | 191.74101 | 186.13233 | 4.50649 | 0.2902323 | 0.25554344 | 2.4593833 | 21 | 1 29.4 | 20.9 |
| 481783 2008 $SD_{164}$ | 17.8 | X | 143.22078 | 225.36246 | 157.43299 | 1.62176 | 0.1879265 | 0.26399099 | 2.4066336 | 21 | 2 17.3 | 21.1 |
| 481784 2008 $ST_{172}$ | 17.6 | X | 79.19930 | 285.66698 | 125.73242 | 2.92303 | 0.2088227 | 0.25325364 | 2.4741855 | 21 | — | — |
| 481785 2008 $SE_{289}$ | 18.5 | X | 40.85920 | 105.54921 | 297.41691 | 1.77852 | 0.2449498 | 0.24360562 | 2.5390885 | 21 | — | — |
| 481786 2008 $SD_{291}$ | 17.8 | X | 147.48016 | 179.48950 | 143.98611 | 3.71515 | 0.1538248 | 0.25399536 | 2.4693664 | 21 | — | — |
| 481787 2008 $SF_{298}$ | 17.9 | X | 325.79896 | 331.94884 | 20.19656 | 21.07134 | 0.0766972 | 0.37632888 | 1.9000179 | 21 | 9 13.3 | 19.6 |
| 481788 2008 $SD_{300}$ | 17.8 | X | 73.20335 | 156.68975 | 219.20705 | 8.58789 | 0.0715489 | 0.24543850 | 2.5264319 | 21 | — | — |
| 481789 2008 $SQ_{304}$ | 17.9 | X | 107.46866 | 309.48015 | 67.42501 | 2.28371 | 0.1999161 | 0.25404404 | 2.4690509 | 21 | — | — |
| 481790 2008 $TF_4$ | 19.2 | X | 345.59533 | 113.24381 | 213.38138 | 24.06408 | 0.3197793 | 0.37808352 | 1.8941348 | 21 | 8 20.9 | 20.2 |
| 481791 2008 $TZ_{21}$ | 15.8 | X | 200.04088 | 205.03266 | 220.41432 | 5.29155 | 0.2948287 | 0.12381090 | 3.9868521 | 21 | 6 5.8 | 22.6 |
| 481792 2008 $TZ_{25}$ | 17.9 | X | 312.78706 | 78.69378 | 344.02929 | 19.00636 | 0.1504914 | 0.38282074 | 1.8784764 | 21 | 12 14.9 | 19.5 |
| 481793 2008 $TT_{35}$ | 17.6 | X | 86.61658 | 195.83595 | 219.85290 | 1.89890 | 0.1694965 | 0.25752928 | 2.4467240 | 21 | 1 12.9 | 20.1 |
| 481794 2008 $TC_{42}$ | 17.2 | X | 56.27347 | 97.44418 | 346.90114 | 13.23940 | 0.2074893 | 0.25381320 | 2.4705477 | 21 | — | — |
| 481795 2008 $TO_{61}$ | 17.9 | X | 76.68149 | 188.79720 | 234.91390 | 1.79946 | 0.2021120 | 0.25464187 | 2.4651849 | 21 | 1 11.5 | 20.0 |
| 481796 2008 $TC_{66}$ | 17.7 | X | 119.92574 | 347.26059 | 52.82972 | 3.13129 | 0.2148292 | 0.25989136 | 2.4318763 | 21 | 2 18.9 | 20.8 |
| 481797 2008 $TL_{66}$ | 17.9 | X | 123.43579 | 305.26657 | 102.21919 | 1.88394 | 0.2066460 | 0.26172766 | 2.4204882 | 21 | 3 2.6 | 21.1 |
| 481798 2008 $TY_{66}$ | 18.1 | X | 86.18478 | 285.82134 | 138.08180 | 1.83638 | 0.1698244 | 0.25630891 | 2.4544842 | 21 | 1 24.6 | 20.6 |
| 481799 2008 $TT_{90}$ | 18.0 | X | 21.74288 | 260.08489 | 190.33803 | 6.94484 | 0.2500518 | 0.24490984 | 2.5300662 | 21 | — | — |
| 481800 2008 $TO_{91}$ | 17.6 | X | 108.51110 | 307.83205 | 81.97812 | 2.49674 | 0.1912006 | 0.25581423 | 2.4576475 | 21 | 1 17.2 | 20.3 |
| 481801 2008 $TS_{97}$ | 17.2 | X | 359.23088 | 265.42658 | 251.00603 | 5.57855 | 0.0905794 | 0.26103979 | 2.4247385 | 21 | — | — |
| 481802 2008 $TU_{102}$ | 17.8 | X | 97.79677 | 349.88926 | 29.26221 | 3.91783 | 0.2029735 | 0.25287301 | 2.4766676 | 21 | — | — |
| 481803 2008 $TW_{108}$ | 17.8 | X | 84.94330 | 348.59628 | 57.87440 | 5.77850 | 0.1735712 | 0.25497729 | 2.4630225 | 21 | — | — |
| 481804 2008 $TP_{112}$ | 17.5 | X | 41.04414 | 62.83824 | 310.56997 | 3.90372 | 0.2550322 | 0.23977046 | 2.5660922 | 21 | — | — |
| 481805 2008 $TE_{135}$ | 17.9 | X | 98.78343 | 124.20243 | 284.89129 | 1.57225 | 0.1923390 | 0.25652067 | 2.4531333 | 21 | 1 28.2 | 20.4 |
| 481806 2008 $TV_{169}$ | 18.0 | X | 79.39670 | 13.34969 | 49.97461 | 2.05438 | 0.1733229 | 0.25587228 | 2.4572757 | 21 | 1 12.6 | 20.3 |
| 481807 2008 $TT_{173}$ | 16.0 | X | 202.62579 | 11.77318 | 53.24707 | 3.63985 | 0.1906745 | 0.12675682 | 3.9248387 | 21 | 6 9.2 | 22.3 |
| 481808 2008 $TY_{176}$ | 18.6 | X | 73.38064 | 189.69533 | 230.52118 | 3.77413 | 0.2272254 | 0.25220618 | 2.4810313 | 21 | 1 3.3 | 20.6 |
| 481809 2008 $TL_{182}$ | 18.0 | X | 51.46962 | 15.09965 | 68.86994 | 7.07179 | 0.1300075 | 0.25145868 | 2.4859457 | 21 | — | — |
| 481810 2008 $UB_{49}$ | 17.6 | X | 42.25958 | 40.34129 | 28.07908 | 4.80352 | 0.1326874 | 0.24484420 | 2.5305184 | 21 | — | — |
| 481811 2008 $UN_{51}$ | 17.7 | X | 76.75199 | 148.44252 | 248.80029 | 2.86382 | 0.1934423 | 0.24748055 | 2.5125150 | 21 | — | — |
| 481812 2008 $UU_{53}$ | 17.1 | X | 172.52914 | 279.99879 | 54.81651 | 14.99098 | 0.1870173 | 0.25763212 | 2.4460728 | 21 | 1 21.5 | 21.2 |
| 481813 2008 $UP_{54}$ | 17.7 | X | 55.91181 | 226.32944 | 54.13404 | 21.98160 | 0.0659844 | 0.37315487 | 1.9107769 | 21 | 10 24.6 | 19.8 |
| 481814 2008 $UC_{57}$ | 18.3 | X | 78.45621 | 30.59108 | 60.04360 | 2.95467 | 0.2254296 | 0.25779339 | 2.4450525 | 21 | 2 28.9 | 20.5 |
| 481815 2008 $UK_{58}$ | 17.5 | X | 155.29470 | 130.99512 | 202.15846 | 14.03357 | 0.1700992 | 0.25617180 | 2.4553599 | 21 | — | — |
| 481816 2008 $UD_{66}$ | 16.8 | X | 307.36426 | 244.43414 | 244.07480 | 14.32203 | 0.0999229 | 0.23642176 | 2.5902664 | 21 | — | — |
| 481817 2008 $UL_{90}$ | 18.6 | X | 121.27848 | 183.65309 | 81.13821 | 24.30851 | 0.3798103 | 1.70083878 | 0.6950680 | 21 | — | — |
| 481818 2008 $UL_{112}$ | 17.4 | X | 132.06633 | 64.36199 | 297.17151 | 2.92656 | 0.1335433 | 0.25534012 | 2.4606887 | 21 | 1 2.6 | 20.6 |
| 481819 2008 $UK_{114}$ | 17.3 | X | 171.72261 | 65.33376 | 242.54751 | 5.97782 | 0.0869646 | 0.25199167 | 2.4824391 | 21 | — | — |
| 481820 2008 $UV_{114}$ | 17.1 | X | 147.36418 | 53.01041 | 279.94759 | 5.34034 | 0.1309006 | 0.25264990 | 2.4781255 | 21 | — | — |
| 481821 2008 $UE_{180}$ | 15.7 | X | 228.69061 | 133.49332 | 264.92798 | 4.75767 | 0.2202684 | 0.12523598 | 3.9565499 | 21 | 5 29.3 | 22.0 |
| 481822 2008 $UR_{184}$ | 17.8 | X | 143.72859 | 339.08270 | 230.29372 | 24.91107 | 0.0447789 | 0.37547476 | 1.9028982 | 21 | 10 28.5 | 19.9 |
| 481823 2008 $UY_{194}$ | 17.4 | X | 74.02761 | 196.77145 | 256.67534 | 1.58205 | 0.1639963 | 0.25559880 | 2.4590282 | 21 | 2 13.0 | 19.9 |
| 481824 2008 $UU_{226}$ | 17.8 | X | 46.78148 | 137.52904 | 346.40153 | 2.31683 | 0.1557322 | 0.25479960 | 2.4641675 | 21 | 2 5.1 | 19.8 |
| 481825 2008 $UD_{235}$ | 19.1 | X | 48.64905 | 175.58940 | 233.73985 | 6.35266 | 0.2874949 | 0.24577039 | 2.5241569 | 21 | — | — |
| 481826 2008 $UK_{263}$ | 17.8 | X | 124.21613 | 3.34593 | 25.33598 | 2.64175 | 0.2357562 | 0.25607405 | 2.4559848 | 21 | 2 12.4 | 21.1 |
| 481827 2008 $UY_{300}$ | 17.7 | X | 102.58842 | 3.84791 | 241.84623 | 17.90084 | 0.0548355 | 0.37596585 | 1.9012408 | 21 | 10 25.7 | 19.9 |
| 481828 2008 $UU_{343}$ | 18.1 | X | 29.37089 | 22.80061 | 40.63884 | 7.61514 | 0.1919815 | 0.24032155 | 2.5621678 | 21 | — | — |
| 481829 2008 $UW_{350}$ | 17.6 | X | 43.41068 | 113.53368 | 31.20420 | 5.60225 | 0.0540095 | 0.26639214 | 2.3921502 | 21 | 2 25.3 | 20.3 |
| 481830 2008 $UC_{368}$ | 17.5 | X | 102.63604 | 316.42894 | 81.31324 | 7.95206 | 0.1579702 | 0.25405290 | 2.4689935 | 21 | 1 14.6 | 20.4 |
| 481831 2008 $VE_{33}$ | 17.9 | X | 65.92225 | 341.56647 | 123.06202 | 3.35310 | 0.1576907 | 0.25667044 | 2.4521789 | 21 | 2 14.4 | 20.3 |
| 481832 2008 $VG_{57}$ | 17.1 | X | 101.07177 | 337.08457 | 63.51319 | 5.73932 | 0.1817060 | 0.25375754 | 2.4709090 | 21 | 1 20.5 | 19.9 |
| 481833 2008 $VY_{65}$ | 17.9 | X | 108.15976 | 309.47123 | 104.02470 | 2.52446 | 0.1782844 | 0.25753628 | 2.4466796 | 21 | 2 15.5 | 20.7 |
| 481834 2008 $VS_{72}$ | 17.1 | X | 140.76742 | 330.48810 | 340.83434 | 2.10819 | 0.2084344 | 0.24432114 | 2.5341288 | 21 | — | — |
| 481835 2008 $VS_{76}$ | 17.4 | X | 79.32883 | 269.90398 | 127.61515 | 3.73841 | 0.1765343 | 0.24777261 | 2.5105402 | 21 | — | — |
| 481836 2008 $VW_{78}$ | 16.1 | X | 108.12711 | 73.49048 | 273.24587 | 15.85807 | 0.3495140 | 0.24328590 | 2.5413126 | 21 | — | — |
| 481837 2008 $WR_1$ | 17.2 | X | 116.75961 | 285.44322 | 108.05419 | 3.67168 | 0.1842305 | 0.25751786 | 2.4467963 | 21 | 2 1.2 | 20.2 |
| 481838 2008 $WC_{38}$ | 17.6 | X | 160.60217 | 228.25059 | 86.72102 | 1.22958 | 0.0799081 | 0.24758093 | 2.5118359 | 21 | — | — |
| 481839 2008 $WS_{45}$ | 16.1 | X | 212.56991 | 164.98724 | 268.05274 | 3.51296 | 0.2707095 | 0.12465282 | 3.9688801 | 21 | 6 23.4 | 22.8 |
| 481840 2008 $WC_{46}$ | 15.8 | X | 230.17758 | 351.01505 | 49.13168 | 2.59066 | 0.3143942 | 0.12512009 | 3.9589925 | 21 | 5 26.9 | 22.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481841 2008 $WS_{48}$ | 17.4 | X | 89.53418 | 256.80687 | 140.27429 | 1.64103 | 0.1637338 | 0.25096178 | 2.4892260 | 21 | — | — |
| 481842 2008 $WV_{73}$ | 16.6 | X | 53.18351 | 351.91365 | 81.51720 | 14.49631 | 0.1634096 | 0.24398092 | 2.5364841 | 21 | — | — |
| 481843 2008 $WE_{82}$ | 16.1 | X | 217.61710 | 217.16608 | 205.47183 | 6.57041 | 0.2518704 | 0.12455386 | 3.9709821 | 21 | 6 16.0 | 22.7 |
| 481844 2008 $WH_{94}$ | 16.0 | X | 336.82590 | 243.36989 | 263.01134 | 27.40650 | 0.4017663 | 0.23383937 | 2.6093017 | 21 | — | — |
| 481845 2008 $WG_{98}$ | 16.7 | X | 14.01037 | 354.07296 | 80.57084 | 18.52832 | 0.2981573 | 0.23527149 | 2.5987022 | 21 | — | — |
| 481846 2008 $WO_{112}$ | 17.5 | X | 28.37989 | 23.51350 | 63.38065 | 3.37730 | 0.1122866 | 0.24351292 | 2.5397329 | 21 | — | — |
| 481847 2008 $WN_{133}$ | 17.4 | X | 323.05731 | 88.26595 | 268.99057 | 20.07040 | 0.1426724 | 0.37359765 | 1.9092668 | 21 | 8 12.7 | 19.1 |
| 481848 2008 $WV_{133}$ | 17.8 | X | 232.42956 | 200.09719 | 251.80383 | 19.18688 | 0.0706762 | 0.36767531 | 1.9297145 | 21 | 8 19.1 | 20.5 |
| 481849 2008 $WO_{138}$ | 17.7 | X | 76.75789 | 346.06472 | 94.01091 | 6.20434 | 0.2147272 | 0.25338309 | 2.4733427 | 21 | 2 9.6 | 20.0 |
| 481850 2008 $WU_{139}$ | 16.7 | X | 356.25447 | 40.29952 | 90.19163 | 17.69946 | 0.1099468 | 0.24441750 | 2.5334627 | 21 | — | — |
| 481851 2008 $XR$ | 18.2 | X | 269.76206 | 28.59921 | 58.11731 | 23.54365 | 0.1559936 | 0.37418352 | 1.9072734 | 21 | 10 23.5 | 19.9 |
| 481852 2008 $XY_{5}$ | 15.5 | X | 226.76733 | 41.03889 | 2.96084 | 8.22998 | 0.3355175 | 0.12522852 | 3.9567068 | 21 | 5 26.4 | 22.3 |
| 481853 2008 $XK_{15}$ | 17.8 | X | 279.63411 | 209.92122 | 255.76375 | 18.11533 | 0.0573175 | 0.38001723 | 1.8877038 | 21 | 12 17.9 | 19.0 |
| 481854 2008 $XW_{16}$ | 17.4 | X | 18.80910 | 202.37576 | 245.03578 | 9.59327 | 0.0870079 | 0.24089110 | 2.5581277 | 21 | — | — |
| 481855 2008 $XR_{36}$ | 16.4 | X | 91.80778 | 12.36576 | 262.02739 | 11.75986 | 0.0783036 | 0.22143273 | 2.7058778 | 21 | 10 31.4 | 20.5 |
| 481856 2008 $XX_{41}$ | 17.5 | X | 335.48288 | 210.96144 | 292.28398 | 9.31938 | 0.2254377 | 0.23701489 | 2.5859431 | 21 | — | — |
| 481857 2008 $XE_{47}$ | 17.4 | X | 232.80673 | 137.06500 | 287.15722 | 21.86134 | 0.0960423 | 0.35664528 | 1.9692993 | 21 | 7 13.5 | 19.6 |
| 481858 2008 $XQ_{47}$ | 17.8 | X | 20.76832 | 113.45830 | 349.76997 | 0.37229 | 0.0830940 | 0.24061169 | 2.5601077 | 21 | — | — |
| 481859 2008 $YB_{8}$ | 17.1 | X | 54.38706 | 267.53869 | 153.03242 | 3.63368 | 0.1790201 | 0.24062695 | 2.5599994 | 21 | — | — |
| 481860 2008 $YB_{24}$ | 16.7 | X | 31.84599 | 345.42393 | 113.49711 | 25.38031 | 0.2149832 | 0.24114256 | 2.5563489 | 21 | — | — |
| 481861 2008 $YZ_{34}$ | 16.9 | X | 321.03454 | 35.53985 | 89.34043 | 14.57990 | 0.2163398 | 0.23030448 | 2.6359336 | 21 | — | — |
| 481862 2008 $YO_{40}$ | 17.2 | X | 0.32464 | 37.49570 | 68.36019 | 4.58863 | 0.1569817 | 0.23405230 | 2.6077189 | 21 | — | — |
| 481863 2008 $YZ_{48}$ | 16.9 | X | 295.71204 | 210.50504 | 317.17975 | 6.64336 | 0.1188097 | 0.23083748 | 2.6318745 | 21 | — | — |
| 481864 2008 $YH_{50}$ | 16.4 | X | 242.04218 | 240.09206 | 315.53839 | 12.56413 | 0.1165448 | 0.22399962 | 2.6851663 | 21 | — | — |
| 481865 2008 $YB_{52}$ | 17.5 | X | 94.60902 | 29.34693 | 0.15254 | 2.00491 | 0.2122248 | 0.24301830 | 2.5431778 | 21 | 1 1.9 | 20.2 |
| 481866 2008 $YE_{54}$ | 17.1 | X | 336.05179 | 134.16353 | 311.96505 | 21.36038 | 0.0433768 | 0.22407623 | 2.6845543 | 21 | — | — |
| 481867 2008 $YD_{57}$ | 16.8 | X | 105.67474 | 55.90581 | 325.01055 | 3.24280 | 0.1972397 | 0.24574748 | 2.5243138 | 21 | 1 4.6 | 19.8 |
| 481868 2008 $YE_{78}$ | 16.6 | X | 296.26392 | 235.49685 | 289.66509 | 12.55770 | 0.0876263 | 0.23069848 | 2.6329315 | 21 | — | — |
| 481869 2008 $YB_{90}$ | 16.8 | X | 123.20339 | 26.41970 | 275.54216 | 7.11413 | 0.1192929 | 0.22883058 | 2.6472401 | 21 | — | — |
| 481870 2008 $YU_{91}$ | 17.5 | X | 38.83440 | 78.31960 | 323.28226 | 1.52496 | 0.0378857 | 0.23143027 | 2.6273783 | 21 | — | — |
| 481871 2008 $YR_{92}$ | 18.2 | X | 35.52291 | 86.07183 | 351.43180 | 1.22834 | 0.1716454 | 0.23961662 | 2.5671904 | 21 | — | — |
| 481872 2008 $YD_{105}$ | 17.2 | X | 93.03578 | 246.91386 | 127.58007 | 4.15711 | 0.2577631 | 0.24090500 | 2.5580293 | 21 | — | — |
| 481873 2008 $YV_{110}$ | 17.6 | X | 316.05522 | 93.41582 | 71.58860 | 5.82211 | 0.2020708 | 0.24009776 | 2.5637596 | 21 | — | — |
| 481874 2008 $YY_{114}$ | 17.9 | X | 49.97308 | 303.61596 | 101.75218 | 5.38501 | 0.2641046 | 0.23899696 | 2.5716260 | 21 | — | — |
| 481875 2008 $YN_{118}$ | 17.7 | X | 59.23451 | 164.80494 | 300.16005 | 13.63838 | 0.0454675 | 0.24632450 | 2.5203700 | 21 | 1 26.2 | 20.6 |
| 481876 2008 $YF_{125}$ | 17.4 | X | 352.61366 | 75.40451 | 98.54794 | 4.18074 | 0.1230120 | 0.24581105 | 2.5238785 | 21 | 1 12.4 | 20.3 |
| 481877 2008 $YH_{137}$ | 17.2 | X | 234.39932 | 330.67812 | 264.94546 | 2.30375 | 0.1267940 | 0.23401709 | 2.6079804 | 21 | — | — |
| 481878 2008 $YA_{143}$ | 17.8 | X | 42.38105 | 101.75076 | 299.91416 | 5.81764 | 0.1962053 | 0.23470834 | 2.6028573 | 21 | — | — |
| 481879 2008 $YP_{147}$ | 17.5 | X | 50.61711 | 141.80567 | 295.33495 | 12.61625 | 0.1410780 | 0.24300306 | 2.5432842 | 21 | — | — |
| 481880 2008 $YU_{153}$ | 18.0 | X | 7.59736 | 141.60950 | 328.86688 | 1.89571 | 0.1556558 | 0.23716855 | 2.5848260 | 21 | — | — |
| 481881 2008 $YH_{159}$ | 16.6 | X | 92.04941 | 47.04043 | 310.13076 | 31.36044 | 0.1998486 | 0.23365131 | 2.6107016 | 21 | — | — |
| 481882 2008 $YY_{159}$ | 17.8 | X | 77.29891 | 91.36506 | 301.59607 | 2.70696 | 0.2825359 | 0.24045652 | 2.5612090 | 21 | — | — |
| 481883 2008 $YD_{162}$ | 17.4 | X | 0.31170 | 10.09272 | 104.13374 | 10.80774 | 0.1519360 | 0.23787460 | 2.5797087 | 21 | — | — |
| 481884 2008 $YS_{166}$ | 17.5 | X | 74.27916 | 314.44525 | 280.42957 | 17.53728 | 0.0643306 | 0.35602274 | 1.9715943 | 21 | 8 19.3 | 19.9 |
| 481885 2008 $YW_{172}$ | 17.2 | X | 324.63922 | 67.88615 | 128.54936 | 5.64814 | 0.1685076 | 0.24335160 | 2.5408552 | 21 | — | — |
| 481886 2008 $YZ_{172}$ | 17.6 | X | 11.50635 | 132.02609 | 312.17754 | 5.87891 | 0.0733481 | 0.23260584 | 2.6185184 | 21 | — | — |
| 481887 2009 $AG_{13}$ | 16.2 | X | 228.92794 | 284.79832 | 145.54808 | 4.10218 | 0.2608558 | 0.12338772 | 3.9959627 | 21 | 7 2.7 | 22.8 |
| 481888 2009 $AO_{15}$ | 16.8 | X | 74.26321 | 83.55931 | 299.61607 | 15.69928 | 0.2769065 | 0.24158404 | 2.5532336 | 21 | — | — |
| 481889 2009 $AO_{24}$ | 17.6 | X | 342.18283 | 346.21384 | 125.29090 | 5.55762 | 0.1046401 | 0.23142118 | 2.6274471 | 21 | — | — |
| 481890 2009 $AW_{26}$ | 18.1 | X | 44.50499 | 157.97772 | 279.51500 | 2.59291 | 0.2175336 | 0.24128642 | 2.5553328 | 21 | — | — |
| 481891 2009 $AN_{27}$ | 16.9 | X | 114.24536 | 250.78229 | 115.89955 | 3.38777 | 0.2726679 | 0.24333099 | 2.5409987 | 21 | 1 9.9 | 20.0 |
| 481892 2009 $AW_{27}$ | 17.2 | X | 308.21334 | 49.63401 | 113.06814 | 7.82024 | 0.2427661 | 0.23080809 | 2.6320979 | 21 | — | — |
| 481893 2009 $AA_{32}$ | 17.7 | X | 79.84998 | 120.83778 | 120.33646 | 24.03143 | 0.0702363 | 0.35803887 | 1.9641859 | 21 | 9 29.3 | 20.4 |
| 481894 2009 $AX_{39}$ | 17.2 | X | 61.20315 | 141.16717 | 290.37506 | 5.84346 | 0.1477397 | 0.24260662 | 2.5460540 | 21 | — | — |
| 481895 2009 $AF_{42}$ | 17.9 | X | 298.99833 | 296.81976 | 218.42216 | 2.60179 | 0.1088462 | 0.23253553 | 2.6190462 | 21 | — | — |
| 481896 2009 $AF_{44}$ | 17.0 | X | 335.36069 | 338.41888 | 142.60222 | 7.99616 | 0.0888684 | 0.22966208 | 2.6408466 | 21 | — | — |
| 481897 2009 $AR_{44}$ | 17.9 | X | 31.73685 | 357.67168 | 128.32988 | 1.24372 | 0.0986465 | 0.24301454 | 2.5432041 | 21 | 1 13.9 | 20.7 |
| 481898 2009 $AC_{45}$ | 17.0 | X | 338.89963 | 340.92284 | 151.10917 | 14.33204 | 0.1906713 | 0.23000648 | 2.6382098 | 21 | — | — |
| 481899 2009 $AR_{48}$ | 16.9 | X | 4.81875 | 326.81674 | 134.32066 | 14.83331 | 0.1228009 | 0.23307743 | 2.6149852 | 21 | — | — |
| 481900 2009 $AJ_{49}$ | 17.5 | X | 71.34956 | 165.58266 | 252.23182 | 4.21586 | 0.2508504 | 0.24387284 | 2.5372335 | 21 | 1 1.9 | 19.4 |
| 481901 2009 $BS_{1}$ | 17.6 | X | 343.76493 | 195.57457 | 107.72031 | 25.34068 | 0.1931361 | 0.35712255 | 1.9675444 | 21 | 6 28.2 | 18.3 |
| 481902 2009 $BK_{7}$ | 17.4 | X | 43.01356 | 257.55895 | 163.59096 | 5.70330 | 0.2922289 | 0.23950897 | 2.5679596 | 21 | — | — |
| 481903 2009 $BL_{9}$ | 17.6 | X | 262.38594 | 130.02520 | 298.94854 | 17.99289 | 0.0883989 | 0.36382858 | 1.9432925 | 21 | 8 28.2 | 19.8 |
| 481904 2009 $BB_{11}$ | 19.5 | X | 329.62034 | 293.56765 | 121.29983 | 19.47559 | 0.1480850 | 0.61157265 | 1.3745821 | 21 | — | — |
| 481905 2009 $BO_{13}$ | 17.4 | X | 333.89315 | 233.10335 | 307.59944 | 10.37474 | 0.1849739 | 0.23888216 | 2.5724498 | 21 | — | — |
| 481906 2009 $BS_{18}$ | 17.4 | X | 6.73520 | 135.83841 | 282.57471 | 7.54640 | 0.0937907 | 0.22878388 | 2.6476003 | 21 | — | — |
| 481907 2009 $BC_{26}$ | 17.1 | X | 58.02809 | 345.32075 | 56.22672 | 2.70816 | 0.2128404 | 0.23733205 | 2.5836387 | 21 | — | — |
| 481908 2009 $BA_{29}$ | 17.0 | X | 87.01610 | 6.78391 | 346.61278 | 1.71924 | 0.1302943 | 0.23043797 | 2.6349155 | 21 | — | — |
| 481909 2009 $BH_{32}$ | 17.7 | X | 2.29970 | 141.46263 | 319.01861 | 0.86299 | 0.0370428 | 0.23255736 | 2.6188823 | 21 | — | — |
| 481910 2009 $BE_{42}$ | 17.7 | X | 54.96325 | 273.53245 | 119.69886 | 2.75736 | 0.3125154 | 0.23491452 | 2.6013341 | 21 | — | — |
| 481911 2009 $BW_{44}$ | 17.1 | X | 255.98603 | 76.74859 | 142.88117 | 12.64174 | 0.1258408 | 0.22848220 | 2.6499304 | 21 | — | — |
| 481912 2009 $BU_{48}$ | 17.7 | X | 72.75188 | 311.22281 | 123.76571 | 7.81411 | 0.1632843 | 0.24498654 | 2.5295382 | 21 | 1 18.6 | 20.1 |
| 481913 2009 $BM_{53}$ | 16.9 | X | 18.98667 | 136.62107 | 322.04397 | 8.87655 | 0.1287212 | 0.23598630 | 2.5934519 | 21 | — | — |
| 481914 2009 $BH_{59}$ | 17.5 | X | 54.26728 | 312.39045 | 109.15789 | 7.93485 | 0.0869086 | 0.23908587 | 2.5709884 | 21 | — | — |
| 481915 2009 $BX_{62}$ | 18.0 | X | 48.63703 | 342.01985 | 112.64323 | 4.99886 | 0.1562035 | 0.24368749 | 2.5385198 | 21 | — | — |
| 481916 2009 $BV_{73}$ | 16.5 | X | 51.66300 | 48.56385 | 60.17856 | 30.63935 | 0.2870625 | 0.24324970 | 2.5415647 | 21 | 3 1.4 | 19.5 |
| 481917 2009 $BY_{75}$ | 16.9 | X | 32.23013 | 287.58516 | 126.55645 | 12.20529 | 0.1803550 | 0.23143173 | 2.6273672 | 21 | — | — |
| 481918 2009 $BE_{77}$ | 18.1 | X | 18.64144 | 26.97577 | 201.16566 | 21.12600 | 0.8259422 | 0.24599401 | 2.5226270 | 21 | 10 5.8 | 21.2 |
| 481919 2009 $BT_{77}$ | 16.9 | X | 33.59894 | 105.44149 | 329.73775 | 14.02844 | 0.2259339 | 0.23757004 | 2.5819130 | 21 | — | — |
| 481920 2009 $BW_{77}$ | 17.1 | X | 314.67326 | 56.14115 | 100.71386 | 5.79509 | 0.2637635 | 0.22979311 | 2.6398427 | 21 | — | — |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 481921 2009 $BT_{80}$ | 17.1 | X | 323.20081 | 90.51544 | 69.08389 | 6.59276 | 0.1891801 | 0.23368051 | 2.6104841 | 21 | — | — |
| 481922 2009 $BW_{81}$ | 17.4 | X | 345.53947 | 100.36922 | 45.45864 | 10.04834 | 0.2450032 | 0.23664373 | 2.5886463 | 21 | — | — |
| 481923 2009 $BA_{82}$ | 17.6 | X | 24.91422 | 43.34802 | 102.71276 | 4.85731 | 0.1600127 | 0.24473115 | 2.5312977 | 21 | 1 27.1 | 19.8 |
| 481924 2009 $BC_{83}$ | 17.0 | X | 67.34871 | 53.48632 | 37.24657 | 9.84478 | 0.1686020 | 0.24501084 | 2.5293709 | 21 | 2 5.5 | 19.7 |
| 481925 2009 $BE_{84}$ | 17.3 | X | 79.13132 | 78.29538 | 318.17565 | 5.21660 | 0.2398593 | 0.24043351 | 2.5613723 | 21 | — | — |
| 481926 2009 $BW_{85}$ | 17.9 | X | 60.98269 | 284.45684 | 158.56050 | 3.13527 | 0.1819988 | 0.24378259 | 2.5378596 | 21 | 1 9.0 | 20.1 |
| 481927 2009 $BG_{89}$ | 17.1 | X | 71.19371 | 236.83582 | 138.74083 | 10.06969 | 0.1253127 | 0.23046456 | 2.6347128 | 21 | — | — |
| 481928 2009 $BL_{95}$ | 16.4 | X | 152.16263 | 326.14507 | 318.60404 | 7.20184 | 0.0417483 | 0.22766793 | 2.6562450 | 21 | — | — |
| 481929 2009 $BH_{96}$ | 16.4 | X | 210.24466 | 89.49595 | 129.59951 | 10.41028 | 0.1115154 | 0.21877673 | 2.7277337 | 21 | 12 28.7 | 20.5 |
| 481930 2009 $BZ_{98}$ | 17.5 | X | 348.33715 | 64.95947 | 55.98293 | 3.83046 | 0.1290720 | 0.23473494 | 2.6026607 | 21 | — | — |
| 481931 2009 $BB_{109}$ | 17.8 | X | 46.39198 | 326.81891 | 124.87307 | 3.63202 | 0.1409631 | 0.24212195 | 2.5494506 | 21 | — | — |
| 481932 2009 $BQ_{120}$ | 17.7 | X | 94.39045 | 60.61356 | 143.68030 | 25.42162 | 0.1543825 | 0.34911234 | 1.9975267 | 21 | 8 25.6 | 19.9 |
| 481933 2009 $BJ_{123}$ | 17.8 | X | 37.59887 | 276.06116 | 160.65573 | 4.43174 | 0.2552995 | 0.23730454 | 2.5838384 | 21 | — | — |
| 481934 2009 $BR_{123}$ | 17.6 | X | 359.53127 | 195.36230 | 286.97217 | 2.66748 | 0.2011491 | 0.23492395 | 2.6012646 | 21 | — | — |
| 481935 2009 $BT_{152}$ | 18.3 | X | 30.44447 | 151.82627 | 326.92024 | 6.65770 | 0.1621861 | 0.24278743 | 2.5447898 | 21 | — | — |
| 481936 2009 $BM_{153}$ | 17.7 | X | 354.05711 | 120.61029 | 322.26429 | 5.61899 | 0.1691806 | 0.22900905 | 2.6458646 | 21 | — | — |
| 481937 2009 $BC_{155}$ | 16.9 | X | 102.66105 | 200.16293 | 108.35113 | 7.56988 | 0.0412687 | 0.21940271 | 2.7225428 | 21 | 12 23.8 | 20.6 |
| 481938 2009 $BL_{185}$ | 16.7 | X | 64.62410 | 237.58704 | 178.91959 | 8.13167 | 0.2807115 | 0.24252579 | 2.5466197 | 21 | — | — |
| 481939 2009 $BL_{186}$ | 17.2 | X | 154.67279 | 130.75520 | 152.43903 | 3.75377 | 0.0471933 | 0.22460980 | 2.6803011 | 21 | — | — |
| 481940 2009 $BS_{187}$ | 17.1 | X | 20.68087 | 132.46562 | 335.09459 | 13.85574 | 0.0501341 | 0.23196092 | 2.6233697 | 21 | — | — |
| 481941 2009 $BZ_{188}$ | 16.6 | X | 20.61284 | 212.09840 | 265.69404 | 11.50976 | 0.2018567 | 0.23829141 | 2.5766996 | 21 | — | — |
| 481942 2009 $CB_{4}$ | 17.4 | X | 329.73048 | 159.80200 | 27.61967 | 5.69484 | 0.1755302 | 0.23928933 | 2.5695308 | 21 | — | — |
| 481943 2009 $CH_{15}$ | 18.1 | X | 24.33646 | 232.96401 | 135.88724 | 23.72380 | 0.0724973 | 0.37556597 | 1.9025901 | 21 | — | — |
| 481944 2009 $CM_{28}$ | 17.0 | X | 318.95409 | 220.99040 | 332.89649 | 12.75645 | 0.1853561 | 0.23649065 | 2.5897633 | 21 | — | — |
| 481945 2009 $CL_{49}$ | 17.0 | X | 346.28671 | 108.28768 | 354.29925 | 15.82763 | 0.1144026 | 0.22573521 | 2.6713852 | 21 | — | — |
| 481946 2009 $CM_{50}$ | 17.9 | X | 208.95446 | 210.24329 | 321.99800 | 18.88490 | 0.0660187 | 0.37066938 | 1.9193090 | 21 | 11 27.5 | 20.4 |
| 481947 2009 $CC_{59}$ | 17.0 | X | 315.43881 | 318.82358 | 185.25346 | 12.14172 | 0.2070550 | 0.22413828 | 2.6840588 | 21 | — | — |
| 481948 2009 $CQ_{61}$ | 17.8 | X | 340.43505 | 339.47131 | 202.39483 | 0.54228 | 0.2067858 | 0.24058398 | 2.5603042 | 21 | — | — |
| 481949 2009 $DV_{9}$ | 18.0 | X | 253.85702 | 119.96291 | 338.33238 | 17.99527 | 0.1105393 | 0.36386631 | 1.9431582 | 21 | 9 28.4 | 20.1 |
| 481950 2009 $DC_{14}$ | 17.5 | X | 306.63757 | 281.02596 | 279.99257 | 1.29672 | 0.1483408 | 0.23235305 | 2.6204173 | 21 | — | — |
| 481951 2009 $DU_{49}$ | 17.1 | X | 326.06456 | 122.60432 | 15.27185 | 3.76208 | 0.2119619 | 0.22629224 | 2.6669995 | 21 | — | — |
| 481952 2009 $DF_{75}$ | 17.0 | X | 300.72353 | 349.87952 | 186.67979 | 1.74419 | 0.2293110 | 0.22801178 | 2.6535739 | 21 | — | — |
| 481953 2009 $DF_{84}$ | 17.7 | X | 308.51667 | 165.03926 | 22.11090 | 4.06471 | 0.1151147 | 0.23124409 | 2.6287883 | 21 | — | — |
| 481954 2009 $DX_{86}$ | 18.0 | X | 22.73831 | 284.67657 | 187.79578 | 4.05158 | 0.1929156 | 0.23580986 | 2.5947453 | 21 | — | — |
| 481955 2009 $DA_{98}$ | 16.5 | X | 201.39210 | 279.18521 | 357.30892 | 10.97086 | 0.1802467 | 0.22406989 | 2.6846049 | 21 | — | — |
| 481956 2009 $DZ_{110}$ | 16.6 | X | 327.30865 | 83.94242 | 96.02440 | 13.93806 | 0.1126346 | 0.23620314 | 2.5918643 | 21 | — | — |
| 481957 2009 $DS_{115}$ | 16.6 | X | 214.69503 | 57.54330 | 151.86745 | 14.13997 | 0.0377166 | 0.21803448 | 2.7339208 | 21 | 12 30.9 | 20.7 |
| 481958 2009 $DY_{115}$ | 17.6 | X | 35.13064 | 78.87060 | 3.64219 | 4.27014 | 0.1962970 | 0.23505817 | 2.6002742 | 21 | — | — |
| 481959 2009 $DM_{117}$ | 17.3 | X | 3.59257 | 354.95524 | 153.20032 | 5.25822 | 0.1854728 | 0.23753457 | 2.5821700 | 21 | — | — |
| 481960 2009 $DL_{123}$ | 17.5 | X | 244.80015 | 97.42695 | 9.69569 | 20.37246 | 0.1063180 | 0.36262746 | 1.9475813 | 21 | 10 5.9 | 19.1 |
| 481961 2009 $DS_{136}$ | 16.8 | X | 352.02211 | 57.74584 | 88.20968 | 8.76505 | 0.1385303 | 0.23466129 | 2.6032053 | 21 | — | — |
| 481962 2009 $DN_{139}$ | 17.3 | X | 310.64230 | 165.58648 | 11.12073 | 14.21206 | 0.1169384 | 0.22830382 | 2.6513105 | 21 | — | — |
| 481963 2009 $DM_{141}$ | 18.0 | X | 15.08762 | 263.62378 | 169.30761 | 6.61370 | 0.1116916 | 0.22598789 | 2.6693935 | 21 | — | — |
| 481964 2009 $DU_{141}$ | 16.7 | X | 28.15493 | 46.39197 | 20.41327 | 13.32251 | 0.0721809 | 0.22116989 | 2.7080212 | 21 | — | — |
| 481965 2009 $EB_{1}$ | 20.7 | X | 48.77149 | 187.53846 | 151.33793 | 12.50721 | 0.4543151 | 0.84689515 | 1.1064105 | 21 | — | — |
| 481966 2009 $EV_{6}$ | 17.5 | X | 2.25991 | 101.24326 | 50.26938 | 5.81314 | 0.1648153 | 0.23968700 | 2.5666879 | 21 | — | — |
| 481967 2009 $EO_{9}$ | 17.8 | X | 22.80686 | 229.74904 | 224.00463 | 1.57470 | 0.1490879 | 0.23690200 | 2.5867645 | 21 | — | — |
| 481968 2009 $ED_{19}$ | 17.5 | X | 8.62303 | 351.31868 | 148.04963 | 5.23539 | 0.0459828 | 0.23923958 | 2.5698870 | 21 | — | — |
| 481969 2009 $EM_{20}$ | 16.3 | X | 223.03244 | 261.95161 | 5.87880 | 15.45184 | 0.2324895 | 0.22440577 | 2.6819255 | 21 | — | — |
| 481970 2009 $EV_{29}$ | 16.7 | X | 312.50608 | 10.41598 | 175.89242 | 12.81490 | 0.0943033 | 0.22889430 | 2.6467488 | 21 | — | — |
| 481971 2009 $FH_{5}$ | 17.9 | X | 36.26462 | 291.02521 | 173.62690 | 1.20549 | 0.2351448 | 0.23747323 | 2.5826147 | 21 | — | — |
| 481972 2009 $FG_{20}$ | 17.9 | X | 7.52014 | 322.65861 | 146.71661 | 7.74978 | 0.2874903 | 0.23281968 | 2.6169148 | 21 | — | — |
| 481973 2009 $FP_{22}$ | 16.9 | X | 233.15083 | 54.27854 | 141.62946 | 9.37096 | 0.1852483 | 0.21384202 | 2.7695381 | 21 | 12 16.3 | 21.0 |
| 481974 2009 $FY_{36}$ | 17.4 | X | 8.24580 | 329.50124 | 127.06374 | 5.95221 | 0.2287083 | 0.22742052 | 2.6581712 | 21 | — | — |
| 481975 2009 $FS_{63}$ | 17.0 | X | 281.26289 | 172.33776 | 37.78326 | 11.49691 | 0.1414821 | 0.22523459 | 2.6753421 | 21 | — | — |
| 481976 2009 $FQ_{64}$ | 17.4 | X | 322.88697 | 87.07066 | 40.19364 | 11.33396 | 0.1808409 | 0.21855510 | 2.7295775 | 21 | — | — |
| 481977 2009 $FG_{66}$ | 16.5 | X | 257.29490 | 161.12898 | 12.78970 | 14.92161 | 0.0711030 | 0.21569562 | 2.7536485 | 21 | — | — |
| 481978 2009 $FY_{66}$ | 16.6 | X | 343.43234 | 96.12829 | 52.24876 | 27.45588 | 0.2735062 | 0.22972145 | 2.6403917 | 21 | — | — |
| 481979 2009 $GX_{1}$ | 17.5 | X | 12.70463 | 13.51539 | 112.11107 | 4.60299 | 0.2205572 | 0.23367286 | 2.6105411 | 21 | — | — |
| 481980 2009 $HL_{47}$ | 16.8 | X | 103.28718 | 270.58735 | 90.06421 | 7.24620 | 0.0564774 | 0.22108914 | 2.7086805 | 21 | — | — |
| 481981 2009 $HA_{50}$ | 17.4 | X | 54.39812 | 350.91955 | 120.18440 | 4.68392 | 0.1620755 | 0.23899000 | 2.5716759 | 21 | 2 6.8 | 19.7 |
| 481982 2009 $HT_{82}$ | 16.6 | X | 248.91344 | 326.74409 | 233.42263 | 10.49736 | 0.1400725 | 0.21538819 | 2.7562681 | 21 | — | — |
| 481983 2009 $HR_{105}$ | 17.2 | X | 22.64381 | 347.26238 | 140.68744 | 12.84500 | 0.1722183 | 0.22951761 | 2.6419547 | 21 | — | — |
| 481984 Cernunnos | 17.9 | X | 218.73106 | 165.80559 | 173.71326 | 9.45801 | 0.4697036 | 0.30207647 | 2.1998418 | 21 | 2 27.5 | 22.4 |
| 481985 2009 $KM_{7}$ | 17.8 | X | 217.44267 | 90.46380 | 212.67201 | 17.92319 | 0.4868334 | 0.29396851 | 2.2401074 | 21 | 1 14.7 | 22.9 |
| 481986 2009 $KF_{33}$ | 17.1 | X | 347.94854 | 313.27916 | 59.15070 | 11.60020 | 0.1944224 | 0.18332278 | 3.0689638 | 21 | 10 20.6 | 20.4 |
| 481987 2009 $MY_{1}$ | 13.4 | X | 233.34681 | 265.87145 | 128.93673 | 28.74919 | 0.0125274 | 0.08565754 | 5.0967380 | 21 | 6 21.1 | 20.5 |
| 481988 2009 $PS_{10}$ | 18.1 | X | 200.44179 | 186.65650 | 157.88851 | 7.83376 | 0.1893136 | 0.29802384 | 2.2197397 | 21 | 2 18.9 | 21.5 |
| 481989 2009 $QB_{35}$ | 19.9 | X | 145.53087 | 157.48515 | 226.19129 | 5.04663 | 0.4978632 | 0.28519948 | 2.2857930 | 21 | 3 15.2 | 24.3 |
| 481990 2009 $QU_{40}$ | 15.6 | X | 97.49382 | 313.46463 | 350.58150 | 13.76020 | 0.0311742 | 0.17838053 | 3.1253915 | 21 | 11 30.8 | 20.4 |
| 481991 2009 $QX_{60}$ | 18.2 | X | 197.13771 | 237.80494 | 133.05014 | 5.04582 | 0.1924317 | 0.30008240 | 2.2095764 | 21 | 3 23.4 | 21.7 |
| 481992 2009 $RY_{11}$ | 18.4 | X | 177.05600 | 350.30938 | 25.01968 | 1.11395 | 0.1748280 | 0.29345066 | 2.2427421 | 21 | 3 9.1 | 21.6 |
| 481993 Melaniezander | 17.9 | X | 168.14343 | 63.87314 | 338.48622 | 3.94053 | 0.1440759 | 0.29487203 | 2.2355291 | 21 | 3 31.4 | 21.1 |
| 481994 2009 $RY_{75}$ | 18.1 | X | 236.15028 | 62.76680 | 250.49822 | 5.33007 | 0.1811913 | 0.29812481 | 2.2192385 | 21 | 2 9.3 | 21.6 |
| 481995 2009 $SZ_{22}$ | 15.5 | X | 333.86906 | 221.94106 | 181.64150 | 23.93901 | 0.0499762 | 0.17538778 | 3.1608447 | 21 | 11 2.9 | 20.0 |
| 481996 2009 $SD_{51}$ | 18.3 | X | 183.94619 | 203.74397 | 172.40917 | 5.73849 | 0.1567219 | 0.29635439 | 2.2280682 | 21 | 3 15.1 | 21.6 |
| 481997 2009 $SK_{66}$ | 18.0 | X | 122.52821 | 16.26359 | 48.30750 | 4.50991 | 0.1114498 | 0.28835754 | 2.2690732 | 21 | 3 7.9 | 20.7 |
| 481998 2009 $SQ_{70}$ | 18.4 | X | 103.31196 | 290.60695 | 162.07053 | 6.69657 | 0.2204919 | 0.28664924 | 2.2780794 | 21 | 4 7.1 | 21.0 |
| 481999 2009 $SD_{74}$ | 18.3 | X | 198.31888 | 272.02765 | 55.82806 | 6.20130 | 0.1457423 | 0.28827134 | 2.2695255 | 21 | 1 28.9 | 21.7 |
| 482000 2009 $SO_{115}$ | 17.9 | X | 70.20933 | 185.30301 | 266.63308 | 2.66325 | 0.0759628 | 0.28478636 | 2.2880030 | 21 | 1 17.7 | 20.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482001 2009 $SR_{125}$ | 17.8 | X | 347.94893 | 298.42330 | 277.86297 | 3.48611 | 0.0646040 | 0.29544313 | 2.2326473 | 21 | 2 28.2 | 20.1 |
| 482002 2009 $SL_{141}$ | 18.1 | X | 144.08539 | 76.21866 | 358.36465 | 3.13924 | 0.1575088 | 0.29549010 | 2.2324107 | 21 | 4 19.3 | 21.1 |
| 482003 2009 $SZ_{150}$ | 18.1 | X | 129.46551 | 123.74200 | 272.39500 | 1.48173 | 0.1465273 | 0.28650785 | 2.2788288 | 21 | 2 8.9 | 20.8 |
| 482004 2009 $SL_{151}$ | 18.3 | X | 196.84936 | 359.72428 | 306.92202 | 1.20677 | 0.2300378 | 0.28777590 | 2.2721296 | 21 | 1 3.9 | 22.0 |
| 482005 2009 $SN_{158}$ | 18.1 | X | 168.84865 | 108.55079 | 294.69981 | 3.13645 | 0.1337261 | 0.29470426 | 2.2363775 | 21 | 4 1.1 | 21.3 |
| 482006 2009 $SA_{180}$ | 18.5 | X | 160.45323 | 181.54472 | 201.17836 | 1.29813 | 0.1640133 | 0.28942870 | 2.2634713 | 21 | 2 28.8 | 21.6 |
| 482007 2009 $SN_{186}$ | 18.1 | X | 144.22356 | 301.35823 | 80.45367 | 2.45752 | 0.2135514 | 0.28538417 | 2.2848067 | 21 | 2 18.1 | 21.2 |
| 482008 2009 $SY_{228}$ | 18.3 | X | 204.34994 | 305.14343 | 27.62961 | 2.01343 | 0.1912382 | 0.29044670 | 2.2581793 | 21 | 2 9.9 | 21.8 |
| 482009 2009 $SS_{234}$ | 18.4 | X | 131.79959 | 230.21411 | 180.42182 | 2.92466 | 0.2458812 | 0.28520182 | 2.2857805 | 21 | 3 17.1 | 21.3 |
| 482010 2009 $SL_{267}$ | 17.8 | X | 173.72944 | 17.59215 | 7.88966 | 5.33759 | 0.1259728 | 0.29183600 | 2.2510068 | 21 | 3 16.1 | 21.0 |
| 482011 2009 $SK_{298}$ | 17.7 | X | 189.64109 | 64.71423 | 323.03284 | 4.93150 | 0.1595514 | 0.29767641 | 2.2214665 | 21 | 4 2.4 | 21.1 |
| 482012 2009 $TB_{21}$ | 17.6 | X | 190.29174 | 359.48597 | 54.84172 | 7.50046 | 0.1342662 | 0.30244622 | 2.1980485 | 21 | 5 10.2 | 20.7 |
| 482013 2009 $TN_{36}$ | 17.8 | X | 198.00696 | 321.45729 | 61.73250 | 6.31756 | 0.1782137 | 0.29795216 | 2.2200957 | 21 | 4 9.6 | 21.2 |
| 482014 2009 $TA_{47}$ | 17.8 | X | 131.73787 | 39.24486 | 294.25840 | 3.57400 | 0.2463421 | 0.27513314 | 2.3412122 | 21 | — | — |
| 482015 2009 $US_{13}$ | 18.2 | X | 137.10207 | 160.16488 | 288.82705 | 1.40677 | 0.2117220 | 0.29246317 | 2.2477875 | 21 | 5 7.5 | 21.3 |
| 482016 2009 $UT_{24}$ | 18.1 | X | 195.83132 | 301.18128 | 30.20811 | 2.77999 | 0.1175272 | 0.28538195 | 2.2848186 | 21 | 1 28.9 | 21.3 |
| 482017 2009 $UW_{28}$ | 17.8 | X | 37.03411 | 123.28801 | 45.35326 | 6.33563 | 0.0739464 | 0.28966047 | 2.2622637 | 21 | 3 17.9 | 20.0 |
| 482018 2009 $UB_{99}$ | 17.9 | X | 163.76886 | 131.12472 | 198.41286 | 4.50445 | 0.2310038 | 0.27971958 | 2.3155499 | 21 | 1 3.8 | 21.4 |
| 482019 2009 $UQ_{121}$ | 17.7 | X | 172.03820 | 14.91007 | 29.95925 | 7.22862 | 0.1302137 | 0.29483408 | 2.2357209 | 21 | 4 9.1 | 20.7 |
| 482020 2009 $UU_{127}$ | 18.1 | X | 97.31538 | 31.62445 | 29.37957 | 5.21835 | 0.2052974 | 0.27847712 | 2.3224321 | 21 | 2 11.2 | 20.5 |
| 482021 2009 $UR_{147}$ | 18.0 | X | 208.25576 | 308.31779 | 11.84778 | 3.39498 | 0.2023865 | 0.28470051 | 2.2884630 | 21 | 1 30.1 | 21.7 |
| 482022 2009 $UX_{152}$ | 17.7 | X | 128.04823 | 357.85444 | 53.93977 | 4.63642 | 0.1117490 | 0.28228864 | 2.3014795 | 21 | 2 26.8 | 20.5 |
| 482023 2009 $VY$ | 18.6 | X | 15.63136 | 37.72447 | 53.17090 | 28.41276 | 0.0484312 | 0.43588462 | 1.7227477 | 21 | — | — |
| 482024 2009 $VM_{3}$ | 17.1 | X | 101.03562 | 238.19732 | 221.86575 | 23.05868 | 0.2536746 | 0.28602733 | 2.2813803 | 21 | 4 16.4 | 19.9 |
| 482025 2009 $VP_{7}$ | 17.6 | X | 162.56773 | 7.77671 | 40.34808 | 8.57760 | 0.1729919 | 0.29160404 | 2.2522003 | 21 | 4 8.3 | 20.9 |
| 482026 2009 $VX_{43}$ | 17.7 | X | 153.54487 | 355.21807 | 66.13173 | 8.25409 | 0.1624119 | 0.29211914 | 2.2495520 | 21 | 4 16.7 | 21.0 |
| 482027 2009 $VS_{45}$ | 18.0 | X | 104.13179 | 34.31014 | 41.69350 | 4.99946 | 0.1094526 | 0.28313296 | 2.2969018 | 21 | 2 26.5 | 20.6 |
| 482028 2009 $VN_{54}$ | 18.4 | X | 163.16574 | 247.37888 | 209.22106 | 4.70618 | 0.0737498 | 0.30227705 | 2.1988686 | 21 | 6 5.2 | 21.2 |
| 482029 2009 $VK_{71}$ | 17.6 | X | 97.32902 | 181.74433 | 256.08690 | 1.94679 | 0.1967493 | 0.27901738 | 2.3194332 | 21 | 3 2.2 | 20.0 |
| 482030 2009 $VE_{94}$ | 17.6 | X | 171.34465 | 337.36498 | 58.37347 | 6.35625 | 0.1053335 | 0.29086725 | 2.2560021 | 21 | 3 28.1 | 20.7 |
| 482031 2009 $VK_{95}$ | 17.7 | X | 55.35612 | 62.33075 | 76.17088 | 6.13852 | 0.0978275 | 0.28349641 | 2.2949382 | 21 | 3 8.0 | 20.0 |
| 482032 2009 $VH_{115}$ | 17.4 | X | 76.93974 | 2.54272 | 56.18520 | 7.56006 | 0.2544501 | 0.27122898 | 2.3636254 | 21 | 1 6.6 | 19.0 |
| 482033 2009 $WB_{17}$ | 18.1 | X | 51.69148 | 269.79282 | 246.81829 | 4.41659 | 0.1029634 | 0.29020880 | 2.2594132 | 21 | 3 21.5 | 20.2 |
| 482034 2009 $WA_{23}$ | 17.7 | X | 198.89499 | 281.73109 | 41.43603 | 7.88351 | 0.1415648 | 0.28289308 | 2.2982001 | 21 | 1 24.6 | 21.3 |
| 482035 2009 $WL_{23}$ | 17.9 | X | 192.48784 | 98.06256 | 281.04799 | 6.74646 | 0.1304643 | 0.29005623 | 2.2602055 | 21 | 3 23.1 | 21.4 |
| 482036 2009 $WZ_{26}$ | 18.1 | X | 56.79062 | 224.46481 | 244.64754 | 4.73360 | 0.1111053 | 0.27760657 | 2.3272849 | 21 | 1 22.5 | 20.4 |
| 482037 2009 $WO_{36}$ | 17.8 | X | 104.77669 | 46.47456 | 41.80819 | 8.36672 | 0.1222362 | 0.28463409 | 2.2888190 | 21 | 3 20.1 | 20.5 |
| 482038 2009 $WR_{71}$ | 17.6 | X | 135.66338 | 5.05713 | 74.08932 | 6.98069 | 0.1189651 | 0.28970150 | 2.2620501 | 21 | 4 15.8 | 20.6 |
| 482039 2009 $WH_{78}$ | 17.7 | X | 128.65106 | 331.87375 | 22.84718 | 3.47452 | 0.2945318 | 0.27462921 | 2.3440753 | 21 | 1 9.1 | 20.7 |
| 482040 2009 $WZ_{84}$ | 17.5 | X | 149.87949 | 150.00564 | 281.25028 | 7.16826 | 0.0894118 | 0.29168932 | 2.2517614 | 21 | 4 11.6 | 20.6 |
| 482041 2009 $WT_{105}$ | 18.2 | X | 120.57976 | 23.16778 | 37.24266 | 2.96263 | 0.1834283 | 0.28216592 | 2.3021468 | 21 | 3 10.5 | 21.0 |
| 482042 2009 $WO_{142}$ | 17.7 | X | 173.25628 | 88.91629 | 263.96252 | 7.86706 | 0.1989905 | 0.28398258 | 2.2923183 | 21 | 2 4.9 | 21.4 |
| 482043 2009 $WF_{165}$ | 18.2 | X | 97.27142 | 198.16125 | 256.92839 | 4.02501 | 0.1539395 | 0.28176368 | 2.3043373 | 21 | 3 17.9 | 20.7 |
| 482044 2009 $WJ_{223}$ | 17.8 | X | 174.16456 | 273.76038 | 75.84319 | 7.45230 | 0.1462374 | 0.28056037 | 2.3109214 | 21 | 2 2.8 | 21.2 |
| 482045 2009 $WL_{234}$ | 17.7 | X | 149.35710 | 348.32561 | 60.92734 | 3.98290 | 0.0262284 | 0.29114961 | 2.2545433 | 21 | 3 9.4 | 20.3 |
| 482046 2009 $WD_{236}$ | 18.0 | X | 105.69175 | 330.97757 | 87.47624 | 4.07855 | 0.1601666 | 0.27731504 | 2.3289157 | 21 | 2 12.5 | 20.6 |
| 482047 2009 $WB_{256}$ | 18.2 | X | 109.18334 | 124.47981 | 274.58022 | 4.84010 | 0.2307287 | 0.27529453 | 2.3402971 | 21 | 1 31.0 | 20.8 |
| 482048 2009 $WT_{259}$ | 17.5 | X | 149.02596 | 268.06830 | 73.98875 | 3.61149 | 0.3154783 | 0.27699020 | 2.3307362 | 21 | 1 15.7 | 21.1 |
| 482049 2009 $XG_{8}$ | 18.8 | X | 137.83332 | 151.31235 | 50.91305 | 59.90077 | 0.1896942 | 0.57771314 | 1.4277798 | 21 | 11 11.9 | 20.0 |
| 482050 2009 $XF_{15}$ | 18.2 | X | 121.50425 | 347.05796 | 85.87823 | 3.91449 | 0.1480069 | 0.28005547 | 2.3136980 | 21 | 3 24.8 | 21.1 |
| 482051 2009 $XH_{19}$ | 18.2 | X | 22.84807 | 29.27731 | 107.82871 | 6.40899 | 0.1719901 | 0.26639052 | 2.3921599 | 21 | — | — |
| 482052 2009 $YB_{3}$ | 17.5 | X | 163.45413 | 283.73965 | 110.45584 | 7.56611 | 0.1386218 | 0.28260323 | 2.2997712 | 21 | 3 21.6 | 20.9 |
| 482053 2009 $YK_{9}$ | 17.8 | X | 163.19580 | 130.46512 | 263.57531 | 3.40561 | 0.1439421 | 0.28228778 | 2.3014842 | 21 | 3 16.0 | 21.3 |
| 482054 2010 $AE$ | 19.5 | X | 69.35226 | 270.77147 | 294.54051 | 15.97549 | 0.3768598 | 0.54253477 | 1.4888502 | 21 | 8 29.1 | 21.1 |
| 482055 2010 $AH_{30}$ | 18.4 | X | 61.84951 | 118.88789 | 104.42387 | 43.34108 | 0.5495954 | 0.28451009 | 2.2894839 | 21 | 10 21.1 | 23.4 |
| 482056 2010 $AG_{64}$ | 18.5 | X | 95.15258 | 161.58781 | 321.40295 | 3.53577 | 0.1829263 | 0.28178406 | 2.3042261 | 21 | 4 29.7 | 21.2 |
| 482057 2010 $AM_{70}$ | 17.2 | X | 86.96207 | 133.00115 | 316.72103 | 18.38378 | 0.0747519 | 0.27211622 | 2.3584849 | 21 | 2 12.1 | 19.9 |
| 482058 2010 $AF_{80}$ | 15.6 | X | 217.36879 | 262.35405 | 160.75592 | 9.86638 | 0.2642419 | 0.12590169 | 3.9425905 | 21 | 6 16.4 | 22.2 |
| 482059 2010 $BF_{2}$ | 17.8 | X | 345.00788 | 239.09423 | 306.46907 | 1.60109 | 0.1028179 | 0.26572717 | 2.3961394 | 21 | 1 14.4 | 20.6 |
| 482060 2010 $BA_{4}$ | 17.8 | X | 101.76630 | 125.93423 | 312.78821 | 10.65287 | 0.2574529 | 0.27521128 | 2.3407690 | 21 | 3 16.6 | 20.8 |
| 482061 2010 $BN_{62}$ | 16.4 | X | 226.64997 | 146.74837 | 105.19270 | 29.47200 | 0.1294148 | 0.23937827 | 2.5688943 | 21 | — | — |
| 482062 2010 $CF_{4}$ | 18.0 | X | 133.42025 | 321.91570 | 149.51176 | 5.11606 | 0.1073434 | 0.28453770 | 2.2893358 | 21 | 5 25.2 | 21.1 |
| 482063 2010 $CA_{12}$ | 17.8 | X | 72.62972 | 346.23741 | 171.23095 | 7.87301 | 0.2035240 | 0.27932460 | 2.3177322 | 21 | 5 23.3 | 20.3 |
