| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104001 2000 $DO_{99}$ | 15.8 | X | 151.60817 | 297.81566 | 96.81400 | 6.08484 | 0.1470710 | 0.28276961 | 2.2988690 | 21 | 3 9.5 | 19.0 |
| 104002 2000 $DX_{99}$ | 15.9 | X | 211.23712 | 5.43074 | 45.12597 | 6.03037 | 0.1433774 | 0.29258555 | 2.2471607 | 21 | 5 26.3 | 19.1 |
| 104003 2000 $DD_{100}$ | 16.1 | X | 215.84601 | 25.76356 | 24.51742 | 5.45363 | 0.1867856 | 0.29375179 | 2.2412091 | 21 | 5 28.3 | 19.5 |
| 104004 2000 $DU_{100}$ | 15.0 | X | 191.37606 | 287.96657 | 1.89980 | 13.37754 | 0.1783376 | 0.22393245 | 2.6857033 | 21 | — | — |
| 104005 2000 $DS_{101}$ | 15.3 | X | 106.14794 | 2.70869 | 125.65679 | 11.02620 | 0.0441301 | 0.19463715 | 2.9488469 | 21 | 5 13.2 | 19.6 |
| 104006 2000 $DG_{102}$ | 15.8 | X | 327.47819 | 271.79675 | 129.77675 | 9.45764 | 0.0191677 | 0.25785546 | 2.4446601 | 21 | 11 6.7 | 19.0 |
| 104007 2000 $DT_{102}$ | 15.3 | X | 109.94600 | 234.36727 | 113.44703 | 6.92506 | 0.0445696 | 0.22274879 | 2.6952092 | 21 | — | — |
| 104008 2000 $DY_{102}$ | 16.4 | X | 156.49268 | 29.68507 | 34.77266 | 4.83311 | 0.1637633 | 0.28718809 | 2.2752289 | 21 | 4 21.3 | 19.7 |
| 104009 2000 $DD_{103}$ | 16.0 | X | 190.27024 | 340.18620 | 48.00191 | 5.14838 | 0.1686831 | 0.28633529 | 2.2797443 | 21 | 4 8.6 | 19.4 |
| 104010 2000 $DH_{105}$ | 15.2 | X | 171.90427 | 46.79576 | 301.99013 | 0.82448 | 0.1031133 | 0.23024342 | 2.6363995 | 21 | 2 1.7 | 19.1 |
| 104011 2000 $DQ_{105}$ | 14.9 | X | 280.94126 | 120.36948 | 148.39821 | 14.71209 | 0.2391343 | 0.23030823 | 2.6359049 | 21 | 1 31.9 | 19.2 |
| 104012 2000 $DV_{106}$ | 15.4 | X | 233.81113 | 332.70740 | 139.20646 | 13.43130 | 0.0963167 | 0.20840410 | 2.8175084 | 21 | 9 16.5 | 19.5 |
| 104013 2000 $DL_{107}$ | 15.5 | X | 226.16629 | 144.38159 | 66.26568 | 6.80557 | 0.1039933 | 0.21799770 | 2.7342283 | 21 | — | — |
| 104014 2000 $DR_{107}$ | 15.2 | X | 214.64618 | 218.77842 | 3.45062 | 4.42027 | 0.0423443 | 0.22158583 | 2.7046312 | 21 | — | — |
| 104015 2000 $DF_{108}$ | 14.9 | X | 266.81431 | 156.33830 | 137.04142 | 10.31142 | 0.0193088 | 0.19061859 | 2.9901471 | 21 | 3 21.2 | 19.2 |
| 104016 2000 $DH_{108}$ | 14.9 | X | 103.00349 | 123.80012 | 154.67716 | 13.82660 | 0.1341652 | 0.21325743 | 2.7745971 | 21 | 11 27.2 | 19.4 |
| 104017 2000 $DO_{108}$ | 15.2 | X | 93.54244 | 134.80392 | 332.90729 | 7.61424 | 0.0573978 | 0.19204308 | 2.9753423 | 21 | 3 27.1 | 19.3 |
| 104018 2000 $DF_{109}$ | 17.1 | X | 215.88196 | 90.20952 | 125.89090 | 2.31858 | 0.1335138 | 0.26466848 | 2.4025249 | 21 | — | — |
| 104019 2000 $DT_{109}$ | 15.9 | X | 151.85237 | 253.11802 | 130.08482 | 2.32796 | 0.0812356 | 0.23328838 | 2.6134086 | 21 | 2 20.3 | 19.5 |
| 104020 Heilbronn | 15.6 | X | 195.62121 | 157.98490 | 8.05420 | 4.44787 | 0.1347174 | 0.21035954 | 2.8000207 | 21 | 10 6.7 | 19.9 |
| 104021 2000 $DW_{110}$ | 15.2 | X | 288.98815 | 96.68258 | 27.75047 | 24.48884 | 0.1800883 | 0.22032310 | 2.7149554 | 21 | 11 26.1 | 18.6 |
| 104022 2000 $DJ_{111}$ | 16.5 | X | 88.26019 | 307.33684 | 334.01582 | 4.62104 | 0.1697809 | 0.25586951 | 2.4572935 | 21 | 11 20.8 | 20.3 |
| 104023 2000 $DZ_{111}$ | 15.3 | X | 49.96223 | 321.51471 | 149.99405 | 10.53413 | 0.1112222 | 0.18586212 | 3.0409466 | 21 | 2 8.2 | 18.9 |
| 104024 2000 $DA_{112}$ | 15.1 | X | 111.71110 | 123.95119 | 157.30028 | 7.95332 | 0.1543315 | 0.21285581 | 2.7780861 | 21 | 12 8.0 | 19.6 |
| 104025 2000 $DF_{112}$ | 15.8 | X | 19.43530 | 145.28850 | 126.81260 | 9.05832 | 0.1168867 | 0.24455169 | 2.5325358 | 21 | 7 26.0 | 18.2 |
| 104026 2000 $DY_{112}$ | 15.6 | X | 133.07568 | 357.20128 | 347.47123 | 10.43354 | 0.2402123 | 0.27084780 | 2.3658425 | 21 | — | — |
| 104027 2000 $DA_{113}$ | 16.5 | X | 35.82327 | 285.39899 | 150.18280 | 2.34315 | 0.1754777 | 0.27278025 | 2.3546558 | 21 | — | — |
| 104028 2000 $DT_{113}$ | 15.0 | X | 255.54567 | 19.62900 | 324.65784 | 10.18905 | 0.0827103 | 0.19733000 | 2.9219580 | 21 | 4 24.2 | 19.5 |
| 104029 2000 $DG_{115}$ | 15.5 | X | 214.46945 | 166.92341 | 326.56720 | 2.80034 | 0.0368639 | 0.21044399 | 2.7992716 | 21 | 9 24.2 | 19.3 |
| 104030 2000 $DK_{116}$ | 15.7 | X | 290.44437 | 261.17271 | 348.05153 | 10.90861 | 0.2623922 | 0.23038985 | 2.6352823 | 21 | 1 18.4 | 20.0 |
| 104031 2000 $EA$ | 15.1 | X | 339.93888 | 158.73492 | 345.14637 | 3.89633 | 0.0225314 | 0.22568375 | 2.6717912 | 21 | — | — |
| 104032 2000 $ED_{1}$ | 16.4 | X | 301.46365 | 44.04697 | 152.63763 | 3.12618 | 0.1062488 | 0.27417917 | 2.3466397 | 21 | — | — |
| 104033 2000 $EJ_{1}$ | 15.6 | X | 53.31021 | 325.09248 | 334.77662 | 10.78804 | 0.1347214 | 0.25560796 | 2.4589694 | 21 | 10 27.5 | 19.0 |
| 104034 2000 $EK_{1}$ | 14.5 | X | 23.25944 | 25.47725 | 341.77168 | 3.75105 | 0.1251641 | 0.17050111 | 3.2209544 | 21 | 11 29.1 | 18.7 |
| 104035 2000 $ER_{1}$ | 15.4 | X | 332.50313 | 39.62211 | 270.60805 | 0.97307 | 0.0513887 | 0.20092716 | 2.8869790 | 21 | 6 30.8 | 19.1 |
| 104036 2000 $EJ_{4}$ | 15.6 | X | 162.62158 | 268.76952 | 4.78071 | 0.39464 | 0.1248121 | 0.22008942 | 2.7168768 | 21 | — | — |
| 104037 2000 $EK_{4}$ | 16.2 | X | 208.93119 | 242.51596 | 159.96698 | 2.91824 | 0.0669839 | 0.19912598 | 2.9043622 | 21 | 5 21.9 | 20.5 |
| 104038 2000 $EP_{4}$ | 16.5 | X | 139.82590 | 244.14466 | 150.49249 | 5.30024 | 0.1754997 | 0.28259716 | 2.2998042 | 21 | 2 24.9 | 19.7 |
| 104039 2000 $EY_{5}$ | 15.2 | X | 90.47337 | 351.92323 | 4.53324 | 5.67360 | 0.0588783 | 0.21909966 | 2.7250528 | 21 | — | — |
| 104040 2000 $EK_{6}$ | 15.2 | X | 133.86948 | 83.49739 | 6.28745 | 8.61382 | 0.0581309 | 0.19134135 | 2.9826124 | 21 | 4 23.9 | 19.6 |
| 104041 2000 $EE_{8}$ | 15.5 | X | 45.99196 | 129.16329 | 291.79540 | 1.89771 | 0.1049122 | 0.22735711 | 2.6586654 | 21 | — | — |
| 104042 2000 $EJ_{10}$ | 16.5 | X | 298.88238 | 177.08263 | 349.40706 | 3.55220 | 0.1731257 | 0.26929020 | 2.3749566 | 21 | — | — |
| 104043 2000 $EU_{10}$ | 15.8 | X | 114.11852 | 295.64221 | 130.32841 | 9.78697 | 0.1353123 | 0.23672351 | 2.5880647 | 21 | 3 10.8 | 19.3 |
| 104044 2000 $EA_{11}$ | 15.6 | X | 116.57368 | 233.61051 | 129.96105 | 6.85222 | 0.1123708 | 0.27279237 | 2.3545861 | 21 | — | — |
| 104045 2000 $EC_{11}$ | 15.5 | X | 189.51229 | 124.10585 | 133.66287 | 8.67992 | 0.0902763 | 0.22045954 | 2.7138350 | 21 | — | — |
| 104046 2000 $EW_{11}$ | 14.4 | X | 18.46205 | 57.88935 | 358.59135 | 16.29146 | 0.1272128 | 0.17734927 | 3.1374955 | 21 | — | — |
| 104047 2000 $EM_{12}$ | 15.3 | X | 22.22258 | 144.68319 | 95.98240 | 8.21404 | 0.2262504 | 0.24160221 | 2.5531056 | 21 | 6 23.2 | 17.3 |
| 104048 2000 $EL_{13}$ | 15.7 | X | 172.18062 | 315.88744 | 279.79368 | 3.01906 | 0.1238443 | 0.26302040 | 2.4125506 | 21 | 12 15.7 | 19.2 |
| 104049 2000 $EP_{13}$ | 15.0 | X | 338.37689 | 211.64021 | 43.33781 | 3.23855 | 0.1042634 | 0.19275542 | 2.9680075 | 21 | 4 21.7 | 18.6 |
| 104050 2000 $ET_{13}$ | 15.9 | X | 106.94162 | 34.74667 | 12.87909 | 4.46719 | 0.1976860 | 0.27938058 | 2.3174226 | 21 | 2 5.2 | 18.4 |
| 104051 2000 $ET_{14}$ | 15.9 | X | 137.49815 | 132.74255 | 353.03003 | 1.08886 | 0.1309353 | 0.19963160 | 2.8994560 | 21 | 6 21.5 | 20.4 |
| 104052 Zachery | 15.9 | X | 290.25120 | 62.63478 | 193.40690 | 12.47863 | 0.2218366 | 0.22853924 | 2.6494895 | 21 | 1 25.2 | 20.3 |
| 104053 2000 $EE_{16}$ | 15.1 | X | 119.73382 | 342.16603 | 336.90049 | 7.31833 | 0.1535402 | 0.21893777 | 2.7263960 | 21 | — | — |
| 104054 2000 $ET_{16}$ | 14.9 | X | 190.30873 | 143.92546 | 209.06892 | 4.27895 | 0.1437065 | 0.23274040 | 2.6175091 | 21 | 2 25.3 | 19.0 |
| 104055 2000 $EQ_{17}$ | 15.2 | X | 152.67386 | 343.38733 | 97.18875 | 7.61900 | 0.2324880 | 0.24421624 | 2.5348544 | 21 | 5 17.5 | 19.4 |
| 104056 2000 $ES_{17}$ | 16.3 | X | 146.40161 | 334.62620 | 76.56838 | 6.79689 | 0.1517724 | 0.28483714 | 2.2877311 | 21 | 3 26.7 | 19.6 |
| 104057 2000 $EU_{17}$ | 15.0 | X | 4.47206 | 37.21276 | 126.40941 | 13.31114 | 0.0977853 | 0.23192673 | 2.6236275 | 21 | 1 23.6 | 18.1 |
| 104058 2000 $EV_{17}$ | 15.8 | X | 20.90074 | 31.92350 | 79.85794 | 7.47831 | 0.0643242 | 0.27440584 | 2.3453472 | 21 | — | — |
| 104059 2000 $EZ_{17}$ | 15.6 | X | 355.20928 | 153.01487 | 121.44325 | 14.27261 | 0.1338504 | 0.24326133 | 2.5414837 | 21 | 6 13.9 | 18.4 |
| 104060 2000 $EM_{18}$ | 15.5 | X | 241.75992 | 58.23123 | 45.12375 | 4.97964 | 0.1689516 | 0.21031795 | 2.8003898 | 21 | 9 5.4 | 19.6 |
| 104061 2000 $EP_{18}$ | 14.5 | X | 25.40726 | 92.16609 | 355.41439 | 8.07059 | 0.0741959 | 0.18058041 | 3.0999566 | 21 | — | — |
| 104062 2000 $EU_{18}$ | 15.0 | X | 271.29596 | 355.83706 | 116.00230 | 3.73145 | 0.1280381 | 0.16982882 | 3.2294492 | 21 | 10 22.2 | 19.5 |
| 104063 2000 $EX_{18}$ | 16.1 | X | 266.80651 | 279.99889 | 122.78693 | 3.62435 | 0.1556976 | 0.29855220 | 2.2171200 | 21 | 7 18.7 | 18.6 |
| 104064 2000 $EF_{19}$ | 16.4 | X | 292.35750 | 233.41650 | 5.72327 | 7.07984 | 0.0746730 | 0.27720272 | 2.3295448 | 21 | 1 19.5 | 19.5 |
| 104065 2000 $EJ_{19}$ | 15.2 | X | 292.96862 | 111.78185 | 18.22108 | 4.79299 | 0.1343900 | 0.17363772 | 3.1820476 | 21 | 12 11.2 | 19.3 |
| 104066 2000 $EN_{20}$ | 14.8 | X | 169.83968 | 19.65067 | 242.56297 | 11.38504 | 0.1434942 | 0.21831884 | 2.7315463 | 21 | — | — |
| 104067 2000 $EY_{20}$ | 14.6 | X | 123.30635 | 28.09346 | 261.10588 | 8.38806 | 0.1683039 | 0.21533688 | 2.7567059 | 21 | 12 27.1 | 19.1 |
| 104068 2000 $EJ_{22}$ | 15.4 | X | 92.11432 | 325.95990 | 170.56036 | 2.14168 | 0.0471668 | 0.19581008 | 2.9370591 | 21 | 5 2.6 | 19.4 |
| 104069 2000 $EU_{22}$ | 17.0 | X | 114.09030 | 288.45775 | 101.78036 | 0.25720 | 0.1395434 | 0.23246395 | 2.6195839 | 21 | 1 22.4 | 20.4 |
| 104070 2000 $EM_{23}$ | 15.8 | X | 213.04838 | 51.45475 | 172.19565 | 2.33853 | 0.0237706 | 0.21968494 | 2.7202105 | 21 | — | — |
| 104071 2000 $ET_{23}$ | 15.7 | X | 106.76771 | 84.36297 | 196.24122 | 1.73901 | 0.1547118 | 0.25553530 | 2.4594355 | 21 | 12 7.9 | 19.5 |
| 104072 2000 $EU_{23}$ | 15.6 | X | 245.70150 | 180.65495 | 211.08436 | 1.27608 | 0.0760490 | 0.19799164 | 2.9154448 | 21 | 6 18.0 | 19.7 |
| 104073 2000 $EZ_{24}$ | 15.1 | X | 326.41101 | 271.11331 | 3.51527 | 7.21573 | 0.0425537 | 0.19180712 | 2.9777820 | 21 | 5 4.4 | 19.2 |
| 104074 2000 $ES_{25}$ | 16.0 | X | 336.02653 | 134.64886 | 3.48350 | 7.06135 | 0.1335037 | 0.27014084 | 2.3699684 | 21 | — | — |
| 104075 2000 $EE_{27}$ | 16.5 | X | 160.62908 | 305.34269 | 332.81668 | 1.32164 | 0.1486447 | 0.26446952 | 2.4037297 | 21 | — | — |
| 104076 2000 $EB_{28}$ | 15.5 | X | 315.45461 | 160.69044 | 72.56503 | 5.69698 | 0.1603996 | 0.27872641 | 2.3210472 | 21 | 1 27.5 | 18.4 |
| 104077 2000 $EF_{28}$ | 15.1 | X | 274.30221 | 169.83119 | 8.44029 | 15.92384 | 0.1141036 | 0.22199689 | 2.7012915 | 21 | — | — |
| 104078 2000 $EK_{29}$ | 14.6 | X | 358.24277 | 62.99979 | 346.45313 | 2.75388 | 0.0909990 | 0.17432715 | 3.1736524 | 21 | 12 12.8 | 18.6 |
| 104079 2000 $EC_{30}$ | 15.1 | X | 320.97816 | 119.29269 | 135.10291 | 12.94021 | 0.2265517 | 0.23490318 | 2.6014178 | 21 | 3 2.5 | 18.4 |
| 104080 2000 $EE_{30}$ | 15.8 | X | 172.81179 | 32.67270 | 72.64616 | 5.01369 | 0.0931839 | 0.29325988 | 2.2437146 | 21 | 6 30.0 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104081 2000 $EH_{30}$ | 16.4 | X | 273.58227 | 100.87124 | 53.78942 | 6.58017 | 0.0648005 | 0.26538351 | 2.3982075 | 21 | — | — |
| 104082 2000 $EQ_{30}$ | 15.1 | X | 180.79846 | 10.78607 | 111.15416 | 9.18605 | 0.1069704 | 0.20325306 | 2.8649122 | 21 | 7 30.5 | 19.5 |
| 104083 2000 $EU_{30}$ | 14.2 | X | 146.38395 | 2.20576 | 38.57241 | 10.57741 | 0.0905136 | 0.18929546 | 3.0040645 | 21 | 3 18.9 | 18.7 |
| 104084 2000 $EA_{32}$ | 15.9 | X | 149.90382 | 262.16562 | 141.47583 | 7.72668 | 0.1773881 | 0.28445132 | 2.2897993 | 21 | 3 21.8 | 19.2 |
| 104085 2000 $EF_{32}$ | 15.8 | X | 17.50758 | 0.45750 | 122.57233 | 5.37591 | 0.0613766 | 0.22932091 | 2.6434653 | 21 | — | — |
| 104086 2000 $EM_{32}$ | 14.8 | X | 298.42045 | 65.85528 | 141.43300 | 10.90321 | 0.0667133 | 0.18192444 | 3.0846698 | 21 | 1 5.5 | 19.4 |
| 104087 2000 $EV_{32}$ | 15.6 | X | 183.04360 | 182.37371 | 132.58931 | 7.39255 | 0.1540305 | 0.27292049 | 2.3538491 | 21 | — | — |
| 104088 2000 $EZ_{32}$ | 15.8 | X | 337.97524 | 36.88277 | 70.47196 | 2.79930 | 0.0205916 | 0.22142119 | 2.7059718 | 21 | — | — |
| 104089 2000 $EJ_{33}$ | 16.4 | X | 253.20328 | 156.09902 | 80.85088 | 5.08442 | 0.0449305 | 0.27235719 | 2.3570935 | 21 | — | — |
| 104090 2000 $ET_{33}$ | 15.7 | X | 155.68613 | 26.22064 | 78.99987 | 6.54448 | 0.1160040 | 0.29074664 | 2.2566260 | 21 | 6 11.0 | 18.8 |
| 104091 2000 $EA_{34}$ | 14.8 | X | 313.87251 | 266.03137 | 28.48825 | 14.51438 | 0.1886276 | 0.23831881 | 2.5765021 | 21 | 4 18.9 | 17.8 |
| 104092 2000 $EN_{34}$ | 15.1 | X | 350.11897 | 356.11517 | 122.73608 | 13.17432 | 0.0850298 | 0.22378734 | 2.6868642 | 21 | — | — |
| 104093 2000 $EO_{34}$ | 16.0 | X | 6.93265 | 107.78680 | 125.03774 | 12.57254 | 0.2018690 | 0.23744490 | 2.5828201 | 21 | 5 6.3 | 18.5 |
| 104094 2000 $EX_{34}$ | 16.2 | X | 130.27238 | 6.72874 | 71.27766 | 6.56651 | 0.1722507 | 0.28681894 | 2.2771807 | 21 | 4 14.6 | 19.3 |
| 104095 2000 $EB_{35}$ | 14.8 | X | 146.12572 | 352.42931 | 231.25793 | 7.94232 | 0.1398807 | 0.21251326 | 2.7810707 | 21 | 10 29.7 | 19.3 |
| 104096 2000 $EN_{35}$ | 15.5 | X | 32.11870 | 137.54145 | 106.88930 | 9.62555 | 0.1477606 | 0.24391195 | 2.5369622 | 21 | 7 11.6 | 18.0 |
| 104097 2000 $EH_{36}$ | 14.5 | X | 293.14127 | 154.65736 | 116.90477 | 10.43285 | 0.1238398 | 0.18729745 | 3.0253907 | 21 | 3 13.0 | 18.9 |
| 104098 2000 $EQ_{37}$ | 14.6 | X | 82.51074 | 319.12750 | 233.15683 | 0.97494 | 0.0397902 | 0.19692497 | 2.9259632 | 21 | 6 30.2 | 18.6 |
| 104099 2000 $EW_{37}$ | 15.3 | X | 230.49035 | 235.15781 | 1.44556 | 6.50720 | 0.0882443 | 0.26720316 | 2.3873073 | 21 | — | — |
| 104100 2000 $ER_{39}$ | 16.3 | X | 65.88418 | 157.65664 | 46.19687 | 1.62569 | 0.2027601 | 0.24184030 | 2.5514297 | 21 | 7 19.5 | 19.3 |
| 104101 2000 $EK_{42}$ | 14.4 | X | 212.28682 | 295.85439 | 354.97937 | 10.43810 | 0.1100570 | 0.17791715 | 3.1308158 | 21 | 1 14.6 | 19.5 |
| 104102 2000 $EB_{43}$ | 13.6 | X | 315.35222 | 110.48682 | 1.77486 | 4.49724 | 0.1705959 | 0.12605552 | 3.9393823 | 21 | 12 9.0 | 18.4 |
| 104103 2000 $EW_{43}$ | 15.3 | X | 48.44906 | 70.61859 | 110.87200 | 1.78239 | 0.1364953 | 0.19067415 | 2.9895661 | 21 | 5 11.9 | 18.9 |
| 104104 2000 $EB_{44}$ | 16.2 | X | 289.68511 | 68.63516 | 72.34301 | 1.82469 | 0.1445302 | 0.26479798 | 2.4017416 | 21 | — | — |
| 104105 2000 $EQ_{44}$ | 15.0 | X | 286.61745 | 167.27473 | 192.60874 | 10.30994 | 0.2247653 | 0.24434957 | 2.5339322 | 21 | 6 4.8 | 18.6 |
| 104106 2000 $ES_{44}$ | 16.0 | X | 326.03790 | 298.86698 | 314.62680 | 1.44721 | 0.2381384 | 0.23308357 | 2.6149392 | 21 | 3 4.3 | 19.2 |
| 104107 2000 $EB_{45}$ | 16.0 | X | 280.27864 | 159.22534 | 344.02833 | 5.87366 | 0.1146227 | 0.26344936 | 2.4099311 | 21 | — | — |
| 104108 2000 $EH_{45}$ | 14.9 | X | 33.15171 | 21.07959 | 243.94771 | 1.37674 | 0.0332841 | 0.19883362 | 2.9072084 | 21 | 7 27.9 | 18.7 |
| 104109 2000 $EN_{46}$ | 15.8 | X | 42.25448 | 82.49668 | 3.03744 | 6.65358 | 0.0706735 | 0.27123408 | 2.3635958 | 21 | — | — |
| 104110 2000 $EA_{47}$ | 16.3 | X | 219.81140 | 325.45777 | 197.89760 | 4.27127 | 0.1406910 | 0.25770670 | 2.4456009 | 21 | 11 3.1 | 19.6 |
| 104111 2000 $EE_{47}$ | 14.5 | X | 31.48454 | 277.26292 | 6.26875 | 12.29586 | 0.0696500 | 0.20006912 | 2.8952273 | 21 | 8 28.4 | 18.3 |
| 104112 2000 $EO_{47}$ | 16.1 | X | 77.86284 | 328.85816 | 135.79013 | 0.51080 | 0.1472391 | 0.27926124 | 2.3180828 | 21 | 3 1.3 | 18.2 |
| 104113 2000 $EJ_{49}$ | 14.9 | X | 140.13442 | 194.46015 | 188.78041 | 14.75519 | 0.1013493 | 0.22937825 | 2.6430247 | 21 | 2 6.2 | 18.8 |
| 104114 2000 $EO_{50}$ | 16.4 | X | 198.86916 | 40.40297 | 160.31570 | 2.75727 | 0.1383670 | 0.25928015 | 2.4356967 | 21 | 11 28.3 | 20.0 |
| 104115 2000 $EX_{51}$ | 16.0 | X | 334.52199 | 318.02240 | 315.70063 | 0.95187 | 0.0389368 | 0.19466227 | 2.9485932 | 21 | 5 16.7 | 19.7 |
| 104116 2000 $EF_{52}$ | 14.9 | X | 226.59887 | 15.97305 | 341.78240 | 1.18310 | 0.1088127 | 0.19251774 | 2.9704498 | 21 | 4 12.2 | 19.5 |
| 104117 2000 $EZ_{52}$ | 16.2 | X | 172.85788 | 5.23627 | 346.86022 | 5.39614 | 0.1629578 | 0.27725529 | 2.3292503 | 21 | 2 5.7 | 19.6 |
| 104118 2000 $EU_{53}$ | 16.1 | X | 165.96486 | 267.59256 | 154.81871 | 5.24976 | 0.0348435 | 0.24157054 | 2.5533288 | 21 | 4 24.9 | 19.6 |
| 104119 2000 $EF_{54}$ | 14.9 | X | 143.05003 | 215.45972 | 176.65855 | 14.72145 | 0.0474462 | 0.18237200 | 3.0796211 | 21 | 2 23.0 | 19.5 |
| 104120 2000 $EL_{55}$ | 14.6 | X | 140.17996 | 183.10417 | 133.47536 | 7.53597 | 0.0625398 | 0.17036691 | 3.2226456 | 21 | — | — |
| 104121 2000 $ET_{55}$ | 16.0 | X | 251.30418 | 132.90577 | 257.45198 | 2.64805 | 0.2321262 | 0.25213290 | 2.4815120 | 21 | 6 3.9 | 20.0 |
| 104122 2000 $EG_{56}$ | 15.6 | X | 46.30568 | 52.10406 | 168.97106 | 6.15819 | 0.1552155 | 0.24192835 | 2.5508106 | 21 | 7 3.2 | 18.5 |
| 104123 2000 $EY_{56}$ | 16.0 | X | 127.79011 | 133.45118 | 327.56403 | 3.19087 | 0.1269071 | 0.28647595 | 2.2789980 | 21 | 5 3.2 | 19.1 |
| 104124 2000 $EU_{57}$ | 16.3 | X | 97.26038 | 311.59648 | 211.43509 | 2.72995 | 0.1587037 | 0.24257651 | 2.5462647 | 21 | 6 27.6 | 19.7 |
| 104125 2000 $EC_{58}$ | 16.1 | X | 24.71362 | 162.20638 | 173.96548 | 24.04712 | 0.0746335 | 0.39334493 | 1.8448186 | 21 | 12 3.3 | 18.5 |
| 104126 2000 $ET_{58}$ | 15.0 | X | 314.52211 | 277.26066 | 14.06083 | 8.85382 | 0.0624908 | 0.19186374 | 2.9771961 | 21 | 5 7.1 | 19.0 |
| 104127 2000 $EG_{59}$ | 15.2 | X | 14.40245 | 52.85458 | 161.32016 | 0.66267 | 0.1421071 | 0.18927465 | 3.0042847 | 21 | 4 26.3 | 18.3 |
| 104128 2000 $EK_{59}$ | 14.9 | X | 355.97223 | 133.05584 | 11.06867 | 10.75925 | 0.0572612 | 0.17935248 | 3.1140898 | 21 | 1 5.2 | 19.3 |
| 104129 2000 $EB_{60}$ | 15.5 | X | 250.41452 | 101.89496 | 177.02501 | 9.77787 | 0.1299725 | 0.22812389 | 2.6527044 | 21 | 1 23.8 | 19.8 |
| 104130 2000 $EZ_{60}$ | 14.9 | X | 249.91990 | 309.40448 | 352.66489 | 9.44994 | 0.0581757 | 0.18565999 | 3.0431534 | 21 | 3 6.2 | 19.4 |
| 104131 2000 $EE_{61}$ | 15.8 | X | 333.93395 | 41.71044 | 184.26214 | 13.59228 | 0.2112716 | 0.23217965 | 2.6217219 | 21 | 2 9.2 | 19.2 |
| 104132 2000 $EO_{61}$ | 14.3 | X | 126.21112 | 11.18616 | 356.74389 | 18.39590 | 0.1412933 | 0.17897786 | 3.1184336 | 21 | 1 26.5 | 19.2 |
| 104133 2000 $EX_{62}$ | 16.3 | X | 327.27073 | 71.83727 | 168.62858 | 7.35260 | 0.1627972 | 0.23316042 | 2.6143646 | 21 | 2 28.7 | 19.4 |
| 104134 2000 $EB_{63}$ | 15.2 | X | 282.28687 | 215.37976 | 147.40020 | 2.63003 | 0.0845410 | 0.19877229 | 2.9078064 | 21 | 6 25.0 | 19.0 |
| 104135 2000 $EG_{63}$ | 15.6 | X | 307.59046 | 62.04753 | 28.98424 | 2.52048 | 0.1877601 | 0.21614129 | 2.7498620 | 21 | 11 20.2 | 18.4 |
| 104136 2000 $EH_{63}$ | 16.5 | X | 35.78576 | 71.80936 | 26.32057 | 3.07450 | 0.1277017 | 0.27366067 | 2.3496029 | 21 | — | — |
| 104137 2000 $EE_{64}$ | 16.7 | X | 70.78301 | 40.14407 | 73.34257 | 0.97134 | 0.1788859 | 0.28054416 | 2.3110104 | 21 | 3 6.2 | 18.7 |
| 104138 2000 $EQ_{64}$ | 14.7 | X | 227.43985 | 175.28909 | 192.32795 | 8.40875 | 0.0544365 | 0.19213140 | 2.9744304 | 21 | 4 30.5 | 19.0 |
| 104139 2000 $EA_{65}$ | 15.2 | X | 138.98155 | 128.45938 | 185.56099 | 8.60509 | 0.1791577 | 0.21764259 | 2.7372016 | 21 | — | — |
| 104140 2000 $EB_{65}$ | 14.8 | X | 93.17862 | 293.79586 | 189.42783 | 9.43526 | 0.0207895 | 0.18967449 | 3.0000611 | 21 | 4 13.9 | 19.0 |
| 104141 2000 $EE_{65}$ | 14.5 | X | 242.66915 | 338.41955 | 352.42767 | 8.26442 | 0.0450165 | 0.18855052 | 3.0119717 | 21 | 3 31.4 | 18.9 |
| 104142 2000 $EN_{65}$ | 14.9 | X | 280.66182 | 344.92315 | 359.58132 | 11.72728 | 0.0677614 | 0.19529380 | 2.9422331 | 21 | 5 29.5 | 19.2 |
| 104143 2000 $EU_{65}$ | 15.3 | X | 63.70913 | 346.92865 | 154.40631 | 1.16454 | 0.0968426 | 0.18882618 | 3.0090396 | 21 | 4 7.3 | 19.0 |
| 104144 2000 $EP_{66}$ | 14.8 | X | 298.14843 | 212.46708 | 42.63398 | 3.95656 | 0.0370776 | 0.18580517 | 3.0415679 | 21 | 3 9.2 | 19.0 |
| 104145 2000 $EW_{66}$ | 15.2 | X | 273.21950 | 147.32754 | 52.63684 | 1.40844 | 0.1521432 | 0.17527522 | 3.1621979 | 21 | — | — |
| 104146 2000 $EE_{67}$ | 15.3 | X | 184.86430 | 77.61960 | 192.62044 | 12.27711 | 0.0147309 | 0.21966118 | 2.7204067 | 21 | — | — |
| 104147 2000 $EH_{67}$ | 14.8 | X | 325.78474 | 173.50055 | 222.09793 | 1.42902 | 0.0634198 | 0.20827553 | 2.8186677 | 21 | 10 13.8 | 18.1 |
| 104148 2000 $EJ_{67}$ | 15.9 | X | 230.13824 | 8.87904 | 205.45728 | 2.01034 | 0.1256380 | 0.21778427 | 2.7360144 | 21 | — | — |
| 104149 2000 $ET_{67}$ | 15.2 | X | 13.58149 | 299.96649 | 184.96886 | 17.53442 | 0.1989197 | 0.18145077 | 3.0900358 | 21 | — | — |
| 104150 2000 $EE_{68}$ | 15.2 | X | 105.18296 | 90.55998 | 7.65425 | 10.28665 | 0.1274887 | 0.18990055 | 2.9976798 | 21 | 4 10.4 | 19.4 |
| 104151 2000 $EK_{68}$ | 15.3 | X | 46.48910 | 187.30439 | 27.87048 | 2.03156 | 0.0518709 | 0.19460449 | 2.9491768 | 21 | 6 12.4 | 19.2 |
| 104152 2000 $EU_{68}$ | 15.3 | X | 255.11310 | 157.25253 | 40.99845 | 1.60431 | 0.1416197 | 0.17281080 | 3.1921905 | 21 | — | — |
| 104153 2000 $EC_{69}$ | 15.3 | X | 280.22856 | 287.19478 | 170.05812 | 9.63277 | 0.1845131 | 0.21245078 | 2.7816159 | 21 | 10 13.8 | 18.7 |
| 104154 2000 $EP_{69}$ | 14.0 | X | 129.58512 | 159.21742 | 186.90938 | 27.35162 | 0.1343584 | 0.17446077 | 3.1720317 | 21 | — | — |
| 104155 2000 $ER_{69}$ | 15.8 | X | 348.06479 | 61.08047 | 179.72482 | 7.86137 | 0.1541199 | 0.23524363 | 2.5989074 | 21 | 4 7.4 | 18.4 |
| 104156 2000 $ET_{69}$ | 16.7 | X | 278.93118 | 351.76943 | 179.68835 | 8.28508 | 0.1524545 | 0.26603820 | 2.3942714 | 21 | — | — |
| 104157 2000 $EW_{69}$ | 15.0 | X | 357.42000 | 296.11213 | 186.19927 | 15.91032 | 0.1878977 | 0.17880269 | 3.1204700 | 21 | — | — |
| 104158 2000 $EF_{70}$ | 14.6 | X | 185.84820 | 88.36929 | 11.88104 | 14.32810 | 0.1290178 | 0.19994207 | 2.8964538 | 21 | 7 9.9 | 19.5 |
| 104159 2000 $ED_{73}$ | 16.4 | X | 137.69288 | 162.34740 | 143.57439 | 1.64777 | 0.1837858 | 0.26678560 | 2.3897976 | 21 | — | — |
| 104160 2000 $EF_{74}$ | 14.1 | X | 141.27204 | 295.58555 | 157.50755 | 9.23557 | 0.0573264 | 0.19061308 | 2.9902047 | 21 | 5 11.7 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104161 2000 $EQ_{75}$ | 15.1 | X | 54.90816 | 47.61932 | 89.08599 | 4.09327 | 0.1589085 | 0.18933414 | 3.0036553 | 21 | 3 28.1 | 18.6 |
| 104162 2000 $EB_{76}$ | 16.4 | X | 134.61642 | 80.29852 | 10.83504 | 5.47441 | 0.1448561 | 0.28799605 | 2.2709716 | 21 | 4 29.8 | 19.5 |