| 482064 2010 $CR_{31}$ | 17.7 | X | 92.77678 | 12.19855 | 147.75271 | 6.86705 | 0.1429339 | 0.28170733 | 2.3046445 | 21 | 6 14.9 | 20.7 |
| 482065 2010 $CO_{68}$ | 18.3 | X | 56.72022 | 317.89244 | 160.68312 | 5.20562 | 0.1747234 | 0.26807245 | 2.3821435 | 21 | 2 13.9 | 20.3 |
| 482066 2010 $CV_{73}$ | 18.2 | X | 13.03685 | 252.44266 | 271.23153 | 1.32490 | 0.1496025 | 0.26607076 | 2.3940761 | 21 | 1 23.0 | 20.5 |
| 482067 2010 $CH_{99}$ | 18.1 | X | 10.89238 | 124.46545 | 67.50013 | 2.10200 | 0.1283018 | 0.26778692 | 2.3838366 | 21 | 3 5.5 | 20.4 |
| 482068 2010 $CU_{111}$ | 17.7 | X | 270.17918 | 99.65438 | 134.06849 | 5.73079 | 0.0308670 | 0.25800055 | 2.4437435 | 21 | — | — |
| 482069 2010 $CV_{113}$ | 18.1 | X | 85.00462 | 315.94725 | 113.57790 | 3.14655 | 0.1628296 | 0.26559191 | 2.3969528 | 21 | 1 27.3 | 20.2 |
| 482070 2010 $CD_{134}$ | 16.7 | X | 143.65151 | 191.13702 | 71.09988 | 11.72632 | 0.1322617 | 0.21751110 | 2.7383047 | 21 | 12 12.9 | 20.9 |
| 482071 2010 $CT_{139}$ | 18.2 | X | 39.86796 | 27.16743 | 134.03919 | 5.70446 | 0.0691535 | 0.27257540 | 2.3558354 | 21 | 3 13.5 | 20.7 |
| 482072 2010 $CR_{249}$ | 17.4 | X | 97.21050 | 286.98759 | 134.21255 | 9.33876 | 0.1242399 | 0.26833510 | 2.3805888 | 21 | 1 28.7 | 19.9 |
| 482073 2010 $DJ_{23}$ | 16.9 | X | 160.95302 | 146.78436 | 96.54765 | 10.34575 | 0.0913898 | 0.21788646 | 2.7351588 | 21 | 12 8.9 | 21.1 |
| 482074 2010 $DV_{34}$ | 18.0 | X | 45.43259 | 99.52626 | 346.49348 | 2.12067 | 0.1625352 | 0.26047848 | 2.4282206 | 21 | — | — |
| 482075 2010 $DR_{79}$ | 17.0 | X | 4.18058 | 70.04613 | 136.90996 | 10.78983 | 0.2113968 | 0.26236123 | 2.4165898 | 21 | 3 8.2 | 19.0 |
| 482076 2010 $EH_{32}$ | 18.2 | X | 78.41864 | 23.80681 | 102.53021 | 2.26642 | 0.1221258 | 0.27157934 | 2.3615921 | 21 | 4 2.3 | 20.7 |
| 482077 2010 $EU_{40}$ | 18.0 | X | 46.06023 | 302.59231 | 187.58898 | 0.92899 | 0.1378461 | 0.26715208 | 2.3876116 | 21 | 2 7.8 | 20.0 |
| 482078 2010 $EY_{42}$ | 16.9 | X | 8.71346 | 134.06975 | 17.67672 | 25.36643 | 0.1877371 | 0.25904883 | 2.4371465 | 21 | — | — |
| 482079 2010 $ED_{71}$ | 17.0 | X | 121.52289 | 305.53903 | 20.88439 | 4.17403 | 0.0780578 | 0.23902004 | 2.5714604 | 21 | — | — |
| 482080 2010 $ED_{86}$ | 18.5 | X | 220.68862 | 343.81464 | 188.91374 | 22.11637 | 0.0588197 | 0.39871853 | 1.8282059 | 21 | 12 27.7 | 20.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482081 2010 $EG_{109}$ | 17.7 | X | 318.53834 | 19.87501 | 182.11651 | 15.04981 | 0.0881372 | 0.25657147 | 2.4528095 | 21 | 1 2.9 | 21.3 |
| 482082 2010 $EM_{127}$ | 16.5 | X | 196.95878 | 200.31115 | 41.50269 | 14.66230 | 0.2124172 | 0.23040348 | 2.6351785 | 21 | — | — |
| 482083 2010 $EB_{132}$ | 17.7 | X | 343.86217 | 184.11181 | 29.34304 | 5.51500 | 0.1167522 | 0.26198314 | 2.4189143 | 21 | 2 21.6 | 20.4 |
| 482084 2010 $FL_{6}$ | 18.4 | X | 73.50322 | 74.53101 | 67.43818 | 7.81804 | 0.2958454 | 0.27490910 | 2.3424840 | 21 | 5 17.4 | 20.6 |
| 482085 2010 $GV_{128}$ | 18.1 | X | 33.39566 | 55.57883 | 93.07350 | 2.38630 | 0.1321665 | 0.25952845 | 2.4341429 | 21 | 2 13.8 | 20.4 |
| 482086 2010 $HG_{8}$ | 17.5 | X | 325.35643 | 264.19893 | 277.66890 | 3.81907 | 0.1696301 | 0.26017205 | 2.4301269 | 21 | — | — |
| 482087 2010 $HP_{21}$ | 13.5 | X | 347.08510 | 352.55159 | 291.98810 | 29.37885 | 0.0482386 | 0.08319006 | 5.1970286 | 21 | 6 23.7 | 20.3 |
| 482088 2010 $HW_{22}$ | 13.1 | X | 348.84607 | 135.02002 | 150.55654 | 27.38769 | 0.0267192 | 0.08377881 | 5.1726519 | 21 | 6 27.0 | 20.1 |
| 482089 2010 $HM_{103}$ | 17.2 | X | 194.35016 | 212.46146 | 53.75510 | 10.24235 | 0.0769659 | 0.23259143 | 2.6186266 | 21 | — | — |
| 482090 2010 $JD_{48}$ | 18.2 | X | 259.99201 | 24.98958 | 61.62337 | 22.99351 | 0.0523405 | 0.38219489 | 1.8805265 | 21 | 10 25.2 | 20.2 |
| 482091 2010 $JS_{57}$ | 17.8 | X | 38.91497 | 118.15920 | 116.62111 | 3.67725 | 0.1328064 | 0.28694851 | 2.2764951 | 21 | 7 7.7 | 19.7 |
| 482092 2010 $JF_{118}$ | 17.1 | X | 244.50278 | 130.78831 | 53.38336 | 11.21379 | 0.0839232 | 0.22747157 | 2.6577735 | 21 | 12 31.9 | 20.8 |
| 482093 2010 $JZ_{157}$ | 17.0 | X | 19.62503 | 324.93073 | 146.72231 | 6.64135 | 0.1803462 | 0.24302115 | 2.5431580 | 21 | — | — |
| 482094 2010 $LD_{46}$ | 16.5 | X | 325.07170 | 17.82753 | 347.34366 | 14.72459 | 0.2846242 | 0.17504610 | 3.1649566 | 21 | 8 11.0 | 19.8 |
| 482095 2010 $LM_{101}$ | 15.9 | X | 349.32403 | 68.08098 | 300.12100 | 20.58320 | 0.1630249 | 0.18190481 | 3.0848917 | 21 | 9 28.3 | 19.9 |
| 482096 2010 $LV_{114}$ | 16.8 | X | 359.66010 | 61.09873 | 304.05332 | 9.48535 | 0.1559469 | 0.18426136 | 3.0585332 | 21 | 10 22.1 | 20.6 |
| 482097 2010 $LF_{132}$ | 16.7 | X | 339.16120 | 291.61095 | 59.80709 | 10.58068 | 0.3211457 | 0.17587120 | 3.1550499 | 21 | 8 24.5 | 19.4 |
| 482098 2010 $MV_{1}$ | 15.7 | X | 329.31046 | 122.37199 | 243.99165 | 25.67965 | 0.2511642 | 0.17459072 | 3.1704576 | 21 | 8 8.4 | 19.7 |
| 482099 2010 $MM_{11}$ | 16.5 | X | 351.66505 | 207.98665 | 131.08732 | 5.73577 | 0.2625721 | 0.17724218 | 3.1387591 | 21 | 9 9.0 | 19.2 |
| 482100 2010 $MR_{28}$ | 16.2 | X | 353.37613 | 191.18842 | 153.84645 | 11.53755 | 0.2353006 | 0.17816863 | 3.1278690 | 21 | 9 22.0 | 19.2 |
| 482101 2010 $MB_{43}$ | 16.3 | X | 165.77711 | 167.97875 | 36.37627 | 36.07251 | 0.1020025 | 0.21910295 | 2.7250254 | 21 | 10 28.1 | 20.4 |
| 482102 2010 $MX_{45}$ | 16.5 | X | 353.28765 | 127.10537 | 215.36256 | 24.93453 | 0.3600200 | 0.17844753 | 3.1246091 | 21 | 9 15.4 | 19.1 |
| 482103 2010 $MG_{59}$ | 16.4 | X | 322.82702 | 21.27734 | 4.28324 | 10.17734 | 0.2243191 | 0.17602477 | 3.1532145 | 21 | 9 10.1 | 19.7 |
| 482104 2010 $MU_{71}$ | 15.8 | X | 326.31007 | 289.40894 | 95.13352 | 16.26278 | 0.0778421 | 0.17854649 | 3.1234544 | 21 | 10 4.7 | 20.2 |
| 482105 2010 $MS_{74}$ | 16.2 | X | 325.98340 | 9.28276 | 357.82681 | 14.12006 | 0.1526203 | 0.17412502 | 3.1761080 | 21 | 8 30.7 | 20.0 |
| 482106 2010 $MX_{79}$ | 16.7 | X | 315.26307 | 46.82588 | 2.72454 | 7.14191 | 0.1743622 | 0.17901950 | 3.1179501 | 21 | 10 1.8 | 20.3 |
| 482107 2010 $MD_{80}$ | 16.5 | X | 13.67225 | 289.51478 | 38.67575 | 10.32499 | 0.2217544 | 0.18006665 | 3.1058504 | 21 | 10 12.1 | 19.9 |
| 482108 2010 $MC_{83}$ | 15.9 | X | 14.15886 | 308.26291 | 1.72587 | 19.18282 | 0.1747334 | 0.17630144 | 3.1499148 | 21 | 9 13.1 | 19.5 |
| 482109 2010 $MG_{100}$ | 16.0 | X | 345.64000 | 357.48294 | 358.40881 | 19.19205 | 0.2369085 | 0.17691878 | 3.1425830 | 21 | 9 17.9 | 18.9 |
| 482110 2010 $MX_{108}$ | 15.8 | X | 314.52119 | 40.34423 | 359.95624 | 24.12510 | 0.1496294 | 0.17722347 | 3.1389801 | 21 | 9 21.7 | 19.6 |
| 482111 2010 $NT_{1}$ | 19.4 | X | 106.48753 | 306.32182 | 283.27031 | 39.52105 | 0.2181483 | 0.55967780 | 1.4582903 | 21 | 11 3.7 | 22.2 |
| 482112 2010 $NN_{17}$ | 16.2 | X | 314.32310 | 33.75659 | 3.97463 | 14.38252 | 0.2841519 | 0.17393697 | 3.1783968 | 21 | 9 3.0 | 19.6 |
| 482113 2010 $NF_{20}$ | 15.7 | X | 345.84287 | 90.58829 | 294.11405 | 23.00274 | 0.3109357 | 0.17999092 | 3.1067215 | 21 | 10 19.9 | 19.0 |
| 482114 2010 $NZ_{32}$ | 16.6 | X | 16.27176 | 6.65269 | 10.00245 | 7.27819 | 0.1913401 | 0.18749439 | 3.0232719 | 21 | 12 13.4 | 20.3 |
| 482115 2010 $NM_{52}$ | 16.8 | X | 356.00380 | 144.06869 | 227.93085 | 5.23261 | 0.2361704 | 0.18101650 | 3.0949760 | 21 | 11 3.9 | 19.7 |
| 482116 2010 $NC_{67}$ | 15.9 | X | 1.10010 | 71.63857 | 264.45750 | 15.68198 | 0.3099626 | 0.17753821 | 3.1352692 | 21 | 9 22.5 | 19.1 |
| 482117 2010 $NQ_{77}$ | 16.3 | X | 305.57196 | 41.08791 | 30.82563 | 28.82370 | 0.3860187 | 0.17475796 | 3.1684346 | 21 | 9 26.2 | 20.1 |
| 482118 2010 $NH_{98}$ | 15.7 | X | 3.91604 | 276.81786 | 77.53180 | 25.47045 | 0.3425794 | 0.18112572 | 3.0937316 | 21 | 11 18.9 | 18.7 |
| 482119 2010 $OW_{21}$ | 16.1 | X | 270.85505 | 66.89707 | 24.73077 | 27.12849 | 0.0684458 | 0.17716984 | 3.1396135 | 21 | 10 9.1 | 20.5 |
| 482120 2010 $OG_{24}$ | 16.6 | X | 3.33705 | 213.68367 | 169.86136 | 16.12226 | 0.3707947 | 0.18305294 | 3.0719790 | 21 | 12 27.1 | 19.9 |
| 482121 2010 $OZ_{42}$ | 16.4 | X | 320.27104 | 79.89979 | 310.10501 | 11.71032 | 0.1490539 | 0.17348476 | 3.1839177 | 21 | 9 11.5 | 20.4 |
| 482122 2010 $OF_{80}$ | 16.6 | X | 326.45709 | 254.45742 | 183.52347 | 7.81719 | 0.2146461 | 0.18376698 | 3.0640162 | 21 | 12 1.6 | 19.8 |
| 482123 2010 $OG_{110}$ | 15.9 | X | 328.69597 | 335.09002 | 53.98267 | 10.17430 | 0.0790114 | 0.17491826 | 3.1664984 | 21 | 10 8.7 | 20.0 |
| 482124 2010 $OD_{124}$ | 16.0 | X | 353.22474 | 12.51823 | 34.55140 | 16.13100 | 0.1402408 | 0.18453582 | 3.0554998 | 21 | 12 5.4 | 19.8 |
| 482125 2010 $PX_{2}$ | 15.5 | X | 7.83912 | 302.73548 | 55.92258 | 28.02423 | 0.1602112 | 0.17970376 | 3.1100302 | 21 | 11 6.6 | 19.2 |
| 482126 2010 $PJ_{63}$ | 16.0 | X | 325.79095 | 71.88953 | 305.77785 | 13.74926 | 0.3219100 | 0.17856814 | 3.1232019 | 21 | 8 17.3 | 18.9 |
| 482127 2010 $PR_{70}$ | 15.9 | X | 336.87736 | 357.38792 | 60.03300 | 13.20508 | 0.1831656 | 0.18111537 | 3.0938494 | 21 | 11 23.4 | 19.0 |
| 482128 2010 $RY_{1}$ | 17.6 | X | 331.61213 | 72.22511 | 304.67626 | 17.68732 | 0.1878674 | 0.36283036 | 1.9468551 | 21 | 10 16.4 | 19.1 |
| 482129 2010 $RC_{5}$ | 16.9 | X | 54.00427 | 217.63432 | 156.84894 | 9.55460 | 0.1428798 | 0.20043063 | 2.8917449 | 21 | — | — |
| 482130 2010 $RN_{50}$ | 16.6 | X | 325.77669 | 65.40385 | 12.28165 | 12.26299 | 0.2202927 | 0.18569646 | 3.0427549 | 21 | 11 25.3 | 19.8 |
| 482131 2010 $RS_{81}$ | 16.0 | X | 24.15933 | 317.14486 | 10.54486 | 13.87221 | 0.1404423 | 0.18072961 | 3.0982503 | 21 | 10 14.5 | 19.8 |
| 482132 2010 $RF_{100}$ | 17.2 | X | 307.42902 | 112.93903 | 350.92657 | 9.24952 | 0.1755820 | 0.18864094 | 3.0110092 | 21 | 11 29.2 | 20.8 |
| 482133 2010 $RG_{116}$ | 16.5 | X | 260.82867 | 327.09814 | 147.10416 | 5.09726 | 0.0818883 | 0.18042846 | 3.1016969 | 21 | 10 20.0 | 20.8 |
| 482134 2010 $RB_{154}$ | 16.3 | X | 45.58424 | 318.43381 | 338.10513 | 8.03512 | 0.0581114 | 0.17682111 | 3.1437402 | 21 | 9 23.9 | 20.5 |
| 482135 2010 $RU_{155}$ | 15.8 | X | 269.66656 | 21.37088 | 37.96902 | 10.42994 | 0.0474623 | 0.16964251 | 3.2318132 | 21 | 8 30.9 | 20.5 |
| 482136 2010 $RB_{172}$ | 16.6 | X | 279.83151 | 269.07376 | 184.66379 | 14.28306 | 0.2162213 | 0.17753700 | 3.1352834 | 21 | 9 27.1 | 20.7 |
| 482137 2010 $RT_{174}$ | 16.5 | X | 337.12357 | 201.45176 | 190.24944 | 13.83443 | 0.0630770 | 0.18172733 | 3.0868999 | 21 | 10 23.0 | 20.5 |
| 482138 2010 $RL_{176}$ | 16.6 | X | 351.63718 | 151.54826 | 198.96376 | 9.66134 | 0.1154589 | 0.17600846 | 3.1534094 | 21 | 9 18.5 | 20.5 |
| 482139 2010 $RP_{182}$ | 16.5 | X | 339.11501 | 337.11285 | 44.29062 | 11.26262 | 0.1070894 | 0.17923886 | 3.1154057 | 21 | 10 13.8 | 20.3 |
| 482140 2010 $RC_{183}$ | 16.5 | X | 6.19235 | 83.70394 | 321.08990 | 8.65352 | 0.1271364 | 0.18933293 | 3.0036681 | 21 | 12 27.0 | 20.3 |
| 482141 2010 $RR_{183}$ | 16.4 | X | 284.57924 | 240.36336 | 209.75348 | 15.74740 | 0.1796684 | 0.17803414 | 3.1294441 | 21 | 10 2.9 | 20.7 |
| 482142 2010 $SE_{13}$ | 15.8 | X | 13.70997 | 86.50679 | 265.15598 | 8.93906 | 0.1071984 | 0.18305790 | 3.0719235 | 21 | 10 24.8 | 19.7 |
| 482143 2010 $SE_{20}$ | 16.6 | X | 347.45524 | 200.46627 | 199.02196 | 12.72902 | 0.1148032 | 0.18538925 | 3.0461154 | 21 | 11 19.4 | 20.4 |
| 482144 2010 $SJ_{26}$ | 16.3 | X | 332.97063 | 218.46696 | 132.08582 | 3.57561 | 0.2305766 | 0.17331893 | 3.1859482 | 21 | 8 9.8 | 19.5 |
| 482145 2010 $TP_{8}$ | 16.5 | X | 237.82988 | 140.40941 | 358.91990 | 8.78985 | 0.0788846 | 0.18429112 | 3.0582040 | 21 | 10 19.7 | 21.0 |
| 482146 2010 $TD_{9}$ | 17.0 | X | 334.12400 | 160.12078 | 199.87591 | 3.09815 | 0.1110803 | 0.17422499 | 3.1748929 | 21 | 9 2.3 | 21.0 |
| 482147 2010 $TD_{10}$ | 17.1 | X | 357.71444 | 13.23161 | 349.44907 | 2.22923 | 0.1187295 | 0.18157470 | 3.0886296 | 21 | 10 16.7 | 20.7 |
| 482148 2010 $TA_{13}$ | 16.8 | X | 262.30807 | 235.67553 | 208.81036 | 14.16904 | 0.1245630 | 0.17233009 | 3.1981240 | 21 | 9 2.0 | 21.7 |
| 482149 2010 $TF_{14}$ | 16.5 | X | 250.24925 | 239.29104 | 213.86780 | 9.77913 | 0.0588486 | 0.17359786 | 3.1825347 | 21 | 9 8.4 | 21.2 |
| 482150 2010 $TL_{23}$ | 17.0 | X | 347.15548 | 320.46942 | 34.38200 | 1.78588 | 0.2094079 | 0.17606687 | 3.1527119 | 21 | 9 19.3 | 20.1 |
| 482151 2010 $TP_{30}$ | 16.9 | X | 307.36053 | 91.31163 | 325.98653 | 1.21920 | 0.0569041 | 0.17991541 | 3.1075906 | 21 | 10 11.4 | 21.1 |
| 482152 2010 $TT_{32}$ | 16.9 | X | 269.39544 | 54.96914 | 26.94840 | 7.05331 | 0.1322911 | 0.17214797 | 3.2003793 | 21 | 9 13.2 | 21.3 |
| 482153 2010 $TB_{34}$ | 16.7 | X | 339.39679 | 187.73487 | 191.67312 | 10.77115 | 0.0730130 | 0.17723400 | 3.1388558 | 21 | 10 8.8 | 20.7 |
| 482154 2010 $TN_{36}$ | 16.5 | X | 347.77204 | 8.82353 | 31.58328 | 11.22411 | 0.2065457 | 0.18436435 | 3.0573940 | 21 | 11 22.1 | 19.6 |
| 482155 2010 $TY_{38}$ | 17.5 | X | 105.69008 | 214.12012 | 28.02408 | 21.22416 | 0.0357420 | 0.35848568 | 1.9625535 | 21 | 10 22.6 | 19.6 |
| 482156 2010 $TA_{57}$ | 16.7 | X | 321.43027 | 24.18511 | 353.50356 | 9.34142 | 0.0886298 | 0.17281614 | 3.1921247 | 21 | 9 8.7 | 20.7 |
| 482157 2010 $TR_{67}$ | 16.2 | X | 129.89222 | 221.73521 | 351.75570 | 9.75130 | 0.1095697 | 0.17797699 | 3.1301139 | 21 | 9 26.8 | 21.0 |
| 482158 2010 $TN_{71}$ | 16.3 | X | 319.71629 | 215.39906 | 197.77376 | 22.93346 | 0.1585479 | 0.18011965 | 3.1052410 | 21 | 10 17.5 | 19.8 |
| 482159 2010 $TN_{79}$ | 15.9 | X | 230.52021 | 97.33631 | 34.85359 | 9.66315 | 0.0359017 | 0.17828057 | 3.1265596 | 21 | 10 11.4 | 20.4 |
| 482160 2010 $TV_{79}$ | 16.2 | X | 183.37082 | 165.60772 | 32.50376 | 13.25256 | 0.0452558 | 0.18391791 | 3.0623397 | 21 | 11 3.2 | 20.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482161 2010 $TG_{86}$ | 16.2 | $X$ | 347.09184 | 174.92041 | 170.91209 | 9.61855 | 0.0831283 | 0.17402002 | 3.1773855 | 21 | 9 5.7 | 20.1 |
| 482162 2010 $TN_{92}$ | 16.4 | $X$ | 6.78883 | 95.45236 | 231.27611 | 8.62843 | 0.2410384 | 0.17775986 | 3.1326623 | 21 | 9 21.3 | 19.7 |
| 482163 2010 $TC_{100}$ | 16.6 | $X$ | 293.05836 | 225.48019 | 186.67194 | 15.80391 | 0.0856782 | 0.17401312 | 3.1774695 | 21 | 9 9.6 | 21.0 |
| 482164 2010 $TD_{101}$ | 16.4 | $X$ | 271.49327 | 105.19643 | 15.76029 | 11.77580 | 0.1762051 | 0.18269729 | 3.0759645 | 21 | 10 24.8 | 20.5 |
| 482165 2010 $TL_{120}$ | 17.3 | $X$ | 338.78067 | 115.77224 | 249.33226 | 3.98598 | 0.1789607 | 0.17805049 | 3.1292525 | 21 | 9 13.8 | 20.6 |
| 482166 2010 $TP_{121}$ | 16.7 | $X$ | 359.82197 | 306.61954 | 30.74432 | 8.17797 | 0.1808741 | 0.17729780 | 3.1381027 | 21 | 9 23.1 | 20.1 |
| 482167 2010 $TQ_{152}$ | 16.3 | $X$ | 197.72863 | 141.31055 | 32.63769 | 8.75086 | 0.0823291 | 0.18235554 | 3.0798064 | 21 | 10 19.8 | 21.0 |
| 482168 2010 $TS_{153}$ | 16.8 | $X$ | 344.45261 | 170.40410 | 210.45841 | 16.81097 | 0.1700587 | 0.18121166 | 3.0927533 | 21 | 10 19.4 | 20.2 |
| 482169 2010 $TD_{159}$ | 17.1 | $X$ | 312.23195 | 247.44494 | 144.52542 | 2.11481 | 0.2467182 | 0.17263145 | 3.1944010 | 21 | 8 23.2 | 20.8 |
| 482170 2010 $TH_{172}$ | 16.6 | $X$ | 315.29841 | 223.24368 | 200.52779 | 9.32437 | 0.0502170 | 0.18050047 | 3.1008719 | 21 | 11 1.5 | 20.8 |
| 482171 2010 $TU_{172}$ | 16.1 | $X$ | 320.19948 | 189.04900 | 212.59311 | 14.73880 | 0.1125720 | 0.17617949 | 3.1513682 | 21 | 10 3.5 | 20.0 |
| 482172 2010 $TU_{176}$ | 15.6 | $X$ | 268.62735 | 239.08437 | 236.99660 | 14.55735 | 0.1463404 | 0.17747502 | 3.1360133 | 21 | 10 18.0 | 20.1 |
| 482173 2010 $TG_{178}$ | 16.2 | $X$ | 13.77523 | 139.12337 | 183.29144 | 13.07872 | 0.0209095 | 0.17427739 | 3.1742565 | 21 | 9 10.9 | 20.7 |
| 482174 2010 $TZ_{183}$ | 16.7 | $X$ | 52.53977 | 110.62534 | 209.50341 | 8.69375 | 0.1045916 | 0.18879300 | 3.0093922 | 21 | 11 12.3 | 20.7 |
| 482175 2010 $TC_{186}$ | 15.8 | $X$ | 272.76177 | 27.11208 | 71.05490 | 17.13408 | 0.0398515 | 0.17768763 | 3.1335112 | 21 | 10 25.9 | 20.3 |
| 482176 2010 $TQ_{189}$ | 16.2 | $X$ | 309.80543 | 41.87537 | 357.73259 | 15.39592 | 0.1262608 | 0.17392820 | 3.1785037 | 21 | 9 15.9 | 20.0 |
| 482177 2010 $UA_{8}$ | 17.1 | $X$ | 208.65932 | 81.03530 | 81.70402 | 24.24171 | 0.0616872 | 0.36176050 | 1.9506916 | 21 | 11 22.0 | 19.3 |
| 482178 2010 $UV_{10}$ | 17.1 | $X$ | 288.98969 | 209.86076 | 231.35039 | 4.21920 | 0.2324932 | 0.17429758 | 3.1740114 | 21 | 9 19.4 | 21.2 |
| 482179 2010 $UN_{30}$ | 16.2 | $X$ | 62.40978 | 311.51789 | 31.94550 | 13.75990 | 0.1889944 | 0.18928658 | 3.0041585 | 21 | — | — |
| 482180 2010 $UT_{31}$ | 16.4 | $X$ | 343.42444 | 327.26327 | 47.18933 | 9.96506 | 0.1334353 | 0.17669152 | 3.1452771 | 21 | 10 11.5 | 20.1 |
| 482181 2010 $UQ_{32}$ | 16.1 | $X$ | 11.68874 | 348.89011 | 10.52783 | 10.60581 | 0.1099127 | 0.17954850 | 3.1118228 | 21 | 10 31.4 | 20.1 |
| 482182 2010 $UJ_{36}$ | 15.8 | $X$ | 283.92840 | 42.42265 | 50.92372 | 27.51677 | 0.1857171 | 0.17086145 | 3.2164242 | 21 | 10 18.1 | 20.3 |
| 482183 2010 $UY_{37}$ | 16.6 | $X$ | 298.99648 | 140.76918 | 339.64383 | 9.23947 | 0.0618726 | 0.19116818 | 2.9844134 | 21 | 12 19.9 | 20.7 |
| 482184 2010 $UN_{44}$ | 15.6 | $X$ | 268.90289 | 201.46377 | 259.34459 | 8.98344 | 0.0357337 | 0.17642763 | 3.1484127 | 21 | 10 14.4 | 20.1 |
| 482185 2010 $UN_{51}$ | 15.6 | $X$ | 255.34358 | 92.03821 | 50.31199 | 19.43197 | 0.0663566 | 0.17852824 | 3.1236673 | 21 | 11 15.9 | 19.9 |
| 482186 2010 $UC_{57}$ | 16.2 | $X$ | 47.54965 | 57.95784 | 255.22985 | 8.59599 | 0.0377905 | 0.17646449 | 3.1479742 | 21 | 10 13.4 | 20.6 |
| 482187 2010 $UW_{62}$ | 15.5 | $X$ | 7.67203 | 124.82744 | 252.61406 | 14.42206 | 0.1007044 | 0.17786036 | 3.1314822 | 21 | 11 18.1 | 19.5 |
| 482188 2010 $UD_{63}$ | 15.7 | $X$ | 345.41156 | 125.45652 | 254.89406 | 8.20699 | 0.0824195 | 0.17510536 | 3.1642425 | 21 | 10 15.5 | 19.8 |
| 482189 2010 $UL_{75}$ | 15.9 | $X$ | 351.86323 | 255.27215 | 122.41313 | 8.17424 | 0.2518141 | 0.17887123 | 3.1196728 | 21 | 11 7.1 | 19.0 |
| 482190 2010 $US_{75}$ | 16.1 | $X$ | 226.31629 | 257.98140 | 262.45124 | 9.64807 | 0.0427575 | 0.17790019 | 3.1310147 | 21 | 11 5.2 | 20.7 |
| 482191 2010 $UR_{86}$ | 16.9 | $X$ | 305.84942 | 230.21745 | 168.53991 | 4.44164 | 0.1726594 | 0.17044418 | 3.2216715 | 21 | 8 31.5 | 20.9 |
| 482192 2010 $UL_{90}$ | 15.7 | $X$ | 281.32397 | 228.65616 | 226.19850 | 19.50973 | 0.1303105 | 0.17395833 | 3.1781366 | 21 | 10 9.9 | 20.2 |
| 482193 2010 $UO_{101}$ | 17.5 | $X$ | 314.01595 | 25.49777 | 26.24625 | 0.92389 | 0.1671718 | 0.17596362 | 3.1539451 | 21 | 10 3.5 | 20.9 |
| 482194 2010 $VN_{40}$ | 16.5 | $X$ | 40.44021 | 61.20988 | 250.30367 | 7.92512 | 0.0747498 | 0.17598630 | 3.1536741 | 21 | 10 6.9 | 20.9 |
| 482195 2010 $VU_{59}$ | 16.3 | $X$ | 234.07301 | 150.82062 | 357.53799 | 11.93434 | 0.1234563 | 0.17692485 | 3.1425112 | 21 | 10 18.9 | 21.1 |
| 482196 2010 $VL_{64}$ | 17.1 | $X$ | 297.67328 | 348.15630 | 130.33889 | 4.79067 | 0.1006154 | 0.18402230 | 3.0611815 | 21 | 12 10.9 | 21.1 |
| 482197 2010 $VG_{71}$ | 16.2 | $X$ | 237.57097 | 347.80478 | 101.01998 | 8.45910 | 0.1393690 | 0.15901833 | 3.3742033 | 21 | 8 13.8 | 21.4 |
| 482198 2010 $VO_{91}$ | 16.2 | $X$ | 274.38826 | 26.41396 | 60.81171 | 8.02580 | 0.1304779 | 0.16746118 | 3.2598174 | 21 | 9 27.4 | 20.7 |
| 482199 2010 $VX_{93}$ | 16.1 | $X$ | 347.10574 | 142.60721 | 226.07517 | 15.26571 | 0.0822601 | 0.17226440 | 3.1989370 | 21 | 10 2.1 | 20.4 |
| 482200 2010 $VA_{103}$ | 16.4 | $X$ | 359.81348 | 79.28485 | 319.13993 | 8.84513 | 0.0825079 | 0.18372411 | 3.0644929 | 21 | 12 1.8 | 20.5 |
| 482201 2010 $VV_{115}$ | 16.2 | $X$ | 64.80279 | 308.65045 | 27.83113 | 12.83063 | 0.1219804 | 0.18524946 | 3.0476476 | 21 | 12 16.2 | 20.8 |
| 482202 2010 $VW_{118}$ | 16.0 | $X$ | 300.31510 | 186.05514 | 265.91445 | 8.82475 | 0.0826052 | 0.17723117 | 3.1388892 | 21 | 11 10.0 | 20.2 |
| 482203 2010 $VV_{160}$ | 16.1 | $X$ | 325.79783 | 19.28788 | 42.17244 | 11.82610 | 0.0538164 | 0.17864836 | 3.1222669 | 21 | 11 10.9 | 20.3 |
| 482204 2010 $VU_{170}$ | 16.1 | $X$ | 328.43093 | 325.79051 | 57.54257 | 10.22970 | 0.0411629 | 0.16804908 | 3.2522103 | 21 | 10 2.6 | 20.6 |
| 482205 2010 $VF_{173}$ | 15.8 | $X$ | 230.35769 | 115.51984 | 70.85673 | 17.05217 | 0.1074124 | 0.17937913 | 3.1137813 | 21 | 12 4.6 | 20.2 |
| 482206 2010 $VR_{175}$ | 16.1 | $X$ | 327.73678 | 130.96152 | 267.43302 | 15.40157 | 0.2240461 | 0.17610191 | 3.1522937 | 21 | 9 27.8 | 19.8 |
| 482207 2010 $VU_{180}$ | 16.6 | $X$ | 306.16859 | 249.87963 | 236.21356 | 7.63381 | 0.0603786 | 0.18761885 | 3.0219346 | 21 | — | — |
| 482208 2010 $VQ_{199}$ | 16.3 | $X$ | 303.20311 | 44.02031 | 58.06142 | 28.24026 | 0.2997115 | 0.17879620 | 3.1205455 | 21 | 11 7.9 | 19.7 |
| 482209 2010 $VB_{213}$ | 16.0 | $X$ | 20.03415 | 33.45342 | 288.02192 | 11.64291 | 0.0956717 | 0.17438902 | 3.1729018 | 21 | 9 19.3 | 20.3 |
| 482210 2010 $VW_{214}$ | 16.6 | $X$ | 292.58218 | 45.95779 | 14.34837 | 10.65413 | 0.1195683 | 0.17210555 | 3.2009051 | 21 | 9 18.8 | 20.8 |
| 482211 2010 $VA_{215}$ | 16.0 | $X$ | 136.19168 | 333.09724 | 258.31686 | 9.75661 | 0.0301264 | 0.17878887 | 3.1206308 | 21 | 10 18.9 | 20.7 |
| 482212 2010 $WM_{11}$ | 16.2 | $X$ | 262.44697 | 101.82529 | 26.51226 | 16.31921 | 0.2157273 | 0.17404544 | 3.1770761 | 21 | 10 18.1 | 20.7 |
| 482213 2010 $WP_{11}$ | 16.2 | $X$ | 49.76041 | 346.60380 | 320.01055 | 9.00669 | 0.0356757 | 0.17138258 | 3.2099007 | 21 | 10 5.9 | 20.8 |
| 482214 2010 $WG_{31}$ | 16.2 | $X$ | 270.77283 | 114.17867 | 69.58841 | 13.75682 | 0.2799717 | 0.18484075 | 3.0521385 | 21 | 12 26.8 | 20.1 |
| 482215 2010 $WY_{40}$ | 16.8 | $X$ | 298.64043 | 191.58633 | 265.05109 | 9.26903 | 0.1827803 | 0.17681782 | 3.1437791 | 21 | 10 31.8 | 20.8 |
| 482216 2010 $WX_{44}$ | 16.4 | $X$ | 286.93526 | 201.61971 | 277.60693 | 8.72287 | 0.0959960 | 0.17927128 | 3.1150300 | 21 | 11 24.6 | 20.5 |
| 482217 2010 $WO_{52}$ | 15.9 | $X$ | 344.25698 | 5.30417 | 64.25182 | 16.84047 | 0.1046003 | 0.18246633 | 3.0785596 | 21 | 12 18.6 | 19.8 |
| 482218 2010 $WM_{74}$ | 15.4 | $X$ | 254.47995 | 11.42880 | 101.83446 | 28.24604 | 0.1411668 | 0.16975030 | 3.2304450 | 21 | 10 14.5 | 20.7 |
| 482219 2010 $XS_{1}$ | 15.9 | $X$ | 108.19716 | 7.83637 | 263.90555 | 8.70634 | 0.0649479 | 0.17936105 | 3.1139905 | 21 | 11 9.4 | 20.6 |
| 482220 2010 $XC_{21}$ | 15.5 | $X$ | 283.36253 | 43.78558 | 72.91309 | 26.25480 | 0.2332939 | 0.17384563 | 3.1795100 | 21 | 11 6.7 | 19.8 |
| 482221 2010 $XF_{21}$ | 15.4 | $X$ | 41.64716 | 264.09106 | 64.99367 | 29.25649 | 0.0184627 | 0.17576958 | 3.1562659 | 21 | 11 4.8 | 20.1 |
| 482222 2010 $XW_{27}$ | 16.8 | $X$ | 2.80014 | 92.86903 | 294.09300 | 2.62956 | 0.1534371 | 0.17872008 | 3.1214315 | 21 | 11 28.0 | 20.5 |
| 482223 2010 $XJ_{30}$ | 16.0 | $X$ | 286.01305 | 24.66931 | 74.16217 | 17.90046 | 0.1734897 | 0.17515451 | 3.1636505 | 21 | 10 26.4 | 20.3 |
| 482224 2010 $XF_{66}$ | 16.3 | $X$ | 219.68495 | 100.75448 | 114.99952 | 12.01688 | 0.0720174 | 0.17636298 | 3.1491820 | 21 | 12 31.4 | 21.0 |
| 482225 2010 $XS_{74}$ | 16.3 | $X$ | 352.16897 | 357.06193 | 35.96923 | 11.07915 | 0.0878441 | 0.17623111 | 3.1507528 | 21 | 11 12.6 | 20.2 |
| 482226 2011 $AP_{21}$ | 15.3 | $X$ | 278.37829 | 287.84813 | 106.09975 | 11.02788 | 0.1055845 | 0.14651250 | 3.5635780 | 21 | 7 27.1 | 20.2 |
| 482227 2011 $AB_{47}$ | 17.9 | $X$ | 30.57557 | 258.57728 | 289.67386 | 3.40664 | 0.0760822 | 0.30346400 | 2.1931311 | 21 | 3 28.3 | 19.9 |
| 482228 2011 $BH_{10}$ | 17.9 | $X$ | 88.05255 | 81.02410 | 323.85824 | 12.45901 | 0.3723210 | 0.49486499 | 1.5829902 | 21 | — | — |
| 482229 2011 $BG_{23}$ | 17.8 | $X$ | 174.83246 | 268.79562 | 270.56570 | 16.74637 | 0.0738759 | 0.35030039 | 1.9930077 | 21 | 10 13.6 | 20.6 |
| 482230 2011 $BW_{79}$ | 16.5 | $X$ | 276.23870 | 54.04231 | 122.66001 | 7.04356 | 0.0809632 | 0.17843167 | 3.1247942 | 21 | — | — |
| 482231 2011 $BZ_{91}$ | 17.4 | $X$ | 293.44312 | 335.54611 | 286.20565 | 5.87104 | 0.1692984 | 0.29542383 | 2.2327445 | 21 | 2 1.4 | 20.5 |
| 482232 2011 $CO_{25}$ | 18.0 | $X$ | 124.11041 | 159.08731 | 315.62297 | 6.65868 | 0.0841184 | 0.31147213 | 2.1553770 | 21 | 5 8.7 | 20.7 |
| 482233 2011 $CR_{50}$ | 15.3 | $X$ | 285.94042 | 176.82625 | 347.17522 | 27.89825 | 0.1482636 | 0.17241903 | 3.1970241 | 21 | — | — |
| 482234 2011 $CG_{71}$ | 22.6 | $X$ | 299.77881 | 178.88763 | 329.29810 | 4.53223 | 0.1627378 | 0.64936818 | 1.3207138 | 21 | — | — |
| 482235 2011 $CS_{107}$ | 19.0 | $X$ | 159.90665 | 204.38685 | 220.67455 | 0.68959 | 0.1372941 | 0.30801224 | 2.1714878 | 21 | 4 21.7 | 21.9 |
| 482236 2011 $EC_{78}$ | 17.7 | $X$ | 284.12022 | 267.16089 | 337.44559 | 7.02316 | 0.0854640 | 0.28352539 | 2.2947819 | 21 | 1 13.6 | 20.8 |
| 482237 2011 $FS_{20}$ | 17.9 | $X$ | 220.02589 | 124.74404 | 158.64095 | 5.89324 | 0.1292476 | 0.27383088 | 2.3486291 | 21 | — | — |
| 482238 2011 $FR_{28}$ | 17.8 | $X$ | 342.64922 | 318.39234 | 260.86437 | 4.19428 | 0.1932550 | 0.28876769 | 2.2669241 | 21 | 2 4.9 | 20.4 |
| 482239 2011 $FP_{67}$ | 17.4 | $X$ | 244.32860 | 240.38689 | 54.86647 | 6.51656 | 0.1898904 | 0.28198900 | 2.3031096 | 21 | 1 31.4 | 21.1 |
| 482240 2011 $FE_{80}$ | 17.8 | $X$ | 186.16815 | 274.41340 | 142.18035 | 6.43313 | 0.0839955 | 0.30559872 | 2.1829060 | 21 | 5 9.8 | 20.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482241 2011 $FV_{99}$ | 17.8 | X | 253.61737 | 52.89616 | 219.10089 | 4.78739 | 0.0776251 | 0.27935685 | 2.3175538 | 21 | 1 13.3 | 21.1 |
| 482242 2011 $GH_{72}$ | 17.9 | X | 272.23007 | 171.33429 | 75.01909 | 8.44708 | 0.1373691 | 0.27446181 | 2.3450284 | 21 | — | — |
| 482243 2011 $GO_{74}$ | 17.5 | X | 163.96531 | 271.08723 | 61.91734 | 6.63387 | 0.1382960 | 0.26437843 | 2.4042818 | 21 | 1 2.3 | 20.9 |
| 482244 2011 $HR$ | 19.7 | X | 91.10282 | 294.87261 | 98.40266 | 16.20528 | 0.0517596 | 0.65355458 | 1.3150678 | 21 | — | — |
| 482245 2011 $HN_{29}$ | 17.5 | X | 252.25409 | 145.60045 | 86.19916 | 4.89593 | 0.1239505 | 0.26442525 | 2.4039980 | 21 | — | — |
| 482246 2011 $HB_{66}$ | 18.1 | X | 77.76474 | 111.29078 | 35.48898 | 4.42836 | 0.0981138 | 0.29804573 | 2.2196310 | 21 | 4 23.1 | 20.3 |
| 482247 2011 $HZ_{92}$ | 18.0 | X | 332.17511 | 192.94917 | 28.22582 | 7.32039 | 0.0346524 | 0.28685557 | 2.2769869 | 21 | 2 23.2 | 20.7 |
| 482248 2011 $JS_{25}$ | 17.8 | X | 335.47426 | 80.59523 | 108.35332 | 5.95863 | 0.0883603 | 0.27475240 | 2.3433746 | 21 | 1 5.1 | 20.7 |
| 482249 2011 $KT_{21}$ | 13.7 | X | 304.00139 | 26.78601 | 291.04463 | 26.71460 | 0.0690312 | 0.08077352 | 5.3001729 | 21 | 6 3.9 | 20.8 |
| 482250 2011 $LL_{2}$ | 19.9 | X | 139.43275 | 163.59776 | 68.24717 | 24.67525 | 0.0964226 | 0.81614643 | 1.1340286 | 21 | — | — |
| 482251 2011 $MW_{4}$ | 16.9 | X | 124.87928 | 183.24434 | 115.43557 | 8.68791 | 0.1901231 | 0.23264654 | 2.6182131 | 21 | — | — |
| 482252 2011 $NO_{3}$ | 16.1 | X | 87.69950 | 53.28191 | 297.97863 | 23.86080 | 0.3852549 | 0.22562213 | 2.6722777 | 21 | — | — |
| 482253 2011 $OA_{11}$ | 17.6 | X | 63.66736 | 99.70928 | 285.63811 | 11.52261 | 0.2687520 | 0.22936343 | 2.6431386 | 21 | — | — |
| 482254 2011 $OK_{22}$ | 17.1 | X | 62.82358 | 75.74296 | 267.79378 | 6.36270 | 0.1840696 | 0.22290313 | 2.6939649 | 21 | — | — |
| 482255 2011 $OD_{41}$ | 16.9 | X | 121.72626 | 220.09771 | 123.28215 | 13.43590 | 0.1131825 | 0.24058637 | 2.5602873 | 21 | — | — |
| 482256 2011 $PC_{1}$ | 16.3 | X | 115.97620 | 238.69351 | 107.85405 | 28.76935 | 0.2614671 | 0.23283239 | 2.6168196 | 21 | — | — |
| 482257 2011 $PM_{1}$ | 16.6 | X | 102.67910 | 11.32587 | 301.17529 | 11.18298 | 0.1942675 | 0.22980862 | 2.6397239 | 21 | — | — |
| 482258 2011 $PV_{9}$ | 17.0 | X | 99.84761 | 197.37518 | 138.02652 | 15.15418 | 0.2628865 | 0.23009251 | 2.6375522 | 21 | — | — |
| 482259 2011 $QO_{26}$ | 16.9 | X | 89.60221 | 152.03768 | 174.24835 | 9.88806 | 0.3246818 | 0.22327265 | 2.6909918 | 21 | — | — |
| 482260 2011 $QV_{27}$ | 16.7 | X | 109.02027 | 88.40695 | 229.48705 | 10.77501 | 0.0951927 | 0.22579623 | 2.6709039 | 21 | — | — |
| 482261 2011 $QP_{32}$ | 17.2 | X | 66.72295 | 231.39928 | 97.70229 | 1.57452 | 0.0749862 | 0.21437416 | 2.7649530 | 21 | 12 10.2 | 21.1 |
| 482262 2011 $QJ_{45}$ | 16.7 | X | 108.91681 | 19.91389 | 318.11032 | 11.04523 | 0.0980174 | 0.23072086 | 2.6327613 | 21 | — | — |
| 482263 2011 $QR_{54}$ | 17.3 | X | 8.57073 | 130.10875 | 258.60519 | 6.60689 | 0.2276917 | 0.21026692 | 2.8008429 | 21 | 12 28.7 | 20.4 |
| 482264 2011 $QW_{73}$ | 17.5 | X | 142.58420 | 37.03748 | 238.42144 | 3.25245 | 0.1429195 | 0.22556501 | 2.6727288 | 21 | 12 29.0 | 21.8 |
| 482265 2011 $QQ_{89}$ | 17.6 | X | 61.78552 | 115.53175 | 203.31672 | 3.40259 | 0.2082943 | 0.21390656 | 2.7689810 | 21 | 12 9.3 | 21.7 |
| 482266 2011 $QK_{99}$ | 14.2 | X | 314.53948 | 104.30645 | 199.30677 | 16.56117 | 0.1472189 | 0.08244516 | 5.2282851 | 21 | 5 22.5 | 20.8 |
| 482267 2011 $RC_{3}$ | 17.0 | X | 243.66565 | 254.44768 | 305.90814 | 11.74717 | 0.1173227 | 0.23248674 | 2.6194127 | 21 | — | — |
| 482268 2011 $RG_{4}$ | 16.8 | X | 67.22885 | 192.33865 | 165.66685 | 9.42244 | 0.1964423 | 0.21886943 | 2.7269634 | 21 | — | — |
| 482269 2011 $RG_{16}$ | 16.1 | X | 101.53529 | 3.20775 | 350.08954 | 15.41772 | 0.2655617 | 0.22894324 | 2.6463716 | 21 | — | — |
| 482270 2011 $RM_{17}$ | 18.1 | X | 28.47480 | 231.47478 | 185.53752 | 9.46167 | 0.1252338 | 0.22310813 | 2.6923145 | 21 | — | — |
| 482271 2011 $RR_{19}$ | 17.4 | X | 29.97846 | 93.96962 | 290.70173 | 16.54586 | 0.2929726 | 0.21479226 | 2.7613639 | 21 | — | — |
| 482272 2011 $SX_{6}$ | 17.7 | X | 53.48982 | 163.05925 | 201.57075 | 4.68271 | 0.1256730 | 0.21853767 | 2.7297226 | 21 | — | — |
| 482273 2011 $SX_{19}$ | 15.7 | X | 322.69995 | 51.33565 | 284.57914 | 17.80281 | 0.1336468 | 0.18492588 | 3.0512017 | 21 | 7 11.4 | 19.4 |
| 482274 2011 $SU_{63}$ | 16.4 | X | 115.10829 | 302.95574 | 44.50537 | 18.04019 | 0.2459483 | 0.22766603 | 2.6562599 | 21 | — | — |
| 482275 2011 $SU_{103}$ | 16.8 | X | 31.13930 | 245.01189 | 214.34093 | 12.23741 | 0.2283363 | 0.22569726 | 2.6716846 | 21 | — | — |
| 482276 2011 $SY_{117}$ | 16.7 | X | 47.64670 | 12.18756 | 10.09426 | 9.82527 | 0.1876338 | 0.21762929 | 2.7373131 | 21 | — | — |
| 482277 2011 $SJ_{121}$ | 16.9 | X | 77.16099 | 18.58109 | 15.03777 | 13.17348 | 0.1618709 | 0.22719395 | 2.6599382 | 21 | — | — |
| 482278 2011 $SS_{122}$ | 17.1 | X | 41.63867 | 9.86180 | 65.60766 | 3.28344 | 0.1825033 | 0.22432375 | 2.6825791 | 21 | — | — |
| 482279 2011 $SO_{135}$ | 17.2 | X | 137.46685 | 130.80215 | 186.69806 | 11.42130 | 0.1822508 | 0.23039011 | 2.6352803 | 21 | — | — |
| 482280 2011 $SX_{146}$ | 17.3 | X | 204.93361 | 230.37778 | 13.52458 | 4.65464 | 0.0822120 | 0.22740355 | 2.6583034 | 21 | — | — |
| 482281 2011 $SC_{213}$ | 17.0 | X | 350.85599 | 62.26400 | 10.81308 | 7.51785 | 0.2088444 | 0.20983956 | 2.8046444 | 21 | — | — |
| 482282 2011 $SJ_{215}$ | 17.2 | X | 11.90214 | 116.85149 | 7.30436 | 11.75118 | 0.0212929 | 0.23668842 | 2.5883204 | 21 | — | — |
| 482283 2011 $SH_{227}$ | 17.1 | X | 345.95233 | 180.93582 | 257.30855 | 5.20845 | 0.0943280 | 0.21223860 | 2.7834695 | 21 | — | — |
| 482284 2011 $SF_{231}$ | 16.9 | X | 179.33401 | 318.05342 | 357.76990 | 12.82493 | 0.1730669 | 0.24023196 | 2.5628048 | 21 | 1 5.9 | 21.2 |
| 482285 2011 $SM_{245}$ | 17.1 | X | 64.43783 | 357.02368 | 346.98135 | 4.31203 | 0.1673403 | 0.21167375 | 2.7884191 | 21 | — | — |
| 482286 2011 $SU_{256}$ | 17.3 | X | 67.15950 | 176.93573 | 168.80048 | 4.55056 | 0.0817596 | 0.21044058 | 2.7993018 | 21 | 12 30.9 | 21.4 |
| 482287 2011 $SL_{268}$ | 17.2 | X | 49.25079 | 12.33166 | 10.22264 | 6.53974 | 0.0623560 | 0.21867447 | 2.7285840 | 21 | — | — |
| 482288 2011 $TL_{1}$ | 17.7 | X | 179.06821 | 209.12260 | 125.76166 | 3.57380 | 0.1613527 | 0.24383868 | 2.5374704 | 21 | 1 25.0 | 21.7 |
| 482289 2011 $TU_{2}$ | 16.7 | X | 152.72169 | 58.95857 | 279.49367 | 12.32032 | 0.2097321 | 0.23710290 | 2.5853031 | 21 | 1 9.2 | 20.6 |
| 482290 2011 $TQ_{7}$ | 17.3 | X | 17.81295 | 97.29224 | 337.71039 | 1.87711 | 0.1710985 | 0.21676664 | 2.7445707 | 21 | — | — |
| 482291 2011 $TT_{8}$ | 18.2 | X | 346.34458 | 42.80914 | 355.43176 | 7.04733 | 0.2027965 | 0.30273403 | 2.1966552 | 21 | 12 28.3 | 20.0 |
| 482292 2011 $TV_{11}$ | 16.5 | X | 42.90572 | 30.24314 | 29.14370 | 13.53611 | 0.1649129 | 0.22290281 | 2.6939675 | 21 | — | — |
| 482293 2011 $TO_{13}$ | 16.8 | X | 16.64068 | 250.31300 | 154.57221 | 9.84781 | 0.2149136 | 0.21329747 | 2.7742499 | 21 | — | — |
| 482294 2011 $TH_{15}$ | 16.6 | X | 5.77712 | 244.91943 | 165.35986 | 9.59217 | 0.2261364 | 0.21024650 | 2.8010242 | 21 | — | — |
| 482295 2011 $TS_{15}$ | 16.6 | X | 44.04872 | 34.56318 | 21.23984 | 13.86433 | 0.2574860 | 0.22263097 | 2.6961600 | 21 | — | — |
| 482296 2011 $UM_{1}$ | 16.2 | X | 286.36031 | 136.61304 | 259.13380 | 4.27903 | 0.1843934 | 0.18205605 | 3.0831831 | 21 | 7 27.4 | 20.3 |
| 482297 2011 $UJ_{6}$ | 16.9 | X | 328.25621 | 93.81175 | 46.94045 | 9.83926 | 0.0849814 | 0.21846699 | 2.7303113 | 21 | — | — |
| 482298 2011 $UG_{53}$ | 16.6 | X | 8.91875 | 317.05290 | 3.96051 | 2.66110 | 0.2153242 | 0.18802838 | 3.0175451 | 21 | 9 20.6 | 19.7 |
| 482299 2011 $UH_{68}$ | 16.9 | X | 339.24944 | 296.15002 | 7.96741 | 15.52164 | 0.2004077 | 0.18176283 | 3.0864979 | 21 | 6 19.6 | 20.6 |
| 482300 2011 $UC_{80}$ | 17.6 | X | 48.14153 | 124.63122 | 274.67155 | 2.25905 | 0.2006757 | 0.21671394 | 2.7450156 | 21 | — | — |
| 482301 2011 $UT_{85}$ | 16.9 | X | 7.59488 | 307.79350 | 110.38933 | 5.52004 | 0.0609103 | 0.21194561 | 2.7860341 | 21 | — | — |
| 482302 2011 $UR_{87}$ | 16.9 | X | 310.98369 | 239.60150 | 234.12934 | 14.06455 | 0.1064768 | 0.20292300 | 2.8680180 | 21 | 12 27.7 | 20.5 |
| 482303 2011 $UJ_{92}$ | 17.4 | X | 17.04517 | 50.82535 | 343.27652 | 3.84940 | 0.0718940 | 0.20893844 | 2.8127026 | 21 | 12 26.7 | 21.0 |
| 482304 2011 $UF_{95}$ | 17.0 | X | 91.15660 | 274.65932 | 36.93582 | 4.84986 | 0.0640786 | 0.20926550 | 2.8097712 | 21 | 12 14.2 | 21.0 |
| 482305 2011 $UC_{97}$ | 17.4 | X | 31.24672 | 55.71253 | 336.98556 | 3.40341 | 0.0807126 | 0.21340608 | 2.7733085 | 21 | — | — |
| 482306 2011 $UL_{126}$ | 15.9 | X | 70.64963 | 259.38203 | 9.20107 | 10.38647 | 0.0586546 | 0.18660554 | 3.0328647 | 21 | 9 25.2 | 20.0 |
| 482307 2011 $UT_{128}$ | 17.4 | X | 91.93518 | 115.40125 | 251.59505 | 11.46185 | 0.2805166 | 0.22213404 | 2.7001795 | 21 | — | — |
| 482308 2011 $UA_{133}$ | 17.0 | X | 317.62781 | 334.82445 | 233.38712 | 11.04452 | 0.1122206 | 0.23721459 | 2.5844916 | 21 | 1 9.6 | 20.6 |
| 482309 2011 $UF_{146}$ | 16.4 | X | 209.93285 | 243.43719 | 250.65233 | 9.18092 | 0.0672768 | 0.18007884 | 3.1057102 | 21 | 9 10.4 | 21.2 |
| 482310 2011 $UR_{161}$ | 17.1 | X | 112.45713 | 146.00302 | 268.22686 | 4.94979 | 0.1385017 | 0.23567297 | 2.5957500 | 21 | 2 17.1 | 20.5 |
| 482311 2011 $UV_{180}$ | 17.1 | X | 225.21684 | 167.36960 | 20.29110 | 4.39851 | 0.0847140 | 0.20436151 | 2.8545434 | 21 | 12 7.1 | 21.2 |
| 482312 2011 $UE_{193}$ | 16.5 | X | 60.78628 | 39.73772 | 21.49086 | 13.11563 | 0.1538802 | 0.22554134 | 2.6729158 | 21 | — | — |
| 482313 2011 $UF_{201}$ | 17.2 | X | 46.54986 | 263.72194 | 162.28339 | 12.59526 | 0.1970692 | 0.22276012 | 2.6951178 | 21 | — | — |
| 482314 2011 $UF_{207}$ | 16.4 | X | 260.69677 | 242.02487 | 18.38605 | 14.92462 | 0.1582698 | 0.24369988 | 2.5384338 | 21 | 1 11.7 | 20.7 |
| 482315 2011 $US_{209}$ | 17.2 | X | 9.12213 | 147.50228 | 262.25782 | 3.70245 | 0.0493017 | 0.21080878 | 2.7960413 | 21 | — | — |
| 482316 2011 $UP_{228}$ | 17.0 | X | 335.31188 | 60.59343 | 55.31624 | 4.11936 | 0.1514719 | 0.21690734 | 2.7433837 | 21 | — | — |
| 482317 2011 $UV_{236}$ | 16.8 | X | 126.44903 | 301.66568 | 37.00243 | 14.10377 | 0.0619708 | 0.22277368 | 2.6950084 | 21 | — | — |
| 482318 2011 $UA_{238}$ | 17.3 | X | 348.66453 | 92.57456 | 45.36650 | 16.17829 | 0.2166093 | 0.21871391 | 2.7282559 | 21 | — | — |
| 482319 2011 $UQ_{239}$ | 17.2 | X | 32.91603 | 306.77920 | 42.55461 | 9.09746 | 0.1935473 | 0.20039940 | 2.8920454 | 21 | 12 6.2 | 20.9 |
| 482320 2011 $UT_{242}$ | 16.4 | X | 13.47652 | 102.87907 | 236.39511 | 9.78046 | 0.1143152 | 0.18958172 | 3.0010397 | 21 | 10 10.4 | 20.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482321 2011 $UE_{244}$ | 17.2 | X | 90.27873 | 309.76951 | 50.80749 | 6.02528 | 0.0405853 | 0.21495848 | 2.7599401 | 21 | — | — |
| 482322 2011 $UC_{249}$ | 17.4 | X | 26.72585 | 10.14656 | 65.84136 | 2.79081 | 0.0551777 | 0.21657090 | 2.7462241 | 21 | — | — |
| 482323 2011 $UJ_{251}$ | 17.1 | X | 62.09334 | 310.06561 | 78.31823 | 8.88515 | 0.1672180 | 0.21556465 | 2.7547638 | 21 | — | — |
| 482324 2011 $UT_{262}$ | 17.5 | X | 13.40008 | 36.36156 | 356.83371 | 3.48648 | 0.1125924 | 0.20221384 | 2.8747194 | 21 | 12 23.9 | 21.0 |
| 482325 2011 $UA_{263}$ | 16.8 | X | 129.55431 | 271.01431 | 57.17015 | 17.62078 | 0.1470648 | 0.21935665 | 2.7229239 | 21 | — | — |
| 482326 2011 $UU_{273}$ | 17.7 | X | 122.26361 | 71.31666 | 295.45971 | 7.58333 | 0.1797675 | 0.23768400 | 2.5810877 | 21 | 1 7.9 | 20.9 |
| 482327 2011 $UG_{284}$ | 17.1 | X | 34.20596 | 58.64322 | 28.10021 | 2.65909 | 0.1454482 | 0.22004920 | 2.7172078 | 21 | — | — |
| 482328 2011 $UH_{297}$ | 17.1 | X | 339.24150 | 207.42298 | 177.67541 | 2.97904 | 0.0405326 | 0.19369288 | 2.9584230 | 21 | 10 18.8 | 21.0 |
| 482329 2011 $UM_{306}$ | 17.5 | X | 47.49400 | 163.82360 | 239.89181 | 12.55123 | 0.2290999 | 0.21755658 | 2.7379230 | 21 | — | — |
| 482330 2011 $UC_{314}$ | 17.0 | X | 326.87877 | 248.63799 | 149.69793 | 3.15851 | 0.1204371 | 0.19290168 | 2.9665069 | 21 | 10 15.7 | 20.4 |
| 482331 2011 $UX_{327}$ | 16.2 | X | 27.88706 | 10.24570 | 57.69122 | 13.90140 | 0.0564327 | 0.21475705 | 2.7616656 | 21 | — | — |
| 482332 2011 $UX_{329}$ | 16.7 | X | 17.26775 | 191.17907 | 246.80998 | 7.46743 | 0.0874986 | 0.21489805 | 2.7604575 | 21 | — | — |
| 482333 2011 $UL_{335}$ | 16.4 | X | 19.75443 | 26.12283 | 20.26185 | 13.27346 | 0.1604204 | 0.21198241 | 2.7857117 | 21 | — | — |
| 482334 2011 $UE_{343}$ | 16.9 | X | 349.25721 | 64.70777 | 48.16330 | 9.12433 | 0.1317597 | 0.21574287 | 2.7532464 | 21 | — | — |
| 482335 2011 $UJ_{351}$ | 17.0 | X | 11.74799 | 13.51729 | 80.66885 | 5.19782 | 0.0897232 | 0.21735949 | 2.7395779 | 21 | — | — |
| 482336 2011 $UT_{353}$ | 16.3 | X | 333.11450 | 118.18990 | 34.40809 | 17.11381 | 0.0501463 | 0.22446392 | 2.6814622 | 21 | — | — |
| 482337 2011 $UR_{390}$ | 17.9 | X | 13.57002 | 206.43765 | 223.84451 | 10.01502 | 0.2921093 | 0.21048703 | 2.7988899 | 21 | — | — |
| 482338 2011 $UO_{391}$ | 16.5 | X | 9.84716 | 323.38351 | 97.37805 | 14.71936 | 0.1757491 | 0.21011043 | 2.8022334 | 21 | — | — |