| 104163 2000 $EL_{76}$ | 16.0 | X | 11.84014 | 330.76204 | 130.18959 | 12.29923 | 0.1084905 | 0.27243781 | 2.3566285 | 21 | — | — |
| 104164 2000 $EP_{77}$ | 14.7 | X | 269.32734 | 327.11815 | 347.57910 | 10.90744 | 0.0823175 | 0.19318103 | 2.9636465 | 21 | 4 4.9 | 19.2 |
| 104165 2000 $EY_{77}$ | 15.0 | X | 62.38375 | 162.66821 | 129.19824 | 5.33273 | 0.0860683 | 0.20912424 | 2.8110364 | 21 | 10 22.4 | 18.9 |
| 104166 2000 $EL_{78}$ | 14.9 | X | 6.59677 | 143.71743 | 351.82081 | 16.11312 | 0.0261680 | 0.18285006 | 3.0742509 | 21 | 1 12.8 | 19.4 |
| 104167 2000 $EL_{79}$ | 14.9 | X | 345.73300 | 331.09719 | 122.05179 | 6.04628 | 0.2379156 | 0.17853380 | 3.1236025 | 21 | — | — |
| 104168 2000 $EU_{79}$ | 15.2 | X | 65.93451 | 306.37107 | 14.93547 | 6.23176 | 0.0679397 | 0.21372581 | 2.7705420 | 21 | 11 27.2 | 19.1 |
| 104169 2000 $EB_{80}$ | 14.3 | X | 282.24233 | 132.17626 | 15.12197 | 5.14563 | 0.1182231 | 0.17385779 | 3.1793618 | 21 | 12 19.3 | 18.5 |
| 104170 2000 $EB_{81}$ | 16.4 | X | 355.51759 | 19.75271 | 129.22638 | 4.63446 | 0.1703299 | 0.27536050 | 2.3399233 | 21 | — | — |
| 104171 2000 $EK_{81}$ | 15.9 | X | 268.54101 | 17.08113 | 8.12256 | 7.61280 | 0.1243752 | 0.29515228 | 2.2341138 | 21 | 6 30.9 | 18.8 |
| 104172 2000 $EE_{82}$ | 15.0 | X | 38.18211 | 164.64571 | 14.85314 | 11.07707 | 0.0812498 | 0.19114799 | 2.9846236 | 21 | 4 15.2 | 18.8 |
| 104173 2000 $EE_{83}$ | 14.4 | X | 62.60830 | 162.25720 | 23.86283 | 12.89468 | 0.0367417 | 0.19518690 | 2.9433073 | 21 | 5 22.5 | 18.5 |
| 104174 2000 $EY_{83}$ | 15.0 | X | 18.30457 | 150.19623 | 135.73562 | 5.72854 | 0.0981038 | 0.20170080 | 2.8795921 | 21 | 8 9.5 | 18.4 |
| 104175 2000 $EJ_{84}$ | 15.2 | X | 252.08299 | 336.42419 | 172.84445 | 13.51304 | 0.1425099 | 0.21703270 | 2.7423271 | 21 | 11 19.4 | 19.1 |
| 104176 2000 $EX_{85}$ | 15.6 | X | 76.06525 | 28.28651 | 144.30809 | 4.41773 | 0.1500708 | 0.24049671 | 2.5609236 | 21 | 6 11.4 | 18.8 |
| 104177 2000 $EO_{87}$ | 15.9 | X | 352.12337 | 84.48360 | 53.31807 | 3.00262 | 0.1600652 | 0.27269013 | 2.3551746 | 21 | — | — |
| 104178 2000 $EC_{90}$ | 16.0 | X | 75.96674 | 4.85940 | 63.07928 | 7.83406 | 0.0882800 | 0.27605280 | 2.3360095 | 21 | — | — |
| 104179 2000 $EZ_{90}$ | 14.7 | X | 253.37570 | 170.15879 | 194.42490 | 14.68156 | 0.1022723 | 0.24202568 | 2.5501266 | 21 | 5 19.3 | 18.5 |
| 104180 2000 $EM_{91}$ | 15.0 | X | 222.87695 | 239.51395 | 282.36966 | 13.39821 | 0.1451003 | 0.21358844 | 2.7717298 | 21 | 10 23.6 | 19.4 |
| 104181 2000 $EA_{96}$ | 15.5 | X | 164.12300 | 44.61492 | 26.41752 | 0.83603 | 0.0828675 | 0.19466942 | 2.9485210 | 21 | 5 8.5 | 19.8 |
| 104182 2000 $EB_{96}$ | 15.9 | X | 26.82072 | 32.45193 | 353.91622 | 6.32394 | 0.1313416 | 0.26359928 | 2.4090172 | 21 | — | — |
| 104183 2000 $EH_{96}$ | 16.5 | X | 303.77339 | 35.94210 | 132.96700 | 2.20268 | 0.1309112 | 0.26990793 | 2.3713316 | 21 | — | — |
| 104184 2000 $EK_{96}$ | 14.5 | X | 271.87581 | 240.57128 | 16.84163 | 26.92707 | 0.1757252 | 0.17866980 | 3.1220171 | 21 | 2 5.7 | 19.9 |
| 104185 2000 $EG_{98}$ | 15.6 | X | 222.37364 | 164.11733 | 148.91155 | 14.48696 | 0.1037037 | 0.23414798 | 2.6070084 | 21 | 2 7.9 | 19.5 |
| 104186 2000 $EH_{98}$ | 16.1 | X | 296.20255 | 240.69386 | 146.79171 | 4.10019 | 0.1932838 | 0.21000092 | 2.8032075 | 21 | 7 31.0 | 19.5 |
| 104187 2000 $EJ_{98}$ | 16.1 | X | 115.47529 | 122.09059 | 338.88182 | 1.39035 | 0.0101623 | 0.19378905 | 2.9574443 | 21 | 4 10.6 | 20.2 |
| 104188 2000 $EW_{99}$ | 15.3 | X | 270.03813 | 14.01343 | 5.17231 | 1.66330 | 0.1045906 | 0.20122572 | 2.8841226 | 21 | 6 27.7 | 19.2 |
| 104189 2000 $EQ_{100}$ | 16.6 | X | 78.54588 | 100.41701 | 306.71305 | 1.28085 | 0.2070803 | 0.27374478 | 2.3491215 | 21 | — | — |
| 104190 2000 $EL_{101}$ | 16.1 | X | 7.13912 | 335.65248 | 338.10972 | 1.30741 | 0.0520546 | 0.20400690 | 2.8578503 | 21 | 8 27.1 | 19.6 |
| 104191 2000 $EN_{101}$ | 15.5 | X | 248.10858 | 62.81300 | 341.00055 | 1.14777 | 0.0895279 | 0.20214493 | 2.8753727 | 21 | 7 5.0 | 19.5 |
| 104192 2000 $EE_{102}$ | 15.9 | X | 79.80331 | 160.23036 | 213.04429 | 1.68798 | 0.0958416 | 0.22126981 | 2.7072058 | 21 | — | — |
| 104193 2000 $EO_{102}$ | 15.5 | X | 181.85222 | 155.75640 | 197.84224 | 2.45281 | 0.0913361 | 0.23126966 | 2.6285946 | 21 | 2 16.2 | 19.3 |
| 104194 2000 $EE_{103}$ | 14.7 | X | 186.40454 | 355.82608 | 352.85947 | 13.65555 | 0.1554449 | 0.23119830 | 2.6291354 | 21 | 2 21.8 | 18.9 |
| 104195 2000 $EN_{103}$ | 14.3 | X | 165.23121 | 306.87995 | 68.08208 | 22.90564 | 0.0448864 | 0.23213198 | 2.6220808 | 21 | 3 6.1 | 18.5 |
| 104196 2000 $EL_{105}$ | 15.6 | X | 314.10328 | 104.23786 | 127.26696 | 10.90388 | 0.0993383 | 0.23023200 | 2.6364867 | 21 | 2 10.4 | 19.0 |
| 104197 2000 $ET_{105}$ | 14.7 | X | 346.26115 | 41.44223 | 61.55379 | 9.79926 | 0.0914993 | 0.22002818 | 2.7173808 | 21 | — | — |
| 104198 2000 $ED_{106}$ | 14.0 | X | 254.74596 | 174.00118 | 155.16365 | 14.93851 | 0.0604941 | 0.18944211 | 3.0025139 | 21 | 4 16.5 | 18.5 |
| 104199 2000 $EO_{107}$ | 15.3 | X | 8.81042 | 106.90119 | 151.43014 | 28.71692 | 0.2088586 | 0.24203194 | 2.5500827 | 21 | 6 21.5 | 18.3 |
| 104200 2000 $EL_{108}$ | 14.5 | X | 284.26086 | 82.60169 | 204.54102 | 8.15139 | 0.0661205 | 0.18867241 | 3.0106743 | 21 | 3 24.2 | 18.8 |
| 104201 2000 $EN_{108}$ | 15.2 | X | 258.27977 | 61.65202 | 14.82527 | 8.72123 | 0.1444661 | 0.20997105 | 2.8034733 | 21 | 8 25.2 | 19.2 |
| 104202 2000 $ES_{108}$ | 14.6 | X | 272.68710 | 205.72705 | 47.74779 | 8.98578 | 0.1472095 | 0.27263041 | 2.3555185 | 21 | 1 8.5 | 18.2 |
| 104203 2000 $EY_{109}$ | 15.4 | X | 165.84529 | 267.05803 | 5.25734 | 7.36387 | 0.0947544 | 0.26401344 | 2.4064972 | 21 | — | — |
| 104204 2000 $EA_{111}$ | 14.5 | X | 292.28944 | 155.47054 | 18.57608 | 17.79790 | 0.1671683 | 0.17595023 | 3.1541050 | 21 | — | — |
| 104205 2000 $EE_{112}$ | 15.6 | X | 353.35483 | 282.18093 | 204.93462 | 13.00400 | 0.1496153 | 0.22679774 | 2.6630352 | 21 | — | — |
| 104206 2000 $EO_{112}$ | 15.4 | X | 226.77234 | 348.55896 | 108.44780 | 3.02230 | 0.0442719 | 0.20636434 | 2.8360439 | 21 | 8 23.9 | 19.5 |
| 104207 2000 $ED_{113}$ | 15.2 | X | 111.23271 | 151.54509 | 134.25217 | 8.96306 | 0.2862397 | 0.21177258 | 2.7875515 | 21 | 12 18.6 | 20.3 |
| 104208 2000 $EQ_{113}$ | 14.7 | X | 290.11623 | 262.04131 | 350.36738 | 10.04859 | 0.1042045 | 0.18399728 | 3.0614590 | 21 | 2 15.9 | 19.1 |
| 104209 2000 $EN_{115}$ | 15.6 | X | 10.55758 | 229.20780 | 343.21790 | 7.35955 | 0.0371776 | 0.19147843 | 2.9811887 | 21 | 4 14.8 | 19.7 |
| 104210 Leeupton | 15.1 | X | 132.49175 | 78.57155 | 165.63317 | 10.70370 | 0.1417697 | 0.20894893 | 2.8126085 | 21 | 11 13.6 | 19.7 |
| 104211 2000 $EW_{116}$ | 16.6 | X | 345.64718 | 256.85054 | 178.18245 | 2.03423 | 0.0631475 | 0.26295767 | 2.4129343 | 21 | — | — |
| 104212 2000 $ER_{117}$ | 14.5 | X | 278.67457 | 306.36863 | 25.17264 | 17.10933 | 0.0877498 | 0.19721156 | 2.9231278 | 21 | 5 6.1 | 18.7 |
| 104213 2000 $EE_{118}$ | 15.0 | X | 178.61593 | 186.06878 | 58.77680 | 9.80050 | 0.0905029 | 0.21846459 | 2.7303313 | 21 | 12 27.9 | 19.2 |
| 104214 2000 $EJ_{118}$ | 15.2 | X | 259.78439 | 214.81780 | 23.06505 | 12.63078 | 0.0744685 | 0.22806451 | 2.6531649 | 21 | — | — |
| 104215 2000 $ES_{118}$ | 15.5 | X | 306.09114 | 101.31178 | 91.08733 | 9.14171 | 0.0540782 | 0.22845872 | 2.6501120 | 21 | — | — |
| 104216 2000 $EF_{119}$ | 15.0 | X | 269.56174 | 30.74465 | 119.64745 | 14.73402 | 0.1402771 | 0.21883678 | 2.7272347 | 21 | 12 14.6 | 18.5 |
| 104217 2000 $EM_{119}$ | 13.9 | X | 308.00101 | 141.90299 | 5.35133 | 17.41689 | 0.1624119 | 0.17759025 | 3.1346566 | 21 | — | — |
| 104218 2000 $EU_{119}$ | 15.3 | X | 203.37205 | 147.65079 | 37.11877 | 9.66908 | 0.2094783 | 0.21313406 | 2.7756677 | 21 | 10 31.7 | 19.9 |
| 104219 2000 $EO_{120}$ | 15.1 | X | 265.75093 | 349.15419 | 127.84117 | 11.73265 | 0.1955136 | 0.21565846 | 2.7539648 | 21 | 10 21.3 | 18.9 |
| 104220 2000 $EP_{120}$ | 15.8 | X | 196.52541 | 136.85092 | 47.16318 | 6.96395 | 0.0854781 | 0.25919841 | 2.4362087 | 21 | 11 9.1 | 19.2 |
| 104221 2000 $EU_{120}$ | 14.8 | X | 5.97739 | 319.70445 | 136.18261 | 11.00249 | 0.0743746 | 0.17887939 | 3.1195780 | 21 | — | — |
| 104222 2000 $EH_{121}$ | 14.7 | X | 240.69523 | 234.17871 | 2.39023 | 11.52381 | 0.0769574 | 0.22564871 | 2.6720678 | 21 | — | — |
| 104223 2000 $EP_{121}$ | 14.7 | X | 0.13154 | 75.60258 | 16.63417 | 12.70626 | 0.2370877 | 0.22627068 | 2.6671690 | 21 | — | — |
| 104224 2000 $EC_{122}$ | 14.7 | X | 226.76447 | 279.07473 | 30.35481 | 3.91935 | 0.2021348 | 0.23115343 | 2.6294757 | 21 | 2 8.3 | 19.1 |
| 104225 2000 $EE_{123}$ | 16.5 | X | 197.03730 | 41.61181 | 120.18032 | 0.30269 | 0.0458050 | 0.25564574 | 2.4587272 | 21 | 10 15.0 | 19.6 |
| 104226 2000 $EN_{123}$ | 15.0 | X | 190.44908 | 350.38171 | 119.62728 | 3.17855 | 0.0199641 | 0.20213389 | 2.8754774 | 21 | 7 27.6 | 18.9 |
| 104227 2000 $EH_{125}$ | 15.4 | X | 288.19710 | 275.62339 | 139.18784 | 6.08598 | 0.0683670 | 0.20783761 | 2.8226257 | 21 | 9 15.3 | 19.0 |
| 104228 2000 $EG_{127}$ | 15.1 | X | 132.44924 | 186.19460 | 123.86806 | 5.85430 | 0.1017707 | 0.21833864 | 2.7313812 | 21 | — | — |
| 104229 2000 $ER_{128}$ | 15.4 | X | 189.40688 | 135.02044 | 101.75474 | 3.72472 | 0.0482469 | 0.21669119 | 2.7452077 | 21 | — | — |
| 104230 2000 $EZ_{128}$ | 15.3 | X | 224.21450 | 137.83848 | 5.68032 | 9.26825 | 0.0992905 | 0.21078338 | 2.7962660 | 21 | 10 11.0 | 19.5 |
| 104231 2000 $EE_{129}$ | 15.2 | X | 196.58658 | 171.14939 | 8.52739 | 6.98028 | 0.1398627 | 0.21097266 | 2.7945932 | 21 | 10 22.8 | 19.7 |
| 104232 2000 $ET_{129}$ | 14.8 | X | 183.99097 | 221.93799 | 71.37660 | 3.12756 | 0.0676515 | 0.22303198 | 2.6929272 | 21 | — | — |
| 104233 2000 $EV_{129}$ | 16.1 | X | 14.31990 | 113.16162 | 14.78717 | 5.60185 | 0.0727258 | 0.27412070 | 2.3469733 | 21 | — | — |
| 104234 2000 $EL_{130}$ | 16.2 | X | 305.87425 | 47.42536 | 105.17118 | 2.16160 | 0.1301715 | 0.26872445 | 2.3782888 | 21 | — | — |
| 104235 2000 $EL_{131}$ | 16.2 | X | 61.20360 | 293.14731 | 185.54746 | 2.82800 | 0.2977453 | 0.18910868 | 3.0060422 | 21 | 4 2.7 | 19.4 |
| 104236 2000 $EG_{132}$ | 15.4 | X | 176.20466 | 84.50081 | 183.09281 | 16.20382 | 0.2055898 | 0.21647720 | 2.7470165 | 21 | — | — |
| 104237 2000 $EU_{132}$ | 15.6 | X | 334.67980 | 292.70072 | 357.53924 | 13.25033 | 0.1188804 | 0.24108482 | 2.5567571 | 21 | 5 24.1 | 18.8 |
| 104238 2000 $EB_{133}$ | 15.1 | X | 137.76553 | 249.47046 | 1.54517 | 3.55581 | 0.0510331 | 0.21179209 | 2.7873803 | 21 | 11 21.2 | 19.3 |
| 104239 2000 $EG_{133}$ | 16.5 | X | 163.17679 | 109.98705 | 355.25658 | 6.38316 | 0.1153630 | 0.29092451 | 2.2557061 | 21 | 6 19.4 | 19.8 |
| 104240 2000 $ET_{133}$ | 14.8 | X | 112.77732 | 339.72085 | 136.03514 | 11.57052 | 0.0516160 | 0.19142535 | 2.9817398 | 21 | 5 7.0 | 19.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104241 2000 $EB_{134}$ | 15.1 | X | 281.20906 | 74.58233 | 79.35185 | 7.96620 | 0.1119718 | 0.21786140 | 2.7353686 | 21 | — | — |
| 104242 2000 $EL_{134}$ | 15.8 | X | 26.58017 | 52.21312 | 108.41127 | 6.34406 | 0.0720427 | 0.27813915 | 2.3243131 | 21 | 2 17.0 | 18.2 |
| 104243 2000 $ES_{134}$ | 16.5 | X | 286.25168 | 63.99261 | 95.56293 | 3.12261 | 0.1274441 | 0.26594291 | 2.3948433 | 21 | — | — |
| 104244 2000 $EX_{134}$ | 14.6 | X | 35.28295 | 5.72858 | 152.06492 | 12.10770 | 0.0402275 | 0.18611697 | 3.0381700 | 21 | 3 15.7 | 18.7 |
| 104245 2000 $ED_{135}$ | 15.3 | X | 90.48663 | 119.43749 | 140.99680 | 6.25784 | 0.0717517 | 0.20565226 | 2.8425867 | 21 | 10 14.7 | 19.4 |
| 104246 2000 $EM_{135}$ | 14.7 | X | 307.89965 | 56.67071 | 98.74949 | 5.02333 | 0.0339593 | 0.22128044 | 2.7071191 | 21 | — | — |
| 104247 2000 $EH_{136}$ | 14.8 | X | 279.08937 | 305.66019 | 17.39264 | 9.72957 | 0.0881335 | 0.19143854 | 2.9816029 | 21 | 4 28.0 | 19.0 |
| 104248 2000 $EJ_{136}$ | 15.7 | X | 8.03117 | 344.64739 | 142.25268 | 2.80321 | 0.2101033 | 0.18110079 | 3.0940156 | 21 | — | — |
| 104249 2000 $EQ_{136}$ | 14.5 | X | 102.52581 | 169.45666 | 149.48888 | 4.82814 | 0.0964761 | 0.21536466 | 2.7564688 | 21 | — | — |
| 104250 2000 $ET_{136}$ | 16.3 | X | 298.58376 | 73.37655 | 156.62915 | 5.46578 | 0.2200815 | 0.22783983 | 2.6549089 | 21 | 1 4.8 | 20.5 |
| 104251 2000 $EJ_{137}$ | 13.9 | X | 211.35097 | 248.40165 | 51.10563 | 11.94300 | 0.0767370 | 0.17863446 | 3.1224289 | 21 | 1 24.0 | 18.9 |
| 104252 2000 $EJ_{138}$ | 15.5 | X | 196.52534 | 23.52934 | 343.28802 | 2.98233 | 0.1482330 | 0.19129871 | 2.9830557 | 21 | 3 24.8 | 20.4 |
| 104253 2000 $EK_{138}$ | 15.6 | X | 9.84841 | 24.74928 | 351.32992 | 5.63947 | 0.0334129 | 0.21374167 | 2.7704049 | 21 | 11 18.7 | 19.3 |
| 104254 2000 $ET_{139}$ | 15.1 | X | 36.83361 | 78.56279 | 151.15795 | 12.57524 | 0.1401617 | 0.24025822 | 2.5626180 | 21 | 6 27.3 | 18.0 |
| 104255 2000 $EJ_{140}$ | 14.7 | X | 206.05449 | 70.00173 | 163.40777 | 30.15943 | 0.1849593 | 0.21918521 | 2.7243437 | 21 | — | — |
| 104256 2000 $EA_{141}$ | 16.0 | X | 72.63300 | 100.75884 | 63.77815 | 5.85862 | 0.1126737 | 0.28672278 | 2.2776898 | 21 | 5 15.7 | 18.4 |
| 104257 2000 $EC_{141}$ | 15.1 | X | 224.76194 | 273.57614 | 25.37217 | 10.96615 | 0.1804506 | 0.22910838 | 2.6450998 | 21 | 1 28.1 | 19.7 |
| 104258 2000 $EQ_{141}$ | 13.7 | X | 205.12490 | 124.70199 | 164.06423 | 16.83762 | 0.1627664 | 0.17673643 | 3.1447442 | 21 | 1 3.6 | 19.2 |
| 104259 2000 $EK_{142}$ | 16.0 | X | 313.91248 | 105.09993 | 320.37351 | 2.47190 | 0.1818135 | 0.21711925 | 2.7415983 | 21 | 10 27.3 | 18.7 |
| 104260 2000 $EF_{144}$ | 14.5 | X | 298.22467 | 278.69601 | 262.87345 | 11.12480 | 0.1152397 | 0.17869891 | 3.1216781 | 21 | — | — |
| 104261 2000 $ES_{144}$ | 15.8 | X | 14.26915 | 89.81523 | 212.80713 | 1.35390 | 0.0539425 | 0.20353109 | 2.8623026 | 21 | 8 22.1 | 19.5 |
| 104262 2000 $EY_{144}$ | 15.0 | X | 57.10763 | 47.92263 | 335.64624 | 5.72210 | 0.0319699 | 0.21844451 | 2.7304986 | 21 | — | — |
| 104263 2000 $EZ_{144}$ | 14.4 | X | 277.14766 | 11.05984 | 189.98331 | 15.02386 | 0.1452132 | 0.17598598 | 3.1536779 | 21 | — | — |
| 104264 2000 $EW_{145}$ | 14.7 | X | 301.72820 | 337.97965 | 130.95908 | 14.30459 | 0.1262515 | 0.21826530 | 2.7319930 | 21 | 12 12.9 | 18.0 |
| 104265 2000 $EK_{146}$ | 15.6 | X | 356.65507 | 283.69532 | 214.03831 | 12.61358 | 0.1258691 | 0.22774368 | 2.6556561 | 21 | — | — |
| 104266 2000 $EW_{146}$ | 15.1 | X | 334.21615 | 319.93814 | 119.97979 | 13.86440 | 0.1369614 | 0.21877234 | 2.7277701 | 21 | 12 29.3 | 18.1 |
| 104267 2000 $EM_{147}$ | 14.0 | X | 168.17731 | 16.72883 | 355.54154 | 7.92749 | 0.0800716 | 0.18375415 | 3.0641589 | 21 | 3 4.2 | 18.6 |
| 104268 2000 $EA_{148}$ | 14.1 | X | 241.33995 | 107.30058 | 191.21339 | 9.42877 | 0.0912425 | 0.18191889 | 3.0847326 | 21 | 2 15.7 | 18.9 |
| 104269 2000 $EC_{148}$ | 13.8 | X | 350.28030 | 312.97826 | 183.93143 | 15.64143 | 0.0409037 | 0.17709824 | 3.1404596 | 21 | — | — |
| 104270 2000 $EC_{149}$ | 16.1 | X | 181.98556 | 42.79000 | 18.42955 | 4.04634 | 0.1743859 | 0.29131935 | 2.2536674 | 21 | 5 11.3 | 19.6 |
| 104271 2000 $EF_{149}$ | 15.4 | X | 281.18907 | 207.79851 | 130.88942 | 10.04354 | 0.0659223 | 0.24379528 | 2.5377715 | 21 | 5 25.9 | 18.9 |
| 104272 2000 $ES_{149}$ | 14.7 | X | 273.59005 | 190.72724 | 121.55141 | 11.05058 | 0.0796979 | 0.19152675 | 2.9806873 | 21 | 4 15.9 | 19.2 |
| 104273 2000 $EU_{149}$ | 15.5 | X | 250.51211 | 57.88199 | 140.23644 | 13.53184 | 0.0974176 | 0.21968481 | 2.7202116 | 21 | — | — |
| 104274 2000 $EU_{150}$ | 16.4 | X | 318.27763 | 356.85210 | 145.71190 | 2.55506 | 0.1531723 | 0.26932319 | 2.3747627 | 21 | — | — |
| 104275 2000 $EW_{150}$ | 14.7 | X | 33.01453 | 74.04759 | 144.85022 | 2.09105 | 0.0624019 | 0.19419397 | 2.9533317 | 21 | 5 30.1 | 18.4 |
| 104276 2000 $EL_{151}$ | 15.4 | X | 86.25404 | 302.56728 | 120.44230 | 15.40551 | 0.0831276 | 0.23187817 | 2.6239938 | 21 | 1 17.9 | 18.4 |
| 104277 2000 $ER_{151}$ | 14.8 | X | 249.19843 | 270.80476 | 263.58232 | 9.74576 | 0.1177100 | 0.21935017 | 2.7229776 | 21 | 12 18.8 | 18.4 |
| 104278 2000 $EK_{152}$ | 16.1 | X | 225.92671 | 359.84498 | 188.77755 | 6.46748 | 0.0682436 | 0.26261447 | 2.4150360 | 21 | 12 23.6 | 19.2 |
| 104279 2000 $EE_{153}$ | 14.6 | X | 353.10898 | 95.43205 | 198.08262 | 1.65370 | 0.0492838 | 0.19878341 | 2.9076980 | 21 | 7 8.8 | 18.3 |
| 104280 2000 $ED_{154}$ | 14.7 | X | 62.19575 | 107.78201 | 45.86788 | 9.46867 | 0.0331783 | 0.19037780 | 2.9926679 | 21 | 4 15.0 | 18.8 |
| 104281 2000 $ET_{154}$ | 14.8 | X | 169.19753 | 128.92677 | 153.94083 | 15.63182 | 0.1736970 | 0.21599342 | 2.7511168 | 21 | — | — |
| 104282 2000 $EK_{155}$ | 15.7 | X | 52.87784 | 186.61731 | 318.64837 | 8.69154 | 0.1148923 | 0.28108996 | 2.3080178 | 21 | 3 8.3 | 17.8 |
| 104283 2000 $EL_{155}$ | 15.0 | X | 329.49224 | 3.16872 | 220.46169 | 9.45217 | 0.0719611 | 0.18602258 | 3.0391976 | 21 | 2 28.3 | 19.2 |
| 104284 2000 $EX_{155}$ | 16.5 | X | 66.01181 | 36.92070 | 225.05125 | 5.68206 | 0.1674928 | 0.29434192 | 2.2382124 | 21 | 10 6.2 | 19.3 |
| 104285 2000 $EH_{156}$ | 14.3 | X | 149.72073 | 208.19755 | 243.79528 | 8.22664 | 0.0204692 | 0.19289006 | 2.9666262 | 21 | 5 13.7 | 18.5 |
| 104286 2000 $EF_{157}$ | 14.4 | X | 251.62283 | 163.65035 | 135.00382 | 18.62747 | 0.1789887 | 0.18089605 | 3.0963496 | 21 | 2 23.5 | 19.5 |
| 104287 2000 $EM_{157}$ | 14.6 | X | 242.96065 | 100.32501 | 113.85243 | 19.66304 | 0.1467689 | 0.17143506 | 3.2092456 | 21 | — | — |
| 104288 2000 $EC_{158}$ | 14.2 | X | 256.34045 | 237.16248 | 335.73146 | 13.99525 | 0.1315050 | 0.17407056 | 3.1767705 | 21 | — | — |
| 104289 2000 $EW_{158}$ | 14.8 | X | 259.02022 | 6.70297 | 213.75868 | 14.74158 | 0.0547326 | 0.22263599 | 2.6961195 | 21 | — | — |
| 104290 2000 $EB_{164}$ | 15.9 | X | 340.70007 | 80.38812 | 171.83002 | 8.99577 | 0.2251078 | 0.23600124 | 2.5933424 | 21 | 3 30.6 | 18.4 |
| 104291 2000 $EU_{164}$ | 16.0 | X | 316.36104 | 105.07543 | 177.01450 | 7.32872 | 0.1873223 | 0.23685141 | 2.5871329 | 21 | 4 7.1 | 19.0 |
| 104292 2000 $EC_{165}$ | 14.8 | X | 322.44508 | 207.06127 | 355.69956 | 11.12046 | 0.0613691 | 0.18333260 | 3.0688542 | 21 | 2 2.5 | 19.1 |
| 104293 2000 $EN_{166}$ | 15.1 | X | 322.75167 | 114.48211 | 23.82979 | 13.92900 | 0.1481658 | 0.22462067 | 2.6802146 | 21 | — | — |
| 104294 2000 $ER_{168}$ | 15.2 | X | 197.88601 | 16.43807 | 92.48121 | 12.28684 | 0.1003470 | 0.20373451 | 2.8603971 | 21 | 8 2.2 | 19.7 |
| 104295 2000 $EH_{169}$ | 14.1 | X | 198.85763 | 228.08831 | 59.12188 | 13.50131 | 0.1707861 | 0.22428618 | 2.6828787 | 21 | — | — |
| 104296 2000 $ET_{169}$ | 14.5 | X | 188.09653 | 315.51034 | 36.49835 | 17.36352 | 0.0970529 | 0.18637683 | 3.0353452 | 21 | 3 8.6 | 19.5 |
| 104297 2000 $EK_{171}$ | 15.0 | X | 90.57542 | 307.74581 | 135.64348 | 15.67613 | 0.0792683 | 0.23205863 | 2.6226333 | 21 | 2 20.8 | 18.3 |
| 104298 2000 $EG_{172}$ | 16.1 | X | 201.63053 | 243.18321 | 169.94427 | 5.08456 | 0.1759983 | 0.28927698 | 2.2642626 | 21 | 5 21.4 | 19.7 |
| 104299 2000 $EM_{173}$ | 15.4 | X | 70.73601 | 147.13166 | 55.33462 | 13.88953 | 0.1142657 | 0.24422656 | 2.5347830 | 21 | 7 10.5 | 18.8 |
| 104300 2000 $ET_{174}$ | 16.0 | X | 210.79996 | 265.31578 | 249.44375 | 7.78177 | 0.2407816 | 0.21217522 | 2.7840238 | 21 | 9 26.7 | 20.8 |
| 104301 2000 $EZ_{175}$ | 15.5 | X | 208.80455 | 184.84116 | 155.17519 | 14.29570 | 0.1668259 | 0.23447558 | 2.6045796 | 21 | 2 28.3 | 19.6 |
| 104302 2000 $ED_{178}$ | 16.7 | X | 54.87195 | 16.55834 | 77.29880 | 2.65249 | 0.1355699 | 0.27675955 | 2.3320309 | 21 | — | — |
| 104303 2000 $EA_{179}$ | 14.9 | X | 167.69794 | 99.49044 | 93.74069 | 9.73560 | 0.1587928 | 0.21072502 | 2.7967822 | 21 | 10 17.8 | 19.6 |
| 104304 2000 $EM_{179}$ | 15.3 | X | 43.89219 | 223.58137 | 11.17854 | 14.97222 | 0.0820635 | 0.24629721 | 2.5205562 | 21 | 7 12.8 | 18.6 |
| 104305 2000 $EH_{183}$ | 15.7 | X | 121.94368 | 245.36656 | 26.27572 | 12.04782 | 0.1616798 | 0.25796917 | 2.4439417 | 21 | 12 9.5 | 19.8 |
| 104306 2000 $EM_{185}$ | 15.8 | X | 243.70200 | 321.97770 | 46.88712 | 8.38882 | 0.1483946 | 0.28958608 | 2.2626511 | 21 | 5 4.8 | 19.1 |
| 104307 2000 $EO_{186}$ | 14.3 | X | 50.08437 | 48.64113 | 6.63205 | 16.54754 | 0.2330067 | 0.18005561 | 3.1059773 | 21 | — | — |
| 104308 2000 $ES_{186}$ | 15.8 | X | 234.73418 | 193.89121 | 146.86991 | 8.99313 | 0.1530589 | 0.24063008 | 2.5599772 | 21 | 3 26.4 | 19.9 |
| 104309 2000 $EL_{192}$ | 15.2 | X | 7.79404 | 157.21552 | 302.97007 | 2.68149 | 0.0857739 | 0.17805037 | 3.1292538 | 21 | — | — |
| 104310 2000 $ER_{194}$ | 15.8 | X | 351.23412 | 46.72651 | 1.17769 | 5.56341 | 0.0762540 | 0.21505949 | 2.7590758 | 21 | 12 8.3 | 19.3 |
| 104311 2000 $EY_{195}$ | 16.0 | X | 9.08982 | 200.81163 | 143.61979 | 2.43366 | 0.0697675 | 0.20812404 | 2.8200353 | 21 | 10 12.8 | 19.6 |
| 104312 2000 $EQ_{196}$ | 15.1 | X | 224.27002 | 283.65224 | 324.59414 | 4.19065 | 0.1139847 | 0.17511869 | 3.1640818 | 21 | — | — |
| 104313 2000 $EM_{201}$ | 15.4 | X | 274.06398 | 96.03356 | 68.27454 | 13.82715 | 0.1256851 | 0.21857649 | 2.7293994 | 21 | — | — |
| 104314 2000 $EC_{203}$ | 14.7 | X | 296.10239 | 60.46688 | 279.25179 | 8.35319 | 0.2796203 | 0.24437371 | 2.5337654 | 21 | 5 9.0 | 18.2 |
| 104315 2000 $FO$ | 16.2 | X | 15.43020 | 39.68106 | 242.25562 | 1.17729 | 0.1208049 | 0.24325397 | 2.5415350 | 21 | 8 2.5 | 18.9 |
| 104316 2000 $FP_{1}$ | 15.9 | X | 6.60967 | 59.29958 | 9.07606 | 6.45125 | 0.0842081 | 0.26400049 | 2.4065759 | 21 | — | — |
| 104317 2000 $FD_{2}$ | 16.0 | X | 266.14396 | 342.85360 | 188.43532 | 5.76442 | 0.0836330 | 0.26356110 | 2.4092498 | 21 | — | — |
| 104318 2000 $FF_{2}$ | 14.8 | X | 344.61765 | 63.81607 | 190.52991 | 9.09076 | 0.0677531 | 0.19006197 | 2.9959822 | 21 | 5 5.4 | 18.7 |
| 104319 2000 $FM_{2}$ | 14.5 | X | 183.83881 | 185.59241 | 191.15943 | 12.34414 | 0.2004933 | 0.23214833 | 2.6219576 | 21 | 3 23.0 | 18.9 |
| 104320 2000 $FP_{2}$ | 16.4 | X | 352.53917 | 329.33013 | 359.14247 | 4.41146 | 0.2070272 | 0.29205600 | 2.2498763 | 21 | 9 10.7 | 17.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104321 2000 $FD_3$ | 15.9 | X | 86.38162 | 37.24606 | 126.02733 | 5.71744 | 0.1521555 | 0.24129281 | 2.5552876 | 21 | 6 13.4 | 19.3 |
| 104322 2000 $FF_4$ | 15.1 | X | 170.08608 | 355.85884 | 337.38078 | 2.15070 | 0.0610784 | 0.17803574 | 3.1294252 | 21 | 1 18.1 | 19.6 |
| 104323 2000 $FT_4$ | 15.9 | X | 77.75134 | 339.31372 | 18.99534 | 1.56707 | 0.1998112 | 0.26211632 | 2.4180949 | 21 | — | — |