| 482339 2011 $UF_{402}$ | 18.6 | X | 250.10225 | 255.31392 | 233.42180 | 20.77326 | 0.0741069 | 0.39495757 | 1.8397935 | 21 | 12 3.9 | 19.9 |
| 482340 2011 $VC_{10}$ | 17.5 | X | 34.46090 | 332.96355 | 44.89162 | 3.68898 | 0.1146278 | 0.20874366 | 2.8144520 | 21 | — | — |
| 482341 2011 $VP_{16}$ | 16.9 | X | 142.98541 | 96.66332 | 252.45483 | 10.91644 | 0.0905848 | 0.22805819 | 2.6532139 | 21 | — | — |
| 482342 2011 $VX_{21}$ | 16.7 | X | 345.47726 | 313.55499 | 58.37614 | 16.00664 | 0.2041346 | 0.19291967 | 2.9663226 | 21 | 10 19.6 | 19.8 |
| 482343 2011 $VT_{22}$ | 16.9 | X | 20.03465 | 133.93812 | 207.49976 | 0.82619 | 0.1597378 | 0.19187882 | 2.9770401 | 21 | 11 1.4 | 20.5 |
| 482344 2011 $WL_{15}$ | 19.7 | X | 202.27366 | 170.67452 | 72.92612 | 18.38796 | 0.2818905 | 0.62699055 | 1.3519544 | 21 | — | — |
| 482345 2011 $WH_{17}$ | 16.3 | X | 313.12092 | 156.20109 | 243.08173 | 16.20252 | 0.1297543 | 0.18487404 | 3.0517721 | 21 | 9 12.9 | 20.5 |
| 482346 2011 $WX_{17}$ | 17.0 | X | 21.06599 | 268.42992 | 214.89645 | 11.76733 | 0.2202428 | 0.22905748 | 2.6454917 | 21 | — | — |
| 482347 2011 $WU_{22}$ | 17.3 | X | 326.07511 | 357.76016 | 80.13835 | 3.23868 | 0.0660470 | 0.19856414 | 2.9098382 | 21 | 12 6.4 | 20.9 |
| 482348 2011 $WH_{44}$ | 16.4 | X | 278.07486 | 278.57467 | 260.33835 | 11.81566 | 0.0738606 | 0.21569096 | 2.7536882 | 21 | — | — |
| 482349 2011 $WE_{58}$ | 16.4 | X | 351.04361 | 287.67455 | 81.16953 | 11.56327 | 0.1161081 | 0.18948544 | 3.0020562 | 21 | 10 21.3 | 20.1 |
| 482350 2011 $WN_{60}$ | 17.3 | X | 266.52097 | 6.24350 | 112.58956 | 3.12187 | 0.1396619 | 0.19045617 | 2.9918468 | 21 | 10 25.6 | 21.3 |
| 482351 2011 $WW_{70}$ | 16.4 | X | 13.97218 | 170.33911 | 269.49073 | 7.08704 | 0.0347379 | 0.21233525 | 2.7826248 | 21 | — | — |
| 482352 2011 $WS_{76}$ | 17.1 | X | 136.07941 | 264.12975 | 54.86634 | 15.56185 | 0.1446175 | 0.21914767 | 2.7246547 | 21 | — | — |
| 482353 2011 $WH_{79}$ | 17.2 | X | 339.48403 | 79.75904 | 328.26468 | 1.06159 | 0.0790328 | 0.19671186 | 2.9280760 | 21 | 11 17.4 | 20.8 |
| 482354 2011 $WE_{87}$ | 17.1 | X | 29.16954 | 126.88867 | 236.70674 | 11.11193 | 0.0736940 | 0.19859680 | 2.9095191 | 21 | 12 2.7 | 20.8 |
| 482355 2011 $WS_{98}$ | 16.2 | X | 141.15859 | 149.97222 | 64.09850 | 28.33460 | 0.0590855 | 0.18518381 | 3.0483678 | 21 | 10 22.7 | 21.2 |
| 482356 2011 $WU_{105}$ | 16.0 | X | 278.91118 | 5.40158 | 57.58155 | 18.78776 | 0.1951051 | 0.18033390 | 3.1027811 | 21 | 8 31.3 | 20.6 |
| 482357 2011 $WF_{118}$ | 17.8 | X | 327.99403 | 349.16621 | 106.65182 | 4.05325 | 0.2886781 | 0.20336429 | 2.8638675 | 21 | — | — |
| 482358 2011 $WS_{118}$ | 16.3 | X | 279.35714 | 145.02923 | 270.93959 | 11.31154 | 0.1178358 | 0.17791007 | 3.1308988 | 21 | 8 19.0 | 20.8 |
| 482359 2011 $WQ_{119}$ | 16.7 | X | 53.12240 | 267.63377 | 81.27968 | 13.21030 | 0.2856961 | 0.21057781 | 2.7980855 | 21 | — | — |
| 482360 2011 $WH_{130}$ | 16.5 | X | 63.54209 | 295.32312 | 53.02972 | 17.80615 | 0.1590486 | 0.21030617 | 2.8004944 | 21 | — | — |
| 482361 2011 $WF_{150}$ | 16.7 | X | 20.97667 | 163.51652 | 307.99729 | 12.28396 | 0.1376250 | 0.22514589 | 2.6760447 | 21 | — | — |
| 482362 2011 $WH_{152}$ | 18.0 | X | 25.92592 | 70.63052 | 326.14391 | 7.30648 | 0.2136015 | 0.20917781 | 2.8105564 | 21 | — | — |
| 482363 2011 $XP_{1}$ | 16.7 | X | 15.14655 | 253.05496 | 124.63515 | 9.50717 | 0.1596149 | 0.19701293 | 2.9250922 | 21 | 12 12.7 | 20.3 |
| 482364 2011 $YZ_{10}$ | 16.4 | X | 318.08815 | 150.25902 | 276.01540 | 10.39749 | 0.1206265 | 0.18702182 | 3.0283626 | 21 | 11 1.4 | 20.3 |
| 482365 2011 $YN_{12}$ | 16.2 | X | 289.08389 | 344.07712 | 113.25664 | 13.01078 | 0.1581327 | 0.18533495 | 3.0467103 | 21 | 10 31.0 | 20.3 |
| 482366 2011 $YP_{13}$ | 16.4 | X | 277.49097 | 15.27085 | 103.76803 | 14.95807 | 0.1066743 | 0.18618817 | 3.0373954 | 21 | 11 17.1 | 20.6 |
| 482367 2011 $YL_{14}$ | 16.0 | X | 240.23257 | 238.89699 | 305.96697 | 11.54098 | 0.0836608 | 0.18589010 | 3.0406414 | 21 | 12 18.9 | 20.4 |
| 482368 2011 $YB_{17}$ | 15.9 | X | 212.00976 | 56.99618 | 118.42938 | 17.90714 | 0.1862242 | 0.17621541 | 3.1509399 | 21 | 11 2.8 | 21.3 |
| 482369 2011 $YO_{20}$ | 15.8 | X | 229.73023 | 24.79449 | 118.43719 | 13.86161 | 0.1036303 | 0.17751430 | 3.1355506 | 21 | 10 20.2 | 20.7 |
| 482370 2011 $YL_{24}$ | 16.0 | X | 175.49386 | 95.26500 | 105.71695 | 17.85122 | 0.0755992 | 0.17761947 | 3.1343128 | 21 | 11 4.9 | 21.1 |
| 482371 2011 $YH_{35}$ | 15.9 | X | 199.86688 | 219.78839 | 303.64878 | 15.24184 | 0.0664945 | 0.17389573 | 3.1788993 | 21 | 9 30.7 | 21.0 |
| 482372 2011 $YB_{44}$ | 16.3 | X | 264.03510 | 98.41753 | 50.03621 | 11.24934 | 0.2475400 | 0.18527197 | 3.0474007 | 21 | 11 10.4 | 20.6 |
| 482373 2011 $YC_{47}$ | 16.5 | X | 328.17450 | 329.64555 | 87.65249 | 9.96477 | 0.0720875 | 0.18299134 | 3.0726684 | 21 | 11 12.8 | 20.5 |
| 482374 2011 $YC_{53}$ | 17.6 | X | 144.86334 | 309.34516 | 285.02717 | 22.46182 | 0.0368520 | 0.38798906 | 1.8617573 | 21 | 12 13.0 | 19.6 |
| 482375 2011 $YJ_{60}$ | 15.7 | X | 347.39816 | 104.04368 | 290.01509 | 15.80337 | 0.1191948 | 0.18254501 | 3.0776749 | 21 | 11 5.7 | 19.7 |
| 482376 2011 $YC_{66}$ | 16.2 | X | 315.32584 | 307.83776 | 94.15553 | 12.03133 | 0.1652134 | 0.17816167 | 3.1279505 | 21 | 9 30.1 | 20.1 |
| 482377 2011 $YF_{69}$ | 16.0 | X | 250.41942 | 354.58225 | 121.23748 | 11.87180 | 0.1730843 | 0.17672776 | 3.1448471 | 21 | 9 29.7 | 20.8 |
| 482378 2011 $YS_{75}$ | 17.9 | X | 277.30273 | 270.23821 | 128.08144 | 23.10408 | 0.1218584 | 0.36916640 | 1.9245149 | 21 | 8 6.8 | 19.2 |
| 482379 2011 $YC_{76}$ | 17.7 | X | 232.42961 | 318.66692 | 133.65467 | 24.61878 | 0.0423659 | 0.36697187 | 1.9321798 | 21 | 9 10.8 | 19.8 |
| 482380 2011 $YS_{77}$ | 15.7 | X | 251.07619 | 347.57836 | 107.04200 | 28.62567 | 0.1186957 | 0.16970606 | 3.2310064 | 21 | 9 15.2 | 20.9 |
| 482381 2012 $AN_{3}$ | 16.4 | X | 194.99812 | 249.69566 | 291.63813 | 4.53146 | 0.1152555 | 0.17751307 | 3.1355651 | 21 | 10 20.6 | 21.4 |
| 482382 2012 $AQ_{3}$ | 15.5 | X | 310.88706 | 312.64805 | 107.50610 | 17.41981 | 0.0439081 | 0.18036545 | 3.1024192 | 21 | 10 29.8 | 20.0 |
| 482383 2012 $AZ_{3}$ | 16.0 | X | 214.38552 | 30.98020 | 109.86821 | 11.12591 | 0.0996115 | 0.17341503 | 3.1847711 | 21 | 9 29.8 | 21.0 |
| 482384 2012 $AT_{7}$ | 15.7 | X | 319.88538 | 160.98654 | 275.37390 | 10.69826 | 0.0958722 | 0.18167253 | 3.0875207 | 21 | 11 19.3 | 19.7 |
| 482385 2012 $AT_{8}$ | 16.8 | X | 307.78653 | 344.17470 | 106.88734 | 3.27392 | 0.1999081 | 0.18817724 | 3.0159536 | 21 | 11 13.4 | 19.9 |
| 482386 2012 $AP_{13}$ | 15.8 | X | 168.13357 | 263.43038 | 295.73127 | 14.82621 | 0.0774713 | 0.17351819 | 3.1835087 | 21 | 10 10.5 | 21.0 |
| 482387 2012 $AD_{14}$ | 15.9 | X | 346.80012 | 76.20355 | 312.10668 | 20.54986 | 0.1445727 | 0.17900367 | 3.1181339 | 21 | 10 21.7 | 20.1 |
| 482388 2012 $AW_{16}$ | 17.8 | X | 158.33001 | 276.40970 | 310.53336 | 19.80731 | 0.0224000 | 0.38722807 | 1.8641957 | 21 | 12 23.9 | 19.9 |
| 482389 2012 $AT_{18}$ | 17.7 | X | 227.36389 | 329.26755 | 130.15295 | 24.56460 | 0.0594191 | 0.37157619 | 1.9161851 | 21 | 9 12.9 | 19.9 |
| 482390 2012 $AX_{19}$ | 16.1 | X | 213.91959 | 62.66372 | 101.80730 | 9.58283 | 0.0238431 | 0.17966374 | 3.1104920 | 21 | 11 3.7 | 20.6 |
| 482391 2012 $AN_{23}$ | 19.0 | X | 305.53670 | 219.64090 | 220.11908 | 6.16740 | 0.3633233 | 0.39147500 | 1.8506886 | 21 | — | — |
| 482392 2012 $BG_{5}$ | 15.9 | X | 105.78704 | 150.02638 | 114.10405 | 10.28588 | 0.0546822 | 0.17580835 | 3.1558018 | 21 | 11 1.9 | 20.7 |
| 482393 2012 $BR_{6}$ | 16.5 | X | 326.00197 | 103.55706 | 302.41911 | 8.57299 | 0.1487543 | 0.18199532 | 3.0838689 | 21 | 10 14.9 | 20.2 |
| 482394 2012 $BH_{10}$ | 17.8 | X | 173.84785 | 250.83882 | 308.69515 | 18.01315 | 0.0566074 | 0.37903577 | 1.8909611 | 21 | 11 21.4 | 20.4 |
| 482395 2012 $BN_{12}$ | 16.7 | X | 304.17489 | 175.10713 | 311.99566 | 10.77205 | 0.1147366 | 0.19135145 | 2.9825075 | 21 | — | — |
| 482396 2012 $BD_{13}$ | 16.6 | X | 271.10513 | 315.28019 | 215.58862 | 6.30984 | 0.1714113 | 0.18941890 | 3.0027592 | 21 | 12 28.8 | 20.5 |
| 482397 2012 $BO_{15}$ | 16.3 | X | 353.35578 | 300.42807 | 117.79690 | 10.98108 | 0.0730150 | 0.18812908 | 3.0164682 | 21 | 12 19.5 | 20.3 |
| 482398 2012 $BV_{16}$ | 15.8 | X | 178.88601 | 90.73864 | 94.15299 | 15.99779 | 0.0476949 | 0.17524794 | 3.1625259 | 21 | 10 21.3 | 20.8 |
| 482399 2012 $BW_{21}$ | 16.8 | X | 317.11228 | 179.25513 | 265.86049 | 7.35388 | 0.2781430 | 0.19193395 | 2.9764701 | 21 | 11 15.7 | 19.4 |
| 482400 2012 $BX_{24}$ | 16.3 | X | 231.13166 | 255.40337 | 289.48163 | 9.48932 | 0.0679682 | 0.18763545 | 3.0217564 | 21 | 12 10.2 | 20.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482401 2012 $BO_{28}$ | 18.2 | X | 272.85211 | 131.73760 | 281.99397 | 18.81483 | 0.1439053 | 0.37548389 | 1.9028673 | 21 | 8 11.2 | 20.3 |
| 482402 2012 $BR_{31}$ | 16.1 | X | 260.81057 | 137.64046 | 322.20726 | 16.32058 | 0.1862566 | 0.17643017 | 3.1483824 | 21 | 9 9.8 | 20.9 |
| 482403 2012 $BD_{32}$ | 16.4 | X | 307.18166 | 11.20584 | 90.46666 | 11.64457 | 0.0616617 | 0.18944007 | 3.0025355 | 21 | 12 8.3 | 20.3 |
| 482404 2012 $BO_{37}$ | 16.6 | X | 215.12546 | 173.76923 | 342.31177 | 4.17160 | 0.1467993 | 0.17198251 | 3.2024316 | 21 | 10 8.2 | 21.6 |
| 482405 2012 $BY_{46}$ | 16.4 | X | 342.98298 | 94.66570 | 308.63526 | 12.97393 | 0.1274656 | 0.18479634 | 3.0526274 | 21 | 11 11.5 | 20.4 |
| 482406 2012 $BD_{60}$ | 16.5 | X | 317.47750 | 291.35962 | 106.80615 | 10.36900 | 0.1948915 | 0.17789804 | 3.1310399 | 21 | 9 23.9 | 20.2 |
| 482407 2012 $BS_{68}$ | 15.4 | X | 113.03017 | 317.72435 | 312.58638 | 26.36543 | 0.1825141 | 0.17374225 | 3.1807711 | 21 | 11 16.3 | 21.1 |
| 482408 2012 $BZ_{69}$ | 16.5 | X | 333.24973 | 121.87782 | 317.19315 | 17.80814 | 0.1175909 | 0.18947634 | 3.0021523 | 21 | 12 18.1 | 20.4 |
| 482409 2012 $BO_{73}$ | 15.7 | X | 212.30536 | 24.67002 | 142.62259 | 16.66717 | 0.0430676 | 0.17731299 | 3.1379235 | 21 | 11 4.7 | 20.6 |
| 482410 2012 $BY_{73}$ | 16.5 | X | 285.30993 | 166.33135 | 296.04418 | 8.43937 | 0.1228615 | 0.18203211 | 3.0834533 | 21 | 10 26.5 | 20.7 |
| 482411 2012 $BL_{74}$ | 16.0 | X | 224.09840 | 348.93249 | 147.06813 | 13.26101 | 0.1299062 | 0.17259376 | 3.1948661 | 21 | 9 29.2 | 21.0 |
| 482412 2012 $BJ_{77}$ | 17.8 | X | 109.81966 | 120.29416 | 109.18986 | 23.87487 | 0.0301336 | 0.37105333 | 1.9179848 | 21 | 10 25.9 | 20.6 |
| 482413 2012 $BL_{82}$ | 16.5 | X | 282.04663 | 304.59728 | 116.67201 | 7.61487 | 0.1058877 | 0.16950012 | 3.2336229 | 21 | 9 7.2 | 20.9 |
| 482414 2012 $BK_{93}$ | 17.1 | X | 274.85743 | 95.48532 | 51.21568 | 3.41329 | 0.1335757 | 0.18818917 | 3.0158261 | 21 | 12 9.4 | 21.0 |
| 482415 2012 $BB_{94}$ | 16.6 | X | 282.31826 | 128.90146 | 326.79902 | 11.10706 | 0.0963225 | 0.17717128 | 3.1395965 | 21 | 10 15.1 | 21.0 |
| 482416 2012 $BA_{106}$ | 16.1 | X | 239.40879 | 210.02092 | 293.41413 | 16.13665 | 0.1833734 | 0.17601396 | 3.1533437 | 21 | 10 6.6 | 21.3 |
| 482417 2012 $BH_{109}$ | 16.4 | X | 329.36923 | 274.67114 | 121.44940 | 9.69225 | 0.0756277 | 0.17434767 | 3.1734034 | 21 | 10 19.1 | 20.6 |
| 482418 2012 $BN_{121}$ | 16.1 | X | 308.17031 | 154.01832 | 291.79046 | 8.51812 | 0.0856026 | 0.18237018 | 3.0796415 | 21 | 11 13.7 | 20.1 |
| 482419 2012 $BB_{126}$ | 15.7 | X | 230.12621 | 1.29973 | 149.69747 | 19.34118 | 0.1418224 | 0.17466283 | 3.1695849 | 21 | 10 24.5 | 20.8 |
| 482420 2012 $BK_{132}$ | 16.3 | X | 294.17020 | 24.74636 | 76.54260 | 17.68688 | 0.3021342 | 0.18463050 | 3.0544551 | 21 | 10 24.6 | 20.1 |
| 482421 2012 $BP_{133}$ | 15.3 | X | 256.72963 | 210.88691 | 263.03792 | 21.34376 | 0.1124843 | 0.17553130 | 3.1591215 | 21 | 9 28.3 | 20.3 |
| 482422 2012 $BT_{136}$ | 16.7 | X | 226.56990 | 17.50957 | 113.62003 | 2.29686 | 0.1373074 | 0.17267073 | 3.1939166 | 21 | 9 22.9 | 21.7 |
| 482423 2012 $BN_{137}$ | 16.7 | X | 238.74773 | 73.22233 | 42.44607 | 1.99029 | 0.1075759 | 0.16893377 | 3.2408461 | 21 | 9 19.9 | 21.5 |
| 482424 2012 $CS_{5}$ | 16.1 | X | 197.73370 | 213.00087 | 0.92479 | 15.38649 | 0.0369972 | 0.18346299 | 3.0673999 | 21 | 12 7.2 | 20.8 |
| 482425 2012 $CB_{8}$ | 16.6 | X | 327.64914 | 133.10823 | 308.44424 | 8.98819 | 0.2099719 | 0.18962225 | 3.0006120 | 21 | 12 9.5 | 19.7 |
| 482426 2012 $CG_{9}$ | 15.9 | X | 156.44594 | 302.45558 | 318.52268 | 24.71286 | 0.1537320 | 0.18031963 | 3.1029448 | 21 | 12 20.5 | 21.4 |
| 482427 2012 $CZ_{16}$ | 16.6 | X | 313.74488 | 320.45782 | 143.45315 | 11.43724 | 0.0924077 | 0.18643958 | 3.0346642 | 21 | 12 18.4 | 20.6 |
| 482428 2012 $CT_{18}$ | 15.3 | X | 276.91427 | 296.53575 | 166.85335 | 28.43706 | 0.0653313 | 0.17522356 | 3.1628193 | 21 | 10 31.4 | 20.0 |
| 482429 2012 $CK_{29}$ | 15.8 | X | 208.00667 | 238.91700 | 311.05542 | 24.89887 | 0.1729337 | 0.17532157 | 3.1616405 | 21 | 10 30.4 | 21.4 |
| 482430 2012 $CV_{32}$ | 16.6 | X | 299.21550 | 120.22113 | 306.05057 | 12.08085 | 0.2301042 | 0.17618835 | 3.1512626 | 21 | 9 12.4 | 20.7 |
| 482431 2012 $CH_{37}$ | 15.6 | X | 260.91793 | 127.00031 | 277.66881 | 8.37235 | 0.0646940 | 0.15576268 | 3.4210580 | 21 | 7 23.1 | 20.6 |
| 482432 2012 $CN_{41}$ | 16.6 | X | 304.10141 | 268.98944 | 135.67607 | 8.76415 | 0.2262548 | 0.17257479 | 3.1951001 | 21 | 8 30.3 | 20.4 |
| 482433 2012 $CV_{51}$ | 16.4 | X | 252.50365 | 187.00546 | 329.66553 | 10.15376 | 0.1616385 | 0.17966836 | 3.1104388 | 21 | 11 14.0 | 21.0 |
| 482434 2012 $CD_{53}$ | 16.3 | X | 265.01637 | 136.01190 | 354.25840 | 15.75309 | 0.2546974 | 0.18232236 | 3.0801800 | 21 | 10 13.6 | 20.8 |
| 482435 2012 $CS_{54}$ | 16.1 | X | 263.22401 | 180.50379 | 344.91937 | 13.20779 | 0.1520703 | 0.18604099 | 3.0389972 | 21 | 12 12.9 | 20.4 |
| 482436 2012 $CC_{56}$ | 16.5 | X | 337.25508 | 160.22477 | 303.35613 | 12.53649 | 0.0959530 | 0.19448225 | 2.9504125 | 21 | — | — |
| 482437 2012 $DC_{4}$ | 16.6 | X | 261.76727 | 105.36103 | 74.07175 | 6.87631 | 0.2357098 | 0.18515564 | 3.0486771 | 21 | 12 16.5 | 20.7 |
| 482438 2012 $DK_{5}$ | 16.1 | X | 274.39641 | 310.64437 | 149.25807 | 14.84147 | 0.1787174 | 0.17498711 | 3.1656678 | 21 | 10 6.9 | 20.5 |
| 482439 2012 $DM_{8}$ | 17.9 | X | 289.11138 | 61.32976 | 338.63634 | 17.92023 | 0.1191791 | 0.37154898 | 1.9162787 | 21 | 9 2.0 | 19.2 |
| 482440 2012 $DS_{12}$ | 15.6 | X | 228.43327 | 212.93916 | 349.80629 | 16.50775 | 0.1723798 | 0.17762912 | 3.1341993 | 21 | 12 12.7 | 20.6 |
| 482441 2012 $DZ_{14}$ | 15.6 | X | 242.99016 | 77.61977 | 84.75771 | 17.82169 | 0.2105806 | 0.17816223 | 3.1279440 | 21 | 11 12.6 | 20.5 |
| 482442 2012 $DS_{26}$ | 15.7 | X | 207.56763 | 125.55780 | 91.60875 | 16.27454 | 0.1270221 | 0.17895495 | 3.1186998 | 21 | 12 15.4 | 20.4 |
| 482443 2012 $DG_{28}$ | 17.9 | X | 308.72571 | 74.19834 | 3.02532 | 20.78892 | 0.0898257 | 0.38375777 | 1.8754173 | 21 | — | — |
| 482444 2012 $DV_{29}$ | 16.3 | X | 283.98432 | 54.31086 | 44.44149 | 17.27434 | 0.2851551 | 0.17947239 | 3.1127026 | 21 | 10 6.1 | 20.5 |
| 482445 2012 $DG_{36}$ | 18.1 | X | 339.35438 | 64.05592 | 309.79522 | 18.33386 | 0.0790424 | 0.37488153 | 1.9049051 | 21 | 10 25.5 | 20.2 |
| 482446 2012 $DH_{38}$ | 16.3 | X | 255.91027 | 86.88930 | 114.35122 | 16.98510 | 0.2456128 | 0.18448314 | 3.0560815 | 21 | — | — |
| 482447 2012 $DD_{39}$ | 17.8 | X | 314.35210 | 107.91860 | 318.23476 | 19.94490 | 0.0970905 | 0.38352591 | 1.8761731 | 21 | 12 25.7 | 19.4 |
| 482448 2012 $DR_{55}$ | 16.2 | X | 259.58552 | 180.29749 | 340.41734 | 17.10315 | 0.1523085 | 0.18023270 | 3.1039424 | 21 | 11 28.4 | 20.9 |
| 482449 2012 $DV_{58}$ | 17.6 | X | 349.23978 | 305.43515 | 156.86677 | 9.31606 | 0.2944334 | 0.19668097 | 2.9283827 | 21 | — | — |
| 482450 2012 $DR_{61}$ | 15.7 | X | 205.36222 | 259.97186 | 297.00391 | 17.83081 | 0.1353705 | 0.17405599 | 3.1769478 | 21 | 11 14.3 | 21.0 |
| 482451 2012 $DY_{62}$ | 16.2 | X | 311.72070 | 126.63567 | 326.58189 | 8.47254 | 0.0573615 | 0.18360837 | 3.0657806 | 21 | 11 30.9 | 20.4 |
| 482452 2012 $DF_{79}$ | 15.9 | X | 247.66697 | 75.13488 | 105.64622 | 26.56990 | 0.2509907 | 0.18008884 | 3.1055953 | 21 | 12 5.1 | 20.8 |
| 482453 2012 $ES_{8}$ | 16.5 | X | 169.31152 | 263.31801 | 340.56516 | 19.38264 | 0.0745244 | 0.17592823 | 3.1543680 | 21 | 12 9.3 | 21.7 |
| 482454 2012 $EY_{9}$ | 17.7 | X | 121.28592 | 225.78241 | 30.94381 | 22.73073 | 0.0768077 | 0.37537147 | 1.9032472 | 21 | 12 2.4 | 20.3 |
| 482455 2012 $FZ_{1}$ | 16.6 | X | 307.32130 | 277.07276 | 196.47026 | 8.78382 | 0.0617911 | 0.18430969 | 3.0579985 | 21 | 12 21.1 | 20.8 |
| 482456 2012 $FL_{3}$ | 16.6 | X | 301.61832 | 165.54053 | 311.47279 | 8.23138 | 0.1356672 | 0.18354887 | 3.0664430 | 21 | 12 10.8 | 20.5 |
| 482457 2012 $FH_{44}$ | 15.5 | X | 221.67246 | 233.81932 | 29.14625 | 20.61035 | 0.1305143 | 0.18393100 | 3.0621945 | 21 | — | — |
| 482458 2012 $FA_{72}$ | 16.3 | X | 313.43274 | 39.49898 | 110.64762 | 12.17122 | 0.0664381 | 0.18718798 | 3.0265701 | 21 | — | — |
| 482459 2012 $FK_{72}$ | 15.1 | X | 246.94099 | 151.34265 | 42.66328 | 28.39795 | 0.1390420 | 0.17843498 | 3.1247556 | 21 | 12 24.6 | 20.0 |
| 482460 2012 $GD_{12}$ | 17.7 | X | 270.97423 | 7.99184 | 101.45103 | 24.11831 | 0.0842954 | 0.37726653 | 1.8968684 | 21 | 12 9.9 | 19.4 |
| 482461 2012 $GP_{29}$ | 16.8 | X | 282.03682 | 330.18311 | 193.93011 | 3.78291 | 0.2224997 | 0.18378855 | 3.0637766 | 21 | 12 28.2 | 20.5 |
| 482462 2012 $HB_{57}$ | 18.0 | X | 182.59797 | 311.79301 | 198.55668 | 21.48718 | 0.0696675 | 0.35881577 | 1.9613497 | 21 | 9 16.6 | 20.4 |
| 482463 2012 $JL$ | 17.7 | X | 263.38724 | 16.09764 | 85.25165 | 24.38127 | 0.0629416 | 0.36784012 | 1.9291381 | 21 | 11 17.6 | 19.7 |
| 482464 2012 $JL_{62}$ | 17.4 | X | 198.55669 | 290.34760 | 252.80009 | 18.86699 | 0.0961974 | 0.37240802 | 1.9133307 | 21 | 11 28.4 | 19.4 |
| 482465 2012 $KH_{47}$ | 13.8 | X | 257.89310 | 94.10803 | 254.27951 | 7.32393 | 0.0957402 | 0.08311994 | 5.1999509 | 21 | 5 11.9 | 20.9 |
| 482466 2012 $KM_{48}$ | 17.7 | X | 252.40307 | 270.05601 | 52.83982 | 6.96236 | 0.1350780 | 0.31102115 | 2.1574601 | 21 | 3 15.9 | 20.8 |
| 482467 2012 $LK_{9}$ | 17.9 | X | 53.31889 | 314.49562 | 61.88570 | 10.13282 | 0.6195664 | 0.24748866 | 2.5124602 | 21 | — | — |
| 482468 2012 $OG_{3}$ | 17.1 | X | 226.26267 | 164.88202 | 129.25623 | 23.87329 | 0.2160143 | 0.28563856 | 2.2834499 | 21 | 1 12.5 | 21.0 |
| 482469 2012 $OM_{3}$ | 18.0 | X | 220.75510 | 5.74272 | 297.51829 | 3.44657 | 0.2326499 | 0.28736887 | 2.2742746 | 21 | 1 18.7 | 21.7 |
| 482470 2012 $PA_{26}$ | 16.5 | X | 259.37927 | 311.16764 | 294.40410 | 22.90544 | 0.2254480 | 0.28182992 | 2.3039762 | 21 | — | — |
| 482471 2012 $QR_{23}$ | 17.8 | X | 142.99498 | 121.27794 | 283.28947 | 2.99420 | 0.1425303 | 0.28087947 | 2.3091708 | 21 | 3 7.9 | 20.8 |
| 482472 2012 $QU_{38}$ | 17.8 | X | 283.90174 | 11.18521 | 250.88883 | 5.36348 | 0.2112510 | 0.29307910 | 2.2446371 | 21 | 1 19.3 | 21.2 |
| 482473 2012 $QP_{49}$ | 18.0 | X | 164.27235 | 94.87265 | 299.97734 | 3.96869 | 0.2124952 | 0.28652249 | 2.2787512 | 21 | 3 22.9 | 21.6 |
| 482474 2012 $RJ_{1}$ | 17.7 | X | 198.99902 | 323.16175 | 334.19590 | 4.70697 | 0.2337603 | 0.27597282 | 2.3364609 | 21 | — | — |
| 482475 2012 $RK_{1}$ | 18.2 | X | 132.25801 | 23.07545 | 339.96033 | 0.88699 | 0.1974123 | 0.26801205 | 2.3825014 | 21 | 1 11.3 | 21.2 |
| 482476 2012 $RC_{6}$ | 18.1 | X | 131.55414 | 51.25162 | 313.20326 | 7.97669 | 0.2309925 | 0.26745244 | 2.3858236 | 21 | 1 17.8 | 21.1 |
| 482477 2012 $RX_{6}$ | 17.6 | X | 125.34573 | 34.56191 | 354.94329 | 6.72852 | 0.1807935 | 0.27006186 | 2.3704304 | 21 | 2 5.5 | 20.6 |
| 482478 2012 $RM_{8}$ | 17.9 | X | 187.96485 | 238.94794 | 120.48165 | 6.29584 | 0.2500057 | 0.28440356 | 2.2900556 | 21 | 3 4.9 | 21.8 |
| 482479 2012 $RJ_{14}$ | 18.0 | X | 133.42271 | 106.21335 | 244.86307 | 4.39494 | 0.2117314 | 0.26349119 | 2.4096760 | 21 | — | — |
| 482480 2012 $RM_{18}$ | 18.1 | X | 113.83318 | 91.30177 | 341.12933 | 3.80626 | 0.2808668 | 0.27218628 | 2.3580801 | 21 | 3 31.1 | 21.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482481 2012 $RU_{22}$ | 17.8 | X | 118.98675 | 152.40767 | 182.23013 | 3.11887 | 0.2196290 | 0.25560023 | 2.4590190 | 21 | — | — |
| 482482 2012 $RY_{23}$ | 17.2 | X | 52.32126 | 33.70874 | 35.69836 | 15.04799 | 0.0715862 | 0.25439108 | 2.4668049 | 21 | — | — |
| 482483 2012 $RC_{32}$ | 17.7 | X | 217.79841 | 323.80222 | 15.42621 | 8.37841 | 0.1897024 | 0.28912278 | 2.2650676 | 21 | 3 3.6 | 21.4 |
| 482484 2012 $RU_{40}$ | 17.5 | X | 142.92905 | 334.09582 | 33.26445 | 6.31119 | 0.2209477 | 0.27109057 | 2.3644299 | 21 | 2 2.7 | 20.9 |
| 482485 2012 $RC_{43}$ | 17.7 | X | 151.03874 | 222.57751 | 128.97173 | 7.48267 | 0.1341604 | 0.26985940 | 2.3716159 | 21 | 1 9.3 | 20.8 |
| 482486 2012 $SP_{9}$ | 17.6 | X | 148.48187 | 239.13749 | 124.98591 | 2.14417 | 0.1896637 | 0.27049077 | 2.3679239 | 21 | 1 29.5 | 20.8 |
| 482487 2012 $SY_{12}$ | 17.5 | X | 90.32287 | 61.69962 | 18.49547 | 6.59611 | 0.1221878 | 0.27140433 | 2.3626073 | 21 | 2 15.8 | 20.1 |
| 482488 2012 $SW_{20}$ | 19.7 | X | 117.43405 | 62.33283 | 209.63393 | 10.16806 | 0.6791968 | 0.25560629 | 2.4589802 | 21 | 12 18.6 | 25.6 |
| 482489 2012 $SF_{26}$ | 18.2 | X | 115.39014 | 46.24787 | 345.09535 | 3.20577 | 0.1338457 | 0.26580140 | 2.3956932 | 21 | 1 17.9 | 20.9 |
| 482490 2012 $SW_{27}$ | 18.1 | X | 91.22017 | 49.67333 | 1.65556 | 3.14218 | 0.1873101 | 0.26232096 | 2.4168371 | 21 | 1 17.5 | 20.4 |
| 482491 2012 $SW_{38}$ | 18.1 | X | 105.48369 | 70.32203 | 333.06929 | 2.37471 | 0.1697559 | 0.26663298 | 2.3907095 | 21 | 1 25.1 | 20.8 |
| 482492 2012 $SX_{54}$ | 18.0 | X | 150.39484 | 197.32358 | 194.33947 | 6.42044 | 0.1182216 | 0.27259317 | 2.3557330 | 21 | 2 25.6 | 21.2 |
| 482493 2012 $SD_{56}$ | 18.0 | X | 123.34413 | 105.83307 | 324.77952 | 3.81474 | 0.2525365 | 0.27433001 | 2.3457794 | 21 | 4 3.6 | 21.4 |
| 482494 2012 $SJ_{66}$ | 17.4 | X | 140.12429 | 198.56065 | 150.52683 | 5.76229 | 0.2440651 | 0.26416769 | 2.4055603 | 21 | 1 8.9 | 20.8 |
| 482495 2012 $TM_{1}$ | 18.1 | X | 186.29466 | 26.74088 | 3.94363 | 3.73005 | 0.1425601 | 0.28908915 | 2.2652433 | 21 | 4 4.9 | 21.5 |
| 482496 2012 $TV_{2}$ | 18.2 | X | 146.27405 | 19.15167 | 324.77328 | 0.48401 | 0.1975731 | 0.26321177 | 2.4113810 | 21 | 1 3.9 | 21.6 |
| 482497 2012 $TN_{6}$ | 17.9 | X | 123.17289 | 310.13690 | 66.22466 | 2.38228 | 0.2045223 | 0.26437635 | 2.4042944 | 21 | 1 19.6 | 20.8 |
| 482498 2012 $TO_{12}$ | 17.8 | X | 143.61560 | 347.43512 | 42.26322 | 4.78038 | 0.1799768 | 0.27094933 | 2.3652515 | 21 | 2 27.0 | 21.1 |
| 482499 2012 $TR_{12}$ | 17.8 | X | 88.82864 | 39.96308 | 37.40002 | 2.96071 | 0.1644761 | 0.26476198 | 2.4019592 | 21 | 2 15.9 | 20.2 |
| 482500 2012 $TO_{21}$ | 18.0 | X | 144.14967 | 332.58520 | 7.56227 | 1.62990 | 0.1945043 | 0.26197884 | 2.4189408 | 21 | — | — |
| 482501 2012 $TQ_{25}$ | 18.2 | X | 106.52908 | 269.23376 | 158.61755 | 1.27329 | 0.1637204 | 0.27055967 | 2.3675219 | 21 | 2 27.2 | 20.8 |
| 482502 2012 $TX_{33}$ | 18.0 | X | 141.29115 | 337.08098 | 8.31844 | 5.69262 | 0.2176250 | 0.26324430 | 2.4111824 | 21 | 1 3.5 | 21.4 |
| 482503 2012 $TA_{35}$ | 18.2 | X | 99.17849 | 74.85168 | 292.00459 | 4.44163 | 0.1742595 | 0.25515578 | 2.4618737 | 21 | — | — |
| 482504 2012 $TW_{68}$ | 18.0 | X | 81.52879 | 345.44845 | 58.27005 | 2.91392 | 0.1715094 | 0.25376252 | 2.4708766 | 21 | — | — |
| 482505 2012 $TQ_{78}$ | 19.5 | X | 106.85334 | 118.99164 | 51.92501 | 11.37784 | 0.3835871 | 0.74883046 | 1.2010112 | 21 | 9 5.7 | 20.6 |
| 482506 2012 $TE_{86}$ | 17.5 | X | 226.01342 | 261.44703 | 17.72065 | 5.88025 | 0.0395560 | 0.26475159 | 2.4020221 | 21 | — | — |
| 482507 2012 $TE_{104}$ | 18.4 | X | 62.62580 | 221.52552 | 263.19642 | 2.71153 | 0.1484007 | 0.27314391 | 2.3525654 | 21 | 3 2.6 | 20.5 |
| 482508 2012 $TM_{104}$ | 17.5 | X | 25.83164 | 289.85353 | 209.48913 | 8.37240 | 0.1707375 | 0.26527746 | 2.3988466 | 21 | 1 8.4 | 19.7 |
| 482509 2012 $TT_{115}$ | 17.4 | X | 184.15852 | 322.17665 | 331.57061 | 6.95298 | 0.1084800 | 0.25933225 | 2.4353705 | 21 | — | — |
| 482510 2012 $TP_{131}$ | 17.9 | X | 119.55434 | 238.26035 | 138.12999 | 2.04209 | 0.2239137 | 0.26185789 | 2.4196856 | 21 | 1 17.7 | 20.7 |
| 482511 2012 $TH_{134}$ | 17.7 | X | 246.29589 | 293.01165 | 340.11086 | 2.59569 | 0.1614561 | 0.28035263 | 2.3120628 | 21 | 1 5.3 | 21.4 |
| 482512 2012 $TO_{134}$ | 18.5 | X | 160.06199 | 87.93846 | 235.07107 | 0.46535 | 0.1975752 | 0.26311827 | 2.4119523 | 21 | — | — |
| 482513 2012 $TV_{148}$ | 17.2 | X | 106.87193 | 276.21429 | 46.27518 | 15.08177 | 0.1313869 | 0.24078651 | 2.5588684 | 21 | — | — |
| 482514 2012 $TH_{154}$ | 14.2 | X | 320.39579 | 118.81678 | 190.60404 | 23.94364 | 0.0954882 | 0.08277571 | 5.2143570 | 21 | 6 10.9 | 21.1 |
| 482515 2012 $TD_{155}$ | 18.0 | X | 183.07016 | 168.46132 | 133.25906 | 2.09415 | 0.1937050 | 0.26619261 | 2.3933454 | 21 | — | — |
| 482516 2012 $TC_{159}$ | 17.9 | X | 147.98099 | 279.41638 | 50.39136 | 2.48058 | 0.1937794 | 0.26171722 | 2.4205526 | 21 | — | — |
| 482517 2012 $TC_{162}$ | 17.7 | X | 171.12053 | 275.32716 | 34.48770 | 2.45974 | 0.1710035 | 0.26223559 | 2.4173617 | 21 | — | — |
| 482518 2012 $TX_{165}$ | 18.3 | X | 101.97929 | 24.05773 | 60.79457 | 5.31940 | 0.1598121 | 0.27215897 | 2.3582379 | 21 | 3 18.4 | 21.0 |
| 482519 2012 $TB_{167}$ | 16.5 | X | 0.70792 | 232.91986 | 180.66023 | 12.01367 | 0.1618951 | 0.23158816 | 2.6261840 | 21 | — | — |
| 482520 2012 $TR_{189}$ | 18.3 | X | 169.38692 | 276.72514 | 42.08683 | 2.01900 | 0.1917829 | 0.26874279 | 2.3781806 | 21 | — | — |
| 482521 2012 $TU_{196}$ | 16.5 | X | 92.88919 | 310.57244 | 28.21308 | 13.98836 | 0.1419460 | 0.23775632 | 2.5805642 | 21 | — | — |
| 482522 2012 $TR_{206}$ | 17.7 | X | 85.71033 | 219.07486 | 268.55056 | 5.29725 | 0.1917017 | 0.27653180 | 2.3333112 | 21 | 4 23.9 | 20.4 |
| 482523 2012 $TK_{219}$ | 17.5 | X | 152.60937 | 286.26636 | 45.78887 | 16.39669 | 0.2203716 | 0.26245010 | 2.4160443 | 21 | — | — |
| 482524 2012 $TE_{224}$ | 18.1 | X | 128.46166 | 341.19020 | 32.60831 | 3.81874 | 0.1375357 | 0.26511594 | 2.3998208 | 21 | 1 13.1 | 21.1 |
| 482525 2012 $TT_{226}$ | 17.6 | X | 141.37729 | 352.16501 | 43.77124 | 7.67533 | 0.1292240 | 0.27407033 | 2.3472609 | 21 | 2 27.6 | 20.8 |
| 482526 2012 $TF_{267}$ | 17.7 | X | 145.30766 | 254.17266 | 61.48483 | 3.74561 | 0.1786450 | 0.25475025 | 2.4644857 | 21 | — | — |
| 482527 2012 $TE_{288}$ | 17.8 | X | 265.82632 | 331.20178 | 331.46748 | 10.52266 | 0.0823082 | 0.28650873 | 2.2788241 | 21 | 3 6.2 | 21.0 |
| 482528 2012 $TF_{301}$ | 17.5 | X | 109.59724 | 274.77518 | 138.74829 | 7.39011 | 0.1045114 | 0.26956583 | 2.3733374 | 21 | 2 2.4 | 20.3 |
| 482529 2012 $TK_{310}$ | 16.7 | X | 118.49443 | 82.83248 | 280.29171 | 13.22199 | 0.1356423 | 0.25803958 | 2.4434971 | 21 | — | — |
| 482530 2012 $TG_{314}$ | 17.3 | X | 128.05842 | 301.26700 | 81.39522 | 3.88688 | 0.2152138 | 0.26356092 | 2.4092510 | 21 | 2 5.1 | 20.5 |
| 482531 2012 $TB_{322}$ | 17.6 | X | 95.17414 | 61.77414 | 11.43894 | 5.61114 | 0.0987722 | 0.26356917 | 2.4092007 | 21 | 2 11.0 | 20.4 |
| 482532 2012 $UQ$ | 18.3 | X | 108.10514 | 359.16282 | 33.98805 | 1.28705 | 0.2437122 | 0.26186457 | 2.4196445 | 21 | 1 28.3 | 20.9 |
| 482533 2012 $UA_{34}$ | 19.7 | X | 322.35031 | 222.37580 | 19.01458 | 19.79727 | 0.8015615 | 1.41446866 | 0.7859722 | 21 | 11 12.9 | 19.9 |
| 482534 2012 $UL_{35}$ | 18.0 | X | 170.13576 | 21.10490 | 356.39615 | 0.97667 | 0.1973087 | 0.27572293 | 2.3378723 | 21 | 3 8.5 | 21.5 |
| 482535 2012 $UR_{43}$ | 18.2 | X | 102.59202 | 296.74864 | 140.92740 | 2.61353 | 0.1474200 | 0.26590614 | 2.3950641 | 21 | 3 5.8 | 21.0 |
| 482536 2012 $UQ_{45}$ | 18.3 | X | 136.98911 | 354.78632 | 61.54835 | 2.47966 | 0.1753559 | 0.27503648 | 2.3417607 | 21 | 3 24.2 | 21.6 |
| 482537 2012 $UB_{52}$ | 17.6 | X | 40.67448 | 274.65140 | 175.46756 | 9.85545 | 0.1320855 | 0.25321969 | 2.4744066 | 21 | — | — |
| 482538 2012 $UG_{55}$ | 17.5 | X | 140.21804 | 99.18564 | 238.78009 | 7.13293 | 0.1924286 | 0.25738798 | 2.4476193 | 21 | — | — |
| 482539 2012 $UZ_{66}$ | 18.0 | X | 82.42403 | 3.02057 | 79.09163 | 3.40177 | 0.1922887 | 0.26070641 | 2.4268052 | 21 | 2 17.3 | 20.3 |
| 482540 2012 $UA_{70}$ | 17.0 | X | 133.59980 | 135.74129 | 249.93962 | 9.38336 | 0.1994175 | 0.26462892 | 2.4027643 | 21 | 2 7.8 | 20.5 |
| 482541 2012 $UR_{76}$ | 17.4 | X | 116.35409 | 335.92220 | 60.88905 | 3.64855 | 0.1695912 | 0.26305365 | 2.4123473 | 21 | 2 2.5 | 20.4 |
| 482542 2012 $UF_{84}$ | 17.5 | X | 65.07930 | 286.94600 | 108.67332 | 5.95034 | 0.1536917 | 0.24572268 | 2.5244836 | 21 | — | — |
| 482543 2012 $UU_{107}$ | 18.4 | X | 94.27537 | 58.26456 | 25.66855 | 1.71730 | 0.1644297 | 0.26713435 | 2.3877172 | 21 | 3 4.8 | 21.0 |
| 482544 2012 $UZ_{130}$ | 18.0 | X | 88.34691 | 1.45918 | 69.71329 | 3.33377 | 0.2078026 | 0.26423849 | 2.4051306 | 21 | 2 13.6 | 20.4 |
| 482545 2012 $UV_{131}$ | 17.5 | X | 163.34466 | 63.66550 | 296.10272 | 4.38346 | 0.2376713 | 0.26887572 | 2.3773967 | 21 | 2 11.3 | 21.3 |
| 482546 2012 $UY_{132}$ | 16.8 | X | 161.97031 | 301.60411 | 74.71020 | 13.85687 | 0.2541649 | 0.27252112 | 2.3561482 | 21 | 3 11.6 | 20.9 |
| 482547 2012 $UP_{133}$ | 17.6 | X | 96.69714 | 19.20111 | 51.09955 | 5.35144 | 0.1356648 | 0.26569424 | 2.3963374 | 21 | 2 15.0 | 20.3 |
| 482548 2012 $UF_{141}$ | 17.9 | X | 82.75087 | 340.61869 | 74.12578 | 2.35557 | 0.2252240 | 0.25703848 | 2.4498375 | 21 | 1 13.8 | 20.1 |
| 482549 2012 $UK_{168}$ | 17.9 | X | 132.80318 | 166.37038 | 232.47619 | 4.99711 | 0.2093884 | 0.26851593 | 2.3795199 | 21 | 2 26.2 | 21.2 |
| 482550 2012 $UV_{171}$ | 18.2 | X | 120.76952 | 63.03201 | 324.07200 | 3.64243 | 0.2172413 | 0.26199733 | 2.4188270 | 21 | 2 1.8 | 21.3 |
| 482551 2012 $VH_{9}$ | 17.8 | X | 165.61181 | 42.68630 | 265.11571 | 2.32242 | 0.2329707 | 0.26217647 | 2.4177250 | 21 | — | — |
| 482552 2012 $VV_{10}$ | 17.2 | X | 165.14895 | 68.44799 | 274.29421 | 10.97499 | 0.2236985 | 0.26619756 | 2.3933158 | 21 | 1 21.3 | 21.0 |
| 482553 2012 $VE_{25}$ | 17.8 | X | 167.56273 | 211.15404 | 112.20611 | 3.29750 | 0.2360294 | 0.26521383 | 2.3992303 | 21 | 1 3.1 | 21.6 |
| 482554 2012 $VW_{36}$ | 18.6 | X | 103.09084 | 219.05687 | 257.45327 | 20.70409 | 0.0351915 | 0.50904897 | 1.5534466 | 21 | 2 7.5 | 20.0 |
| 482555 2012 $VP_{43}$ | 16.9 | X | 26.05899 | 137.82947 | 250.37782 | 11.04483 | 0.3205188 | 0.23145106 | 2.6272209 | 21 | — | — |
| 482556 2012 $VG_{52}$ | 17.4 | X | 31.68067 | 333.15435 | 125.40084 | 4.27318 | 0.1997538 | 0.24522720 | 2.5278830 | 21 | — | — |
| 482557 2012 $VL_{54}$ | 17.7 | X | 73.98360 | 1.20066 | 55.12230 | 7.35431 | 0.0590039 | 0.25338803 | 2.4733105 | 21 | — | — |
| 482558 2012 $VU_{64}$ | 17.8 | X | 31.53610 | 193.65364 | 299.83535 | 1.47507 | 0.1359696 | 0.26451423 | 2.4034588 | 21 | 1 15.9 | 20.1 |
| 482559 2012 $VS_{70}$ | 17.6 | X | 72.03296 | 31.98088 | 73.10860 | 7.23404 | 0.0898481 | 0.26540771 | 2.3980617 | 21 | 2 18.9 | 20.3 |
| 482560 2012 $VF_{71}$ | 17.7 | X | 65.46992 | 315.61061 | 76.30240 | 6.60309 | 0.0756310 | 0.24309312 | 2.5426560 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482561 2012 $VZ_{79}$ | 18.3 | X | 112.62501 | 221.69799 | 188.58519 | 2.29047 | 0.1813237 | 0.26404886 | 2.4062820 | 21 | 2 15.0 | 21.1 |
| 482562 2012 $VN_{82}$ | 20.0 | X | 87.76105 | 331.21516 | 228.62414 | 9.71098 | 0.5066140 | 0.51018752 | 1.5511346 | 21 | 9 18.7 | 22.7 |
| 482563 2012 $VR_{84}$ | 17.7 | X | 87.42597 | 131.74306 | 279.15999 | 1.86232 | 0.1692964 | 0.25513005 | 2.4620393 | 21 | 1 8.6 | 20.0 |
| 482564 2012 $VE_{90}$ | 18.2 | X | 138.24457 | 195.13544 | 203.22041 | 2.10951 | 0.1823047 | 0.26785837 | 2.3834126 | 21 | 3 1.9 | 21.5 |
| 482565 2012 $VN_{98}$ | 18.1 | X | 120.00337 | 356.00087 | 52.05275 | 3.38055 | 0.1864396 | 0.26682591 | 2.3895569 | 21 | 2 24.5 | 21.2 |
| 482566 2012 $WK_{4}$ | 21.5 | X | 250.79751 | 161.88096 | 151.00668 | 4.29121 | 0.3074827 | 0.74510282 | 1.2050135 | 21 | — | — |
| 482567 2012 $WH_{6}$ | 17.7 | X | 57.09042 | 313.99681 | 72.96977 | 1.84972 | 0.1186239 | 0.23787360 | 2.5797159 | 21 | — | — |
| 482568 2012 $WL_{7}$ | 17.6 | X | 78.91856 | 218.08720 | 242.84687 | 5.67514 | 0.0603264 | 0.26602057 | 2.3943772 | 21 | 2 13.9 | 20.5 |
| 482569 2012 $WO_{7}$ | 17.9 | X | 67.26204 | 135.42380 | 243.72529 | 5.87901 | 0.1702749 | 0.24112546 | 2.5564698 | 21 | — | — |
| 482570 2012 $WP_{16}$ | 17.6 | X | 51.34199 | 118.10220 | 303.62532 | 3.02479 | 0.2648589 | 0.24432086 | 2.5341308 | 21 | — | — |
| 482571 2012 $WT_{16}$ | 17.0 | X | 319.50737 | 59.02989 | 92.78393 | 13.51214 | 0.1292896 | 0.23471024 | 2.6028433 | 21 | — | — |
| 482572 2012 $WW_{23}$ | 16.9 | X | 11.38753 | 325.69743 | 85.98461 | 7.70430 | 0.1864297 | 0.22888103 | 2.6468512 | 21 | — | — |
| 482573 2012 $WL_{24}$ | 16.9 | X | 126.74933 | 354.75238 | 50.40138 | 7.17537 | 0.1615909 | 0.26535284 | 2.3983923 | 21 | 2 27.7 | 20.1 |
| 482574 2012 $WE_{27}$ | 17.7 | X | 34.97529 | 31.03338 | 6.98223 | 2.38018 | 0.1360512 | 0.23255356 | 2.6189109 | 21 | — | — |
| 482575 2012 $WY_{32}$ | 16.2 | X | 95.47677 | 67.95032 | 280.55976 | 10.43133 | 0.3694349 | 0.24287551 | 2.5441745 | 21 | — | — |
| 482576 2012 $XO_{28}$ | 18.0 | X | 11.86583 | 125.26709 | 308.00517 | 1.67743 | 0.1235327 | 0.23428214 | 2.6060131 | 21 | — | — |
| 482577 2012 $XV_{36}$ | 17.3 | X | 31.09329 | 187.03211 | 247.80523 | 4.64063 | 0.1939594 | 0.24013949 | 2.5634627 | 21 | — | — |
| 482578 2012 $XK_{38}$ | 18.2 | X | 23.65648 | 294.56214 | 163.24835 | 1.24936 | 0.1568684 | 0.24268891 | 2.5454784 | 21 | — | — |
| 482579 2012 $XR_{40}$ | 17.5 | X | 6.66131 | 222.49006 | 258.84719 | 9.40158 | 0.1539110 | 0.24235182 | 2.5478383 | 21 | — | — |
| 482580 2012 $XH_{43}$ | 16.4 | X | 120.27013 | 226.12372 | 76.22500 | 15.45309 | 0.1502968 | 0.22878768 | 2.6475711 | 21 | — | — |
| 482581 2012 $XO_{43}$ | 17.2 | X | 322.47605 | 250.75452 | 261.26197 | 12.47160 | 0.1089255 | 0.23797251 | 2.5790011 | 21 | — | — |
| 482582 2012 $XA_{46}$ | 16.2 | X | 37.16810 | 88.15613 | 346.63709 | 10.30002 | 0.1083351 | 0.24235795 | 2.5477953 | 21 | — | — |
| 482583 2012 $XM_{48}$ | 18.0 | X | 50.11337 | 103.56276 | 307.80130 | 3.62947 | 0.2435061 | 0.24142584 | 2.5543489 | 21 | — | — |
| 482584 2012 $XA_{53}$ | 17.0 | X | 307.04244 | 35.48223 | 102.05482 | 13.93419 | 0.1629671 | 0.22110044 | 2.7085882 | 21 | — | — |
| 482585 2012 $XC_{53}$ | 17.2 | X | 354.51626 | 21.96498 | 97.61026 | 14.87836 | 0.1850109 | 0.23290165 | 2.6163008 | 21 | — | — |
| 482586 2012 $XH_{57}$ | 18.0 | X | 24.82881 | 43.27662 | 88.95498 | 3.43719 | 0.1387157 | 0.25520395 | 2.4615640 | 21 | 1 4.3 | 20.4 |
| 482587 2012 $XE_{84}$ | 17.4 | X | 324.17091 | 203.38823 | 281.23166 | 4.88995 | 0.2359157 | 0.22386840 | 2.6862155 | 21 | — | — |
| 482588 2012 $XP_{88}$ | 17.0 | X | 19.35250 | 168.52183 | 239.40761 | 9.28908 | 0.0252795 | 0.23036518 | 2.6354705 | 21 | — | — |
| 482589 2012 $XX_{93}$ | 18.0 | X | 53.23924 | 130.53128 | 318.17377 | 2.92553 | 0.1385982 | 0.25387663 | 2.4701362 | 21 | — | — |
| 482590 2012 $XP_{94}$ | 16.8 | X | 81.72893 | 272.58147 | 86.70356 | 11.20669 | 0.1406807 | 0.23614953 | 2.5922566 | 21 | — | — |
| 482591 2012 $XL_{105}$ | 16.4 | X | 257.07361 | 270.88187 | 290.88380 | 27.54985 | 0.1281297 | 0.22251337 | 2.6971099 | 21 | — | — |
| 482592 2012 $XE_{106}$ | 16.3 | X | 66.63746 | 292.19079 | 98.02245 | 16.06781 | 0.1793200 | 0.23366964 | 2.6105651 | 21 | — | — |
| 482593 2012 $XJ_{109}$ | 17.6 | X | 341.95261 | 221.23866 | 277.80922 | 3.03443 | 0.1512870 | 0.23896584 | 2.5718492 | 21 | — | — |
| 482594 2012 $XJ_{117}$ | 16.7 | X | 14.57212 | 22.80374 | 89.18044 | 32.36392 | 0.2087116 | 0.23833431 | 2.5763904 | 21 | — | — |
| 482595 2012 $XH_{119}$ | 16.5 | X | 294.18959 | 223.12225 | 296.88012 | 11.09581 | 0.1998883 | 0.22319547 | 2.6916120 | 21 | — | — |
| 482596 2012 $XZ_{119}$ | 17.5 | X | 11.01227 | 12.10172 | 67.30308 | 7.91410 | 0.1444291 | 0.22728248 | 2.6592474 | 21 | — | — |
| 482597 2012 $XB_{130}$ | 18.1 | X | 36.85483 | 114.60778 | 315.53529 | 3.43727 | 0.2461626 | 0.24108556 | 2.5567519 | 21 | — | — |
| 482598 2012 $XN_{135}$ | 16.7 | X | 359.34878 | 355.48265 | 81.22672 | 15.37259 | 0.1306151 | 0.23130721 | 2.6283101 | 21 | — | — |
| 482599 2012 $XB_{145}$ | 16.7 | X | 324.35726 | 211.80762 | 287.01553 | 16.38623 | 0.0903306 | 0.22848502 | 2.6499086 | 21 | — | — |
| 482600 2012 $XV_{145}$ | 17.2 | X | 320.29747 | 347.25534 | 190.64271 | 4.59429 | 0.2007420 | 0.24192370 | 2.5508433 | 21 | — | — |
| 482601 2012 $XO_{152}$ | 17.0 | X | 342.37497 | 197.11513 | 289.68456 | 12.31775 | 0.1925185 | 0.23108987 | 2.6299578 | 21 | — | — |
| 482602 2012 $YL_{4}$ | 16.8 | X | 51.87024 | 270.25825 | 103.19549 | 10.38967 | 0.1326737 | 0.22323397 | 2.6913026 | 21 | — | — |
| 482603 2012 $YQ_{4}$ | 17.3 | X | 41.38316 | 107.64420 | 302.48358 | 3.60004 | 0.1658565 | 0.23203619 | 2.6228023 | 21 | — | — |
| 482604 2013 $AL_{3}$ | 16.0 | X | 333.14530 | 40.25955 | 111.98481 | 33.04988 | 0.1999070 | 0.23019011 | 2.6368066 | 21 | — | — |
| 482605 2013 $AT_{3}$ | 17.3 | X | 64.76464 | 78.40910 | 354.44294 | 7.19091 | 0.1785176 | 0.24212608 | 2.5494217 | 21 | 1 3.8 | 19.8 |
| 482606 2013 $AQ_{5}$ | 16.7 | X | 88.22291 | 94.88498 | 270.03702 | 12.28154 | 0.2256222 | 0.24217986 | 2.5490442 | 21 | — | — |
| 482607 2013 $AJ_{9}$ | 16.6 | X | 283.35511 | 109.43275 | 65.70642 | 5.71476 | 0.0931675 | 0.22061842 | 2.7125320 | 21 | — | — |
| 482608 2013 $AB_{12}$ | 16.8 | X | 341.57867 | 208.74322 | 290.52878 | 12.42768 | 0.2047072 | 0.23211538 | 2.6222058 | 21 | — | — |
| 482609 2013 $AE_{13}$ | 17.4 | X | 334.86848 | 22.11988 | 120.73200 | 5.06034 | 0.1665152 | 0.23125225 | 2.6287265 | 21 | — | — |
| 482610 2013 $AW_{18}$ | 16.6 | X | 326.66505 | 256.23557 | 297.68217 | 27.11886 | 0.3520454 | 0.23470723 | 2.6028656 | 21 | — | — |
| 482611 2013 $AT_{19}$ | 17.0 | X | 88.98682 | 61.93992 | 339.02265 | 6.14530 | 0.3189285 | 0.24376941 | 2.5379511 | 21 | 1 27.5 | 19.5 |
| 482612 2013 $AB_{21}$ | 18.0 | X | 22.55297 | 100.01356 | 23.17629 | 3.42300 | 0.1661467 | 0.24115160 | 2.5562851 | 21 | — | — |
| 482613 2013 $AY_{21}$ | 17.9 | X | 45.57073 | 145.60777 | 282.84215 | 2.66927 | 0.2010981 | 0.24199478 | 2.5503437 | 21 | — | — |
| 482614 2013 $AB_{22}$ | 17.2 | X | 39.37037 | 318.94757 | 45.77476 | 8.70812 | 0.0604701 | 0.21323931 | 2.7747543 | 21 | 12 17.8 | 21.0 |
| 482615 2013 $AB_{23}$ | 18.2 | X | 37.23264 | 149.87554 | 301.60975 | 3.08451 | 0.2417511 | 0.23777196 | 2.5804510 | 21 | — | — |
| 482616 2013 $AM_{26}$ | 15.5 | X | 244.39701 | 315.83275 | 264.99872 | 31.20227 | 0.2230193 | 0.23132849 | 2.6281489 | 21 | — | — |
| 482617 2013 $AK_{35}$ | 17.8 | X | 349.38466 | 66.82387 | 61.80546 | 3.74322 | 0.2710793 | 0.23191183 | 2.6237399 | 21 | — | — |