| 104324 2000 $FX_4$ | 14.7 | X | 34.97884 | 297.46736 | 14.46877 | 14.46424 | 0.2951823 | 0.20136228 | 2.8828185 | 21 | 11 4.6 | 18.4 |
| 104325 2000 $FM_6$ | 15.9 | X | 55.52869 | 112.22715 | 35.76364 | 1.87490 | 0.0174410 | 0.18634884 | 3.0356492 | 21 | 3 27.3 | 19.9 |
| 104326 2000 $FU_6$ | 15.0 | X | 57.18214 | 210.43156 | 170.81581 | 5.06789 | 0.1744764 | 0.17698082 | 3.1418485 | 21 | — | — |
| 104327 2000 $FA_7$ | 16.1 | X | 285.24825 | 255.04482 | 210.59952 | 1.99868 | 0.0466141 | 0.21216884 | 2.7840796 | 21 | 11 18.5 | 19.7 |
| 104328 2000 $FW_7$ | 14.6 | X | 102.83598 | 48.93016 | 85.70477 | 14.22912 | 0.0466451 | 0.19162419 | 2.9796768 | 21 | 5 16.9 | 18.8 |
| 104329 2000 $FN_8$ | 14.1 | X | 180.37661 | 171.64416 | 178.10646 | 7.09453 | 0.1158817 | 0.18044159 | 3.1015464 | 21 | 2 17.9 | 19.0 |
| 104330 2000 $FY_8$ | 15.1 | X | 65.46043 | 155.36432 | 356.89546 | 1.79867 | 0.1041110 | 0.18847115 | 3.0128173 | 21 | 4 24.2 | 19.0 |
| 104331 2000 $FA_9$ | 15.4 | X | 7.98006 | 276.88765 | 212.00960 | 4.41260 | 0.1181754 | 0.17844194 | 3.1246743 | 21 | — | — |
| 104332 2000 $FD_9$ | 16.4 | X | 163.73232 | 16.79050 | 215.25591 | 2.18412 | 0.1310264 | 0.25599856 | 2.4564676 | 21 | 12 1.7 | 20.3 |
| 104333 2000 $FO_9$ | 16.1 | X | 343.21617 | 182.04673 | 182.65366 | 1.41537 | 0.0784841 | 0.20536206 | 2.8452640 | 21 | 9 28.9 | 19.5 |
| 104334 2000 $FF_{10}$ | 15.0 | X | 336.57626 | 161.51879 | 161.08019 | 2.25622 | 0.0829519 | 0.19806060 | 2.9147679 | 21 | 7 21.3 | 18.6 |
| 104335 2000 $FF_{11}$ | 14.8 | X | 279.36910 | 80.20965 | 17.64561 | 15.65123 | 0.2205259 | 0.21554931 | 2.7548945 | 21 | 10 6.9 | 18.1 |
| 104336 2000 $FM_{12}$ | 13.6 | X | 226.93914 | 354.46694 | 56.39216 | 17.31914 | 0.1031827 | 0.15464498 | 3.4375221 | 21 | 6 17.4 | 18.9 |
| 104337 2000 $FT_{12}$ | 14.8 | X | 339.30895 | 178.26885 | 39.07179 | 15.19831 | 0.1323230 | 0.23346562 | 2.6120857 | 21 | 3 1.7 | 18.2 |
| 104338 2000 $FA_{13}$ | 14.4 | X | 322.28362 | 37.02567 | 52.08011 | 16.96703 | 0.1197278 | 0.17173959 | 3.2054507 | 21 | 12 5.0 | 18.4 |
| 104339 2000 $FF_{13}$ | 14.9 | X | 106.73519 | 340.33976 | 91.86770 | 14.94671 | 0.1348494 | 0.23316033 | 2.6143653 | 21 | 3 14.9 | 18.6 |
| 104340 2000 $FN_{13}$ | 15.6 | X | 88.26106 | 43.38710 | 109.10139 | 13.19874 | 0.1901789 | 0.24073800 | 2.5592121 | 21 | 6 8.4 | 19.1 |
| 104341 2000 $FR_{13}$ | 15.1 | X | 205.10173 | 135.08142 | 131.85573 | 16.69631 | 0.2091363 | 0.21986249 | 2.7187459 | 21 | — | — |
| 104342 2000 $FH_{15}$ | 15.1 | X | 24.26852 | 204.04275 | 22.88711 | 27.50653 | 0.2103321 | 0.23792364 | 2.5793542 | 21 | 5 21.8 | 17.9 |
| 104343 2000 $FW_{15}$ | 15.6 | X | 340.21753 | 146.97438 | 92.11378 | 6.22883 | 0.2566705 | 0.23418160 | 2.6067589 | 21 | 3 7.8 | 18.4 |
| 104344 2000 $FX_{15}$ | 15.7 | X | 244.30981 | 115.70064 | 36.00869 | 9.55747 | 0.0982751 | 0.21428940 | 2.7656821 | 21 | 11 14.7 | 19.4 |
| 104345 2000 $FD_{16}$ | 14.5 | X | 271.55048 | 70.63200 | 153.37110 | 16.28488 | 0.2285942 | 0.17731905 | 3.1378520 | 21 | — | — |
| 104346 2000 $FY_{16}$ | 14.4 | X | 268.58412 | 223.25475 | 16.48055 | 27.55005 | 0.1438976 | 0.17934484 | 3.1141782 | 21 | 1 7.9 | 19.8 |
| 104347 2000 $FZ_{16}$ | 15.7 | X | 56.05937 | 103.67150 | 72.08764 | 4.79165 | 0.1275714 | 0.28463240 | 2.2888280 | 21 | 5 6.8 | 17.7 |
| 104348 2000 $FL_{17}$ | 15.1 | X | 1.66339 | 226.25887 | 35.54908 | 15.30483 | 0.0600936 | 0.24170039 | 2.5524142 | 21 | 6 3.5 | 18.3 |
| 104349 2000 $FO_{17}$ | 15.9 | X | 66.21920 | 32.53501 | 114.68720 | 6.54207 | 0.0793099 | 0.28265724 | 2.2994783 | 21 | 4 7.3 | 18.4 |
| 104350 2000 $FB_{18}$ | 15.0 | X | 185.35749 | 81.93096 | 43.74102 | 15.44030 | 0.1047034 | 0.20259735 | 2.8710905 | 21 | 8 15.3 | 19.8 |
| 104351 2000 $FF_{18}$ | 15.3 | X | 67.07927 | 320.09348 | 136.76117 | 14.03591 | 0.0205091 | 0.22917923 | 2.6445547 | 21 | 1 28.9 | 18.7 |
| 104352 2000 $FP_{18}$ | 15.1 | X | 182.36378 | 150.56467 | 125.44200 | 10.07842 | 0.1832119 | 0.21778221 | 2.7360316 | 21 | — | — |
| 104353 2000 $FR_{19}$ | 14.5 | X | 225.96209 | 166.44998 | 141.84229 | 13.59020 | 0.0834466 | 0.18292441 | 3.0734179 | 21 | 2 14.5 | 19.3 |
| 104354 2000 $FX_{19}$ | 14.6 | X | 16.75850 | 152.98087 | 67.78645 | 10.70171 | 0.0855964 | 0.19171097 | 2.9787776 | 21 | 5 10.0 | 18.2 |
| 104355 2000 $FF_{20}$ | 14.5 | X | 122.80731 | 37.37399 | 50.97082 | 10.70425 | 0.0112820 | 0.18924142 | 3.0046363 | 21 | 4 8.8 | 18.7 |
| 104356 2000 $FM_{20}$ | 15.6 | X | 215.61408 | 178.95579 | 143.09060 | 9.57223 | 0.0801290 | 0.23002965 | 2.6380327 | 21 | 2 13.5 | 19.6 |
| 104357 2000 $FO_{20}$ | 14.9 | X | 138.38331 | 103.01438 | 155.26968 | 13.49431 | 0.1777320 | 0.21066244 | 2.7973360 | 21 | 12 5.8 | 19.8 |
| 104358 2000 $FT_{20}$ | 15.9 | X | 96.51947 | 48.86297 | 113.69227 | 5.78760 | 0.1313442 | 0.24201352 | 2.5502120 | 21 | 6 22.3 | 19.3 |
| 104359 2000 $FV_{20}$ | 15.3 | X | 185.41042 | 83.57792 | 141.89278 | 9.60667 | 0.1033508 | 0.21373972 | 2.7704217 | 21 | 12 11.3 | 19.7 |
| 104360 2000 $FK_{21}$ | 14.8 | X | 214.62536 | 269.99134 | 38.72997 | 15.25050 | 0.1591763 | 0.22702581 | 2.6612513 | 21 | 2 2.3 | 19.4 |
| 104361 2000 $FV_{21}$ | 14.8 | X | 135.51805 | 9.04112 | 91.29308 | 11.78752 | 0.0639835 | 0.19271416 | 2.9684311 | 21 | 5 15.1 | 19.2 |
| 104362 2000 $FS_{22}$ | 16.2 | X | 38.36319 | 48.88848 | 53.14005 | 2.86152 | 0.1633782 | 0.27404733 | 2.3473923 | 21 | — | — |
| 104363 2000 $FH_{23}$ | 14.6 | X | 268.82912 | 156.78628 | 83.54860 | 12.16667 | 0.0326305 | 0.17924663 | 3.1153156 | 21 | 1 16.5 | 19.1 |
| 104364 2000 $FK_{26}$ | 14.8 | X | 35.02799 | 223.39100 | 147.32157 | 5.39885 | 0.0824508 | 0.21325803 | 2.7745920 | 21 | 12 23.5 | 18.5 |
| 104365 2000 $FP_{26}$ | 15.7 | X | 359.13102 | 273.76890 | 21.52955 | 8.22163 | 0.1559935 | 0.24292852 | 2.5438044 | 21 | 7 26.4 | 18.2 |
| 104366 2000 $FC_{27}$ | 15.2 | X | 42.41645 | 41.00985 | 68.82842 | 2.01204 | 0.1213628 | 0.18200834 | 3.0837218 | 21 | 1 27.7 | 18.7 |
| 104367 2000 $FG_{27}$ | 14.0 | X | 199.97454 | 301.73930 | 10.40678 | 22.24424 | 0.1618105 | 0.17747755 | 3.1359835 | 21 | 2 4.3 | 19.5 |
| 104368 2000 $FL_{27}$ | 15.3 | X | 83.08241 | 180.05856 | 13.24921 | 1.93517 | 0.0207384 | 0.19600617 | 2.9350999 | 21 | 6 29.6 | 19.3 |
| 104369 2000 $FT_{27}$ | 15.0 | X | 123.48963 | 218.68213 | 237.32297 | 1.60695 | 0.0426785 | 0.18991208 | 2.9975584 | 21 | 4 19.3 | 19.2 |
| 104370 2000 $FV_{27}$ | 14.9 | X | 311.83472 | 243.70198 | 352.38109 | 8.56547 | 0.0906488 | 0.18383492 | 3.0632613 | 21 | 2 23.5 | 19.2 |
| 104371 2000 $FH_{29}$ | 14.9 | X | 281.91753 | 193.94920 | 6.10872 | 10.25989 | 0.1891587 | 0.17555090 | 3.1588864 | 21 | — | — |
| 104372 2000 $FT_{29}$ | 14.9 | X | 303.71574 | 141.88164 | 24.49559 | 5.51910 | 0.1083474 | 0.17521275 | 3.1629494 | 21 | — | — |
| 104373 2000 $FV_{29}$ | 16.2 | X | 330.96817 | 249.75182 | 16.33566 | 16.55977 | 0.2343304 | 0.23422548 | 2.6064334 | 21 | 3 31.8 | 19.0 |
| 104374 2000 $FN_{30}$ | 14.6 | X | 79.11489 | 333.43921 | 153.84148 | 8.10597 | 0.1260267 | 0.18888874 | 3.0083753 | 21 | 4 17.7 | 18.6 |
| 104375 2000 $FE_{31}$ | 14.7 | X | 237.76624 | 12.11897 | 109.75361 | 10.04157 | 0.1040932 | 0.21029548 | 2.8005893 | 21 | 10 5.1 | 18.9 |
| 104376 2000 $FC_{32}$ | 14.6 | X | 42.17982 | 95.40228 | 104.29652 | 11.96737 | 0.0499491 | 0.19265137 | 2.9690760 | 21 | 5 20.0 | 18.6 |
| 104377 2000 $FF_{32}$ | 14.8 | X | 336.76486 | 336.69560 | 152.42094 | 6.03478 | 0.1366676 | 0.17664439 | 3.1458365 | 21 | — | — |
| 104378 2000 $FR_{33}$ | 14.6 | X | 284.60322 | 232.62081 | 45.24785 | 16.78726 | 0.1134830 | 0.23289919 | 2.6163192 | 21 | 3 11.5 | 18.6 |
| 104379 2000 $FB_{34}$ | 14.7 | X | 342.00502 | 348.39469 | 35.24623 | 5.64869 | 0.0415341 | 0.20841926 | 2.8173717 | 21 | 10 22.7 | 18.4 |
| 104380 2000 $FP_{34}$ | 15.9 | X | 328.90803 | 155.20738 | 47.18615 | 7.37579 | 0.0527945 | 0.27547465 | 2.3392768 | 21 | 1 21.7 | 18.8 |
| 104381 2000 $FW_{34}$ | 15.4 | X | 289.16758 | 161.78312 | 143.17637 | 5.08899 | 0.1784021 | 0.23477482 | 2.6023660 | 21 | 4 4.1 | 19.1 |
| 104382 2000 $FA_{35}$ | 15.4 | X | 172.48324 | 186.62423 | 61.11271 | 3.59569 | 0.1375812 | 0.21352384 | 2.7722888 | 21 | 12 21.8 | 19.9 |
| 104383 2000 $FD_{36}$ | 14.6 | X | 284.66027 | 91.05101 | 44.89968 | 10.68091 | 0.0481191 | 0.21557468 | 2.7546783 | 21 | 12 26.3 | 18.3 |
| 104384 2000 $FF_{36}$ | 15.9 | X | 72.29770 | 306.48033 | 146.43414 | 7.48184 | 0.0619964 | 0.27542637 | 2.3395502 | 21 | 1 23.6 | 18.5 |
| 104385 2000 $FL_{36}$ | 16.1 | X | 99.09916 | 289.00475 | 158.12837 | 7.00616 | 0.0731148 | 0.27827837 | 2.3235379 | 21 | 2 27.1 | 18.6 |
| 104386 2000 $FV_{36}$ | 16.1 | X | 259.60772 | 330.26440 | 173.64321 | 6.01691 | 0.0812393 | 0.25991386 | 2.4317360 | 21 | 12 8.5 | 19.1 |
| 104387 2000 $FY_{36}$ | 16.4 | X | 332.46459 | 338.35329 | 172.79810 | 7.90189 | 0.1429692 | 0.27054039 | 2.3676344 | 21 | — | — |
| 104388 2000 $FZ_{36}$ | 14.3 | X | 327.83806 | 114.21225 | 176.78287 | 10.80004 | 0.0842795 | 0.19259342 | 2.9696715 | 21 | 5 27.5 | 18.3 |
| 104389 2000 $FP_{38}$ | 15.1 | X | 355.85041 | 256.11958 | 165.15306 | 6.10247 | 0.0745604 | 0.21486597 | 2.7607323 | 21 | — | — |
| 104390 2000 $FR_{38}$ | 15.3 | X | 195.96630 | 34.25106 | 184.03082 | 10.90817 | 0.1655147 | 0.21293239 | 2.7774200 | 21 | 12 7.9 | 19.9 |
| 104391 2000 $FX_{38}$ | 15.7 | X | 321.84816 | 165.59300 | 128.16421 | 4.22192 | 0.0992489 | 0.23815446 | 2.5776873 | 21 | 5 16.3 | 18.7 |
| 104392 2000 $FW_{39}$ | 14.7 | X | 207.78912 | 215.47180 | 178.79601 | 14.68295 | 0.1125371 | 0.19189496 | 2.9768732 | 21 | 5 11.1 | 19.5 |
| 104393 2000 $FC_{41}$ | 14.6 | X | 168.60285 | 153.13110 | 171.83685 | 8.12513 | 0.0578450 | 0.17603467 | 3.1530964 | 21 | 1 5.9 | 19.4 |
| 104394 2000 $FO_{41}$ | 15.3 | X | 351.68521 | 50.78362 | 176.36178 | 14.42646 | 0.1321199 | 0.23369411 | 2.6103828 | 21 | 3 28.1 | 18.0 |
| 104395 2000 $FW_{41}$ | 15.0 | X | 300.36871 | 50.95831 | 123.91486 | 6.10294 | 0.0626526 | 0.17535200 | 3.1612747 | 21 | — | — |
| 104396 2000 $FC_{42}$ | 15.9 | X | 352.56698 | 64.46166 | 127.95947 | 6.29174 | 0.0480650 | 0.27668866 | 2.3324293 | 21 | 2 9.8 | 18.5 |
| 104397 2000 $FN_{43}$ | 15.7 | X | 176.57199 | 145.22129 | 110.84181 | 5.71931 | 0.1292056 | 0.26153514 | 2.4216759 | 21 | — | — |
| 104398 2000 $FC_{44}$ | 15.8 | X | 25.76916 | 143.99886 | 96.57840 | 5.12459 | 0.1779668 | 0.23983034 | 2.5656651 | 21 | 6 26.0 | 17.9 |
| 104399 2000 $FB_{45}$ | 15.4 | X | 46.74406 | 149.29058 | 134.59535 | 2.64899 | 0.0570012 | 0.20256726 | 2.8713748 | 21 | 9 14.6 | 19.1 |
| 104400 2000 $FO_{45}$ | 16.3 | X | 119.80668 | 297.88111 | 154.90531 | 3.56017 | 0.0989949 | 0.28234088 | 2.3011956 | 21 | 4 10.4 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104401 2000 $FY_{45}$ | 14.4 | X | 52.90955 | 230.95511 | 139.59302 | 12.05187 | 0.1273624 | 0.21505393 | 2.7591234 | 21 | — | — |
| 104402 2000 $FU_{46}$ | 15.4 | X | 82.10129 | 168.54013 | 42.07855 | 15.98923 | 0.0289363 | 0.24451364 | 2.5327986 | 21 | 7 28.6 | 19.1 |
| 104403 2000 $FG_{47}$ | 15.9 | X | 56.94182 | 23.01397 | 163.79522 | 13.29180 | 0.1932566 | 0.23873043 | 2.5735397 | 21 | 6 9.7 | 19.0 |
| 104404 2000 $FH_{47}$ | 14.5 | X | 179.45374 | 184.64196 | 151.89115 | 12.59889 | 0.1917679 | 0.22457058 | 2.6806131 | 21 | 1 30.9 | 19.0 |
| 104405 2000 $FJ_{48}$ | 14.6 | X | 156.06913 | 243.71343 | 66.62000 | 11.11046 | 0.2506076 | 0.21717839 | 2.7411006 | 21 | — | — |
| 104406 2000 $FN_{51}$ | 15.1 | X | 144.98360 | 332.46956 | 19.30822 | 3.06481 | 0.2124660 | 0.17616535 | 3.1515369 | 21 | 1 28.8 | 20.1 |
| 104407 2000 $FP_{51}$ | 15.3 | X | 6.67795 | 55.11258 | 13.14457 | 11.46461 | 0.3188970 | 0.17560933 | 3.1581857 | 21 | — | — |
| 104408 2000 $FD_{52}$ | 15.6 | X | 189.33270 | 162.11822 | 215.56175 | 0.54314 | 0.1272047 | 0.18781081 | 3.0198752 | 21 | 3 31.7 | 20.4 |
| 104409 2000 $FM_{55}$ | 15.3 | X | 61.40173 | 138.23724 | 127.03012 | 2.99633 | 0.0163185 | 0.20254760 | 2.8715606 | 21 | 9 4.1 | 19.1 |
| 104410 2000 $FF_{56}$ | 16.0 | X | 25.68985 | 312.44829 | 141.53063 | 5.93459 | 0.1292269 | 0.27103062 | 2.3647786 | 21 | — | — |
| 104411 2000 $FM_{56}$ | 15.5 | X | 359.47259 | 168.40783 | 115.83757 | 5.06266 | 0.1668770 | 0.24119312 | 2.5559917 | 21 | 7 5.8 | 17.5 |
| 104412 2000 $FT_{56}$ | 16.1 | X | 2.21565 | 178.43439 | 79.94011 | 5.21817 | 0.1392702 | 0.23866433 | 2.5740148 | 21 | 6 1.3 | 18.6 |
| 104413 2000 $FV_{56}$ | 14.5 | X | 249.95075 | 123.80747 | 171.86842 | 8.80062 | 0.0264013 | 0.18335173 | 3.0686407 | 21 | 2 28.3 | 18.9 |
| 104414 2000 $FZ_{56}$ | 14.1 | X | 296.00742 | 325.68522 | 329.95225 | 10.04020 | 0.0863990 | 0.19166954 | 2.9792068 | 21 | 4 11.8 | 18.4 |
| 104415 2000 $FG_{57}$ | 15.0 | X | 27.96301 | 143.98659 | 102.67478 | 3.16158 | 0.0364922 | 0.19707110 | 2.9245166 | 21 | 6 26.6 | 18.7 |
| 104416 2000 $FS_{57}$ | 14.7 | X | 357.19301 | 67.86891 | 24.18113 | 9.36501 | 0.0647254 | 0.17408887 | 3.1765476 | 21 | — | — |
| 104417 2000 $FX_{57}$ | 14.6 | X | 276.70821 | 193.94752 | 93.50177 | 5.26997 | 0.0585696 | 0.18704751 | 3.0280853 | 21 | 3 20.8 | 18.9 |
| 104418 2000 $FB_{58}$ | 15.7 | X | 348.28557 | 94.34244 | 122.65003 | 4.99417 | 0.1924847 | 0.23321485 | 2.6139578 | 21 | 2 27.9 | 18.3 |
| 104419 2000 $FN_{58}$ | 15.0 | X | 168.89753 | 206.90119 | 78.92578 | 16.22818 | 0.1076050 | 0.21793928 | 2.7347169 | 21 | — | — |
| 104420 2000 $FY_{58}$ | 14.9 | X | 40.65861 | 116.92583 | 16.62150 | 11.05488 | 0.1092756 | 0.18552900 | 3.0445855 | 21 | 2 26.8 | 18.7 |
| 104421 2000 $FG_{59}$ | 14.7 | X | 332.86889 | 224.35677 | 56.11952 | 14.88641 | 0.1240144 | 0.23920186 | 2.5701572 | 21 | 5 11.3 | 17.5 |
| 104422 2000 $FJ_{59}$ | 15.2 | X | 273.16680 | 59.42242 | 47.97191 | 12.48132 | 0.1325414 | 0.21231780 | 2.7827773 | 21 | 10 25.2 | 18.7 |
| 104423 2000 $FA_{60}$ | 14.9 | X | 74.03959 | 308.89935 | 159.03411 | 12.89407 | 0.0320903 | 0.18501484 | 3.0502235 | 21 | 3 2.8 | 19.0 |
| 104424 2000 $FS_{60}$ | 14.7 | X | 101.21159 | 244.92154 | 168.18888 | 11.08766 | 0.1055156 | 0.18175063 | 3.0866361 | 21 | 2 6.9 | 19.0 |
| 104425 2000 $FK_{61}$ | 14.7 | X | 52.62604 | 46.53005 | 58.90251 | 14.51559 | 0.1208698 | 0.18262724 | 3.0767510 | 21 | 2 12.9 | 18.7 |
| 104426 2000 $FR_{61}$ | 15.9 | X | 75.30585 | 231.68103 | 63.83032 | 9.39106 | 0.1363068 | 0.25279217 | 2.4771956 | 21 | 11 22.6 | 19.2 |
| 104427 2000 $FE_{62}$ | 14.4 | X | 247.22286 | 162.63861 | 167.90256 | 10.33886 | 0.0871645 | 0.18921843 | 3.0048797 | 21 | 4 4.7 | 18.9 |
| 104428 2000 $FK_{62}$ | 14.8 | X | 350.83871 | 306.02307 | 198.72704 | 13.60117 | 0.0698606 | 0.17935757 | 3.1140308 | 21 | — | — |
| 104429 2000 $FE_{63}$ | 14.6 | X | 225.10129 | 199.18762 | 214.96558 | 9.01359 | 0.0682970 | 0.19748541 | 2.9204249 | 21 | 6 23.0 | 19.0 |
| 104430 2000 $FD_{64}$ | 15.3 | X | 174.29873 | 62.39682 | 139.36547 | 5.13966 | 0.0106209 | 0.20993340 | 2.8038086 | 21 | 11 5.7 | 19.2 |
| 104431 2000 $FP_{64}$ | 16.3 | X | 163.79878 | 285.54866 | 309.35991 | 6.13706 | 0.1491757 | 0.25682192 | 2.4512145 | 21 | 12 3.7 | 20.1 |
| 104432 2000 $FX_{64}$ | 14.5 | X | 335.63456 | 242.95694 | 329.79398 | 8.76085 | 0.0415858 | 0.18399047 | 3.0615345 | 21 | 3 1.4 | 18.6 |
| 104433 2000 $FP_{66}$ | 16.4 | X | 89.78185 | 192.80459 | 34.02768 | 2.31465 | 0.0319168 | 0.20010722 | 2.8948599 | 21 | 8 24.3 | 20.3 |
| 104434 2000 $FT_{66}$ | 16.3 | X | 122.14045 | 271.20126 | 351.02251 | 6.92063 | 0.0991659 | 0.25699828 | 2.4500930 | 21 | 11 25.9 | 20.0 |
| 104435 2000 $FD_{67}$ | 15.9 | X | 221.78085 | 288.13840 | 164.25657 | 2.65867 | 0.1583499 | 0.20457270 | 2.8525785 | 21 | 7 30.7 | 20.4 |
| 104436 2000 $FG_{68}$ | 14.9 | X | 150.50339 | 19.04812 | 22.64231 | 9.59961 | 0.1709527 | 0.18618708 | 3.0374072 | 21 | 3 28.6 | 19.7 |
| 104437 2000 $FL_{72}$ | 15.9 | X | 64.55201 | 336.34639 | 1.96117 | 7.72201 | 0.1350459 | 0.25973979 | 2.4328223 | 21 | — | — |
| 104438 2000 $FH_{73}$ | 15.4 | X | 70.45104 | 146.36002 | 188.46858 | 5.29110 | 0.0436483 | 0.21441521 | 2.7646001 | 21 | 12 17.7 | 19.3 |
| 104439 2000 $FW_{73}$ | 14.8 | X | 311.22290 | 212.52430 | 100.67040 | 13.16114 | 0.0112157 | 0.19673867 | 2.9278101 | 21 | 6 10.4 | 18.8 |
| 104440 2000 $FC_{74}$ | 14.9 | X | 70.99071 | 310.43304 | 37.98326 | 6.23274 | 0.0558866 | 0.21616235 | 2.7496833 | 21 | — | — |
| 104441 2000 $GQ$ | 14.7 | X | 259.70246 | 234.62288 | 170.83493 | 2.11466 | 0.0610786 | 0.20026729 | 2.8933171 | 21 | 7 24.9 | 18.8 |
| 104442 2000 $GB_{1}$ | 16.7 | X | 282.72543 | 143.80950 | 149.36517 | 24.15543 | 0.0336143 | 0.37371365 | 1.9088717 | 21 | 3 12.3 | 18.6 |
| 104443 2000 $GS_{2}$ | 14.5 | X | 253.09012 | 291.22048 | 21.62426 | 11.47789 | 0.1256332 | 0.18553336 | 3.0445379 | 21 | 3 18.7 | 19.2 |
| 104444 2000 $GR_{3}$ | 15.3 | X | 154.01046 | 249.46119 | 208.72985 | 20.31514 | 0.3156435 | 0.28877191 | 2.2669020 | 21 | 6 10.2 | 19.6 |
| 104445 2000 $GA_{4}$ | 15.3 | X | 59.11402 | 201.38385 | 149.98001 | 2.33267 | 0.1408801 | 0.20994572 | 2.8036988 | 21 | — | — |
| 104446 2000 $GT_{4}$ | 16.1 | X | 150.75974 | 262.58491 | 50.10786 | 22.37465 | 0.0718797 | 0.35732113 | 1.9668153 | 21 | — | — |
| 104447 2000 $GP_{5}$ | 15.8 | X | 117.18880 | 128.10030 | 307.67459 | 4.00759 | 0.1497421 | 0.28188105 | 2.3036976 | 21 | 3 18.8 | 18.6 |
| 104448 2000 $GE_{6}$ | 15.0 | X | 212.02143 | 68.27278 | 26.02193 | 6.31804 | 0.0118993 | 0.20086668 | 2.8875585 | 21 | 8 6.5 | 19.0 |
| 104449 2000 $GK_{6}$ | 15.3 | X | 213.53123 | 94.47848 | 188.69846 | 13.80254 | 0.2337088 | 0.22128958 | 2.7070445 | 21 | — | — |
| 104450 2000 $GT_{6}$ | 15.0 | X | 310.20205 | 188.65228 | 23.35972 | 11.37507 | 0.0398118 | 0.18112972 | 3.0936860 | 21 | 2 2.7 | 19.5 |
| 104451 2000 $GJ_{7}$ | 15.8 | X | 260.08228 | 113.67761 | 353.81350 | 7.21854 | 0.0665661 | 0.21036374 | 2.7999834 | 21 | 10 12.9 | 19.7 |
| 104452 2000 $GK_{7}$ | 14.9 | X | 1.18657 | 158.56151 | 186.45703 | 9.22786 | 0.1430763 | 0.20503233 | 2.8483137 | 21 | 10 5.6 | 17.9 |
| 104453 2000 $GS_{7}$ | 14.0 | X | 348.08701 | 37.86961 | 59.66563 | 15.46457 | 0.2635206 | 0.22037000 | 2.7145702 | 21 | — | — |
| 104454 2000 $GU_{7}$ | 15.2 | X | 10.24417 | 117.30140 | 59.13416 | 14.84994 | 0.0758675 | 0.22991551 | 2.6389057 | 21 | 3 1.9 | 18.7 |
| 104455 2000 $GC_{8}$ | 15.8 | X | 333.92961 | 27.20397 | 184.02772 | 14.23521 | 0.1959913 | 0.23146652 | 2.6271040 | 21 | 1 23.5 | 19.4 |
| 104456 2000 $GG_{8}$ | 16.5 | X | 278.47207 | 190.77320 | 341.67613 | 0.77776 | 0.1233489 | 0.26704771 | 2.3882336 | 21 | — | — |
| 104457 2000 $GL_{8}$ | 17.0 | X | 7.08195 | 201.19651 | 354.63700 | 2.25633 | 0.1608072 | 0.28034827 | 2.3120868 | 21 | 2 24.4 | 19.1 |
| 104458 2000 $GG_{9}$ | 15.4 | X | 90.12073 | 175.16193 | 178.87722 | 5.96897 | 0.1382616 | 0.26633336 | 2.3925021 | 21 | — | — |
| 104459 2000 $GJ_{9}$ | 16.4 | X | 358.29006 | 299.22511 | 189.16384 | 5.87899 | 0.0493067 | 0.27190887 | 2.3596837 | 21 | — | — |
| 104460 2000 $GF_{10}$ | 15.6 | X | 135.28093 | 154.59604 | 112.48913 | 1.60331 | 0.0250371 | 0.21375642 | 2.7702775 | 21 | 12 8.7 | 19.5 |
| 104461 2000 $GL_{10}$ | 15.9 | X | 207.62871 | 222.07220 | 15.20802 | 4.03701 | 0.0627629 | 0.21872405 | 2.7281716 | 21 | — | — |
| 104462 2000 $GO_{10}$ | 14.3 | X | 233.33489 | 321.45241 | 4.06412 | 11.30163 | 0.1414547 | 0.18610984 | 3.0382475 | 21 | 3 12.1 | 19.1 |
| 104463 2000 $GW_{12}$ | 15.1 | X | 37.10790 | 342.13019 | 24.80789 | 4.24876 | 0.0808758 | 0.21356329 | 2.7719474 | 21 | 12 21.2 | 18.9 |
| 104464 2000 $GR_{13}$ | 14.7 | X | 130.63417 | 43.03515 | 9.17378 | 15.43975 | 0.0907235 | 0.18578673 | 3.0417691 | 21 | 3 14.6 | 19.2 |
| 104465 2000 $GS_{13}$ | 16.8 | X | 347.65984 | 106.68464 | 356.50954 | 1.24410 | 0.1420579 | 0.26769059 | 2.3844084 | 21 | — | — |
| 104466 2000 $GK_{14}$ | 15.3 | X | 308.67898 | 164.13589 | 91.90258 | 1.21057 | 0.0862922 | 0.18610446 | 3.0383061 | 21 | 3 15.5 | 19.5 |
| 104467 2000 $GR_{14}$ | 16.9 | X | 206.22373 | 124.85430 | 61.36185 | 1.05280 | 0.1147338 | 0.25820565 | 2.4424493 | 21 | 11 19.6 | 20.4 |
| 104468 2000 $GN_{15}$ | 15.2 | X | 230.39612 | 71.87674 | 198.22700 | 13.30378 | 0.0649536 | 0.22454400 | 2.6808247 | 21 | — | — |
| 104469 2000 $GS_{15}$ | 16.2 | X | 65.26031 | 237.62591 | 212.37221 | 3.81929 | 0.0969821 | 0.27508510 | 2.3414848 | 21 | 1 10.3 | 18.5 |
| 104470 2000 $GW_{15}$ | 15.0 | X | 56.29214 | 109.11858 | 193.44179 | 14.43844 | 0.1561722 | 0.20523242 | 2.8464621 | 21 | 11 6.2 | 19.0 |
| 104471 2000 $GO_{16}$ | 16.0 | X | 339.04166 | 74.22281 | 214.08575 | 3.17230 | 0.2299428 | 0.23811150 | 2.5779973 | 21 | 5 19.5 | 18.1 |
| 104472 2000 $GF_{17}$ | 15.3 | X | 157.67455 | 318.83131 | 155.53758 | 2.23531 | 0.0771617 | 0.19712651 | 2.9239685 | 21 | 6 24.9 | 19.8 |
| 104473 2000 $GV_{18}$ | 14.3 | X | 38.67694 | 43.14933 | 7.07736 | 14.23524 | 0.1778497 | 0.17406263 | 3.1768669 | 21 | — | — |
| 104474 2000 $GA_{20}$ | 15.3 | X | 19.57552 | 94.77154 | 207.97976 | 1.47406 | 0.0083197 | 0.20166481 | 2.8799347 | 21 | 8 26.2 | 19.1 |
| 104475 2000 $GB_{20}$ | 17.0 | X | 161.06395 | 252.59948 | 340.75688 | 0.60144 | 0.1449907 | 0.25659588 | 2.4526539 | 21 | 11 29.9 | 20.9 |
| 104476 2000 $GO_{20}$ | 15.9 | X | 239.89916 | 151.08607 | 15.01729 | 7.56589 | 0.0670264 | 0.25989939 | 2.4318262 | 21 | 12 11.1 | 19.1 |
| 104477 2000 $GE_{21}$ | 15.5 | X | 99.94547 | 266.78871 | 317.33676 | 1.26970 | 0.0807662 | 0.20136257 | 2.8828157 | 21 | 9 7.7 | 19.6 |
| 104478 2000 $GJ_{21}$ | 15.1 | X | 191.93099 | 119.76663 | 11.19044 | 14.80959 | 0.0870223 | 0.20273730 | 2.8697691 | 21 | 8 28.6 | 19.6 |
| 104479 2000 $GC_{22}$ | 15.3 | X | 284.06340 | 74.00783 | 129.61073 | 1.60783 | 0.1323367 | 0.17646663 | 3.1479487 | 21 | — | — |
| 104480 2000 $GT_{22}$ | 15.3 | X | 15.11011 | 75.00358 | 86.18819 | 2.01731 | 0.1304556 | 0.18409143 | 3.0604151 | 21 | 2 17.1 | 18.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104481 2000 $GF_{23}$ | 15.2 | X | 349.19022 | 171.03064 | 44.62095 | 1.68470 | 0.0849723 | 0.18625220 | 3.0366992 | 21 | 3 20.8 | 19.0 |
| 104482 2000 $GK_{23}$ | 15.1 | X | 282.58971 | 306.15007 | 31.38076 | 3.60745 | 0.1232407 | 0.19305736 | 2.9649120 | 21 | 5 17.2 | 19.1 |
| 104483 2000 $GU_{23}$ | 15.7 | X | 105.39174 | 101.39760 | 251.29872 | 0.75869 | 0.0743949 | 0.21902567 | 2.7256664 | 21 | — | — |
| 104484 2000 $GQ_{24}$ | 15.8 | X | 320.90949 | 269.96570 | 11.93130 | 15.00513 | 0.1962577 | 0.23516155 | 2.5995121 | 21 | 4 9.6 | 18.8 |
| 104485 2000 $GJ_{25}$ | 15.3 | X | 210.68903 | 115.00186 | 10.75636 | 1.84213 | 0.0193953 | 0.20368825 | 2.8608301 | 21 | 9 12.1 | 19.4 |
| 104486 2000 $GX_{25}$ | 15.2 | X | 234.14040 | 290.47168 | 28.27734 | 2.27340 | 0.1700542 | 0.18276637 | 3.0751893 | 21 | 3 3.0 | 20.2 |
| 104487 2000 $GO_{26}$ | 14.8 | X | 326.27479 | 288.20979 | 39.19394 | 2.35358 | 0.0597820 | 0.19751949 | 2.9200890 | 21 | 7 14.6 | 18.6 |
| 104488 2000 $GQ_{28}$ | 16.2 | X | 85.40610 | 58.41993 | 5.23726 | 2.22161 | 0.1844252 | 0.27441484 | 2.3452960 | 21 | 1 20.5 | 18.2 |
| 104489 2000 $GT_{28}$ | 15.8 | X | 104.60814 | 187.25161 | 335.36669 | 1.23641 | 0.1591899 | 0.24228706 | 2.5482923 | 21 | 7 6.3 | 19.2 |
| 104490 2000 $GZ_{28}$ | 15.4 | X | 222.71223 | 262.80123 | 9.55781 | 12.78777 | 0.1784900 | 0.22150708 | 2.7052722 | 21 | — | — |
| 104491 2000 $GK_{30}$ | 16.0 | X | 110.78594 | 167.88139 | 199.32412 | 2.04862 | 0.1038743 | 0.22138907 | 2.7062335 | 21 | — | — |
| 104492 2000 $GQ_{30}$ | 15.1 | X | 157.30579 | 287.86293 | 182.02808 | 1.86452 | 0.0267460 | 0.19504997 | 2.9446846 | 21 | 6 16.1 | 19.2 |
| 104493 2000 $GX_{30}$ | 15.4 | X | 290.49398 | 111.04514 | 197.04248 | 1.65547 | 0.0439532 | 0.19031483 | 2.9933279 | 21 | 5 2.1 | 19.5 |
| 104494 2000 $GA_{31}$ | 16.4 | X | 23.85588 | 98.17850 | 182.55803 | 4.42225 | 0.2042546 | 0.24268514 | 2.5455048 | 21 | 8 27.5 | 18.7 |
| 104495 2000 $GK_{32}$ | 14.9 | X | 178.19113 | 128.48025 | 195.28120 | 13.02649 | 0.1806192 | 0.22221419 | 2.6995302 | 21 | 1 13.2 | 19.5 |
| 104496 2000 $GK_{33}$ | 15.4 | X | 334.38632 | 162.45497 | 226.23420 | 2.31335 | 0.2106321 | 0.25379731 | 2.4706509 | 21 | 10 27.4 | 17.1 |
| 104497 2000 $GC_{35}$ | 14.7 | X | 137.55198 | 285.42860 | 230.17584 | 1.09807 | 0.0168160 | 0.19767879 | 2.9185200 | 21 | 7 19.9 | 18.7 |
| 104498 2000 $GJ_{35}$ | 15.5 | X | 70.96345 | 228.62337 | 235.47897 | 1.57296 | 0.0655785 | 0.18336277 | 3.0685176 | 21 | 2 25.2 | 19.4 |
| 104499 2000 $GH_{36}$ | 14.6 | X | 330.59421 | 336.85690 | 17.82934 | 4.06425 | 0.1766219 | 0.20210995 | 2.8757045 | 21 | 8 20.3 | 17.6 |
| 104500 2000 $GQ_{36}$ | 14.6 | X | 356.75647 | 108.67393 | 213.00197 | 1.38692 | 0.0483886 | 0.20095879 | 2.8866760 | 21 | 8 21.2 | 18.3 |
| 104501 2000 $GM_{38}$ | 16.3 | X | 105.66424 | 353.55713 | 85.68386 | 1.54480 | 0.1773417 | 0.27915744 | 2.3186573 | 21 | 3 15.5 | 19.0 |
| 104502 2000 $GT_{38}$ | 15.2 | X | 80.01735 | 269.64550 | 20.50268 | 15.02531 | 0.1492335 | 0.20582920 | 2.8409574 | 21 | 11 11.6 | 19.6 |
| 104503 2000 $GW_{38}$ | 16.1 | X | 67.64481 | 109.33144 | 188.90675 | 6.66341 | 0.1273346 | 0.25169836 | 2.4843672 | 21 | 11 17.0 | 19.5 |
| 104504 2000 $GA_{39}$ | 15.1 | X | 220.98419 | 353.88795 | 43.84146 | 3.00975 | 0.0704492 | 0.19385876 | 2.9567351 | 21 | 5 28.4 | 19.4 |
| 104505 2000 $GR_{39}$ | 14.5 | X | 167.19178 | 167.66564 | 199.26792 | 11.72119 | 0.1971475 | 0.22783118 | 2.6549760 | 21 | 2 23.2 | 19.0 |
| 104506 2000 $GH_{40}$ | 15.3 | X | 2.06358 | 329.56406 | 171.43300 | 1.35872 | 0.0620701 | 0.17887229 | 3.1196606 | 21 | 1 7.6 | 19.3 |
| 104507 2000 $GW_{40}$ | 15.6 | X | 16.66214 | 126.91654 | 17.36810 | 1.68327 | 0.1425992 | 0.18211940 | 3.0824680 | 21 | 1 28.6 | 19.0 |
| 104508 2000 $GM_{41}$ | 15.9 | X | 69.51772 | 42.26110 | 209.39628 | 5.06974 | 0.0331329 | 0.24697681 | 2.5159303 | 21 | 8 31.1 | 19.2 |
| 104509 2000 $GR_{41}$ | 15.6 | X | 269.78267 | 80.41191 | 213.14219 | 3.61525 | 0.1339791 | 0.23030223 | 2.6359507 | 21 | 3 1.7 | 19.5 |
| 104510 2000 $GD_{43}$ | 15.3 | X | 112.91906 | 107.11386 | 20.28713 | 10.28511 | 0.0726816 | 0.19169237 | 2.9789702 | 21 | 5 18.1 | 19.6 |
| 104511 2000 $GK_{43}$ | 14.7 | X | 131.93114 | 223.29417 | 196.40461 | 10.44314 | 0.1197253 | 0.18580936 | 3.0415222 | 21 | 3 24.4 | 19.3 |
| 104512 2000 $GO_{43}$ | 15.1 | X | 328.55463 | 7.65513 | 25.48038 | 3.92169 | 0.0692331 | 0.20657385 | 2.8341260 | 21 | 10 14.7 | 18.4 |
| 104513 2000 $GZ_{43}$ | 14.2 | X | 256.05797 | 157.53161 | 191.81734 | 12.81948 | 0.1794182 | 0.19034802 | 2.9929800 | 21 | 4 27.6 | 18.9 |
| 104514 2000 $GJ_{45}$ | 14.9 | X | 66.37078 | 358.27322 | 31.15867 | 9.74533 | 0.1723642 | 0.21873750 | 2.7280598 | 21 | — | — |
| 104515 2000 $GT_{45}$ | 17.1 | X | 105.96116 | 267.24645 | 191.67269 | 4.46141 | 0.2002996 | 0.28199797 | 2.3030607 | 21 | 4 15.4 | 20.0 |
| 104516 2000 $GF_{46}$ | 14.7 | X | 32.62459 | 70.36271 | 34.64857 | 6.15260 | 0.1685507 | 0.17993703 | 3.1073417 | 21 | 1 6.5 | 18.1 |
| 104517 2000 $GG_{47}$ | 15.3 | X | 103.96158 | 42.77464 | 15.92957 | 7.56667 | 0.0911392 | 0.27407732 | 2.3472210 | 21 | 2 1.4 | 18.1 |
| 104518 2000 $GO_{47}$ | 15.6 | X | 145.06321 | 40.14302 | 207.97974 | 6.58062 | 0.0712289 | 0.25595179 | 2.4567668 | 21 | 12 4.3 | 19.1 |
| 104519 2000 $GS_{47}$ | 15.1 | X | 220.08410 | 225.86468 | 17.32660 | 5.58750 | 0.1388239 | 0.17113670 | 3.2129745 | 21 | — | — |
| 104520 2000 $GW_{47}$ | 14.5 | X | 215.48222 | 146.92433 | 199.72694 | 6.22524 | 0.0922467 | 0.18474552 | 3.0531873 | 21 | 3 19.6 | 19.2 |
| 104521 2000 $GP_{49}$ | 15.4 | X | 139.00244 | 86.95035 | 184.02798 | 2.84320 | 0.0530753 | 0.21178156 | 2.7874727 | 21 | 12 17.8 | 19.5 |
| 104522 2000 $GQ_{49}$ | 16.7 | X | 174.14777 | 49.59989 | 182.43084 | 2.67554 | 0.0447138 | 0.25804148 | 2.4434851 | 21 | 12 18.2 | 20.0 |
| 104523 2000 $GE_{50}$ | 14.8 | X | 245.62491 | 245.46206 | 31.00901 | 5.67018 | 0.1790234 | 0.17716353 | 3.1396880 | 21 | 1 24.6 | 20.0 |
| 104524 2000 $GX_{50}$ | 14.5 | X | 16.68543 | 60.72920 | 75.26151 | 2.41454 | 0.1310639 | 0.18075483 | 3.0979622 | 21 | 1 18.8 | 18.0 |
| 104525 2000 $GA_{51}$ | 15.4 | X | 15.26003 | 184.68001 | 32.69612 | 10.81882 | 0.0193699 | 0.18957206 | 3.0011416 | 21 | 4 30.1 | 19.4 |
| 104526 2000 $GE_{51}$ | 16.0 | X | 339.16087 | 254.83456 | 32.67925 | 9.17674 | 0.1508492 | 0.23820126 | 2.5773497 | 21 | 5 27.3 | 18.7 |
| 104527 2000 $GS_{51}$ | 15.3 | X | 353.02310 | 272.16261 | 33.77163 | 11.10174 | 0.0566141 | 0.19703986 | 2.9248257 | 21 | 7 29.7 | 19.2 |
| 104528 2000 $GE_{52}$ | 15.8 | X | 265.26119 | 159.44716 | 50.96665 | 2.79129 | 0.1468346 | 0.26681885 | 2.3895991 | 21 | — | — |
| 104529 2000 $GH_{52}$ | 15.4 | X | 141.36101 | 78.34340 | 202.45082 | 5.98673 | 0.0755989 | 0.21285602 | 2.7780844 | 21 | 12 31.7 | 19.7 |
| 104530 2000 $GZ_{52}$ | 14.8 | X | 282.96416 | 249.72928 | 19.04637 | 13.19746 | 0.1113004 | 0.18216430 | 3.0819615 | 21 | 3 1.8 | 19.4 |
| 104531 2000 $GK_{53}$ | 16.7 | X | 268.34377 | 317.12701 | 202.41702 | 1.04541 | 0.1429916 | 0.26250063 | 2.4157342 | 21 | — | — |
| 104532 2000 $GJ_{54}$ | 16.8 | X | 284.65334 | 329.86133 | 164.00488 | 1.31860 | 0.1175924 | 0.26142254 | 2.4223712 | 21 | 12 29.1 | 19.3 |
| 104533 2000 $GK_{54}$ | 15.0 | X | 271.58073 | 108.25783 | 190.04677 | 2.55204 | 0.2350638 | 0.18217275 | 3.0818662 | 21 | 3 5.7 | 20.0 |
| 104534 2000 $GN_{54}$ | 15.1 | X | 320.93580 | 247.98679 | 30.87008 | 9.19526 | 0.0951144 | 0.18867832 | 3.0106115 | 21 | 4 27.5 | 18.9 |
| 104535 2000 $GY_{54}$ | 17.0 | X | 289.80531 | 136.67225 | 18.98177 | 1.83275 | 0.1308854 | 0.26458178 | 2.4030497 | 21 | — | — |
| 104536 2000 $GT_{55}$ | 15.8 | X | 325.04310 | 64.21952 | 182.69039 | 3.47310 | 0.1226490 | 0.23184322 | 2.6242575 | 21 | 3 12.6 | 19.0 |
| 104537 2000 $GY_{55}$ | 16.0 | X | 311.70107 | 70.66406 | 195.00534 | 12.93793 | 0.2474432 | 0.23079221 | 2.6322186 | 21 | 2 25.4 | 19.7 |
| 104538 2000 $GJ_{56}$ | 15.9 | X | 308.69668 | 137.92974 | 60.77381 | 2.98826 | 0.1461137 | 0.27121343 | 2.3637158 | 21 | — | — |
| 104539 2000 $GU_{56}$ | 16.1 | X | 52.55276 | 89.71801 | 34.39909 | 6.12136 | 0.0955006 | 0.27614758 | 2.3354750 | 21 | 2 10.3 | 18.5 |
| 104540 2000 $GF_{57}$ | 14.2 | X | 91.61754 | 194.28925 | 207.50905 | 23.66370 | 0.0808813 | 0.17641628 | 3.1485477 | 21 | 1 6.9 | 19.0 |
| 104541 2000 $GD_{58}$ | 15.1 | X | 249.36235 | 287.37604 | 356.43849 | 1.99186 | 0.0386162 | 0.18036467 | 3.1024282 | 21 | 2 13.9 | 19.7 |
| 104542 2000 $GU_{58}$ | 14.8 | X | 30.42031 | 52.27092 | 33.20855 | 7.68424 | 0.1742206 | 0.17646884 | 3.1479225 | 21 | — | — |
| 104543 2000 $GX_{58}$ | 16.8 | X | 230.98622 | 177.07687 | 30.10026 | 1.81126 | 0.1323481 | 0.26201495 | 2.4187186 | 21 | — | — |
| 104544 2000 $GG_{59}$ | 15.2 | X | 49.92247 | 117.38436 | 187.61009 | 5.75997 | 0.0564987 | 0.20405875 | 2.8573662 | 21 | 10 16.2 | 18.9 |
| 104545 2000 $GJ_{59}$ | 15.2 | X | 77.65602 | 160.04148 | 60.22680 | 3.12666 | 0.0544449 | 0.19692888 | 2.9259245 | 21 | 8 3.1 | 19.3 |
| 104546 2000 $GS_{60}$ | 16.3 | X | 67.07472 | 52.48021 | 198.00295 | 3.23283 | 0.1640741 | 0.24459316 | 2.5322496 | 21 | 9 16.8 | 19.6 |
| 104547 2000 $GV_{61}$ | 14.7 | X | 18.63921 | 41.24973 | 31.45826 | 5.25662 | 0.1438673 | 0.17311010 | 3.1885100 | 21 | — | — |
| 104548 2000 $GS_{62}$ | 15.2 | X | 201.51401 | 55.10598 | 216.93264 | 0.35417 | 0.1485472 | 0.17124261 | 3.2116496 | 21 | — | — |
| 104549 2000 $GV_{62}$ | 15.3 | X | 355.63597 | 337.83913 | 141.03014 | 2.12946 | 0.1646754 | 0.17635141 | 3.1493198 | 21 | — | — |
| 104550 2000 $GH_{63}$ | 15.4 | X | 12.61639 | 153.93269 | 199.60688 | 1.80544 | 0.0558056 | 0.20579234 | 2.8412967 | 21 | 10 27.3 | 19.0 |
| 104551 2000 $GU_{63}$ | 15.5 | X | 65.35514 | 305.34455 | 227.62680 | 0.35173 | 0.1068522 | 0.19039512 | 2.9924863 | 21 | 5 22.2 | 19.4 |
| 104552 2000 $GZ_{63}$ | 14.7 | X | 103.92057 | 282.93767 | 206.38421 | 9.16975 | 0.1156922 | 0.19056773 | 2.9906790 | 21 | 5 19.0 | 18.9 |
| 104553 2000 $GC_{64}$ | 16.4 | X | 109.47034 | 22.78732 | 37.76795 | 3.41350 | 0.1369123 | 0.27589137 | 2.3369207 | 21 | 2 17.6 | 19.0 |
| 104554 2000 $GM_{65}$ | 15.1 | X | 55.60333 | 59.41966 | 74.84167 | 2.36755 | 0.1845054 | 0.18577730 | 3.0418721 | 21 | 3 28.8 | 18.5 |
| 104555 2000 $GP_{65}$ | 15.4 | X | 80.90963 | 173.10478 | 207.88898 | 12.43406 | 0.1073827 | 0.21785168 | 2.7354500 | 21 | — | — |
| 104556 2000 $GR_{67}$ | 16.2 | X | 248.77888 | 39.49403 | 159.45522 | 1.61211 | 0.1077992 | 0.26325471 | 2.4111189 | 21 | — | — |
| 104557 2000 $GH_{68}$ | 15.4 | X | 8.09651 | 12.23374 | 82.00103 | 2.92437 | 0.1466629 | 0.22031216 | 2.7150453 | 21 | — | — |
| 104558 2000 $GQ_{68}$ | 15.1 | X | 34.21053 | 355.42268 | 197.38022 | 2.84183 | 0.0969846 | 0.18813384 | 3.0164174 | 21 | 4 29.9 | 18.7 |
| 104559 2000 $GZ_{70}$ | 15.1 | X | 103.24064 | 15.37638 | 198.81544 | 3.52682 | 0.1313545 | 0.19879029 | 2.9076309 | 21 | 9 3.9 | 19.4 |
| 104560 2000 $GK_{71}$ | 16.1 | X | 312.21060 | 93.83505 | 191.04281 | 6.48063 | 0.1509208 | 0.23345197 | 2.6121875 | 21 | 4 10.4 | 19.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104561 2000 $GS_{71}$ | 14.6 | X | 274.16829 | 66.51000 | 202.16696 | 7.10275 | 0.1888735 | 0.17914580 | 3.1164844 | 21 | 2 5.0 | 19.5 |
| 104562 2000 $GY_{71}$ | 16.1 | X | 357.92158 | 66.03874 | 47.68593 | 7.07299 | 0.0930486 | 0.26709810 | 2.3879332 | 21 | — | — |
| 104563 2000 $GL_{72}$ | 16.5 | X | 272.78733 | 345.89546 | 159.21313 | 2.24806 | 0.1533840 | 0.26096734 | 2.4251873 | 21 | 12 19.9 | 19.1 |
| 104564 2000 $GO_{72}$ | 14.9 | X | 44.02627 | 111.80261 | 75.00278 | 2.45543 | 0.1645625 | 0.18887236 | 3.0085491 | 21 | 5 15.0 | 18.4 |
| 104565 2000 $GZ_{72}$ | 15.1 | X | 340.78440 | 191.39955 | 33.29320 | 12.86431 | 0.2412993 | 0.18378354 | 3.0638322 | 21 | 3 6.0 | 18.8 |
| 104566 2000 $GX_{74}$ | 14.7 | X | 354.87344 | 310.79565 | 207.51199 | 10.72482 | 0.1436948 | 0.17931070 | 3.1145735 | 21 | 1 8.7 | 18.7 |
| 104567 2000 $GC_{75}$ | 14.4 | X | 354.65350 | 105.11243 | 205.82338 | 19.63219 | 0.3460456 | 0.19298293 | 2.9656743 | 21 | 7 27.9 | 16.9 |
| 104568 2000 $GF_{75}$ | 15.5 | X | 352.76639 | 239.36031 | 51.35173 | 6.26923 | 0.2405777 | 0.19191572 | 2.9766585 | 21 | 6 28.2 | 18.2 |
| 104569 2000 $GP_{75}$ | 14.6 | X | 358.89837 | 80.76309 | 44.85961 | 7.22559 | 0.1099568 | 0.17551024 | 3.1593743 | 21 | — | — |
| 104570 2000 $GN_{77}$ | 15.7 | X | 131.11055 | 224.73961 | 49.87315 | 4.18650 | 0.1118088 | 0.21000610 | 2.8031614 | 21 | 12 14.6 | 20.0 |
| 104571 2000 $GF_{78}$ | 16.1 | X | 342.35183 | 325.07398 | 159.45038 | 2.41754 | 0.1284704 | 0.26729007 | 2.3867898 | 21 | — | — |
| 104572 2000 $GG_{78}$ | 15.0 | X | 226.10019 | 167.10391 | 207.81880 | 9.12492 | 0.0799226 | 0.18945402 | 3.0023881 | 21 | 5 6.0 | 19.4 |
| 104573 2000 $GK_{78}$ | 15.4 | X | 53.23447 | 26.06396 | 178.04462 | 2.59928 | 0.0674766 | 0.19165741 | 2.9793325 | 21 | 6 9.7 | 19.3 |
| 104574 2000 $GQ_{78}$ | 15.1 | X | 323.61175 | 303.40455 | 215.38718 | 9.20176 | 0.1841187 | 0.17600758 | 3.1534198 | 21 | — | — |
| 104575 2000 $GX_{78}$ | 15.2 | X | 174.46100 | 80.27356 | 46.85725 | 6.78992 | 0.0373364 | 0.19741321 | 2.9211369 | 21 | 8 1.0 | 19.5 |
| 104576 2000 $GG_{80}$ | 15.1 | X | 338.02100 | 249.25702 | 207.22487 | 9.52291 | 0.0953891 | 0.21738268 | 2.7393830 | 21 | — | — |
| 104577 2000 $GM_{80}$ | 15.9 | X | 352.50565 | 27.55891 | 160.75842 | 6.85298 | 0.0515544 | 0.27645322 | 2.3337533 | 21 | 2 2.0 | 18.7 |
| 104578 2000 $GV_{80}$ | 15.3 | X | 210.00417 | 58.22148 | 18.11141 | 9.61262 | 0.0711447 | 0.19739581 | 2.9213085 | 21 | 7 5.7 | 19.8 |
| 104579 2000 $GW_{80}$ | 15.1 | X | 147.26418 | 179.91285 | 263.42008 | 0.67044 | 0.0309549 | 0.18985341 | 2.9981759 | 21 | 4 30.9 | 19.3 |
| 104580 2000 $GG_{81}$ | 15.5 | X | 132.18855 | 240.37467 | 39.43743 | 6.78027 | 0.1070892 | 0.25705868 | 2.4497092 | 21 | 12 30.2 | 19.3 |
| 104581 2000 $GA_{82}$ | 15.8 | X | 335.24381 | 9.95529 | 194.98315 | 23.66896 | 0.0844784 | 0.36836863 | 1.9272925 | 21 | — | — |
| 104582 2000 $GX_{83}$ | 15.2 | X | 202.25163 | 100.09492 | 155.38258 | 11.13786 | 0.2096413 | 0.21830476 | 2.7316638 | 21 | — | — |
| 104583 2000 $GF_{84}$ | 14.7 | X | 296.20654 | 208.85866 | 99.21700 | 10.14928 | 0.0752225 | 0.19177553 | 2.9781090 | 21 | 5 8.2 | 18.9 |
| 104584 2000 $GK_{84}$ | 14.9 | X | 98.53906 | 58.32578 | 66.48762 | 12.36554 | 0.1122081 | 0.19110876 | 2.9850319 | 21 | 5 7.4 | 19.1 |
| 104585 2000 $GW_{84}$ | 15.4 | X | 2.17498 | 106.79847 | 126.20844 | 13.02472 | 0.1238524 | 0.23582870 | 2.5946072 | 21 | 4 30.8 | 18.5 |
| 104586 2000 $GP_{85}$ | 15.7 | X | 349.71565 | 122.78684 | 133.65326 | 13.48499 | 0.2231125 | 0.23523871 | 2.5989436 | 21 | 5 1.1 | 18.4 |
| 104587 2000 $GX_{85}$ | 16.3 | X | 96.56087 | 354.88007 | 219.03834 | 5.54270 | 0.1378922 | 0.29388395 | 2.2405371 | 21 | 9 1.9 | 19.4 |
| 104588 2000 $GG_{86}$ | 14.1 | X | 255.64409 | 229.78812 | 79.00456 | 12.63333 | 0.0593564 | 0.18788157 | 3.0191169 | 21 | 3 26.6 | 18.7 |
| 104589 2000 $GT_{86}$ | 14.9 | X | 92.52371 | 313.70198 | 182.69582 | 9.11398 | 0.0254525 | 0.19024692 | 2.9940402 | 21 | 5 1.4 | 19.1 |
| 104590 2000 $GC_{87}$ | 14.9 | X | 326.51701 | 94.98834 | 96.81544 | 6.24462 | 0.0871640 | 0.18039350 | 3.1020976 | 21 | 1 19.5 | 19.0 |
| 104591 2000 $GJ_{87}$ | 14.9 | X | 26.14254 | 84.42190 | 43.74026 | 9.13791 | 0.0990363 | 0.18103312 | 3.0947865 | 21 | 1 27.3 | 18.8 |
| 104592 2000 $GJ_{89}$ | 15.8 | X | 18.34138 | 127.61718 | 145.61630 | 5.66900 | 0.1089082 | 0.24177628 | 2.5518801 | 21 | 7 24.4 | 18.6 |
| 104593 2000 $GK_{89}$ | 15.5 | X | 3.43122 | 101.71180 | 130.03431 | 5.08339 | 0.1234616 | 0.23540825 | 2.5976956 | 21 | 4 27.5 | 18.2 |
| 104594 2000 $GA_{90}$ | 14.7 | X | 116.83558 | 327.70623 | 143.28325 | 11.10194 | 0.0885010 | 0.19032639 | 2.9932067 | 21 | 5 10.4 | 19.2 |
| 104595 2000 $GF_{91}$ | 14.7 | X | 243.52677 | 116.28407 | 173.03955 | 11.44875 | 0.1833178 | 0.22487645 | 2.6781818 | 21 | 1 27.6 | 19.2 |
| 104596 2000 $GL_{91}$ | 13.8 | X | 345.73273 | 346.10075 | 189.37033 | 27.71150 | 0.1066942 | 0.17994091 | 3.1072971 | 21 | 1 18.8 | 18.4 |
| 104597 2000 $GJ_{92}$ | 16.4 | X | 189.53254 | 349.93381 | 205.23664 | 3.11298 | 0.0945530 | 0.25769192 | 2.4456944 | 21 | 11 14.8 | 19.8 |
| 104598 2000 $GW_{92}$ | 15.1 | X | 245.65109 | 171.84693 | 25.70113 | 10.95913 | 0.0800870 | 0.21887514 | 2.7269160 | 21 | — | — |
| 104599 2000 $GA_{94}$ | 15.2 | X | 151.11885 | 111.21728 | 158.77095 | 15.26080 | 0.2337171 | 0.21107633 | 2.7936781 | 21 | 12 27.3 | 20.3 |
| 104600 2000 $GP_{94}$ | 14.4 | X | 292.24332 | 148.73336 | 157.38302 | 14.96044 | 0.1930882 | 0.23298386 | 2.6156853 | 21 | 4 9.2 | 18.2 |
| 104601 2000 $GG_{97}$ | 16.1 | X | 46.01775 | 345.72648 | 244.23089 | 4.06820 | 0.2152950 | 0.24146599 | 2.5540658 | 21 | 7 25.5 | 18.7 |
| 104602 2000 $GP_{97}$ | 15.0 | X | 339.19887 | 165.02294 | 117.22915 | 3.61281 | 0.0250406 | 0.19414627 | 2.9538154 | 21 | 6 5.5 | 18.9 |
| 104603 2000 $GQ_{97}$ | 14.8 | X | 119.78860 | 52.66972 | 104.90139 | 3.31890 | 0.0284787 | 0.19662297 | 2.9289585 | 21 | 7 1.3 | 18.9 |
| 104604 2000 $GU_{97}$ | 16.1 | X | 32.84240 | 206.98059 | 64.77420 | 4.79866 | 0.1590499 | 0.24358353 | 2.5392421 | 21 | 8 28.0 | 18.8 |
| 104605 2000 $GQ_{99}$ | 15.5 | X | 136.03926 | 305.42862 | 302.11853 | 3.54910 | 0.1507027 | 0.25411198 | 2.4686108 | 21 | 11 23.3 | 19.3 |
| 104606 2000 $GS_{99}$ | 14.6 | X | 268.74269 | 17.59395 | 219.07177 | 11.14930 | 0.1554038 | 0.17682410 | 3.1437047 | 21 | — | — |
| 104607 2000 $GF_{100}$ | 16.5 | X | 50.25731 | 244.96289 | 336.18073 | 3.64266 | 0.1181366 | 0.28684095 | 2.2770642 | 21 | 7 5.4 | 18.7 |
| 104608 2000 $GG_{100}$ | 14.4 | X | 354.01249 | 187.47360 | 350.70248 | 6.38206 | 0.0568585 | 0.18185384 | 3.0854681 | 21 | 2 12.6 | 18.5 |
| 104609 2000 $GT_{100}$ | 15.4 | X | 340.52240 | 255.02091 | 12.47583 | 8.47764 | 0.1642763 | 0.23579930 | 2.5948228 | 21 | 4 27.7 | 18.1 |
| 104610 2000 $GG_{101}$ | 15.6 | X | 195.20154 | 267.48855 | 341.18192 | 7.25483 | 0.1571366 | 0.26255079 | 2.4154265 | 21 | — | — |
| 104611 2000 $GZ_{101}$ | 15.6 | X | 258.18167 | 53.63683 | 207.88499 | 6.99970 | 0.2779531 | 0.22421996 | 2.6834069 | 21 | 1 3.6 | 20.5 |
| 104612 2000 $GE_{103}$ | 14.6 | X | 258.89997 | 3.91916 | 172.45263 | 6.67915 | 0.1021316 | 0.17022765 | 3.2244029 | 21 | 12 25.1 | 19.1 |
| 104613 2000 $GO_{103}$ | 16.2 | X | 210.50023 | 130.18415 | 73.89546 | 3.52779 | 0.1434340 | 0.25962297 | 2.4335521 | 21 | 12 13.9 | 19.4 |
| 104614 2000 $GD_{104}$ | 15.6 | X | 281.19665 | 61.11052 | 129.34097 | 3.19559 | 0.1115807 | 0.26711415 | 2.3878376 | 21 | — | — |
| 104615 2000 $GH_{105}$ | 15.1 | X | 138.00347 | 156.98744 | 50.46111 | 9.49677 | 0.1414741 | 0.20366171 | 2.8610786 | 21 | 10 6.2 | 19.7 |
| 104616 2000 $GF_{108}$ | 14.9 | X | 286.10267 | 101.42028 | 196.66997 | 14.63917 | 0.3152098 | 0.22913338 | 2.6449074 | 21 | 3 3.1 | 19.4 |
| 104617 2000 $GX_{109}$ | 15.7 | X | 61.72448 | 175.56251 | 182.71231 | 22.16718 | 0.0436579 | 0.26033869 | 2.4290898 | 21 | — | — |
| 104618 2000 $GZ_{109}$ | 15.2 | X | 276.92540 | 121.64812 | 153.94651 | 4.01801 | 0.1413836 | 0.18271113 | 3.0758091 | 21 | 2 22.5 | 19.9 |
| 104619 2000 $GJ_{110}$ | 15.0 | X | 142.00835 | 260.83545 | 200.10341 | 11.95033 | 0.0894537 | 0.19323616 | 2.9630827 | 21 | 5 23.8 | 19.5 |
| 104620 2000 $GR_{110}$ | 16.1 | X | 1.43357 | 116.99997 | 348.19538 | 3.74020 | 0.1428666 | 0.26887633 | 2.3773931 | 21 | — | — |
| 104621 2000 $GX_{110}$ | 15.3 | X | 287.97738 | 286.57658 | 212.76934 | 7.35983 | 0.1483196 | 0.21744538 | 2.7388564 | 21 | 12 25.3 | 18.4 |
| 104622 2000 $GA_{111}$ | 15.9 | X | 32.59080 | 241.06279 | 247.13899 | 3.45198 | 0.1114925 | 0.27563514 | 2.3383687 | 21 | 1 7.4 | 18.0 |
| 104623 2000 $GN_{111}$ | 14.6 | X | 179.64012 | 176.16234 | 204.45593 | 9.07722 | 0.0967973 | 0.18674742 | 3.0313283 | 21 | 3 23.9 | 19.4 |
| 104624 2000 $GD_{112}$ | 14.5 | X | 286.17704 | 295.71929 | 32.78447 | 13.08457 | 0.1492995 | 0.19204762 | 2.9752954 | 21 | 5 5.3 | 18.8 |
| 104625 2000 $GE_{112}$ | 17.1 | X | 122.96018 | 129.32211 | 121.50455 | 2.89796 | 0.1475047 | 0.29984873 | 2.2107242 | 21 | 11 22.6 | 20.3 |
| 104626 2000 $GT_{112}$ | 14.7 | X | 210.22547 | 113.24542 | 176.31254 | 12.45566 | 0.2632589 | 0.22272488 | 2.6954021 | 21 | 1 2.9 | 19.8 |
| 104627 2000 $GY_{112}$ | 15.7 | X | 256.93544 | 61.73495 | 60.05303 | 2.75073 | 0.1204024 | 0.25864231 | 2.4396995 | 21 | 10 29.0 | 18.6 |
| 104628 2000 $GH_{113}$ | 15.1 | X | 13.48490 | 82.02448 | 55.38967 | 1.75287 | 0.1627711 | 0.18181838 | 3.0858693 | 21 | 1 12.8 | 18.6 |
| 104629 2000 $GV_{113}$ | 14.8 | X | 319.34358 | 284.63636 | 299.90645 | 5.47530 | 0.1304717 | 0.18319239 | 3.0704198 | 21 | 2 10.9 | 19.0 |
| 104630 2000 $GF_{114}$ | 15.4 | X | 204.04293 | 339.61994 | 310.64116 | 3.48210 | 0.2862856 | 0.21902288 | 2.7256896 | 21 | 1 1.4 | 20.3 |
| 104631 2000 $GQ_{114}$ | 15.5 | X | 111.19065 | 72.88506 | 204.67262 | 6.29983 | 0.1815031 | 0.25503715 | 2.4626371 | 21 | 12 9.7 | 19.5 |
| 104632 2000 $GC_{115}$ | 14.9 | X | 97.40419 | 127.73439 | 62.84917 | 3.97303 | 0.0433974 | 0.19862632 | 2.9092308 | 21 | 7 18.8 | 18.9 |
| 104633 2000 $GV_{115}$ | 15.3 | X | 215.08153 | 259.01145 | 30.19325 | 12.71097 | 0.3022847 | 0.22087172 | 2.7104577 | 21 | 1 8.7 | 20.5 |
| 104634 2000 $GU_{116}$ | 14.9 | X | 200.43628 | 4.44907 | 351.07830 | 10.10080 | 0.1122603 | 0.18759221 | 3.0222207 | 21 | 3 15.4 | 19.7 |
| 104635 2000 $GD_{117}$ | 15.1 | X | 110.38278 | 236.75287 | 196.82821 | 3.52936 | 0.0889930 | 0.18740348 | 3.0242495 | 21 | 3 12.8 | 19.4 |
| 104636 2000 $GK_{117}$ | 15.6 | X | 23.67535 | 198.99616 | 185.49119 | 6.06509 | 0.0676277 | 0.21531995 | 2.7568504 | 21 | 12 24.0 | 19.2 |
| 104637 2000 $GU_{117}$ | 15.6 | X | 331.54699 | 69.21698 | 201.75451 | 0.73129 | 0.1459948 | 0.19096470 | 2.9865330 | 21 | 4 26.9 | 19.0 |
| 104638 2000 $GW_{117}$ | 15.6 | X | 115.57988 | 327.02245 | 184.97319 | 1.68851 | 0.0599011 | 0.19687040 | 2.9265038 | 21 | 6 22.8 | 19.8 |
| 104639 2000 $GY_{118}$ | 15.1 | X | 41.39878 | 72.12660 | 218.19720 | 1.17840 | 0.0526540 | 0.20394805 | 2.8584000 | 21 | 9 13.9 | 18.7 |
| 104640 2000 $GB_{119}$ | 15.4 | X | 56.24493 | 321.44776 | 353.49681 | 4.05855 | 0.0604863 | 0.20941933 | 2.8083951 | 21 | 11 5.4 | 19.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104641 2000 $GD_{120}$ | 16.4 | X | 52.18915 | 236.15474 | 193.96745 | 1.77395 | 0.1828047 | 0.27147642 | 2.3621890 | 21 | — | — |
| 104642 2000 $GO_{122}$ | 15.4 | X | 123.83611 | 63.87787 | 201.52255 | 6.54370 | 0.0469546 | 0.21103971 | 2.7940012 | 21 | 11 24.6 | 19.4 |
| 104643 2000 $GY_{122}$ | 16.0 | X | 318.43240 | 233.89547 | 41.22576 | 22.68831 | 0.0399517 | 0.37462151 | 1.9057865 | 21 | 4 13.2 | 17.9 |
| 104644 2000 $GG_{123}$ | 15.8 | X | 26.80415 | 261.57527 | 65.72596 | 2.59189 | 0.1561031 | 0.24794404 | 2.5093829 | 21 | 11 3.7 | 18.5 |
| 104645 2000 $GT_{125}$ | 14.4 | X | 251.59534 | 102.32489 | 152.16831 | 8.37921 | 0.2004963 | 0.17437032 | 3.1731286 | 21 | 1 2.1 | 19.8 |
| 104646 2000 $GY_{125}$ | 15.0 | X | 22.99141 | 16.07669 | 192.43706 | 12.68624 | 0.1932841 | 0.23398319 | 2.6082324 | 21 | 5 2.6 | 17.3 |