| 482618 2013 $AQ_{35}$ | 16.9 | X | 66.84683 | 343.29218 | 338.92192 | 6.02135 | 0.0666674 | 0.20615336 | 2.8379785 | 21 | 11 27.9 | 21.0 |
| 482619 2013 $AE_{36}$ | 16.7 | X | 312.87352 | 200.24791 | 326.07354 | 6.56703 | 0.2319713 | 0.22763992 | 2.6564630 | 21 | — | — |
| 482620 2013 $AZ_{38}$ | 17.2 | X | 66.77418 | 276.42280 | 120.76181 | 8.17081 | 0.1903034 | 0.23411067 | 2.6072854 | 21 | — | — |
| 482621 2013 $AJ_{43}$ | 17.7 | X | 63.63461 | 29.01948 | 19.89633 | 3.21461 | 0.3121460 | 0.23876879 | 2.5732640 | 21 | — | — |
| 482622 2013 $AU_{48}$ | 16.9 | X | 64.08273 | 171.09440 | 224.95739 | 8.13198 | 0.1809643 | 0.24054332 | 2.5605928 | 21 | — | — |
| 482623 2013 $AK_{53}$ | 16.9 | X | 309.59165 | 38.39492 | 118.96068 | 9.95935 | 0.1923100 | 0.22331785 | 2.6906286 | 21 | — | — |
| 482624 2013 $AR_{53}$ | 17.0 | X | 7.08892 | 104.34946 | 326.05810 | 13.18059 | 0.1760006 | 0.22277633 | 2.6949871 | 21 | — | — |
| 482625 2013 $AM_{56}$ | 16.8 | X | 74.93876 | 264.00693 | 91.25118 | 13.22814 | 0.1407921 | 0.22213604 | 2.7001633 | 21 | — | — |
| 482626 2013 $AD_{57}$ | 16.7 | X | 92.01923 | 270.11342 | 110.24324 | 15.01378 | 0.1596485 | 0.23568620 | 2.5956529 | 21 | — | — |
| 482627 2013 $AK_{61}$ | 17.0 | X | 59.77116 | 296.13045 | 79.82396 | 11.16229 | 0.0566937 | 0.22437743 | 2.6821513 | 21 | — | — |
| 482628 2013 $AM_{69}$ | 17.3 | X | 59.68736 | 316.07640 | 119.46335 | 14.91854 | 0.1493153 | 0.23939957 | 2.5687419 | 21 | — | — |
| 482629 2013 $AX_{69}$ | 16.9 | X | 3.25185 | 139.84833 | 293.18508 | 4.13983 | 0.0480287 | 0.21827963 | 2.7318734 | 21 | — | — |
| 482630 2013 $AN_{73}$ | 15.6 | X | 163.65827 | 41.94284 | 87.30627 | 25.13527 | 0.1354510 | 0.17172906 | 3.2055817 | 21 | 7 22.1 | 20.9 |
| 482631 2013 $AM_{75}$ | 16.8 | X | 53.06611 | 39.67766 | 48.55647 | 15.90668 | 0.1178108 | 0.24243390 | 2.5472632 | 21 | — | — |
| 482632 2013 $AN_{79}$ | 17.6 | X | 67.48845 | 131.33695 | 298.24527 | 4.70479 | 0.2099422 | 0.24384905 | 2.5373985 | 21 | 1 6.4 | 19.5 |
| 482633 2013 $AE_{80}$ | 17.9 | X | 57.81663 | 296.52075 | 147.81438 | 9.30852 | 0.2147358 | 0.24423239 | 2.5347427 | 21 | 1 6.2 | 20.0 |
| 482634 2013 $AJ_{84}$ | 17.6 | X | 139.59059 | 332.67612 | 324.33724 | 4.24020 | 0.0271112 | 0.22057683 | 2.7128729 | 21 | — | — |
| 482635 2013 $AQ_{84}$ | 17.7 | X | 63.11620 | 289.41639 | 88.48706 | 3.33512 | 0.2202898 | 0.23017941 | 2.6368883 | 21 | — | — |
| 482636 2013 $AD_{85}$ | 16.8 | X | 40.57223 | 13.09732 | 324.85030 | 3.84902 | 0.1002299 | 0.20484172 | 2.8500803 | 21 | 11 19.3 | 20.7 |
| 482637 2013 $AB_{89}$ | 17.3 | X | 19.52480 | 340.38584 | 94.67492 | 7.90706 | 0.2092156 | 0.22935232 | 2.6432239 | 21 | — | — |
| 482638 2013 $AK_{94}$ | 17.2 | X | 77.41860 | 29.63039 | 352.53340 | 5.42611 | 0.3354892 | 0.23866950 | 2.5739776 | 21 | — | — |
| 482639 2013 $AH_{105}$ | 16.5 | X | 115.85650 | 72.02428 | 294.29600 | 25.62174 | 0.2106233 | 0.23978112 | 2.5660162 | 21 | 1 5.1 | 19.9 |
| 482640 2013 $AZ_{110}$ | 17.4 | X | 65.26690 | 296.72431 | 93.83803 | 2.92817 | 0.2297181 | 0.23452504 | 2.6042134 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482641 2013 $AR_{115}$ | 17.4 | X | 283.61805 | 73.04590 | 52.06400 | 3.22229 | 0.1519589 | 0.21140386 | 2.7907918 | 21 | 11 27.5 | 20.7 |
| 482642 2013 $AV_{115}$ | 17.0 | X | 64.43096 | 218.50164 | 192.48816 | 7.09905 | 0.2125248 | 0.24021518 | 2.5629241 | 21 | — | — |
| 482643 2013 $AB_{118}$ | 17.6 | X | 64.17360 | 336.75163 | 95.28333 | 8.70875 | 0.2690376 | 0.24426623 | 2.5345086 | 21 | 1 9.3 | 19.2 |
| 482644 2013 $AO_{123}$ | 17.4 | X | 51.93709 | 155.46998 | 242.47205 | 10.70225 | 0.3246900 | 0.23425057 | 2.6062472 | 21 | — | — |
| 482645 2013 $AZ_{125}$ | 16.5 | X | 318.71354 | 246.33087 | 272.94900 | 11.77064 | 0.2048585 | 0.22539035 | 2.6741094 | 21 | — | — |
| 482646 2013 $AK_{126}$ | 17.0 | X | 110.52875 | 108.41513 | 319.09331 | 22.29524 | 0.2957995 | 0.25926358 | 2.4358005 | 21 | 3 14.0 | 20.7 |
| 482647 2013 $AV_{129}$ | 17.1 | X | 327.13959 | 247.68956 | 302.55797 | 12.29019 | 0.1689436 | 0.23728240 | 2.5839991 | 21 | — | — |
| 482648 2013 $BA_{4}$ | 17.1 | X | 311.57114 | 338.86838 | 149.46751 | 11.87193 | 0.1277765 | 0.22040785 | 2.7142593 | 21 | — | — |
| 482649 2013 $BF_{13}$ | 17.7 | X | 25.49813 | 340.36829 | 79.86697 | 7.68927 | 0.2312131 | 0.23045665 | 2.6347731 | 21 | — | — |
| 482650 2013 $BK_{18}$ | 19.6 | X | 7.67752 | 64.61641 | 137.73732 | 28.89453 | 0.4943102 | 0.47508440 | 1.6266304 | 21 | — | — |
| 482651 2013 $BT_{39}$ | 18.0 | X | 41.00531 | 338.76824 | 131.90233 | 7.14791 | 0.1934431 | 0.24270427 | 2.5453710 | 21 | 1 7.3 | 20.0 |
| 482652 2013 $BE_{40}$ | 17.2 | X | 351.96257 | 140.74327 | 300.97286 | 3.66505 | 0.0378592 | 0.21612632 | 2.7499890 | 21 | — | — |
| 482653 2013 $BB_{49}$ | 17.1 | X | 171.92120 | 149.53738 | 99.60739 | 3.87562 | 0.0425519 | 0.21294687 | 2.7772941 | 21 | 12 28.1 | 21.1 |
| 482654 2013 $BF_{52}$ | 16.6 | X | 246.49107 | 278.72402 | 342.46554 | 8.99471 | 0.2259694 | 0.23527794 | 2.5986547 | 21 | — | — |
| 482655 2013 $BH_{56}$ | 17.2 | X | 342.31528 | 339.91375 | 126.27881 | 8.49714 | 0.0618747 | 0.22348860 | 2.6892580 | 21 | — | — |
| 482656 2013 $BD_{57}$ | 17.0 | X | 135.64519 | 222.37286 | 117.11489 | 10.28036 | 0.1455995 | 0.23513200 | 2.5997298 | 21 | — | — |
| 482657 2013 $BJ_{57}$ | 17.1 | X | 73.80390 | 236.30473 | 117.65823 | 7.44458 | 0.0297851 | 0.21717444 | 2.7411338 | 21 | — | — |
| 482658 2013 $BK_{58}$ | 17.0 | X | 63.66346 | 238.85141 | 128.19009 | 12.40603 | 0.2045897 | 0.22391308 | 2.6858581 | 21 | — | — |
| 482659 2013 $BV_{58}$ | 17.5 | X | 357.59939 | 197.53035 | 287.28150 | 2.69691 | 0.1320939 | 0.23361516 | 2.6109710 | 21 | — | — |
| 482660 2013 $BM_{64}$ | 17.7 | X | 7.90597 | 61.45784 | 41.79360 | 2.55386 | 0.1446071 | 0.23103431 | 2.6303794 | 21 | — | — |
| 482661 2013 $BT_{64}$ | 18.0 | X | 338.35174 | 215.28451 | 319.11010 | 12.75909 | 0.1795093 | 0.23729302 | 2.5839221 | 21 | — | — |
| 482662 2013 $BT_{66}$ | 17.2 | X | 4.47853 | 128.65644 | 287.52248 | 7.37460 | 0.1026668 | 0.21725109 | 2.7404891 | 21 | — | — |
| 482663 2013 $BJ_{73}$ | 16.6 | X | 0.98072 | 186.56695 | 283.81853 | 35.64984 | 0.2698927 | 0.22905964 | 2.6454751 | 21 | — | — |
| 482664 2013 $BV_{78}$ | 16.8 | X | 23.28202 | 294.39454 | 134.36784 | 13.29411 | 0.1780659 | 0.22523412 | 2.6753458 | 21 | — | — |
| 482665 2013 $BT_{80}$ | 17.1 | X | 45.56065 | 84.92659 | 77.04301 | 8.20048 | 0.2022793 | 0.25621133 | 2.4551074 | 21 | 4 10.8 | 19.2 |
| 482666 2013 $CV_{5}$ | 17.6 | X | 330.88937 | 202.22912 | 257.23027 | 4.28810 | 0.1076952 | 0.21611670 | 2.7500705 | 21 | — | — |
| 482667 2013 $CQ_{10}$ | 16.5 | X | 255.20014 | 115.73231 | 350.27619 | 9.52704 | 0.0642402 | 0.19085457 | 2.9876818 | 21 | 10 2.5 | 20.8 |
| 482668 2013 $CW_{11}$ | 17.9 | X | 14.89870 | 108.18419 | 354.54238 | 5.24466 | 0.1467847 | 0.23033576 | 2.6356949 | 21 | — | — |
| 482669 2013 $CQ_{16}$ | 16.2 | X | 324.95363 | 236.61416 | 323.78139 | 30.47291 | 0.2503332 | 0.23321256 | 2.6139750 | 21 | — | — |
| 482670 2013 $CM_{19}$ | 17.0 | X | 281.83902 | 70.19786 | 111.52511 | 11.99071 | 0.1910209 | 0.22270657 | 2.6955498 | 21 | — | — |
| 482671 2013 $CX_{22}$ | 17.0 | X | 78.61865 | 8.47249 | 30.23114 | 5.13109 | 0.3024780 | 0.24018712 | 2.5631238 | 21 | — | — |
| 482672 2013 $CQ_{24}$ | 16.8 | X | 59.16977 | 57.70494 | 333.99682 | 30.31601 | 0.3213935 | 0.23555202 | 2.5966385 | 21 | — | — |
| 482673 2013 $CU_{27}$ | 17.4 | X | 306.19813 | 197.44691 | 295.23102 | 3.59087 | 0.0725915 | 0.21746642 | 2.7386797 | 21 | — | — |
| 482674 2013 $CT_{48}$ | 17.4 | X | 66.83759 | 305.23128 | 118.30910 | 12.90034 | 0.1652400 | 0.23688634 | 2.5868785 | 21 | — | — |
| 482675 2013 $CX_{50}$ | 17.5 | X | 350.36756 | 286.45981 | 156.07484 | 5.17817 | 0.1363695 | 0.21907733 | 2.7252379 | 21 | — | — |
| 482676 2013 $CW_{52}$ | 17.7 | X | 353.51975 | 70.43185 | 58.55574 | 12.42712 | 0.2936069 | 0.22561999 | 2.6722946 | 21 | — | — |
| 482677 2013 $CS_{54}$ | 17.1 | X | 30.48330 | 1.44250 | 127.21009 | 12.11337 | 0.1751628 | 0.24033927 | 2.5620419 | 21 | 1 12.6 | 19.5 |
| 482678 2013 $CV_{63}$ | 17.0 | X | 332.14156 | 204.05237 | 254.24852 | 5.00264 | 0.0724507 | 0.21315442 | 2.7754910 | 21 | — | — |
| 482679 2013 $CC_{65}$ | 17.5 | X | 302.75133 | 355.58247 | 203.99474 | 2.75769 | 0.1484560 | 0.22976380 | 2.6400672 | 21 | — | — |
| 482680 2013 $CW_{65}$ | 16.3 | X | 91.12680 | 7.77834 | 321.45642 | 14.75651 | 0.1435942 | 0.20646657 | 2.8351077 | 21 | — | — |
| 482681 2013 $CW_{66}$ | 17.2 | X | 320.78596 | 20.62688 | 160.58053 | 11.79036 | 0.0700681 | 0.23099605 | 2.6306698 | 21 | — | — |
| 482682 2013 $CD_{67}$ | 17.2 | X | 35.68112 | 289.31465 | 159.89922 | 12.59507 | 0.1348800 | 0.23156222 | 2.6263801 | 21 | — | — |
| 482683 2013 $CN_{67}$ | 17.9 | X | 72.69521 | 257.04992 | 166.92200 | 7.53917 | 0.2639466 | 0.24140193 | 2.5545175 | 21 | 1 16.6 | 20.1 |
| 482684 2013 $CD_{68}$ | 17.6 | X | 0.20569 | 313.61798 | 159.35146 | 13.07401 | 0.1697470 | 0.22763689 | 2.6564865 | 21 | — | — |
| 482685 2013 $CN_{68}$ | 17.6 | X | 62.96522 | 243.38510 | 195.84916 | 4.80496 | 0.2341569 | 0.24139873 | 2.5545401 | 21 | 1 13.1 | 19.7 |
| 482686 2013 $CB_{71}$ | 17.5 | X | 30.61528 | 69.33662 | 64.36328 | 4.58048 | 0.1362110 | 0.24252329 | 2.5466372 | 21 | 1 22.7 | 20.1 |
| 482687 2013 $CG_{71}$ | 17.4 | X | 14.71285 | 326.78927 | 137.43962 | 4.15393 | 0.1733976 | 0.23004089 | 2.6379467 | 21 | — | — |
| 482688 2013 $CU_{77}$ | 17.6 | X | 17.21568 | 98.45701 | 23.94886 | 3.24349 | 0.1346164 | 0.23548588 | 2.5971247 | 21 | — | — |
| 482689 2013 $CO_{79}$ | 16.3 | X | 247.53615 | 296.33400 | 312.69479 | 24.62074 | 0.1501573 | 0.22735279 | 2.6586991 | 21 | — | — |
| 482690 2013 $CZ_{90}$ | 16.9 | X | 276.57962 | 94.32876 | 91.35969 | 4.58407 | 0.0564766 | 0.21758828 | 2.7376571 | 21 | — | — |
| 482691 2013 $CX_{101}$ | 17.1 | X | 13.12618 | 341.85954 | 145.72654 | 14.68734 | 0.1775961 | 0.23337660 | 2.6127500 | 21 | — | — |
| 482692 2013 $CP_{112}$ | 16.2 | X | 208.76174 | 282.37995 | 345.30247 | 12.77466 | 0.0854183 | 0.22212684 | 2.7002379 | 21 | — | — |
| 482693 2013 $CJ_{114}$ | 16.9 | X | 281.20570 | 106.78810 | 60.89609 | 4.19890 | 0.1297548 | 0.21705721 | 2.7421207 | 21 | — | — |
| 482694 2013 $CN_{121}$ | 17.8 | X | 31.10887 | 310.49983 | 162.77313 | 3.78807 | 0.1757226 | 0.23699778 | 2.5860676 | 21 | — | — |
| 482695 2013 $CK_{124}$ | 17.0 | X | 324.57330 | 348.14142 | 126.92662 | 6.68807 | 0.0105286 | 0.22027234 | 2.7153724 | 21 | — | — |
| 482696 2013 $CL_{124}$ | 17.8 | X | 356.78665 | 127.30839 | 324.07550 | 3.20232 | 0.2202160 | 0.22642625 | 2.6659471 | 21 | — | — |
| 482697 2013 $CB_{134}$ | 16.5 | X | 33.37780 | 76.19727 | 0.91214 | 25.48997 | 0.2215098 | 0.22583209 | 2.6706211 | 21 | — | — |
| 482698 2013 $CF_{135}$ | 16.3 | X | 192.57880 | 27.48746 | 138.72497 | 7.44446 | 0.0931269 | 0.18165519 | 3.0877172 | 21 | 10 6.6 | 21.1 |
| 482699 2013 $CO_{136}$ | 17.2 | X | 357.01946 | 37.43618 | 58.35028 | 5.43155 | 0.0902069 | 0.21930330 | 2.7233655 | 21 | — | — |
| 482700 2013 $CT_{137}$ | 16.2 | X | 177.25685 | 274.90907 | 345.11234 | 14.39506 | 0.1255697 | 0.20288217 | 2.8684028 | 21 | — | — |
| 482701 2013 $CV_{140}$ | 16.2 | X | 229.02701 | 279.69592 | 315.62041 | 14.48671 | 0.1047056 | 0.22049722 | 2.7135259 | 21 | — | — |
| 482702 2013 $CC_{155}$ | 16.7 | X | 338.74393 | 124.69432 | 336.33649 | 8.15905 | 0.1729748 | 0.21552364 | 2.7551131 | 21 | — | — |
| 482703 2013 $CQ_{184}$ | 16.9 | X | 293.43140 | 110.18541 | 103.88615 | 14.41547 | 0.2208938 | 0.22823540 | 2.6518404 | 21 | — | — |
| 482704 2013 $CL_{186}$ | 16.5 | X | 194.81572 | 333.68455 | 301.06255 | 8.58804 | 0.1668215 | 0.21607509 | 2.7504236 | 21 | — | — |
| 482705 2013 $CX_{190}$ | 16.9 | X | 343.23401 | 254.29822 | 212.41781 | 12.46966 | 0.1651095 | 0.21859263 | 2.7292650 | 21 | — | — |
| 482706 2013 $CG_{193}$ | 17.7 | X | 12.20117 | 57.52157 | 67.54410 | 4.14763 | 0.1835475 | 0.23550315 | 2.5969977 | 21 | — | — |
| 482707 2013 $CV_{202}$ | 17.3 | X | 76.25845 | 284.63195 | 144.50618 | 21.78423 | 0.0228097 | 0.23443028 | 2.6049151 | 21 | 1 5.5 | 21.1 |
| 482708 2013 $CU_{203}$ | 16.5 | X | 141.99695 | 228.63805 | 27.02844 | 5.67054 | 0.1059103 | 0.19540798 | 2.9410868 | 21 | 11 29.8 | 21.2 |
| 482709 2013 $CF_{208}$ | 17.6 | X | 26.12120 | 82.35867 | 29.63209 | 2.46548 | 0.1397492 | 0.23189164 | 2.6238922 | 21 | — | — |
| 482710 2013 $CS_{214}$ | 16.9 | X | 202.83142 | 262.38975 | 253.02473 | 2.83892 | 0.0997635 | 0.18528178 | 3.0472931 | 21 | 9 29.9 | 21.6 |
| 482711 2013 DJ | 17.2 | X | 6.29568 | 325.17085 | 116.25607 | 5.31111 | 0.1477761 | 0.22147590 | 2.7055261 | 21 | — | — |
| 482712 2013 $DX_{2}$ | 17.4 | X | 327.88366 | 310.36366 | 207.68039 | 6.42070 | 0.2400858 | 0.22632262 | 2.6667608 | 21 | — | — |
| 482713 2013 $DE_{8}$ | 17.2 | X | 310.08699 | 39.38376 | 81.03956 | 5.64584 | 0.0643122 | 0.21256973 | 2.7805781 | 21 | — | — |
| 482714 2013 $DL_{9}$ | 16.5 | X | 304.17639 | 229.97261 | 334.14825 | 12.43361 | 0.2094483 | 0.22936686 | 2.6431123 | 21 | — | — |
| 482715 2013 $DO_{9}$ | 16.7 | X | 326.40124 | 179.19713 | 284.98121 | 6.99692 | 0.1373571 | 0.21122512 | 2.7923660 | 21 | — | — |
| 482716 2013 $DR_{10}$ | 16.2 | X | 346.96157 | 214.41441 | 311.08913 | 28.27061 | 0.1497259 | 0.23271407 | 2.6177065 | 21 | — | — |
| 482717 2013 $DU_{15}$ | 17.7 | X | 301.26836 | 344.98393 | 179.85464 | 13.76893 | 0.1627986 | 0.21924808 | 2.7238228 | 21 | — | — |
| 482718 2013 $ET_{9}$ | 21.1 | X | 289.13321 | 72.39785 | 190.66216 | 12.31731 | 0.1797805 | 0.71185435 | 1.2422489 | 21 | — | — |
| 482719 2013 $EO_{18}$ | 18.0 | X | 344.04068 | 118.72411 | 6.69045 | 6.87235 | 0.2862119 | 0.22244927 | 2.6976280 | 21 | — | — |
| 482720 2013 $EP_{18}$ | 17.1 | X | 328.10002 | 330.53172 | 185.55640 | 10.41623 | 0.0504218 | 0.22330271 | 2.6907502 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
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| | m | | ° | ° | ° | ° | | ° | | | | |
| 482721 2013 $EA_{22}$ | 16.6 | X | 341.60014 | 202.85240 | 173.70636 | 18.58878 | 0.0873469 | 0.18175472 | 3.0865898 | 21 | 10 11.1 | 20.5 |
| 482722 2013 $EN_{30}$ | 17.3 | X | 332.77851 | 303.83180 | 169.45425 | 7.97152 | 0.1832349 | 0.21358721 | 2.7717405 | 21 | — | — |
| 482723 2013 $ES_{30}$ | 16.1 | X | 144.00703 | 183.98719 | 1.98311 | 22.98544 | 0.0396137 | 0.16851077 | 3.2462673 | 21 | 9 10.4 | 20.9 |
| 482724 2013 $EO_{32}$ | 17.0 | X | 238.09256 | 341.18535 | 166.00232 | 5.40492 | 0.1604791 | 0.19050531 | 2.9913323 | 21 | 10 24.0 | 21.4 |
| 482725 2013 $EW_{35}$ | 17.2 | X | 23.10176 | 349.10608 | 145.37641 | 15.51466 | 0.0640729 | 0.24008875 | 2.5638238 | 21 | 1 13.5 | 20.5 |
| 482726 2013 $EM_{40}$ | 17.1 | X | 335.36952 | 202.05562 | 0.37568 | 11.46494 | 0.1663695 | 0.24506006 | 2.5290322 | 21 | 1 21.9 | 20.4 |
| 482727 2013 $EJ_{57}$ | 16.9 | X | 285.76603 | 76.15281 | 356.98618 | 6.27208 | 0.0839424 | 0.18325562 | 3.0697135 | 21 | 9 28.7 | 21.0 |
| 482728 2013 $EE_{64}$ | 17.4 | X | 15.17792 | 342.79753 | 141.58414 | 2.26590 | 0.1537702 | 0.23027133 | 2.6361865 | 21 | — | — |
| 482729 2013 $EG_{79}$ | 17.6 | X | 20.19214 | 91.15865 | 2.15017 | 12.43652 | 0.2406336 | 0.22670717 | 2.6637444 | 21 | — | — |
| 482730 2013 $EA_{84}$ | 16.3 | X | 221.99377 | 17.19882 | 156.22938 | 12.76308 | 0.0127875 | 0.18999877 | 2.9966465 | 21 | 11 26.2 | 20.7 |
| 482731 2013 $EB_{84}$ | 17.1 | X | 19.43888 | 319.58290 | 122.36266 | 6.19685 | 0.2807027 | 0.22273163 | 2.6953477 | 21 | — | — |
| 482732 2013 $EV_{86}$ | 16.2 | X | 224.83109 | 107.77556 | 62.56636 | 8.81418 | 0.0842667 | 0.18877515 | 3.0095819 | 21 | 11 14.5 | 20.5 |
| 482733 2013 $EP_{87}$ | 16.1 | X | 276.45836 | 11.02501 | 61.71757 | 11.12188 | 0.0953959 | 0.17960358 | 3.1111866 | 21 | 9 20.4 | 20.5 |
| 482734 2013 $EH_{90}$ | 16.7 | X | 305.94409 | 143.27576 | 0.98122 | 18.95471 | 0.2108776 | 0.21532048 | 2.7568459 | 21 | — | — |
| 482735 2013 $EK_{93}$ | 17.0 | X | 335.97618 | 312.89899 | 217.87423 | 13.94435 | 0.1785225 | 0.22733713 | 2.6588212 | 21 | — | — |
| 482736 2013 $EQ_{99}$ | 17.3 | X | 17.34711 | 31.28902 | 87.82994 | 3.24917 | 0.1555481 | 0.22807078 | 2.6531163 | 21 | — | — |
| 482737 2013 $EZ_{102}$ | 17.0 | X | 357.03660 | 352.74953 | 136.28454 | 10.13421 | 0.2658612 | 0.22458921 | 2.6804649 | 21 | — | — |
| 482738 2013 $EX_{105}$ | 16.3 | X | 351.36270 | 31.83382 | 330.45992 | 9.00069 | 0.1145501 | 0.18552194 | 3.0446628 | 21 | 10 2.8 | 20.1 |
| 482739 2013 $EO_{112}$ | 16.0 | X | 98.50011 | 153.70509 | 108.26400 | 12.30324 | 0.0928610 | 0.17603885 | 3.1530464 | 21 | 10 27.6 | 20.9 |
| 482740 2013 $EB_{114}$ | 16.3 | X | 242.53271 | 10.58647 | 123.58354 | 13.04452 | 0.0872997 | 0.18662505 | 3.0326532 | 21 | 10 26.2 | 20.9 |
| 482741 2013 $EA_{121}$ | 17.5 | X | 29.92128 | 95.10992 | 0.53546 | 12.54517 | 0.2413413 | 0.22602488 | 2.6691023 | 21 | — | — |
| 482742 2013 $EB_{121}$ | 16.9 | X | 273.63869 | 283.57561 | 195.65063 | 10.58803 | 0.1000875 | 0.18962614 | 3.0005711 | 21 | 11 10.1 | 21.0 |
| 482743 2013 $ED_{123}$ | 16.0 | X | 138.25214 | 58.35059 | 149.25688 | 4.92175 | 0.0972154 | 0.16982917 | 3.2294447 | 21 | 9 29.5 | 21.0 |
| 482744 2013 $EW_{126}$ | 16.3 | X | 308.33063 | 90.30714 | 89.31187 | 25.42387 | 0.2258339 | 0.22080967 | 2.7109655 | 21 | — | — |
| 482745 2013 $EX_{126}$ | 16.6 | X | 307.92396 | 298.01183 | 274.86209 | 11.88601 | 0.2283129 | 0.22570661 | 2.6716108 | 21 | — | — |
| 482746 2013 $EM_{128}$ | 17.0 | X | 286.06762 | 89.02334 | 65.65478 | 10.97476 | 0.2247291 | 0.21391306 | 2.7689250 | 21 | — | — |
| 482747 2013 $FV$ | 17.6 | X | 46.18163 | 206.73961 | 265.31776 | 3.45337 | 0.2198518 | 0.23854237 | 2.5748921 | 21 | 1 23.4 | 19.6 |
| 482748 2013 $FK_{2}$ | 16.4 | X | 170.29587 | 101.87150 | 82.58943 | 11.91998 | 0.0707744 | 0.17637596 | 3.1490275 | 21 | 10 9.3 | 21.3 |
| 482749 2013 $FB_{4}$ | 17.2 | X | 13.49758 | 10.57063 | 127.14321 | 14.61305 | 0.2024555 | 0.23292864 | 2.6160987 | 21 | — | — |
| 482750 2013 $FQ_{5}$ | 16.4 | X | 177.67974 | 107.79836 | 70.21294 | 10.72121 | 0.0482805 | 0.17766246 | 3.1338071 | 21 | 10 9.1 | 21.2 |
| 482751 2013 $FZ_{6}$ | 16.4 | X | 319.69167 | 5.01812 | 84.39928 | 2.88198 | 0.0901004 | 0.19585888 | 2.9365712 | 21 | 12 10.5 | 20.0 |
| 482752 2013 $FW_{9}$ | 17.2 | X | 23.21325 | 272.86061 | 177.56236 | 9.91101 | 0.1900647 | 0.22172727 | 2.7034809 | 21 | — | — |
| 482753 2013 $FO_{13}$ | 16.5 | X | 12.25980 | 334.37341 | 117.62226 | 6.44414 | 0.0834860 | 0.21574789 | 2.7532037 | 21 | — | — |
| 482754 2013 $GM_{6}$ | 17.0 | X | 312.02449 | 348.84762 | 181.80757 | 12.50753 | 0.0962854 | 0.21812264 | 2.7331841 | 21 | — | — |
| 482755 2013 $GQ_{14}$ | 16.7 | X | 217.66747 | 77.88890 | 63.08892 | 13.85998 | 0.1146184 | 0.18027076 | 3.1035055 | 21 | 10 4.5 | 21.6 |
| 482756 2013 $GK_{18}$ | 16.2 | X | 86.82846 | 218.26423 | 54.23539 | 13.89249 | 0.1026648 | 0.17464027 | 3.1698579 | 21 | 10 26.1 | 20.9 |
| 482757 2013 $GQ_{24}$ | 16.5 | X | 238.92915 | 280.70947 | 357.02027 | 12.12365 | 0.1791291 | 0.22035245 | 2.7147143 | 21 | 1 15.7 | 21.2 |
| 482758 2013 $GB_{28}$ | 16.0 | X | 128.59536 | 210.76329 | 76.96480 | 11.12578 | 0.0797518 | 0.19270409 | 2.9685344 | 21 | 12 23.7 | 20.4 |
| 482759 2013 $GA_{38}$ | 16.2 | X | 146.31839 | 168.31758 | 40.03924 | 7.73717 | 0.1148385 | 0.17107666 | 3.2137262 | 21 | 10 9.6 | 21.3 |
| 482760 2013 $GO_{38}$ | 17.1 | X | 348.64670 | 335.35982 | 122.56609 | 9.58074 | 0.2585916 | 0.21836089 | 2.7311957 | 21 | — | — |
| 482761 2013 $GZ_{48}$ | 16.0 | X | 308.28351 | 60.63534 | 23.83856 | 22.20691 | 0.1367063 | 0.19031147 | 2.9933632 | 21 | 11 5.8 | 19.7 |
| 482762 2013 $GM_{52}$ | 16.2 | X | 258.14921 | 97.62967 | 34.17521 | 17.74348 | 0.0938444 | 0.18465812 | 3.0541505 | 21 | 11 2.9 | 20.3 |
| 482763 2013 $GK_{55}$ | 17.1 | X | 299.52889 | 73.81901 | 86.48195 | 4.11567 | 0.1154858 | 0.20913281 | 2.8109596 | 21 | — | — |
| 482764 2013 $GF_{56}$ | 16.3 | X | 283.29731 | 55.28579 | 32.29416 | 10.65952 | 0.0761148 | 0.18102217 | 3.0949113 | 21 | 10 16.2 | 20.4 |
| 482765 2013 $GZ_{68}$ | 17.4 | X | 298.00791 | 108.02638 | 223.23864 | 20.53311 | 0.1238961 | 0.37722264 | 1.8970155 | 21 | 5 18.4 | 18.9 |
| 482766 2013 $GF_{69}$ | 19.3 | X | 288.12286 | 153.17894 | 174.89021 | 10.01099 | 0.4980810 | 0.35747184 | 1.9662625 | 21 | 3 17.7 | 22.5 |
| 482767 2013 $GZ_{70}$ | 16.0 | X | 136.58131 | 200.68537 | 69.34267 | 15.27774 | 0.2318509 | 0.18153860 | 3.0890390 | 21 | 12 12.3 | 21.3 |
| 482768 2013 $GN_{73}$ | 16.2 | X | 251.27274 | 80.33758 | 74.52404 | 7.60028 | 0.1428114 | 0.18910947 | 3.0060339 | 21 | 11 18.8 | 20.4 |
| 482769 2013 $GJ_{75}$ | 17.0 | X | 349.67579 | 20.39950 | 100.62869 | 4.33669 | 0.1412652 | 0.21300424 | 2.7767954 | 21 | — | — |
| 482770 2013 $GS_{75}$ | 16.1 | X | 242.41599 | 311.97172 | 212.34844 | 26.96345 | 0.1068451 | 0.18595310 | 3.0399546 | 21 | 11 23.3 | 20.6 |
| 482771 2013 $GO_{93}$ | 16.3 | X | 197.30106 | 139.19477 | 40.89487 | 8.69217 | 0.0739602 | 0.18121268 | 3.0927417 | 21 | 10 27.2 | 20.9 |
| 482772 2013 $GK_{95}$ | 16.3 | X | 194.26287 | 309.69465 | 251.78692 | 7.10561 | 0.1494089 | 0.18846514 | 3.0128813 | 21 | 11 13.0 | 21.0 |
| 482773 2013 $GM_{95}$ | 16.1 | X | 224.25366 | 9.13669 | 156.49627 | 15.90459 | 0.1723510 | 0.19035294 | 2.9929284 | 21 | 11 2.4 | 21.0 |
| 482774 2013 $GP_{107}$ | 16.1 | X | 184.06050 | 35.54143 | 134.76727 | 4.81150 | 0.1362869 | 0.17368447 | 3.1814765 | 21 | 9 29.8 | 21.2 |
| 482775 2013 $GP_{126}$ | 16.0 | X | 286.64836 | 248.83592 | 211.84205 | 17.61912 | 0.0691319 | 0.18088035 | 3.0965288 | 21 | 11 6.4 | 20.1 |
| 482776 2013 $GT_{131}$ | 16.3 | X | 336.50667 | 92.80988 | 70.92334 | 22.63476 | 0.0457136 | 0.22882010 | 2.6473210 | 21 | — | — |
| 482777 2013 $HQ_{12}$ | 17.4 | X | 306.04532 | 107.13479 | 85.29382 | 3.42200 | 0.1652452 | 0.21890228 | 2.7266906 | 21 | — | — |
| 482778 2013 $HO_{26}$ | 15.9 | X | 121.43901 | 241.26379 | 39.73220 | 16.54568 | 0.2116532 | 0.17542872 | 3.1603530 | 21 | 12 10.3 | 21.4 |
| 482779 2013 $HT_{55}$ | 17.1 | X | 330.72055 | 125.66938 | 15.13964 | 15.69456 | 0.1104433 | 0.21271692 | 2.7792953 | 21 | — | — |
| 482780 2013 $HV_{69}$ | 17.3 | X | 292.65863 | 270.74562 | 213.33416 | 12.11937 | 0.2260550 | 0.19874151 | 2.9081066 | 21 | 11 28.7 | 20.6 |
| 482781 2013 $HO_{85}$ | 17.2 | X | 278.15863 | 179.38249 | 273.73110 | 2.51016 | 0.1458306 | 0.18201852 | 3.0836068 | 21 | 10 3.8 | 21.2 |
| 482782 2013 $HH_{119}$ | 17.1 | X | 252.22993 | 85.04376 | 47.33546 | 5.44980 | 0.1028902 | 0.18284421 | 3.0743165 | 21 | 10 27.9 | 21.4 |
| 482783 2013 $JZ_{34}$ | 15.7 | X | 197.47841 | 323.09699 | 233.95826 | 26.04056 | 0.1258178 | 0.17553526 | 3.1590740 | 21 | 11 11.3 | 20.8 |
| 482784 2013 $JD_{63}$ | 16.4 | X | 218.22674 | 109.71583 | 43.97323 | 12.80583 | 0.1443340 | 0.17585560 | 3.1552365 | 21 | 10 13.6 | 21.3 |
| 482785 2013 $KD_{1}$ | 16.0 | X | 245.61045 | 91.72714 | 47.42386 | 14.66954 | 0.0962037 | 0.18051037 | 3.1007585 | 21 | 10 30.0 | 20.5 |
| 482786 2013 $KX_{7}$ | 16.7 | X | 310.64456 | 281.33391 | 252.33957 | 6.60090 | 0.1593516 | 0.21024643 | 2.8010248 | 21 | — | — |
| 482787 2013 $KB_{17}$ | 15.6 | X | 108.21558 | 191.93812 | 110.27109 | 21.22877 | 0.0860441 | 0.17499387 | 3.1655863 | 21 | 12 19.5 | 20.5 |
| 482788 2013 $LU_{3}$ | 16.0 | X | 192.41943 | 81.26844 | 143.12591 | 23.70675 | 0.0165926 | 0.17795995 | 3.1303138 | 21 | 12 20.1 | 20.9 |
| 482789 2013 $LY_{10}$ | 15.4 | X | 240.42428 | 67.07110 | 81.62721 | 21.85992 | 0.1183970 | 0.17479321 | 3.1680085 | 21 | 11 7.3 | 20.3 |
| 482790 2013 $LS_{11}$ | 16.6 | X | 299.81831 | 53.28952 | 127.55911 | 16.35553 | 0.1753182 | 0.20602742 | 2.8391349 | 21 | — | — |
| 482791 2013 $LX_{15}$ | 17.9 | X | 278.27851 | 254.37552 | 86.13942 | 23.72964 | 0.0935620 | 0.36513203 | 1.9386650 | 21 | 5 17.3 | 20.2 |
| 482792 2013 $LO_{17}$ | 15.4 | X | 274.03405 | 232.83700 | 246.96010 | 26.03804 | 0.1905008 | 0.17725648 | 3.1385903 | 21 | 10 22.2 | 20.1 |
| 482793 2013 $LP_{22}$ | 16.2 | X | 271.64136 | 272.66737 | 242.78714 | 10.58370 | 0.1093059 | 0.18636700 | 3.0354521 | 21 | 12 18.6 | 20.2 |
| 482794 2013 $MG_{5}$ | 17.8 | X | 349.11813 | 55.24355 | 286.59603 | 18.08540 | 0.0880622 | 0.37604195 | 1.9009842 | 21 | 9 16.1 | 19.8 |
| 482795 2013 $PO_{29}$ | 18.1 | X | 1.52877 | 62.63893 | 260.42992 | 19.74660 | 0.0852305 | 0.37200051 | 1.9147277 | 21 | 9 7.5 | 20.3 |
| 482796 2013 $QJ_{10}$ | 19.5 | X | 212.64979 | 243.83938 | 327.46005 | 18.15233 | 0.4250445 | 1.04924548 | 0.9591458 | 21 | — | — |
| 482797 2013 $QX_{46}$ | 17.8 | X | 194.73683 | 192.65215 | 278.10330 | 18.35942 | 0.0694574 | 0.36399497 | 1.9427002 | 21 | 7 31.2 | 20.3 |
| 482798 2013 $QK_{48}$ | 18.3 | X | 37.52697 | 46.99817 | 141.57351 | 19.01297 | 0.8292958 | 0.49340930 | 1.5861022 | 21 | 9 11.3 | 20.6 |
| 482799 2013 $RQ_{4}$ | 17.9 | X | 215.38138 | 269.80764 | 174.35610 | 22.88642 | 0.0945667 | 0.35361053 | 1.9805505 | 21 | 7 19.3 | 20.9 |
| 482800 2013 $RU_{16}$ | 18.5 | X | 215.90107 | 341.79079 | 173.13546 | 21.15530 | 0.0628627 | 0.38923264 | 1.8577897 | 21 | 11 23.8 | 20.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
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| | m | | ° | ° | ° | ° | | ° | | | | |
| 482801 2013 $RO_{73}$ | 17.9 | X | 36.75720 | 30.44327 | 285.89214 | 18.95858 | 0.0578458 | 0.38192634 | 1.8814080 | 21 | 11 5.6 | 20.2 |
| 482802 2013 $TL_{114}$ | 19.2 | X | 203.39951 | 234.98470 | 224.09669 | 4.58707 | 0.2533733 | 0.34151612 | 2.0270381 | 21 | 7 18.3 | 22.4 |
| 482803 2013 $TY_{135}$ | 17.9 | X | 334.70081 | 151.74111 | 277.69847 | 20.46618 | 0.0619836 | 0.39158252 | 1.8503498 | 21 | — | — |
| 482804 2013 $UM$ | 17.4 | X | 4.70758 | 29.10602 | 258.40841 | 18.07365 | 0.0682202 | 0.35154764 | 1.9882909 | 21 | 7 16.9 | 19.2 |
| 482805 2013 $VB_{2}$ | 17.7 | X | 280.89148 | 21.31321 | 70.26832 | 22.79092 | 0.0747762 | 0.37097899 | 1.9182410 | 21 | 11 25.2 | 18.9 |
| 482806 2013 $WH_{4}$ | 16.0 | X | 162.84666 | 181.93233 | 236.73156 | 8.65863 | 0.1478229 | 0.18782106 | 3.0197653 | 21 | 4 24.9 | 20.9 |
| 482807 2013 $WY_{15}$ | 18.1 | X | 306.22793 | 189.92977 | 70.80277 | 5.97117 | 0.0954754 | 0.30917445 | 2.1660425 | 21 | 2 27.9 | 20.7 |
| 482808 2013 $WE_{17}$ | 18.1 | X | 178.90442 | 216.84751 | 130.81972 | 4.25183 | 0.1309700 | 0.29881053 | 2.2158420 | 21 | 1 29.8 | 21.1 |
| 482809 2013 $WU_{25}$ | 15.9 | X | 160.14522 | 173.85159 | 214.22608 | 28.39419 | 0.1609388 | 0.17974638 | 3.1095385 | 21 | 3 15.2 | 21.3 |
| 482810 2013 $WK_{26}$ | 16.1 | X | 149.97379 | 332.06019 | 54.79247 | 16.97947 | 0.0880315 | 0.17520952 | 3.1629883 | 21 | 3 12.5 | 21.1 |
| 482811 2013 $WR_{57}$ | 16.4 | X | 134.41569 | 214.58463 | 233.55567 | 15.31919 | 0.0635804 | 0.18707242 | 3.0278165 | 21 | 4 24.3 | 20.9 |
| 482812 2013 $WJ_{60}$ | 17.4 | X | 22.87721 | 45.55653 | 45.61949 | 13.24971 | 0.1080784 | 0.27475223 | 2.3433756 | 21 | — | — |
| 482813 2013 $WH_{67}$ | 17.5 | X | 167.78138 | 271.92897 | 273.61586 | 17.47935 | 0.0710810 | 0.35996129 | 1.9571864 | 21 | 10 14.5 | 20.3 |
| 482814 2013 $WM_{71}$ | 18.2 | X | 138.86449 | 3.23648 | 62.51872 | 8.07476 | 0.0771183 | 0.30875129 | 2.1680212 | 21 | 3 25.5 | 20.9 |
| 482815 2013 $WE_{83}$ | 18.2 | X | 20.17604 | 249.63206 | 220.79376 | 5.49847 | 0.1817872 | 0.27768144 | 2.3268666 | 21 | — | — |
| 482816 2013 $WS_{90}$ | 17.7 | X | 305.56323 | 326.01067 | 264.46011 | 5.29581 | 0.1389433 | 0.29554269 | 2.2321458 | 21 | 1 9.4 | 20.5 |
| 482817 2013 $WX_{96}$ | 16.4 | X | 248.84506 | 266.48133 | 53.04730 | 11.21829 | 0.0938643 | 0.18441310 | 3.0568553 | 21 | 3 27.4 | 21.1 |
| 482818 2013 $WT_{99}$ | 17.9 | X | 12.15320 | 67.40450 | 261.29726 | 18.66373 | 0.0901537 | 0.36405723 | 1.9424787 | 21 | 10 15.1 | 20.0 |
| 482819 2013 $WB_{108}$ | 15.9 | X | 106.59234 | 23.88945 | 35.22055 | 26.87189 | 0.1774188 | 0.17423392 | 3.1747845 | 21 | 3 19.9 | 20.9 |
| 482820 2013 $XL_{10}$ | 17.5 | X | 35.22468 | 233.88367 | 84.94961 | 24.48511 | 0.0543054 | 0.36330243 | 1.9451683 | 21 | 11 18.1 | 19.8 |
| 482821 2013 $XL_{12}$ | 17.3 | X | 309.61122 | 256.72560 | 109.99699 | 28.26275 | 0.1087452 | 0.35340700 | 1.9813109 | 21 | 8 20.8 | 19.2 |
| 482822 2013 $XH_{21}$ | 17.9 | X | 146.97187 | 103.47546 | 111.36906 | 23.98852 | 0.0603896 | 0.36323764 | 1.9453996 | 21 | 11 19.7 | 20.8 |
| 482823 2013 $XX_{21}$ | 17.5 | X | 310.45465 | 261.53683 | 111.98145 | 24.51431 | 0.1184801 | 0.35020975 | 1.9933515 | 21 | 9 6.9 | 19.5 |
| 482824 2013 $XC_{26}$ | 4.4 | X | 315.46251 | 148.18668 | 43.26138 | 18.64611 | 0.2249249 | 0.00360694 | 42.1091617 | 21 | 1 28.9 | 20.1 |
| 482825 2013 $YK_{5}$ | 18.0 | X | 86.13749 | 1.94337 | 109.51660 | 5.85636 | 0.1411261 | 0.29507373 | 2.2345103 | 21 | 3 25.4 | 20.2 |
| 482826 2013 $YC_{17}$ | 17.9 | X | 178.05128 | 113.98949 | 274.40726 | 5.01949 | 0.1136935 | 0.30081090 | 2.2060076 | 21 | 3 19.0 | 21.0 |
| 482827 2013 $YU_{37}$ | 18.6 | X | 152.36625 | 267.52001 | 146.58552 | 5.93378 | 0.1340074 | 0.30280743 | 2.1963002 | 21 | 3 31.6 | 21.5 |
| 482828 2013 $YB_{65}$ | 16.8 | X | 258.67639 | 267.89960 | 321.02264 | 12.68172 | 0.1379809 | 0.26598071 | 2.3946164 | 21 | — | — |
| 482829 2013 $YL_{68}$ | 17.8 | X | 148.67262 | 93.73517 | 303.30825 | 5.93605 | 0.0941658 | 0.28884429 | 2.2665233 | 21 | 2 24.9 | 20.9 |
| 482830 2013 $YF_{73}$ | 18.5 | X | 194.57799 | 149.80422 | 244.37187 | 3.78681 | 0.1324320 | 0.31057731 | 2.1595151 | 21 | 4 15.2 | 21.7 |
| 482831 2013 $YC_{84}$ | 17.7 | X | 150.50664 | 202.49658 | 151.05863 | 5.90310 | 0.1831283 | 0.28001606 | 2.3139151 | 21 | 1 15.1 | 21.0 |
| 482832 2013 $YU_{95}$ | 17.5 | X | 16.25953 | 31.36514 | 110.16878 | 7.86419 | 0.0467416 | 0.27671397 | 2.3322870 | 21 | 1 4.9 | 20.2 |
| 482833 2013 $YZ_{99}$ | 18.4 | X | 147.83570 | 335.46941 | 105.54151 | 4.57999 | 0.0837290 | 0.30670779 | 2.1776404 | 21 | 4 26.7 | 21.1 |
| 482834 2013 $YE_{116}$ | 18.3 | X | 90.25511 | 21.76561 | 101.67555 | 4.51454 | 0.0599159 | 0.29567469 | 2.2314815 | 21 | 4 4.8 | 20.8 |
| 482835 2014 $AH_{7}$ | 17.7 | X | 151.10096 | 338.01449 | 1.33007 | 1.26275 | 0.2068635 | 0.27540067 | 2.3396958 | 21 | 1 2.1 | 20.9 |
| 482836 2014 $AR_{16}$ | 17.6 | X | 298.41281 | 77.68411 | 316.94434 | 17.30230 | 0.0945811 | 0.34987839 | 1.9946099 | 21 | 9 5.0 | 19.4 |
| 482837 2014 $AD_{47}$ | 18.2 | X | 195.22222 | 280.71214 | 90.81222 | 3.76755 | 0.1245978 | 0.30220142 | 2.1992354 | 21 | 3 20.5 | 21.3 |
| 482838 2014 $BR_{4}$ | 17.3 | X | 252.29425 | 203.22010 | 105.86222 | 6.62492 | 0.1123753 | 0.29897942 | 2.2150074 | 21 | 2 27.3 | 20.4 |
| 482839 2014 $BQ_{7}$ | 17.7 | X | 309.84960 | 327.39876 | 325.05078 | 6.59353 | 0.0584935 | 0.30379928 | 2.1915172 | 21 | 4 20.6 | 20.2 |
| 482840 2014 $BO_{20}$ | 17.7 | X | 17.37965 | 200.63839 | 319.76046 | 6.39760 | 0.0474834 | 0.27953111 | 2.3165906 | 21 | 2 1.7 | 20.2 |
| 482841 2014 $BO_{22}$ | 18.2 | X | 42.16644 | 1.54964 | 146.17081 | 5.54076 | 0.0803535 | 0.28392805 | 2.2926118 | 21 | 2 21.8 | 20.4 |
| 482842 2014 $BR_{22}$ | 17.4 | X | 224.12861 | 327.98385 | 292.63988 | 5.14758 | 0.0768457 | 0.25635921 | 2.4541631 | 21 | — | — |
| 482843 2014 $BU_{34}$ | 17.8 | X | 190.53412 | 299.11138 | 117.93716 | 5.53527 | 0.1058563 | 0.31043104 | 2.1601933 | 21 | 5 15.0 | 20.8 |
| 482844 2014 $BT_{55}$ | 18.3 | X | 86.53809 | 110.15377 | 19.49281 | 3.22228 | 0.1339906 | 0.29447560 | 2.2375350 | 21 | 4 17.7 | 20.4 |
| 482845 2014 $BD_{59}$ | 17.7 | X | 50.13527 | 244.11415 | 306.52596 | 6.25412 | 0.0607471 | 0.29904619 | 2.2146777 | 21 | 5 5.3 | 20.2 |
| 482846 2014 $CC_{5}$ | 17.4 | X | 259.67596 | 77.29480 | 135.24239 | 7.45912 | 0.0898825 | 0.25247097 | 2.4792962 | 21 | — | — |
| 482847 2014 $CS_{7}$ | 17.8 | X | 129.44492 | 301.55706 | 121.32660 | 5.90495 | 0.1120863 | 0.29047234 | 2.2580464 | 21 | 3 14.6 | 20.6 |
| 482848 2014 $DS_{15}$ | 17.3 | X | 120.92928 | 322.75308 | 111.56304 | 6.36449 | 0.0940662 | 0.28465290 | 2.2887181 | 21 | 3 17.9 | 20.1 |
| 482849 2014 $DO_{23}$ | 18.4 | X | 119.38991 | 314.03713 | 158.01223 | 4.87979 | 0.0947542 | 0.30507452 | 2.1854058 | 21 | 5 5.1 | 21.0 |
| 482850 2014 $DR_{33}$ | 17.6 | X | 134.08969 | 355.10646 | 41.66517 | 3.95510 | 0.1760161 | 0.27904433 | 2.3192839 | 21 | 2 23.4 | 20.7 |
| 482851 2014 $DT_{34}$ | 18.2 | X | 144.23494 | 286.73103 | 153.23909 | 1.87102 | 0.1175223 | 0.29767568 | 2.2214702 | 21 | 4 24.0 | 21.1 |
| 482852 2014 $DP_{41}$ | 17.5 | X | 11.20868 | 183.60680 | 325.28813 | 6.59989 | 0.0624893 | 0.27264637 | 2.3554266 | 21 | 1 8.1 | 20.1 |
| 482853 2014 $DR_{42}$ | 18.1 | X | 39.56798 | 112.50432 | 33.21210 | 5.89651 | 0.1615738 | 0.27815152 | 2.3242442 | 21 | 2 19.0 | 19.9 |
| 482854 2014 $DN_{51}$ | 17.6 | X | 3.94031 | 359.07477 | 151.35034 | 5.89779 | 0.1138148 | 0.26397153 | 2.4067519 | 21 | — | — |
| 482855 2014 $DY_{51}$ | 17.4 | X | 258.03516 | 120.71053 | 126.56437 | 3.64163 | 0.0595251 | 0.25623588 | 2.4549506 | 21 | — | — |
| 482856 2014 $DJ_{64}$ | 17.6 | X | 126.02895 | 27.43248 | 27.41865 | 6.94024 | 0.0517651 | 0.27240567 | 2.3568139 | 21 | 2 21.6 | 20.6 |
| 482857 2014 $DW_{72}$ | 17.7 | X | 11.49754 | 76.20798 | 65.70108 | 5.34577 | 0.1212120 | 0.26256837 | 2.4153187 | 21 | — | — |
| 482858 2014 $DH_{88}$ | 18.6 | X | 67.88473 | 247.55852 | 227.81671 | 0.75339 | 0.1299822 | 0.28248336 | 2.3004218 | 21 | 2 23.2 | 20.7 |
| 482859 2014 $DB_{91}$ | 17.8 | X | 214.07811 | 38.03384 | 341.93455 | 7.13849 | 0.1569111 | 0.30009793 | 2.2095002 | 21 | 4 15.0 | 21.3 |
| 482860 2014 $DO_{97}$ | 17.7 | X | 17.86947 | 55.21309 | 104.61956 | 6.13529 | 0.1707610 | 0.27602026 | 2.3361931 | 21 | 1 21.8 | 19.6 |
| 482861 2014 $DF_{107}$ | 17.0 | X | 97.80358 | 170.66598 | 150.75601 | 2.18111 | 0.1669817 | 0.22499020 | 2.6772791 | 21 | — | — |
| 482862 2014 $DO_{110}$ | 17.8 | X | 133.86632 | 289.76553 | 124.07718 | 3.72055 | 0.1974793 | 0.28260750 | 2.2997480 | 21 | 3 19.7 | 20.9 |
| 482863 2014 $DN_{115}$ | 18.1 | X | 134.52828 | 76.03047 | 358.30023 | 5.76058 | 0.1292795 | 0.28710839 | 2.2756500 | 21 | 4 5.0 | 21.2 |
| 482864 2014 $DA_{119}$ | 18.6 | X | 60.90439 | 318.82021 | 171.46311 | 3.13242 | 0.1728027 | 0.28227306 | 2.3015642 | 21 | 3 10.2 | 20.3 |
| 482865 2014 $DC_{129}$ | 17.5 | X | 97.55653 | 310.42285 | 6.40336 | 5.30674 | 0.0336052 | 0.22634936 | 2.6665509 | 21 | 12 29.1 | 21.3 |
| 482866 2014 $DL_{129}$ | 18.3 | X | 105.69907 | 308.23733 | 124.02861 | 3.09379 | 0.1680795 | 0.28040813 | 2.3117577 | 21 | 3 4.1 | 20.9 |
| 482867 2014 $DT_{129}$ | 17.0 | X | 196.49072 | 337.45035 | 355.52024 | 15.06585 | 0.1899507 | 0.26754374 | 2.3852808 | 21 | 2 10.4 | 21.0 |
| 482868 2014 $DM_{134}$ | 16.9 | X | 73.85308 | 333.81204 | 12.89698 | 5.63757 | 0.0395031 | 0.22722200 | 2.6597193 | 21 | — | — |
| 482869 2014 $DT_{135}$ | 17.0 | X | 63.51686 | 303.94314 | 25.93319 | 5.63293 | 0.0637113 | 0.21647159 | 2.7470640 | 21 | 12 5.3 | 20.8 |
| 482870 2014 $EB_{2}$ | 18.4 | X | 98.87125 | 116.02201 | 341.94724 | 3.87671 | 0.1773136 | 0.28778093 | 2.2721032 | 21 | 3 28.8 | 20.8 |
| 482871 2014 $ER_{5}$ | 18.2 | X | 38.87208 | 333.08138 | 140.62196 | 1.92970 | 0.1372042 | 0.26813551 | 2.3817700 | 21 | — | — |
| 482872 2014 $EM_{6}$ | 18.4 | X | 96.36267 | 96.93748 | 4.70153 | 1.37512 | 0.1719790 | 0.28611469 | 2.2809159 | 21 | 3 30.7 | 20.8 |
| 482873 2014 $EZ_{16}$ | 18.6 | X | 83.13433 | 139.09704 | 317.85726 | 0.70070 | 0.1483658 | 0.27864908 | 2.3214766 | 21 | 2 27.2 | 20.7 |
| 482874 2014 $EM_{19}$ | 18.1 | X | 93.68157 | 355.28820 | 77.07482 | 3.05364 | 0.1523351 | 0.27444512 | 2.3451234 | 21 | 2 12.4 | 20.5 |
| 482875 2014 $ER_{21}$ | 18.2 | X | 139.90676 | 92.89167 | 5.84512 | 7.83764 | 0.1113752 | 0.30040360 | 2.2080012 | 21 | 5 10.8 | 21.2 |
| 482876 2014 $EV_{21}$ | 17.8 | X | 119.72034 | 342.59399 | 65.75950 | 3.94401 | 0.1439469 | 0.27533993 | 2.3400398 | 21 | 2 16.7 | 20.6 |
| 482877 2014 $EA_{22}$ | 16.8 | X | 97.79707 | 191.65488 | 156.63943 | 5.32610 | 0.1999279 | 0.23937946 | 2.5688858 | 21 | — | — |
| 482878 2014 $EW_{22}$ | 17.5 | X | 278.19574 | 63.13998 | 161.65748 | 6.16789 | 0.0546087 | 0.25699592 | 2.4501080 | 21 | — | — |
| 482879 2014 $ED_{30}$ | 17.7 | X | 92.28073 | 49.63730 | 36.41757 | 6.27149 | 0.1479822 | 0.27733268 | 2.3288169 | 21 | 3 2.5 | 20.2 |
| 482880 2014 $EX_{31}$ | 17.1 | X | 217.56131 | 184.99596 | 42.31820 | 8.65128 | 0.0621202 | 0.23176422 | 2.6248538 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482881 2014 $ER_{32}$ | 18.2 | X | 77.61591 | 320.77770 | 147.86415 | 2.30116 | 0.1391678 | 0.27948550 | 2.3168426 | 21 | 3 5.8 | 20.5 |
| 482882 2014 $EE_{42}$ | 17.1 | X | 195.43711 | 221.22927 | 34.89473 | 8.80284 | 0.0596264 | 0.23194215 | 2.6235112 | 21 | — | — |
| 482883 2014 $EK_{48}$ | 17.5 | X | 156.06046 | 10.63541 | 65.14134 | 7.13405 | 0.1046457 | 0.29686721 | 2.2255015 | 21 | 5 1.8 | 20.5 |
| 482884 2014 $EQ_{51}$ | 17.9 | X | 68.36184 | 48.91511 | 91.29773 | 1.84610 | 0.1798509 | 0.28539008 | 2.2847752 | 21 | 4 12.3 | 19.8 |
| 482885 2014 $FC_{14}$ | 16.3 | X | 172.46030 | 205.99030 | 46.86365 | 18.26340 | 0.2354177 | 0.21962748 | 2.7206850 | 21 | 12 22.7 | 21.2 |
| 482886 2014 $FL_{16}$ | 17.5 | X | 87.77841 | 69.27878 | 353.49983 | 6.74421 | 0.0944080 | 0.26378472 | 2.4078881 | 21 | 1 14.9 | 20.3 |
| 482887 2014 $FU_{17}$ | 16.1 | X | 99.69900 | 10.86114 | 353.83568 | 15.26689 | 0.1892773 | 0.24296399 | 2.5435568 | 21 | — | — |
| 482888 2014 $FH_{38}$ | 18.8 | X | 151.22813 | 78.87358 | 36.30912 | 3.36155 | 0.3012057 | 0.30908248 | 2.1664722 | 21 | 6 29.8 | 22.5 |
| 482889 2014 $FT_{51}$ | 16.0 | X | 359.64374 | 101.32677 | 18.72194 | 15.55682 | 0.0473037 | 0.24253043 | 2.5465873 | 21 | — | — |
| 482890 2014 $FR_{53}$ | 17.1 | X | 292.68189 | 352.33507 | 187.53004 | 15.41922 | 0.1460485 | 0.23944344 | 2.5684281 | 21 | — | — |
| 482891 2014 $FC_{65}$ | 17.9 | X | 305.63634 | 132.32232 | 118.68103 | 4.32656 | 0.1105514 | 0.27051246 | 2.3677974 | 21 | 2 15.9 | 20.8 |
| 482892 2014 $FR_{66}$ | 17.5 | X | 41.56133 | 96.09837 | 90.09772 | 6.03980 | 0.1073781 | 0.28322636 | 2.2963968 | 21 | 4 25.0 | 19.7 |
| 482893 2014 $FX_{66}$ | 16.8 | X | 222.32968 | 180.76170 | 53.70575 | 12.64597 | 0.1175668 | 0.22921375 | 2.6442891 | 21 | — | — |
| 482894 2014 $GD_{5}$ | 17.1 | X | 157.93526 | 294.07605 | 2.94319 | 11.68941 | 0.0695285 | 0.23271045 | 2.6177337 | 21 | — | — |
| 482895 2014 $GS_{6}$ | 17.2 | X | 257.01219 | 312.40503 | 271.39356 | 1.11638 | 0.0620527 | 0.24298673 | 2.5433981 | 21 | — | — |
| 482896 2014 $GX_{15}$ | 18.0 | X | 279.59332 | 132.41822 | 136.21222 | 3.48569 | 0.1482725 | 0.26423887 | 2.4051283 | 21 | 2 3.9 | 21.6 |