| 104647 2000 $GK_{126}$ | 15.3 | X | 207.00523 | 43.73082 | 167.50435 | 8.27109 | 0.1906790 | 0.25739383 | 2.4475822 | 21 | 12 14.2 | 19.0 |
| 104648 2000 $GQ_{129}$ | 15.9 | X | 333.77444 | 212.79583 | 192.22642 | 5.51484 | 0.0945555 | 0.21004879 | 2.8027816 | 21 | 11 8.8 | 19.2 |
| 104649 2000 $GG_{132}$ | 15.8 | X | 263.35069 | 262.47485 | 109.33077 | 7.21612 | 0.1039924 | 0.28481370 | 2.2878566 | 21 | 6 7.7 | 18.7 |
| 104650 2000 $GY_{132}$ | 15.7 | X | 39.37794 | 97.67473 | 174.98757 | 9.62797 | 0.1646690 | 0.24326981 | 2.5414247 | 21 | 9 6.9 | 18.5 |
| 104651 2000 $GF_{133}$ | 16.4 | X | 256.67097 | 267.58994 | 191.23278 | 21.91731 | 0.1091918 | 0.39118687 | 1.8515973 | 21 | 10 20.4 | 17.6 |
| 104652 2000 $GY_{133}$ | 14.3 | X | 213.18033 | 166.43020 | 97.26667 | 7.21762 | 0.0906647 | 0.17190616 | 3.2033797 | 21 | — | — |
| 104653 2000 $GB_{134}$ | 14.1 | X | 249.90192 | 102.01795 | 182.54958 | 14.43660 | 0.1366352 | 0.17684602 | 3.1434450 | 21 | 2 5.1 | 19.2 |
| 104654 2000 $GS_{134}$ | 15.7 | X | 44.19079 | 110.70060 | 157.57384 | 15.30276 | 0.1137735 | 0.24465188 | 2.5318444 | 21 | 9 1.2 | 18.7 |
| 104655 2000 $GD_{135}$ | 15.6 | X | 285.79812 | 181.47565 | 48.32460 | 14.66180 | 0.2174283 | 0.22502851 | 2.6769752 | 21 | — | — |
| 104656 2000 $GH_{135}$ | 14.8 | X | 30.39173 | 43.63772 | 95.11883 | 12.05332 | 0.1302961 | 0.18327111 | 3.0695406 | 21 | 2 16.9 | 18.5 |
| 104657 2000 $GJ_{135}$ | 14.7 | X | 34.49986 | 38.89787 | 85.13852 | 13.17051 | 0.1042305 | 0.18147254 | 3.0897887 | 21 | 2 3.9 | 18.6 |
| 104658 2000 $GQ_{136}$ | 15.0 | X | 298.03661 | 99.32975 | 167.89735 | 12.32445 | 0.1102914 | 0.22919683 | 2.6444192 | 21 | 3 5.3 | 18.7 |
| 104659 2000 $GJ_{137}$ | 14.3 | X | 261.20789 | 106.34801 | 153.08484 | 12.69818 | 0.1504216 | 0.22221772 | 2.6995016 | 21 | 1 11.4 | 18.7 |
| 104660 2000 $GR_{138}$ | 15.4 | X | 24.82764 | 147.24067 | 57.34119 | 9.84315 | 0.0802590 | 0.18906308 | 3.0065255 | 21 | 5 1.0 | 19.1 |
| 104661 2000 $GA_{139}$ | 15.3 | X | 336.34012 | 169.87131 | 65.77250 | 13.24840 | 0.1326461 | 0.18598757 | 3.0395790 | 21 | 3 28.8 | 19.3 |
| 104662 2000 $GB_{139}$ | 14.8 | X | 243.83081 | 142.15489 | 150.04575 | 13.52129 | 0.1319037 | 0.18000062 | 3.1066099 | 21 | 2 10.2 | 19.7 |
| 104663 2000 $GW_{139}$ | 13.9 | X | 162.88515 | 257.21327 | 105.07821 | 6.38721 | 0.1693827 | 0.17961885 | 3.1110103 | 21 | 2 22.6 | 19.0 |
| 104664 2000 $GZ_{139}$ | 15.1 | X | 171.19207 | 176.07919 | 77.19637 | 6.33810 | 0.1213681 | 0.21312370 | 2.7757577 | 21 | 12 27.9 | 19.4 |
| 104665 2000 $GQ_{140}$ | 15.4 | X | 288.26204 | 34.65360 | 134.65559 | 2.66368 | 0.1468049 | 0.17288395 | 3.1912900 | 21 | — | — |
| 104666 2000 $GF_{141}$ | 15.2 | X | 304.50476 | 186.86597 | 50.62317 | 1.67289 | 0.0641349 | 0.18316831 | 3.0706890 | 21 | 2 19.1 | 19.4 |
| 104667 2000 $GX_{141}$ | 14.7 | X | 253.49449 | 87.60861 | 160.11360 | 16.74441 | 0.0961098 | 0.17560635 | 3.1582214 | 21 | 1 2.7 | 19.8 |
| 104668 2000 $GB_{142}$ | 14.8 | X | 232.40043 | 131.30897 | 154.38070 | 13.01702 | 0.1559607 | 0.22283251 | 2.6945341 | 21 | 1 15.9 | 19.4 |
| 104669 2000 $GV_{142}$ | 14.9 | X | 296.95554 | 150.66627 | 98.31216 | 11.13577 | 0.1712872 | 0.18044350 | 3.1015245 | 21 | 2 11.6 | 19.5 |
| 104670 2000 $GW_{143}$ | 15.0 | X | 285.09585 | 258.11479 | 38.54934 | 28.99808 | 0.3423857 | 0.22944411 | 2.6425189 | 21 | 3 18.1 | 19.8 |
| 104671 2000 $GW_{144}$ | 15.4 | X | 198.30249 | 135.62750 | 174.34063 | 0.86615 | 0.1545363 | 0.17476228 | 3.1683823 | 21 | 1 22.3 | 20.6 |
| 104672 2000 $GC_{146}$ | 14.8 | X | 150.41468 | 281.30670 | 37.03271 | 2.04863 | 0.1522808 | 0.17095003 | 3.2153131 | 21 | — | — |
| 104673 2000 $GO_{146}$ | 15.7 | X | 230.17538 | 165.11069 | 161.88581 | 19.64050 | 0.2920855 | 0.23539235 | 2.5978126 | 21 | 2 26.9 | 20.3 |
| 104674 2000 $GK_{148}$ | 15.3 | X | 357.55713 | 29.44770 | 149.97379 | 0.90847 | 0.0627559 | 0.18514429 | 3.0488016 | 21 | 2 16.4 | 19.1 |
| 104675 2000 $GB_{149}$ | 15.8 | X | 186.51741 | 322.58221 | 355.63681 | 8.24557 | 0.1248303 | 0.27248411 | 2.3563615 | 21 | 1 5.8 | 19.4 |
| 104676 2000 $GL_{149}$ | 16.0 | X | 214.99295 | 54.38850 | 174.13804 | 8.30691 | 0.1143240 | 0.21816872 | 2.7327992 | 21 | — | — |
| 104677 2000 $GW_{150}$ | 14.8 | X | 174.04063 | 316.25595 | 44.54469 | 1.99818 | 0.1439977 | 0.18193989 | 3.0844952 | 21 | 2 28.1 | 19.7 |
| 104678 2000 $GB_{152}$ | 15.0 | X | 225.64054 | 240.45758 | 162.03828 | 2.23934 | 0.0730614 | 0.19790386 | 2.9163067 | 21 | 6 9.0 | 19.3 |
| 104679 2000 $GY_{152}$ | 14.7 | X | 187.43930 | 41.45048 | 323.50869 | 8.16262 | 0.0628778 | 0.18472340 | 3.0534309 | 21 | 3 11.4 | 19.3 |
| 104680 2000 $GK_{153}$ | 14.6 | X | 9.11804 | 95.82274 | 216.55426 | 15.55760 | 0.0858299 | 0.20075840 | 2.8885967 | 21 | 8 23.9 | 18.6 |
| 104681 2000 $GM_{153}$ | 14.4 | X | 244.26956 | 43.60776 | 261.42898 | 6.12516 | 0.1518486 | 0.18232354 | 3.0801667 | 21 | 2 21.6 | 19.5 |
| 104682 2000 $GB_{154}$ | 14.6 | X | 304.76203 | 206.66142 | 272.01343 | 7.15394 | 0.1613617 | 0.17175828 | 3.2052181 | 21 | 12 12.8 | 18.2 |
| 104683 2000 $GF_{154}$ | 14.7 | X | 145.42910 | 153.66768 | 225.86813 | 13.80214 | 0.0943546 | 0.22836321 | 2.6508508 | 21 | 2 4.9 | 18.9 |
| 104684 2000 $GG_{154}$ | 15.7 | X | 135.43606 | 34.56398 | 287.73711 | 5.97611 | 0.1134964 | 0.26446323 | 2.4037678 | 21 | — | — |
| 104685 2000 $GK_{154}$ | 15.7 | X | 316.44965 | 286.75684 | 214.39889 | 13.13472 | 0.1208518 | 0.22107871 | 2.7087656 | 21 | — | — |
| 104686 2000 $GQ_{154}$ | 15.8 | X | 48.87862 | 294.79682 | 279.69181 | 5.08847 | 0.0953201 | 0.24057291 | 2.5603828 | 21 | 6 19.4 | 18.7 |
| 104687 2000 $GK_{155}$ | 15.3 | X | 201.09739 | 348.26989 | 212.16368 | 8.28362 | 0.0855584 | 0.21220315 | 2.7837795 | 21 | 11 28.2 | 19.4 |
| 104688 2000 $GN_{155}$ | 14.5 | X | 182.66090 | 332.92904 | 22.94117 | 13.26842 | 0.1154252 | 0.18277944 | 3.0750427 | 21 | 3 5.4 | 19.5 |
| 104689 2000 $GO_{155}$ | 14.9 | X | 261.85151 | 281.48991 | 30.00715 | 10.17083 | 0.0925796 | 0.18720840 | 3.0263501 | 21 | 3 28.9 | 19.3 |
| 104690 2000 $GX_{156}$ | 15.1 | X | 289.91845 | 127.88225 | 207.41984 | 8.18969 | 0.0921387 | 0.19231703 | 2.9725161 | 21 | 5 29.8 | 19.2 |
| 104691 2000 $GV_{158}$ | 14.9 | X | 134.84403 | 13.34580 | 116.81385 | 3.00028 | 0.0512557 | 0.19673830 | 2.9278137 | 21 | 6 17.0 | 19.0 |
| 104692 2000 $GX_{158}$ | 15.0 | X | 70.46548 | 169.35301 | 111.59297 | 3.14797 | 0.0470963 | 0.20662116 | 2.8336934 | 21 | 10 11.9 | 18.9 |
| 104693 2000 $GB_{160}$ | 15.0 | X | 194.77259 | 61.04214 | 226.98279 | 11.48306 | 0.2834972 | 0.21795914 | 2.7345508 | 21 | — | — |
| 104694 2000 $GL_{160}$ | 14.8 | X | 263.01504 | 275.74702 | 2.59857 | 19.12429 | 0.2136042 | 0.18059614 | 3.0997766 | 21 | 2 13.2 | 20.1 |
| 104695 2000 $GU_{161}$ | 14.6 | X | 351.12677 | 314.72758 | 165.13591 | 16.56713 | 0.1808763 | 0.17542532 | 3.1603938 | 21 | — | — |
| 104696 2000 $GV_{161}$ | 15.4 | X | 151.93506 | 141.15175 | 161.94766 | 14.05676 | 0.1678395 | 0.21475763 | 2.7616606 | 21 | — | — |
| 104697 2000 $GW_{162}$ | 15.8 | X | 1.62507 | 123.10520 | 166.20976 | 14.91461 | 0.1896326 | 0.24090263 | 2.5580460 | 21 | 7 17.9 | 18.3 |
| 104698 2000 $GJ_{163}$ | 16.5 | X | 61.65574 | 211.74804 | 185.51376 | 6.35251 | 0.2127192 | 0.26970626 | 2.3725135 | 21 | — | — |
| 104699 2000 $GC_{164}$ | 15.1 | X | 179.85519 | 188.57894 | 113.65501 | 11.56111 | 0.2012049 | 0.21721361 | 2.7408043 | 21 | — | — |
| 104700 2000 $GK_{164}$ | 14.6 | X | 274.83670 | 49.77458 | 241.23232 | 14.16003 | 0.0908092 | 0.23580564 | 2.5947763 | 21 | 3 3.0 | 18.7 |
| 104701 2000 $GV_{164}$ | 14.1 | X | 69.91849 | 288.85678 | 124.71351 | 9.59285 | 0.0766689 | 0.17474414 | 3.1686016 | 21 | — | — |
| 104702 2000 $GZ_{164}$ | 16.1 | X | 219.77784 | 273.91141 | 167.20668 | 2.70371 | 0.0545157 | 0.24654157 | 2.5188904 | 21 | 7 23.9 | 19.6 |
| 104703 2000 $GK_{166}$ | 14.9 | X | 10.79267 | 206.61821 | 205.83358 | 5.08388 | 0.0711872 | 0.21402826 | 2.7679313 | 21 | — | — |
| 104704 2000 $GM_{167}$ | 15.2 | X | 296.84269 | 339.08086 | 226.31950 | 11.01526 | 0.1221418 | 0.22633990 | 2.6666252 | 21 | — | — |
| 104705 2000 $GS_{167}$ | 15.5 | X | 2.50163 | 222.62749 | 202.42304 | 10.10534 | 0.0699168 | 0.21504989 | 2.7591580 | 21 | — | — |
| 104706 2000 $GZ_{167}$ | 16.2 | X | 313.24163 | 84.44807 | 62.90280 | 3.15687 | 0.1261889 | 0.26714132 | 2.3876757 | 21 | — | — |
| 104707 2000 $GA_{168}$ | 16.1 | X | 175.02375 | 336.60959 | 141.88891 | 2.67807 | 0.0380690 | 0.24445660 | 2.5331926 | 21 | 7 19.8 | 19.5 |
| 104708 2000 $GK_{168}$ | 15.8 | X | 262.94524 | 194.81709 | 64.84617 | 4.95624 | 0.1868452 | 0.22489031 | 2.6780718 | 21 | 1 11.6 | 20.1 |
| 104709 2000 $GO_{168}$ | 15.3 | X | 281.26760 | 49.53705 | 111.08417 | 6.48320 | 0.0045878 | 0.21681556 | 2.7441578 | 21 | — | — |
| 104710 2000 $GR_{168}$ | 14.4 | X | 110.65684 | 304.20971 | 190.05880 | 10.03105 | 0.0511584 | 0.19145776 | 2.9814033 | 21 | 5 25.1 | 18.7 |
| 104711 2000 $GU_{168}$ | 15.8 | X | 19.54927 | 359.47859 | 40.66320 | 6.82347 | 0.1287290 | 0.26192182 | 2.4192918 | 21 | — | — |
| 104712 2000 $GK_{171}$ | 14.6 | X | 317.33687 | 275.72603 | 195.72792 | 19.53827 | 0.0244681 | 0.16809263 | 3.2516485 | 21 | 12 28.2 | 19.5 |
| 104713 2000 $GO_{171}$ | 14.8 | X | 91.20503 | 304.69058 | 215.59093 | 10.00373 | 0.0446673 | 0.19332571 | 2.9621677 | 21 | 5 31.9 | 18.9 |
| 104714 2000 $GT_{171}$ | 14.2 | X | 320.95514 | 182.01750 | 92.94418 | 12.99519 | 0.1071059 | 0.19193956 | 2.9764120 | 21 | 4 27.1 | 18.2 |
| 104715 2000 $GZ_{171}$ | 14.7 | X | 305.18583 | 191.59407 | 100.81143 | 10.91824 | 0.0317965 | 0.19187621 | 2.9770672 | 21 | 5 6.7 | 18.9 |
| 104716 2000 $GM_{172}$ | 15.9 | X | 214.59498 | 288.90227 | 282.79010 | 5.74822 | 0.0888988 | 0.26287305 | 2.4134520 | 21 | — | — |
| 104717 2000 $GH_{173}$ | 14.8 | X | 126.77396 | 319.85822 | 197.28529 | 28.18490 | 0.2327301 | 0.20084799 | 2.8877376 | 21 | 7 23.1 | 20.2 |
| 104718 2000 $GQ_{174}$ | 15.0 | X | 64.61790 | 327.68555 | 21.80738 | 1.70640 | 0.0815643 | 0.21587313 | 2.7521388 | 21 | — | — |
| 104719 2000 $GY_{174}$ | 15.3 | X | 255.98633 | 257.37150 | 44.07188 | 1.33046 | 0.0791413 | 0.18313515 | 3.0710596 | 21 | 3 10.2 | 19.8 |
| 104720 2000 $GA_{175}$ | 15.7 | X | 355.39713 | 217.98082 | 66.54554 | 1.84618 | 0.0588680 | 0.24052899 | 2.5606945 | 21 | 6 29.8 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104721 2000 $GQ_{175}$ | 15.9 | X | 55.77608 | 253.51652 | 207.76848 | 3.15014 | 0.0145339 | 0.22917187 | 2.6446113 | 21 | 1 18.8 | 19.3 |
| 104722 2000 $GU_{175}$ | 14.8 | X | 112.65379 | 310.30163 | 175.69301 | 2.81076 | 0.0319496 | 0.19376665 | 2.9576721 | 21 | 5 13.4 | 18.9 |
| 104723 2000 $GY_{175}$ | 15.9 | X | 260.02774 | 313.48578 | 330.54770 | 1.50360 | 0.2706268 | 0.22816492 | 2.6523865 | 21 | 1 31.6 | 20.5 |
| 104724 2000 $GK_{176}$ | 15.7 | X | 326.59899 | 291.31298 | 128.14461 | 0.56879 | 0.0606219 | 0.21268626 | 2.7795624 | 21 | 11 16.7 | 19.1 |
| 104725 2000 $GX_{176}$ | 15.0 | X | 240.96873 | 69.70294 | 328.19826 | 1.16295 | 0.0877506 | 0.19891339 | 2.9064311 | 21 | 6 19.0 | 19.2 |
| 104726 2000 $GX_{178}$ | 15.6 | X | 322.07961 | 77.29900 | 173.07829 | 13.65120 | 0.0859564 | 0.23043977 | 2.6349018 | 21 | 3 19.6 | 18.8 |
| 104727 2000 $GY_{178}$ | 15.7 | X | 144.06630 | 350.13365 | 123.37034 | 6.85330 | 0.2069869 | 0.28778325 | 2.2720909 | 21 | 6 16.9 | 19.2 |
| 104728 2000 $GP_{179}$ | 14.9 | X | 79.07400 | 352.37579 | 121.93782 | 2.77096 | 0.1339173 | 0.18558611 | 3.0439609 | 21 | 4 1.2 | 18.8 |
| 104729 2000 $GT_{181}$ | 15.2 | X | 42.27416 | 234.73928 | 185.97399 | 8.58234 | 0.1501557 | 0.21980769 | 2.7191978 | 21 | — | — |
| 104730 2000 $HQ$ | 16.1 | X | 33.91471 | 16.53092 | 76.26592 | 3.02978 | 0.1275481 | 0.26991357 | 2.3712985 | 21 | — | — |
| 104731 2000 $HB_{2}$ | 15.5 | X | 53.65309 | 346.79935 | 165.98989 | 3.31526 | 0.0098364 | 0.18578321 | 3.0418076 | 21 | 3 30.5 | 19.6 |
| 104732 2000 $HH_{2}$ | 16.4 | X | 210.82836 | 78.12685 | 153.67563 | 2.48783 | 0.1461422 | 0.26167162 | 2.4208337 | 21 | — | — |
| 104733 2000 $HT_{2}$ | 14.2 | X | 179.87819 | 147.98304 | 188.87481 | 8.64023 | 0.0790518 | 0.17765837 | 3.1338552 | 21 | 1 31.3 | 19.1 |
| 104734 2000 $HU_{2}$ | 15.5 | X | 271.29261 | 286.36490 | 73.97970 | 5.01132 | 0.2257390 | 0.23838469 | 2.5760274 | 21 | 5 18.0 | 19.2 |
| 104735 2000 $HZ_{2}$ | 15.5 | X | 84.52297 | 19.00710 | 210.00033 | 11.94406 | 0.0512164 | 0.19638779 | 2.9312963 | 21 | 8 17.7 | 19.8 |
| 104736 2000 $HJ_{4}$ | 14.9 | X | 190.59852 | 271.31954 | 62.22521 | 5.11057 | 0.0328458 | 0.17959934 | 3.1112356 | 21 | 2 9.4 | 19.4 |
| 104737 2000 $HG_{5}$ | 16.8 | X | 337.66239 | 244.94187 | 43.13914 | 23.03499 | 0.0643132 | 0.37670218 | 1.8987624 | 21 | 5 22.2 | 18.4 |
| 104738 2000 $HX_{7}$ | 13.9 | X | 117.63571 | 341.24361 | 39.85420 | 18.17342 | 0.1656293 | 0.17579549 | 3.1559557 | 21 | 2 6.0 | 18.9 |
| 104739 2000 $HU_{8}$ | 15.3 | X | 196.68917 | 229.83655 | 48.00226 | 10.62105 | 0.2516391 | 0.21623557 | 2.7490626 | 21 | — | — |
| 104740 2000 $HY_{8}$ | 15.1 | X | 170.84569 | 240.24233 | 45.86001 | 7.59834 | 0.2844596 | 0.21352459 | 2.7722823 | 21 | — | — |
| 104741 2000 $HC_{9}$ | 15.9 | X | 132.30483 | 193.61727 | 45.21099 | 9.30890 | 0.1034130 | 0.25175562 | 2.4839905 | 21 | 11 8.3 | 19.6 |
| 104742 2000 $HY_{9}$ | 15.2 | X | 230.22839 | 134.87843 | 99.41343 | 0.88996 | 0.2488290 | 0.16986113 | 3.2290397 | 21 | — | — |
| 104743 2000 $HW_{10}$ | 15.0 | X | 40.43192 | 14.95478 | 221.05236 | 3.58667 | 0.1293736 | 0.23885570 | 2.5726398 | 21 | 7 10.9 | 17.8 |
| 104744 2000 $HX_{10}$ | 15.1 | X | 197.53371 | 265.34437 | 49.16029 | 13.34464 | 0.1962949 | 0.22069549 | 2.7119004 | 21 | 1 24.9 | 19.9 |
| 104745 2000 $HN_{11}$ | 15.1 | X | 326.22495 | 18.32432 | 223.77674 | 6.82914 | 0.1319868 | 0.18424650 | 3.0586976 | 21 | 3 12.2 | 19.2 |
| 104746 2000 $HZ_{11}$ | 15.5 | X | 305.19656 | 298.97712 | 35.44652 | 16.21971 | 0.3255635 | 0.23630043 | 2.5911529 | 21 | 5 7.0 | 18.8 |
| 104747 2000 $HE_{12}$ | 16.6 | X | 295.42255 | 285.55379 | 269.71708 | 1.32941 | 0.1623336 | 0.26838818 | 2.3802749 | 21 | — | — |
| 104748 2000 $HO_{12}$ | 15.4 | X | 65.67197 | 229.33259 | 335.72960 | 1.14243 | 0.1390401 | 0.19262139 | 2.9693840 | 21 | 7 9.5 | 19.2 |
| 104749 2000 $HR_{12}$ | 15.8 | X | 305.24354 | 136.77318 | 13.69829 | 2.42382 | 0.1484715 | 0.26480857 | 2.4016775 | 21 | — | — |
| 104750 2000 $HW_{12}$ | 15.6 | X | 269.21140 | 234.37639 | 41.01216 | 13.40036 | 0.2225941 | 0.22514752 | 2.6760318 | 21 | 2 6.5 | 20.2 |
| 104751 2000 $HM_{13}$ | 14.6 | X | 291.87652 | 242.62909 | 36.51848 | 9.09263 | 0.2034097 | 0.18180728 | 3.0859948 | 21 | 3 11.2 | 19.2 |
| 104752 2000 $HP_{13}$ | 14.8 | X | 247.56666 | 18.93405 | 241.09937 | 4.21753 | 0.1231760 | 0.17508708 | 3.1644627 | 21 | 1 8.9 | 19.7 |
| 104753 2000 $HZ_{14}$ | 15.9 | X | 328.93806 | 8.55386 | 158.25257 | 7.95319 | 0.1167829 | 0.27041709 | 2.3683541 | 21 | — | — |
| 104754 2000 $HC_{15}$ | 14.8 | X | 355.75467 | 44.98039 | 156.64468 | 3.36137 | 0.0677190 | 0.18366350 | 3.0651670 | 21 | 3 14.2 | 18.8 |
| 104755 2000 $HF_{15}$ | 15.1 | X | 348.27299 | 77.26119 | 180.04320 | 14.16425 | 0.1458183 | 0.18840026 | 3.0135730 | 21 | 5 10.3 | 18.7 |
| 104756 2000 $HW_{15}$ | 15.9 | X | 39.27191 | 221.29984 | 41.92778 | 3.65182 | 0.0856273 | 0.24322739 | 2.5417201 | 21 | 8 14.4 | 18.8 |
| 104757 2000 $HF_{16}$ | 16.3 | X | 225.89536 | 97.61968 | 101.39841 | 2.25206 | 0.1382426 | 0.26000106 | 2.4311922 | 21 | 12 26.4 | 19.4 |
| 104758 2000 $HR_{18}$ | 15.2 | X | 289.70488 | 312.41236 | 83.35542 | 3.14404 | 0.0845934 | 0.20074850 | 2.8886915 | 21 | 8 19.8 | 19.0 |
| 104759 2000 $HY_{18}$ | 15.1 | X | 7.82000 | 337.17710 | 61.99803 | 5.93448 | 0.1863457 | 0.21168141 | 2.7883518 | 21 | — | — |
| 104760 2000 $HD_{19}$ | 15.0 | X | 276.41949 | 342.69792 | 245.11948 | 1.00957 | 0.0879309 | 0.17596321 | 3.1539500 | 21 | 1 3.9 | 19.7 |
| 104761 2000 $HF_{22}$ | 16.2 | X | 306.09164 | 277.01098 | 23.51022 | 3.95517 | 0.2697157 | 0.23283397 | 2.6168077 | 21 | 4 4.3 | 19.8 |
| 104762 2000 $HO_{22}$ | 15.1 | X | 283.69107 | 212.64459 | 41.44259 | 10.33194 | 0.0582408 | 0.18024581 | 3.1037919 | 21 | 2 19.7 | 19.7 |
| 104763 2000 $HT_{22}$ | 15.9 | X | 246.65786 | 153.39979 | 39.15438 | 0.99164 | 0.0644943 | 0.26130649 | 2.4230884 | 21 | — | — |
| 104764 2000 $HG_{23}$ | 14.7 | X | 253.51959 | 217.59730 | 69.56002 | 10.11738 | 0.0410818 | 0.18074399 | 3.0980860 | 21 | 2 26.7 | 19.3 |
| 104765 2000 $HN_{23}$ | 15.7 | X | 109.61007 | 121.89298 | 137.25226 | 8.82668 | 0.0602670 | 0.25223711 | 2.4808284 | 21 | 11 10.2 | 19.3 |
| 104766 2000 $HG_{24}$ | 14.9 | X | 85.53822 | 238.59232 | 70.03009 | 16.62342 | 0.1650770 | 0.21011211 | 2.8022185 | 21 | 12 14.4 | 19.2 |
| 104767 2000 $HP_{25}$ | 15.7 | X | 297.28801 | 279.42569 | 38.05549 | 15.09971 | 0.1293808 | 0.23557362 | 2.5964798 | 21 | 5 5.4 | 19.2 |
| 104768 2000 $HG_{26}$ | 15.7 | X | 250.35272 | 196.80086 | 68.77500 | 4.35263 | 0.2525109 | 0.22214593 | 2.7000832 | 21 | 1 5.0 | 20.5 |
| 104769 2000 $HV_{26}$ | 15.1 | X | 355.94222 | 109.67889 | 191.00457 | 1.61724 | 0.0813922 | 0.19540507 | 2.9411160 | 21 | 7 22.5 | 18.7 |
| 104770 2000 $HC_{28}$ | 15.8 | X | 42.60373 | 304.84778 | 226.08417 | 21.21035 | 0.0626550 | 0.37190906 | 1.9150416 | 21 | 2 28.6 | 18.0 |
| 104771 2000 $HH_{28}$ | 14.5 | X | 122.89051 | 200.94703 | 81.84153 | 22.22992 | 0.1159414 | 0.21101008 | 2.7942628 | 21 | 12 16.7 | 18.8 |
| 104772 2000 $HV_{28}$ | 15.0 | X | 204.47083 | 58.59891 | 185.38774 | 20.81421 | 0.0682928 | 0.26083412 | 2.4260129 | 21 | — | — |
| 104773 2000 $HE_{29}$ | 15.8 | X | 334.34245 | 144.08725 | 130.16526 | 8.02702 | 0.1670448 | 0.23652046 | 2.5895456 | 21 | 5 1.8 | 18.7 |
| 104774 2000 $HP_{29}$ | 14.4 | X | 1.59384 | 133.86504 | 71.85196 | 15.40784 | 0.0149153 | 0.18623616 | 3.0368736 | 21 | 4 6.7 | 18.8 |
| 104775 2000 $HQ_{29}$ | 14.4 | X | 278.25375 | 174.41511 | 68.11720 | 18.57019 | 0.0771563 | 0.17920237 | 3.1158286 | 21 | 1 26.9 | 19.2 |
| 104776 2000 $HW_{29}$ | 15.6 | X | 321.68522 | 188.52765 | 20.96270 | 12.63518 | 0.0965009 | 0.27331641 | 2.3515754 | 21 | 1 16.5 | 18.8 |
| 104777 2000 $HP_{30}$ | 15.3 | X | 218.51150 | 208.58236 | 96.61565 | 10.62435 | 0.2797617 | 0.22165073 | 2.7041032 | 21 | 1 28.3 | 20.2 |
| 104778 2000 $HX_{30}$ | 15.4 | X | 260.75285 | 126.15073 | 146.95322 | 13.49271 | 0.2434975 | 0.22403985 | 2.6848449 | 21 | 1 20.7 | 20.0 |
| 104779 2000 $HR_{31}$ | 14.8 | X | 308.48461 | 81.05950 | 134.59297 | 14.57704 | 0.1291652 | 0.22579265 | 2.6709321 | 21 | 1 9.9 | 18.6 |
| 104780 2000 $HX_{31}$ | 15.2 | X | 266.69696 | 215.23820 | 62.56452 | 2.28961 | 0.1453996 | 0.17921777 | 3.1156500 | 21 | 2 15.7 | 19.9 |
| 104781 2000 $HA_{32}$ | 14.8 | X | 321.26083 | 300.97685 | 44.43187 | 12.58887 | 0.0736711 | 0.19620271 | 2.9331395 | 21 | 8 3.3 | 18.8 |
| 104782 2000 $HJ_{32}$ | 14.8 | X | 131.81458 | 122.72335 | 218.54334 | 14.39040 | 0.2685671 | 0.21426500 | 2.7658921 | 21 | 1 1.3 | 19.2 |
| 104783 2000 $HT_{32}$ | 15.2 | X | 347.58465 | 137.16940 | 106.90000 | 13.73362 | 0.2653636 | 0.23290945 | 2.6162424 | 21 | 4 2.5 | 17.9 |
| 104784 2000 $HX_{32}$ | 14.5 | X | 221.00083 | 213.92638 | 177.11299 | 22.09859 | 0.0589498 | 0.23572261 | 2.5953856 | 21 | 5 21.9 | 18.6 |
| 104785 2000 $HL_{33}$ | 14.5 | X | 258.69159 | 202.66249 | 118.78054 | 18.53230 | 0.1859929 | 0.18320119 | 3.0703215 | 21 | 4 2.6 | 19.7 |
| 104786 2000 $HH_{35}$ | 14.7 | X | 244.44608 | 100.69605 | 97.97524 | 7.67923 | 0.0427557 | 0.17013212 | 3.2256099 | 21 | — | — |
| 104787 2000 $HZ_{35}$ | 14.4 | X | 221.01826 | 211.34438 | 58.42901 | 23.96197 | 0.0683129 | 0.17451608 | 3.1713614 | 21 | — | — |
| 104788 2000 $HD_{36}$ | 15.4 | X | 45.21751 | 9.63367 | 156.29247 | 12.83924 | 0.1285107 | 0.23337669 | 2.6127492 | 21 | 4 11.6 | 18.3 |
| 104789 2000 $HL_{36}$ | 16.2 | X | 246.43347 | 100.19478 | 116.71965 | 9.03342 | 0.2397597 | 0.21818974 | 2.7326237 | 21 | — | — |
| 104790 2000 $HP_{36}$ | 15.3 | X | 293.70864 | 208.46185 | 95.22291 | 15.39675 | 0.1300723 | 0.23321366 | 2.6139668 | 21 | 4 21.4 | 19.1 |
| 104791 2000 $HG_{37}$ | 15.7 | X | 41.39105 | 46.81230 | 142.24967 | 12.75476 | 0.1287815 | 0.23446013 | 2.6046940 | 21 | 5 9.5 | 18.8 |
| 104792 2000 $HJ_{37}$ | 15.3 | X | 306.37199 | 102.94831 | 144.56806 | 13.36304 | 0.2734182 | 0.17999307 | 3.1066967 | 21 | 2 4.1 | 20.0 |
| 104793 2000 $HB_{38}$ | 16.0 | X | 40.39419 | 2.56202 | 28.73564 | 6.99613 | 0.1179278 | 0.26206452 | 2.4184135 | 21 | — | — |
| 104794 2000 $HP_{38}$ | 14.7 | X | 122.30583 | 287.52358 | 204.62665 | 10.19435 | 0.1363990 | 0.19138910 | 2.9821163 | 21 | 6 14.3 | 19.4 |
| 104795 2000 $HS_{39}$ | 14.9 | X | 277.26510 | 137.22564 | 113.52301 | 5.82749 | 0.0919882 | 0.17713781 | 3.1399920 | 21 | 1 31.6 | 19.5 |
| 104796 2000 $HS_{40}$ | 15.5 | X | 315.08289 | 346.55069 | 282.10227 | 4.49891 | 0.1810499 | 0.23299078 | 2.6156335 | 21 | 3 15.9 | 19.0 |
| 104797 2000 $HG_{41}$ | 15.1 | X | 351.13333 | 165.26291 | 87.70356 | 12.85143 | 0.2444919 | 0.23368073 | 2.6104824 | 21 | 4 26.5 | 17.6 |
| 104798 2000 $HH_{41}$ | 14.8 | X | 283.60154 | 116.76437 | 103.71062 | 14.59236 | 0.1106055 | 0.17571238 | 3.1569508 | 21 | — | — |
| 104799 2000 $HH_{42}$ | 15.1 | X | 108.08023 | 183.55338 | 121.54931 | 16.51284 | 0.1438424 | 0.20941881 | 2.8083997 | 21 | 12 30.9 | 19.7 |
| 104800 2000 $HK_{42}$ | 15.3 | X | 271.09738 | 129.13652 | 202.05307 | 8.85301 | 0.0965526 | 0.23536340 | 2.5980257 | 21 | 4 26.5 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104801 2000 $HL_{42}$ | 15.8 | X | 291.27080 | 267.75734 | 34.78872 | 12.84408 | 0.2725097 | 0.23140231 | 2.6275899 | 21 | 3 25.3 | 19.8 |
| 104802 2000 $HZ_{42}$ | 15.7 | X | 211.19443 | 259.93075 | 85.99574 | 3.02829 | 0.2675210 | 0.27308571 | 2.3528996 | 21 | 3 6.8 | 19.9 |
| 104803 2000 $HJ_{43}$ | 15.9 | X | 338.85541 | 79.15814 | 78.72021 | 3.08466 | 0.1579516 | 0.27029462 | 2.3690694 | 21 | — | — |
| 104804 2000 $HN_{43}$ | 15.1 | X | 133.92397 | 239.99910 | 227.83279 | 7.17787 | 0.0432249 | 0.18901998 | 3.0069825 | 21 | 5 17.8 | 19.3 |
| 104805 2000 $HS_{43}$ | 15.2 | X | 225.01897 | 56.20717 | 58.23752 | 2.33535 | 0.0840523 | 0.20136848 | 2.8827594 | 21 | 9 8.6 | 19.4 |
| 104806 2000 $HU_{44}$ | 14.3 | X | 49.56701 | 248.40217 | 196.65186 | 16.06281 | 0.2235944 | 0.17942602 | 3.1132388 | 21 | 1 12.3 | 17.9 |
| 104807 2000 $HS_{45}$ | 15.9 | X | 276.25369 | 214.30322 | 78.73155 | 3.55293 | 0.1201131 | 0.23088368 | 2.6315233 | 21 | 3 12.9 | 19.7 |
| 104808 2000 $HG_{47}$ | 15.6 | X | 302.76746 | 216.33058 | 53.57150 | 2.41365 | 0.2389096 | 0.18192087 | 3.0847102 | 21 | 3 4.7 | 20.0 |
| 104809 2000 $HL_{47}$ | 15.0 | X | 16.08021 | 116.62712 | 49.70447 | 7.94374 | 0.1049236 | 0.18206033 | 3.0831346 | 21 | 3 1.9 | 18.8 |
| 104810 2000 $HQ_{47}$ | 15.0 | X | 270.27836 | 161.10383 | 74.75446 | 2.54733 | 0.1315786 | 0.17544276 | 3.1601843 | 21 | 1 2.9 | 19.9 |
| 104811 2000 $HP_{48}$ | 16.3 | X | 317.21540 | 263.28394 | 252.72029 | 2.39550 | 0.1502685 | 0.26694253 | 2.3888609 | 21 | — | — |
| 104812 2000 $HV_{48}$ | 15.2 | X | 324.93329 | 89.49492 | 159.22921 | 0.34142 | 0.2023288 | 0.18323115 | 3.0699868 | 21 | 3 11.3 | 19.0 |
| 104813 2000 $HO_{49}$ | 14.6 | X | 245.40704 | 291.06117 | 47.33775 | 16.72948 | 0.0828937 | 0.18489435 | 3.0515486 | 21 | 4 15.9 | 19.3 |
| 104814 2000 $HH_{50}$ | 15.8 | X | 16.70482 | 63.03619 | 210.49551 | 3.91791 | 0.1772603 | 0.23915986 | 2.5704581 | 21 | 7 27.2 | 18.1 |
| 104815 2000 $HK_{50}$ | 14.9 | X | 196.29671 | 165.35620 | 174.63025 | 2.22399 | 0.2151307 | 0.22299881 | 2.6931943 | 21 | 2 19.1 | 19.5 |
| 104816 2000 $HC_{51}$ | 15.0 | X | 231.21953 | 192.73335 | 65.37622 | 5.85205 | 0.0774359 | 0.17295132 | 3.1904611 | 21 | — | — |
| 104817 2000 $HW_{51}$ | 16.1 | X | 263.37226 | 96.06362 | 49.55579 | 3.85023 | 0.1285865 | 0.25823126 | 2.4422878 | 21 | 12 7.9 | 18.9 |
| 104818 2000 $HE_{52}$ | 15.0 | X | 114.98495 | 171.85291 | 224.30195 | 4.02337 | 0.1310113 | 0.26859245 | 2.3790680 | 21 | 1 20.8 | 17.8 |
| 104819 2000 $HK_{54}$ | 15.0 | X | 279.99309 | 187.08627 | 84.44874 | 2.90719 | 0.1275886 | 0.17932945 | 3.1143564 | 21 | 2 24.2 | 19.7 |
| 104820 2000 $HQ_{55}$ | 14.8 | X | 327.59248 | 259.12903 | 333.23118 | 2.82864 | 0.0716170 | 0.18337313 | 3.0684019 | 21 | 3 12.2 | 18.9 |
| 104821 2000 $HR_{55}$ | 16.3 | X | 317.65061 | 193.40165 | 317.05219 | 1.68446 | 0.1444585 | 0.26694093 | 2.3888705 | 21 | — | — |
| 104822 2000 $HS_{55}$ | 16.1 | X | 196.77959 | 322.47572 | 237.71387 | 5.46598 | 0.0771997 | 0.25615525 | 2.4554657 | 21 | 11 30.6 | 19.6 |
| 104823 2000 $HK_{56}$ | 15.2 | X | 214.74386 | 305.37117 | 41.09380 | 15.71920 | 0.2201439 | 0.22806696 | 2.6531459 | 21 | 3 20.1 | 20.0 |
| 104824 2000 $HP_{56}$ | 15.2 | X | 6.33266 | 142.01884 | 72.02903 | 4.52393 | 0.0539452 | 0.18659661 | 3.0329614 | 21 | 4 15.9 | 19.2 |
| 104825 2000 $HJ_{58}$ | 14.8 | X | 2.92676 | 290.19564 | 224.17985 | 8.58098 | 0.0665404 | 0.17796922 | 3.1302050 | 21 | 1 22.6 | 19.1 |
| 104826 2000 $HM_{58}$ | 16.1 | X | 53.01014 | 311.45062 | 41.34411 | 7.17243 | 0.2213860 | 0.30232895 | 2.1986169 | 21 | — | — |
| 104827 2000 $HP_{59}$ | 14.7 | X | 279.99003 | 45.21416 | 229.96508 | 9.33257 | 0.0543568 | 0.18214792 | 3.0821462 | 21 | 3 4.3 | 19.3 |
| 104828 2000 $HC_{60}$ | 15.5 | X | 320.36652 | 200.90341 | 68.91933 | 2.18527 | 0.0903808 | 0.18657441 | 3.0332020 | 21 | 4 17.2 | 19.3 |
| 104829 2000 $HX_{62}$ | 14.8 | X | 348.96377 | 293.15274 | 197.97487 | 16.22911 | 0.1069176 | 0.17576673 | 3.1562999 | 21 | — | — |
| 104830 2000 $HD_{63}$ | 16.2 | X | 139.48439 | 13.06982 | 119.37433 | 2.60576 | 0.1516359 | 0.24258120 | 2.5462319 | 21 | 7 3.4 | 20.1 |
| 104831 2000 $HQ_{63}$ | 16.0 | X | 343.55182 | 244.10577 | 43.75203 | 8.02118 | 0.1790399 | 0.23770220 | 2.5809559 | 21 | 6 3.4 | 18.5 |
| 104832 2000 $HN_{64}$ | 15.2 | X | 303.43292 | 30.20654 | 225.52198 | 12.70919 | 0.1534575 | 0.22957385 | 2.6415233 | 21 | 2 14.1 | 19.2 |
| 104833 2000 $HH_{65}$ | 14.6 | X | 201.53025 | 257.16557 | 60.77333 | 5.40323 | 0.1516266 | 0.17632855 | 3.1495920 | 21 | 2 4.7 | 19.8 |
| 104834 2000 $HO_{67}$ | 15.4 | X | 287.35016 | 163.55323 | 184.98785 | 1.25760 | 0.0386449 | 0.19308911 | 2.9645869 | 21 | 6 20.1 | 19.4 |
| 104835 2000 $HQ_{68}$ | 16.3 | X | 196.31003 | 356.73136 | 188.13563 | 1.98464 | 0.1382119 | 0.25421709 | 2.4679303 | 21 | 11 4.9 | 19.8 |
| 104836 2000 $HH_{70}$ | 14.3 | X | 225.46703 | 11.81380 | 233.33985 | 12.31895 | 0.0617751 | 0.17235565 | 3.1978079 | 21 | — | — |
| 104837 2000 $HT_{70}$ | 14.6 | X | 276.22195 | 195.19324 | 69.06673 | 13.08318 | 0.0452529 | 0.17971736 | 3.1098734 | 21 | 2 26.3 | 19.3 |
| 104838 2000 $HY_{70}$ | 15.2 | X | 185.08396 | 269.24236 | 59.75612 | 11.92808 | 0.1413452 | 0.22110800 | 2.7085264 | 21 | 1 28.8 | 19.7 |
| 104839 2000 $HA_{71}$ | 14.4 | X | 305.09845 | 267.47852 | 350.84538 | 11.57030 | 0.1545256 | 0.18337981 | 3.0683274 | 21 | 3 4.7 | 18.7 |
| 104840 2000 $HF_{71}$ | 15.1 | X | 9.25404 | 126.72941 | 71.00143 | 5.88834 | 0.0549462 | 0.18521978 | 3.0479732 | 21 | 3 31.4 | 19.1 |
| 104841 2000 $HK_{71}$ | 14.7 | X | 54.89782 | 266.89135 | 192.07092 | 9.31268 | 0.1149636 | 0.17943071 | 3.1131846 | 21 | 1 30.9 | 18.7 |
| 104842 2000 $HW_{71}$ | 14.9 | X | 2.33037 | 208.87078 | 28.79666 | 8.94427 | 0.0309214 | 0.18875885 | 3.0097551 | 21 | 5 8.1 | 18.9 |
| 104843 2000 $HZ_{71}$ | 16.6 | X | 345.45116 | 65.49436 | 211.26336 | 3.21527 | 0.2052292 | 0.23616280 | 2.5921595 | 21 | 5 19.6 | 18.8 |
| 104844 2000 $HE_{72}$ | 16.1 | X | 284.67883 | 79.38383 | 208.37171 | 12.64825 | 0.1802252 | 0.22924613 | 2.6440401 | 21 | 3 3.1 | 20.2 |
| 104845 2000 $HZ_{72}$ | 15.8 | X | 259.13163 | 226.57327 | 111.52891 | 11.26636 | 0.0112933 | 0.23675718 | 2.5878193 | 21 | 5 6.1 | 19.4 |
| 104846 2000 $HH_{73}$ | 14.6 | X | 131.17165 | 141.23327 | 178.90235 | 25.92746 | 0.2119686 | 0.21380637 | 2.7698460 | 21 | — | — |
| 104847 2000 $HV_{73}$ | 15.0 | X | 69.05401 | 96.15225 | 91.95635 | 12.21811 | 0.0566421 | 0.19264592 | 2.9691320 | 21 | 6 9.8 | 19.0 |
| 104848 2000 $HL_{74}$ | 15.1 | X | 281.40947 | 171.63453 | 138.70692 | 14.08936 | 0.1935484 | 0.23182662 | 2.6243828 | 21 | 4 3.4 | 19.1 |
| 104849 2000 $HP_{74}$ | 15.7 | X | 200.67340 | 105.20259 | 207.06582 | 3.55907 | 0.1167306 | 0.22211378 | 2.7003437 | 21 | 1 18.5 | 19.9 |
| 104850 2000 $HS_{74}$ | 15.8 | X | 172.30898 | 42.26053 | 94.25363 | 4.03600 | 0.0556451 | 0.24509910 | 2.5287637 | 21 | 8 11.4 | 19.4 |
| 104851 2000 $HH_{75}$ | 14.0 | X | 112.07423 | 184.69215 | 192.29496 | 9.04291 | 0.0780123 | 0.17355711 | 3.1830327 | 21 | 1 6.2 | 18.6 |
| 104852 2000 $HJ_{75}$ | 15.7 | X | 336.74263 | 209.96326 | 82.16632 | 5.38434 | 0.2314808 | 0.23578131 | 2.5949548 | 21 | 5 20.9 | 18.0 |
| 104853 2000 $HN_{75}$ | 14.7 | X | 195.27326 | 189.14072 | 100.31113 | 7.34074 | 0.1374634 | 0.17128082 | 3.2111719 | 21 | — | — |
| 104854 2000 $HR_{75}$ | 15.5 | X | 308.80570 | 249.32028 | 50.74885 | 3.57479 | 0.1597005 | 0.18750030 | 3.0232083 | 21 | 4 29.3 | 19.3 |
| 104855 2000 $HK_{76}$ | 14.8 | X | 24.82474 | 184.16104 | 60.21812 | 15.89507 | 0.1151334 | 0.19121753 | 2.9838999 | 21 | 6 23.5 | 18.5 |
| 104856 2000 $HJ_{77}$ | 15.5 | X | 359.31613 | 133.70384 | 111.06935 | 13.99710 | 0.1169318 | 0.23829235 | 2.5766928 | 21 | 5 12.7 | 18.5 |
| 104857 2000 $HT_{77}$ | 14.4 | X | 77.47232 | 296.50210 | 238.42839 | 8.89691 | 0.0678455 | 0.19282804 | 2.9672622 | 21 | 6 5.0 | 18.3 |
| 104858 2000 $HA_{78}$ | 14.3 | X | 248.84014 | 291.33973 | 5.65001 | 16.47571 | 0.1230256 | 0.18181726 | 3.0858820 | 21 | 2 26.7 | 19.2 |
| 104859 2000 $HU_{78}$ | 14.6 | X | 265.86813 | 167.95918 | 88.34489 | 18.85966 | 0.1638783 | 0.17840632 | 3.1250902 | 21 | 1 19.4 | 19.6 |
| 104860 2000 $HV_{78}$ | 15.8 | X | 13.77405 | 131.61541 | 100.61031 | 15.29079 | 0.1229984 | 0.23745767 | 2.5827275 | 21 | 5 20.6 | 18.7 |
| 104861 2000 $HT_{79}$ | 15.4 | X | 304.51837 | 91.27204 | 124.43324 | 14.32422 | 0.0625648 | 0.22526121 | 2.6751313 | 21 | 1 14.6 | 19.1 |
| 104862 2000 $HV_{79}$ | 15.3 | X | 179.70409 | 78.50854 | 105.37673 | 15.94393 | 0.0920830 | 0.20570396 | 2.8421104 | 21 | 10 22.4 | 19.9 |
| 104863 2000 $HA_{82}$ | 16.9 | X | 50.57273 | 185.62232 | 52.96364 | 4.12831 | 0.0935822 | 0.28780543 | 2.2719742 | 21 | 7 30.3 | 19.3 |
| 104864 2000 $HF_{82}$ | 15.6 | X | 230.47337 | 51.25897 | 38.55450 | 3.78954 | 0.1242652 | 0.24686629 | 2.5166811 | 21 | 8 12.5 | 19.3 |
| 104865 2000 $HG_{86}$ | 15.9 | X | 88.90289 | 109.68821 | 85.79397 | 6.12402 | 0.1108121 | 0.24090818 | 2.5580068 | 21 | 7 25.5 | 19.3 |
| 104866 2000 $HM_{86}$ | 13.9 | X | 356.22240 | 233.44094 | 212.53066 | 14.84871 | 0.0524359 | 0.16806983 | 3.2519426 | 21 | — | — |
| 104867 2000 $HY_{86}$ | 15.2 | X | 243.67043 | 180.40102 | 64.49370 | 17.98613 | 0.2102175 | 0.21935991 | 2.7228970 | 21 | — | — |
| 104868 2000 $HP_{87}$ | 15.6 | X | 295.66362 | 87.10804 | 155.85295 | 8.14911 | 0.2161194 | 0.22671870 | 2.6636541 | 21 | 1 17.7 | 19.6 |
| 104869 2000 $HQ_{89}$ | 16.5 | X | 241.95869 | 181.46631 | 0.80048 | 1.18926 | 0.1337974 | 0.25963794 | 2.4334585 | 21 | 12 26.1 | 19.4 |
| 104870 2000 $HV_{93}$ | 15.0 | X | 285.02440 | 138.30908 | 216.94901 | 8.10635 | 0.1309827 | 0.19248024 | 2.9708356 | 21 | 6 11.9 | 19.2 |
| 104871 2000 $HZ_{96}$ | 15.8 | X | 285.90457 | 99.32642 | 79.82125 | 7.93880 | 0.0810933 | 0.26569333 | 2.3963428 | 21 | — | — |
| 104872 2000 $HF_{97}$ | 15.4 | X | 337.04574 | 31.93896 | 168.92418 | 9.62851 | 0.2325638 | 0.18173991 | 3.0867575 | 21 | 1 22.2 | 19.4 |
| 104873 2000 $HG_{97}$ | 15.9 | X | 125.05308 | 163.53427 | 99.46338 | 7.28394 | 0.1150483 | 0.25374220 | 2.4710086 | 21 | 12 2.6 | 19.6 |
| 104874 2000 $HH_{97}$ | 15.0 | X | 300.08068 | 72.30747 | 191.87847 | 11.66784 | 0.1178542 | 0.18287149 | 3.0740107 | 21 | 3 8.2 | 19.3 |
| 104875 2000 $HZ_{97}$ | 16.1 | X | 1.97143 | 14.47448 | 60.50453 | 2.34761 | 0.1472503 | 0.26131480 | 2.4230370 | 21 | — | — |
| 104876 2000 $HH_{98}$ | 14.3 | X | 68.22370 | 307.28866 | 84.38347 | 3.87320 | 0.0885782 | 0.12584877 | 3.9436956 | 21 | — | — |
| 104877 2000 $HW_{99}$ | 14.9 | X | 37.70388 | 112.12134 | 104.44021 | 2.94220 | 0.1182668 | 0.19170905 | 2.9787975 | 21 | 6 8.5 | 18.4 |
| 104878 2000 $HL_{100}$ | 15.0 | X | 35.75081 | 104.24179 | 50.69917 | 15.63654 | 0.1407130 | 0.18417114 | 3.0595320 | 21 | 3 24.7 | 18.8 |
| 104879 2000 $HS_{100}$ | 15.2 | X | 94.98737 | 337.17793 | 22.20498 | 4.77097 | 0.1548158 | 0.22002876 | 2.7173761 | 21 | — | — |
| 104880 2000 $HK_{102}$ | 14.5 | X | 184.98091 | 86.88540 | 193.80884 | 12.18220 | 0.2958760 | 0.21827075 | 2.7319475 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104881 2000 $HJ_{103}$ | 15.8 | X | 305.22520 | 160.38568 | 102.49392 | 5.68638 | 0.1935868 | 0.23093043 | 2.6311682 | 21 | 2 26.9 | 19.4 |
| 104882 2000 $HK_{103}$ | 13.9 | X | 87.39269 | 293.66784 | 98.71302 | 14.55406 | 0.1065448 | 0.17376868 | 3.1804486 | 21 | — | — |
| 104883 2000 $HT_{103}$ | 15.7 | X | 283.24470 | 220.11770 | 97.58180 | 10.00191 | 0.0821062 | 0.23492037 | 2.6012910 | 21 | 4 29.8 | 19.3 |
| 104884 2000 $HU_{103}$ | 16.3 | X | 314.57660 | 139.18547 | 127.54890 | 7.35649 | 0.2171612 | 0.23133746 | 2.6280810 | 21 | 3 12.3 | 19.7 |
| 104885 2000 $HW_{103}$ | 15.2 | X | 342.91217 | 112.34878 | 126.25359 | 15.70719 | 0.0753435 | 0.23154026 | 2.6265462 | 21 | 4 11.8 | 18.7 |
| 104886 2000 $JS$ | 16.5 | X | 43.83352 | 231.58717 | 298.25669 | 1.35969 | 0.1441155 | 0.28037373 | 2.3119468 | 21 | 4 2.9 | 18.4 |
| 104887 2000 $JH_{1}$ | 16.2 | X | 301.25774 | 196.22347 | 87.29521 | 23.84388 | 0.0678036 | 0.37253557 | 1.9128939 | 21 | 4 3.7 | 18.9 |
| 104888 2000 $JL_{1}$ | 14.1 | X | 168.95535 | 336.30306 | 348.50689 | 11.59933 | 0.0404407 | 0.17670848 | 3.1450758 | 21 | 1 7.4 | 18.8 |
| 104889 2000 $JQ_{1}$ | 15.3 | X | 23.87226 | 107.30181 | 158.13492 | 2.82293 | 0.0526197 | 0.19592890 | 2.9358716 | 21 | 7 16.8 | 19.0 |
| 104890 2000 $JT_{1}$ | 15.0 | X | 90.51542 | 18.74219 | 80.37215 | 26.34313 | 0.2144998 | 0.28079294 | 2.3096452 | 21 | 4 13.6 | 18.3 |
| 104891 2000 $JA_{2}$ | 14.8 | X | 121.35983 | 269.93683 | 249.21681 | 7.72982 | 0.1052190 | 0.19560816 | 2.9390800 | 21 | 7 12.9 | 19.3 |
| 104892 2000 $JB_{2}$ | 14.2 | X | 251.14454 | 191.50050 | 20.83005 | 14.68664 | 0.0692277 | 0.17020602 | 3.2246761 | 21 | — | — |
| 104893 2000 $JO_{2}$ | 16.6 | X | 301.32030 | 152.61281 | 175.09054 | 22.39641 | 0.0629254 | 0.37538901 | 1.9031879 | 21 | 6 2.3 | 19.0 |
| 104894 2000 $JL_{3}$ | 16.7 | X | 317.41069 | 137.02345 | 188.95784 | 22.98662 | 0.0950940 | 0.37881948 | 1.8916807 | 21 | 6 19.6 | 19.0 |
| 104895 2000 $JU_{4}$ | 15.5 | X | 267.48752 | 33.51490 | 9.96199 | 4.90024 | 0.1126620 | 0.20308858 | 2.8664589 | 21 | 7 26.8 | 19.5 |
| 104896 Schwanden | 15.0 | X | 289.00533 | 182.79655 | 56.92346 | 19.21555 | 0.0782791 | 0.17804630 | 3.1293015 | 21 | 2 8.4 | 19.9 |
| 104897 2000 $JP_{5}$ | 15.8 | X | 197.29696 | 159.31964 | 179.65790 | 5.00928 | 0.1856072 | 0.22323479 | 2.6912960 | 21 | 2 17.5 | 20.2 |
| 104898 2000 $JX_{5}$ | 13.7 | X | 16.41190 | 267.09205 | 32.06880 | 29.23447 | 0.3983725 | 0.19800569 | 2.9153068 | 21 | 10 14.9 | 16.5 |
| 104899 2000 $JS_{6}$ | 15.9 | X | 264.28334 | 90.85865 | 162.56498 | 11.71160 | 0.1691632 | 0.22309349 | 2.6924323 | 21 | 1 5.7 | 20.4 |
| 104900 2000 $JL_{7}$ | 14.8 | X | 43.29779 | 18.75462 | 43.47435 | 1.06791 | 0.1459369 | 0.17471266 | 3.1689822 | 21 | — | — |
| 104901 2000 $JM_{7}$ | 15.2 | X | 275.93365 | 121.95255 | 152.03504 | 0.61209 | 0.1013880 | 0.18212953 | 3.0823537 | 21 | 2 24.2 | 19.8 |
| 104902 2000 $JN_{8}$ | 15.9 | X | 180.18245 | 185.94683 | 224.53515 | 19.47953 | 0.1105940 | 0.37435602 | 1.9066874 | 21 | 4 14.4 | 18.4 |
| 104903 2000 $JJ_{9}$ | 14.2 | X | 40.72290 | 90.87887 | 22.98405 | 16.53387 | 0.2084964 | 0.18151881 | 3.0892636 | 21 | 2 11.7 | 17.7 |
| 104904 2000 $JP_{9}$ | 15.7 | X | 194.25742 | 117.71156 | 188.95533 | 3.04832 | 0.1778436 | 0.21927362 | 2.7236113 | 21 | 1 9.1 | 20.1 |
| 104905 2000 $JW_{9}$ | 15.4 | X | 263.71646 | 153.42580 | 136.10525 | 13.18624 | 0.0936404 | 0.22761867 | 2.6566283 | 21 | 2 25.6 | 19.2 |
| 104906 2000 $JK_{10}$ | 15.1 | X | 76.16839 | 267.04332 | 235.08925 | 21.86408 | 0.2138417 | 0.28264179 | 2.2995621 | 21 | 5 4.6 | 17.5 |
| 104907 2000 $JX_{10}$ | 15.4 | X | 194.14728 | 262.53922 | 205.16016 | 13.37579 | 0.1361740 | 0.19987380 | 2.8971133 | 21 | 7 21.3 | 20.3 |
| 104908 2000 $JZ_{10}$ | 14.3 | X | 198.08092 | 107.97398 | 252.20243 | 8.94604 | 0.0663339 | 0.18331888 | 3.0690073 | 21 | 3 15.2 | 19.2 |
| 104909 2000 $JV_{12}$ | 15.2 | X | 307.44048 | 192.25192 | 44.37878 | 1.89077 | 0.0899213 | 0.18050750 | 3.1007914 | 21 | 2 18.6 | 19.4 |
| 104910 2000 $JL_{13}$ | 15.4 | X | 295.90840 | 254.72035 | 58.97089 | 13.58172 | 0.2015196 | 0.23145464 | 2.6271938 | 21 | 4 22.9 | 19.0 |
| 104911 2000 $JX_{13}$ | 14.8 | X | 289.72325 | 117.61188 | 185.63934 | 3.07802 | 0.2252231 | 0.18428104 | 3.0583155 | 21 | 3 30.9 | 19.2 |
| 104912 2000 $JB_{15}$ | 14.6 | X | 174.40140 | 359.79536 | 262.34260 | 6.95203 | 0.2205032 | 0.21098872 | 2.7944514 | 21 | — | — |
| 104913 2000 $JK_{15}$ | 15.7 | X | 199.18858 | 71.90359 | 230.66740 | 8.53795 | 0.2543622 | 0.21742497 | 2.7390277 | 21 | 1 9.7 | 20.6 |
| 104914 2000 $JJ_{16}$ | 14.7 | X | 209.58882 | 82.65075 | 187.91461 | 9.25979 | 0.0301972 | 0.17271458 | 3.1933759 | 21 | — | — |
| 104915 2000 $JR_{16}$ | 14.3 | X | 353.36057 | 126.16377 | 66.83103 | 28.71293 | 0.2147695 | 0.18114809 | 3.0934769 | 21 | 2 27.6 | 18.5 |
| 104916 2000 $JM_{17}$ | 15.4 | X | 28.32923 | 139.45592 | 76.93016 | 17.70534 | 0.1809703 | 0.18900120 | 3.0071818 | 21 | 5 29.8 | 18.6 |
| 104917 2000 $JR_{17}$ | 15.7 | X | 286.97424 | 59.89680 | 138.83558 | 5.43187 | 0.0955357 | 0.26782509 | 2.3836100 | 21 | — | — |
| 104918 2000 $JX_{17}$ | 15.9 | X | 316.44697 | 333.27445 | 164.09062 | 7.43438 | 0.1937009 | 0.26611283 | 2.3938238 | 21 | — | — |
| 104919 2000 $JA_{18}$ | 15.6 | X | 182.90512 | 90.96638 | 166.69405 | 7.94499 | 0.2425178 | 0.21270739 | 2.7793783 | 21 | — | — |
| 104920 2000 $JU_{18}$ | 15.5 | X | 257.93072 | 147.67584 | 108.37050 | 15.16415 | 0.1430725 | 0.22334084 | 2.6904440 | 21 | 1 5.4 | 19.8 |
| 104921 2000 $JW_{18}$ | 14.2 | X | 250.70523 | 115.64962 | 116.06135 | 18.57541 | 0.1568423 | 0.17195511 | 3.2027717 | 21 | — | — |
| 104922 2000 $JA_{19}$ | 14.7 | X | 105.52321 | 339.24110 | 98.77892 | 25.79722 | 0.2032069 | 0.27705935 | 2.3303484 | 21 | 4 1.3 | 18.3 |
| 104923 2000 $JN_{20}$ | 15.9 | X | 49.26197 | 334.69979 | 255.42998 | 3.61994 | 0.1644632 | 0.24049061 | 2.5609669 | 21 | 7 23.0 | 18.8 |
| 104924 2000 $JL_{21}$ | 14.9 | X | 274.86662 | 239.84866 | 27.12373 | 14.60871 | 0.1138485 | 0.17983983 | 3.1084613 | 21 | 2 20.4 | 19.7 |
| 104925 2000 $JJ_{22}$ | 16.0 | X | 93.32758 | 168.15650 | 25.39779 | 2.31877 | 0.0872649 | 0.24137653 | 2.5546967 | 21 | 7 24.9 | 19.5 |
| 104926 2000 $JS_{23}$ | 15.4 | X | 344.67492 | 359.38305 | 240.72216 | 13.12285 | 0.1218205 | 0.23332157 | 2.6131607 | 21 | 3 29.6 | 18.6 |
| 104927 2000 $JU_{23}$ | 15.3 | X | 56.84758 | 4.07141 | 245.79693 | 11.99659 | 0.1044748 | 0.24334643 | 2.5408911 | 21 | 8 17.4 | 18.7 |
| 104928 2000 $JS_{25}$ | 15.2 | X | 12.23241 | 30.65064 | 225.45775 | 10.13857 | 0.0585036 | 0.19184716 | 2.9773677 | 21 | 6 17.0 | 19.1 |
| 104929 2000 $JX_{25}$ | 15.7 | X | 299.66456 | 286.07547 | 0.19425 | 0.55771 | 0.1682934 | 0.18432080 | 3.0578757 | 21 | 3 29.3 | 19.8 |
| 104930 2000 $JO_{28}$ | 15.4 | X | 330.51819 | 242.97945 | 31.96827 | 9.18829 | 0.1688406 | 0.23357553 | 2.6112662 | 21 | 4 22.2 | 18.3 |
| 104931 2000 $JC_{29}$ | 15.9 | X | 68.06500 | 299.69710 | 271.98943 | 4.30800 | 0.1992770 | 0.24031480 | 2.5622158 | 21 | 7 31.6 | 19.2 |
| 104932 2000 $JH_{29}$ | 14.8 | X | 212.57113 | 47.84515 | 238.85382 | 7.79285 | 0.2612809 | 0.21844900 | 2.7304612 | 21 | 1 1.8 | 19.8 |
| 104933 2000 $JJ_{29}$ | 15.7 | X | 90.12722 | 333.94902 | 236.92311 | 8.47078 | 0.1482962 | 0.24287330 | 2.5441899 | 21 | 8 17.5 | 19.4 |
| 104934 2000 $JN_{29}$ | 15.7 | X | 311.81323 | 245.45672 | 306.20725 | 1.56149 | 0.1634466 | 0.26979763 | 2.3719778 | 21 | — | — |
| 104935 2000 $JN_{30}$ | 16.9 | X | 124.78661 | 309.97041 | 301.70935 | 1.46988 | 0.1833808 | 0.29783699 | 2.2206680 | 21 | 11 24.9 | 20.3 |
| 104936 2000 $JN_{31}$ | 15.3 | X | 267.61521 | 307.65810 | 238.51258 | 6.80288 | 0.2417137 | 0.21747869 | 2.7385767 | 21 | — | — |
| 104937 2000 $JY_{31}$ | 15.4 | X | 304.16396 | 50.92473 | 246.60146 | 11.80511 | 0.1697611 | 0.23217328 | 2.6217698 | 21 | 4 9.1 | 19.0 |
| 104938 2000 $JT_{32}$ | 15.8 | X | 273.28481 | 296.34871 | 254.34928 | 3.60826 | 0.1415792 | 0.26420202 | 2.4053519 | 21 | — | — |
| 104939 2000 $JK_{33}$ | 14.2 | X | 205.47961 | 71.79144 | 241.48583 | 19.06470 | 0.0947144 | 0.17497560 | 3.1658067 | 21 | 1 25.4 | 19.5 |
| 104940 2000 $JC_{35}$ | 15.3 | X | 210.20713 | 99.70075 | 229.37274 | 14.21863 | 0.1443406 | 0.22433598 | 2.6824816 | 21 | 2 11.7 | 20.0 |
| 104941 2000 $JK_{35}$ | 16.0 | X | 290.51969 | 272.97001 | 33.47732 | 3.70110 | 0.1141920 | 0.23221218 | 2.6214770 | 21 | 4 15.5 | 19.6 |
| 104942 2000 $JZ_{35}$ | 14.2 | X | 263.27342 | 68.46678 | 234.16084 | 13.76363 | 0.1882365 | 0.18000203 | 3.1065936 | 21 | 3 2.8 | 19.4 |
| 104943 2000 $JQ_{40}$ | 13.1 | X | 352.27173 | 20.13203 | 72.81860 | 9.65001 | 0.1929021 | 0.12492546 | 3.9631035 | 21 | — | — |
| 104944 2000 $JN_{41}$ | 14.9 | X | 194.70099 | 13.85569 | 41.75202 | 9.35951 | 0.0886158 | 0.19120847 | 2.9839942 | 21 | 5 20.9 | 19.5 |
| 104945 2000 $JN_{42}$ | 14.9 | X | 222.07164 | 179.02578 | 155.96749 | 1.23336 | 0.1905651 | 0.18029195 | 3.1032623 | 21 | 3 10.4 | 20.0 |
| 104946 2000 $JU_{42}$ | 16.5 | X | 77.63104 | 260.37229 | 79.50872 | 3.13744 | 0.2010896 | 0.30146122 | 2.2028339 | 21 | — | — |
| 104947 2000 $JB_{43}$ | 15.7 | X | 283.61930 | 229.18139 | 51.14543 | 2.18600 | 0.0356250 | 0.22949793 | 2.6421058 | 21 | 3 15.9 | 19.3 |
| 104948 2000 $JN_{43}$ | 15.4 | X | 91.29588 | 276.83587 | 241.16025 | 0.86045 | 0.0465708 | 0.18964769 | 3.0003437 | 21 | 5 29.1 | 19.4 |
| 104949 2000 $JR_{44}$ | 15.2 | X | 10.75612 | 102.77971 | 73.22206 | 1.42801 | 0.1304858 | 0.18191120 | 3.0848195 | 21 | 3 1.5 | 18.7 |
| 104950 2000 $JX_{44}$ | 15.1 | X | 308.46610 | 295.16358 | 229.56828 | 13.01345 | 0.1782298 | 0.17316457 | 3.1878413 | 21 | — | — |
| 104951 2000 $JY_{44}$ | 15.5 | X | 336.06935 | 58.80110 | 160.14461 | 1.41760 | 0.1188139 | 0.18168221 | 3.0874110 | 21 | 3 2.0 | 19.4 |
| 104952 2000 $JV_{45}$ | 14.6 | X | 205.66850 | 171.02421 | 104.84006 | 2.58595 | 0.1408115 | 0.16990776 | 3.2284488 | 21 | — | — |
| 104953 2000 $JX_{45}$ | 15.0 | X | 236.09858 | 137.03165 | 156.21664 | 1.27596 | 0.1790680 | 0.17510712 | 3.1642213 | 21 | 2 3.1 | 20.3 |
| 104954 2000 $JJ_{47}$ | 14.0 | X | 277.47965 | 34.53329 | 248.49085 | 19.07255 | 0.1873067 | 0.18077408 | 3.0977422 | 21 | 2 18.2 | 19.2 |
| 104955 2000 $JH_{49}$ | 15.2 | X | 260.25598 | 56.23045 | 255.12515 | 10.72490 | 0.1995596 | 0.22761697 | 2.6566415 | 21 | 3 4.4 | 19.8 |
| 104956 2000 $JK_{49}$ | 13.9 | X | 355.23945 | 126.13143 | 39.98465 | 25.49857 | 0.1270519 | 0.17873638 | 3.1212418 | 21 | 2 1.4 | 18.4 |
| 104957 2000 $JR_{49}$ | 14.0 | X | 165.13315 | 298.47006 | 44.86754 | 20.10138 | 0.1395498 | 0.17404874 | 3.1770360 | 21 | 2 7.4 | 19.4 |
| 104958 2000 $JS_{49}$ | 15.3 | X | 323.13023 | 272.89679 | 283.95546 | 0.82734 | 0.1282694 | 0.17819526 | 3.1275574 | 21 | 1 15.5 | 19.6 |
| 104959 2000 $JN_{50}$ | 14.2 | X | 254.68650 | 59.50407 | 244.81912 | 21.34881 | 0.1671359 | 0.17964853 | 3.1106676 | 21 | 2 22.8 | 19.6 |
| 104960 2000 $JY_{51}$ | 14.6 | X | 244.35291 | 332.21644 | 290.76712 | 4.77021 | 0.1256256 | 0.17356174 | 3.1829762 | 21 | 1 10.1 | 19.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 104961 2000 $JX_{52}$ | 15.8 | X | 36.81646 | 237.46781 | 346.65636 | 3.49500 | 0.1668765 | 0.23641679 | 2.5903026 | 21 | 6 22.2 | 18.4 |
| 104962 2000 $JY_{52}$ | 15.4 | X | 273.05155 | 14.48133 | 251.70356 | 12.29013 | 0.2356922 | 0.22381807 | 2.6866182 | 21 | 1 20.7 | 20.0 |
| 104963 2000 $JE_{54}$ | 15.1 | X | 272.79882 | 67.97161 | 257.82529 | 3.86375 | 0.3150140 | 0.23111394 | 2.6297752 | 21 | 3 25.9 | 19.6 |
| 104964 2000 $JP_{54}$ | 14.7 | X | 318.39612 | 187.31182 | 80.68374 | 6.42477 | 0.1603058 | 0.18435100 | 3.0575416 | 21 | 4 4.9 | 18.7 |
| 104965 2000 $JH_{56}$ | 16.1 | X | 248.80962 | 87.84043 | 215.41287 | 10.85350 | 0.1735984 | 0.22481295 | 2.6786861 | 21 | 2 16.1 | 20.6 |
| 104966 2000 $JU_{57}$ | 14.9 | X | 2.62735 | 91.87006 | 229.77340 | 11.95502 | 0.2015144 | 0.24081717 | 2.5586512 | 21 | 9 8.4 | 17.4 |
| 104967 2000 $JW_{57}$ | 14.6 | X | 271.04686 | 215.71416 | 69.52996 | 18.34984 | 0.1729855 | 0.17842565 | 3.1248645 | 21 | 3 6.3 | 19.8 |
| 104968 2000 $JX_{58}$ | 15.1 | X | 200.07251 | 127.44647 | 94.50388 | 8.93639 | 0.1629299 | 0.21067294 | 2.7972431 | 21 | 12 15.3 | 19.4 |