| 482897 2014 $GZ_{25}$ | 18.1 | X | 105.55610 | 217.20378 | 266.04427 | 2.60869 | 0.1053092 | 0.28532415 | 2.2851271 | 21 | 5 2.7 | 20.8 |
| 482898 2014 $GW_{41}$ | 16.4 | X | 323.92739 | 104.79907 | 28.52755 | 13.57057 | 0.1057497 | 0.23314184 | 2.6145035 | 21 | — | — |
| 482899 2014 $GT_{42}$ | 17.3 | X | 27.37181 | 268.14036 | 199.79971 | 6.61256 | 0.0900010 | 0.24644943 | 2.5195182 | 21 | — | — |
| 482900 2014 $HG_{3}$ | 16.7 | X | 275.84219 | 325.69324 | 205.55877 | 12.31117 | 0.1301789 | 0.23128748 | 2.6284595 | 21 | — | — |
| 482901 2014 $HA_{12}$ | 17.1 | X | 9.55017 | 44.73684 | 56.51795 | 6.02419 | 0.0856255 | 0.23799780 | 2.5788184 | 21 | — | — |
| 482902 2014 $HG_{14}$ | 17.2 | X | 299.40660 | 268.81209 | 197.94034 | 3.51169 | 0.0594991 | 0.21409557 | 2.7673511 | 21 | 12 8.9 | 20.7 |
| 482903 2014 $HP_{18}$ | 17.4 | X | 33.57049 | 263.16940 | 190.87428 | 5.83621 | 0.0851012 | 0.24465028 | 2.5318555 | 21 | — | — |
| 482904 2014 $HO_{22}$ | 16.5 | X | 231.61449 | 110.57059 | 129.24506 | 14.47414 | 0.1605953 | 0.22993532 | 2.6387541 | 21 | — | — |
| 482905 2014 $HX_{25}$ | 16.9 | X | 79.10223 | 272.24039 | 41.07541 | 10.18564 | 0.0676405 | 0.20266660 | 2.8704364 | 21 | 11 30.8 | 21.1 |
| 482906 2014 $HA_{26}$ | 16.7 | X | 64.92751 | 273.88370 | 41.79841 | 9.70586 | 0.1084204 | 0.19624798 | 2.9326884 | 21 | 11 21.8 | 21.0 |
| 482907 2014 $HB_{30}$ | 17.2 | X | 92.63806 | 270.10026 | 59.60805 | 7.34253 | 0.0458557 | 0.21545340 | 2.7557119 | 21 | — | — |
| 482908 2014 $HT_{31}$ | 16.8 | X | 62.76678 | 350.25661 | 53.99536 | 14.50912 | 0.1754994 | 0.23449703 | 2.6044208 | 21 | — | — |
| 482909 2014 $HD_{38}$ | 15.9 | X | 51.87660 | 102.28392 | 202.97712 | 25.19169 | 0.2654372 | 0.17842970 | 3.1248172 | 21 | 11 14.7 | 20.5 |
| 482910 2014 $HV_{42}$ | 16.9 | X | 201.68265 | 191.90215 | 51.26070 | 9.45732 | 0.0968498 | 0.22254205 | 2.6968781 | 21 | — | — |
| 482911 2014 $HR_{47}$ | 17.4 | X | 59.76348 | 48.96165 | 45.83764 | 12.84561 | 0.1474005 | 0.25814503 | 2.4428316 | 21 | 1 20.1 | 20.0 |
| 482912 2014 $HW_{51}$ | 17.7 | X | 225.85748 | 160.18924 | 66.44884 | 4.01707 | 0.0122177 | 0.22990052 | 2.6390204 | 21 | — | — |
| 482913 2014 $HT_{70}$ | 17.5 | X | 166.07994 | 195.11994 | 67.31365 | 3.18818 | 0.0378119 | 0.21860915 | 2.7291275 | 21 | — | — |
| 482914 2014 $HV_{73}$ | 18.0 | X | 29.89610 | 316.18425 | 183.54589 | 4.63137 | 0.1225041 | 0.26254628 | 2.4154542 | 21 | 1 22.1 | 20.4 |
| 482915 2014 $HB_{93}$ | 17.1 | X | 65.99381 | 264.21339 | 75.75148 | 7.67314 | 0.0509894 | 0.20818620 | 2.8194740 | 21 | 12 18.1 | 21.0 |
| 482916 2014 $HO_{112}$ | 17.0 | X | 349.72924 | 302.97112 | 112.49751 | 6.39251 | 0.0934607 | 0.21044243 | 2.7992854 | 21 | 12 17.2 | 20.4 |
| 482917 2014 $HL_{135}$ | 17.6 | X | 134.03441 | 255.89629 | 48.72543 | 3.06197 | 0.0793914 | 0.21950152 | 2.7217258 | 21 | — | — |
| 482918 2014 $HO_{145}$ | 17.5 | X | 356.29419 | 355.28642 | 161.47755 | 6.44626 | 0.1074687 | 0.25964683 | 2.4334029 | 21 | — | — |
| 482919 2014 $HK_{155}$ | 17.2 | X | 322.98051 | 312.89691 | 209.41207 | 12.67295 | 0.0751387 | 0.24214639 | 2.5492791 | 21 | — | — |
| 482920 2014 $HM_{159}$ | 16.0 | X | 351.79833 | 270.76463 | 76.21490 | 14.16672 | 0.1203973 | 0.17756632 | 3.1349382 | 21 | 9 24.7 | 20.1 |
| 482921 2014 $HR_{159}$ | 15.8 | X | 70.35791 | 231.81900 | 51.99944 | 27.70037 | 0.2151618 | 0.18123727 | 3.0924620 | 21 | 11 5.8 | 20.4 |
| 482922 2014 $HF_{161}$ | 17.0 | X | 86.09065 | 209.43051 | 118.14505 | 8.83187 | 0.0518600 | 0.20911752 | 2.8110966 | 21 | 12 27.1 | 21.0 |
| 482923 2014 $HL_{164}$ | 15.8 | X | 52.47215 | 169.94781 | 129.34391 | 18.65453 | 0.1347584 | 0.17627174 | 3.1502686 | 21 | 10 26.9 | 20.5 |
| 482924 2014 $HJ_{183}$ | 17.4 | X | 248.57812 | 161.84391 | 15.88095 | 5.20186 | 0.0393184 | 0.21698377 | 2.7427394 | 21 | — | — |
| 482925 2014 $HF_{185}$ | 16.0 | X | 91.41240 | 201.68991 | 65.91677 | 18.47051 | 0.1770642 | 0.18266467 | 3.0763306 | 21 | 11 4.7 | 20.9 |
| 482926 2014 $HA_{187}$ | 16.6 | X | 90.12662 | 193.89077 | 92.18384 | 9.26452 | 0.0798558 | 0.19154603 | 2.9804873 | 21 | 11 13.9 | 21.0 |
| 482927 2014 $HE_{195}$ | 16.5 | X | 228.20129 | 226.81580 | 48.04216 | 15.35005 | 0.0748495 | 0.23976276 | 2.5661472 | 21 | — | — |
| 482928 2014 $JW$ | 17.8 | X | 337.86891 | 29.75754 | 234.85916 | 5.41586 | 0.2126156 | 0.27524602 | 2.3405720 | 21 | 4 4.6 | 20.2 |
| 482929 2014 $JZ_{4}$ | 16.7 | X | 30.21207 | 275.38616 | 186.61564 | 6.88718 | 0.2067323 | 0.24413804 | 2.5353957 | 21 | — | — |
| 482930 2014 $JY_{10}$ | 16.3 | X | 58.41505 | 5.11958 | 57.04467 | 33.69830 | 0.1693599 | 0.23534267 | 2.5981782 | 21 | — | — |
| 482931 2014 $JB_{17}$ | 16.0 | X | 28.74992 | 230.97792 | 83.81687 | 20.64192 | 0.0439686 | 0.17783583 | 3.1317701 | 21 | 10 6.9 | 20.7 |
| 482932 2014 $JG_{24}$ | 16.1 | X | 71.16755 | 174.35365 | 99.43992 | 13.68182 | 0.1578122 | 0.17752402 | 3.1354362 | 21 | 10 20.9 | 20.9 |
| 482933 2014 $JC_{27}$ | 16.1 | X | 23.45562 | 232.44942 | 94.57572 | 17.38329 | 0.0900840 | 0.18216472 | 3.0819567 | 21 | 10 18.2 | 20.5 |
| 482934 2014 $JH_{29}$ | 16.8 | X | 321.63404 | 93.47731 | 80.49454 | 16.32962 | 0.1567624 | 0.24039643 | 2.5616357 | 21 | — | — |
| 482935 2014 $JX_{36}$ | 16.8 | X | 71.38274 | 336.12846 | 66.36303 | 12.61579 | 0.0641271 | 0.23087805 | 2.6315661 | 21 | — | — |
| 482936 2014 $JR_{38}$ | 16.4 | X | 59.32271 | 230.79658 | 79.64069 | 17.53118 | 0.0666905 | 0.18677786 | 3.0309989 | 21 | 11 8.1 | 20.8 |
| 482937 2014 $JO_{48}$ | 16.7 | X | 98.35125 | 202.77221 | 67.78795 | 10.75714 | 0.0385111 | 0.19272648 | 2.9683045 | 21 | 10 31.3 | 21.0 |
| 482938 2014 $JO_{52}$ | 16.5 | X | 192.26495 | 180.13674 | 57.94425 | 14.70686 | 0.1890898 | 0.21285017 | 2.7781353 | 21 | 12 24.2 | 21.1 |
| 482939 2014 $JM_{59}$ | 16.9 | X | 239.59289 | 139.81515 | 56.96976 | 18.19692 | 0.0631280 | 0.21915314 | 2.7246094 | 21 | — | — |
| 482940 2014 $JH_{61}$ | 17.4 | X | 282.81072 | 17.78937 | 191.89907 | 13.14758 | 0.0865975 | 0.23753033 | 2.5822007 | 21 | — | — |
| 482941 2014 $JP_{61}$ | 16.8 | X | 27.61748 | 233.67435 | 134.90060 | 12.69042 | 0.0178225 | 0.19505719 | 2.9446120 | 21 | 12 1.7 | 21.1 |
| 482942 2014 $JS_{61}$ | 15.9 | X | 60.05620 | 164.79665 | 132.22623 | 12.73247 | 0.0642464 | 0.17845373 | 3.1245367 | 21 | 10 21.5 | 20.4 |
| 482943 2014 $JJ_{62}$ | 16.8 | X | 71.37925 | 337.92785 | 68.45621 | 22.87750 | 0.0527298 | 0.23031817 | 2.6358291 | 21 | — | — |
| 482944 2014 $JL_{67}$ | 16.8 | X | 213.66337 | 359.69857 | 215.36430 | 11.29225 | 0.0481344 | 0.21254943 | 2.7807552 | 21 | — | — |
| 482945 2014 $JJ_{69}$ | 17.8 | X | 151.80591 | 76.34788 | 34.81997 | 3.51137 | 0.0944619 | 0.29237622 | 2.2482331 | 21 | 6 12.9 | 20.9 |
| 482946 2014 $JM_{69}$ | 18.2 | X | 26.40241 | 347.66970 | 226.42116 | 8.67055 | 0.1341606 | 0.28141731 | 2.3062277 | 21 | 5 8.1 | 19.9 |
| 482947 2014 $JU_{77}$ | 17.6 | X | 318.79084 | 319.33787 | 206.17874 | 7.24366 | 0.0710369 | 0.23841842 | 2.5757844 | 21 | — | — |
| 482948 2014 $KG_{1}$ | 17.3 | X | 295.20349 | 186.87867 | 67.37173 | 16.72484 | 0.1121523 | 0.25927981 | 2.4356988 | 21 | 2 14.9 | 21.0 |
| 482949 2014 $KV_{2}$ | 15.8 | X | 29.31134 | 225.64496 | 84.74764 | 16.41916 | 0.1120637 | 0.17708601 | 3.1406043 | 21 | 10 7.4 | 20.2 |
| 482950 2014 $KV_{15}$ | 17.9 | X | 41.50694 | 21.67933 | 153.96700 | 2.23282 | 0.1529578 | 0.27373097 | 2.3492005 | 21 | 4 11.3 | 19.8 |
| 482951 2014 $KZ_{18}$ | 18.1 | X | 23.42301 | 12.94921 | 215.01173 | 7.34262 | 0.1989017 | 0.28427862 | 2.2907266 | 21 | 5 29.7 | 19.5 |
| 482952 2014 $KP_{26}$ | 16.8 | X | 78.60710 | 148.96986 | 140.90550 | 4.57503 | 0.0842292 | 0.18561822 | 3.0436098 | 21 | 11 4.4 | 21.1 |
| 482953 2014 $KR_{26}$ | 16.6 | X | 57.51717 | 98.42735 | 203.51062 | 9.91580 | 0.1133575 | 0.17977188 | 3.1092445 | 21 | 10 26.9 | 20.8 |
| 482954 2014 $KJ_{36}$ | 16.5 | X | 39.52550 | 298.79097 | 95.20508 | 14.56767 | 0.0582244 | 0.21958717 | 2.7210180 | 21 | — | — |
| 482955 2014 $KB_{42}$ | 16.6 | X | 53.96101 | 208.25798 | 95.36407 | 18.11191 | 0.0950459 | 0.18118204 | 3.0930904 | 21 | 10 30.1 | 21.2 |
| 482956 2014 $KJ_{43}$ | 16.7 | X | 352.72673 | 313.44031 | 147.76372 | 10.48361 | 0.1532039 | 0.22407474 | 2.6845662 | 21 | — | — |
| 482957 2014 $KR_{43}$ | 16.5 | X | 36.73590 | 179.08835 | 160.15273 | 11.46903 | 0.1024155 | 0.18611592 | 3.0381814 | 21 | 11 16.9 | 20.7 |
| 482958 2014 $KJ_{52}$ | 16.5 | X | 47.24892 | 78.25461 | 209.25798 | 10.85264 | 0.0650203 | 0.17147579 | 3.2087374 | 21 | 9 14.3 | 20.9 |
| 482959 2014 $KG_{56}$ | 17.1 | X | 2.03196 | 23.36955 | 112.25222 | 10.94392 | 0.0582945 | 0.23838274 | 2.5760415 | 21 | — | — |
| 482960 2014 $KK_{58}$ | 16.2 | X | 16.16141 | 7.90464 | 87.70165 | 22.80504 | 0.0405860 | 0.22609318 | 2.6685647 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 482961 2014 $KO_{59}$ | 16.4 | $X$ | 8.16148 | 15.43416 | 90.15400 | 22.92750 | 0.0225264 | 0.22580851 | 2.6708071 | 21 | — | — |
| 482962 2014 $KS_{65}$ | 17.2 | $X$ | 358.13183 | 66.46012 | 76.53797 | 9.16232 | 0.1898899 | 0.24353188 | 2.5396011 | 21 | — | — |
| 482963 2014 $KA_{67}$ | 17.3 | $X$ | 292.83607 | 25.58645 | 122.03855 | 3.84450 | 0.1251942 | 0.22059306 | 2.7127399 | 21 | — | — |
| 482964 2014 $KD_{67}$ | 16.4 | $X$ | 71.74753 | 208.93714 | 86.36812 | 10.53218 | 0.0793209 | 0.18373853 | 3.0643326 | 21 | 11 3.9 | 20.8 |
| 482965 2014 $KK_{67}$ | 16.3 | $X$ | 331.67884 | 114.51848 | 208.95004 | 9.25164 | 0.0929000 | 0.15413119 | 3.4451571 | 21 | 7 11.7 | 20.9 |
| 482966 2014 $KY_{68}$ | 16.4 | $X$ | 359.48714 | 289.58108 | 94.33095 | 10.90410 | 0.1633495 | 0.18665088 | 3.0323735 | 21 | 11 24.0 | 19.9 |
| 482967 2014 $KE_{69}$ | 16.5 | $X$ | 343.17184 | 146.58969 | 212.77459 | 9.85262 | 0.0342679 | 0.17397355 | 3.1779513 | 21 | 9 15.6 | 20.9 |
| 482968 2014 $KK_{69}$ | 16.1 | $X$ | 16.53413 | 257.83955 | 87.46325 | 14.41435 | 0.1034769 | 0.17962951 | 3.1108872 | 21 | 10 29.4 | 20.3 |
| 482969 2014 $KY_{79}$ | 16.8 | $X$ | 130.74510 | 252.75256 | 65.91576 | 6.63050 | 0.0636346 | 0.21609352 | 2.7502672 | 21 | — | — |
| 482970 2014 $KM_{82}$ | 15.2 | $X$ | 109.71223 | 295.98773 | 331.31971 | 19.70693 | 0.1219771 | 0.17551535 | 3.1593129 | 21 | 11 2.9 | 20.5 |
| 482971 2014 $KA_{94}$ | 16.8 | $X$ | 288.86796 | 322.64961 | 252.00025 | 11.50674 | 0.2358952 | 0.24262966 | 2.5458929 | 21 | — | — |
| 482972 2014 $KY_{95}$ | 16.3 | $X$ | 110.06810 | 0.55197 | 228.23449 | 11.36353 | 0.0865877 | 0.17664900 | 3.1457818 | 21 | 9 20.2 | 21.2 |
| 482973 2014 $KT_{98}$ | 16.4 | $X$ | 118.86999 | 181.14236 | 62.39609 | 11.01307 | 0.1396823 | 0.18401798 | 3.0612294 | 21 | 10 28.6 | 21.3 |
| 482974 2014 $LL$ | 17.0 | $X$ | 278.00034 | 34.24645 | 166.91411 | 11.57591 | 0.0916274 | 0.23106540 | 2.6301435 | 21 | — | — |
| 482975 2014 $LX_{3}$ | 16.3 | $X$ | 30.32998 | 244.76797 | 75.87332 | 17.62531 | 0.1062584 | 0.17677240 | 3.1443176 | 21 | 10 20.5 | 20.7 |
| 482976 2014 $LF_{8}$ | 17.7 | $X$ | 24.12906 | 48.52058 | 122.06607 | 5.43983 | 0.0917458 | 0.26250383 | 2.4157146 | 21 | 3 2.0 | 20.1 |
| 482977 2014 $LF_{28}$ | 16.9 | $X$ | 307.34527 | 4.13391 | 246.42855 | 7.41752 | 0.1726196 | 0.25863802 | 2.4397265 | 21 | 2 6.6 | 20.3 |
| 482978 2014 $MS_{8}$ | 17.0 | $X$ | 320.21537 | 76.69718 | 153.53599 | 17.60175 | 0.1983459 | 0.24697995 | 2.5159089 | 21 | 1 27.6 | 20.4 |
| 482979 2014 $MO_{23}$ | 16.4 | $X$ | 351.40348 | 245.64001 | 261.30441 | 20.95052 | 0.1579117 | 0.24039470 | 2.5616480 | 21 | — | — |
| 482980 2014 $MK_{28}$ | 17.0 | $X$ | 282.98925 | 54.16433 | 172.03216 | 11.68837 | 0.2257539 | 0.24358719 | 2.5392167 | 21 | — | — |
| 482981 2014 $ME_{48}$ | 16.6 | $X$ | 264.15522 | 335.09912 | 210.51930 | 13.55138 | 0.1083908 | 0.21890879 | 2.7266365 | 21 | — | — |
| 482982 2014 $NP_{55}$ | 15.0 | $X$ | 245.10860 | 315.70793 | 102.03041 | 11.86278 | 0.1711191 | 0.12476408 | 3.9665201 | 21 | 7 9.5 | 21.0 |
| 482983 2014 $NP_{62}$ | 16.3 | $X$ | 162.63728 | 330.32888 | 309.96928 | 6.52948 | 0.1413956 | 0.20280960 | 2.8690870 | 21 | — | — |
| 482984 2014 $OJ_{7}$ | 16.0 | $X$ | 107.68133 | 342.82717 | 316.94700 | 10.17224 | 0.0890394 | 0.17786477 | 3.1314303 | 21 | 12 14.9 | 20.8 |
| 482985 2014 $OY_{13}$ | 17.9 | $X$ | 18.13983 | 255.99984 | 335.65480 | 1.76381 | 0.1586051 | 0.26975114 | 2.3722503 | 21 | 5 20.6 | 19.7 |
| 482986 2014 $OD_{52}$ | 15.9 | $X$ | 297.49502 | 98.12720 | 319.01258 | 8.86070 | 0.0705233 | 0.15598383 | 3.4178238 | 21 | 9 20.3 | 20.7 |
| 482987 2014 $OM_{88}$ | 16.4 | $X$ | 152.05026 | 347.13168 | 283.38104 | 11.06676 | 0.0454904 | 0.19089274 | 2.9872835 | 21 | 12 27.7 | 20.8 |
| 482988 2014 $OH_{90}$ | 16.5 | $X$ | 6.16697 | 233.53678 | 286.27470 | 10.77459 | 0.1146881 | 0.23290191 | 2.6162988 | 21 | 1 18.3 | 19.4 |
| 482989 2014 $OV_{159}$ | 15.9 | $X$ | 61.18711 | 17.63143 | 314.64988 | 26.42344 | 0.0843087 | 0.17645964 | 3.1480319 | 21 | 11 29.8 | 20.9 |
| 482990 2014 $OK_{165}$ | 17.2 | $X$ | 289.13273 | 94.63884 | 108.30206 | 14.84893 | 0.1522519 | 0.22224354 | 2.6992925 | 21 | — | — |
| 482991 2014 $OA_{333}$ | 16.2 | $X$ | 159.71292 | 279.39348 | 341.39301 | 11.05808 | 0.1167985 | 0.19071200 | 2.9891706 | 21 | 12 22.9 | 21.1 |
| 482992 2014 $OP_{346}$ | 16.5 | $X$ | 345.35765 | 270.40682 | 167.89779 | 7.69199 | 0.0551186 | 0.18752428 | 3.0229506 | 21 | 12 30.9 | 20.6 |
| 482993 2014 $OO_{372}$ | 16.2 | $X$ | 161.14131 | 20.18360 | 276.95178 | 13.06269 | 0.1472780 | 0.20395509 | 2.8583343 | 21 | — | — |
| 482994 2014 $PK_{7}$ | 16.2 | $X$ | 103.59126 | 3.42096 | 300.00245 | 15.13269 | 0.0236388 | 0.17968349 | 3.1102641 | 21 | 12 9.5 | 20.9 |
| 482995 2014 $QD_{38}$ | 15.9 | $X$ | 137.43631 | 318.37303 | 307.91195 | 12.50038 | 0.1731062 | 0.18313938 | 3.0710123 | 21 | 12 8.1 | 21.2 |
| 482996 2014 $QJ_{72}$ | 16.2 | $X$ | 131.84866 | 17.56678 | 284.96265 | 8.78262 | 0.0766790 | 0.18929478 | 3.0040717 | 21 | — | — |
| 482997 2014 $QR_{102}$ | 16.6 | $X$ | 177.60540 | 317.01669 | 284.30137 | 5.98245 | 0.1127073 | 0.18517096 | 3.0485089 | 21 | 12 15.9 | 21.3 |
| 482998 2014 $QS_{271}$ | 16.3 | $X$ | 190.64459 | 276.19372 | 355.63942 | 10.32986 | 0.2121867 | 0.21021662 | 2.8012897 | 21 | — | — |
| 482999 2014 $QZ_{285}$ | 15.6 | $X$ | 217.97838 | 92.71515 | 98.20895 | 17.16145 | 0.0525376 | 0.17337089 | 3.1853116 | 21 | 12 4.4 | 20.3 |
| 483000 2014 $QP_{300}$ | 16.2 | $X$ | 223.79667 | 107.31431 | 92.65749 | 2.71162 | 0.1057201 | 0.17367483 | 3.1815942 | 21 | 12 12.9 | 20.7 |
| 483001 2014 $QL_{420}$ | 15.9 | $X$ | 180.69315 | 232.72510 | 13.47149 | 14.71080 | 0.1852801 | 0.18166937 | 3.0875565 | 21 | 12 19.4 | 21.3 |
| 483002 2014 $QS_{441}$ | 5.4 | $X$ | 317.34766 | 265.19807 | 185.83923 | 37.81777 | 0.0824712 | 0.00304897 | 47.1013949 | 21 | 11 5.3 | 21.9 |
| 483003 2014 $RX_{62}$ | 15.7 | $X$ | 140.68971 | 20.11057 | 309.34920 | 9.94597 | 0.0979369 | 0.19122624 | 2.9838093 | 21 | — | — |
| 483004 2014 $SB_{15}$ | 17.3 | $X$ | 247.63223 | 232.28800 | 172.09052 | 6.18191 | 0.1336443 | 0.26086021 | 2.4258512 | 21 | 6 29.0 | 20.8 |
| 483005 2014 $SP_{140}$ | 15.2 | $X$ | 188.97776 | 306.59425 | 266.63608 | 16.00118 | 0.0108076 | 0.17007772 | 3.2262976 | 21 | 11 28.5 | 19.9 |
| 483006 2014 $SS_{210}$ | 17.0 | $X$ | 178.45713 | 261.18338 | 155.21612 | 6.34087 | 0.1432958 | 0.22198516 | 2.7013867 | 21 | 5 7.7 | 21.3 |
| 483007 2014 $SE_{317}$ | 17.3 | $X$ | 341.29908 | 257.43550 | 108.89842 | 7.83909 | 0.1405795 | 0.27978894 | 2.3151672 | 21 | 10 16.7 | 19.4 |
| 483008 2014 $SM_{349}$ | 13.6 | $X$ | 296.26042 | 237.50512 | 73.26507 | 29.10816 | 0.0335250 | 0.08148671 | 5.2692021 | 21 | 5 24.2 | 20.6 |
| 483009 2014 $TS_{54}$ | 16.0 | $X$ | 59.56785 | 229.04251 | 198.86468 | 10.90556 | 0.1135947 | 0.17653267 | 3.1471637 | 21 | 1 1.1 | 20.1 |
| 483010 2014 $TJ_{55}$ | 17.8 | $X$ | 327.50826 | 60.00647 | 4.27251 | 6.32814 | 0.0739134 | 0.29423481 | 2.2387556 | 21 | 12 13.3 | 20.1 |
| 483011 2014 $UQ$ | 16.2 | $X$ | 180.50372 | 261.87079 | 82.30283 | 20.54802 | 0.2701355 | 0.21223860 | 2.7834695 | 21 | 2 22.2 | 21.5 |
| 483012 2014 $UX_{45}$ | 16.4 | $X$ | 156.40113 | 178.74168 | 223.54960 | 8.11372 | 0.2111295 | 0.21099641 | 2.7943835 | 21 | 3 31.8 | 21.1 |
| 483013 2014 $UY_{103}$ | 16.5 | $X$ | 157.29569 | 328.71583 | 69.02800 | 9.25379 | 0.1419864 | 0.21079290 | 2.7961818 | 21 | 3 28.9 | 21.0 |
| 483014 2014 $UJ_{170}$ | 13.5 | $X$ | 235.38505 | 348.84048 | 38.25476 | 4.97014 | 0.0560078 | 0.08395251 | 5.1655147 | 21 | 6 5.4 | 20.5 |
| 483015 2014 $UR_{194}$ | 16.8 | $X$ | 150.02397 | 7.55482 | 52.94456 | 9.18751 | 0.0990959 | 0.21996837 | 2.7178734 | 21 | 4 12.3 | 20.8 |
| 483016 2014 $UG_{197}$ | 16.7 | $X$ | 90.15772 | 259.26145 | 206.30125 | 10.43304 | 0.1026882 | 0.20632202 | 2.8364317 | 21 | 3 25.8 | 20.6 |
| 483017 2014 $UJ_{207}$ | 16.8 | $X$ | 165.98315 | 252.41321 | 149.25310 | 6.14753 | 0.0588181 | 0.21820680 | 2.7324813 | 21 | 4 2.1 | 20.7 |
| 483018 2014 $VV_{37}$ | 14.3 | $X$ | 162.94395 | 284.90355 | 170.20556 | 13.04542 | 0.0555893 | 0.08429936 | 5.1513360 | 21 | 6 9.9 | 21.5 |
| 483019 2014 $WB_{116}$ | 17.3 | $X$ | 278.55607 | 354.51313 | 49.42258 | 7.86757 | 0.1671823 | 0.26556531 | 2.3971129 | 21 | 8 7.0 | 20.3 |
| 483020 2014 $WL_{120}$ | 13.1 | $X$ | 339.54577 | 237.37316 | 45.56050 | 18.53085 | 0.1132703 | 0.08485581 | 5.1287911 | 21 | 6 1.9 | 19.5 |
| 483021 2014 $WD_{202}$ | 14.0 | $X$ | 334.17198 | 246.42110 | 36.17623 | 16.81483 | 0.1287096 | 0.08362372 | 5.1790456 | 21 | 5 23.4 | 20.4 |
| 483022 2014 $WZ_{236}$ | 15.9 | $X$ | 134.97437 | 354.69269 | 39.38867 | 9.72041 | 0.1072382 | 0.19263526 | 2.9692415 | 21 | 2 28.1 | 20.4 |
| 483023 2014 $WK_{321}$ | 16.7 | $X$ | 150.43451 | 276.33859 | 152.06165 | 9.57026 | 0.0874886 | 0.21777514 | 2.7360909 | 21 | 4 22.2 | 20.8 |
| 483024 2014 $WB_{367}$ | 13.3 | $X$ | 344.35421 | 235.80422 | 45.56083 | 14.28428 | 0.1501703 | 0.08314971 | 5.1987096 | 21 | 6 5.9 | 19.5 |
| 483025 2014 $WY_{378}$ | 13.3 | $X$ | 26.75898 | 291.37778 | 301.69430 | 7.77462 | 0.0857068 | 0.08244843 | 5.2281469 | 21 | 6 13.8 | 19.9 |
| 483026 2014 $WS_{454}$ | 13.9 | $X$ | 207.20468 | 284.80048 | 125.20942 | 24.86944 | 0.0401172 | 0.08267000 | 5.2188014 | 21 | 6 8.6 | 21.2 |
| 483027 2015 $AY_{47}$ | 13.4 | $X$ | 281.41633 | 196.86426 | 150.13677 | 17.98317 | 0.0145626 | 0.08443051 | 5.1459997 | 21 | 6 18.2 | 20.4 |
| 483028 2015 $AL_{148}$ | 16.6 | $X$ | 246.63963 | 284.23102 | 91.55893 | 6.20388 | 0.1323152 | 0.21847492 | 2.7302452 | 21 | 5 23.5 | 20.7 |
| 483029 2015 $BE_{324}$ | 16.1 | $X$ | 237.03015 | 231.67199 | 94.05000 | 11.10167 | 0.0631797 | 0.18149085 | 3.0895808 | 21 | 3 25.6 | 20.9 |
| 483030 2015 $DF_{138}$ | 17.6 | $X$ | 150.45509 | 113.19807 | 76.99070 | 21.56445 | 0.0881981 | 0.37240507 | 1.9133408 | 21 | 10 22.0 | 20.4 |
| 483031 2015 $FC_{44}$ | 17.6 | $X$ | 160.58348 | 220.54076 | 80.37611 | 5.64944 | 0.1357134 | 0.26182693 | 2.4198764 | 21 | — | — |
| 483032 2015 $FZ_{74}$ | 17.4 | $X$ | 107.03089 | 153.11384 | 165.61623 | 4.99224 | 0.2469039 | 0.24057363 | 2.5603777 | 21 | — | — |
| 483033 2015 $FD_{140}$ | 17.7 | $X$ | 153.00098 | 296.39148 | 24.32739 | 7.74223 | 0.1524341 | 0.27403962 | 2.3474363 | 21 | — | — |
| 483034 2015 $FU_{301}$ | 17.6 | $X$ | 166.11619 | 198.70948 | 129.92151 | 6.86710 | 0.1691854 | 0.27138577 | 2.3627150 | 21 | — | — |
| 483035 2015 $FJ_{332}$ | 17.8 | $X$ | 47.48037 | 253.83913 | 86.94889 | 23.61365 | 0.1732388 | 0.39564145 | 1.8376728 | 21 | — | — |
| 483036 2015 $FY_{340}$ | 17.7 | $X$ | 331.29183 | 109.37185 | 244.08053 | 19.90762 | 0.0631300 | 0.37337699 | 1.9100190 | 21 | 8 30.9 | 20.0 |
| 483037 2015 $FE_{341}$ | 18.4 | $X$ | 6.59453 | 103.63382 | 271.61668 | 19.35409 | 0.0774006 | 0.39989431 | 1.8246206 | 21 | — | — |
| 483038 2015 $HD_{9}$ | 17.4 | $X$ | 270.15316 | 331.29211 | 104.93579 | 21.23629 | 0.0263162 | 0.37682133 | 1.8983621 | 21 | 10 30.4 | 19.8 |
| 483039 2015 $HS_{27}$ | 17.8 | $X$ | 203.38078 | 138.96562 | 172.19054 | 6.04485 | 0.1937607 | 0.28331130 | 2.2959378 | 21 | 1 12.9 | 21.6 |
| 483040 2015 $HS_{35}$ | 17.6 | $X$ | 227.88434 | 238.58280 | 93.21160 | 6.50168 | 0.2289035 | 0.30164926 | 2.2019183 | 21 | 3 1.1 | 21.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483041 2015 $HW_{55}$ | 17.4 | X | 180.35540 | 70.96245 | 281.61451 | 7.17669 | 0.2614342 | 0.28394727 | 2.2925083 | 21 | 2 14.8 | 21.4 |
| 483042 2015 $HN_{60}$ | 16.8 | X | 145.84777 | 164.20243 | 151.22069 | 11.26523 | 0.2872308 | 0.24381607 | 2.5376273 | 21 | — | — |
| 483043 2015 $HV_{61}$ | 17.7 | X | 221.20929 | 133.72358 | 146.84636 | 3.70891 | 0.1744842 | 0.27657165 | 2.3330871 | 21 | — | — |
| 483044 2015 $HJ_{91}$ | 18.0 | X | 185.51842 | 229.46174 | 76.65470 | 2.47599 | 0.1918264 | 0.26928544 | 2.3749846 | 21 | — | — |
| 483045 2015 $HY_{150}$ | 18.0 | X | 191.20249 | 288.62093 | 15.19466 | 3.35206 | 0.2207924 | 0.26889670 | 2.3772731 | 21 | — | — |
| 483046 2015 $JG_{3}$ | 18.1 | X | 298.75503 | 312.45256 | 92.58512 | 23.17370 | 0.0883345 | 0.36890746 | 1.9254153 | 21 | 10 24.7 | 20.3 |
| 483047 2015 $JD_{10}$ | 18.0 | X | 240.39185 | 242.67050 | 54.99137 | 7.79289 | 0.1252030 | 0.28740254 | 2.2740970 | 21 | 2 1.5 | 21.5 |
| 483048 2015 $KD_{12}$ | 17.1 | X | 104.60191 | 159.18673 | 155.91745 | 7.78198 | 0.2686506 | 0.22771241 | 2.6558992 | 21 | — | — |
| 483049 2015 $KX_{20}$ | 17.3 | X | 144.82434 | 49.48114 | 249.92035 | 14.41242 | 0.1098718 | 0.24564163 | 2.5250388 | 21 | — | — |
| 483050 2015 $KP_{21}$ | 17.0 | X | 170.88455 | 73.85083 | 195.00763 | 12.30855 | 0.2483315 | 0.24307941 | 2.5427516 | 21 | — | — |
| 483051 2015 $KH_{29}$ | 18.0 | X | 225.95488 | 3.00704 | 288.33194 | 2.75973 | 0.1660296 | 0.28192768 | 2.3034435 | 21 | 1 8.8 | 21.5 |
| 483052 2015 $KY_{36}$ | 17.1 | X | 273.45670 | 11.06293 | 254.88471 | 6.76842 | 0.0902906 | 0.28000780 | 2.3139606 | 21 | 1 25.8 | 20.5 |
| 483053 2015 $KT_{37}$ | 17.2 | X | 101.91159 | 183.05243 | 170.26962 | 6.57889 | 0.1713974 | 0.24631682 | 2.5204224 | 21 | — | — |
| 483054 2015 $KH_{46}$ | 17.5 | X | 98.46810 | 216.09330 | 131.02902 | 2.79067 | 0.1494000 | 0.24386861 | 2.5372628 | 21 | — | — |
| 483055 2015 $KS_{52}$ | 17.2 | X | 178.30196 | 249.89252 | 78.14574 | 6.94566 | 0.1660985 | 0.26841588 | 2.3801112 | 21 | 1 12.9 | 20.8 |
| 483056 2015 $KR_{54}$ | 17.6 | X | 116.13697 | 193.41515 | 112.32643 | 3.48499 | 0.1998584 | 0.23180925 | 2.6245139 | 21 | — | — |
| 483057 2015 $KM_{56}$ | 16.7 | X | 143.47411 | 235.56763 | 79.14529 | 14.74411 | 0.2342602 | 0.24448680 | 2.5329840 | 21 | — | — |
| 483058 2015 $KC_{92}$ | 17.9 | X | 190.51320 | 200.94441 | 169.10423 | 5.42958 | 0.1269813 | 0.29857089 | 2.2170275 | 21 | 3 12.1 | 21.0 |
| 483059 2015 $KX_{128}$ | 17.5 | X | 160.30967 | 193.03379 | 107.24334 | 5.57716 | 0.1536285 | 0.25640714 | 2.4538573 | 21 | — | — |
| 483060 2015 $KT_{131}$ | 15.8 | X | 328.79794 | 290.26291 | 80.21035 | 27.40551 | 0.1808094 | 0.17934443 | 3.1141830 | 21 | 9 20.8 | 20.0 |
| 483061 2015 $KF_{132}$ | 16.5 | X | 129.32089 | 258.97562 | 51.68485 | 7.89875 | 0.1914413 | 0.23079978 | 2.6321610 | 21 | — | — |
| 483062 2015 $KW_{143}$ | 17.6 | X | 116.12787 | 99.67166 | 227.88111 | 4.57906 | 0.2168256 | 0.24070138 | 2.5594717 | 21 | — | — |
| 483063 2015 $KN_{144}$ | 17.8 | X | 182.04732 | 202.79345 | 84.61456 | 2.81997 | 0.1637579 | 0.25774560 | 2.4453548 | 21 | — | — |
| 483064 2015 $KB_{155}$ | 16.4 | X | 84.10921 | 257.32759 | 90.11056 | 29.87216 | 0.3246062 | 0.23105433 | 2.6302275 | 21 | — | — |
| 483065 2015 $KE_{157}$ | 17.5 | X | 353.15562 | 276.16359 | 101.12261 | 23.76647 | 0.1080184 | 0.38223149 | 1.8804065 | 21 | 12 18.8 | 19.0 |
| 483066 2015 $KC_{160}$ | 17.6 | X | 194.10376 | 151.47405 | 143.38103 | 3.02594 | 0.2003503 | 0.26299791 | 2.4126881 | 21 | — | — |
| 483067 2015 $LP_{1}$ | 18.3 | X | 174.45493 | 326.11616 | 194.75318 | 21.43082 | 0.0464539 | 0.36912017 | 1.9246756 | 21 | 9 25.9 | 20.3 |
| 483068 2015 $LU_{5}$ | 17.4 | X | 186.46717 | 340.16299 | 4.06820 | 7.78804 | 0.1390127 | 0.28538756 | 2.2847886 | 21 | 2 7.8 | 20.8 |
| 483069 2015 $LT_{14}$ | 17.3 | X | 149.99322 | 225.80958 | 82.05179 | 5.94443 | 0.2340103 | 0.24411201 | 2.5355759 | 21 | — | — |
| 483070 2015 $LA_{18}$ | 15.9 | X | 191.65807 | 326.76540 | 253.28041 | 13.51368 | 0.1341514 | 0.23434029 | 2.6055820 | 21 | 12 10.6 | 19.9 |
| 483071 2015 $LE_{20}$ | 16.8 | X | 200.17429 | 23.11106 | 232.20567 | 17.43391 | 0.1542399 | 0.23851508 | 2.5750885 | 21 | — | — |
| 483072 2015 $LJ_{30}$ | 17.2 | X | 72.26649 | 254.09919 | 102.72648 | 12.78495 | 0.0717118 | 0.22298082 | 2.6933391 | 21 | — | — |
| 483073 2015 $LD_{31}$ | 16.9 | X | 72.80047 | 291.34123 | 96.74108 | 4.17473 | 0.1322281 | 0.23301660 | 2.6154403 | 21 | — | — |
| 483074 2015 $LU_{34}$ | 16.3 | X | 11.70156 | 52.46970 | 305.11288 | 11.08764 | 0.1869560 | 0.18957931 | 3.0010652 | 21 | 11 7.7 | 20.0 |
| 483075 2015 $LU_{35}$ | 17.3 | X | 149.46799 | 79.69675 | 273.61562 | 5.60195 | 0.1365564 | 0.25243070 | 2.4795599 | 21 | 1 13.3 | 20.8 |
| 483076 2015 $LX_{35}$ | 17.0 | X | 174.67211 | 18.16495 | 257.84810 | 7.85390 | 0.1502128 | 0.23656001 | 2.5892570 | 21 | — | — |
| 483077 2015 $LJ_{38}$ | 17.0 | X | 124.88541 | 175.41362 | 116.38885 | 9.21241 | 0.1506542 | 0.23002603 | 2.6380604 | 21 | — | — |
| 483078 2015 $LQ_{39}$ | 16.3 | X | 83.13369 | 81.32667 | 271.88402 | 24.74427 | 0.3214812 | 0.21342153 | 2.7731747 | 21 | — | — |
| 483079 2015 $LU_{39}$ | 17.4 | X | 233.33815 | 199.69112 | 71.33981 | 6.65690 | 0.1934180 | 0.26201597 | 2.4187123 | 21 | — | — |
| 483080 2015 $MH_{3}$ | 17.0 | X | 196.25821 | 245.27577 | 21.61205 | 10.01160 | 0.1143454 | 0.24610538 | 2.5218658 | 21 | — | — |
| 483081 2015 $MY_{4}$ | 16.1 | X | 311.06247 | 261.10145 | 139.99434 | 9.78340 | 0.1372832 | 0.18418724 | 3.0593537 | 21 | 9 21.5 | 19.9 |
| 483082 2015 $MP_{5}$ | 16.9 | X | 48.59852 | 176.18930 | 250.04065 | 12.48810 | 0.1352006 | 0.24150282 | 2.5538061 | 21 | — | — |
| 483083 2015 $MT_{8}$ | 17.6 | X | 154.37075 | 137.49725 | 229.19352 | 5.61692 | 0.1544265 | 0.25810391 | 2.4430911 | 21 | 2 3.8 | 21.3 |
| 483084 2015 $MS_{17}$ | 18.4 | X | 216.62426 | 41.69151 | 304.17052 | 2.63411 | 0.1554938 | 0.30177712 | 2.2012963 | 21 | 3 5.8 | 21.8 |
| 483085 2015 $MJ_{49}$ | 16.1 | X | 46.44013 | 216.81373 | 68.99597 | 11.50058 | 0.2097681 | 0.17638834 | 3.1488801 | 21 | 10 11.1 | 20.4 |
| 483086 2015 $MM_{49}$ | 16.8 | X | 154.57319 | 251.75991 | 94.57877 | 15.04973 | 0.1046305 | 0.24601440 | 2.5224875 | 21 | 1 8.2 | 20.2 |
| 483087 2015 $MO_{49}$ | 15.6 | X | 294.05514 | 324.61052 | 102.11587 | 18.01008 | 0.1837406 | 0.17183210 | 3.2043001 | 21 | 9 26.4 | 20.0 |
| 483088 2015 $MF_{52}$ | 16.9 | X | 152.66006 | 175.02433 | 114.04591 | 10.75918 | 0.1863352 | 0.23076113 | 2.6324550 | 21 | — | — |
| 483089 2015 $MD_{53}$ | 16.6 | X | 153.79686 | 316.11276 | 315.08958 | 6.83375 | 0.1997470 | 0.22902190 | 2.6457657 | 21 | — | — |
| 483090 2015 $MW_{62}$ | 16.1 | X | 2.51743 | 207.52220 | 111.40344 | 10.55624 | 0.1107592 | 0.17515159 | 3.1636856 | 21 | 8 30.3 | 20.0 |
| 483091 2015 $MG_{72}$ | 17.3 | X | 113.81770 | 213.95316 | 142.13513 | 8.92837 | 0.0955227 | 0.24090930 | 2.5579988 | 21 | — | — |
| 483092 2015 $ML_{75}$ | 17.0 | X | 86.04545 | 279.10326 | 124.84129 | 12.55664 | 0.2808852 | 0.23872453 | 2.5735821 | 21 | 1 19.5 | 19.4 |
| 483093 2015 $MG_{78}$ | 17.0 | X | 77.81105 | 137.71665 | 270.36507 | 12.81001 | 0.2108466 | 0.23910863 | 2.5708252 | 21 | — | — |
| 483094 2015 $MZ_{79}$ | 17.3 | X | 213.83613 | 96.23882 | 269.36802 | 7.78780 | 0.0293626 | 0.29219070 | 2.2491847 | 21 | 3 27.7 | 20.2 |
| 483095 2015 $MC_{80}$ | 17.6 | X | 300.34721 | 45.18785 | 162.71064 | 3.57437 | 0.0412147 | 0.26303756 | 2.4124456 | 21 | — | — |
| 483096 2015 $MN_{83}$ | 16.5 | X | 308.33937 | 124.99789 | 278.23959 | 13.99383 | 0.0498267 | 0.18317435 | 3.0706214 | 21 | 9 18.4 | 21.0 |
| 483097 2015 $MT_{84}$ | 17.0 | X | 54.15661 | 332.77581 | 136.35699 | 6.90029 | 0.1111198 | 0.26560852 | 2.3968529 | 21 | 1 22.4 | 19.4 |
| 483098 2015 $MW_{85}$ | 17.6 | X | 102.93047 | 231.64159 | 123.90306 | 12.99836 | 0.1019250 | 0.23571091 | 2.5954714 | 21 | — | — |
| 483099 2015 $MV_{87}$ | 17.3 | X | 105.98278 | 179.95072 | 180.18348 | 6.08197 | 0.0578084 | 0.23862492 | 2.5742982 | 21 | — | — |
| 483100 2015 $MH_{88}$ | 17.3 | X | 86.37411 | 218.17277 | 140.15958 | 3.16238 | 0.1215929 | 0.22631593 | 2.6668134 | 21 | — | — |
| 483101 2015 $ML_{88}$ | 16.9 | X | 90.66210 | 90.67468 | 247.17471 | 5.36481 | 0.0628639 | 0.22169188 | 2.7037686 | 21 | — | — |
| 483102 2015 $MN_{91}$ | 16.2 | X | 349.19321 | 79.23166 | 305.33346 | 24.24606 | 0.2682559 | 0.17144987 | 3.2090608 | 21 | 10 23.1 | 19.9 |
| 483103 2015 $MV_{97}$ | 16.3 | X | 339.75026 | 240.90596 | 123.40675 | 18.77857 | 0.1479959 | 0.17802836 | 3.1295118 | 21 | 9 24.8 | 20.2 |
| 483104 2015 $MO_{108}$ | 17.9 | X | 1.95972 | 268.74068 | 308.04757 | 3.91511 | 0.1092825 | 0.29957480 | 2.2120717 | 21 | 3 18.3 | 19.8 |
| 483105 2015 $MY_{108}$ | 16.2 | X | 334.78595 | 266.57012 | 110.16464 | 16.30043 | 0.2187527 | 0.17717743 | 3.1395238 | 21 | 9 30.6 | 19.7 |
| 483106 2015 $MR_{109}$ | 17.9 | X | 15.97566 | 126.93852 | 80.98831 | 4.79915 | 0.1083547 | 0.30141818 | 2.2030436 | 21 | 4 5.7 | 19.8 |
| 483107 2015 $MS_{109}$ | 16.9 | X | 348.64968 | 260.47711 | 103.41126 | 11.11300 | 0.2315097 | 0.17828396 | 3.1265199 | 21 | 10 12.4 | 20.2 |
| 483108 2015 $ME_{113}$ | 17.0 | X | 103.08284 | 144.35929 | 182.45132 | 11.78769 | 0.1920067 | 0.21947945 | 2.7219082 | 21 | — | — |
| 483109 2015 $MM_{118}$ | 16.3 | X | 35.65080 | 232.23894 | 101.28387 | 9.58092 | 0.1523511 | 0.18906274 | 3.0065291 | 21 | 11 15.8 | 20.3 |
| 483110 2015 $MN_{118}$ | 15.6 | X | 33.42987 | 204.30968 | 113.38818 | 14.08811 | 0.0715269 | 0.18247066 | 3.0785109 | 21 | 10 15.7 | 20.0 |
| 483111 2015 $MC_{121}$ | 15.6 | X | 25.57236 | 30.13191 | 297.88877 | 21.03452 | 0.0440508 | 0.17847396 | 3.1243006 | 21 | 9 24.4 | 20.3 |
| 483112 2015 $MK_{126}$ | 17.0 | X | 145.94662 | 40.44616 | 321.26348 | 5.22096 | 0.1526249 | 0.25263707 | 2.4782094 | 21 | 1 22.9 | 20.5 |
| 483113 2015 $MP_{126}$ | 16.4 | X | 356.47069 | 284.93053 | 103.59255 | 6.70815 | 0.0692616 | 0.19776603 | 2.9176616 | 21 | 11 19.4 | 20.2 |
| 483114 2015 $MO_{128}$ | 16.2 | X | 345.94664 | 345.89176 | 28.23721 | 6.74470 | 0.1686511 | 0.18118901 | 3.0930111 | 21 | 10 14.1 | 19.4 |
| 483115 2015 $NC_{4}$ | 16.9 | X | 121.47766 | 242.83903 | 124.15285 | 3.53642 | 0.1797772 | 0.24546075 | 2.5262792 | 21 | 1 5.1 | 20.2 |
| 483116 2015 $NL_{11}$ | 17.0 | X | 102.72203 | 268.10363 | 91.25888 | 14.40043 | 0.2403222 | 0.24341765 | 2.5403955 | 21 | — | — |
| 483117 2015 $NG_{14}$ | 17.0 | X | 170.96211 | 5.80680 | 318.69898 | 6.57344 | 0.0773766 | 0.25620776 | 2.4551302 | 21 | — | — |
| 483118 2015 $NV_{17}$ | 17.2 | X | 359.20573 | 159.59309 | 328.36434 | 16.34903 | 0.0464199 | 0.23928775 | 2.5695421 | 21 | — | — |
| 483119 2015 $NT_{18}$ | 17.1 | X | 165.60727 | 270.62411 | 114.44042 | 10.75341 | 0.1035505 | 0.26628734 | 2.3927778 | 21 | 3 11.5 | 20.6 |
| 483120 2015 $NU_{18}$ | 16.9 | X | 183.38910 | 255.86279 | 100.17865 | 5.77515 | 0.1277403 | 0.26245946 | 2.4159868 | 21 | 2 21.4 | 20.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483121 2015 $NJ_{20}$ | 15.7 | X | 78.75655 | 302.66448 | 276.92442 | 12.04219 | 0.0719180 | 0.18374347 | 3.0642775 | 21 | 8 1.5 | 20.1 |
| 483122 2015 $NF_{23}$ | 16.9 | X | 13.19510 | 209.14404 | 218.89657 | 10.58984 | 0.0555503 | 0.22353840 | 2.6888585 | 21 | — | — |
| 483123 2015 $OF_{1}$ | 17.0 | X | 62.22726 | 260.90376 | 78.28302 | 4.99852 | 0.1076782 | 0.20901358 | 2.8120285 | 21 | 12 20.5 | 21.0 |
| 483124 2015 $OE_{7}$ | 16.6 | X | 125.06984 | 355.94488 | 280.02389 | 14.31444 | 0.0353959 | 0.21052008 | 2.7985970 | 21 | 12 7.5 | 20.7 |
| 483125 2015 $OF_{10}$ | 17.6 | X | 93.00341 | 322.92505 | 23.47509 | 2.39365 | 0.0741987 | 0.22470852 | 2.6795160 | 21 | — | — |
| 483126 2015 $OQ_{10}$ | 17.3 | X | 80.75599 | 296.45888 | 101.78928 | 6.79743 | 0.0417211 | 0.24300708 | 2.5432561 | 21 | — | — |
| 483127 2015 $OS_{10}$ | 16.9 | X | 357.77089 | 336.38096 | 0.14617 | 4.05889 | 0.1487111 | 0.17460096 | 3.1703336 | 21 | 9 13.4 | 20.3 |
| 483128 2015 $OC_{13}$ | 16.8 | X | 76.49709 | 269.71529 | 61.67028 | 4.41073 | 0.0956278 | 0.20988250 | 2.8042618 | 21 | 12 25.8 | 20.8 |
| 483129 2015 $OD_{13}$ | 17.2 | X | 135.96717 | 198.86571 | 84.64895 | 6.45642 | 0.0215068 | 0.21726981 | 2.7403316 | 21 | 12 30.3 | 21.1 |
| 483130 2015 $OG_{14}$ | 17.6 | X | 141.09148 | 307.49202 | 118.79295 | 7.43325 | 0.0900369 | 0.28045345 | 2.3115086 | 21 | 4 2.8 | 20.7 |
| 483131 2015 $OC_{15}$ | 16.4 | X | 337.83771 | 241.53345 | 123.40992 | 20.23317 | 0.1731267 | 0.17239204 | 3.1973578 | 21 | 9 20.1 | 20.3 |
| 483132 2015 $OF_{15}$ | 17.6 | X | 225.97938 | 181.36625 | 99.50411 | 6.31119 | 0.0902554 | 0.25846203 | 2.4408338 | 21 | — | — |
| 483133 2015 $OV_{16}$ | 17.3 | X | 102.97365 | 299.31311 | 97.13699 | 7.01692 | 0.1618024 | 0.24235910 | 2.5477873 | 21 | 1 16.7 | 20.2 |
| 483134 2015 $OZ_{17}$ | 17.2 | X | 92.48618 | 230.20427 | 89.56905 | 6.73404 | 0.0784411 | 0.21245399 | 2.7815879 | 21 | 12 27.9 | 21.3 |
| 483135 2015 $OD_{20}$ | 16.4 | X | 333.69250 | 116.35701 | 292.26237 | 15.82402 | 0.3050356 | 0.17576339 | 3.1563399 | 21 | 10 22.9 | 19.6 |
| 483136 2015 $OA_{23}$ | 16.7 | X | 140.33034 | 143.23780 | 165.17717 | 12.62753 | 0.1758037 | 0.22973677 | 2.6402743 | 21 | — | — |
| 483137 2015 $OL_{24}$ | 16.3 | X | 21.34503 | 53.58402 | 259.95860 | 16.02398 | 0.2540403 | 0.17564760 | 3.1577269 | 21 | 9 30.4 | 20.2 |
| 483138 2015 $OA_{25}$ | 16.7 | X | 192.41089 | 341.55308 | 275.08260 | 17.74276 | 0.1995786 | 0.23375330 | 2.6099422 | 21 | — | — |
| 483139 2015 $OS_{40}$ | 16.7 | X | 181.73509 | 284.04423 | 322.17988 | 8.19346 | 0.1350895 | 0.21826307 | 2.7320116 | 21 | 12 30.5 | 21.1 |
| 483140 2015 $OU_{40}$ | 15.4 | X | 232.93590 | 85.63911 | 320.66306 | 11.09120 | 0.3202087 | 0.12576902 | 3.9453626 | 21 | 6 3.6 | 22.2 |
| 483141 2015 $OO_{43}$ | 16.4 | X | 57.49705 | 333.42015 | 339.82463 | 6.73710 | 0.1958598 | 0.19636446 | 2.9315285 | 21 | 11 21.2 | 20.7 |
| 483142 2015 $OQ_{44}$ | 18.0 | X | 334.20023 | 262.13759 | 334.73842 | 5.18437 | 0.1138089 | 0.29499026 | 2.2349317 | 21 | 3 2.4 | 20.3 |
| 483143 2015 $OT_{44}$ | 17.3 | X | 62.03256 | 1.02567 | 35.61798 | 3.18228 | 0.1104844 | 0.23157996 | 2.6262460 | 21 | — | — |
| 483144 2015 $OB_{50}$ | 15.4 | X | 359.76622 | 254.59323 | 106.16149 | 20.99858 | 0.1538179 | 0.18002953 | 3.1062772 | 21 | 10 31.2 | 19.5 |
| 483145 2015 $OR_{50}$ | 16.7 | X | 100.00372 | 247.46546 | 90.92622 | 15.03543 | 0.1050461 | 0.21971344 | 2.7199753 | 21 | — | — |
| 483146 2015 $OA_{57}$ | 16.9 | X | 88.50279 | 263.32213 | 54.15839 | 13.28568 | 0.1215139 | 0.20510296 | 2.8476597 | 21 | 12 22.9 | 21.3 |
| 483147 2015 $OP_{67}$ | 16.2 | X | 333.03266 | 213.64844 | 160.84461 | 10.91791 | 0.1469498 | 0.17833931 | 3.1258730 | 21 | 9 20.9 | 19.8 |
| 483148 2015 $OK_{68}$ | 17.4 | X | 265.05945 | 26.72521 | 278.05462 | 5.46345 | 0.1348490 | 0.28774566 | 2.2722888 | 21 | 3 1.9 | 20.7 |
| 483149 2015 $OH_{69}$ | 15.9 | X | 295.89131 | 123.81125 | 293.61360 | 23.63551 | 0.0310511 | 0.18494525 | 3.0509886 | 21 | 9 14.9 | 20.6 |
| 483150 2015 $OM_{69}$ | 17.4 | X | 279.38187 | 359.73811 | 242.32900 | 5.77649 | 0.0620636 | 0.26738105 | 2.3862483 | 21 | 1 8.3 | 20.6 |
| 483151 2015 $OX_{72}$ | 16.9 | X | 51.05152 | 213.81446 | 155.09437 | 6.76488 | 0.0549294 | 0.21528397 | 2.7571575 | 21 | — | — |
| 483152 2015 $OC_{74}$ | 16.6 | X | 11.29871 | 29.90831 | 304.64272 | 9.23972 | 0.2234178 | 0.17775939 | 3.1326679 | 21 | 10 7.9 | 20.2 |
| 483153 2015 $PF_{2}$ | 16.3 | X | 6.69717 | 329.77047 | 8.36605 | 6.52211 | 0.1666347 | 0.17603756 | 3.1530618 | 21 | 10 2.9 | 20.0 |
| 483154 2015 $PJ_{3}$ | 16.0 | X | 15.34224 | 205.34228 | 132.76700 | 17.97683 | 0.2141413 | 0.17683981 | 3.1435185 | 21 | 10 31.9 | 20.0 |
| 483155 2015 $PO_{3}$ | 16.2 | X | 30.80914 | 203.25625 | 111.89140 | 11.76290 | 0.2067134 | 0.17753500 | 3.1353069 | 21 | 10 25.3 | 20.3 |
| 483156 2015 $PX_{4}$ | 17.0 | X | 134.36995 | 167.23686 | 164.17921 | 11.94474 | 0.0249452 | 0.23771052 | 2.5808957 | 21 | — | — |
| 483157 2015 $PK_{5}$ | 16.1 | X | 355.61712 | 50.43997 | 305.04590 | 15.30109 | 0.1162161 | 0.17961348 | 3.1110723 | 21 | 9 24.8 | 20.2 |
| 483158 2015 $PO_{8}$ | 16.2 | X | 349.69970 | 197.00324 | 176.17903 | 16.64875 | 0.0995974 | 0.17697733 | 3.1418898 | 21 | 10 19.0 | 20.2 |
| 483159 2015 $PD_{9}$ | 16.2 | X | 17.90698 | 242.84662 | 89.95360 | 13.28162 | 0.1524166 | 0.17618057 | 3.1513553 | 21 | 10 20.8 | 20.2 |
| 483160 2015 $PN_{12}$ | 16.1 | X | 320.30567 | 121.87685 | 280.98319 | 7.95118 | 0.0769771 | 0.17581597 | 3.1557106 | 21 | 10 5.6 | 20.3 |
| 483161 2015 $PL_{22}$ | 16.5 | X | 15.37180 | 225.96561 | 99.03043 | 11.53202 | 0.2215163 | 0.17792127 | 3.1307674 | 21 | 10 14.5 | 20.2 |
| 483162 2015 $PN_{31}$ | 16.6 | X | 41.30218 | 183.76699 | 163.52919 | 10.55969 | 0.1021621 | 0.19068328 | 2.9894707 | 21 | 12 2.5 | 20.8 |
| 483163 2015 $PE_{34}$ | 16.9 | X | 238.79992 | 346.48266 | 270.61266 | 13.81459 | 0.0860528 | 0.24545073 | 2.5263480 | 21 | — | — |
| 483164 2015 $PK_{34}$ | 16.9 | X | 197.74323 | 149.52829 | 117.01824 | 12.91752 | 0.1746593 | 0.23760671 | 2.5816474 | 21 | — | — |
| 483165 2015 $PR_{34}$ | 17.5 | X | 113.70764 | 318.52331 | 265.41165 | 17.52171 | 0.0391641 | 0.36086022 | 1.9539347 | 21 | 9 26.7 | 20.2 |
| 483166 2015 $PB_{36}$ | 16.4 | X | 31.66443 | 217.25463 | 122.11784 | 13.02318 | 0.1761641 | 0.18680158 | 3.0307423 | 21 | 11 21.8 | 20.5 |
| 483167 2015 $PZ_{36}$ | 16.9 | X | 57.14636 | 289.60012 | 28.89084 | 5.65174 | 0.0990522 | 0.19156547 | 2.9802856 | 21 | 11 14.1 | 21.0 |
| 483168 2015 $PS_{39}$ | 17.5 | X | 331.06308 | 153.29240 | 25.72232 | 4.57157 | 0.0537673 | 0.25429030 | 2.4674566 | 21 | — | — |
| 483169 2015 $PX_{39}$ | 16.9 | X | 157.87970 | 289.23040 | 351.18798 | 8.14454 | 0.0505277 | 0.22096507 | 2.7096943 | 21 | — | — |
| 483170 2015 $PD_{42}$ | 16.6 | X | 23.71153 | 78.60324 | 6.37420 | 11.36107 | 0.0907295 | 0.22967179 | 2.6407722 | 21 | — | — |
| 483171 2015 $PG_{43}$ | 15.4 | X | 37.53449 | 206.06819 | 97.52714 | 12.23386 | 0.0623112 | 0.17444952 | 3.1721682 | 21 | 9 30.9 | 19.9 |
| 483172 2015 $PZ_{45}$ | 17.0 | X | 121.48979 | 175.19179 | 111.52878 | 7.85498 | 0.1768578 | 0.20960060 | 2.8067757 | 21 | 12 22.6 | 21.6 |
| 483173 2015 $PR_{48}$ | 15.7 | X | 12.23461 | 211.66517 | 119.11456 | 10.00124 | 0.0903854 | 0.17506661 | 3.1647094 | 21 | 9 30.5 | 19.9 |