| 104969 2000 $JF_{59}$ | 15.0 | X | 251.72198 | 299.38747 | 347.69996 | 12.65931 | 0.2505265 | 0.22490809 | 2.6779307 | 21 | 2 2.6 | 19.7 |
| 104970 2000 $JQ_{59}$ | 15.1 | X | 328.98908 | 237.74135 | 9.07949 | 13.01345 | 0.2495648 | 0.18391098 | 3.0624166 | 21 | 3 10.7 | 18.8 |
| 104971 2000 $JJ_{60}$ | 15.1 | X | 359.03888 | 182.31205 | 19.95282 | 4.80606 | 0.1662216 | 0.18356889 | 3.0662201 | 21 | 3 13.5 | 18.5 |
| 104972 2000 $JX_{63}$ | 15.5 | X | 292.63335 | 141.16191 | 193.79291 | 2.58093 | 0.2431622 | 0.23436155 | 2.6054244 | 21 | 5 7.0 | 18.9 |
| 104973 2000 $JM_{64}$ | 14.6 | X | 117.49117 | 98.37573 | 317.36268 | 8.73762 | 0.2364080 | 0.27702027 | 2.3305675 | 21 | 3 4.8 | 17.7 |
| 104974 2000 $JX_{64}$ | 15.9 | X | 228.41676 | 106.57478 | 140.13225 | 24.13070 | 0.2836032 | 0.21807955 | 2.7335441 | 21 | — | — |
| 104975 2000 $JB_{65}$ | 14.8 | X | 22.42277 | 86.45947 | 94.00022 | 13.71737 | 0.2085146 | 0.18521393 | 3.0480374 | 21 | 4 4.9 | 18.2 |
| 104976 2000 $JH_{65}$ | 13.9 | X | 159.33706 | 257.91481 | 82.65284 | 23.21158 | 0.2368448 | 0.16952003 | 3.2333698 | 21 | 2 1.8 | 19.6 |
| 104977 2000 $JK_{65}$ | 14.1 | X | 314.66055 | 8.39529 | 221.63335 | 22.41616 | 0.0925611 | 0.17815179 | 3.1280662 | 21 | 2 11.1 | 18.9 |
| 104978 2000 $JZ_{65}$ | 14.1 | X | 263.77280 | 205.31813 | 75.14653 | 28.84135 | 0.1274933 | 0.17852688 | 3.1236831 | 21 | 2 28.9 | 19.4 |
| 104979 2000 $JN_{69}$ | 14.1 | X | 277.74600 | 63.89942 | 160.74940 | 19.78350 | 0.1725893 | 0.17378927 | 3.1801974 | 21 | — | — |
| 104980 2000 $JP_{71}$ | 16.2 | X | 17.84443 | 230.31567 | 62.62988 | 4.95398 | 0.2409179 | 0.24150303 | 2.5538046 | 21 | 9 13.0 | 18.5 |
| 104981 2000 $JS_{71}$ | 14.8 | X | 229.49566 | 160.63781 | 105.09101 | 2.44390 | 0.1114548 | 0.17412351 | 3.1761264 | 21 | — | — |
| 104982 2000 $JS_{73}$ | 14.9 | X | 317.55188 | 81.65806 | 108.57131 | 14.76023 | 0.1337343 | 0.22304491 | 2.6928232 | 21 | — | — |
| 104983 2000 $JY_{73}$ | 15.1 | X | 333.15527 | 170.62558 | 106.58490 | 4.53231 | 0.1535189 | 0.18711049 | 3.0274057 | 21 | 5 9.1 | 18.7 |
| 104984 2000 $JL_{77}$ | 15.8 | X | 37.31411 | 351.53439 | 218.87299 | 4.10920 | 0.0835964 | 0.23536378 | 2.5980228 | 21 | 5 24.3 | 18.8 |
| 104985 2000 $JB_{79}$ | 15.3 | X | 319.20741 | 232.78033 | 218.28014 | 10.72231 | 0.0707960 | 0.21132715 | 2.7914672 | 21 | 12 15.9 | 18.8 |
| 104986 2000 $JQ_{82}$ | 15.0 | X | 359.84728 | 97.23429 | 29.87650 | 3.34698 | 0.0699548 | 0.17495600 | 3.1660431 | 21 | — | — |
| 104987 2000 $JK_{83}$ | 15.2 | X | 170.03478 | 106.27372 | 226.34000 | 13.16389 | 0.2363364 | 0.21761756 | 2.7374115 | 21 | 1 19.5 | 20.0 |
| 104988 2000 $JB_{84}$ | 16.8 | X | 115.29149 | 252.14427 | 218.51572 | 20.79576 | 0.0934111 | 0.37374254 | 1.9087733 | 21 | 4 15.9 | 18.7 |
| 104989 2000 $JH_{84}$ | 15.1 | X | 313.29041 | 157.56067 | 143.12902 | 5.73625 | 0.1119653 | 0.18875489 | 3.0097972 | 21 | 5 15.3 | 19.1 |
| 104990 2000 $JR_{84}$ | 15.9 | X | 330.30367 | 61.86495 | 171.60828 | 4.33220 | 0.1569869 | 0.23055840 | 2.6339979 | 21 | 2 25.2 | 18.9 |
| 104991 2000 $JT_{84}$ | 14.8 | X | 25.89968 | 354.08184 | 196.09219 | 11.73761 | 0.1009288 | 0.18643573 | 3.0347059 | 21 | 4 13.5 | 18.5 |
| 104992 2000 $JF_{85}$ | 15.9 | X | 334.55755 | 74.19509 | 171.82204 | 11.64483 | 0.1258439 | 0.23102599 | 2.6304426 | 21 | 3 27.2 | 18.9 |
| 104993 2000 $JQ_{85}$ | 16.2 | X | 274.91418 | 251.05287 | 93.94637 | 0.99206 | 0.2980218 | 0.23590695 | 2.5940333 | 21 | 4 23.8 | 20.3 |
| 104994 2000 $JY_{85}$ | 14.2 | X | 240.11975 | 239.30032 | 98.73246 | 17.99859 | 0.2309239 | 0.18104806 | 3.0946162 | 21 | 4 4.2 | 19.7 |
| 104995 2000 $KJ$ | 16.1 | X | 251.86860 | 23.15434 | 165.87732 | 1.36027 | 0.1324251 | 0.26047713 | 2.4282291 | 21 | — | — |
| 104996 2000 $KH_{2}$ | 14.1 | X | 183.84306 | 184.80928 | 121.89764 | 30.13295 | 0.1652048 | 0.17166603 | 3.2063663 | 21 | 1 8.5 | 19.4 |
| 104997 2000 $KS_{2}$ | 13.9 | X | 275.53116 | 125.42791 | 186.20462 | 22.15508 | 0.2902255 | 0.18072594 | 3.0982923 | 21 | 3 19.3 | 18.9 |
| 104998 2000 $KT_{2}$ | 14.5 | X | 300.19781 | 83.78329 | 128.77090 | 26.26936 | 0.1842915 | 0.17516339 | 3.1635436 | 21 | 1 1.9 | 19.4 |
| 104999 2000 $KW_{2}$ | 14.4 | X | 285.99194 | 124.20652 | 144.53551 | 21.86765 | 0.0738232 | 0.17923766 | 3.1154195 | 21 | 3 7.5 | 18.9 |
| 105000 2000 $KZ_{3}$ | 14.4 | X | 280.35298 | 126.35041 | 236.48412 | 10.46643 | 0.1406977 | 0.18995163 | 2.9971423 | 21 | 6 14.1 | 18.7 |
| 105001 2000 $KH_{5}$ | 16.6 | X | 141.39845 | 247.40933 | 219.56447 | 21.09135 | 0.1059527 | 0.37530698 | 1.9034653 | 21 | 5 22.8 | 18.7 |
| 105002 2000 $KN_{5}$ | 14.2 | X | 265.02733 | 347.23289 | 254.50678 | 35.09225 | 0.1054734 | 0.21994082 | 2.7181004 | 21 | — | — |
| 105003 2000 $KX_{5}$ | 15.3 | X | 225.37374 | 219.88244 | 127.94411 | 9.63919 | 0.2218368 | 0.22687228 | 2.6624518 | 21 | 3 26.4 | 20.0 |
| 105004 2000 $KZ_{5}$ | 14.4 | X | 290.21999 | 243.95601 | 109.03660 | 12.68584 | 0.2806951 | 0.23534002 | 2.5981977 | 21 | 5 25.4 | 18.2 |
| 105005 2000 $KR_{6}$ | 14.2 | X | 265.96444 | 153.80926 | 104.36561 | 12.36452 | 0.1129000 | 0.17569884 | 3.1571129 | 21 | 1 26.8 | 19.0 |
| 105006 2000 $KP_{10}$ | 15.5 | X | 275.61400 | 84.76283 | 193.13846 | 2.08510 | 0.2207509 | 0.17868944 | 3.1217884 | 21 | 2 15.4 | 20.3 |
| 105007 2000 $KR_{10}$ | 15.2 | X | 104.74085 | 197.09975 | 209.91955 | 3.54956 | 0.0695452 | 0.17598729 | 3.1536623 | 21 | 1 31.4 | 19.6 |
| 105008 2000 $KZ_{10}$ | 15.5 | X | 220.53041 | 49.99263 | 236.06667 | 4.81807 | 0.1130286 | 0.22054131 | 2.7131642 | 21 | 1 6.7 | 19.7 |
| 105009 2000 $KA_{12}$ | 16.8 | X | 249.42049 | 238.66903 | 81.06632 | 2.98666 | 0.2043077 | 0.27389871 | 2.3482413 | 21 | 3 6.6 | 20.6 |
| 105010 2000 $KN_{12}$ | 15.8 | X | 63.61918 | 40.79654 | 61.07991 | 9.35673 | 0.1968495 | 0.27337169 | 2.3512584 | 21 | 2 8.8 | 17.8 |
| 105011 2000 $KW_{12}$ | 16.2 | X | 346.06126 | 273.52763 | 62.67167 | 8.80151 | 0.2676208 | 0.28723812 | 2.2749647 | 21 | 9 15.1 | 17.3 |
| 105012 2000 $KG_{13}$ | 15.6 | X | 319.89044 | 223.54931 | 92.43419 | 0.46551 | 0.1695526 | 0.19004086 | 2.9962040 | 21 | 6 4.7 | 19.3 |
| 105013 2000 $KH_{13}$ | 15.9 | X | 7.22660 | 177.95868 | 234.48482 | 5.67673 | 0.0940918 | 0.25708949 | 2.4495135 | 21 | — | — |
| 105014 2000 $KK_{13}$ | 15.3 | X | 53.03868 | 154.38494 | 61.43051 | 4.03368 | 0.0310017 | 0.19116464 | 2.9844502 | 21 | 6 20.1 | 19.3 |
| 105015 2000 $KL_{13}$ | 15.5 | X | 338.84479 | 267.24324 | 61.60209 | 2.68454 | 0.1207655 | 0.19436864 | 2.9515621 | 21 | 8 1.7 | 18.9 |
| 105016 2000 $KM_{13}$ | 15.1 | X | 244.94997 | 153.96335 | 232.15718 | 10.14376 | 0.1080672 | 0.19078759 | 2.9883810 | 21 | 6 6.6 | 19.5 |
| 105017 2000 $KT_{13}$ | 15.0 | X | 301.09610 | 224.62452 | 61.45083 | 11.77959 | 0.0583111 | 0.18502922 | 3.0500656 | 21 | 4 19.8 | 19.2 |
| 105018 2000 $KU_{15}$ | 15.8 | X | 8.26999 | 197.38933 | 89.33238 | 2.16668 | 0.1734508 | 0.19246050 | 2.9710387 | 21 | 7 28.5 | 18.8 |
| 105019 2000 $KK_{16}$ | 15.3 | X | 271.30173 | 95.92364 | 244.31055 | 11.03775 | 0.1994629 | 0.23206500 | 2.6225853 | 21 | 4 23.1 | 19.4 |
| 105020 2000 $KD_{17}$ | 15.6 | X | 316.94548 | 68.87764 | 243.04286 | 9.40012 | 0.1891347 | 0.23448092 | 2.6045401 | 21 | 5 18.7 | 18.4 |
| 105021 2000 $KR_{21}$ | 13.8 | X | 196.27568 | 36.06614 | 250.62879 | 11.47560 | 0.0811090 | 0.16980808 | 3.2297122 | 21 | — | — |
| 105022 2000 $KQ_{29}$ | 14.5 | X | 348.57559 | 227.52835 | 70.39573 | 13.93469 | 0.0429738 | 0.19097982 | 2.9863754 | 21 | 7 8.7 | 18.5 |
| 105023 2000 $KD_{30}$ | 14.7 | X | 296.01819 | 99.82473 | 155.70656 | 1.12781 | 0.1215012 | 0.17871454 | 3.1214961 | 21 | 2 22.7 | 19.2 |
| 105024 2000 $KH_{30}$ | 15.1 | X | 307.15220 | 176.58203 | 136.40109 | 1.86126 | 0.1415745 | 0.18669522 | 3.0318934 | 21 | 5 16.9 | 18.9 |
| 105025 2000 $KS_{30}$ | 14.4 | X | 262.13763 | 154.53679 | 255.68481 | 11.37406 | 0.0592058 | 0.19409492 | 2.9543363 | 21 | 7 30.9 | 18.7 |
| 105026 2000 $KX_{30}$ | 14.8 | X | 280.14774 | 150.92894 | 89.05112 | 0.42455 | 0.1613684 | 0.17493013 | 3.1663552 | 21 | 1 14.3 | 19.7 |
| 105027 2000 $KT_{31}$ | 15.5 | X | 271.01756 | 234.89656 | 83.75450 | 5.90232 | 0.2237411 | 0.22766357 | 2.6562790 | 21 | 3 29.6 | 19.7 |
| 105028 2000 $KM_{32}$ | 15.6 | X | 207.59318 | 79.94673 | 246.02601 | 1.74627 | 0.1405610 | 0.22144793 | 2.7057540 | 21 | 2 10.9 | 20.0 |
| 105029 2000 $KG_{33}$ | 15.2 | X | 307.79213 | 25.77496 | 254.05361 | 13.16560 | 0.2454176 | 0.22830238 | 2.6513217 | 21 | 3 7.5 | 19.1 |
| 105030 2000 $KB_{35}$ | 16.2 | X | 248.45954 | 149.63921 | 157.94988 | 6.85585 | 0.2265995 | 0.22432724 | 2.6825513 | 21 | 2 21.5 | 20.7 |
| 105031 2000 $KE_{35}$ | 14.5 | X | 6.93311 | 86.42642 | 79.37345 | 16.99736 | 0.1849368 | 0.18003391 | 3.1062268 | 21 | 2 10.7 | 18.2 |
| 105032 2000 $KJ_{36}$ | 14.8 | X | 315.50570 | 158.23272 | 197.61812 | 9.36596 | 0.0477941 | 0.19350592 | 2.9603283 | 21 | 8 3.9 | 19.0 |
| 105033 2000 $KU_{36}$ | 15.6 | X | 245.21509 | 209.35191 | 68.08473 | 6.99614 | 0.1013149 | 0.22139201 | 2.7062095 | 21 | 1 22.6 | 19.8 |
| 105034 2000 $KF_{37}$ | 14.6 | X | 344.51827 | 334.33414 | 43.69790 | 18.43507 | 0.2797910 | 0.20188789 | 2.8778128 | 21 | 10 27.5 | 16.8 |
| 105035 2000 $KD_{38}$ | 16.5 | X | 67.83735 | 138.06916 | 180.05518 | 3.50736 | 0.1399364 | 0.29707761 | 2.2244506 | 21 | 12 21.2 | 19.6 |
| 105036 2000 $KM_{39}$ | 15.1 | X | 188.47888 | 153.50029 | 218.38771 | 11.55126 | 0.0932955 | 0.18061832 | 3.0995230 | 21 | 3 21.4 | 20.0 |
| 105037 2000 $KS_{39}$ | 16.5 | X | 183.72449 | 136.89423 | 135.95813 | 3.93448 | 0.1691000 | 0.21368826 | 2.7708665 | 21 | — | — |
| 105038 2000 $KG_{40}$ | 15.8 | X | 216.73541 | 332.25997 | 65.80152 | 2.01831 | 0.0874412 | 0.23571950 | 2.5954084 | 21 | 5 21.4 | 19.6 |
| 105039 2000 $KN_{40}$ | 14.7 | X | 30.12324 | 276.00903 | 235.03637 | 8.49585 | 0.0635377 | 0.18173276 | 3.0868384 | 21 | 2 23.7 | 19.0 |
| 105040 2000 $KA_{41}$ | 15.7 | X | 296.19787 | 79.45882 | 199.75661 | 2.98501 | 0.2664431 | 0.22749332 | 2.6576041 | 21 | 2 25.1 | 19.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105041 2000 $KO_{41}$ | 14.3 | X | 291.64744 | 125.40410 | 197.31207 | 10.09987 | 0.1869357 | 0.18609987 | 3.0383561 | 21 | 5 2.6 | 18.6 |
| 105042 2000 $KB_{42}$ | 14.6 | X | 247.74822 | 251.47902 | 83.59674 | 12.00032 | 0.0926115 | 0.18290015 | 3.0736896 | 21 | 4 14.9 | 19.4 |
| 105043 2000 $KH_{42}$ | 14.3 | X | 215.01936 | 149.47318 | 156.69280 | 14.52391 | 0.1646735 | 0.17287305 | 3.1914240 | 21 | 1 31.1 | 19.7 |
| 105044 2000 $KM_{42}$ | 14.5 | X | 32.88417 | 21.39154 | 187.83048 | 17.73829 | 0.1127818 | 0.23340933 | 2.6125057 | 21 | 5 19.6 | 17.7 |
| 105045 2000 $KH_{48}$ | 15.1 | X | 203.84269 | 84.85369 | 222.74294 | 11.60148 | 0.1532846 | 0.21845515 | 2.7304099 | 21 | 1 15.4 | 19.8 |
| 105046 2000 $KP_{48}$ | 15.6 | X | 318.89948 | 170.40332 | 138.73621 | 6.22492 | 0.1504915 | 0.23374869 | 2.6099765 | 21 | 5 26.4 | 18.6 |
| 105047 2000 $KG_{52}$ | 14.9 | X | 25.23302 | 28.65077 | 119.32732 | 2.55076 | 0.1612412 | 0.18171925 | 3.0869914 | 21 | 2 17.5 | 18.2 |
| 105048 2000 $KN_{52}$ | 14.8 | X | 336.24110 | 3.15727 | 194.49739 | 7.25158 | 0.0959931 | 0.17995201 | 3.1071693 | 21 | 2 4.9 | 19.1 |
| 105049 2000 $KB_{53}$ | 15.2 | X | 191.47885 | 147.17006 | 219.08624 | 11.11615 | 0.1948041 | 0.22507039 | 2.6766431 | 21 | 3 14.7 | 19.9 |
| 105050 2000 $KV_{53}$ | 15.2 | X | 239.76225 | 191.10955 | 134.80387 | 14.05981 | 0.2926307 | 0.22636375 | 2.6664378 | 21 | 3 7.8 | 20.0 |
| 105051 2000 $KW_{53}$ | 15.9 | X | 55.75778 | 50.08102 | 158.37999 | 12.85857 | 0.1428985 | 0.23872944 | 2.5735467 | 21 | 6 29.4 | 19.1 |
| 105052 2000 $KD_{54}$ | 15.1 | X | 74.96101 | 104.01928 | 146.14857 | 13.40336 | 0.1321502 | 0.24381470 | 2.5376368 | 21 | 9 25.6 | 18.6 |
| 105053 2000 $KF_{54}$ | 15.9 | X | 319.83175 | 105.12997 | 177.43195 | 15.13247 | 0.1597095 | 0.23167061 | 2.6255609 | 21 | 4 19.8 | 19.1 |
| 105054 2000 $KV_{55}$ | 15.3 | X | 349.82974 | 39.02645 | 216.38245 | 3.97087 | 0.2501207 | 0.23270667 | 2.6177620 | 21 | 4 19.1 | 17.3 |
| 105055 2000 $KR_{57}$ | 16.0 | X | 357.09861 | 145.31975 | 133.98959 | 4.21337 | 0.2660238 | 0.19028349 | 2.9936566 | 21 | 6 20.8 | 18.5 |
| 105056 2000 $KR_{58}$ | 15.2 | X | 16.47050 | 90.68466 | 127.66798 | 9.79098 | 0.0840759 | 0.18769054 | 3.0211652 | 21 | 5 8.8 | 19.1 |
| 105057 2000 $KX_{60}$ | 14.6 | X | 311.73420 | 12.18402 | 200.67943 | 9.90103 | 0.0643689 | 0.17781013 | 3.1320718 | 21 | 1 26.8 | 19.1 |
| 105058 2000 $KH_{61}$ | 14.7 | X | 258.60574 | 228.01029 | 84.05156 | 18.47249 | 0.2096971 | 0.18030119 | 3.1031563 | 21 | 3 22.9 | 20.0 |
| 105059 2000 $KN_{61}$ | 15.9 | X | 241.86857 | 164.64302 | 93.27139 | 6.09422 | 0.1853685 | 0.26620140 | 2.3932928 | 21 | — | — |
| 105060 2000 $KT_{61}$ | 15.4 | X | 337.12933 | 234.43238 | 86.97774 | 2.89906 | 0.2697876 | 0.19129618 | 2.9830820 | 21 | 7 2.9 | 18.2 |
| 105061 2000 $KB_{62}$ | 14.6 | X | 178.77436 | 132.38077 | 211.01685 | 32.46431 | 0.2917896 | 0.21873166 | 2.7281083 | 21 | 2 5.8 | 20.1 |
| 105062 2000 $KE_{62}$ | 15.0 | X | 277.24794 | 181.30188 | 108.47149 | 14.63937 | 0.1777463 | 0.22751111 | 2.6574655 | 21 | 3 6.9 | 19.2 |
| 105063 2000 $KZ_{62}$ | 14.5 | X | 108.47782 | 234.28313 | 191.73535 | 13.41040 | 0.0088594 | 0.17861355 | 3.1226726 | 21 | 2 17.2 | 19.0 |
| 105064 2000 $KH_{63}$ | 14.6 | X | 328.99853 | 357.22920 | 167.01521 | 8.97849 | 0.1789143 | 0.17595663 | 3.1540286 | 21 | — | — |
| 105065 2000 $KO_{63}$ | 14.7 | X | 301.84630 | 138.38740 | 206.61221 | 14.65063 | 0.1725086 | 0.23802113 | 2.5786498 | 21 | 6 13.5 | 18.1 |
| 105066 2000 $KW_{63}$ | 14.3 | X | 69.35279 | 206.54577 | 178.46770 | 14.07923 | 0.0313529 | 0.16831330 | 3.2488058 | 21 | — | — |
| 105067 2000 $KA_{66}$ | 15.2 | X | 342.67819 | 94.66596 | 180.22478 | 15.36737 | 0.0370477 | 0.23539097 | 2.5978228 | 21 | 5 30.2 | 18.8 |
| 105068 2000 $KD_{66}$ | 14.5 | X | 223.71086 | 115.14283 | 151.46918 | 17.41215 | 0.1286028 | 0.17131432 | 3.2107533 | 21 | — | — |
| 105069 2000 $KQ_{66}$ | 15.2 | X | 4.66992 | 105.76487 | 183.27159 | 26.24781 | 0.1320322 | 0.23770111 | 2.5809638 | 21 | 7 20.4 | 18.6 |
| 105070 2000 $KV_{66}$ | 14.8 | X | 284.00108 | 111.64326 | 163.86991 | 9.35748 | 0.1172504 | 0.18196526 | 3.0842085 | 21 | 3 5.1 | 19.3 |
| 105071 2000 $KX_{66}$ | 14.9 | X | 71.28463 | 89.77654 | 94.75154 | 22.73047 | 0.1135749 | 0.19270566 | 2.9685184 | 21 | 6 17.1 | 18.8 |
| 105072 2000 $KY_{66}$ | 14.5 | X | 348.45645 | 18.21214 | 114.36209 | 23.71177 | 0.0923662 | 0.17496982 | 3.1658764 | 21 | — | — |
| 105073 2000 $KY_{67}$ | 15.3 | X | 167.67680 | 323.86364 | 39.03296 | 1.46660 | 0.1954319 | 0.17664578 | 3.1458200 | 21 | 2 27.9 | 20.4 |
| 105074 2000 $KB_{68}$ | 14.2 | X | 231.76479 | 135.30283 | 139.07278 | 22.78455 | 0.0220177 | 0.17701580 | 3.1414346 | 21 | 1 15.3 | 19.0 |
| 105075 2000 $KS_{69}$ | 14.9 | X | 95.30188 | 331.10720 | 97.24093 | 12.56876 | 0.0799664 | 0.17774226 | 3.1328691 | 21 | 2 20.5 | 19.3 |
| 105076 2000 $KF_{70}$ | 14.4 | X | 251.76916 | 144.00346 | 134.10387 | 11.13503 | 0.1839594 | 0.17633598 | 3.1495035 | 21 | 1 29.6 | 19.5 |
| 105077 2000 $KT_{70}$ | 14.8 | X | 312.59570 | 91.60907 | 58.18850 | 14.03651 | 0.1452113 | 0.17180801 | 3.2045997 | 21 | — | — |
| 105078 2000 $KD_{71}$ | 15.9 | X | 345.97535 | 92.65853 | 171.42536 | 13.76786 | 0.1063951 | 0.23443597 | 2.6048730 | 21 | 5 15.4 | 19.1 |
| 105079 2000 $KV_{73}$ | 14.7 | X | 247.04749 | 73.55598 | 203.11832 | 16.84424 | 0.2398459 | 0.17502726 | 3.1651837 | 21 | 1 17.9 | 20.4 |
| 105080 2000 $KB_{74}$ | 15.2 | X | 17.07170 | 249.82729 | 168.40970 | 6.36363 | 0.1130392 | 0.26022878 | 2.4297737 | 21 | — | — |
| 105081 2000 $KF_{74}$ | 14.0 | X | 124.45322 | 314.70507 | 70.63879 | 23.03792 | 0.0907047 | 0.17602332 | 3.1532319 | 21 | 2 7.9 | 19.0 |
| 105082 2000 $KC_{75}$ | 15.1 | X | 268.21839 | 195.16051 | 75.21299 | 13.42374 | 0.0972794 | 0.17819736 | 3.1275328 | 21 | 2 17.6 | 20.0 |
| 105083 2000 $KF_{75}$ | 15.8 | X | 251.75325 | 142.06287 | 112.05613 | 8.51052 | 0.1684845 | 0.22101528 | 2.7092839 | 21 | — | — |
| 105084 2000 $KC_{76}$ | 15.3 | X | 186.16003 | 175.25238 | 158.74931 | 15.50875 | 0.1961096 | 0.21913713 | 2.7247421 | 21 | 2 3.1 | 20.0 |
| 105085 2000 $KH_{78}$ | 15.0 | X | 333.17147 | 111.44968 | 152.48792 | 9.44420 | 0.0917689 | 0.18512977 | 3.0489610 | 21 | 4 30.8 | 19.0 |
| 105086 2000 $KR_{78}$ | 15.8 | X | 255.43875 | 112.65017 | 221.34260 | 11.06146 | 0.2667271 | 0.22779268 | 2.6552752 | 21 | 3 25.0 | 20.5 |
| 105087 2000 $KB_{79}$ | 14.7 | X | 304.41437 | 158.21834 | 136.43132 | 7.52116 | 0.1738632 | 0.18419688 | 3.0592470 | 21 | 4 17.4 | 18.9 |
| 105088 2000 $KO_{81}$ | 15.5 | X | 8.13645 | 114.09092 | 215.24791 | 12.28073 | 0.1878520 | 0.24419238 | 2.5350196 | 21 | 10 5.6 | 17.9 |
| 105089 2000 $KY_{81}$ | 14.4 | X | 237.21478 | 334.96867 | 248.98337 | 15.09071 | 0.1079845 | 0.17104336 | 3.2141433 | 21 | — | — |
| 105090 2000 $KW_{82}$ | 14.7 | X | 0.69238 | 188.76064 | 75.75253 | 11.18906 | 0.1019209 | 0.19230096 | 2.9726818 | 21 | 6 10.3 | 18.2 |
| 105091 2000 $LO$ | 14.6 | X | 217.40802 | 231.12892 | 37.13209 | 5.50604 | 0.1323549 | 0.16988857 | 3.2286920 | 21 | — | — |
| 105092 2000 $LC_{1}$ | 14.9 | X | 61.39879 | 351.17433 | 223.99777 | 10.77881 | 0.1585764 | 0.19123212 | 2.9837481 | 21 | 7 16.9 | 19.0 |
| 105093 2000 $LE_{1}$ | 14.8 | X | 274.92545 | 156.35184 | 95.38608 | 18.11286 | 0.1551215 | 0.17518695 | 3.1632600 | 21 | 1 24.3 | 19.8 |
| 105094 2000 $LK_{1}$ | 14.4 | X | 297.36318 | 242.13452 | 98.86707 | 11.45688 | 0.1123121 | 0.18954276 | 3.0014509 | 21 | 6 13.5 | 18.5 |
| 105095 2000 $LQ_{1}$ | 15.5 | X | 141.25779 | 226.52768 | 105.07694 | 9.06992 | 0.2227928 | 0.21260243 | 2.7802930 | 21 | — | — |
| 105096 2000 $LY_{2}$ | 13.9 | X | 174.72630 | 54.04994 | 251.58767 | 33.35482 | 0.1955521 | 0.21264656 | 2.7799083 | 21 | — | — |
| 105097 2000 $LL_{3}$ | 15.8 | X | 0.66840 | 116.54160 | 146.37326 | 8.01719 | 0.1671719 | 0.23447690 | 2.6045698 | 21 | 6 5.9 | 18.3 |
| 105098 2000 $LA_{6}$ | 15.7 | X | 311.13836 | 98.03841 | 236.79089 | 7.80280 | 0.2707007 | 0.23688249 | 2.5869066 | 21 | 5 28.1 | 18.5 |
| 105099 2000 $LC_{7}$ | 14.7 | X | 51.45425 | 274.75019 | 144.51669 | 7.78224 | 0.1191326 | 0.17065251 | 3.2190490 | 21 | — | — |
| 105100 2000 $LD_{9}$ | 15.0 | X | 283.48720 | 172.33154 | 82.23811 | 13.14117 | 0.1509489 | 0.22369081 | 2.6876370 | 21 | 1 30.2 | 19.1 |
| 105101 2000 $LL_{9}$ | 14.2 | X | 268.01588 | 75.94833 | 245.32920 | 15.57769 | 0.2285949 | 0.18126573 | 3.0921384 | 21 | 3 25.1 | 19.5 |
| 105102 2000 $LA_{11}$ | 15.1 | X | 344.87285 | 106.70245 | 171.72943 | 10.34970 | 0.2439062 | 0.23307719 | 2.6149870 | 21 | 5 18.4 | 17.5 |
| 105103 2000 $LD_{11}$ | 15.5 | X | 348.43103 | 51.38052 | 185.99794 | 11.31668 | 0.2448911 | 0.23045946 | 2.6347517 | 21 | 3 20.0 | 17.9 |
| 105104 2000 $LJ_{11}$ | 15.1 | X | 206.85595 | 86.60248 | 163.88792 | 13.07145 | 0.1967675 | 0.21272706 | 2.7792070 | 21 | — | — |
| 105105 2000 $LH_{14}$ | 14.3 | X | 277.09375 | 120.46946 | 241.48426 | 14.96626 | 0.3127696 | 0.18324898 | 3.0697876 | 21 | 5 17.6 | 19.0 |
| 105106 2000 $LS_{14}$ | 16.0 | X | 260.34138 | 9.91992 | 306.94126 | 6.19306 | 0.3803646 | 0.27049787 | 2.3678825 | 21 | 2 26.9 | 20.4 |
| 105107 2000 $LY_{14}$ | 14.1 | X | 242.25306 | 274.15577 | 51.32624 | 25.39265 | 0.3034078 | 0.17478419 | 3.1681176 | 21 | 3 24.3 | 20.1 |
| 105108 2000 $LS_{15}$ | 15.4 | X | 226.95195 | 0.85210 | 238.28190 | 7.87723 | 0.1528045 | 0.21206831 | 2.7849594 | 21 | — | — |
| 105109 2000 $LX_{15}$ | 16.6 | X | 22.17553 | 106.12478 | 121.16819 | 24.86493 | 0.0714194 | 0.37698165 | 1.8978239 | 21 | 5 22.1 | 18.8 |
| 105110 2000 $LT_{16}$ | 15.3 | X | 185.35309 | 158.25798 | 122.68657 | 10.65617 | 0.2392215 | 0.21351993 | 2.7723226 | 21 | — | — |
| 105111 2000 $LP_{19}$ | 15.2 | X | 207.89262 | 67.08393 | 226.97480 | 8.13102 | 0.1429081 | 0.21478025 | 2.7614667 | 21 | 1 5.2 | 19.8 |
| 105112 2000 $LS_{19}$ | 14.0 | X | 6.37034 | 323.77709 | 250.14383 | 15.33469 | 0.1593804 | 0.17989146 | 3.1078665 | 21 | 4 6.3 | 17.7 |
| 105113 2000 $LX_{20}$ | 14.3 | X | 252.10469 | 85.20137 | 248.90624 | 16.06680 | 0.2196927 | 0.17720096 | 3.1392459 | 21 | 3 26.9 | 19.8 |
| 105114 2000 $LS_{21}$ | 13.7 | X | 171.17561 | 95.52527 | 260.57941 | 15.59344 | 0.1835283 | 0.16942752 | 3.2345466 | 21 | 2 15.7 | 19.3 |
| 105115 2000 $LA_{22}$ | 14.6 | X | 322.15843 | 65.61184 | 238.60313 | 15.16011 | 0.2040213 | 0.18365900 | 3.0652171 | 21 | 5 18.5 | 18.1 |
| 105116 2000 $LN_{22}$ | 15.1 | X | 64.28320 | 308.27362 | 108.92244 | 11.96911 | 0.0855981 | 0.17136575 | 3.2101109 | 21 | — | — |
| 105117 2000 $LA_{24}$ | 14.5 | X | 216.44047 | 99.81602 | 198.23062 | 21.72971 | 0.1146125 | 0.21939611 | 2.7225974 | 21 | 1 13.9 | 19.3 |
| 105118 2000 $LH_{24}$ | 14.9 | X | 231.79511 | 176.82057 | 137.16433 | 16.94603 | 0.2473127 | 0.22132306 | 2.7067716 | 21 | 2 16.6 | 19.6 |
| 105119 2000 $LH_{26}$ | 14.2 | X | 248.21109 | 85.44760 | 193.29868 | 21.49107 | 0.0987163 | 0.17502168 | 3.1652510 | 21 | 1 29.3 | 19.4 |
| 105120 2000 $LJ_{26}$ | 15.6 | X | 242.47569 | 66.68731 | 151.14342 | 15.33855 | 0.2503801 | 0.21605233 | 2.7506167 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105121 2000 $LS_{31}$ | 14.6 | X | 280.85986 | 81.81818 | 252.99542 | 9.63535 | 0.2916349 | 0.18092337 | 3.0960379 | 21 | 4 18.6 | 19.5 |
| 105122 2000 $LV_{31}$ | 16.0 | X | 218.72637 | 27.72185 | 279.71289 | 17.27672 | 0.0610675 | 0.35782404 | 1.9649720 | 21 | 1 4.1 | 18.2 |
| 105123 2000 $LZ_{34}$ | 15.3 | X | 345.12502 | 136.97372 | 209.21716 | 8.70262 | 0.0465093 | 0.19757485 | 2.9195435 | 21 | 9 3.3 | 19.1 |
| 105124 2000 $LC_{35}$ | 15.4 | X | 212.11967 | 187.35416 | 88.44585 | 13.25313 | 0.1466307 | 0.21849756 | 2.7300566 | 21 | — | — |
| 105125 2000 $LO_{36}$ | 15.6 | X | 344.78812 | 101.68334 | 190.63680 | 12.95723 | 0.1641773 | 0.23625309 | 2.5914991 | 21 | 6 16.2 | 18.4 |
| 105126 2000 $ME_{1}$ | 14.9 | X | 284.75020 | 48.76207 | 252.86959 | 25.63946 | 0.2318656 | 0.27068905 | 2.3667675 | 21 | 2 28.1 | 19.2 |
| 105127 2000 $MH_{1}$ | 13.8 | X | 353.39987 | 317.03941 | 294.14398 | 29.18330 | 0.3577590 | 0.23116059 | 2.6294214 | 21 | 3 8.9 | 16.9 |
| 105128 2000 $MW_{1}$ | 15.0 | X | 251.72274 | 75.63111 | 290.47974 | 11.60167 | 0.1878391 | 0.22839079 | 2.6506374 | 21 | 5 6.0 | 19.3 |
| 105129 2000 $MH_{2}$ | 15.1 | X | 126.95428 | 176.73647 | 101.19356 | 9.28034 | 0.1929302 | 0.20369565 | 2.8607608 | 21 | 12 16.8 | 19.9 |