| 483174 2015 $PC_{51}$ | 15.9 | X | 0.32854 | 269.45255 | 108.63039 | 17.13574 | 0.1549839 | 0.18162834 | 3.0880214 | 21 | 11 19.6 | 19.8 |
| 483175 2015 $PF_{53}$ | 17.0 | X | 235.02145 | 235.42694 | 63.09323 | 12.71704 | 0.1540664 | 0.26509349 | 2.3999563 | 21 | 1 31.9 | 21.0 |
| 483176 2015 $PD_{55}$ | 16.0 | X | 306.06693 | 75.92863 | 355.91744 | 21.22787 | 0.1764490 | 0.17214332 | 3.2004369 | 21 | 10 7.9 | 20.0 |
| 483177 2015 $PE_{57}$ | 17.7 | X | 227.17571 | 35.76728 | 125.77278 | 24.11279 | 0.0722143 | 0.37052428 | 1.9198101 | 21 | 12 17.1 | 20.0 |
| 483178 2015 $PM_{81}$ | 16.7 | X | 36.51691 | 9.49329 | 310.22402 | 8.21554 | 0.1251440 | 0.18684839 | 3.0302361 | 21 | 10 19.2 | 20.8 |
| 483179 2015 $PD_{86}$ | 16.0 | X | 313.15594 | 79.20493 | 310.74980 | 25.69706 | 0.1138833 | 0.17685243 | 3.1433690 | 21 | 8 29.2 | 20.3 |
| 483180 2015 $PP_{97}$ | 16.4 | X | 356.75377 | 229.03229 | 130.70919 | 10.07606 | 0.1423191 | 0.18147029 | 3.0898142 | 21 | 10 17.8 | 20.1 |
| 483181 2015 $PR_{99}$ | 17.3 | X | 77.66513 | 164.27959 | 322.39606 | 5.38378 | 0.1085118 | 0.28203325 | 2.3028687 | 21 | 3 24.7 | 19.8 |
| 483182 2015 $PU_{99}$ | 18.0 | X | 96.66095 | 83.76883 | 5.73158 | 2.12793 | 0.0422487 | 0.27285834 | 2.3542065 | 21 | 2 23.9 | 20.8 |
| 483183 2015 $PX_{102}$ | 16.9 | X | 60.40111 | 88.32871 | 319.29958 | 21.47864 | 0.0476952 | 0.23605938 | 2.5929166 | 21 | — | — |
| 483184 2015 $PF_{112}$ | 17.8 | X | 63.55740 | 309.30783 | 92.77880 | 3.10114 | 0.2042663 | 0.22687770 | 2.6624094 | 21 | — | — |
| 483185 2015 $PL_{126}$ | 17.2 | X | 89.14507 | 245.64357 | 97.68631 | 0.97234 | 0.0857415 | 0.21926529 | 2.7236802 | 21 | — | — |
| 483186 2015 $PM_{126}$ | 16.8 | X | 24.26467 | 109.73013 | 321.10019 | 10.93465 | 0.0549438 | 0.22935630 | 2.6431933 | 21 | — | — |
| 483187 2015 $PT_{138}$ | 17.1 | X | 106.08787 | 109.06858 | 342.16163 | 6.62928 | 0.0780269 | 0.27532102 | 2.3401470 | 21 | 3 15.3 | 19.9 |
| 483188 2015 $PS_{140}$ | 16.2 | X | 11.12015 | 285.82521 | 43.26360 | 4.25326 | 0.1691868 | 0.17558288 | 3.1585028 | 21 | 9 30.6 | 19.8 |
| 483189 2015 $PY_{163}$ | 17.3 | X | 147.98013 | 244.38868 | 42.91118 | 2.73575 | 0.0490452 | 0.22480013 | 2.6787880 | 21 | — | — |
| 483190 2015 $PJ_{165}$ | 17.5 | X | 284.02851 | 199.85593 | 34.72162 | 3.00035 | 0.1353189 | 0.26793903 | 2.3829343 | 21 | — | — |
| 483191 2015 $PZ_{175}$ | 17.1 | X | 162.18009 | 289.14906 | 359.06959 | 8.29776 | 0.0971086 | 0.22892927 | 2.6464793 | 21 | — | — |
| 483192 2015 $PL_{218}$ | 16.3 | X | 311.74478 | 193.37908 | 205.91878 | 16.14355 | 0.0988675 | 0.16922970 | 3.2370668 | 21 | 9 16.7 | 20.6 |
| 483193 2015 $PX_{218}$ | 16.8 | X | 234.60216 | 357.35770 | 205.41095 | 12.36849 | 0.0986317 | 0.21882339 | 2.7273459 | 21 | — | — |
| 483194 2015 $PX_{221}$ | 16.9 | X | 315.20059 | 335.10817 | 201.15234 | 14.46971 | 0.0351669 | 0.23948317 | 2.5681441 | 21 | — | — |
| 483195 2015 $PP_{229}$ | 16.4 | X | 103.70615 | 107.62476 | 198.13555 | 6.74216 | 0.1103887 | 0.20383948 | 2.8594149 | 21 | 12 23.7 | 20.8 |
| 483196 2015 $PQ_{229}$ | 15.3 | X | 0.24580 | 25.01590 | 324.58494 | 20.87393 | 0.0723861 | 0.17021517 | 3.2245606 | 21 | 9 20.3 | 19.8 |
| 483197 2015 $PZ_{284}$ | 17.6 | X | 307.31038 | 135.00921 | 87.73994 | 6.70862 | 0.1526429 | 0.26583338 | 2.3955011 | 21 | 1 6.5 | 20.7 |
| 483198 2015 $PW_{289}$ | 16.3 | X | 250.33507 | 97.39124 | 34.10832 | 16.37641 | 0.0372314 | 0.18622790 | 3.0369633 | 21 | 11 1.6 | 20.7 |
| 483199 2015 $PW_{291}$ | 15.4 | X | 84.15386 | 5.57336 | 287.66664 | 17.36256 | 0.1280927 | 0.18215341 | 3.0820843 | 21 | 11 14.7 | 20.3 |
| 483200 2015 $PF_{295}$ | 17.3 | X | 107.43892 | 272.29408 | 88.23956 | 6.71252 | 0.0529271 | 0.22457854 | 2.6805498 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483201 2015 $PO_{295}$ | 15.8 | X | 338.87142 | 57.80735 | 27.55683 | 10.74412 | 0.0527184 | 0.20180298 | 2.8786200 | 21 | — | — |
| 483202 2015 $PY_{301}$ | 16.2 | X | 8.89402 | 257.59109 | 111.74140 | 10.68804 | 0.0616540 | 0.18387000 | 3.0628717 | 21 | 11 11.8 | 20.4 |
| 483203 2015 $PG_{303}$ | 16.5 | X | 24.54731 | 227.26371 | 103.00624 | 10.90354 | 0.1038763 | 0.17453126 | 3.1711776 | 21 | 10 20.4 | 20.8 |
| 483204 2015 $PW_{303}$ | 15.5 | X | 206.25326 | 8.98160 | 93.38163 | 11.14872 | 0.0535252 | 0.14666993 | 3.5610274 | 21 | 8 3.9 | 20.9 |
| 483205 2015 $PK_{306}$ | 17.5 | X | 195.26243 | 263.80554 | 109.04691 | 6.93580 | 0.0902049 | 0.27042230 | 2.3683236 | 21 | 3 26.3 | 21.0 |
| 483206 2015 $PS_{306}$ | 16.5 | X | 103.22199 | 189.75931 | 81.60037 | 10.08333 | 0.2822922 | 0.20563904 | 2.8427086 | 21 | 11 26.2 | 21.4 |
| 483207 2015 $PO_{310}$ | 16.6 | X | 131.06674 | 283.85627 | 29.17564 | 8.36383 | 0.1279840 | 0.21709685 | 2.7417869 | 21 | — | — |
| 483208 2015 $PR_{310}$ | 15.8 | X | 77.48319 | 248.13633 | 53.98281 | 14.09255 | 0.0890401 | 0.18792463 | 3.0186557 | 21 | 11 17.0 | 20.1 |
| 483209 2015 $PH_{311}$ | 16.6 | X | 132.13941 | 218.76450 | 125.44922 | 18.32200 | 0.1416545 | 0.22745343 | 2.6579148 | 21 | — | — |
| 483210 2015 $PN_{311}$ | 18.1 | X | 112.44847 | 274.95766 | 335.90721 | 17.66030 | 0.0600089 | 0.35706577 | 1.9677530 | 21 | 11 6.7 | 20.9 |
| 483211 2015 $QE_{4}$ | 15.3 | X | 326.42272 | 218.26399 | 171.51106 | 25.02063 | 0.1313060 | 0.17010847 | 3.2259089 | 21 | 9 29.7 | 19.2 |
| 483212 2015 $QJ_{6}$ | 16.3 | X | 44.39890 | 323.30287 | 341.64191 | 8.58672 | 0.1453852 | 0.17808230 | 3.1288798 | 21 | 10 14.0 | 20.5 |
| 483213 2015 $QY_{9}$ | 16.8 | X | 109.76238 | 53.84455 | 293.87876 | 5.37177 | 0.0788830 | 0.22003320 | 2.7173395 | 21 | — | — |
| 483214 2015 $RN_{4}$ | 16.4 | X | 1.29158 | 190.94109 | 137.24805 | 22.53102 | 0.2299443 | 0.17300756 | 3.1897697 | 21 | 9 17.6 | 19.9 |
| 483215 2015 $RK_{22}$ | 17.7 | X | 97.46225 | 298.16869 | 191.36741 | 4.48573 | 0.0799889 | 0.28038430 | 2.3118887 | 21 | 4 28.0 | 20.2 |
| 483216 2015 $RF_{23}$ | 16.2 | X | 280.13966 | 213.44847 | 223.33139 | 2.49663 | 0.0701094 | 0.17111201 | 3.2132835 | 21 | 9 26.1 | 20.5 |
| 483217 2015 $RW_{23}$ | 16.2 | X | 48.23009 | 347.55025 | 335.98346 | 9.41623 | 0.0303518 | 0.18214163 | 3.0822172 | 21 | 10 25.8 | 20.6 |
| 483218 2015 $RH_{25}$ | 17.0 | X | 128.69099 | 43.04539 | 270.05662 | 1.45321 | 0.0906679 | 0.21907614 | 2.7252478 | 21 | — | — |
| 483219 2015 $RL_{26}$ | 16.3 | X | 75.46082 | 79.16130 | 285.56026 | 7.33930 | 0.0889358 | 0.20897722 | 2.8123547 | 21 | — | — |
| 483220 2015 $RT_{31}$ | 15.7 | X | 94.57272 | 284.23132 | 339.24410 | 8.84619 | 0.0576150 | 0.17665796 | 3.1456755 | 21 | 10 12.1 | 20.4 |
| 483221 2015 $RP_{37}$ | 15.7 | X | 317.02375 | 54.59777 | 11.27111 | 21.81032 | 0.0846289 | 0.17444155 | 3.1722648 | 21 | 10 26.7 | 20.0 |
| 483222 2015 $RA_{38}$ | 16.2 | X | 321.33507 | 57.87450 | 344.64658 | 9.76349 | 0.0438594 | 0.17419799 | 3.1752210 | 21 | 10 9.4 | 20.6 |
| 483223 2015 $RT_{44}$ | 16.5 | X | 327.71223 | 264.40791 | 179.47118 | 15.47289 | 0.1546960 | 0.18717590 | 3.0267004 | 21 | 12 13.9 | 20.2 |
| 483224 2015 $RQ_{52}$ | 17.2 | X | 34.62129 | 113.73782 | 313.21277 | 2.98802 | 0.0890431 | 0.21329939 | 2.7742332 | 21 | — | — |
| 483225 2015 $RG_{53}$ | 17.9 | X | 100.76535 | 234.67352 | 274.31960 | 1.94039 | 0.1018827 | 0.28408619 | 2.2917609 | 21 | 6 2.7 | 20.7 |
| 483226 2015 $RG_{56}$ | 16.9 | X | 94.02654 | 181.00221 | 196.01777 | 5.70501 | 0.0305097 | 0.22035446 | 2.7146978 | 21 | — | — |
| 483227 2015 $RZ_{56}$ | 16.2 | X | 306.16741 | 277.27917 | 185.39860 | 15.90562 | 0.1933953 | 0.18109310 | 3.0941031 | 21 | 11 25.8 | 19.9 |
| 483228 2015 $RE_{59}$ | 17.5 | X | 1.64349 | 299.35775 | 186.48582 | 5.05489 | 0.0943531 | 0.22440846 | 2.6819040 | 21 | — | — |
| 483229 2015 $RC_{63}$ | 15.7 | X | 219.99972 | 261.87101 | 159.48272 | 4.12348 | 0.1442107 | 0.12558122 | 3.9492950 | 21 | 6 22.3 | 21.9 |
| 483230 2015 $RE_{70}$ | 16.8 | X | 311.44282 | 90.92583 | 11.13844 | 5.56524 | 0.0892938 | 0.18824125 | 3.0152698 | 21 | 12 11.5 | 20.7 |
| 483231 2015 $RW_{73}$ | 16.6 | X | 319.24753 | 70.50110 | 12.31916 | 15.71964 | 0.0326326 | 0.18486055 | 3.0519205 | 21 | 11 26.8 | 21.0 |
| 483232 2015 $RE_{81}$ | 16.9 | X | 10.86049 | 13.80322 | 42.34814 | 2.57326 | 0.0534656 | 0.19880522 | 2.9074853 | 21 | — | — |
| 483233 2015 $RE_{86}$ | 16.6 | X | 351.32037 | 157.68031 | 239.43674 | 9.10534 | 0.2560511 | 0.17766848 | 3.1337364 | 21 | 11 29.6 | 19.6 |
| 483234 2015 $RJ_{87}$ | 16.0 | X | 303.69842 | 179.40668 | 266.64989 | 16.94827 | 0.2196147 | 0.17300564 | 3.1897933 | 21 | 10 17.1 | 20.1 |
| 483235 2015 $RU_{89}$ | 16.2 | X | 53.22725 | 98.01090 | 263.54030 | 8.55096 | 0.1104784 | 0.19068827 | 2.9894186 | 21 | — | — |
| 483236 2015 $RR_{98}$ | 16.2 | X | 5.89924 | 31.57260 | 337.41869 | 4.70240 | 0.1362691 | 0.17815121 | 3.1280729 | 21 | 11 6.8 | 20.0 |
| 483237 2015 $RD_{101}$ | 17.1 | X | 143.13263 | 266.10368 | 148.34415 | 2.60790 | 0.1543028 | 0.25948564 | 2.4344106 | 21 | 3 27.4 | 20.5 |
| 483238 2015 $RY_{103}$ | 15.5 | X | 281.18425 | 57.60304 | 331.86871 | 17.14929 | 0.0937871 | 0.14780299 | 3.5428048 | 21 | 7 30.1 | 20.5 |
| 483239 2015 $RM_{123}$ | 15.9 | X | 70.02344 | 316.09641 | 349.50834 | 8.53999 | 0.0445337 | 0.18090577 | 3.0962387 | 21 | 11 2.4 | 20.3 |
| 483240 2015 $RY_{125}$ | 16.0 | X | 89.33599 | 304.83611 | 333.67385 | 9.48062 | 0.0668109 | 0.18280343 | 3.0747736 | 21 | 10 25.5 | 20.6 |
| 483241 2015 $RO_{143}$ | 17.2 | X | 23.40096 | 348.81125 | 113.97276 | 3.50197 | 0.0196212 | 0.23113908 | 2.6295845 | 21 | — | — |
| 483242 2015 $RK_{158}$ | 17.8 | X | 130.71608 | 312.74487 | 141.75315 | 3.39257 | 0.1021762 | 0.27605942 | 2.3359722 | 21 | 4 28.3 | 20.8 |
| 483243 2015 $RT_{192}$ | 16.4 | X | 354.62579 | 220.68583 | 168.23242 | 8.61532 | 0.2257002 | 0.17358658 | 3.1826725 | 21 | 11 23.5 | 19.8 |
| 483244 2015 $RP_{199}$ | 16.3 | X | 315.82890 | 65.56574 | 33.68477 | 9.06369 | 0.0626624 | 0.18773624 | 3.0206748 | 21 | 12 15.3 | 20.3 |
| 483245 2015 $RO_{223}$ | 16.9 | X | 334.53408 | 91.66667 | 47.81113 | 5.57345 | 0.0972310 | 0.21333823 | 2.7738965 | 21 | — | — |
| 483246 2015 $SK_{1}$ | 16.4 | X | 304.32133 | 143.62684 | 302.98834 | 12.90515 | 0.0245922 | 0.19046658 | 2.9917378 | 21 | 11 14.4 | 20.7 |
| 483247 2015 $SG_{2}$ | 16.2 | X | 270.89182 | 218.40772 | 239.03196 | 8.88303 | 0.0840801 | 0.17736487 | 3.1373115 | 21 | 10 6.6 | 20.6 |
| 483248 2015 $SK_{3}$ | 15.6 | X | 314.61816 | 150.62325 | 231.80018 | 17.08843 | 0.0401832 | 0.15719749 | 3.4002093 | 21 | 8 30.9 | 20.6 |
| 483249 2015 $SZ_{3}$ | 16.0 | X | 53.32686 | 68.91291 | 274.89547 | 12.47750 | 0.0703423 | 0.18612030 | 3.0381338 | 21 | 12 5.9 | 20.3 |
| 483250 2015 $SP_{7}$ | 16.4 | X | 30.10230 | 69.24358 | 281.39895 | 20.41408 | 0.2911859 | 0.18080366 | 3.0974043 | 21 | 12 16.6 | 20.4 |
| 483251 2015 $SR_{7}$ | 15.4 | X | 345.33108 | 88.87002 | 309.10370 | 23.94100 | 0.1710234 | 0.17420988 | 3.1750765 | 21 | 11 1.5 | 19.6 |
| 483252 2015 $SA_{8}$ | 15.8 | X | 307.78316 | 94.78396 | 356.62689 | 23.70896 | 0.2496602 | 0.17322774 | 3.1870662 | 21 | 10 22.6 | 19.8 |
| 483253 2015 $SK_{11}$ | 16.5 | X | 203.15952 | 191.62531 | 339.96715 | 8.64789 | 0.0394572 | 0.17723235 | 3.1388753 | 21 | 10 21.7 | 21.3 |
| 483254 2015 $SW_{12}$ | 15.9 | X | 242.56522 | 155.57283 | 345.89072 | 9.38177 | 0.0741610 | 0.17938983 | 3.1136575 | 21 | 10 26.6 | 20.5 |
| 483255 2015 $TS_{7}$ | 15.7 | X | 318.49864 | 318.37069 | 116.40820 | 12.36301 | 0.0497890 | 0.17887958 | 3.1195758 | 21 | 11 21.9 | 20.1 |
| 483256 2015 $TX_{14}$ | 16.0 | X | 311.66889 | 199.74350 | 235.90982 | 9.63264 | 0.0807809 | 0.18771118 | 3.0209437 | 21 | 11 9.2 | 19.9 |
| 483257 2015 $TJ_{16}$ | 16.9 | X | 303.36942 | 82.63023 | 349.29030 | 9.59498 | 0.0888856 | 0.16799172 | 3.2529506 | 21 | 10 16.4 | 21.2 |
| 483258 2015 $TH_{62}$ | 16.3 | X | 227.84750 | 217.48977 | 33.66430 | 13.91793 | 0.1555927 | 0.21610173 | 2.7501976 | 21 | — | — |
| 483259 2015 $TT_{67}$ | 16.3 | X | 280.53113 | 182.51431 | 334.80573 | 4.69501 | 0.1072072 | 0.18518164 | 3.0483917 | 21 | — | — |
| 483260 2015 $TL_{86}$ | 16.2 | X | 258.79696 | 302.20951 | 214.72542 | 10.39932 | 0.0263759 | 0.17550841 | 3.1593962 | 21 | 12 13.3 | 20.7 |
| 483261 2015 $TE_{105}$ | 15.6 | X | 228.23505 | 135.74531 | 71.18699 | 21.98704 | 0.1313112 | 0.18040220 | 3.1019979 | 21 | 12 22.3 | 20.2 |
| 483262 2015 $TR_{136}$ | 15.8 | X | 220.75142 | 103.36716 | 106.40216 | 10.10326 | 0.0880107 | 0.18448783 | 3.0560297 | 21 | 12 25.2 | 20.2 |
| 483263 2015 $TJ_{142}$ | 16.1 | X | 178.88152 | 86.65079 | 150.75601 | 11.65438 | 0.0333965 | 0.17963423 | 3.1108327 | 21 | 12 17.1 | 20.8 |
| 483264 2015 $TG_{148}$ | 16.5 | X | 235.81512 | 252.10839 | 9.07557 | 9.20033 | 0.0999284 | 0.23637879 | 2.5905802 | 21 | — | — |
| 483265 2015 $TP_{152}$ | 17.6 | X | 30.38328 | 176.38785 | 352.10227 | 0.87948 | 0.1221048 | 0.25803641 | 2.4435171 | 21 | 3 9.1 | 19.7 |
| 483266 2015 $TZ_{170}$ | 16.3 | X | 9.02847 | 224.01686 | 178.08687 | 10.16734 | 0.0732791 | 0.17939043 | 3.1136505 | 21 | 12 18.9 | 20.6 |
| 483267 2015 $TG_{178}$ | 16.3 | X | 95.36696 | 232.00863 | 100.43215 | 17.51537 | 0.2644768 | 0.21534249 | 2.7566581 | 21 | — | — |
| 483268 2015 $TO_{183}$ | 16.5 | X | 101.70175 | 309.45846 | 14.26803 | 2.81627 | 0.0238910 | 0.19472986 | 2.9479109 | 21 | — | — |
| 483269 2015 $TT_{183}$ | 16.5 | X | 2.36830 | 31.15629 | 29.56765 | 2.82222 | 0.0960421 | 0.18977352 | 2.9990173 | 21 | — | — |
| 483270 2015 $TT_{193}$ | 16.5 | X | 220.68232 | 281.37965 | 352.79767 | 14.27493 | 0.1650800 | 0.23784652 | 2.5799117 | 21 | — | — |
| 483271 2015 $TT_{195}$ | 16.2 | X | 54.41646 | 103.17423 | 317.35894 | 15.11556 | 0.0520803 | 0.21566417 | 2.7539161 | 21 | — | — |
| 483272 2015 $TR_{203}$ | 15.9 | X | 87.58605 | 277.37998 | 21.35745 | 19.65449 | 0.2619175 | 0.18400162 | 3.0614108 | 21 | 12 6.3 | 21.2 |
| 483273 2015 $TZ_{207}$ | 15.8 | X | 99.26230 | 18.74726 | 293.07485 | 7.53849 | 0.0251593 | 0.18625513 | 3.0366674 | 21 | 12 15.9 | 20.1 |
| 483274 2015 $TR_{215}$ | 16.9 | X | 331.50040 | 182.18578 | 231.29155 | 0.32536 | 0.1379226 | 0.17326415 | 3.1866197 | 21 | 11 6.8 | 20.6 |
| 483275 2015 $TV_{218}$ | 17.0 | X | 143.91822 | 292.11132 | 18.92441 | 13.37540 | 0.2002042 | 0.22028340 | 2.7152816 | 21 | — | — |
| 483276 2015 $TW_{232}$ | 16.5 | X | 331.72880 | 210.77248 | 221.05460 | 9.48505 | 0.1992637 | 0.17577446 | 3.1562075 | 21 | 12 1.4 | 19.9 |
| 483277 2015 $TO_{245}$ | 16.0 | X | 316.36966 | 73.16311 | 354.72413 | 10.51159 | 0.0598389 | 0.17610543 | 3.1522517 | 21 | 11 1.9 | 20.4 |
| 483278 2015 $TZ_{246}$ | 16.5 | X | 358.79963 | 21.07504 | 12.54334 | 10.35895 | 0.0796629 | 0.18017144 | 3.1046459 | 21 | 11 21.9 | 20.7 |
| 483279 2015 $TW_{253}$ | 17.1 | X | 156.85234 | 287.34097 | 54.28843 | 6.93943 | 0.0291175 | 0.22445517 | 2.6815319 | 21 | — | — |
| 483280 2015 $TB_{257}$ | 16.3 | X | 240.98881 | 330.39594 | 188.57629 | 4.99377 | 0.0675203 | 0.17828873 | 3.1264642 | 21 | 11 20.1 | 20.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483281 2015 $TY_{273}$ | 16.7 | X | 21.45905 | 177.42166 | 211.28584 | 9.41787 | 0.1343506 | 0.18778525 | 3.0201492 | 21 | 12 28.1 | 20.7 |
| 483282 2015 $TC_{283}$ | 17.0 | X | 302.42809 | 285.99354 | 224.25459 | 5.17776 | 0.1328160 | 0.20306313 | 2.8666984 | 21 | — | — |
| 483283 2015 $TR_{289}$ | 16.7 | X | 45.10476 | 97.10708 | 317.35999 | 5.35781 | 0.0165455 | 0.21496856 | 2.7598539 | 21 | — | — |
| 483284 2015 $TH_{294}$ | 16.5 | X | 144.48488 | 265.29029 | 30.08244 | 9.52181 | 0.0284908 | 0.20556573 | 2.8433844 | 21 | — | — |
| 483285 2015 $TA_{303}$ | 15.9 | X | 256.53727 | 312.28123 | 81.70994 | 8.63487 | 0.3095780 | 0.12346467 | 3.9943022 | 21 | 6 9.0 | 22.2 |
| 483286 2015 $TU_{311}$ | 15.3 | X | 91.16080 | 202.01966 | 110.32352 | 20.33850 | 0.0686871 | 0.17641610 | 3.1485498 | 21 | 12 12.9 | 20.1 |
| 483287 2015 $TX_{317}$ | 16.4 | X | 235.79204 | 132.11685 | 40.77993 | 4.25414 | 0.0277024 | 0.18570962 | 3.0426112 | 21 | 12 6.0 | 20.6 |
| 483288 2015 $TT_{319}$ | 17.9 | X | 14.17716 | 173.79584 | 42.60389 | 2.87092 | 0.1568697 | 0.27465815 | 2.3439107 | 21 | 4 15.9 | 19.8 |
| 483289 2015 $TS_{320}$ | 16.4 | X | 44.74618 | 312.83101 | 26.20782 | 10.53123 | 0.0872379 | 0.17688881 | 3.1429380 | 21 | 11 18.2 | 20.8 |
| 483290 2015 $TV_{341}$ | 15.2 | X | 8.03138 | 287.81510 | 76.76596 | 19.04848 | 0.1034088 | 0.17902991 | 3.1178292 | 21 | 11 9.4 | 19.3 |
| 483291 2015 $TD_{344}$ | 16.8 | X | 275.00101 | 35.48628 | 90.06808 | 2.86274 | 0.0365770 | 0.17697144 | 3.1419595 | 21 | 11 24.8 | 21.0 |
| 483292 2015 $TP_{345}$ | 16.7 | X | 207.83736 | 239.16306 | 38.61535 | 11.86066 | 0.1012925 | 0.22502720 | 2.6769856 | 21 | — | — |
| 483293 2015 $TW_{348}$ | 16.2 | X | 296.23575 | 314.21548 | 145.94401 | 5.17394 | 0.1388535 | 0.17051456 | 3.2207851 | 21 | 11 10.1 | 20.3 |
| 483294 2015 $UC_{2}$ | 17.2 | X | 290.36650 | 153.25602 | 36.38150 | 8.87836 | 0.1217919 | 0.21819133 | 2.7326104 | 21 | — | — |
| 483295 2015 $UT_{8}$ | 17.2 | X | 40.67600 | 254.87005 | 150.21257 | 2.61710 | 0.0647181 | 0.20346823 | 2.8628921 | 21 | — | — |
| 483296 2015 $UJ_{9}$ | 16.9 | X | 8.76939 | 270.83261 | 117.11392 | 2.50888 | 0.0957479 | 0.18063815 | 3.0992961 | 21 | 12 3.8 | 20.7 |
| 483297 2015 $UX_{13}$ | 17.3 | X | 27.33108 | 358.37213 | 86.31048 | 1.73707 | 0.0398470 | 0.21438733 | 2.7648398 | 21 | — | — |
| 483298 2015 $UX_{14}$ | 17.7 | X | 49.85576 | 29.82160 | 141.58321 | 1.76523 | 0.1221091 | 0.26455075 | 2.4032376 | 21 | 4 19.8 | 19.9 |
| 483299 2015 $US_{30}$ | 16.2 | X | 263.79903 | 313.35526 | 195.50580 | 12.54785 | 0.1442949 | 0.17866666 | 3.1220537 | 21 | 11 25.4 | 20.6 |
| 483300 2015 $UK_{32}$ | 16.7 | X | 274.59370 | 93.95965 | 82.28248 | 3.24938 | 0.0097890 | 0.20329434 | 2.8645244 | 21 | — | — |
| 483301 2015 $UM_{38}$ | 16.1 | X | 304.11622 | 281.89772 | 176.64368 | 9.59965 | 0.0590386 | 0.18027621 | 3.1034430 | 21 | 11 29.2 | 20.3 |
| 483302 2015 $UU_{42}$ | 16.6 | X | 347.97961 | 270.12263 | 171.13220 | 9.15173 | 0.1207558 | 0.18347428 | 3.0672741 | 21 | — | — |
| 483303 2015 $UZ_{43}$ | 16.1 | X | 150.83621 | 123.86430 | 140.96161 | 10.72679 | 0.0845211 | 0.18399863 | 3.0614440 | 21 | 12 18.8 | 21.0 |
| 483304 2015 $UK_{44}$ | 16.1 | X | 270.39001 | 79.56126 | 96.41878 | 12.52397 | 0.0355450 | 0.19346821 | 2.9607129 | 21 | — | — |
| 483305 2015 $UD_{56}$ | 16.4 | X | 70.20242 | 260.47448 | 63.54824 | 3.00514 | 0.1053920 | 0.18190020 | 3.0849438 | 21 | 12 6.0 | 20.8 |
| 483306 2015 $UB_{83}$ | 16.0 | X | 6.55378 | 216.27854 | 154.15581 | 16.49866 | 0.1223272 | 0.16983682 | 3.2293478 | 21 | 11 13.3 | 20.3 |
| 483307 2015 $VT_{3}$ | 17.1 | X | 125.63188 | 346.64085 | 68.17668 | 13.68409 | 0.1745890 | 0.24374069 | 2.5381504 | 21 | 3 20.0 | 21.0 |
| 483308 2015 $VC_{29}$ | 17.0 | X | 214.69086 | 75.64394 | 241.50994 | 11.24543 | 0.1352134 | 0.24556239 | 2.5255820 | 21 | 1 31.1 | 21.2 |
| 483309 2015 $VC_{62}$ | 16.2 | X | 49.42389 | 274.45661 | 50.41148 | 10.72909 | 0.1976950 | 0.17408583 | 3.1765847 | 21 | 11 23.4 | 20.5 |
| 483310 2015 $VY_{66}$ | 15.7 | X | 142.03279 | 217.33144 | 31.93368 | 17.72696 | 0.0797117 | 0.17430488 | 3.1739228 | 21 | 11 16.3 | 20.7 |
| 483311 2015 $VW_{79}$ | 16.8 | X | 354.26138 | 158.92996 | 61.64592 | 7.37405 | 0.0696000 | 0.26119343 | 2.4237875 | 21 | 3 28.2 | 19.6 |
| 483312 2015 $VT_{122}$ | 15.7 | X | 229.78432 | 170.47075 | 16.74269 | 18.47243 | 0.0286670 | 0.18149104 | 3.0895787 | 21 | 12 12.7 | 20.4 |
| 483313 2015 $VR_{126}$ | 16.2 | X | 345.81916 | 202.05515 | 220.13510 | 10.26378 | 0.0573690 | 0.17399973 | 3.1776324 | 21 | 12 9.3 | 20.5 |
| 483314 2015 $VA_{143}$ | 15.8 | X | 359.32017 | 323.20119 | 81.38461 | 13.38747 | 0.0998565 | 0.18381974 | 3.0634299 | 21 | 12 11.6 | 19.7 |
| 483315 2015 $VD_{143}$ | 15.8 | X | 17.52940 | 285.71695 | 105.00528 | 13.19963 | 0.0281230 | 0.18597819 | 3.0396812 | 21 | 12 13.8 | 20.0 |
| 483316 2015 $VQ_{149}$ | 16.1 | X | 294.64176 | 286.56975 | 197.07899 | 15.10260 | 0.0520231 | 0.17357988 | 3.1827544 | 21 | 12 14.9 | 20.6 |
| 483317 2015 $WO_{9}$ | 16.0 | X | 29.40752 | 146.01395 | 243.28012 | 9.67190 | 0.1843403 | 0.18001916 | 3.1063965 | 21 | — | — |
| 483318 2015 $XT_{110}$ | 15.8 | X | 97.85603 | 109.07849 | 216.63094 | 10.56626 | 0.0611737 | 0.17548561 | 3.1596698 | 21 | 12 30.9 | 20.7 |
| 483319 2016 $AJ_{15}$ | 15.5 | X | 228.22089 | 183.66428 | 100.23035 | 16.30183 | 0.1677634 | 0.20273875 | 2.8697553 | 21 | 1 13.9 | 20.3 |
| 483320 2016 $LV_{11}$ | 16.8 | X | 141.63128 | 68.26418 | 269.75195 | 21.64885 | 0.2639751 | 0.27845957 | 2.3225297 | 21 | — | — |
| 483321 2016 $NS_{21}$ | 15.5 | X | 353.57913 | 19.68298 | 279.19133 | 16.33020 | 0.1883760 | 0.17970464 | 3.1100201 | 21 | 7 12.9 | 18.8 |
| 483322 2016 $NN_{23}$ | 16.1 | X | 329.63552 | 10.86803 | 327.22102 | 16.48090 | 0.2802667 | 0.18427454 | 3.0583874 | 21 | 7 12.6 | 19.4 |
| 483323 2016 OG | 17.1 | X | 132.04093 | 306.62927 | 53.17510 | 6.01975 | 0.2524255 | 0.27433740 | 2.3457373 | 21 | 1 14.2 | 20.2 |
| 483324 2016 OP | 18.0 | X | 300.49048 | 108.58735 | 295.74170 | 16.93674 | 0.1476507 | 0.38709980 | 1.8646075 | 21 | 9 19.7 | 19.6 |
| 483325 2016 $OP_{2}$ | 17.6 | X | 138.61279 | 112.61194 | 247.62044 | 5.52348 | 0.1492598 | 0.29011432 | 2.2599037 | 21 | 1 2.8 | 20.3 |
| 483326 2016 $PQ_{6}$ | 16.3 | X | 62.67370 | 31.28678 | 260.95092 | 10.98171 | 0.1618510 | 0.21879078 | 2.7276169 | 21 | 10 30.4 | 20.3 |
| 483327 2016 $PJ_{14}$ | 16.7 | X | 28.09578 | 59.11438 | 298.11667 | 10.59247 | 0.1246195 | 0.22864368 | 2.6486826 | 21 | 12 5.9 | 20.1 |
| 483328 2016 $PT_{71}$ | 16.3 | X | 21.40186 | 9.93653 | 307.98768 | 8.73106 | 0.0975034 | 0.18685941 | 3.0301170 | 21 | 9 20.8 | 20.3 |
| 483329 2016 $PX_{72}$ | 17.7 | X | 138.40484 | 59.69799 | 276.12190 | 3.81438 | 0.2105812 | 0.27313631 | 2.3526090 | 21 | — | — |
| 483330 2016 $PT_{75}$ | 17.1 | X | 189.92142 | 56.31397 | 246.69776 | 2.20434 | 0.1847354 | 0.28385649 | 2.2929971 | 21 | — | — |
| 483331 2016 $PO_{77}$ | 17.8 | X | 169.38446 | 35.36266 | 302.68845 | 5.19399 | 0.2111103 | 0.29423483 | 2.2387555 | 21 | 1 16.2 | 20.9 |
| 483332 2016 $PW_{77}$ | 15.9 | X | 353.88617 | 333.84582 | 339.42323 | 16.39469 | 0.1495894 | 0.18340602 | 3.0680351 | 21 | 8 9.7 | 19.4 |
| 483333 2016 $PQ_{78}$ | 15.3 | X | 296.25018 | 126.05176 | 277.46238 | 26.02365 | 0.1646811 | 0.17635135 | 3.1493205 | 21 | 8 11.8 | 19.9 |
| 483334 2016 $QF_{28}$ | 16.5 | X | 156.06450 | 7.73997 | 252.29762 | 7.76558 | 0.0780906 | 0.24693551 | 2.5162108 | 21 | 12 28.4 | 20.2 |
| 483335 2016 $QU_{45}$ | 16.2 | X | 77.66895 | 189.41523 | 158.31517 | 11.22059 | 0.2481519 | 0.25212127 | 2.4815882 | 21 | — | — |
| 483336 2016 $QC_{71}$ | 16.3 | X | 279.67119 | 120.62483 | 271.83705 | 3.99028 | 0.1437284 | 0.17579719 | 3.1559354 | 21 | 7 20.8 | 20.7 |
| 483337 2016 $QR_{71}$ | 16.9 | X | 212.22894 | 356.46839 | 258.88348 | 6.33164 | 0.0884433 | 0.27949495 | 2.3167904 | 21 | — | — |
| 483338 2016 $QY_{72}$ | 16.4 | X | 54.96454 | 317.05262 | 354.91674 | 17.46481 | 0.1658109 | 0.21571305 | 2.7535002 | 21 | 11 10.5 | 20.6 |
| 483339 2016 $QD_{75}$ | 16.5 | X | 335.32962 | 189.80481 | 194.02966 | 8.18707 | 0.1083348 | 0.18555984 | 3.0442482 | 21 | 10 8.6 | 20.1 |
| 483340 2016 $QK_{75}$ | 15.7 | X | 327.16120 | 128.03314 | 194.13595 | 26.25763 | 0.1623886 | 0.17841347 | 3.1250067 | 21 | 6 24.8 | 20.1 |
| 483341 2016 $QW_{75}$ | 16.1 | X | 326.00125 | 32.44208 | 291.40864 | 16.46544 | 0.2112013 | 0.17829580 | 3.1263815 | 21 | 6 21.9 | 19.8 |
| 483342 2016 $QL_{76}$ | 15.4 | X | 306.95997 | 74.87062 | 265.41825 | 14.11034 | 0.0788973 | 0.17537553 | 3.1609919 | 21 | 6 29.9 | 19.6 |
| 483343 2016 $QQ_{76}$ | 18.1 | X | 140.33309 | 145.63580 | 207.37321 | 3.69256 | 0.2537306 | 0.28752073 | 2.2734737 | 21 | 1 10.6 | 21.1 |
| 483344 2016 $QU_{77}$ | 15.7 | X | 297.99386 | 121.35365 | 269.82851 | 10.81970 | 0.0282570 | 0.18964682 | 3.0003529 | 21 | 8 25.4 | 20.0 |
| 483345 2016 $QA_{78}$ | 16.0 | X | 323.93690 | 81.77033 | 265.62562 | 8.99612 | 0.1864371 | 0.18169802 | 3.0872319 | 21 | 7 21.5 | 19.6 |
| 483346 2016 $QF_{78}$ | 16.8 | X | 34.46557 | 111.50273 | 196.20244 | 13.90076 | 0.2201087 | 0.20982824 | 2.8047452 | 21 | 10 23.9 | 20.1 |
| 483347 2016 $QZ_{78}$ | 16.4 | X | 129.07185 | 341.31560 | 282.60691 | 11.43272 | 0.1321225 | 0.24085249 | 2.5584010 | 21 | 12 5.0 | 20.4 |
| 483348 2016 $QT_{80}$ | 16.0 | X | 343.58466 | 34.66615 | 281.42911 | 10.85257 | 0.0153594 | 0.17423225 | 3.1748047 | 21 | 7 24.4 | 20.5 |
| 483349 2016 $QW_{80}$ | 15.5 | X | 335.32139 | 69.03786 | 256.33888 | 10.79663 | 0.1423348 | 0.17980635 | 3.1088472 | 21 | 7 16.1 | 19.2 |
| 483350 2016 $QJ_{82}$ | 18.0 | X | 140.79888 | 142.79114 | 236.25316 | 5.09834 | 0.2057022 | 0.29663907 | 2.2266425 | 21 | 2 4.8 | 21.1 |
| 483351 2016 $QU_{84}$ | 16.9 | X | 121.01054 | 199.01802 | 287.01749 | 18.49784 | 0.0274633 | 0.35183831 | 1.9871957 | 21 | 5 6.2 | 19.4 |
| 483352 2016 RA | 17.4 | X | 119.02047 | 161.47111 | 166.91640 | 4.27149 | 0.2497350 | 0.25993904 | 2.4315789 | 21 | — | — |
| 483353 2016 RQ | 16.8 | X | 46.63029 | 25.39226 | 334.92324 | 15.44851 | 0.3706467 | 0.22670067 | 2.6637953 | 21 | — | — |
| 483354 2016 $RQ_{3}$ | 17.1 | X | 83.26655 | 54.28123 | 286.80666 | 5.15667 | 0.1527503 | 0.25214378 | 2.4814406 | 21 | — | — |
| 483355 2016 $RJ_{7}$ | 17.1 | X | 44.84805 | 42.30349 | 318.90663 | 11.81243 | 0.1816789 | 0.23696689 | 2.5862923 | 21 | — | — |
| 483356 2016 $RK_{10}$ | 17.3 | X | 138.63188 | 3.91105 | 332.81852 | 7.39480 | 0.1440345 | 0.27624748 | 2.3349119 | 21 | — | — |
| 483357 2016 $RQ_{10}$ | 15.8 | X | 314.92719 | 51.60962 | 301.11385 | 7.19389 | 0.1067105 | 0.17918400 | 3.1160415 | 21 | 7 25.3 | 19.5 |
| 483358 2016 $RC_{27}$ | 17.6 | X | 166.08313 | 320.28315 | 330.72152 | 3.06591 | 0.2216705 | 0.27620863 | 2.3351308 | 21 | — | — |
| 483359 2016 $RA_{33}$ | 16.3 | X | 135.99851 | 23.93549 | 227.57742 | 15.51387 | 0.1245857 | 0.22809319 | 2.6529425 | 21 | 11 25.2 | 20.4 |
| 483360 2016 $RY_{34}$ | 17.8 | X | 51.27006 | 64.54255 | 305.35623 | 3.19209 | 0.2084567 | 0.23856753 | 2.5747110 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483361 2016 $RL_{36}$ | 16.7 | $X$ | 343.90101 | 252.06442 | 117.36030 | 3.06631 | 0.0845079 | 0.20330462 | 2.8644278 | 21 | 10 7.8 | 20.1 |
| 483362 2016 $RL_{39}$ | 17.7 | $X$ | 172.09842 | 103.57544 | 229.50459 | 6.93162 | 0.1929767 | 0.29397877 | 2.2400553 | 21 | 1 9.4 | 21.0 |
| 483363 2016 $RV_{40}$ | 18.3 | $X$ | 144.66071 | 111.75900 | 244.43114 | 1.13917 | 0.2505261 | 0.28061734 | 2.3106086 | 21 | 1 20.6 | 21.5 |
| 483364 2016 $SE_{3}$ | 18.0 | $X$ | 154.46360 | 215.66896 | 269.19785 | 18.11928 | 0.0758778 | 0.36671167 | 1.9330937 | 21 | 7 3.3 | 20.2 |
| 483365 2016 $SW_{10}$ | 17.7 | $X$ | 63.21788 | 183.26805 | 208.72518 | 1.94121 | 0.2040821 | 0.25387721 | 2.4701325 | 21 | — | — |
| 483366 2016 $SO_{13}$ | 14.9 | $X$ | 258.18854 | 88.10411 | 214.43427 | 6.77369 | 0.1844301 | 0.12637962 | 3.9326444 | 21 | 3 7.6 | 20.9 |
| 483367 2016 $SA_{15}$ | 16.9 | $X$ | 13.83847 | 191.51584 | 185.26753 | 11.18292 | 0.1287398 | 0.22012285 | 2.7166017 | 21 | 12 10.6 | 20.4 |
| 483368 2016 $SH_{15}$ | 18.1 | $X$ | 199.82906 | 146.93540 | 190.39629 | 2.13610 | 0.1751477 | 0.31044440 | 2.1601313 | 21 | 2 6.9 | 21.2 |
| 483369 2016 $SJ_{17}$ | 17.0 | $X$ | 62.89770 | 203.38886 | 195.43150 | 7.35702 | 0.2718920 | 0.25558311 | 2.4591288 | 21 | — | — |
| 483370 2016 $SF_{18}$ | 17.1 | $X$ | 129.89856 | 352.00365 | 320.53931 | 5.65750 | 0.1200125 | 0.25651861 | 2.4531464 | 21 | — | — |
| 483371 2016 $SB_{32}$ | 16.3 | $X$ | 339.15723 | 287.30943 | 121.82483 | 5.89517 | 0.0678445 | 0.20933367 | 2.8091612 | 21 | 11 22.7 | 19.8 |
| 483372 2016 $SV_{36}$ | 17.1 | $X$ | 4.39454 | 196.06310 | 229.85868 | 4.50901 | 0.0552492 | 0.22339946 | 2.6899733 | 21 | — | — |
| 483373 2016 $SN_{45}$ | 17.5 | $X$ | 41.97919 | 251.63638 | 165.48697 | 5.89341 | 0.1816755 | 0.25647596 | 2.4534183 | 21 | — | — |
| 483374 2016 $SX_{45}$ | 16.9 | $X$ | 339.04068 | 4.09118 | 314.66000 | 3.36857 | 0.2507462 | 0.18355338 | 3.0663928 | 21 | 7 6.2 | 19.7 |
| 483375 2016 $TM_{5}$ | 16.1 | $X$ | 334.23498 | 70.26851 | 268.62634 | 19.98960 | 0.2484408 | 0.18003241 | 3.1062441 | 21 | 7 19.5 | 19.4 |
| 483376 2016 $TK_{6}$ | 18.6 | $X$ | 318.47401 | 127.93786 | 212.33442 | 20.23768 | 0.1113295 | 0.36924960 | 1.9242258 | 21 | 7 10.6 | 20.7 |
| 483377 2016 $TU_{6}$ | 16.4 | $X$ | 304.23099 | 8.60954 | 26.91334 | 11.11999 | 0.2228671 | 0.17559811 | 3.1583202 | 21 | 8 23.3 | 20.4 |
| 483378 2016 $TJ_{9}$ | 15.9 | $X$ | 314.46612 | 141.64660 | 215.47548 | 22.08915 | 0.0658940 | 0.16912830 | 3.2383606 | 21 | 7 27.9 | 20.7 |
| 483379 2016 $TP_{9}$ | 15.9 | $X$ | 271.11677 | 62.60584 | 14.28698 | 13.57664 | 0.2660945 | 0.17171440 | 3.2057642 | 21 | 8 24.2 | 20.7 |
| 483380 2016 $TA_{13}$ | 16.0 | $X$ | 317.51187 | 94.74594 | 287.12015 | 10.82758 | 0.1893259 | 0.17966900 | 3.1104313 | 21 | 8 23.2 | 19.8 |
| 483381 2016 $TX_{16}$ | 15.9 | $X$ | 61.32088 | 288.42867 | 357.65847 | 15.72273 | 0.0860213 | 0.18610863 | 3.0382607 | 21 | 10 5.2 | 20.1 |
| 483382 2016 $TZ_{16}$ | 16.7 | $X$ | 90.53540 | 314.50214 | 348.90321 | 12.42068 | 0.1956791 | 0.22282320 | 2.6946091 | 21 | 12 18.1 | 21.2 |
| 483383 2016 $TW_{20}$ | 17.3 | $X$ | 121.79240 | 82.71828 | 255.03388 | 3.69177 | 0.1448525 | 0.25837658 | 2.4413720 | 21 | — | — |
| 483384 2016 $TB_{29}$ | 17.6 | $X$ | 218.06832 | 40.46285 | 299.29701 | 6.40239 | 0.1068820 | 0.31091834 | 2.1579356 | 21 | 2 24.7 | 20.8 |
| 483385 2016 $TV_{41}$ | 17.2 | $X$ | 5.66644 | 62.22960 | 17.83773 | 14.19632 | 0.1468252 | 0.23864009 | 2.5741891 | 21 | — | — |
| 483386 2016 $TS_{47}$ | 16.3 | $X$ | 319.88114 | 226.48393 | 154.74786 | 5.14289 | 0.0958498 | 0.17288263 | 3.1913062 | 21 | 9 10.0 | 20.3 |
| 483387 2016 $TX_{52}$ | 17.0 | $X$ | 81.42250 | 104.25730 | 234.82842 | 13.89233 | 0.1603689 | 0.24251454 | 2.5466985 | 21 | — | — |
| 483388 2016 $TD_{57}$ | 17.7 | $X$ | 209.38072 | 81.50814 | 45.47677 | 16.35509 | 0.2248731 | 0.35238043 | 1.9851570 | 21 | 9 13.8 | 20.9 |
| 483389 2016 $TN_{66}$ | 17.5 | $X$ | 57.12444 | 84.62203 | 281.40953 | 8.31509 | 0.1811274 | 0.23855989 | 2.5747660 | 21 | — | — |
| 483390 5059 $T\!-\!3$ | 18.0 | $X$ | 181.78446 | 321.46725 | 71.16421 | 6.29179 | 0.2195242 | 0.28248317 | 2.3004228 | 21 | 4 9.9 | 21.8 |
| 483391 1991 $TT_{16}$ | 18.1 | $X$ | 169.06139 | 230.62072 | 171.68059 | 2.94676 | 0.2609647 | 0.28146644 | 2.3059593 | 21 | 4 11.4 | 21.9 |
| 483392 1994 $RY_{5}$ | 16.7 | $X$ | 60.79116 | 188.38152 | 187.08797 | 7.91081 | 0.1995719 | 0.19064668 | 2.9898533 | 21 | — | — |
| 483393 1994 $SQ_{6}$ | 16.9 | $X$ | 108.11670 | 193.27260 | 150.22209 | 2.41267 | 0.1231466 | 0.19289800 | 2.9665448 | 21 | — | — |
| 483394 1995 $CZ_{4}$ | 18.8 | $X$ | 84.98673 | 190.46936 | 298.33074 | 2.79254 | 0.1835055 | 0.26953666 | 2.3735087 | 21 | 4 24.5 | 21.5 |
| 483395 1995 $FG_{15}$ | 18.3 | $X$ | 4.16845 | 121.79990 | 97.28507 | 3.31122 | 0.1503443 | 0.26518361 | 2.3994126 | 21 | 4 2.3 | 20.4 |
| 483396 1995 $ST_{11}$ | 18.1 | $X$ | 85.86594 | 54.30810 | 347.26192 | 6.47085 | 0.3084167 | 0.24110118 | 2.5566414 | 21 | 1 21.9 | 20.6 |
| 483397 1995 $SH_{67}$ | 18.3 | $X$ | 226.18869 | 349.42793 | 8.50442 | 4.97974 | 0.1849660 | 0.29082559 | 2.2562175 | 21 | 3 31.6 | 21.8 |
| 483398 1996 $JU_{8}$ | 16.8 | $X$ | 248.87795 | 127.37318 | 89.77077 | 9.68304 | 0.2228934 | 0.18296087 | 3.0730096 | 21 | — | — |
| 483399 1997 $HZ_{3}$ | 16.9 | $X$ | 233.98525 | 116.60208 | 122.17775 | 12.82925 | 0.2070359 | 0.18995500 | 2.9971069 | 21 | — | — |
| 483400 1997 $LY_{13}$ | 13.0 | $X$ | 329.17188 | 217.04002 | 64.62898 | 30.65769 | 0.0576724 | 0.08340819 | 5.1879634 | 21 | 5 25.0 | 19.7 |
| 483401 1997 $MQ$ | 16.1 | $X$ | 46.83631 | 199.90462 | 144.50337 | 29.01982 | 0.1746239 | 0.17268889 | 3.1936926 | 21 | 12 16.1 | 21.1 |
| 483402 1998 $SR_{20}$ | 16.2 | $X$ | 22.29213 | 87.39509 | 357.84372 | 16.50460 | 0.0181757 | 0.18607874 | 3.0385861 | 21 | — | — |
| 483403 1998 $TU_{13}$ | 18.4 | $X$ | 144.50409 | 13.80636 | 44.52644 | 3.72780 | 0.1812689 | 0.27971774 | 2.3155600 | 21 | 4 4.0 | 21.8 |
| 483404 1998 $XG_{20}$ | 17.7 | $X$ | 184.17942 | 295.39878 | 80.67773 | 3.49054 | 0.1966931 | 0.28016455 | 2.3130974 | 21 | 3 20.6 | 21.3 |
| 483405 1999 $CP_{2}$ | 17.3 | $X$ | 332.35790 | 45.58484 | 120.39568 | 15.24427 | 0.1671016 | 0.21984646 | 2.7188780 | 21 | — | — |
| 483406 1999 $RK_{30}$ | 17.2 | $X$ | 52.07277 | 76.64280 | 337.16234 | 27.36715 | 0.4006920 | 0.23549925 | 2.5970264 | 21 | — | — |
| 483407 1999 $SL_{1}$ | 16.9 | $X$ | 57.71807 | 242.27163 | 141.85022 | 15.28716 | 0.2158298 | 0.23491534 | 2.6013281 | 21 | — | — |
| 483408 1999 $TZ_{4}$ | 19.4 | $X$ | 194.68694 | 61.58378 | 15.08021 | 32.00535 | 0.1571316 | 0.52874937 | 1.5146169 | 21 | 5 19.8 | 21.8 |
| 483409 1999 $TE_{114}$ | 18.3 | $X$ | 242.02306 | 342.49466 | 7.99308 | 5.74112 | 0.2374764 | 0.30098818 | 2.2051413 | 21 | 4 1.8 | 21.9 |
| 483410 1999 $TN_{171}$ | 17.7 | $X$ | 99.28135 | 353.47046 | 26.93544 | 6.56249 | 0.3136774 | 0.23866922 | 2.5739796 | 21 | 1 16.7 | 20.7 |
| 483411 1999 $VR_{16}$ | 18.5 | $X$ | 172.87692 | 137.40204 | 286.07092 | 1.46656 | 0.2211994 | 0.29722691 | 2.2237056 | 21 | 5 7.6 | 21.9 |
| 483412 1999 $VK_{41}$ | 17.7 | $X$ | 201.89337 | 356.08911 | 26.45443 | 7.58722 | 0.2161340 | 0.29741407 | 2.2227726 | 21 | 4 10.6 | 21.3 |
| 483413 1999 $VD_{46}$ | 18.1 | $X$ | 254.67540 | 54.99892 | 16.23472 | 19.36464 | 0.2246694 | 0.35326341 | 1.9818477 | 21 | 8 16.4 | 20.9 |
| 483414 1999 $VQ_{91}$ | 16.6 | $X$ | 39.46217 | 58.93089 | 25.46238 | 30.38356 | 0.3266280 | 0.23656257 | 2.5892383 | 21 | — | — |
| 483415 1999 $VN_{138}$ | 18.4 | $X$ | 226.57011 | 274.93497 | 76.59067 | 4.19849 | 0.1676844 | 0.29616528 | 2.2290165 | 21 | 3 26.2 | 21.9 |
| 483416 1999 $YD_{6}$ | 16.8 | $X$ | 320.37587 | 75.75227 | 343.11953 | 15.10785 | 0.4764647 | 0.17541266 | 3.1605458 | 21 | 9 6.4 | 19.1 |
| 483417 1999 $YJ_{8}$ | 17.0 | $X$ | 88.94785 | 349.20859 | 108.50407 | 22.92321 | 0.0619066 | 0.23893157 | 2.5720951 | 21 | 3 12.9 | 20.7 |
| 483418 2000 $BK_{22}$ | 17.4 | $X$ | 345.87511 | 200.69299 | 323.32431 | 7.92670 | 0.1196889 | 0.23073648 | 2.6326424 | 21 | — | — |
| 483419 2000 $BM_{47}$ | 17.0 | $X$ | 177.25462 | 43.67207 | 324.80377 | 13.42548 | 0.0921669 | 0.23686491 | 2.5870346 | 21 | 2 27.5 | 20.8 |
| 483420 2000 $CX_{39}$ | 17.0 | $X$ | 71.83202 | 294.49184 | 142.74487 | 29.71773 | 0.3735426 | 0.23596770 | 2.5935881 | 21 | 3 1.1 | 19.4 |
| 483421 2000 $CD_{40}$ | 16.3 | $X$ | 35.31942 | 148.56448 | 332.46040 | 32.60699 | 0.1748477 | 0.23247693 | 2.6194864 | 21 | 1 28.2 | 19.3 |
| 483422 2000 $CE_{59}$ | 20.4 | $X$ | 121.29686 | 307.46914 | 318.64317 | 12.26494 | 0.1666263 | 0.81259232 | 1.1373328 | 21 | — | — |
| 483423 2000 $DO_{1}$ | 20.3 | $X$ | 138.66419 | 302.76767 | 335.83984 | 3.45770 | 0.6818690 | 0.57645592 | 1.4298549 | 21 | — | — |
| 483424 2000 $DY_{85}$ | 16.9 | $X$ | 47.45315 | 357.57426 | 121.97495 | 9.23124 | 0.2738722 | 0.23444914 | 2.6047754 | 21 | 2 16.2 | 18.6 |
| 483425 2000 $EG_{4}$ | 16.2 | $X$ | 42.35984 | 350.34896 | 150.73030 | 34.93126 | 0.1873089 | 0.23475951 | 2.6024791 | 21 | 3 1.3 | 18.5 |
| 483426 2000 $FU_{10}$ | 15.9 | $X$ | 226.75587 | 46.82456 | 190.90217 | 27.32360 | 0.1959002 | 0.17197017 | 3.2025847 | 21 | — | — |
| 483427 2000 $GX_{11}$ | 17.5 | $X$ | 335.14700 | 19.06618 | 190.98377 | 7.20188 | 0.2511275 | 0.23071539 | 2.6328029 | 21 | 1 16.4 | 20.8 |
| 483428 2000 $HK_{18}$ | 17.1 | $X$ | 23.47774 | 156.87444 | 11.08175 | 12.73497 | 0.1905052 | 0.23360478 | 2.6110482 | 21 | 3 4.1 | 19.5 |
| 483429 2000 $LN_{29}$ | 17.8 | $X$ | 356.44596 | 343.16703 | 281.82477 | 8.74361 | 0.4133454 | 0.27957864 | 2.3163280 | 21 | 4 3.8 | 19.2 |
| 483430 2000 $QC_{33}$ | 18.1 | $X$ | 282.22743 | 264.23336 | 85.71298 | 5.83332 | 0.2475875 | 0.32158583 | 2.1099465 | 21 | 5 9.5 | 20.8 |
| 483431 2001 $BC_{65}$ | 18.4 | $X$ | 226.70462 | 354.14796 | 138.70072 | 18.64016 | 0.2204093 | 0.36745223 | 1.9304955 | 21 | 10 9.9 | 21.0 |
| 483432 2001 $DF_{47}$ | 20.3 | $X$ | 130.91849 | 260.25535 | 146.63624 | 18.47383 | 0.3706936 | 0.73577063 | 1.2151813 | 21 | — | — |
| 483433 2001 $FL_{83}$ | 16.2 | $X$ | 286.84194 | 148.72556 | 350.77492 | 17.97313 | 0.1464606 | 0.18202484 | 3.0835354 | 21 | 12 13.5 | 20.4 |
| 483434 2001 $GE_{1}$ | 16.4 | $X$ | 260.67454 | 110.82072 | 119.53765 | 28.67872 | 0.3201590 | 0.23247722 | 2.6194841 | 21 | — | — |
| 483435 2001 $HV_{18}$ | 16.6 | $X$ | 214.72436 | 106.93872 | 172.21327 | 23.00540 | 0.4411721 | 0.17706538 | 3.1408481 | 21 | — | — |
| 483436 2001 $PY_{66}$ | 16.3 | $X$ | 177.75121 | 54.66761 | 247.40021 | 12.13760 | 0.1501340 | 0.21835092 | 2.7312788 | 21 | — | — |
| 483437 2001 $QY_{53}$ | 18.1 | $X$ | 200.96225 | 217.83401 | 148.95539 | 6.49637 | 0.2547562 | 0.27887266 | 2.3202356 | 21 | 3 24.1 | 22.1 |
| 483438 2001 $QO_{228}$ | 17.6 | $X$ | 143.21873 | 138.07348 | 256.23353 | 6.37180 | 0.2829202 | 0.27229524 | 2.3574510 | 21 | 3 9.4 | 21.4 |
| 483439 2001 $QX_{300}$ | 18.6 | $X$ | 157.27374 | 23.35152 | 19.47484 | 1.35583 | 0.1818623 | 0.27877327 | 2.3207871 | 21 | 3 27.0 | 21.8 |
| 483440 2001 $RD_{155}$ | 18.5 | $X$ | 151.97852 | 243.29477 | 141.61669 | 2.72498 | 0.2253116 | 0.27189257 | 2.3597780 | 21 | 3 4.1 | 22.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
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| | m | | ° | ° | ° | ° | | ° | | | | |
| 483441 2001 $SK_{104}$ | 17.1 | X | 285.97134 | 323.99511 | 323.53752 | 4.29742 | 0.2054960 | 0.23171127 | 2.6252537 | 21 | 3 3.7 | 21.1 |
| 483442 2001 $SY_{142}$ | 17.5 | X | 208.18993 | 9.70626 | 322.21042 | 5.04808 | 0.2838881 | 0.27581044 | 2.3373778 | 21 | 2 14.4 | 21.8 |
| 483443 2001 $SX_{255}$ | 18.0 | X | 183.92077 | 8.86500 | 23.22343 | 13.23739 | 0.1723109 | 0.27607870 | 2.3358634 | 21 | 4 8.0 | 21.5 |
| 483444 2001 $SC_{342}$ | 17.9 | X | 185.01338 | 315.78637 | 54.20070 | 6.65086 | 0.2731601 | 0.27505312 | 2.3416663 | 21 | 3 18.4 | 22.0 |
| 483445 2001 $TH_{25}$ | 17.8 | X | 126.95128 | 47.03351 | 11.22658 | 8.35202 | 0.2001984 | 0.27106656 | 2.3645695 | 21 | 3 19.1 | 20.9 |
| 483446 2001 $TG_{127}$ | 18.2 | X | 149.07936 | 232.67389 | 187.57518 | 4.45370 | 0.1867159 | 0.27463332 | 2.3440519 | 21 | 4 11.6 | 21.7 |
| 483447 2001 $TT_{140}$ | 18.3 | X | 188.73814 | 279.02344 | 84.88892 | 3.95554 | 0.2526527 | 0.27564141 | 2.3383332 | 21 | 3 11.9 | 22.3 |
| 483448 2001 $UX_{37}$ | 17.6 | X | 168.54622 | 350.53993 | 26.07945 | 6.31570 | 0.1354696 | 0.27277250 | 2.3547004 | 21 | 3 4.1 | 21.0 |
| 483449 2001 $UR_{106}$ | 18.0 | X | 154.08186 | 21.58931 | 39.25149 | 2.87991 | 0.1635609 | 0.27417482 | 2.3466645 | 21 | 4 15.3 | 21.5 |
| 483450 2001 $VR_{83}$ | 17.6 | X | 198.91945 | 119.68960 | 243.21965 | 8.28416 | 0.2670521 | 0.27575021 | 2.3377181 | 21 | 3 12.9 | 21.9 |
| 483451 2001 $WU_{35}$ | 17.6 | X | 87.13720 | 310.01743 | 75.32333 | 10.95062 | 0.2722433 | 0.26023552 | 2.4297318 | 21 | — | — |
| 483452 2001 $XZ_{182}$ | 18.5 | X | 336.25532 | 359.89677 | 103.13935 | 14.99729 | 0.4204114 | 0.19919851 | 2.9036571 | 21 | — | — |
| 483453 2002 $AN_{11}$ | 18.2 | X | 1.63128 | 116.71291 | 278.65562 | 19.86340 | 0.3351813 | 0.40236994 | 1.8171287 | 21 | — | — |
| 483454 2002 $AF_{17}$ | 18.4 | X | 80.19952 | 137.01914 | 0.70480 | 1.18261 | 0.1307871 | 0.26687033 | 2.3892918 | 21 | 4 22.3 | 21.0 |
| 483455 2002 $CQ_{234}$ | 18.0 | X | 61.29326 | 162.35293 | 343.86877 | 1.10106 | 0.1313782 | 0.26395883 | 2.4068291 | 21 | 4 2.8 | 20.4 |
| 483456 2002 $CG_{268}$ | 18.0 | X | 105.82776 | 319.98270 | 136.50120 | 3.72442 | 0.2011071 | 0.26455532 | 2.4032100 | 21 | 4 15.2 | 21.1 |
| 483457 2002 $CW_{295}$ | 17.8 | X | 41.73765 | 59.95389 | 125.76831 | 1.72635 | 0.1160891 | 0.26383035 | 2.4076104 | 21 | 4 25.9 | 20.2 |
| 483458 2002 $DC_{1}$ | 18.1 | X | 80.02995 | 28.84945 | 103.58623 | 2.45370 | 0.1318335 | 0.26500019 | 2.4005196 | 21 | 4 16.4 | 20.6 |
| 483459 2002 $EM_{6}$ | 20.2 | X | 57.06346 | 120.98149 | 169.49764 | 31.76006 | 0.1413393 | 0.78911037 | 1.1597852 | 21 | — | — |
| 483460 2002 $EO_{65}$ | 17.4 | X | 357.60528 | 71.47707 | 183.17531 | 8.74203 | 0.1894324 | 0.26344862 | 2.4099356 | 21 | 5 12.4 | 19.4 |
| 483461 2002 $ES_{106}$ | 15.6 | X | 134.95040 | 74.70681 | 156.97593 | 26.72470 | 0.1855507 | 0.17875375 | 3.1210396 | 21 | 11 2.6 | 21.2 |
| 483462 2002 $FH_{8}$ | 17.8 | X | 67.39145 | 315.47731 | 195.60530 | 7.90018 | 0.2330900 | 0.26272005 | 2.4143890 | 21 | 5 10.6 | 20.2 |
| 483463 2002 $FE_{24}$ | 17.5 | X | 70.81877 | 248.85325 | 273.34612 | 3.95911 | 0.1678131 | 0.26404103 | 2.4063296 | 21 | 5 19.4 | 20.0 |
| 483464 2002 $FP_{41}$ | 17.8 | X | 299.91557 | 302.46134 | 338.72048 | 1.83350 | 0.0802661 | 0.25859877 | 2.4399733 | 21 | 3 26.2 | 21.0 |
| 483465 2002 $GQ_{38}$ | 16.2 | X | 259.62064 | 170.19705 | 21.47316 | 11.47896 | 0.0913160 | 0.18993101 | 2.9973593 | 21 | — | — |
| 483466 2002 $GF_{98}$ | 17.8 | X | 5.86401 | 337.77438 | 218.14081 | 1.84500 | 0.1368290 | 0.25650906 | 2.4532072 | 21 | 3 1.4 | 20.2 |
| 483467 2002 $GA_{123}$ | 17.2 | X | 12.62602 | 11.28842 | 171.79493 | 6.18214 | 0.1562159 | 0.25578358 | 2.4578438 | 21 | 2 21.7 | 19.5 |
| 483468 2002 $JY_{8}$ | 17.7 | X | 112.11565 | 188.03514 | 127.93051 | 24.28128 | 0.5950629 | 0.27636976 | 2.3342231 | 21 | — | — |
| 483469 2002 $JT_{22}$ | 16.7 | X | 267.40030 | 184.48505 | 44.70324 | 16.05862 | 0.3162242 | 0.19296487 | 2.9658593 | 21 | — | — |
| 483470 2002 $JR_{145}$ | 18.2 | X | 135.45523 | 78.45341 | 196.07752 | 24.10250 | 0.1140370 | 0.38520515 | 1.8707166 | 21 | — | — |
| 483471 2002 $LS_{32}$ | 18.3 | X | 329.70542 | 151.71717 | 239.78700 | 8.85157 | 0.6970174 | 0.41376524 | 1.7836106 | 21 | 6 20.4 | 18.4 |
| 483472 2002 $NX$ | 19.2 | X | 70.35810 | 62.35788 | 288.41032 | 15.00801 | 0.4339340 | 0.42879627 | 1.7416814 | 21 | — | — |
| 483473 2002 $NT_{5}$ | 16.1 | X | 133.37319 | 19.28724 | 287.67563 | 8.08801 | 0.1487688 | 0.17557652 | 3.1585791 | 21 | — | — |
| 483474 2002 $NQ_{62}$ | 18.3 | X | 68.53660 | 221.27057 | 53.60408 | 2.44719 | 0.1753558 | 0.31996133 | 2.1170822 | 21 | 11 2.4 | 20.7 |
| 483475 2002 $NP_{77}$ | 16.3 | X | 220.03845 | 95.57898 | 235.49513 | 13.83756 | 0.1413238 | 0.24180537 | 2.5516754 | 21 | 2 20.6 | 20.7 |
| 483476 2002 $PL_{139}$ | 16.4 | X | 190.85545 | 216.15897 | 151.86807 | 14.13036 | 0.1889079 | 0.23989671 | 2.5651918 | 21 | 3 20.5 | 20.7 |
| 483477 2002 $PJ_{140}$ | 16.6 | X | 128.47996 | 8.01672 | 344.63824 | 12.84188 | 0.2951556 | 0.22894431 | 2.6463634 | 21 | 1 17.5 | 20.7 |
| 483478 2002 $PE_{142}$ | 17.1 | X | 111.99451 | 34.70889 | 321.92835 | 15.75333 | 0.2484306 | 0.22639180 | 2.6662176 | 21 | — | — |
| 483479 2002 $PA_{191}$ | 18.6 | X | 54.97805 | 28.42642 | 325.31117 | 21.57010 | 0.1003228 | 0.37761629 | 1.8956969 | 21 | — | — |
| 483480 2002 $PF_{191}$ | 16.1 | X | 169.17647 | 182.75773 | 129.37844 | 27.25159 | 0.0666802 | 0.18029082 | 3.1032754 | 21 | — | — |
| 483481 2002 $QQ_{30}$ | 17.8 | X | 210.18617 | 312.87988 | 0.41664 | 4.24608 | 0.2261160 | 0.23805599 | 2.5783981 | 21 | 1 29.7 | 22.2 |
| 483482 2002 $RM_{22}$ | 16.9 | X | 217.89590 | 343.21801 | 346.61452 | 12.58873 | 0.1749930 | 0.23946314 | 2.5682873 | 21 | 2 24.6 | 21.2 |
| 483483 2002 $RR_{28}$ | 17.0 | X | 31.74511 | 323.46081 | 1.50586 | 25.32121 | 0.2810414 | 0.31525035 | 2.1381213 | 21 | 12 3.8 | 20.3 |
| 483484 2002 $RJ_{79}$ | 18.4 | X | 278.68028 | 170.60485 | 158.56904 | 4.51416 | 0.2112889 | 0.30058654 | 2.2071052 | 21 | 4 12.9 | 21.4 |
| 483485 2002 $RZ_{137}$ | 18.4 | X | 13.68622 | 192.95089 | 177.51916 | 22.63635 | 0.1234750 | 0.37106334 | 1.9179503 | 21 | — | — |
| 483486 2002 $RU_{210}$ | 18.5 | X | 173.27413 | 252.72928 | 170.98643 | 3.19584 | 0.2078657 | 0.29366191 | 2.2416663 | 21 | 5 9.4 | 22.0 |
| 483487 2002 $RU_{243}$ | 17.0 | X | 209.62244 | 22.95727 | 319.07548 | 8.47667 | 0.1206516 | 0.24046804 | 2.5611272 | 21 | 2 28.6 | 21.0 |
| 483488 Wudeshi | 18.4 | X | 198.61771 | 194.49396 | 177.36136 | 2.50461 | 0.1724721 | 0.29397685 | 2.2400650 | 21 | 3 24.4 | 21.9 |
| 483489 2002 $SH_{8}$ | 18.5 | X | 190.40486 | 323.83628 | 66.54344 | 1.89202 | 0.2453214 | 0.29233028 | 2.2484687 | 21 | 4 12.1 | 22.3 |
| 483490 2002 $SJ_{69}$ | 17.1 | X | 222.12906 | 283.83201 | 3.68673 | 9.92937 | 0.2168698 | 0.23449643 | 2.6044252 | 21 | 1 10.1 | 21.7 |
| 483491 2002 $TB_{18}$ | 18.0 | X | 241.69297 | 202.30486 | 148.69947 | 4.47080 | 0.2182686 | 0.29621389 | 2.2287726 | 21 | 4 5.4 | 21.6 |
| 483492 2002 $TA_{55}$ | 16.5 | X | 239.51526 | 266.50325 | 33.77146 | 7.22816 | 0.2394818 | 0.23938295 | 2.5688608 | 21 | 2 6.8 | 21.0 |
| 483493 2002 $TY_{188}$ | 18.1 | X | 187.35486 | 152.51190 | 227.50627 | 4.53501 | 0.3090542 | 0.28952504 | 2.2629691 | 21 | 3 27.7 | 22.1 |
| 483494 2002 $TA_{197}$ | 16.7 | X | 134.17800 | 333.25192 | 32.39910 | 8.46686 | 0.1375260 | 0.22855422 | 2.6493737 | 21 | 1 18.7 | 20.5 |
| 483495 2002 $TK_{295}$ | 17.6 | X | 199.82925 | 70.68393 | 300.79263 | 7.25825 | 0.2518097 | 0.29047958 | 2.2580089 | 21 | 3 22.7 | 21.6 |
| 483496 2002 $TG_{298}$ | 17.6 | X | 195.91863 | 26.23862 | 2.44487 | 6.43672 | 0.2263812 | 0.29194115 | 2.2504663 | 21 | 4 12.1 | 21.4 |
| 483497 2002 $TC_{378}$ | 17.7 | X | 170.64541 | 263.31603 | 92.46802 | 5.21117 | 0.2285345 | 0.28512227 | 2.2862056 | 21 | 2 12.6 | 21.3 |
| 483498 2002 $UL_{3}$ | 16.6 | X | 17.66043 | 72.62392 | 347.76713 | 28.24139 | 0.4304150 | 0.21480146 | 2.7612850 | 21 | — | — |
| 483499 2002 $VM_{14}$ | 17.3 | X | 133.01389 | 210.87796 | 36.51797 | 23.02853 | 0.0604998 | 0.36668228 | 1.9331970 | 21 | 12 2.6 | 19.8 |
| 483500 2002 $VX_{42}$ | 18.0 | X | 158.25331 | 329.00486 | 84.67543 | 2.87753 | 0.1512318 | 0.28835222 | 2.2691011 | 21 | 4 8.9 | 21.2 |
| 483501 2002 $VN_{54}$ | 16.6 | X | 169.66980 | 345.90605 | 4.49470 | 13.68096 | 0.2527588 | 0.23140757 | 2.6275501 | 21 | 2 16.5 | 21.2 |
| 483502 2002 $VF_{98}$ | 17.7 | X | 177.97806 | 132.31277 | 269.85676 | 21.76553 | 0.3029323 | 0.28971877 | 2.2619602 | 21 | 4 10.5 | 22.2 |
| 483503 2002 $WH_{29}$ | 18.1 | X | 245.93374 | 253.09340 | 228.96498 | 19.92813 | 0.0818812 | 0.36271159 | 1.9472801 | 21 | 11 6.3 | 19.7 |
| 483504 2002 $XN_{14}$ | 20.2 | X | 345.48958 | 310.93411 | 86.15697 | 11.79370 | 0.4405828 | 0.41931275 | 1.7678443 | 21 | — | — |
| 483505 2002 $XD_{31}$ | 17.3 | X | 17.80392 | 199.21547 | 267.25016 | 7.81569 | 0.2948383 | 0.21763082 | 2.7373003 | 21 | — | — |
| 483506 2002 $XU_{66}$ | 18.4 | X | 41.00111 | 89.86146 | 285.45258 | 24.45120 | 0.5375046 | 0.21573371 | 2.7533243 | 21 | — | — |
| 483507 2003 $AH_{9}$ | 16.9 | X | 66.80242 | 7.76948 | 104.78713 | 26.43346 | 0.2853741 | 0.27629249 | 2.3346583 | 21 | 3 31.9 | 19.7 |
| 483508 2003 $CR_{1}$ | 20.1 | X | 224.47630 | 101.96197 | 310.96356 | 12.72073 | 0.4629174 | 0.56273846 | 1.4529979 | 21 | 5 19.2 | 22.7 |
| 483509 2003 $CH_{11}$ | 19.5 | X | 95.25252 | 322.01743 | 134.54104 | 36.47812 | 0.5216289 | 0.28000657 | 2.3139674 | 21 | 5 26.4 | 24.2 |
| 483510 2003 $DN_{22}$ | 16.7 | X | 350.76248 | 234.54019 | 284.12228 | 7.74934 | 0.2006106 | 0.21437432 | 2.7649516 | 21 | — | — |
| 483511 2003 $FA_{17}$ | 17.5 | X | 30.72430 | 182.16023 | 5.02344 | 11.94856 | 0.1133065 | 0.27550011 | 2.3391327 | 21 | 4 2.3 | 19.7 |
| 483512 2003 $FT_{35}$ | 17.9 | X | 21.43474 | 237.30031 | 1.03326 | 3.19074 | 0.1952198 | 0.27830856 | 2.3233698 | 21 | 6 11.4 | 19.5 |
| 483513 2003 $FD_{37}$ | 17.7 | X | 339.44571 | 320.67936 | 193.65178 | 8.43255 | 0.2140384 | 0.20983466 | 2.8046881 | 21 | — | — |
| 483514 2003 $FF_{115}$ | 17.2 | X | 163.02800 | 162.17204 | 56.03975 | 21.76513 | 0.1173175 | 0.35011168 | 1.9937238 | 21 | 11 26.2 | 19.7 |
| 483515 2003 $FV_{132}$ | 18.4 | X | 78.37779 | 45.15769 | 137.89509 | 5.86516 | 0.1545530 | 0.28231804 | 2.3013198 | 21 | 6 29.3 | 21.0 |
| 483516 2003 $PE_{12}$ | 16.4 | X | 98.62651 | 225.89832 | 141.41238 | 13.58986 | 0.1973540 | 0.24048126 | 2.5610333 | 21 | — | — |
| 483517 2003 $PH_{12}$ | 16.4 | X | 257.55821 | 359.53248 | 338.82869 | 26.89917 | 0.2698802 | 0.26077211 | 2.4263976 | 21 | 3 21.3 | 20.8 |
| 483518 2003 $QD_{25}$ | 17.2 | X | 103.95489 | 215.61938 | 174.05663 | 13.11848 | 0.2443141 | 0.24181148 | 2.5516324 | 21 | 1 19.9 | 20.5 |
| 483519 2003 $QV_{74}$ | 15.8 | X | 16.71222 | 54.11635 | 327.81677 | 25.98103 | 0.2322782 | 0.17211968 | 3.2007299 | 21 | 12 28.4 | 20.1 |
| 483520 2003 $SC_{5}$ | 18.2 | X | 88.39700 | 29.73529 | 0.75597 | 4.62079 | 0.3116370 | 0.23658254 | 2.5890926 | 21 | 1 12.3 | 20.8 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
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| 483521 2003 $SO_{30}$ | 17.5 | X | 70.36864 | 192.47968 | 187.08129 | 10.54254 | 0.2583768 | 0.23316195 | 2.6143532 | 21 | — | — |
| 483522 2003 $SE_{64}$ | 17.5 | X | 100.73488 | 224.49023 | 144.65979 | 5.56626 | 0.2487957 | 0.23752055 | 2.5822716 | 21 | — | — |
| 483523 2003 $SR_{100}$ | 17.0 | X | 68.98198 | 162.91422 | 227.93067 | 13.62659 | 0.2588937 | 0.23534349 | 2.5981721 | 21 | — | — |
| 483524 2003 $SN_{158}$ | 17.4 | X | 97.70002 | 18.81703 | 14.08056 | 12.67461 | 0.2838903 | 0.23926900 | 2.5696764 | 21 | 1 29.2 | 20.6 |
| 483525 2003 $SB_{227}$ | 16.0 | X | 157.80273 | 242.52830 | 355.48303 | 16.22765 | 0.0687719 | 0.17396435 | 3.1780632 | 21 | 11 16.9 | 21.1 |
| 483526 2003 $SC_{330}$ | 16.7 | X | 63.98476 | 7.68305 | 355.84187 | 17.83021 | 0.0955368 | 0.17672556 | 3.1448732 | 21 | — | — |
| 483527 2003 $ST_{344}$ | 16.8 | X | 43.88326 | 66.47321 | 324.46678 | 15.10927 | 0.1020546 | 0.17867819 | 3.1219194 | 21 | — | — |
| 483528 2003 $SE_{356}$ | 17.5 | X | 82.03471 | 68.50285 | 338.54239 | 30.08771 | 0.2451691 | 0.23972773 | 2.5663971 | 21 | 1 23.3 | 20.7 |
| 483529 2003 $TA_{26}$ | 17.9 | X | 80.57257 | 101.54969 | 322.38243 | 3.59573 | 0.2448761 | 0.23976796 | 2.5661101 | 21 | 1 31.7 | 20.3 |
| 483530 2003 $TH_{46}$ | 16.5 | X | 32.53264 | 157.38923 | 225.81957 | 9.40814 | 0.0719019 | 0.17208067 | 3.2012137 | 21 | 12 24.4 | 20.9 |
| 483531 2003 $UF_{22}$ | 20.0 | X | 301.55976 | 13.34064 | 27.90995 | 11.69897 | 0.3798181 | 0.38103535 | 1.8843397 | 21 | 8 13.9 | 21.0 |
| 483532 2003 $UO_{23}$ | 16.5 | X | 85.02995 | 132.28015 | 221.51115 | 14.71009 | 0.1758820 | 0.23077085 | 2.6323810 | 21 | — | — |
| 483533 2003 $UQ_{24}$ | 16.1 | X | 46.46616 | 68.48213 | 56.68677 | 28.45322 | 0.4264183 | 0.23245087 | 2.6196821 | 21 | 4 12.3 | 18.3 |
| 483534 2003 $UQ_{49}$ | 16.4 | X | 128.12529 | 168.02290 | 251.70790 | 13.96602 | 0.0914364 | 0.24597783 | 2.5227375 | 21 | 3 2.4 | 20.2 |
| 483535 2003 $UM_{86}$ | 18.2 | X | 232.59714 | 247.79313 | 131.16230 | 2.87912 | 0.2730243 | 0.31316867 | 2.1475857 | 21 | 4 29.4 | 21.7 |
| 483536 2003 $UD_{148}$ | 18.3 | X | 291.49824 | 267.78418 | 72.60356 | 2.52856 | 0.1846039 | 0.31807187 | 2.1254581 | 21 | 5 16.1 | 20.4 |
| 483537 2003 $UP_{172}$ | 17.5 | X | 53.22216 | 296.56389 | 82.35215 | 7.62869 | 0.2639513 | 0.22949102 | 2.6421588 | 21 | — | — |
| 483538 2003 $UR_{231}$ | 15.8 | X | 27.22302 | 49.18818 | 13.24256 | 16.41427 | 0.1323428 | 0.17670960 | 3.1450626 | 21 | — | — |
| 483539 2003 $UY_{258}$ | 17.7 | X | 76.43417 | 317.88243 | 81.43398 | 6.07513 | 0.2847606 | 0.23408442 | 2.6074803 | 21 | — | — |
| 483540 2003 $UD_{275}$ | 18.1 | X | 81.03713 | 171.04270 | 235.99729 | 3.82852 | 0.2475988 | 0.23644803 | 2.5900744 | 21 | 1 8.9 | 20.5 |
| 483541 2003 $UN_{315}$ | 17.0 | X | 93.63650 | 317.39022 | 62.77784 | 13.18449 | 0.2457731 | 0.23493207 | 2.6012046 | 21 | — | — |
| 483542 2003 $UG_{362}$ | 17.8 | X | 46.55979 | 339.61065 | 132.94043 | 6.28213 | 0.1923657 | 0.24006095 | 2.5640217 | 21 | 1 23.9 | 20.0 |
| 483543 2003 $VF_{11}$ | 17.0 | X | 57.10931 | 40.12397 | 48.82862 | 16.33120 | 0.1381421 | 0.23661562 | 2.5888514 | 21 | 1 11.5 | 20.0 |
| 483544 2003 $WG_{7}$ | 17.6 | X | 309.76714 | 306.62327 | 45.62533 | 22.48348 | 0.0893184 | 0.37504094 | 1.9043653 | 21 | 8 5.8 | 19.9 |
| 483545 2003 $WW_{9}$ | 17.5 | X | 95.75959 | 147.73211 | 260.07025 | 12.97322 | 0.2437291 | 0.23802820 | 2.5785988 | 21 | 1 29.9 | 20.7 |
| 483546 2003 $WW_{13}$ | 16.9 | X | 56.04693 | 245.84040 | 230.04582 | 14.17199 | 0.0665174 | 0.24172987 | 2.5522066 | 21 | 2 2.3 | 20.3 |
| 483547 2003 $WM_{25}$ | 17.8 | X | 84.72156 | 295.10229 | 67.83402 | 12.22805 | 0.5659573 | 0.23263463 | 2.6183024 | 21 | 1 17.4 | 20.7 |
| 483548 2003 $WR_{59}$ | 17.1 | X | 121.15298 | 160.90160 | 228.84280 | 12.84396 | 0.1779913 | 0.23956678 | 2.5675465 | 21 | 1 30.1 | 20.9 |
| 483549 2003 $WA_{70}$ | 18.0 | X | 83.24202 | 249.50480 | 152.95188 | 1.69428 | 0.2403921 | 0.23536263 | 2.5980313 | 21 | 1 6.3 | 20.3 |
| 483550 2003 $WT_{175}$ | 18.1 | X | 82.37387 | 167.42906 | 247.85692 | 2.52542 | 0.2089002 | 0.23623715 | 2.5916156 | 21 | 1 17.1 | 20.6 |
| 483551 2003 $XO_{14}$ | 17.8 | X | 343.69672 | 109.30006 | 300.39297 | 18.79724 | 0.1282329 | 0.38521810 | 1.8706746 | 21 | — | — |
| 483552 2003 $XR_{15}$ | 17.7 | X | 252.11427 | 39.56579 | 74.88602 | 23.42833 | 0.0701667 | 0.37849934 | 1.8927473 | 21 | 11 17.3 | 19.4 |
| 483553 2003 $XE_{24}$ | 17.2 | X | 109.13220 | 309.21229 | 73.41162 | 9.34163 | 0.1767862 | 0.23589316 | 2.5941345 | 21 | 1 11.4 | 20.5 |
| 483554 2003 $YD_{8}$ | 18.1 | X | 293.75234 | 200.50472 | 268.06060 | 19.19689 | 0.0772451 | 0.38593404 | 1.8683604 | 21 | — | — |
| 483555 2003 $YP_{10}$ | 16.8 | X | 91.50605 | 341.10168 | 16.90366 | 7.95274 | 0.4282399 | 0.23220917 | 2.6214996 | 21 | — | — |
| 483556 2003 $YW_{18}$ | 17.1 | X | 333.38212 | 95.00554 | 79.15891 | 11.58651 | 0.1299960 | 0.23333019 | 2.6130963 | 21 | — | — |
| 483557 2003 $YO_{94}$ | 17.8 | X | 22.55895 | 296.29418 | 95.48740 | 23.42263 | 0.0913687 | 0.38979806 | 1.8559927 | 21 | — | — |
| 483558 2003 $YD_{108}$ | 16.5 | X | 113.27294 | 250.67100 | 122.49040 | 29.69613 | 0.3970659 | 0.23206675 | 2.6225721 | 21 | 2 5.5 | 20.4 |
| 483559 2004 $AC_{24}$ | 17.0 | X | 108.69215 | 303.52428 | 108.48787 | 13.51473 | 0.1403037 | 0.23475985 | 2.6024766 | 21 | 2 14.6 | 20.5 |
| 483560 2004 $BV_{1}$ | 19.2 | X | 68.46341 | 223.26084 | 96.75429 | 12.15940 | 0.3675092 | 0.55701240 | 1.4629387 | 21 | — | — |
| 483561 2004 $BO_{24}$ | 17.4 | X | 2.12814 | 24.66783 | 128.89827 | 13.29597 | 0.2023270 | 0.22909235 | 2.6452232 | 21 | — | — |
| 483562 2004 $BB_{27}$ | 18.2 | X | 357.36019 | 254.99596 | 128.58317 | 22.18266 | 0.1182563 | 0.38056381 | 1.8858959 | 21 | — | — |
| 483563 2004 $BD_{68}$ | 18.6 | X | 256.98052 | 203.85303 | 172.06529 | 19.25502 | 0.8295779 | 0.37598907 | 1.9011625 | 21 | 4 16.6 | 23.4 |
| 483564 2004 $BJ_{79}$ | 18.4 | X | 157.11618 | 148.80723 | 329.13692 | 5.38572 | 0.0852736 | 0.30583033 | 2.1818038 | 21 | 6 29.2 | 21.3 |
| 483565 2004 $BX_{79}$ | 17.4 | X | 305.83122 | 244.21139 | 307.35117 | 11.47939 | 0.2105313 | 0.22482886 | 2.6785598 | 21 | — | — |
| 483566 2004 $BE_{85}$ | 17.8 | X | 325.31554 | 268.69889 | 275.70163 | 23.99307 | 0.5201855 | 0.22361005 | 2.6882841 | 21 | — | — |
| 483567 2004 $CG_{7}$ | 16.1 | X | 321.06626 | 282.35792 | 319.29031 | 27.75924 | 0.2143944 | 0.23279298 | 2.6171149 | 21 | 2 12.0 | 19.6 |
| 483568 2004 $CC_{15}$ | 18.4 | X | 116.37999 | 113.41977 | 73.22022 | 2.40119 | 0.0869003 | 0.30783725 | 2.1723107 | 21 | 8 17.2 | 21.0 |
| 483569 2004 $CZ_{23}$ | 17.7 | X | 16.06827 | 252.82767 | 139.95013 | 23.36920 | 0.0920737 | 0.38327547 | 1.8769903 | 21 | — | — |
| 483570 2004 $CL_{52}$ | 17.8 | X | 312.04874 | 290.88395 | 131.56085 | 23.83813 | 0.1259943 | 0.37670433 | 1.8987552 | 21 | 12 15.7 | 19.5 |
| 483571 2004 $DU_{1}$ | 18.1 | X | 290.68388 | 288.26730 | 152.53171 | 23.72834 | 0.0938891 | 0.37572143 | 1.9020652 | 21 | 12 1.2 | 20.3 |
| 483572 2004 $DJ_{57}$ | 17.8 | X | 355.44787 | 183.01630 | 342.04074 | 6.00518 | 0.2023577 | 0.22867243 | 2.6484606 | 21 | — | — |
| 483573 2004 $DD_{64}$ | 18.1 | X | 280.54097 | 146.61378 | 358.47113 | 20.19277 | 0.0569159 | 0.38275588 | 1.8786886 | 21 | — | — |
| 483574 2004 $EQ_{9}$ | 17.6 | X | 21.85454 | 220.47204 | 170.13705 | 23.53243 | 0.0872279 | 0.38028769 | 1.8868087 | 21 | — | — |
| 483575 2004 $EW_{10}$ | 17.7 | X | 16.01698 | 6.21172 | 139.19603 | 3.28855 | 0.2952111 | 0.22756116 | 2.6570759 | 21 | — | — |
| 483576 2004 $ER_{23}$ | 18.0 | X | 325.91402 | 277.21625 | 165.92691 | 22.55913 | 0.0574328 | 0.38006211 | 1.8875552 | 21 | — | — |
| 483577 2004 $ES_{33}$ | 18.2 | X | 105.04500 | 284.19873 | 357.30658 | 19.03636 | 0.0718185 | 0.37399307 | 1.9079208 | 21 | 12 25.5 | 20.9 |
| 483578 2004 $EY_{65}$ | 17.2 | X | 346.08018 | 128.43602 | 84.70497 | 7.27074 | 0.3426497 | 0.22937002 | 2.6430880 | 21 | 1 24.9 | 20.2 |
| 483579 2004 $ET_{77}$ | 16.7 | X | 296.33969 | 4.46939 | 164.59654 | 12.30956 | 0.1453286 | 0.21660223 | 2.7459593 | 21 | — | — |
| 483580 2004 $EP_{78}$ | 17.5 | X | 32.89625 | 316.30264 | 172.15080 | 15.33510 | 0.3036968 | 0.22835704 | 2.6508985 | 21 | 1 15.4 | 19.6 |
| 483581 2004 $FX_{4}$ | 17.6 | X | 124.23899 | 237.76268 | 34.76331 | 20.64298 | 0.0952060 | 0.37560794 | 1.9024483 | 21 | — | — |
| 483582 2004 $FX_{5}$ | 17.9 | X | 158.56249 | 189.78162 | 9.40762 | 19.42584 | 0.0374246 | 0.36916635 | 1.9245150 | 21 | 10 27.2 | 20.1 |
| 483583 2004 $FO_{48}$ | 17.2 | X | 281.31442 | 65.74360 | 176.76833 | 9.60405 | 0.3053414 | 0.22177822 | 2.7030669 | 21 | — | — |
| 483584 2004 $FY_{63}$ | 16.6 | X | 283.27075 | 215.13869 | 22.48355 | 14.78525 | 0.1350933 | 0.22137472 | 2.7063505 | 21 | 1 12.1 | 20.9 |
| 483585 2004 $FK_{106}$ | 17.8 | X | 149.06876 | 206.51830 | 19.97620 | 20.20866 | 0.0458429 | 0.37041290 | 1.9201949 | 21 | 11 23.7 | 20.3 |
| 483586 2004 $FK_{115}$ | 17.2 | X | 326.27980 | 354.42232 | 210.94763 | 4.18625 | 0.1646600 | 0.22571767 | 2.6715236 | 21 | 1 13.4 | 20.8 |
| 483587 2004 $FL_{135}$ | 17.0 | X | 296.21510 | 55.32941 | 190.93248 | 10.46290 | 0.1424225 | 0.22555517 | 2.6728066 | 21 | 1 29.6 | 21.0 |
| 483588 2004 $FY_{141}$ | 17.0 | X | 285.12416 | 24.61582 | 191.58431 | 12.52330 | 0.1494579 | 0.21988472 | 2.7185627 | 21 | — | — |
| 483589 2004 $GB_{77}$ | 16.9 | X | 314.09694 | 87.25768 | 163.65852 | 17.34794 | 0.3265888 | 0.22366168 | 2.6878704 | 21 | 2 1.3 | 21.0 |
| 483590 2004 $JE_{5}$ | 17.6 | X | 9.15369 | 2.14147 | 254.57383 | 5.58531 | 0.2077849 | 0.29115007 | 2.2545409 | 21 | 6 11.2 | 18.7 |
| 483591 2004 $JZ_{31}$ | 19.5 | X | 194.78172 | 32.80664 | 203.21257 | 7.04094 | 0.2621183 | 0.37567336 | 1.9022275 | 21 | — | — |
| 483592 2004 $MY_{3}$ | 17.4 | X | 271.59313 | 356.08242 | 293.72180 | 9.27035 | 0.1144827 | 0.27465259 | 2.3439423 | 21 | 2 20.7 | 20.8 |
| 483593 2004 $MA_{6}$ | 16.7 | X | 290.76605 | 250.41762 | 31.87703 | 14.83456 | 0.2722339 | 0.22015567 | 2.7163317 | 21 | 3 3.9 | 21.1 |
| 483594 2004 $PT_{8}$ | 17.5 | X | 322.35286 | 322.42467 | 325.09287 | 9.28069 | 0.2664260 | 0.28198623 | 2.3031247 | 21 | 3 29.1 | 20.2 |
| 483595 2004 $PB_{16}$ | 17.3 | X | 219.96969 | 10.07443 | 308.31742 | 8.55062 | 0.2136652 | 0.26726334 | 2.3869489 | 21 | 2 6.9 | 21.2 |
| 483596 2004 $PY_{32}$ | 17.6 | X | 189.58174 | 331.54429 | 0.50398 | 5.09802 | 0.2590520 | 0.26493145 | 2.4009348 | 21 | 2 3.3 | 21.8 |
| 483597 2004 $PM_{47}$ | 17.5 | X | 166.07948 | 100.74141 | 260.95368 | 3.60169 | 0.2424958 | 0.26502892 | 2.4003461 | 21 | 2 16.2 | 21.3 |
| 483598 2004 $PO_{96}$ | 17.5 | X | 349.18396 | 320.74654 | 310.64113 | 8.56759 | 0.0895879 | 0.28301783 | 2.2975247 | 21 | 5 24.3 | 20.0 |
| 483599 2004 $PT_{106}$ | 16.0 | X | 11.76682 | 242.91675 | 160.96633 | 10.00795 | 0.0730605 | 0.18729928 | 3.0253710 | 21 | 12 26.5 | 20.1 |
| 483600 2004 $QM_{6}$ | 16.5 | X | 6.03230 | 227.23780 | 156.70684 | 14.51410 | 0.3349433 | 0.17928154 | 3.1149112 | 21 | 12 25.9 | 20.0 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483601 2004 $RZ_{32}$ | 18.0 | X | 162.93605 | 187.26167 | 199.23983 | 2.29368 | 0.1768615 | 0.26576204 | 2.3959298 | 21 | 3 12.0 | 21.6 |
| 483602 2004 $RC_{34}$ | 17.5 | X | 146.33899 | 353.68175 | 25.50326 | 3.11224 | 0.2051204 | 0.26180250 | 2.4200269 | 21 | 2 19.5 | 21.0 |
| 483603 2004 $RR_{77}$ | 16.8 | X | 339.02442 | 300.37033 | 10.38964 | 23.88282 | 0.2978067 | 0.28521816 | 2.2856932 | 21 | 5 31.3 | 19.0 |
| 483604 2004 $RO_{97}$ | 17.8 | X | 124.02501 | 221.85229 | 171.12113 | 5.84963 | 0.2750858 | 0.25897751 | 2.4375939 | 21 | 2 20.5 | 21.2 |
| 483605 2004 $RY_{100}$ | 16.4 | X | 333.90833 | 223.74813 | 181.29162 | 13.28134 | 0.2869972 | 0.17541867 | 3.1604737 | 21 | 10 29.9 | 19.2 |
| 483606 2004 $RL_{101}$ | 17.3 | X | 177.84452 | 37.13892 | 303.74144 | 2.31288 | 0.2495554 | 0.26229787 | 2.4169790 | 21 | 2 2.9 | 21.4 |
| 483607 2004 $RL_{147}$ | 16.7 | X | 74.63686 | 5.99305 | 352.54004 | 9.59181 | 0.1565003 | 0.18802245 | 3.0176086 | 21 | — | — |
| 483608 2004 $RR_{174}$ | 16.6 | X | 346.54085 | 173.67314 | 191.55147 | 15.04450 | 0.2772267 | 0.17523698 | 3.1626578 | 21 | 10 2.4 | 19.4 |
| 483609 2004 $RG_{210}$ | 16.3 | X | 289.34622 | 347.60495 | 326.78960 | 24.16878 | 0.1970662 | 0.27759185 | 2.3273672 | 21 | 3 24.5 | 20.1 |
| 483610 2004 $RH_{248}$ | 15.9 | X | 13.08410 | 135.16991 | 265.75284 | 17.43801 | 0.1275874 | 0.18293664 | 3.0732809 | 21 | 12 29.1 | 19.8 |
| 483611 2004 $RF_{256}$ | 17.6 | X | 146.83486 | 36.78384 | 3.35249 | 10.37597 | 0.2170576 | 0.26400381 | 2.4065557 | 21 | 3 18.7 | 21.1 |
| 483612 2004 $RN_{270}$ | 17.1 | X | 72.95061 | 178.22716 | 171.63547 | 10.49941 | 0.1137185 | 0.18749507 | 3.0232645 | 21 | — | — |
| 483613 2004 $RK_{303}$ | 16.7 | X | 198.10155 | 343.50914 | 323.53243 | 11.99697 | 0.1724206 | 0.20280688 | 2.8691126 | 21 | 1 17.3 | 21.5 |
| 483614 2004 $SU_{30}$ | 16.0 | X | 348.25433 | 45.54572 | 6.55516 | 22.68455 | 0.2593890 | 0.17799082 | 3.1299518 | 21 | 12 8.6 | 19.6 |
| 483615 2004 $SP_{41}$ | 16.2 | X | 48.20700 | 185.40448 | 204.59233 | 10.09717 | 0.1051719 | 0.18787425 | 3.0191954 | 21 | — | — |
| 483616 2004 $TG_{16}$ | 17.3 | X | 51.78476 | 141.63511 | 215.90919 | 28.95057 | 0.2849205 | 0.24100440 | 2.5573259 | 21 | — | — |
| 483617 2004 $TJ_{58}$ | 17.0 | X | 330.32596 | 228.83566 | 192.36342 | 12.54594 | 0.2066601 | 0.17674956 | 3.1445884 | 21 | 11 15.7 | 20.3 |
| 483618 2004 $TR_{76}$ | 17.2 | X | 349.18168 | 4.41273 | 31.54821 | 1.09779 | 0.1733721 | 0.17649453 | 3.1476170 | 21 | 11 16.9 | 20.6 |
| 483619 2004 $TK_{91}$ | 17.0 | X | 21.42868 | 150.60925 | 261.60259 | 2.23805 | 0.1428261 | 0.18356889 | 3.0662201 | 21 | — | — |
| 483620 2004 $TF_{108}$ | 16.0 | X | 31.43642 | 328.62943 | 40.14898 | 17.92607 | 0.2065110 | 0.18040721 | 3.1019404 | 21 | 12 25.7 | 20.3 |
| 483621 2004 $TN_{132}$ | 16.6 | X | 22.83958 | 95.09441 | 282.71868 | 8.20358 | 0.2515158 | 0.17937496 | 3.1138296 | 21 | — | — |
| 483622 2004 $TZ_{141}$ | 16.6 | X | 346.55470 | 29.20141 | 16.94698 | 17.75070 | 0.2070087 | 0.17756805 | 3.1349178 | 21 | 11 21.9 | 20.2 |
| 483623 2004 $TJ_{190}$ | 17.7 | X | 97.66314 | 56.35897 | 18.86008 | 11.15313 | 0.1676001 | 0.25865726 | 2.4396055 | 21 | 3 3.9 | 20.6 |
| 483624 2004 $TX_{192}$ | 18.1 | X | 117.72649 | 24.48736 | 48.93541 | 2.02249 | 0.1633291 | 0.26180321 | 2.4200225 | 21 | 3 23.9 | 21.2 |
| 483625 2004 $TT_{200}$ | 17.9 | X | 176.56928 | 310.41729 | 55.20929 | 3.22303 | 0.1820529 | 0.26226552 | 2.4171777 | 21 | 3 1.7 | 21.7 |
| 483626 2004 $TH_{206}$ | 17.5 | X | 142.57216 | 321.62024 | 47.96217 | 3.19506 | 0.2087180 | 0.25567219 | 2.4585576 | 21 | 2 4.9 | 21.1 |
| 483627 2004 $TX_{209}$ | 16.3 | X | 59.35060 | 11.56374 | 21.42807 | 10.49926 | 0.1182540 | 0.18895922 | 3.0076271 | 21 | — | — |
| 483628 2004 $TS_{227}$ | 16.6 | X | 0.37029 | 28.19635 | 10.59118 | 10.80951 | 0.2186841 | 0.17776544 | 3.1325968 | 21 | 12 15.3 | 20.2 |
| 483629 2004 $TL_{241}$ | 16.2 | X | 355.34672 | 51.54016 | 342.61178 | 14.31256 | 0.1968091 | 0.17702824 | 3.1412875 | 21 | 11 23.9 | 19.9 |
| 483630 2004 $TE_{249}$ | 16.3 | X | 20.91528 | 359.12451 | 28.09459 | 9.67968 | 0.1486272 | 0.18003023 | 3.1062692 | 21 | 12 26.4 | 20.4 |
| 483631 2004 $TG_{266}$ | 18.2 | X | 113.83843 | 149.94390 | 273.46821 | 0.41925 | 0.1627659 | 0.25830021 | 2.4418532 | 21 | 3 4.9 | 21.3 |
| 483632 2004 $TB_{271}$ | 16.3 | X | 338.88794 | 11.87089 | 37.72615 | 17.95520 | 0.1897468 | 0.17481172 | 3.1677849 | 21 | 11 12.8 | 19.6 |
| 483633 2004 $TK_{290}$ | 16.6 | X | 37.27808 | 13.72295 | 354.48131 | 4.70667 | 0.2004862 | 0.18100830 | 3.0950694 | 21 | — | — |
| 483634 2004 $TS_{300}$ | 16.4 | X | 350.12636 | 14.59524 | 13.68077 | 15.96563 | 0.2716185 | 0.17337524 | 3.1852583 | 21 | 11 8.5 | 19.5 |
| 483635 2004 $TQ_{328}$ | 16.0 | X | 356.99879 | 357.09779 | 14.96393 | 17.57377 | 0.2280043 | 0.17652046 | 3.1473088 | 21 | 10 30.4 | 19.4 |
| 483636 2004 $TJ_{347}$ | 17.9 | X | 224.46463 | 20.37230 | 332.46729 | 4.43725 | 0.2158142 | 0.26880402 | 2.3778194 | 21 | 3 23.5 | 21.9 |
| 483637 2004 $TM_{347}$ | 15.8 | X | 346.11617 | 185.18184 | 251.42736 | 9.11335 | 0.0573930 | 0.18166002 | 3.0876625 | 21 | 12 28.3 | 19.9 |
| 483638 2004 $UM_{5}$ | 16.5 | X | 25.57539 | 215.79169 | 159.51737 | 0.98802 | 0.1759235 | 0.17777635 | 3.1324686 | 21 | 12 21.7 | 20.6 |
| 483639 2004 $VA_{31}$ | 16.6 | X | 19.31008 | 172.29308 | 218.57145 | 10.57615 | 0.1088222 | 0.17807424 | 3.1289742 | 21 | 12 22.3 | 20.8 |
| 483640 2004 $VE_{39}$ | 16.4 | X | 328.69139 | 35.33555 | 63.36249 | 5.90142 | 0.1113738 | 0.17931254 | 3.1145522 | 21 | 12 31.8 | 20.3 |
| 483641 2004 $VW_{39}$ | 16.5 | X | 312.13651 | 248.00065 | 223.96783 | 15.25459 | 0.1779280 | 0.17758656 | 3.1347000 | 21 | 12 16.6 | 20.2 |
| 483642 2004 $VJ_{74}$ | 15.1 | X | 81.22642 | 269.82752 | 64.10412 | 22.84351 | 0.1228605 | 0.18015420 | 3.1048440 | 21 | 12 29.7 | 20.0 |
| 483643 2004 $VX_{95}$ | 16.1 | X | 317.60182 | 34.54096 | 46.84118 | 17.61426 | 0.2155772 | 0.17392554 | 3.1785360 | 21 | 11 12.7 | 19.3 |
| 483644 2004 $XU_{32}$ | 17.5 | X | 102.72807 | 348.64347 | 100.70896 | 2.00669 | 0.1974205 | 0.25642380 | 2.4537510 | 21 | 4 1.1 | 20.5 |
| 483645 2004 $XJ_{37}$ | 16.9 | X | 338.88078 | 205.77789 | 233.27845 | 9.49397 | 0.1931219 | 0.17766918 | 3.1337282 | 21 | 12 24.8 | 20.3 |
| 483646 2004 $XX_{73}$ | 15.7 | X | 295.21205 | 296.27126 | 148.57367 | 17.48101 | 0.1845166 | 0.16960526 | 3.2322864 | 21 | 10 17.3 | 20.0 |
| 483647 2004 $XN_{125}$ | 15.8 | X | 112.89726 | 19.77987 | 341.45205 | 15.70482 | 0.2206047 | 0.24528229 | 2.5275044 | 21 | — | — |
| 483648 2004 $YA_{2}$ | 15.6 | X | 310.16224 | 199.00540 | 276.31952 | 20.64972 | 0.1941616 | 0.17493872 | 3.1662516 | 21 | 12 16.7 | 19.1 |
| 483649 2004 $YL_{16}$ | 13.5 | X | 296.16708 | 229.44274 | 109.97329 | 13.04772 | 0.0756300 | 0.08591765 | 5.0864464 | 21 | 6 17.9 | 20.2 |
| 483650 2005 $AG_{10}$ | 16.0 | X | 357.86536 | 298.82451 | 137.37718 | 17.23184 | 0.2057776 | 0.17500526 | 3.1654490 | 21 | — | — |
| 483651 2005 $AF_{42}$ | 16.2 | X | 68.62396 | 331.60419 | 60.60677 | 15.09077 | 0.1192995 | 0.23885330 | 2.5726570 | 21 | — | — |
| 483652 2005 $CZ_{37}$ | 13.6 | X | 257.42535 | 76.22571 | 304.35451 | 30.11922 | 0.0907709 | 0.08333286 | 5.1910898 | 21 | 6 22.8 | 20.8 |
| 483653 2005 $CJ_{61}$ | 15.7 | X | 237.48453 | 265.08125 | 351.64176 | 9.52837 | 0.0625570 | 0.17679893 | 3.1440031 | 21 | — | — |
| 483654 2005 $EG_{33}$ | 17.1 | X | 351.34249 | 221.14874 | 332.32088 | 35.39608 | 0.2263942 | 0.24276369 | 2.5449557 | 21 | 2 3.7 | 20.2 |
| 483655 2005 $EH_{40}$ | 16.6 | X | 260.65583 | 80.71563 | 153.80174 | 15.78089 | 0.1166970 | 0.23639229 | 2.5904816 | 21 | — | — |
| 483656 2005 $ES_{70}$ | 23.8 | X | 5.80714 | 351.05333 | 352.83977 | 20.82210 | 0.3863692 | 1.47833007 | 0.7631709 | 21 | 3 13.0 | 19.8 |
| 483657 2005 $EP_{99}$ | 16.4 | X | 276.22752 | 15.47740 | 173.23115 | 16.16905 | 0.1203877 | 0.23067058 | 2.6331438 | 21 | — | — |
| 483658 2005 $EQ_{116}$ | 17.8 | X | 313.73544 | 221.79598 | 2.96383 | 6.95889 | 0.1695897 | 0.23972261 | 2.5664337 | 21 | 1 21.4 | 21.3 |
| 483659 2005 $EO_{137}$ | 17.5 | X | 35.10510 | 110.35194 | 1.75169 | 26.17349 | 0.2616013 | 0.24159322 | 2.5531690 | 21 | — | — |
| 483660 2005 $EM_{203}$ | 18.0 | X | 63.92861 | 182.07276 | 340.11146 | 7.75468 | 0.1709294 | 0.25425805 | 2.4676652 | 21 | 5 5.9 | 20.8 |
| 483661 2005 $ED_{213}$ | 17.9 | X | 1.04833 | 12.55294 | 145.48500 | 1.37092 | 0.1065061 | 0.23914347 | 2.5705755 | 21 | 1 7.8 | 20.7 |
| 483662 2005 $EY_{223}$ | 19.6 | X | 297.80595 | 330.10944 | 155.40043 | 30.65825 | 0.3518273 | 0.40751888 | 1.8017902 | 21 | — | — |
| 483663 2005 $EM_{245}$ | 16.2 | X | 209.08902 | 354.61811 | 354.25825 | 11.80401 | 0.1384428 | 0.24489878 | 2.5301424 | 21 | 3 10.5 | 20.1 |
| 483664 2005 $ES_{272}$ | 13.3 | X | 39.76101 | 93.99468 | 142.27117 | 25.73053 | 0.0588713 | 0.08216307 | 5.2402451 | 21 | 7 3.9 | 20.3 |
| 483665 2005 $GL_{8}$ | 16.8 | X | 272.92754 | 48.60660 | 147.43064 | 12.45196 | 0.1377288 | 0.22869721 | 2.6482693 | 21 | — | — |
| 483666 2005 $GK_{30}$ | 17.6 | X | 293.29960 | 176.76889 | 70.87292 | 3.36290 | 0.2767007 | 0.23690836 | 2.5867183 | 21 | 1 14.4 | 21.8 |
| 483667 2005 $GT_{69}$ | 16.6 | X | 226.85394 | 268.87999 | 299.19045 | 1.73407 | 0.2227403 | 0.16346161 | 3.3127770 | 21 | 12 10.9 | 21.9 |
| 483668 2005 $GH_{97}$ | 16.5 | X | 178.42297 | 248.75663 | 343.17842 | 14.96364 | 0.4027431 | 0.15337481 | 3.4564745 | 21 | 11 19.6 | 23.3 |
| 483669 2005 $GZ_{150}$ | 17.8 | X | 279.89268 | 184.20889 | 79.61462 | 4.96381 | 0.1964767 | 0.23500221 | 2.6006870 | 21 | 1 30.2 | 21.8 |
| 483670 2005 $JH_{6}$ | 17.5 | X | 313.48425 | 211.81519 | 33.44150 | 15.10626 | 0.0622792 | 0.24122155 | 2.5557908 | 21 | 3 10.2 | 21.0 |
| 483671 2005 $JW_{36}$ | 16.8 | X | 273.57696 | 171.89051 | 102.38661 | 17.64111 | 0.2053623 | 0.23325284 | 2.6136740 | 21 | 2 6.4 | 21.1 |
| 483672 2005 $JJ_{99}$ | 17.5 | X | 336.89295 | 66.83229 | 141.60871 | 6.45252 | 0.1851054 | 0.23738301 | 2.5832689 | 21 | 1 26.8 | 20.4 |
| 483673 2005 $JS_{100}$ | 16.6 | X | 248.60413 | 219.76482 | 61.42332 | 13.78061 | 0.2448635 | 0.23061388 | 2.6335754 | 21 | 1 23.0 | 21.4 |
| 483674 2005 $JL_{122}$ | 17.6 | X | 341.85374 | 120.38323 | 103.46191 | 5.27960 | 0.1562552 | 0.24084860 | 2.5584286 | 21 | 3 3.2 | 20.5 |
| 483675 2005 $JD_{123}$ | 17.5 | X | 318.51194 | 182.23889 | 41.02284 | 8.46398 | 0.1422985 | 0.23634140 | 2.5908534 | 21 | 1 31.2 | 21.0 |
| 483676 2005 $MR_{13}$ | 17.2 | X | 306.58486 | 140.87411 | 94.06024 | 32.95714 | 0.1837357 | 0.23440178 | 2.6051263 | 21 | 1 22.4 | 21.2 |
| 483677 2005 $MC_{25}$ | 17.6 | X | 291.38364 | 348.08712 | 279.70325 | 5.16368 | 0.3028560 | 0.23245664 | 2.6196388 | 21 | 2 2.1 | 21.9 |
| 483678 2005 $MM_{38}$ | 16.7 | X | 131.91691 | 242.38702 | 127.77610 | 14.23183 | 0.2160641 | 0.21474517 | 2.7617675 | 21 | 1 31.9 | 20.8 |
| 483679 2005 $NV_{1}$ | 17.3 | X | 205.16378 | 42.14530 | 307.35216 | 23.51339 | 0.1843229 | 0.28652692 | 2.2787277 | 21 | 2 21.9 | 21.3 |
| 483680 2005 $NM_{2}$ | 17.8 | X | 297.58881 | 130.45384 | 119.81963 | 10.15889 | 0.3803622 | 0.23253346 | 2.6190618 | 21 | 1 11.6 | 22.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483681 2005 $NV_3$ | 18.5 | X | 41.56159 | 161.06396 | 119.01810 | 4.36108 | 0.1804508 | 0.31221290 | 2.1519664 | 21 | 10 6.5 | 20.6 |
| 483682 2005 $NN_{37}$ | 18.2 | X | 303.94068 | 343.86627 | 128.40381 | 23.77948 | 0.0963458 | 0.38864236 | 1.8596703 | 21 | — | — |
| 483683 2005 $NW_{57}$ | 17.0 | X | 275.15328 | 10.65308 | 273.89609 | 6.95196 | 0.2023878 | 0.23037159 | 2.6354216 | 21 | 2 15.9 | 21.1 |
| 483684 2005 $NS_{63}$ | 18.4 | X | 194.56619 | 122.14121 | 112.92954 | 23.60794 | 0.0770761 | 0.39874143 | 1.8281359 | 21 | — | — |
| 483685 2005 $NN_{69}$ | 17.6 | X | 228.67728 | 225.01853 | 121.56889 | 7.58092 | 0.1938009 | 0.29200673 | 2.2501293 | 21 | 3 22.4 | 21.2 |
| 483686 2005 $ND_{102}$ | 16.6 | X | 234.43513 | 164.01044 | 117.76191 | 18.09269 | 0.3546088 | 0.22324105 | 2.6912457 | 21 | 1 9.9 | 21.7 |
| 483687 2005 $NF_{125}$ | 16.8 | X | 155.22363 | 62.76145 | 274.28650 | 6.19276 | 0.0795688 | 0.21617409 | 2.7495838 | 21 | — | — |
| 483688 2005 $OT_6$ | 16.3 | X | 132.61976 | 3.05521 | 347.08445 | 13.81200 | 0.1983440 | 0.21072806 | 2.7967553 | 21 | 1 10.1 | 20.6 |
| 483689 2005 $OH_{17}$ | 17.1 | X | 232.27403 | 345.73083 | 307.43632 | 10.95066 | 0.1719813 | 0.22182039 | 2.7027242 | 21 | 1 25.3 | 21.6 |
| 483690 2005 $QN_{75}$ | 18.2 | X | 207.45315 | 153.16033 | 214.16114 | 2.13153 | 0.2167658 | 0.28831428 | 2.2693002 | 21 | 3 26.7 | 22.1 |
| 483691 2005 $QV_{133}$ | 16.9 | X | 78.98160 | 355.05612 | 355.98093 | 1.59134 | 0.0813012 | 0.19999125 | 2.8959789 | 21 | — | — |
| 483692 2005 $QF_{134}$ | 16.8 | X | 312.81706 | 260.06097 | 354.50402 | 10.94689 | 0.2709006 | 0.22920286 | 2.6443729 | 21 | 2 15.7 | 20.5 |
| 483693 2005 $QF_{151}$ | 16.7 | X | 141.20112 | 181.17491 | 167.11685 | 10.14435 | 0.2052289 | 0.20998339 | 2.8033635 | 21 | 1 13.4 | 21.1 |
| 483694 2005 $QS_{155}$ | 16.7 | X | 213.49040 | 162.02962 | 168.19372 | 16.23604 | 0.2200103 | 0.22255616 | 2.6967642 | 21 | 2 20.2 | 21.4 |
| 483695 2005 $QW_{159}$ | 16.6 | X | 223.77491 | 170.79153 | 126.97367 | 13.14146 | 0.1790076 | 0.21977082 | 2.7195019 | 21 | 1 23.5 | 21.2 |
| 483696 2005 $RR_9$ | 16.2 | X | 307.57903 | 284.70143 | 18.48817 | 28.94279 | 0.3538979 | 0.23297130 | 2.6157793 | 21 | 4 1.3 | 19.9 |
| 483697 2005 $RQ_{32}$ | 17.7 | X | 330.48987 | 233.61307 | 168.14563 | 32.50837 | 0.1262701 | 0.37317536 | 1.9107069 | 21 | 12 16.9 | 20.3 |
| 483698 2005 $RP_{46}$ | 17.3 | X | 204.77822 | 163.85916 | 144.48566 | 10.74745 | 0.1133329 | 0.21216309 | 2.7841299 | 21 | 1 19.5 | 21.7 |
| 483699 2005 $SU_{43}$ | 18.4 | X | 167.12489 | 161.14671 | 264.64365 | 1.84987 | 0.1591610 | 0.28567384 | 2.2832619 | 21 | 5 3.0 | 21.8 |
| 483700 2005 $SX_{59}$ | 18.5 | X | 145.62485 | 230.44405 | 193.11108 | 0.78317 | 0.1859476 | 0.28132827 | 2.3067143 | 21 | 4 11.3 | 21.8 |
| 483701 2005 $SN_{64}$ | 18.0 | X | 310.68906 | 284.35163 | 14.85755 | 7.88411 | 0.0888758 | 0.29274352 | 2.2463522 | 21 | 4 29.7 | 20.5 |
| 483702 2005 $ST_{64}$ | 17.6 | X | 309.16495 | 15.18365 | 315.70031 | 5.01493 | 0.2114909 | 0.30001446 | 2.2099100 | 21 | 5 23.9 | 20.0 |
| 483703 2005 $SA_{76}$ | 18.2 | X | 266.58700 | 321.59907 | 11.91663 | 3.98553 | 0.0671755 | 0.29136094 | 2.2534529 | 21 | 4 21.2 | 21.0 |
| 483704 2005 $SO_{95}$ | 16.2 | X | 279.12879 | 52.57920 | 16.53347 | 13.12765 | 0.1251820 | 0.18077579 | 3.0977227 | 21 | 9 13.2 | 20.4 |
| 483705 2005 $SS_{113}$ | 18.5 | X | 217.99786 | 17.68969 | 5.23593 | 5.98885 | 0.0727862 | 0.29016814 | 2.2596243 | 21 | 4 27.8 | 21.5 |
| 483706 2005 $SW_{113}$ | 17.3 | X | 29.33131 | 22.46642 | 4.89086 | 10.50743 | 0.0992885 | 0.19525894 | 2.9425833 | 21 | — | — |
| 483707 2005 $SG_{131}$ | 18.2 | X | 129.78705 | 231.63463 | 204.44746 | 5.07995 | 0.1306311 | 0.28079423 | 2.3096381 | 21 | 4 3.1 | 21.2 |
| 483708 2005 $SL_{143}$ | 17.0 | X | 64.19609 | 223.37984 | 173.92670 | 9.67670 | 0.1140109 | 0.20223610 | 2.8745085 | 21 | — | — |
| 483709 2005 $SH_{156}$ | 16.9 | X | 38.00971 | 15.15243 | 22.87716 | 11.98112 | 0.0607183 | 0.19720275 | 2.9232148 | 21 | — | — |
| 483710 2005 $SV_{191}$ | 18.2 | X | 172.37904 | 253.30415 | 144.76941 | 0.95960 | 0.1953707 | 0.28222025 | 2.3018513 | 21 | 4 5.1 | 21.9 |
| 483711 2005 $SC_{222}$ | 16.6 | X | 199.65720 | 230.72661 | 103.68089 | 10.71321 | 0.2363674 | 0.21866603 | 2.7286542 | 21 | 2 19.1 | 21.4 |
| 483712 2005 $SJ_{237}$ | 17.9 | X | 161.58704 | 165.85707 | 220.25430 | 5.64447 | 0.1444161 | 0.27857637 | 2.3218805 | 21 | 3 4.1 | 21.4 |
| 483713 2005 $SS_{249}$ | 17.7 | X | 174.84158 | 327.39500 | 72.35476 | 3.02047 | 0.2311250 | 0.28534594 | 2.2850107 | 21 | 4 11.8 | 21.4 |
| 483714 2005 $TJ_4$ | 18.5 | X | 154.41162 | 266.31340 | 188.54965 | 3.49783 | 0.1365951 | 0.28788909 | 2.2715340 | 21 | 5 28.5 | 21.7 |
| 483715 2005 $TN_{14}$ | 17.6 | X | 198.22514 | 300.01784 | 78.09609 | 4.32028 | 0.2380535 | 0.28649818 | 2.2788801 | 21 | 4 4.6 | 21.5 |
| 483716 2005 $TH_{24}$ | 18.1 | X | 297.36534 | 54.07571 | 26.86849 | 26.25653 | 0.1015296 | 0.37257882 | 1.9127459 | 21 | 11 25.3 | 19.9 |
| 483717 2005 $TO_{24}$ | 18.8 | X | 171.01663 | 203.16175 | 201.62132 | 0.71714 | 0.1832741 | 0.28225115 | 2.3016833 | 21 | 4 11.4 | 22.3 |
| 483718 2005 $TQ_{26}$ | 17.9 | X | 170.87385 | 190.45776 | 197.48229 | 5.02778 | 0.2363650 | 0.28012589 | 2.3133102 | 21 | 3 23.5 | 21.7 |
| 483719 2005 $TV_{54}$ | 18.3 | X | 153.56315 | 224.41742 | 175.10970 | 2.85046 | 0.2652684 | 0.27875440 | 2.3208918 | 21 | 3 26.3 | 22.1 |
| 483720 2005 $TG_{66}$ | 18.4 | X | 162.86357 | 88.29949 | 317.91485 | 4.65295 | 0.2812659 | 0.28199669 | 2.3030677 | 21 | 4 9.5 | 22.3 |
| 483721 2005 $TF_{82}$ | 18.0 | X | 54.32687 | 14.65246 | 221.15948 | 6.39185 | 0.0416438 | 0.29873732 | 2.2162040 | 21 | 7 20.4 | 20.5 |
| 483722 2005 $TL_{87}$ | 17.3 | X | 116.82323 | 287.45230 | 54.77033 | 2.72642 | 0.0737787 | 0.20310631 | 2.8662920 | 21 | — | — |
| 483723 2005 $TZ_{89}$ | 17.7 | X | 90.97380 | 255.16464 | 153.61099 | 3.03836 | 0.2224225 | 0.27051191 | 2.3678006 | 21 | 1 15.3 | 19.9 |
| 483724 2005 $TC_{91}$ | 18.0 | X | 156.24653 | 251.37261 | 173.52759 | 5.57603 | 0.1238220 | 0.28560512 | 2.2836282 | 21 | 4 19.7 | 21.1 |
| 483725 2005 $TX_{95}$ | 17.0 | X | 121.46948 | 324.24278 | 5.71904 | 5.87020 | 0.0418720 | 0.19958828 | 2.8998755 | 21 | — | — |
| 483726 2005 $TM_{105}$ | 17.4 | X | 193.90665 | 293.33513 | 78.78115 | 11.62945 | 0.2246614 | 0.28195094 | 2.3033169 | 21 | 3 29.2 | 21.5 |
| 483727 2005 $TM_{111}$ | 18.1 | X | 238.18901 | 332.81948 | 351.06515 | 4.68880 | 0.1843533 | 0.28565739 | 2.2833496 | 21 | 2 28.5 | 21.6 |
| 483728 2005 $TP_{134}$ | 18.5 | X | 246.39871 | 59.92651 | 283.52982 | 3.93109 | 0.1855267 | 0.28832756 | 2.2692305 | 21 | 3 29.8 | 22.0 |
| 483729 2005 $TO_{136}$ | 18.6 | X | 162.91042 | 324.36093 | 94.90428 | 2.55565 | 0.1793651 | 0.28464270 | 2.2887728 | 21 | 4 23.2 | 22.1 |
| 483730 2005 $TZ_{144}$ | 17.0 | X | 353.68212 | 75.93789 | 39.01415 | 15.36035 | 0.1857476 | 0.19939318 | 2.9017669 | 21 | — | — |
| 483731 2005 $TW_{164}$ | 18.8 | X | 156.08248 | 204.91208 | 221.38343 | 5.03654 | 0.1821808 | 0.28268391 | 2.2993336 | 21 | 4 24.7 | 22.3 |
| 483732 2005 $TY_{168}$ | 18.7 | X | 150.79666 | 160.83980 | 270.47425 | 1.43553 | 0.1908639 | 0.28256809 | 2.2999619 | 21 | 4 26.5 | 22.0 |
| 483733 2005 $TM_{170}$ | 17.4 | X | 339.95287 | 104.73437 | 2.71278 | 8.87594 | 0.1206211 | 0.19789087 | 2.9164344 | 21 | — | — |
| 483734 2005 $TC_{171}$ | 17.6 | X | 139.33928 | 196.94912 | 232.81840 | 11.72286 | 0.2546795 | 0.27918343 | 2.3185135 | 21 | 4 18.1 | 21.2 |
| 483735 2005 $TO_{180}$ | 18.5 | X | 250.73204 | 103.83443 | 18.05394 | 21.21243 | 0.0681319 | 0.37394962 | 1.9080686 | 21 | 11 10.7 | 20.5 |
| 483736 2005 $TL_{185}$ | 17.9 | X | 86.21211 | 225.03906 | 19.55958 | 5.44342 | 0.1226105 | 0.30545360 | 2.1835973 | 21 | 10 4.4 | 20.5 |
| 483737 2005 $TS_{196}$ | 18.3 | X | 19.83955 | 320.87638 | 29.11504 | 21.66073 | 0.0637402 | 0.37450549 | 1.9061801 | 21 | 11 30.4 | 20.5 |
| 483738 2005 $UX_9$ | 17.8 | X | 222.44279 | 262.67779 | 88.81451 | 4.39934 | 0.2419144 | 0.28593930 | 2.2818485 | 21 | 3 21.9 | 21.7 |
| 483739 2005 $UC_{10}$ | 17.6 | X | 208.23103 | 198.16322 | 160.50198 | 4.23980 | 0.2124798 | 0.28379999 | 2.2933014 | 21 | 3 18.0 | 21.2 |
| 483740 2005 $UM_{14}$ | 17.8 | X | 79.36431 | 101.97160 | 36.77569 | 23.07279 | 0.2307845 | 0.27833327 | 2.3232323 | 21 | 5 5.9 | 20.4 |
| 483741 2005 $UF_{21}$ | 18.4 | X | 121.50717 | 237.22899 | 233.34809 | 5.62780 | 0.1895407 | 0.28227114 | 2.3015746 | 21 | 5 18.7 | 21.4 |
| 483742 2005 $UK_{25}$ | 18.2 | X | 135.24167 | 47.02330 | 28.59643 | 7.41007 | 0.0700183 | 0.28071397 | 2.3100783 | 21 | 4 2.9 | 21.1 |
| 483743 2005 $UT_{34}$ | 18.3 | X | 143.79849 | 196.67651 | 221.73324 | 0.64917 | 0.2171343 | 0.27816524 | 2.3241678 | 21 | 4 5.8 | 21.9 |
| 483744 2005 $UQ_{41}$ | 17.7 | X | 178.28537 | 43.24444 | 347.51796 | 4.93642 | 0.2572538 | 0.28186197 | 2.3038015 | 21 | 4 2.2 | 21.6 |
| 483745 2005 $UA_{57}$ | 17.7 | X | 87.18389 | 266.87990 | 32.04338 | 25.16908 | 0.0423609 | 0.37651074 | 1.8994060 | 21 | 12 21.6 | 20.4 |
| 483746 2005 $UQ_{68}$ | 17.5 | X | 210.56220 | 48.36056 | 0.73636 | 10.62183 | 0.1515675 | 0.29077600 | 2.2564741 | 21 | 5 20.7 | 21.1 |
| 483747 2005 $UG_{80}$ | 15.5 | X | 197.19141 | 203.82739 | 211.37712 | 10.19750 | 0.3162696 | 0.15992246 | 3.3614739 | 21 | 5 22.7 | 21.6 |
| 483748 2005 $UD_{86}$ | 18.2 | X | 29.11442 | 227.24708 | 56.13336 | 6.09255 | 0.1799712 | 0.30282235 | 2.1962280 | 21 | 9 19.8 | 20.2 |
| 483749 2005 $UF_{95}$ | 17.9 | X | 134.08707 | 76.84433 | 5.61514 | 6.11589 | 0.0814866 | 0.28103847 | 2.3082997 | 21 | 4 10.0 | 20.8 |
| 483750 2005 $UJ_{126}$ | 18.4 | X | 129.03619 | 25.41715 | 41.77079 | 5.62113 | 0.1834364 | 0.27687107 | 2.3314047 | 21 | 3 31.1 | 21.5 |
| 483751 2005 $UL_{128}$ | 18.3 | X | 145.46876 | 141.55205 | 282.92860 | 0.60493 | 0.2188094 | 0.27935661 | 2.3175552 | 21 | 4 15.2 | 21.9 |
| 483752 2005 $UO_{130}$ | 17.3 | X | 150.39711 | 156.45633 | 200.84577 | 24.51302 | 0.2715544 | 0.27280235 | 2.3545287 | 21 | 1 25.8 | 21.5 |
| 483753 2005 $UR_{130}$ | 18.2 | X | 120.62126 | 69.13214 | 15.92789 | 2.71033 | 0.1762973 | 0.27698848 | 2.3307458 | 21 | 4 11.2 | 21.2 |
| 483754 2005 $UJ_{134}$ | 16.5 | X | 26.48473 | 68.64301 | 21.45519 | 12.75899 | 0.1797805 | 0.19983531 | 2.8974852 | 21 | — | — |
| 483755 2005 $UB_{139}$ | 18.3 | X | 149.73224 | 246.03900 | 207.43728 | 5.79265 | 0.1640768 | 0.28392616 | 2.2926219 | 21 | 5 23.9 | 21.7 |
| 483756 2005 $UT_{147}$ | 17.6 | X | 80.45260 | 186.67320 | 265.15595 | 2.00625 | 0.1358356 | 0.27217567 | 2.3581414 | 21 | 2 13.8 | 20.0 |
| 483757 2005 $UQ_{154}$ | 18.4 | X | 149.99419 | 31.20132 | 47.77399 | 5.60615 | 0.2064460 | 0.28132529 | 2.3067305 | 21 | 5 7.6 | 21.8 |
| 483758 2005 $UL_{166}$ | 18.4 | X | 151.90626 | 177.18799 | 221.07241 | 1.94507 | 0.1855673 | 0.27816927 | 2.3241453 | 21 | 3 15.3 | 21.9 |
| 483759 2005 $UB_{168}$ | 18.1 | X | 235.62102 | 313.55979 | 12.54779 | 2.53986 | 0.1765306 | 0.28344967 | 2.2951906 | 21 | 3 1.7 | 21.6 |
| 483760 2005 $UX_{170}$ | 17.9 | X | 126.94244 | 72.24640 | 29.49799 | 4.88181 | 0.0955977 | 0.28195758 | 2.3032807 | 21 | 4 30.2 | 20.8 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483761 2005 $UZ_{172}$ | 17.4 | X | 357.02090 | 199.69039 | 232.73831 | 4.53918 | 0.1489412 | 0.19178118 | 2.9780505 | 21 | — | — |
| 483762 2005 $UD_{176}$ | 17.8 | X | 134.97535 | 149.88616 | 276.60996 | 1.64381 | 0.1931457 | 0.27728130 | 2.3291046 | 21 | 4 4.1 | 21.2 |
| 483763 2005 $UD_{184}$ | 17.3 | X | 62.53639 | 165.32147 | 224.98139 | 13.10446 | 0.1840300 | 0.19743416 | 2.9209303 | 21 | — | — |
| 483764 2005 $UU_{191}$ | 16.1 | X | 43.36540 | 143.79950 | 234.94686 | 16.37390 | 0.1887811 | 0.19197517 | 2.9760439 | 21 | — | — |
| 483765 2005 $UB_{193}$ | 18.7 | X | 155.19234 | 348.28967 | 58.39207 | 1.72336 | 0.1827037 | 0.28058822 | 2.3107684 | 21 | 3 30.4 | 22.0 |
| 483766 2005 $UX_{200}$ | 18.6 | X | 106.49672 | 43.22190 | 53.10087 | 5.67980 | 0.1920686 | 0.27641556 | 2.3339653 | 21 | 4 13.1 | 21.5 |
| 483767 2005 $UW_{201}$ | 18.6 | X | 146.54854 | 239.14692 | 167.41715 | 1.28886 | 0.1828821 | 0.27727761 | 2.3291253 | 21 | 3 21.2 | 21.9 |
| 483768 2005 $UT_{222}$ | 18.0 | X | 346.07459 | 231.74009 | 18.87088 | 5.39226 | 0.0765115 | 0.28675617 | 2.2775130 | 21 | 4 18.6 | 20.2 |
| 483769 2005 $UE_{226}$ | 17.0 | X | 71.53828 | 312.96475 | 59.77412 | 3.11648 | 0.1045357 | 0.19649404 | 2.9302395 | 21 | — | — |
| 483770 2005 $UO_{240}$ | 16.6 | X | 275.43845 | 212.20957 | 67.47393 | 15.82051 | 0.2157078 | 0.21784986 | 2.7354652 | 21 | 2 20.1 | 21.2 |
| 483771 2005 $UF_{255}$ | 18.2 | X | 141.83811 | 25.10924 | 38.05579 | 8.23065 | 0.1628551 | 0.28063891 | 2.3104902 | 21 | 4 6.4 | 21.4 |
| 483772 2005 $UU_{280}$ | 18.2 | X | 122.75793 | 57.17706 | 33.63691 | 6.18549 | 0.2085981 | 0.27830308 | 2.3234003 | 21 | 4 25.7 | 21.5 |
| 483773 2005 $UE_{289}$ | 18.5 | X | 173.38780 | 33.54570 | 7.33403 | 4.43959 | 0.1258207 | 0.28126743 | 2.3070469 | 21 | 4 5.0 | 21.9 |
| 483774 2005 $UJ_{291}$ | 17.6 | X | 346.06336 | 82.28426 | 353.74569 | 4.11811 | 0.1365466 | 0.19038271 | 2.9926163 | 21 | — | — |
| 483775 2005 $UT_{301}$ | 17.9 | X | 205.20701 | 279.03180 | 92.70203 | 4.87680 | 0.2186882 | 0.28313405 | 2.2968959 | 21 | 4 2.9 | 21.7 |
| 483776 2005 $UH_{307}$ | 18.3 | X | 88.02324 | 261.23955 | 227.02287 | 4.44930 | 0.1783947 | 0.27750859 | 2.3278327 | 21 | 4 27.8 | 20.7 |
| 483777 2005 $UQ_{316}$ | 18.5 | X | 333.52623 | 104.58354 | 238.87821 | 18.71915 | 0.0863671 | 0.36196895 | 1.9499427 | 21 | 8 16.5 | 20.6 |
| 483778 2005 $UU_{335}$ | 18.0 | X | 118.65093 | 113.10913 | 356.38606 | 3.64411 | 0.1528566 | 0.28105864 | 2.3081893 | 21 | 5 7.7 | 21.0 |
| 483779 2005 $UZ_{346}$ | 18.8 | X | 129.32154 | 20.46786 | 53.83197 | 2.39276 | 0.1609700 | 0.27763534 | 2.3271241 | 21 | 4 5.9 | 22.0 |
| 483780 2005 $UD_{381}$ | 17.8 | X | 332.91272 | 249.72955 | 201.75453 | 6.59646 | 0.2358250 | 0.18931594 | 3.0038478 | 21 | — | — |
| 483781 2005 $UJ_{390}$ | 17.4 | X | 352.53976 | 250.97408 | 193.21701 | 4.66143 | 0.0989368 | 0.19462942 | 2.9489250 | 21 | — | — |
| 483782 2005 $UV_{395}$ | 17.0 | X | 342.70932 | 158.37219 | 256.54981 | 8.35343 | 0.2636422 | 0.18623998 | 3.0368320 | 21 | 12 7.8 | 19.6 |
| 483783 2005 $UK_{414}$ | 17.7 | X | 336.95720 | 354.11743 | 79.98000 | 2.53379 | 0.1374173 | 0.18908181 | 3.0063270 | 21 | 12 16.9 | 21.1 |
| 483784 2005 $UF_{433}$ | 18.7 | X | 111.26475 | 56.67715 | 52.81745 | 3.41758 | 0.1851095 | 0.27819280 | 2.3240143 | 21 | 5 4.8 | 21.8 |
| 483785 2005 $UT_{433}$ | 18.7 | X | 120.13225 | 177.15644 | 217.36107 | 1.79535 | 0.2036116 | 0.27042651 | 2.3682990 | 21 | 2 6.1 | 21.5 |
| 483786 2005 $UY_{447}$ | 17.7 | X | 164.59480 | 146.98543 | 277.77252 | 4.75406 | 0.1310340 | 0.28463845 | 2.2887956 | 21 | 4 25.9 | 21.2 |
| 483787 2005 $UM_{471}$ | 18.3 | X | 175.99737 | 36.12028 | 347.88562 | 2.32223 | 0.2201044 | 0.28002875 | 2.3138452 | 21 | 3 22.3 | 22.0 |
| 483788 2005 $UJ_{479}$ | 17.2 | X | 38.18059 | 281.11089 | 93.38391 | 6.21002 | 0.2419473 | 0.19117996 | 2.9842908 | 21 | — | — |
| 483789 2005 $UH_{523}$ | 15.7 | X | 77.51582 | 186.33369 | 92.28564 | 1.95767 | 0.1316517 | 0.12583058 | 3.9440758 | 21 | 10 18.5 | 21.3 |
| 483790 2005 $VQ_{30}$ | 17.8 | X | 171.76471 | 10.29697 | 65.77448 | 12.21788 | 0.1748910 | 0.28421282 | 2.2910801 | 21 | 5 22.9 | 21.4 |
| 483791 2005 $VX_{32}$ | 17.4 | X | 161.87857 | 171.83075 | 203.56572 | 1.21496 | 0.2107163 | 0.27515089 | 2.3411115 | 21 | 2 26.9 | 20.9 |
| 483792 2005 $VO_{56}$ | 17.2 | X | 232.98419 | 143.20420 | 113.00230 | 3.22221 | 0.0153135 | 0.20380772 | 2.8597120 | 21 | — | — |
| 483793 2005 $VR_{60}$ | 18.5 | X | 153.28269 | 86.90172 | 327.28313 | 1.19159 | 0.2132431 | 0.27945770 | 2.3169963 | 21 | 4 8.7 | 22.0 |
| 483794 2005 $VL_{81}$ | 16.3 | X | 203.97380 | 227.32635 | 66.78731 | 7.61886 | 0.0429070 | 0.20214662 | 2.8753566 | 21 | 1 2.7 | 20.5 |
| 483795 2005 $VJ_{82}$ | 17.3 | X | 139.30492 | 64.90647 | 358.33884 | 21.54439 | 0.2999795 | 0.27771917 | 2.3266558 | 21 | 4 8.8 | 21.2 |
| 483796 2005 $VY_{96}$ | 17.4 | X | 341.98023 | 177.73784 | 239.09435 | 8.74986 | 0.2245759 | 0.18614164 | 3.0379015 | 21 | 12 6.4 | 20.3 |
| 483797 2005 $VK_{97}$ | 16.9 | X | 24.05007 | 2.70159 | 47.65706 | 7.65163 | 0.1133259 | 0.19307071 | 2.9647753 | 21 | — | — |
| 483798 2005 $VX_{102}$ | 18.2 | X | 162.35530 | 331.68003 | 60.15351 | 5.85168 | 0.2272707 | 0.28084719 | 2.3093477 | 21 | 3 23.9 | 21.9 |
| 483799 2005 $VF_{125}$ | 18.6 | X | 121.14691 | 48.50511 | 36.53857 | 2.10941 | 0.1526669 | 0.27624177 | 2.3349441 | 21 | 4 9.1 | 21.5 |
| 483800 2005 $WB_{9}$ | 18.1 | X | 98.43690 | 87.24702 | 58.60954 | 4.96931 | 0.0954284 | 0.28290394 | 2.2981413 | 21 | 5 24.7 | 20.9 |
| 483801 2005 $WL_{11}$ | 17.8 | X | 148.78577 | 53.99504 | 62.82789 | 6.25275 | 0.1024099 | 0.28710204 | 2.2756835 | 21 | 6 18.1 | 20.8 |
| 483802 2005 $WO_{13}$ | 18.1 | X | 133.66901 | 192.35915 | 235.89176 | 1.33358 | 0.2000545 | 0.27659221 | 2.3329715 | 21 | 4 6.3 | 21.2 |
| 483803 2005 $WB_{36}$ | 17.9 | X | 168.41680 | 303.69722 | 86.82995 | 4.50821 | 0.1914965 | 0.27732113 | 2.3288816 | 21 | 3 25.2 | 21.6 |
| 483804 2005 $WM_{36}$ | 17.9 | X | 192.82235 | 308.47500 | 84.25816 | 5.30937 | 0.1720839 | 0.28191195 | 2.3035292 | 21 | 4 18.1 | 21.5 |
| 483805 2005 $WX_{53}$ | 17.6 | X | 138.90937 | 7.84995 | 69.57781 | 6.70539 | 0.1331191 | 0.27865853 | 2.3214241 | 21 | 4 19.5 | 20.8 |
| 483806 2005 $WU_{54}$ | 17.5 | X | 123.36939 | 39.89853 | 53.02760 | 6.88863 | 0.2002660 | 0.27723982 | 2.3293369 | 21 | 4 29.3 | 20.6 |
| 483807 2005 $WJ_{72}$ | 18.1 | X | 152.18126 | 34.64317 | 11.28553 | 2.34404 | 0.2018231 | 0.27734541 | 2.3287457 | 21 | 3 27.8 | 21.4 |
| 483808 2005 $WO_{75}$ | 17.9 | X | 189.60013 | 103.50124 | 252.97500 | 5.16166 | 0.1980167 | 0.27845604 | 2.3225493 | 21 | 2 24.7 | 21.8 |
| 483809 2005 $WA_{85}$ | 18.0 | X | 152.48883 | 166.37426 | 50.52942 | 22.92258 | 0.0331362 | 0.37206750 | 1.9144979 | 21 | 11 20.3 | 20.0 |
| 483810 2005 $WT_{86}$ | 18.8 | X | 122.53615 | 317.00810 | 119.71021 | 1.19762 | 0.2015141 | 0.27556989 | 2.3387378 | 21 | 4 6.6 | 21.8 |
| 483811 2005 $WW_{86}$ | 17.7 | X | 221.15427 | 135.39690 | 202.17927 | 1.53657 | 0.2373043 | 0.28098141 | 2.3086122 | 21 | 3 1.6 | 21.6 |
| 483812 2005 $WW_{89}$ | 17.8 | X | 166.10922 | 323.73125 | 90.21363 | 7.41981 | 0.1663173 | 0.28137739 | 2.3064458 | 21 | 4 21.1 | 21.4 |
| 483813 2005 $WR_{94}$ | 18.3 | X | 164.78893 | 343.87077 | 80.39041 | 8.11598 | 0.0722838 | 0.28030007 | 2.3123518 | 21 | 4 26.7 | 21.4 |
| 483814 2005 $WK_{99}$ | 17.1 | X | 12.50998 | 274.89652 | 114.68336 | 1.26339 | 0.2858606 | 0.18697449 | 3.0288736 | 21 | — | — |
| 483815 2005 $WW_{100}$ | 16.3 | X | 19.95898 | 319.94769 | 73.31172 | 11.99962 | 0.3011610 | 0.18912036 | 3.0059184 | 21 | — | — |
| 483816 2005 $WO_{113}$ | 17.4 | X | 66.07719 | 72.51383 | 262.27903 | 18.02384 | 0.1082974 | 0.37839327 | 1.8931010 | 21 | — | — |
| 483817 2005 $WN_{124}$ | 17.8 | X | 161.50902 | 290.69661 | 108.76700 | 6.55361 | 0.2271486 | 0.27805401 | 2.3247875 | 21 | 4 2.5 | 21.6 |
| 483818 2005 $WX_{125}$ | 18.0 | X | 186.88209 | 91.56992 | 64.31941 | 1.43633 | 0.2416531 | 0.23505477 | 2.6002993 | 21 | 9 14.4 | 22.3 |
| 483819 2005 $WD_{143}$ | 18.0 | X | 175.36451 | 325.18094 | 67.55443 | 7.35881 | 0.1333556 | 0.27879748 | 2.3206527 | 21 | 4 1.3 | 21.5 |
| 483820 2005 $WN_{146}$ | 18.9 | X | 118.13009 | 127.72358 | 315.76762 | 1.53802 | 0.1816657 | 0.27524367 | 2.3405854 | 21 | 4 6.3 | 21.8 |
| 483821 2005 $WZ_{166}$ | 17.0 | X | 15.53460 | 300.63506 | 88.29323 | 3.71567 | 0.2122598 | 0.18753726 | 3.0228111 | 21 | 12 31.7 | 20.7 |
| 483822 2005 $WW_{169}$ | 16.4 | X | 162.24480 | 244.66302 | 83.49229 | 7.84979 | 0.1975121 | 0.20339153 | 2.8636118 | 21 | 1 11.1 | 21.0 |
| 483823 2005 $WU_{171}$ | 18.4 | X | 142.48775 | 219.65161 | 213.92870 | 2.39663 | 0.1692522 | 0.27772209 | 2.3266395 | 21 | 4 19.7 | 21.7 |
| 483824 2005 $WV_{174}$ | 18.4 | X | 138.29889 | 16.72606 | 44.40361 | 2.77197 | 0.1842089 | 0.27453772 | 2.3445961 | 21 | 4 1.7 | 21.7 |
| 483825 2005 $WS_{175}$ | 18.4 | X | 137.78758 | 349.72531 | 80.54778 | 6.61368 | 0.2112493 | 0.27580175 | 2.3374269 | 21 | 4 17.9 | 21.9 |
| 483826 2005 $WL_{184}$ | 16.9 | X | 117.28102 | 147.60861 | 299.12340 | 23.65542 | 0.2590281 | 0.27231646 | 2.3573286 | 21 | 4 7.1 | 20.9 |
| 483827 2005 $WA_{193}$ | 17.9 | X | 120.39027 | 97.73349 | 339.17551 | 6.18277 | 0.2252782 | 0.27482845 | 2.3429423 | 21 | 4 4.6 | 21.2 |
| 483828 2005 $WA_{200}$ | 18.3 | X | 143.77820 | 358.09894 | 73.74740 | 5.87604 | 0.1712698 | 0.27717523 | 2.3296988 | 21 | 4 21.3 | 21.7 |
| 483829 2005 $WW_{210}$ | 17.5 | X | 331.44602 | 236.22980 | 230.12904 | 5.27358 | 0.1531081 | 0.18954385 | 3.0014394 | 21 | — | — |
| 483830 2005 $WY_{210}$ | 18.2 | X | 206.72281 | 131.95238 | 245.37160 | 5.67749 | 0.1206928 | 0.28144144 | 2.3060959 | 21 | 4 6.9 | 21.6 |
| 483831 2005 $XL_{8}$ | 16.9 | X | 332.65161 | 46.27034 | 23.52690 | 14.47115 | 0.3167837 | 0.18494782 | 3.0509604 | 21 | 11 29.1 | 19.4 |
| 483832 2005 $XR_{16}$ | 18.1 | X | 168.10211 | 327.95576 | 93.51890 | 3.74462 | 0.1455712 | 0.27930437 | 2.3178442 | 21 | 4 29.9 | 21.5 |
| 483833 2005 $XU_{21}$ | 16.4 | X | 323.82982 | 122.59241 | 255.79244 | 15.53615 | 0.2315802 | 0.17749913 | 3.1357293 | 21 | 8 21.2 | 20.2 |
| 483834 2005 $XF_{27}$ | 16.7 | X | 324.95691 | 190.23524 | 285.71353 | 7.84901 | 0.0702605 | 0.18725013 | 3.0259004 | 21 | — | — |
| 483835 2005 $XD_{35}$ | 17.6 | X | 109.77824 | 49.07732 | 101.90720 | 6.10700 | 0.0937382 | 0.28242140 | 2.3007582 | 21 | 6 17.2 | 20.4 |
| 483836 2005 $XV_{50}$ | 16.3 | X | 260.39005 | 80.98129 | 80.67489 | 18.92706 | 0.1007572 | 0.18278689 | 3.0749592 | 21 | 12 12.2 | 20.3 |
| 483837 2005 $XJ_{52}$ | 17.5 | X | 183.15610 | 130.75273 | 293.37133 | 5.96312 | 0.0840565 | 0.28175216 | 2.3044001 | 21 | 5 14.0 | 20.8 |
| 483838 2005 $XG_{54}$ | 16.5 | X | 310.11236 | 247.35249 | 265.43558 | 13.81266 | 0.1751057 | 0.19213437 | 2.9743998 | 21 | — | — |
| 483839 2005 $XY_{66}$ | 18.3 | X | 155.64692 | 343.92723 | 46.69602 | 3.52810 | 0.1873756 | 0.27276010 | 2.3547718 | 21 | 3 12.4 | 21.8 |
| 483840 2005 $XR_{68}$ | 17.4 | X | 324.93015 | 226.92620 | 265.12696 | 8.57795 | 0.1834284 | 0.19121510 | 2.9839252 | 21 | — | — |

# ELEMENTS AND OPPOSITION DATES IN 2021

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2021 JULY 5.0 TT

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483841 2005 $XZ_{76}$ | 18.4 | X | 148.98133 | 120.86686 | 290.74518 | 2.48700 | 0.2419056 | 0.27811225 | 2.3244630 | 21 | 4 3.1 | 22.1 |
| 483842 2005 $XN_{85}$ | 16.8 | X | 10.41298 | 326.84392 | 278.49173 | 23.04506 | 0.2267560 | 0.28012528 | 2.3133136 | 21 | 5 23.8 | 18.7 |
| 483843 2005 $YQ_{6}$ | 17.0 | X | 34.40335 | 99.60417 | 280.72840 | 8.08360 | 0.0928652 | 0.18540118 | 3.0459847 | 21 | 12 29.8 | 21.2 |
| 483844 2005 $YF_{8}$ | 16.6 | X | 314.78930 | 330.18638 | 118.39980 | 11.03436 | 0.2002704 | 0.18074455 | 3.0980796 | 21 | 11 23.9 | 20.1 |
| 483845 2005 $YY_{9}$ | 17.4 | X | 341.75575 | 302.63325 | 151.21643 | 2.75600 | 0.1474809 | 0.18917945 | 3.0052925 | 21 | — | — |
| 483846 2005 $YG_{10}$ | 17.0 | X | 338.73274 | 334.54997 | 113.96264 | 2.63078 | 0.0863937 | 0.18792775 | 3.0186223 | 21 | — | — |
| 483847 2005 $YJ_{14}$ | 16.7 | X | 341.96549 | 293.46284 | 112.08895 | 10.64894 | 0.3144139 | 0.17979223 | 3.1090098 | 21 | 11 25.7 | 19.2 |
| 483848 2005 $YZ_{18}$ | 16.4 | X | 23.43508 | 289.11257 | 74.58780 | 18.01688 | 0.2461649 | 0.18606564 | 3.0387287 | 21 | 12 15.8 | 20.1 |
| 483849 2005 $YN_{22}$ | 17.2 | X | 320.98682 | 52.88091 | 36.60114 | 0.62471 | 0.1455123 | 0.18199730 | 3.0838465 | 21 | 12 7.1 | 20.7 |
| 483850 2005 $YX_{23}$ | 18.0 | X | 133.58015 | 201.25300 | 280.39576 | 3.61207 | 0.0808117 | 0.28007157 | 2.3136093 | 21 | 6 4.3 | 21.1 |
| 483851 2005 $YD_{27}$ | 18.1 | X | 134.23226 | 336.00192 | 71.83695 | 2.15901 | 0.1802386 | 0.27016305 | 2.3698385 | 21 | 3 11.2 | 21.3 |
| 483852 2005 $YV_{28}$ | 17.0 | X | 293.59222 | 40.09113 | 109.05914 | 2.69221 | 0.1282802 | 0.18481029 | 3.0524738 | 21 | — | — |
| 483853 2005 $YK_{31}$ | 17.9 | X | 28.37893 | 80.22605 | 109.59676 | 3.43487 | 0.1644664 | 0.27021404 | 2.3695404 | 21 | 4 7.4 | 19.7 |
| 483854 2005 $YF_{32}$ | 16.3 | X | 250.06568 | 62.30697 | 112.23662 | 15.70473 | 0.1442672 | 0.17920388 | 3.1158111 | 21 | 12 10.4 | 20.9 |
| 483855 2005 $YA_{43}$ | 17.0 | X | 0.80883 | 131.89396 | 282.12231 | 7.90477 | 0.1367455 | 0.18307340 | 3.0717502 | 21 | 12 29.1 | 20.7 |
| 483856 2005 $YV_{55}$ | 20.2 | X | 249.35123 | 308.33311 | 126.57672 | 5.93231 | 0.3923834 | 0.35960731 | 1.9584705 | 21 | 7 14.9 | 23.4 |
| 483857 2005 $YZ_{77}$ | 18.2 | X | 31.16661 | 60.15539 | 74.87652 | 2.41048 | 0.1355570 | 0.26396580 | 2.4067867 | 21 | 1 18.2 | 20.2 |
| 483858 2005 $YO_{83}$ | 18.1 | X | 88.81139 | 305.18979 | 180.53139 | 1.06281 | 0.1294287 | 0.27195658 | 2.3594078 | 21 | 4 18.1 | 20.6 |
| 483859 2005 $YM_{87}$ | 16.6 | X | 332.71527 | 143.53723 | 284.18190 | 9.13822 | 0.1695644 | 0.18132587 | 3.0914546 | 21 | 11 28.4 | 20.1 |
| 483860 2005 $YH_{88}$ | 16.5 | X | 22.75890 | 163.88765 | 288.71884 | 9.06484 | 0.0654699 | 0.19159118 | 2.9800191 | 21 | — | — |
| 483861 2005 $YU_{89}$ | 17.7 | X | 87.78624 | 53.66223 | 110.56171 | 5.36376 | 0.1480699 | 0.27744473 | 2.3281899 | 21 | 6 14.8 | 20.6 |
| 483862 2005 $YA_{97}$ | 18.1 | X | 162.63403 | 71.35317 | 294.76623 | 3.96603 | 0.2479302 | 0.27322498 | 2.3521000 | 21 | 2 18.5 | 21.8 |
| 483863 2005 $YO_{109}$ | 16.6 | X | 5.20149 | 284.97364 | 112.66928 | 18.31386 | 0.2613840 | 0.18334208 | 3.0687484 | 21 | 12 31.9 | 20.0 |
| 483864 2005 $YP_{111}$ | 18.4 | X | 115.77708 | 302.71167 | 149.56904 | 2.62456 | 0.1727915 | 0.27314982 | 2.3525314 | 21 | 4 16.3 | 21.3 |
| 483865 2005 $YT_{111}$ | 16.3 | X | 144.01881 | 196.47823 | 123.60848 | 9.73782 | 0.0555594 | 0.19051309 | 2.9912508 | 21 | — | — |
| 483866 2005 $YM_{112}$ | 17.4 | X | 78.25879 | 145.10083 | 280.21437 | 5.76486 | 0.0898005 | 0.26223867 | 2.4173427 | 21 | 1 1.3 | 19.9 |
| 483867 2005 $YJ_{117}$ | 16.5 | X | 343.48579 | 329.45155 | 106.00425 | 16.07465 | 0.2777214 | 0.18480554 | 3.0525262 | 21 | — | — |
| 483868 2005 $YF_{130}$ | 17.6 | X | 293.12496 | 26.98064 | 322.61095 | 7.01485 | 0.1563787 | 0.28515820 | 2.2860136 | 21 | 6 7.2 | 20.3 |
| 483869 2005 $YO_{135}$ | 16.4 | X | 206.15635 | 166.28395 | 93.90352 | 12.15859 | 0.0349104 | 0.19022462 | 2.9942742 | 21 | — | — |
| 483870 2005 $YY_{135}$ | 15.8 | X | 223.47641 | 152.71304 | 94.49481 | 14.56306 | 0.1746057 | 0.18819774 | 3.0157346 | 21 | — | — |
| 483871 2005 $YX_{136}$ | 18.3 | X | 125.33882 | 342.36456 | 107.15740 | 6.14540 | 0.1955011 | 0.27423505 | 2.3463209 | 21 | 4 28.4 | 21.6 |
| 483872 2005 $YJ_{139}$ | 17.1 | X | 323.25066 | 199.10098 | 278.93917 | 17.99210 | 0.0720552 | 0.18767459 | 3.0213363 | 21 | — | — |
| 483873 2005 $YO_{143}$ | 16.7 | X | 0.86919 | 332.34089 | 116.17370 | 16.89978 | 0.0910715 | 0.18606434 | 3.0387429 | 21 | — | — |
| 483874 2005 $YB_{145}$ | 17.9 | X | 184.96191 | 68.51011 | 315.33088 | 3.63981 | 0.1494657 | 0.27326352 | 2.3518788 | 21 | 3 26.3 | 21.6 |
| 483875 2005 $YK_{159}$ | 16.7 | X | 351.42446 | 148.63886 | 274.05099 | 14.14155 | 0.2529621 | 0.18508000 | 3.0495076 | 21 | — | — |
| 483876 2005 $YN_{163}$ | 15.5 | X | 260.81174 | 345.82412 | 119.47692 | 28.21871 | 0.1039406 | 0.17287488 | 3.1914016 | 21 | 10 14.8 | 20.6 |
| 483877 2005 $YX_{164}$ | 15.7 | X | 277.54319 | 80.59708 | 59.02655 | 17.39313 | 0.1521312 | 0.18131342 | 3.0915961 | 21 | 11 29.5 | 19.8 |
| 483878 2005 $YS_{165}$ | 17.6 | X | 209.43174 | 10.28141 | 86.11443 | 33.99032 | 0.4445071 | 0.35685710 | 1.9685200 | 21 | 7 10.5 | 21.6 |
| 483879 2005 $YZ_{175}$ | 17.0 | X | 4.72785 | 11.94642 | 26.35354 | 0.84472 | 0.1665906 | 0.18133379 | 3.0913645 | 21 | 12 18.2 | 20.6 |
| 483880 2005 $YP_{193}$ | 18.9 | X | 63.76440 | 168.70557 | 290.84289 | 1.93498 | 0.2180668 | 0.26390317 | 2.4071675 | 21 | 2 6.2 | 20.5 |
| 483881 2005 $YS_{202}$ | 16.7 | X | 331.23878 | 167.16101 | 288.15702 | 6.47555 | 0.0444255 | 0.18421235 | 3.0590757 | 21 | — | — |
| 483882 2005 $YV_{218}$ | 18.5 | X | 112.92710 | 46.85561 | 35.46261 | 2.86299 | 0.1651786 | 0.27088980 | 2.3655980 | 21 | 3 28.8 | 21.3 |
| 483883 2005 $YO_{227}$ | 17.2 | X | 305.89732 | 28.25101 | 121.32370 | 10.61223 | 0.1664866 | 0.18664332 | 3.0324554 | 21 | — | — |
| 483884 2005 $YH_{241}$ | 16.6 | X | 273.13744 | 78.85014 | 103.16085 | 6.00354 | 0.0913526 | 0.18526717 | 3.0474534 | 21 | — | — |
| 483885 2005 $YJ_{246}$ | 16.5 | X | 264.44706 | 36.08361 | 142.81944 | 13.26065 | 0.1194864 | 0.18271003 | 3.0758215 | 21 | — | — |
| 483886 2005 $YO_{246}$ | 17.0 | X | 346.20743 | 319.72430 | 148.61851 | 9.19030 | 0.2077034 | 0.18796183 | 3.0182574 | 21 | — | — |
| 483887 2005 $YB_{254}$ | 18.3 | X | 90.09812 | 47.96887 | 98.93312 | 2.81482 | 0.1358500 | 0.27477569 | 2.3432422 | 21 | 5 22.1 | 21.0 |
| 483888 2005 $YW_{271}$ | 15.6 | X | 46.97458 | 47.22366 | 318.18843 | 26.63353 | 0.1561110 | 0.17704765 | 3.1410578 | 21 | — | — |
| 483889 2005 $YN_{290}$ | 16.3 | X | 338.46652 | 277.14128 | 152.62445 | 16.32760 | 0.2438426 | 0.17920682 | 3.1157770 | 21 | 12 16.7 | 19.6 |
| 483890 2005 $YQ_{292}$ | 16.8 | X | 325.29170 | 215.25763 | 265.51604 | 8.98631 | 0.1572257 | 0.18999287 | 2.9967086 | 21 | — | — |
| 483891 2006 $AB_{4}$ | 16.7 | X | 346.44890 | 322.44680 | 83.03262 | 10.93535 | 0.3208675 | 0.18270563 | 3.0758708 | 21 | 12 7.9 | 19.0 |
| 483892 2006 $AO_{9}$ | 18.5 | X | 57.00360 | 59.35063 | 98.17855 | 3.55561 | 0.1325857 | 0.27125697 | 2.3634628 | 21 | 4 13.5 | 20.8 |
| 483893 2006 $AX_{16}$ | 16.4 | X | 299.28297 | 158.49082 | 283.03505 | 19.13333 | 0.2260225 | 0.17777676 | 3.1324638 | 21 | 9 28.2 | 20.7 |
| 483894 2006 $AP_{17}$ | 16.7 | X | 251.38393 | 268.77939 | 291.24143 | 8.80669 | 0.1700611 | 0.18343419 | 3.0677210 | 21 | — | — |
| 483895 2006 $AX_{18}$ | 16.2 | X | 24.07407 | 312.89128 | 130.26338 | 10.65258 | 0.0671937 | 0.18951059 | 3.0017906 | 21 | — | — |
| 483896 2006 $AZ_{22}$ | 18.1 | X | 140.41047 | 110.47273 | 295.21268 | 5.77880 | 0.2437470 | 0.27196965 | 2.3593321 | 21 | 3 17.6 | 21.7 |
| 483897 2006 $AC_{23}$ | 18.0 | X | 75.55357 | 40.09244 | 101.65126 | 5.55738 | 0.1048583 | 0.27203351 | 2.3589629 | 21 | 4 19.2 | 20.6 |
| 483898 2006 $AS_{41}$ | 16.1 | X | 277.53698 | 242.96091 | 288.41027 | 13.86603 | 0.2547010 | 0.18204496 | 3.0833082 | 21 | 12 25.8 | 19.8 |
| 483899 2006 $AM_{42}$ | 16.7 | X | 239.33521 | 39.71023 | 142.27527 | 6.16927 | 0.2045237 | 0.17709276 | 3.1405244 | 21 | 11 28.4 | 21.5 |
| 483900 2006 $AG_{44}$ | 16.3 | X | 336.36219 | 126.28515 | 320.91638 | 9.80795 | 0.1130358 | 0.18198212 | 3.0840180 | 21 | 12 31.2 | 20.2 |
| 483901 2006 $AC_{50}$ | 18.4 | X | 118.47151 | 341.86579 | 102.83416 | 6.50082 | 0.0780401 | 0.27189411 | 2.3597691 | 21 | 3 28.9 | 21.4 |
| 483902 2006 $AM_{52}$ | 18.3 | X | 64.80724 | 18.08503 | 151.70079 | 2.33971 | 0.1529107 | 0.27360892 | 2.3498991 | 21 | 5 18.6 | 20.5 |
| 483903 2006 $AP_{52}$ | 16.8 | X | 340.18344 | 13.85465 | 126.86333 | 10.27801 | 0.1416208 | 0.19086234 | 2.9876007 | 21 | — | — |
| 483904 2006 $AQ_{52}$ | 16.7 | X | 284.46319 | 27.52811 | 142.79376 | 5.80087 | 0.0818427 | 0.18587637 | 3.0407911 | 21 | — | — |
| 483905 2006 $AQ_{67}$ | 16.1 | X | 118.20078 | 17.36300 | 289.01295 | 16.93185 | 0.0461539 | 0.18128014 | 3.0919745 | 21 | — | — |
| 483906 2006 $AN_{73}$ | 18.4 | X | 126.22396 | 205.31521 | 245.86898 | 2.05276 | 0.2037664 | 0.27374797 | 2.3491033 | 21 | 4 29.5 | 21.7 |
| 483907 2006 $AE_{85}$ | 15.8 | X | 243.78178 | 95.05568 | 96.46800 | 17.28814 | 0.1895642 | 0.17720886 | 3.1391526 | 21 | 12 15.7 | 20.4 |
| 483908 2006 $AD_{92}$ | 18.1 | X | 132.92223 | 294.98989 | 117.21143 | 2.96339 | 0.1838294 | 0.26864684 | 2.3787469 | 21 | 3 16.2 | 21.4 |
| 483909 2006 $AT_{94}$ | 19.0 | X | 120.13907 | 78.29917 | 350.50247 | 1.03764 | 0.1698016 | 0.26943319 | 2.3741163 | 21 | 3 19.6 | 21.9 |
| 483910 2006 $AE_{104}$ | 15.9 | X | 110.54259 | 27.20445 | 306.29583 | 8.87322 | 0.1004047 | 0.18366007 | 3.0652052 | 21 | — | — |
| 483911 2006 $BH_{8}$ | 16.4 | X | 288.68778 | 56.93435 | 148.89298 | 12.84491 | 0.2692319 | 0.18451180 | 3.0557650 | 21 | — | — |
| 483912 2006 $BE_{17}$ | 18.3 | X | 71.12036 | 3.12929 | 165.97183 | 1.24587 | 0.1336315 | 0.27386464 | 2.3484361 | 21 | 5 24.7 | 20.8 |
| 483913 2006 $BV_{18}$ | 17.6 | X | 37.97024 | 271.10242 | 286.76932 | 3.35530 | 0.0626525 | 0.27394223 | 2.3479926 | 21 | 4 29.7 | 20.1 |
| 483914 2006 $BZ_{24}$ | 17.9 | X | 59.14221 | 294.74441 | 258.32976 | 1.54136 | 0.1460156 | 0.27528745 | 2.3403372 | 21 | 6 11.6 | 20.2 |
| 483915 2006 $BN_{31}$ | 17.5 | X | 118.31050 | 94.56559 | 325.49259 | 11.48834 | 0.1790542 | 0.26618581 | 2.3933862 | 21 | 3 4.8 | 20.7 |
| 483916 2006 $BY_{42}$ | 17.0 | X | 303.71271 | 27.54907 | 118.60793 | 11.12829 | 0.1862794 | 0.18378908 | 3.0637706 | 21 | — | — |
| 483917 2006 $BW_{44}$ | 16.7 | X | 330.19551 | 162.96006 | 319.96089 | 3.35498 | 0.1026194 | 0.18229669 | 3.0804691 | 21 | — | — |
| 483918 2006 $BA_{46}$ | 17.3 | X | 269.49095 | 184.72603 | 322.15598 | 2.04543 | 0.1636436 | 0.17592310 | 3.1544294 | 21 | 11 25.2 | 21.5 |
| 483919 2006 $BU_{47}$ | 17.0 | X | 291.44960 | 51.84173 | 73.24233 | 1.85810 | 0.1406519 | 0.18025764 | 3.1036561 | 21 | 12 4.1 | 20.7 |
| 483920 2006 $BD_{48}$ | 18.3 | X | 352.02598 | 200.74223 | 35.81952 | 1.84260 | 0.1400096 | 0.27076942 | 2.3662991 | 21 | 4 3.5 | 20.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 483921 2006 $BB_{49}$ | 16.0 | $X$ | 293.96615 | 176.10737 | 318.21519 | 9.53272 | 0.0884595 | 0.18139423 | 3.0906778 | 21 | 12 26.1 | 20.1 |
| 483922 2006 $BV_{59}$ | 18.4 | $X$ | 85.40326 | 99.88298 | 32.75199 | 1.78442 | 0.1272075 | 0.27029769 | 2.3690515 | 21 | 4 22.4 | 21.0 |
| 483923 2006 $BW_{59}$ | 18.1 | $X$ | 55.87183 | 78.01089 | 120.91175 | 5.30421 | 0.0975647 | 0.27477273 | 2.3432590 | 21 | 6 7.7 | 20.5 |
| 483924 2006 $BV_{61}$ | 18.3 | $X$ | 270.71629 | 339.35652 | 120.56551 | 24.05135 | 0.0754324 | 0.36187583 | 1.9502771 | 21 | 11 25.9 | 20.7 |
| 483925 2006 $BP_{62}$ | 18.1 | $X$ | 277.36740 | 330.53874 | 108.27375 | 24.76737 | 0.0878611 | 0.36116223 | 1.9528453 | 21 | 11 6.3 | 20.6 |
| 483926 2006 $BU_{66}$ | 18.5 | $X$ | 145.38462 | 82.05246 | 331.92763 | 3.19636 | 0.2389342 | 0.27228838 | 2.3574907 | 21 | 4 3.1 | 22.2 |
| 483927 2006 $BD_{67}$ | 17.7 | $X$ | 176.91218 | 46.19980 | 328.28491 | 5.80133 | 0.1487441 | 0.26891933 | 2.3771397 | 21 | 3 7.5 | 21.2 |
| 483928 2006 $BQ_{67}$ | 17.9 | $X$ | 59.54454 | 19.48473 | 114.67456 | 5.97472 | 0.1565374 | 0.26638721 | 2.3921797 | 21 | 3 18.5 | 20.1 |
| 483929 2006 $BR_{68}$ | 18.2 | $X$ | 156.84607 | 84.46627 | 332.27620 | 4.52904 | 0.1822242 | 0.27379417 | 2.3488390 | 21 | 4 11.9 | 21.8 |
| 483930 2006 $BW_{69}$ | 17.7 | $X$ | 162.19209 | 357.63301 | 33.50497 | 3.74618 | 0.2138535 | 0.27019535 | 2.3696496 | 21 | 3 21.2 | 21.4 |
| 483931 2006 $BD_{76}$ | 16.3 | $X$ | 351.08157 | 308.05126 | 119.25506 | 10.99145 | 0.0989529 | 0.18012105 | 3.1052250 | 21 | 12 26.9 | 20.2 |
| 483932 2006 $BT_{83}$ | 18.3 | $X$ | 27.10539 | 226.08654 | 355.08991 | 2.62399 | 0.1885619 | 0.27270690 | 2.3550780 | 21 | 5 25.9 | 20.1 |
| 483933 2006 $BQ_{85}$ | 18.4 | $X$ | 1.55532 | 216.95679 | 7.14433 | 1.55530 | 0.1421282 | 0.26885665 | 2.3775091 | 21 | 4 2.5 | 20.5 |
| 483934 2006 $BD_{89}$ | 17.9 | $X$ | 156.58510 | 90.73710 | 319.68206 | 9.19059 | 0.1239550 | 0.27096672 | 2.3651503 | 21 | 3 27.2 | 21.4 |
| 483935 2006 $BE_{90}$ | 18.3 | $X$ | 115.26800 | 118.77884 | 338.17244 | 2.81656 | 0.2069713 | 0.27140997 | 2.3625745 | 21 | 4 24.6 | 21.6 |
| 483936 2006 $BN_{91}$ | 16.8 | $X$ | 290.40849 | 347.30037 | 151.36920 | 11.75727 | 0.2026560 | 0.17896254 | 3.1186116 | 21 | 12 12.7 | 20.7 |
| 483937 2006 $BZ_{100}$ | 16.6 | $X$ | 324.37219 | 154.40037 | 329.03658 | 10.47271 | 0.0816763 | 0.18386018 | 3.0629807 | 21 | — | — |
| 483938 2006 $BJ_{105}$ | 18.7 | $X$ | 63.07119 | 120.27689 | 15.63110 | 2.25962 | 0.1647785 | 0.26757623 | 2.3850878 | 21 | 3 26.1 | 20.9 |
| 483939 2006 $BP_{107}$ | 18.2 | $X$ | 46.02453 | 48.82824 | 120.77744 | 5.13881 | 0.2049418 | 0.26851082 | 2.3795501 | 21 | 4 20.6 | 20.0 |
| 483940 2006 $BG_{110}$ | 18.3 | $X$ | 42.09443 | 111.63578 | 37.13053 | 1.89180 | 0.1326703 | 0.26472307 | 2.4021946 | 21 | 3 1.9 | 20.4 |
| 483941 2006 $BX_{110}$ | 16.2 | $X$ | 354.38435 | 61.65591 | 329.21307 | 13.82084 | 0.2515366 | 0.17649954 | 3.1475575 | 21 | 11 22.9 | 19.6 |
| 483942 2006 $BX_{112}$ | 18.1 | $X$ | 111.35935 | 88.33714 | 354.03420 | 3.24370 | 0.0996258 | 0.26723446 | 2.3871209 | 21 | 3 16.2 | 21.1 |
| 483943 2006 $BN_{123}$ | 18.0 | $X$ | 118.60758 | 129.25080 | 334.31443 | 3.47716 | 0.0853286 | 0.26994386 | 2.3711212 | 21 | 4 20.2 | 21.0 |
| 483944 2006 $BS_{123}$ | 16.8 | $X$ | 213.02403 | 229.75469 | 335.33703 | 9.08943 | 0.0799678 | 0.17395891 | 3.1781296 | 21 | 12 9.4 | 21.7 |
| 483945 2006 $BS_{124}$ | 16.9 | $X$ | 244.59871 | 21.86174 | 139.11268 | 2.19456 | 0.1121827 | 0.17291675 | 3.1908863 | 21 | 11 19.6 | 21.5 |
| 483946 2006 $BT_{127}$ | 17.1 | $X$ | 250.63639 | 57.16522 | 151.02515 | 21.99398 | 0.2229925 | 0.17907790 | 3.1172721 | 21 | — | — |
| 483947 2006 $BK_{130}$ | 16.5 | $X$ | 290.85689 | 345.61656 | 158.24534 | 11.34795 | 0.0803861 | 0.17797998 | 3.1300789 | 21 | — | — |
| 483948 2006 $BP_{132}$ | 16.6 | $X$ | 288.08985 | 134.21053 | 333.99631 | 14.66347 | 0.1238206 | 0.17269502 | 3.1936170 | 21 | 11 2.1 | 21.0 |
| 483949 2006 $BU_{133}$ | 16.7 | $X$ | 319.32417 | 320.06085 | 137.16371 | 2.44840 | 0.0714209 | 0.17514622 | 3.1637503 | 21 | 12 15.5 | 20.7 |
| 483950 2006 $BY_{140}$ | 18.0 | $X$ | 32.00963 | 218.27538 | 306.32819 | 4.65910 | 0.1627248 | 0.26414843 | 2.4056773 | 21 | 3 2.9 | 20.0 |
| 483951 2006 $BM_{147}$ | 18.1 | $X$ | 6.83236 | 205.16909 | 358.42484 | 3.64613 | 0.1274358 | 0.26692259 | 2.3889799 | 21 | 3 14.5 | 20.4 |
| 483952 2006 $BD_{151}$ | 16.6 | $X$ | 217.05336 | 223.70590 | 343.66856 | 7.05061 | 0.0209346 | 0.17857336 | 3.1231411 | 21 | 12 25.4 | 21.1 |
| 483953 2006 $BE_{154}$ | 17.6 | $X$ | 65.49556 | 17.97403 | 130.33497 | 6.45798 | 0.0778116 | 0.26771343 | 2.3842728 | 21 | 4 9.3 | 20.3 |
| 483954 2006 $BY_{156}$ | 17.7 | $X$ | 8.95493 | 118.41961 | 94.11879 | 2.63373 | 0.1289297 | 0.26562556 | 2.3967504 | 21 | 4 2.9 | 19.9 |
| 483955 2006 $BS_{164}$ | 18.1 | $X$ | 69.50109 | 32.52049 | 106.55920 | 2.13713 | 0.1266735 | 0.26646925 | 2.3916887 | 21 | 4 7.4 | 20.4 |
| 483956 2006 $BL_{171}$ | 16.7 | $X$ | 216.19801 | 93.41820 | 136.49518 | 11.19198 | 0.2075614 | 0.17928449 | 3.1148770 | 21 | 12 30.2 | 21.8 |
| 483957 2006 $BW_{171}$ | 17.4 | $X$ | 298.97270 | 275.29669 | 232.47271 | 1.14577 | 0.1398632 | 0.18366094 | 3.0651955 | 21 | — | — |
| 483958 2006 $BW_{188}$ | 16.0 | $X$ | 187.22485 | 133.20725 | 131.85243 | 13.70209 | 0.2207596 | 0.17511994 | 3.1640668 | 21 | — | — |
| 483959 2006 $BZ_{192}$ | 15.8 | $X$ | 175.20702 | 297.02877 | 320.37159 | 25.16935 | 0.2325872 | 0.17412867 | 3.1760636 | 21 | 12 30.2 | 21.6 |
| 483960 2006 $BO_{198}$ | 16.3 | $X$ | 359.48749 | 79.63337 | 344.42424 | 9.40851 | 0.1032864 | 0.17803310 | 3.1294563 | 21 | — | — |
| 483961 2006 $BW_{202}$ | 18.2 | $X$ | 133.05198 | 66.04664 | 357.71365 | 2.46473 | 0.1585210 | 0.26877912 | 2.3779663 | 21 | 3 26.8 | 21.6 |
| 483962 2006 $BJ_{205}$ | 18.2 | $X$ | 13.12798 | 108.70193 | 125.75242 | 3.10046 | 0.2094418 | 0.26971403 | 2.3724680 | 21 | 5 15.3 | 19.8 |
| 483963 2006 $BZ_{209}$ | 16.8 | $X$ | 258.95796 | 29.68419 | 120.12591 | 5.37055 | 0.1825980 | 0.17470921 | 3.1690240 | 21 | 11 14.9 | 21.2 |
| 483964 2006 $BR_{210}$ | 16.3 | $X$ | 337.25250 | 322.13154 | 151.72913 | 18.52401 | 0.1866014 | 0.18457614 | 3.0550548 | 21 | — | — |
| 483965 2006 $BE_{212}$ | 16.1 | $X$ | 191.52048 | 267.88223 | 341.02001 | 25.62335 | 0.1482358 | 0.17492414 | 3.1664275 | 21 | — | — |
| 483966 2006 $BT_{214}$ | 17.9 | $X$ | 195.77985 | 221.95097 | 322.93660 | 18.07152 | 0.0655303 | 0.36421708 | 1.9419104 | 21 | 11 25.8 | 20.5 |
| 483967 2006 $BJ_{220}$ | 16.8 | $X$ | 220.91274 | 98.00842 | 112.21180 | 4.29522 | 0.2136636 | 0.17645455 | 3.1480924 | 21 | 12 11.2 | 21.9 |
| 483968 2006 $BJ_{226}$ | 13.4 | $X$ | 347.18240 | 317.02860 | 321.25671 | 24.10905 | 0.0647927 | 0.08306271 | 5.2023391 | 21 | 6 13.9 | 20.3 |
| 483969 2006 $BL_{230}$ | 18.0 | $X$ | 53.68546 | 85.10645 | 75.00332 | 3.37195 | 0.1319917 | 0.26882544 | 2.3776932 | 21 | 4 11.1 | 20.2 |
| 483970 2006 $BW_{230}$ | 17.3 | $X$ | 333.01958 | 97.92302 | 321.76925 | 18.99458 | 0.3110652 | 0.17939365 | 3.1136133 | 21 | 11 6.8 | 20.4 |
| 483971 2006 $BL_{232}$ | 17.9 | $X$ | 9.73771 | 229.62945 | 0.90028 | 4.53769 | 0.1990551 | 0.27036703 | 2.3686464 | 21 | 4 25.7 | 19.7 |
| 483972 2006 $BZ_{233}$ | 16.1 | $X$ | 209.33800 | 248.54818 | 328.01358 | 12.38343 | 0.2509685 | 0.17479810 | 3.1679495 | 21 | 12 3.4 | 21.6 |
| 483973 2006 $BG_{235}$ | 17.6 | $X$ | 162.35485 | 277.20975 | 107.14277 | 7.61104 | 0.2129723 | 0.26895332 | 2.3769394 | 21 | 3 15.2 | 21.4 |
| 483974 2006 $BN_{244}$ | 16.4 | $X$ | 83.26601 | 216.62507 | 130.42191 | 10.51376 | 0.0720159 | 0.17949399 | 3.1124528 | 21 | — | — |
| 483975 2006 $BK_{251}$ | 17.0 | $X$ | 232.48108 | 213.76918 | 337.73481 | 0.42206 | 0.1074014 | 0.17581299 | 3.1557462 | 21 | 12 12.5 | 21.4 |
| 483976 2006 $BM_{256}$ | 18.0 | $X$ | 116.05424 | 87.00667 | 11.45605 | 2.41726 | 0.1752612 | 0.27035487 | 2.3687174 | 21 | 4 24.1 | 21.2 |
| 483977 2006 $BG_{263}$ | 16.6 | $X$ | 240.88518 | 84.92685 | 148.73668 | 16.15489 | 0.2423584 | 0.17950378 | 3.1123396 | 21 | — | — |
| 483978 2006 $BA_{264}$ | 18.0 | $X$ | 42.01356 | 197.90658 | 348.68444 | 6.88896 | 0.1456570 | 0.26770570 | 2.3843187 | 21 | 4 26.0 | 20.2 |
| 483979 2006 $BT_{272}$ | 17.9 | $X$ | 31.32924 | 266.32531 | 295.74471 | 1.90753 | 0.1327917 | 0.27049859 | 2.3678783 | 21 | 4 29.3 | 19.9 |
| 483980 2006 $BL_{277}$ | 18.2 | $X$ | 88.83094 | 14.10111 | 139.07635 | 5.87622 | 0.1722261 | 0.27332692 | 2.3515151 | 21 | 6 5.1 | 21.1 |
| 483981 2006 $BP_{277}$ | 18.3 | $X$ | 109.63844 | 122.06217 | 339.87983 | 1.01711 | 0.1429913 | 0.26879909 | 2.3778485 | 21 | 4 16.1 | 21.1 |
| 483982 2006 $BC_{279}$ | 18.3 | $X$ | 14.18952 | 214.59228 | 349.05186 | 1.87833 | 0.0882930 | 0.26547040 | 2.3976842 | 21 | 3 30.4 | 20.6 |
| 483983 2006 $BK_{282}$ | 17.8 | $X$ | 69.59889 | 206.45335 | 343.14069 | 7.02384 | 0.0738081 | 0.27604816 | 2.3360357 | 21 | 6 10.9 | 20.6 |
| 483984 2006 $BO_{282}$ | 16.5 | $X$ | 284.93667 | 130.69044 | 359.94114 | 6.73983 | 0.1141784 | 0.17675596 | 3.1445126 | 21 | 12 2.7 | 20.6 |
| 483985 2006 $BA_{284}$ | 16.5 | $X$ | 47.28112 | 260.87155 | 127.28498 | 9.37820 | 0.0838534 | 0.18231698 | 3.0802406 | 21 | — | — |
| 483986 2006 $BC_{284}$ | 16.7 | $X$ | 270.35366 | 51.69224 | 157.06937 | 7.01855 | 0.1142235 | 0.18370646 | 3.0646891 | 21 | — | — |
| 483987 2006 $CF_{4}$ | 17.6 | $X$ | 359.59800 | 79.14775 | 152.48411 | 5.42446 | 0.1347473 | 0.27039901 | 2.3684596 | 21 | 4 13.4 | 19.8 |
| 483988 2006 $CA_{7}$ | 16.0 | $X$ | 262.27203 | 256.88809 | 312.50246 | 16.47362 | 0.1365239 | 0.18413439 | 3.0599391 | 21 | — | — |
| 483989 2006 $CY_{10}$ | 20.5 | $X$ | 203.60034 | 167.35465 | 32.50879 | 6.78225 | 0.4855598 | 0.35964719 | 1.9583257 | 21 | 11 11.8 | 24.1 |
| 483990 2006 $CC_{17}$ | 17.9 | $X$ | 105.72927 | 333.70414 | 150.26702 | 6.31577 | 0.0502757 | 0.27318172 | 2.3523483 | 21 | 4 29.5 | 20.8 |
| 483991 2006 $CD_{18}$ | 16.2 | $X$ | 225.06315 | 233.98595 | 336.85556 | 12.94840 | 0.2467811 | 0.17524120 | 3.1626070 | 21 | 12 11.1 | 21.5 |
| 483992 2006 $CY_{19}$ | 16.4 | $X$ | 349.53869 | 99.65201 | 306.44093 | 8.88477 | 0.0618564 | 0.17576307 | 3.1563438 | 21 | 11 23.3 | 20.6 |
| 483993 2006 $CU_{23}$ | 16.8 | $X$ | 31.50261 | 272.68389 | 129.05704 | 17.02090 | 0.1000392 | 0.18355815 | 3.0663398 | 21 | — | — |
| 483994 2006 $CX_{23}$ | 16.5 | $X$ | 228.16585 | 255.12163 | 314.52670 | 10.86999 | 0.1509235 | 0.17924342 | 3.1153528 | 21 | 12 25.3 | 21.2 |
| 483995 2006 $CD_{27}$ | 16.8 | $X$ | 303.37092 | 349.49984 | 121.83904 | 2.60715 | 0.0944774 | 0.17880323 | 3.1204637 | 21 | 12 9.5 | 20.8 |
| 483996 2006 $CV_{27}$ | 17.5 | $X$ | 302.45067 | 307.90600 | 320.57439 | 4.38038 | 0.1907091 | 0.26627723 | 2.3928383 | 21 | 2 22.9 | 20.8 |
| 483997 2006 $CE_{36}$ | 16.4 | $X$ | 344.69911 | 67.65793 | 327.76918 | 19.06110 | 0.2237889 | 0.17498922 | 3.1656423 | 21 | 10 29.7 | 20.1 |
| 483998 2006 $CJ_{49}$ | 17.9 | $X$ | 61.97462 | 219.91670 | 300.66606 | 4.94559 | 0.1417988 | 0.27020567 | 2.3695893 | 21 | 4 24.2 | 20.4 |
| 483999 2006 $CW_{50}$ | 17.2 | $X$ | 288.58008 | 47.73156 | 140.92931 | 6.59738 | 0.2372020 | 0.18513980 | 3.0488509 | 21 | — | — |
| 484000 2006 $CK_{61}$ | 15.7 | $X$ | 270.56807 | 13.73806 | 146.75336 | 28.45770 | 0.1000508 | 0.17909773 | 3.1170421 | 21 | 12 26.5 | 20.4 |