| 105130 2000 $MJ_{2}$ | 14.3 | X | 288.34625 | 20.88051 | 161.45042 | 18.77324 | 0.1191655 | 0.17146114 | 3.2089202 | 21 | — | — |
| 105131 2000 $MD_{3}$ | 14.6 | X | 151.71714 | 299.17769 | 104.46144 | 10.18098 | 0.0882356 | 0.17440815 | 3.1726698 | 21 | 3 30.1 | 19.5 |
| 105132 2000 $MJ_{3}$ | 15.4 | X | 247.02766 | 203.81314 | 104.06193 | 12.02727 | 0.1799732 | 0.22495049 | 2.6775941 | 21 | 2 27.2 | 19.9 |
| 105133 2000 $NA$ | 15.9 | X | 17.73526 | 283.50557 | 32.02127 | 4.25392 | 0.2706194 | 0.28047824 | 2.3113725 | 21 | 10 27.9 | 17.8 |
| 105134 2000 $NS_{1}$ | 16.1 | X | 142.60924 | 174.79462 | 188.14684 | 3.42774 | 0.1067900 | 0.21319544 | 2.7751349 | 21 | 1 20.9 | 20.1 |
| 105135 2000 $NT_{1}$ | 14.2 | X | 251.18426 | 282.73174 | 280.32177 | 13.80754 | 0.0830964 | 0.20935828 | 2.8089411 | 21 | — | — |
| 105136 2000 $NB_{4}$ | 15.3 | X | 139.21271 | 188.12027 | 173.49647 | 3.71102 | 0.1048895 | 0.21267261 | 2.7796813 | 21 | 1 15.6 | 19.4 |
| 105137 2000 $NA_{6}$ | 14.2 | X | 68.90167 | 98.04464 | 263.88850 | 5.77608 | 0.3375480 | 0.20102486 | 2.8860435 | 21 | — | — |
| 105138 2000 $NP_{6}$ | 15.4 | X | 30.87069 | 266.13849 | 228.01523 | 4.30348 | 0.0626268 | 0.21755482 | 2.7379378 | 21 | 1 29.3 | 18.8 |
| 105139 2000 $NA_{7}$ | 15.1 | X | 256.94826 | 184.20885 | 212.79673 | 3.47101 | 0.2029643 | 0.23106607 | 2.6301384 | 21 | 6 21.9 | 19.1 |
| 105140 2000 $NL_{10}$ | 15.8 | X | 122.94847 | 281.62756 | 237.34257 | 32.52893 | 0.8170304 | 1.12744034 | 0.9142683 | 21 | 8 20.0 | 18.4 |
| 105141 2000 $NF_{11}$ | 19.0 | X | 184.74722 | 115.89508 | 123.73128 | 14.82511 | 0.1891098 | 0.58187293 | 1.4209669 | 21 | — | — |
| 105142 2000 $NA_{12}$ | 14.6 | X | 21.45316 | 41.29074 | 133.07012 | 19.21427 | 0.0889534 | 0.18148896 | 3.0896023 | 21 | 3 22.2 | 18.7 |
| 105143 2000 $NJ_{12}$ | 14.1 | X | 204.42227 | 71.13799 | 260.40166 | 16.92983 | 0.2253309 | 0.16893210 | 3.2408675 | 21 | 2 14.1 | 20.0 |
| 105144 2000 $NR_{12}$ | 14.7 | X | 259.39816 | 57.70801 | 235.15901 | 11.86420 | 0.1196834 | 0.17287975 | 3.1913416 | 21 | 2 23.4 | 19.9 |
| 105145 2000 $NP_{14}$ | 16.8 | X | 300.79899 | 203.38254 | 116.32208 | 2.01040 | 0.1433229 | 0.32228351 | 2.1069003 | 21 | 5 5.8 | 19.1 |
| 105146 2000 $NB_{15}$ | 14.9 | X | 358.23085 | 270.53978 | 317.36496 | 12.61886 | 0.1496992 | 0.22548674 | 2.6733472 | 21 | 4 1.2 | 18.0 |
| 105147 2000 $NH_{15}$ | 16.3 | X | 17.76967 | 27.05430 | 309.89087 | 3.59253 | 0.1825708 | 0.28645212 | 2.2791243 | 21 | 11 13.2 | 18.5 |
| 105148 2000 $NL_{17}$ | 15.3 | X | 304.87378 | 176.28761 | 109.16670 | 16.64774 | 0.2023020 | 0.22552337 | 2.6730578 | 21 | 4 2.2 | 19.2 |
| 105149 2000 $NA_{19}$ | 15.3 | X | 154.89333 | 49.07130 | 325.15074 | 4.09252 | 0.1830253 | 0.21402918 | 2.7679234 | 21 | 2 24.1 | 19.8 |
| 105150 2000 $NB_{20}$ | 15.1 | X | 142.48530 | 239.59952 | 143.86258 | 8.62917 | 0.2366884 | 0.21253557 | 2.7808760 | 21 | 3 1.9 | 19.5 |
| 105151 2000 $NQ_{22}$ | 13.9 | X | 296.16195 | 86.34253 | 289.12008 | 20.68086 | 0.1432421 | 0.18520141 | 3.0481747 | 21 | 7 20.4 | 17.9 |
| 105152 2000 $NV_{24}$ | 13.3 | X | 231.72443 | 114.56705 | 297.12588 | 19.37686 | 0.2726856 | 0.18116891 | 3.0932398 | 21 | 6 12.9 | 18.8 |
| 105153 2000 $NS_{25}$ | 14.8 | X | 184.33427 | 21.88601 | 306.61241 | 14.07353 | 0.1806360 | 0.21437866 | 2.7649143 | 21 | 1 27.3 | 19.2 |
| 105154 2000 $NA_{26}$ | 15.0 | X | 161.63127 | 54.90859 | 293.94815 | 8.26279 | 0.2490606 | 0.21261352 | 2.7801964 | 21 | 2 4.2 | 19.8 |
| 105155 2000 $NG_{26}$ | 15.7 | X | 115.39162 | 146.79452 | 137.17764 | 29.50045 | 0.0444941 | 0.38832025 | 1.8606986 | 21 | — | — |
| 105156 2000 $NW_{26}$ | 16.3 | X | 189.10410 | 25.90355 | 304.39935 | 4.06538 | 0.2198122 | 0.30857742 | 2.1688355 | 21 | 1 22.8 | 19.7 |
| 105157 2000 $NA_{28}$ | 14.1 | X | 298.19237 | 66.21325 | 271.22810 | 15.18440 | 0.2116094 | 0.18442150 | 3.0567624 | 21 | 5 24.4 | 18.4 |
| 105158 2000 $OL$ | 13.5 | X | 308.23404 | 333.56744 | 312.90094 | 14.76788 | 0.4856377 | 0.22753840 | 2.6572530 | 21 | 2 18.2 | 17.9 |
| 105159 2000 $OQ_{5}$ | 14.6 | X | 188.10884 | 3.38239 | 304.93305 | 17.20922 | 0.2378926 | 0.21122888 | 2.7923328 | 21 | 1 11.5 | 19.5 |
| 105160 2000 $OU_{5}$ | 15.5 | X | 320.78926 | 33.96791 | 301.39214 | 7.23541 | 0.1974351 | 0.27811247 | 2.3244618 | 21 | 6 28.6 | 17.4 |
| 105161 2000 $OA_{6}$ | 14.5 | X | 178.35798 | 141.57678 | 270.94459 | 10.51406 | 0.1656908 | 0.22162885 | 2.7042812 | 21 | 4 28.5 | 19.0 |
| 105162 2000 $OZ_{8}$ | 14.2 | X | 279.95027 | 221.77222 | 164.83535 | 17.95552 | 0.2237414 | 0.18089314 | 3.0963829 | 21 | 7 2.2 | 19.0 |
| 105163 2000 $OW_{11}$ | 16.0 | X | 21.01092 | 214.24504 | 127.13194 | 8.45117 | 0.1650436 | 0.28913787 | 2.2649888 | 21 | 11 26.5 | 18.5 |
| 105164 2000 $OM_{12}$ | 15.7 | X | 88.25614 | 263.23965 | 124.89046 | 14.18665 | 0.2489641 | 0.25454499 | 2.4658104 | 21 | — | — |
| 105165 2000 $OQ_{12}$ | 15.3 | X | 250.92757 | 247.66444 | 124.03673 | 14.02005 | 0.1980844 | 0.22793651 | 2.6541581 | 21 | 5 19.4 | 19.7 |
| 105166 2000 $OU_{12}$ | 14.4 | X | 106.52332 | 202.09925 | 304.72369 | 13.46634 | 0.0796292 | 0.22985754 | 2.6393493 | 21 | 6 5.9 | 18.2 |
| 105167 2000 $OT_{13}$ | 15.4 | X | 317.19615 | 34.27726 | 279.25947 | 2.29714 | 0.1080690 | 0.23098069 | 2.6307865 | 21 | 6 3.7 | 18.6 |
| 105168 2000 $OU_{14}$ | 14.6 | X | 282.03196 | 177.63861 | 120.91576 | 18.13969 | 0.1517215 | 0.17781055 | 3.1320670 | 21 | 4 3.2 | 19.5 |
| 105169 2000 $OC_{15}$ | 16.1 | X | 77.07782 | 113.91807 | 273.78153 | 3.56894 | 0.1080261 | 0.30149282 | 2.2026800 | 21 | — | — |
| 105170 2000 $OK_{15}$ | 14.9 | X | 108.32647 | 31.76936 | 314.86756 | 8.06323 | 0.1734797 | 0.20600947 | 2.8392999 | 21 | — | — |
| 105171 2000 $OA_{19}$ | 14.7 | X | 277.50987 | 196.52930 | 150.13340 | 2.23059 | 0.2759387 | 0.18108866 | 3.0941537 | 21 | 5 4.8 | 19.5 |
| 105172 2000 $OS_{20}$ | 14.2 | X | 289.05596 | 36.01268 | 357.78754 | 17.16664 | 0.2284500 | 0.18146849 | 3.0898346 | 21 | 7 29.3 | 18.6 |
| 105173 2000 $OJ_{22}$ | 16.8 | X | 131.54786 | 187.61478 | 149.97439 | 25.26983 | 0.0662854 | 0.39562314 | 1.8377295 | 21 | — | — |
| 105174 2000 $OK_{22}$ | 15.8 | X | 114.79454 | 291.03933 | 332.11215 | 22.38524 | 0.0895282 | 0.38382302 | 1.8752048 | 21 | 12 11.5 | 18.7 |
| 105175 2000 $OO_{22}$ | 15.6 | X | 29.58509 | 250.52698 | 142.12362 | 3.71113 | 0.2719772 | 0.28940021 | 2.2636198 | 21 | — | — |
| 105176 2000 $OW_{25}$ | 15.1 | X | 334.18023 | 316.17156 | 306.90900 | 13.91358 | 0.1314498 | 0.22821442 | 2.6520029 | 21 | 4 9.3 | 18.6 |
| 105177 2000 $OA_{27}$ | 15.0 | X | 242.28758 | 185.32348 | 187.65659 | 3.12099 | 0.1167940 | 0.22635820 | 2.6664814 | 21 | 5 15.9 | 19.1 |
| 105178 2000 $ON_{27}$ | 14.9 | X | 239.64382 | 192.22319 | 174.91982 | 2.66776 | 0.1318827 | 0.22500785 | 2.6771391 | 21 | 5 4.4 | 19.0 |
| 105179 2000 $OP_{28}$ | 14.6 | X | 267.99409 | 103.54625 | 249.67726 | 7.23200 | 0.0772768 | 0.22926151 | 2.6439219 | 21 | 5 24.3 | 18.3 |
| 105180 2000 $OK_{29}$ | 14.6 | X | 187.78125 | 136.76128 | 288.50948 | 21.29395 | 0.0480035 | 0.22747487 | 2.6577478 | 21 | 5 23.8 | 18.8 |
| 105181 2000 $OS_{29}$ | 14.6 | X | 70.19747 | 270.29893 | 284.92158 | 13.57276 | 0.0545437 | 0.23057301 | 2.6338866 | 21 | 6 19.5 | 18.0 |
| 105182 2000 $OF_{30}$ | 14.4 | X | 303.10641 | 323.27051 | 288.87336 | 15.06256 | 0.1777340 | 0.17504616 | 3.1649559 | 21 | 2 14.5 | 19.2 |
| 105183 2000 $OQ_{30}$ | 15.4 | X | 131.88186 | 109.16869 | 266.39863 | 7.04183 | 0.2414955 | 0.21092454 | 2.7950182 | 21 | 2 8.1 | 19.8 |
| 105184 2000 $OZ_{30}$ | 16.4 | X | 227.70893 | 188.26548 | 162.65660 | 5.80896 | 0.2594429 | 0.26836515 | 2.3804111 | 21 | 3 24.9 | 20.6 |
| 105185 2000 $OG_{31}$ | 15.6 | X | 185.78105 | 169.42617 | 167.04742 | 10.10297 | 0.2157695 | 0.21447266 | 2.7641064 | 21 | 2 6.9 | 20.3 |
| 105186 2000 $OQ_{31}$ | 14.6 | X | 146.42194 | 113.00375 | 276.78780 | 6.46210 | 0.2308216 | 0.21437535 | 2.7649428 | 21 | 3 8.0 | 19.1 |
| 105187 2000 $OC_{33}$ | 16.2 | X | 93.98360 | 64.42395 | 247.10270 | 4.80249 | 0.1899992 | 0.29551506 | 2.2322850 | 21 | — | — |
| 105188 2000 $OR_{33}$ | 14.7 | X | 292.16858 | 144.06914 | 155.94323 | 17.81528 | 0.1459121 | 0.17913457 | 3.1166147 | 21 | 4 14.5 | 19.3 |
| 105189 2000 $OW_{34}$ | 15.0 | X | 124.54389 | 231.11622 | 170.18772 | 9.11913 | 0.1632920 | 0.21274194 | 2.7790773 | 21 | 2 23.8 | 19.1 |
| 105190 2000 $OZ_{34}$ | 15.1 | X | 204.23752 | 94.16324 | 269.90379 | 11.64353 | 0.1850647 | 0.22015827 | 2.7163103 | 21 | 3 20.3 | 19.9 |
| 105191 2000 $ON_{35}$ | 16.1 | X | 325.36564 | 338.03982 | 6.27187 | 4.46825 | 0.2232504 | 0.27889392 | 2.3201177 | 21 | 7 21.5 | 17.8 |
| 105192 2000 $OV_{37}$ | 14.9 | X | 168.78592 | 81.01397 | 277.24746 | 10.62483 | 0.1873888 | 0.21365463 | 2.7711573 | 21 | 2 14.2 | 19.6 |
| 105193 2000 $OY_{37}$ | 14.7 | X | 242.14699 | 174.08667 | 179.58460 | 14.94109 | 0.2600216 | 0.17714479 | 3.1399095 | 21 | 4 15.4 | 20.1 |
| 105194 2000 $OA_{38}$ | 14.1 | X | 206.76096 | 186.93682 | 191.15209 | 12.77000 | 0.2577099 | 0.17438434 | 3.1729585 | 21 | 4 17.0 | 19.6 |
| 105195 2000 $OD_{38}$ | 15.2 | X | 285.96231 | 152.68475 | 163.67574 | 15.28725 | 0.2765526 | 0.17960480 | 3.1111725 | 21 | 4 8.7 | 20.0 |
| 105196 2000 $OT_{38}$ | 14.7 | X | 261.89674 | 120.41144 | 267.22411 | 11.99188 | 0.1918045 | 0.22929249 | 2.6436837 | 21 | 6 16.5 | 18.4 |
| 105197 2000 $OY_{38}$ | 14.5 | X | 345.28612 | 5.27965 | 268.87999 | 12.96261 | 0.1709832 | 0.22922112 | 2.6442324 | 21 | 5 18.1 | 17.2 |
| 105198 2000 $OO_{39}$ | 15.3 | X | 150.25642 | 194.19794 | 180.33157 | 7.56663 | 0.1956844 | 0.21357689 | 2.7718297 | 21 | 2 20.3 | 19.7 |
| 105199 2000 $OR_{39}$ | 15.6 | X | 203.73146 | 50.93858 | 224.23200 | 6.09608 | 0.2384925 | 0.21175924 | 2.7876686 | 21 | — | — |
| 105200 2000 $OD_{40}$ | 16.3 | X | 63.79458 | 132.92689 | 246.44471 | 5.79684 | 0.2106433 | 0.29634252 | 2.2281277 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105201 2000 $OG_{40}$ | 14.8 | X | 128.04130 | 157.87782 | 245.30952 | 5.85753 | 0.1237679 | 0.21403453 | 2.7678772 | 21 | 2 22.9 | 18.9 |
| 105202 2000 $OJ_{40}$ | 15.0 | X | 276.10888 | 119.82424 | 171.17088 | 14.20814 | 0.1993584 | 0.17594636 | 3.1541513 | 21 | 3 5.8 | 20.0 |
| 105203 2000 $OV_{41}$ | 13.8 | X | 30.39863 | 153.50035 | 226.51434 | 9.04165 | 0.0971527 | 0.15181002 | 3.4801858 | 21 | 12 17.2 | 18.5 |
| 105204 2000 $OF_{42}$ | 15.1 | X | 246.05262 | 16.25738 | 279.46762 | 7.05937 | 0.1270046 | 0.21743283 | 2.7389617 | 21 | 2 9.9 | 19.4 |
| 105205 2000 $OV_{43}$ | 15.1 | X | 107.91232 | 33.36198 | 280.18101 | 7.50034 | 0.1982647 | 0.20107290 | 2.8855838 | 21 | — | — |
| 105206 2000 $OB_{44}$ | 15.9 | X | 163.69654 | 59.11250 | 286.49379 | 5.31886 | 0.1846463 | 0.30549546 | 2.1833979 | 21 | 1 14.9 | 18.9 |
| 105207 2000 $OL_{46}$ | 14.4 | X | 27.54354 | 186.44119 | 154.56604 | 20.35401 | 0.2556079 | 0.19227688 | 2.9729299 | 21 | 12 1.3 | 18.5 |
| 105208 2000 $OH_{48}$ | 17.4 | X | 259.60361 | 318.77503 | 21.50625 | 2.11940 | 0.2564563 | 0.31745648 | 2.1282040 | 21 | 4 1.7 | 20.7 |
| 105209 2000 $OU_{48}$ | 14.4 | X | 136.90510 | 8.45476 | 11.34643 | 8.33834 | 0.1990665 | 0.20906848 | 2.8115362 | 21 | 2 19.2 | 18.7 |
| 105210 2000 $OK_{52}$ | 13.7 | X | 233.49226 | 47.13976 | 282.39729 | 14.22142 | 0.3098886 | 0.17253050 | 3.1956469 | 21 | 3 2.1 | 19.7 |
| 105211 Sanden | 16.5 | X | 220.63046 | 304.91292 | 28.77052 | 23.40225 | 0.1095326 | 0.36166516 | 1.9510344 | 21 | 3 1.1 | 19.6 |
| 105212 2000 $OP_{52}$ | 14.4 | X | 169.37290 | 144.86516 | 245.90319 | 9.10941 | 0.1263927 | 0.21441022 | 2.7646430 | 21 | 3 22.2 | 18.9 |
| 105213 2000 $OV_{52}$ | 13.6 | X | 212.07341 | 74.72583 | 30.18458 | 17.97291 | 0.2433267 | 0.17541775 | 3.1604847 | 21 | 8 7.9 | 19.3 |
| 105214 2000 $OL_{56}$ | 15.4 | X | 218.50546 | 274.53060 | 341.26545 | 13.10693 | 0.1617300 | 0.21092749 | 2.7949922 | 21 | — | — |
| 105215 2000 $OR_{56}$ | 15.7 | X | 163.72262 | 240.36320 | 114.44205 | 10.36905 | 0.2041103 | 0.21293833 | 2.7773684 | 21 | 2 12.6 | 20.3 |
| 105216 2000 $OS_{56}$ | 15.1 | X | 147.98104 | 330.23933 | 82.26084 | 5.95975 | 0.1073507 | 0.21867784 | 2.7285560 | 21 | 4 1.1 | 19.2 |
| 105217 2000 $OX_{56}$ | 16.9 | X | 254.19024 | 307.66959 | 322.01097 | 17.59336 | 0.0480505 | 0.35767675 | 1.9655114 | 21 | — | — |
| 105218 2000 $OJ_{57}$ | 14.9 | X | 211.08526 | 77.93254 | 318.72393 | 12.64382 | 0.1465378 | 0.22508412 | 2.6765343 | 21 | 5 6.9 | 19.4 |
| 105219 2000 $ON_{57}$ | 15.2 | X | 51.75587 | 277.63154 | 125.80693 | 8.25608 | 0.3163806 | 0.20201310 | 2.8766235 | 21 | — | — |
| 105220 2000 $OV_{58}$ | 14.8 | X | 25.85033 | 226.35309 | 138.36836 | 10.84456 | 0.0963039 | 0.19707432 | 2.9244847 | 21 | 12 4.3 | 18.8 |
| 105221 2000 $OU_{60}$ | 15.4 | X | 178.19369 | 344.48226 | 11.43885 | 4.61054 | 0.1150046 | 0.21555053 | 2.7548840 | 21 | 2 21.2 | 19.6 |
| 105222 Oscarsaa | 16.2 | X | 251.12674 | 115.18987 | 102.30086 | 5.62393 | 0.0938102 | 0.30414364 | 2.1898627 | 21 | — | — |
| 105223 2000 $PJ$ | 17.1 | X | 260.47244 | 142.39058 | 217.21913 | 1.57914 | 0.2314249 | 0.27347962 | 2.3506397 | 21 | 5 2.9 | 20.7 |
| 105224 2000 $PB_{1}$ | 15.0 | X | 164.87371 | 40.31964 | 328.43775 | 12.53359 | 0.1571012 | 0.21439314 | 2.7647899 | 21 | 2 24.1 | 19.5 |
| 105225 2000 $PF_{1}$ | 14.2 | X | 208.29989 | 290.17492 | 135.69395 | 27.57689 | 0.2289650 | 0.22516381 | 2.6759027 | 21 | 6 16.9 | 19.2 |
| 105226 2000 $PS_{2}$ | 15.6 | X | 205.40719 | 170.07210 | 157.89814 | 7.09991 | 0.1579747 | 0.21682802 | 2.7440527 | 21 | 2 12.2 | 20.1 |
| 105227 2000 $PO_{5}$ | 14.6 | X | 283.05611 | 232.73890 | 150.86736 | 11.26036 | 0.1479465 | 0.18408402 | 3.0604972 | 21 | 7 13.1 | 19.0 |
| 105228 2000 $PW_{5}$ | 15.3 | X | 198.27141 | 257.93344 | 143.49228 | 13.50574 | 0.1557238 | 0.22347573 | 2.6893613 | 21 | 5 10.1 | 19.9 |
| 105229 2000 $PY_{7}$ | 14.3 | X | 270.88632 | 206.01027 | 174.46437 | 17.59271 | 0.2035378 | 0.18075888 | 3.0979159 | 21 | 6 17.6 | 19.2 |
| 105230 2000 $PC_{10}$ | 15.8 | X | 329.45700 | 213.92416 | 123.56864 | 12.41296 | 0.1609020 | 0.23204220 | 2.6227571 | 21 | 7 24.7 | 18.5 |
| 105231 2000 $PJ_{10}$ | 14.9 | X | 201.61357 | 298.82159 | 50.21743 | 9.56799 | 0.1589671 | 0.21639510 | 2.7477113 | 21 | 3 11.2 | 19.5 |
| 105232 2000 $PL_{11}$ | 13.8 | X | 251.88204 | 28.82811 | 3.01445 | 27.40170 | 0.1422162 | 0.17964539 | 3.1107039 | 21 | 6 14.9 | 19.1 |
| 105233 2000 $PL_{12}$ | 14.9 | X | 339.83623 | 216.55018 | 127.39910 | 14.26586 | 0.2168013 | 0.23364241 | 2.6107679 | 21 | 8 26.2 | 17.0 |
| 105234 2000 $PB_{13}$ | 14.7 | X | 100.39699 | 98.90663 | 287.63160 | 24.10459 | 0.2471103 | 0.29756525 | 2.2220197 | 21 | — | — |
| 105235 2000 $PP_{13}$ | 15.5 | X | 142.08482 | 170.94400 | 180.34591 | 3.94202 | 0.1411735 | 0.21171437 | 2.7880624 | 21 | 1 10.9 | 19.6 |
| 105236 2000 $PE_{20}$ | 14.8 | X | 60.16797 | 50.50605 | 8.71281 | 8.22239 | 0.1386143 | 0.20614359 | 2.8380682 | 21 | — | — |
| 105237 2000 $PF_{20}$ | 16.6 | X | 308.97108 | 243.47215 | 63.39973 | 3.62114 | 0.1670471 | 0.27456136 | 2.3444615 | 21 | 4 29.6 | 19.1 |
| 105238 2000 $PC_{21}$ | 15.3 | X | 158.62310 | 185.81373 | 140.07711 | 5.14300 | 0.0650022 | 0.21065332 | 2.7974168 | 21 | — | — |
| 105239 2000 $PD_{21}$ | 15.3 | X | 23.18004 | 167.41823 | 188.57868 | 1.89073 | 0.1144981 | 0.19618941 | 2.9332721 | 21 | 11 20.0 | 19.0 |
| 105240 2000 $PA_{22}$ | 16.1 | X | 279.96342 | 284.95320 | 77.78653 | 7.20065 | 0.1274483 | 0.27613506 | 2.3355456 | 21 | 6 13.1 | 19.0 |
| 105241 2000 $PT_{24}$ | 15.1 | X | 104.34515 | 121.98072 | 218.76666 | 14.10403 | 0.1642120 | 0.20390789 | 2.8587753 | 21 | — | — |
| 105242 2000 $PY_{24}$ | 15.8 | X | 38.46782 | 307.20126 | 83.23018 | 5.51729 | 0.2174592 | 0.29134735 | 2.2535230 | 21 | — | — |
| 105243 2000 $PB_{26}$ | 13.7 | X | 223.91569 | 58.40238 | 354.02901 | 22.90659 | 0.3129972 | 0.17335624 | 3.1854911 | 21 | 5 30.6 | 19.8 |
| 105244 2000 $PC_{26}$ | 14.8 | X | 302.27757 | 74.16653 | 219.40637 | 20.80063 | 0.1813049 | 0.17783225 | 3.1318121 | 21 | 4 7.5 | 19.2 |
| 105245 2000 $PO_{27}$ | 15.0 | X | 342.77368 | 280.64543 | 329.08506 | 12.27552 | 0.1385722 | 0.22536480 | 2.6743115 | 21 | 4 6.4 | 18.2 |
| 105246 2000 $QH_{2}$ | 16.3 | X | 13.91462 | 102.99775 | 283.65628 | 21.57594 | 0.1283507 | 0.38433428 | 1.8735414 | 21 | — | — |
| 105247 2000 $QH_{3}$ | 16.2 | X | 41.23665 | 219.36084 | 153.56611 | 3.78331 | 0.1432229 | 0.29231886 | 2.2485273 | 21 | — | — |
| 105248 2000 $QM_{3}$ | 15.0 | X | 342.02813 | 248.00536 | 160.77413 | 7.46267 | 0.2379615 | 0.19178310 | 2.9780306 | 21 | 11 29.5 | 17.9 |
| 105249 2000 $QB_{4}$ | 16.3 | X | 355.52623 | 205.06620 | 168.75663 | 4.08355 | 0.1502345 | 0.28613449 | 2.2808107 | 21 | 11 25.5 | 18.3 |
| 105250 2000 $QJ_{6}$ | 16.6 | X | 48.92595 | 13.66156 | 335.87866 | 6.94366 | 0.2050191 | 0.29005235 | 2.2602256 | 21 | — | — |
| 105251 2000 $QP_{6}$ | 14.2 | X | 298.93907 | 18.07176 | 343.48349 | 11.58905 | 0.1437079 | 0.18269060 | 3.0760396 | 21 | 7 10.1 | 18.4 |
| 105252 2000 $QD_{7}$ | 16.4 | X | 43.87548 | 244.99225 | 341.56096 | 19.71476 | 0.0194493 | 0.36874004 | 1.9259981 | 21 | 6 15.9 | 18.8 |
| 105253 2000 $QF_{10}$ | 16.1 | X | 95.50240 | 90.36425 | 298.16525 | 2.81510 | 0.1805281 | 0.30291287 | 2.1957905 | 21 | — | — |
| 105254 2000 $QQ_{10}$ | 15.1 | X | 178.38244 | 74.35105 | 304.99907 | 4.03273 | 0.1308517 | 0.21878869 | 2.7276343 | 21 | 3 18.8 | 19.3 |
| 105255 2000 $QR_{10}$ | 14.5 | X | 237.46890 | 169.93265 | 146.08042 | 5.31570 | 0.2100722 | 0.17330530 | 3.1861153 | 21 | 3 1.4 | 19.8 |
| 105256 2000 $QQ_{11}$ | 16.7 | X | 207.02461 | 331.25879 | 359.98087 | 2.02015 | 0.2099675 | 0.26412572 | 2.4058151 | 21 | 2 13.5 | 20.8 |
| 105257 2000 $QD_{13}$ | 16.5 | X | 119.00552 | 231.01308 | 18.94817 | 1.10049 | 0.2097073 | 0.29229514 | 2.2486489 | 21 | 11 17.9 | 20.1 |
| 105258 2000 $QM_{13}$ | 16.8 | X | 206.74039 | 108.44486 | 242.87541 | 0.57778 | 0.1985279 | 0.26548231 | 2.3976125 | 21 | 3 8.5 | 20.6 |
| 105259 2000 $QU_{13}$ | 15.0 | X | 217.42690 | 76.72386 | 323.70229 | 6.91399 | 0.1844758 | 0.22614321 | 2.6681711 | 21 | 5 18.8 | 19.5 |
| 105260 2000 $QC_{14}$ | 15.3 | X | 116.34334 | 290.67326 | 139.68755 | 5.78389 | 0.0785404 | 0.21734505 | 2.7396992 | 21 | 3 12.6 | 19.0 |
| 105261 2000 $QS_{14}$ | 15.4 | X | 6.80022 | 343.07987 | 350.75934 | 2.95927 | 0.2383829 | 0.19083675 | 2.9878678 | 21 | 10 6.7 | 18.2 |
| 105262 2000 $QH_{15}$ | 15.6 | X | 108.09377 | 236.28292 | 160.19992 | 3.02609 | 0.2013077 | 0.20953140 | 2.8073936 | 21 | 2 4.8 | 19.5 |
| 105263 2000 $QG_{17}$ | 14.7 | X | 263.20888 | 215.65192 | 173.08312 | 4.98273 | 0.1138489 | 0.18231377 | 3.0802767 | 21 | 6 30.1 | 19.2 |
| 105264 2000 $QE_{18}$ | 15.5 | X | 250.11170 | 287.63000 | 142.59865 | 2.68549 | 0.1718717 | 0.23172604 | 2.6251422 | 21 | 7 31.8 | 19.3 |
| 105265 2000 $QQ_{18}$ | 15.4 | X | 337.90362 | 311.62487 | 152.56274 | 2.53752 | 0.0238631 | 0.20299860 | 2.8673058 | 21 | — | — |
| 105266 2000 $QC_{21}$ | 16.2 | X | 235.97387 | 278.72414 | 165.64392 | 6.35458 | 0.0764526 | 0.27869474 | 2.3212230 | 21 | 8 16.7 | 19.1 |
| 105267 2000 $QB_{22}$ | 16.7 | X | 266.26529 | 42.27074 | 342.95204 | 4.30133 | 0.1656437 | 0.27649404 | 2.3335236 | 21 | 6 21.1 | 19.8 |
| 105268 2000 $QK_{22}$ | 15.5 | X | 28.81176 | 151.31607 | 166.15936 | 5.87442 | 0.2715728 | 0.24076923 | 2.5589908 | 21 | 11 12.3 | 18.5 |
| 105269 2000 $QV_{23}$ | 15.6 | X | 96.42216 | 73.66549 | 234.80299 | 4.63593 | 0.1087068 | 0.19853990 | 2.9100750 | 21 | 12 18.8 | 20.0 |
| 105270 2000 $QF_{24}$ | 17.1 | X | 258.10882 | 47.79780 | 316.20502 | 2.62120 | 0.0876970 | 0.31963345 | 2.1185297 | 21 | 5 19.1 | 19.6 |
| 105271 2000 $QN_{24}$ | 16.2 | X | 273.50303 | 52.68302 | 322.35215 | 6.13484 | 0.2212644 | 0.27477616 | 2.3432395 | 21 | 6 7.2 | 19.4 |
| 105272 2000 $QD_{25}$ | 15.9 | X | 74.74522 | 5.97704 | 270.27155 | 6.42795 | 0.1100056 | 0.28630323 | 2.2799145 | 21 | 10 26.8 | 18.9 |
| 105273 2000 $QW_{25}$ | 15.2 | X | 25.94950 | 244.56211 | 124.59521 | 19.19774 | 0.2995936 | 0.24131567 | 2.5551262 | 21 | — | — |
| 105274 2000 $QL_{27}$ | 16.1 | X | 258.06527 | 232.63833 | 164.26259 | 1.95967 | 0.2301871 | 0.27487991 | 2.3426499 | 21 | 6 19.2 | 19.4 |
| 105275 2000 $QA_{28}$ | 14.6 | X | 292.54398 | 239.64458 | 153.34242 | 6.03536 | 0.2360378 | 0.18354292 | 3.0665093 | 21 | 7 24.7 | 18.8 |
| 105276 2000 $QO_{30}$ | 14.1 | X | 227.92855 | 86.80368 | 308.51582 | 7.89649 | 0.1364132 | 0.17529284 | 3.1619860 | 21 | 5 27.9 | 19.1 |
| 105277 2000 $QE_{33}$ | 14.1 | X | 173.10603 | 57.52832 | 21.11191 | 16.35465 | 0.1447324 | 0.17516516 | 3.1635223 | 21 | 5 26.0 | 19.4 |
| 105278 2000 $QK_{33}$ | 14.7 | X | 334.27776 | 349.11133 | 40.93025 | 13.76809 | 0.1071813 | 0.18988995 | 2.9977913 | 21 | 10 18.6 | 18.3 |
| 105279 2000 $QQ_{33}$ | 16.5 | X | 4.48722 | 285.12323 | 26.89819 | 20.24198 | 0.0664176 | 0.37413077 | 1.9074526 | 21 | 9 19.8 | 18.3 |
| 105280 2000 $QD_{35}$ | 15.0 | X | 258.09578 | 228.72044 | 231.52360 | 4.48313 | 0.2632382 | 0.17971794 | 3.1098667 | 21 | 8 31.9 | 19.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105281 2000 $QH_{36}$ | 15.1 | X | 218.21249 | 80.05114 | 313.98368 | 12.20482 | 0.0094573 | 0.22696204 | 2.6617498 | 21 | 5 20.2 | 19.0 |
| 105282 2000 $QK_{36}$ | 15.2 | X | 282.16848 | 266.49039 | 147.87515 | 13.88035 | 0.1794905 | 0.23505205 | 2.6003193 | 21 | 8 20.1 | 18.4 |
| 105283 2000 $QQ_{38}$ | 16.5 | X | 19.32216 | 59.96008 | 323.55701 | 2.60456 | 0.1074895 | 0.29209814 | 2.2496598 | 21 | — | — |
| 105284 2000 $QJ_{40}$ | 15.1 | X | 58.65890 | 231.31103 | 147.91993 | 11.26915 | 0.1425671 | 0.20148419 | 2.8816556 | 21 | — | — |
| 105285 2000 $QD_{42}$ | 15.6 | X | 137.16532 | 57.09894 | 284.54560 | 1.37537 | 0.0779312 | 0.20811608 | 2.8201073 | 21 | — | — |
| 105286 2000 $QG_{42}$ | 14.8 | X | 214.76233 | 163.16399 | 152.48678 | 12.13875 | 0.1552172 | 0.16880721 | 3.2424657 | 21 | 2 11.9 | 20.1 |
| 105287 2000 $QF_{44}$ | 16.5 | X | 57.69777 | 218.59840 | 153.11471 | 3.49870 | 0.1342191 | 0.29506594 | 2.2345496 | 21 | — | — |
| 105288 2000 $QL_{44}$ | 15.0 | X | 16.60676 | 272.04203 | 334.45036 | 9.84302 | 0.1591854 | 0.18244898 | 3.0787547 | 21 | 6 15.8 | 18.6 |
| 105289 2000 $QH_{46}$ | 16.0 | X | 175.20194 | 195.45456 | 321.09727 | 2.61157 | 0.0311292 | 0.28293393 | 2.2979788 | 21 | 9 12.9 | 19.0 |
| 105290 2000 $QX_{47}$ | 14.4 | X | 255.96306 | 43.28213 | 336.76719 | 10.35523 | 0.0939463 | 0.18056252 | 3.1001614 | 21 | 6 12.9 | 19.1 |
| 105291 2000 $QY_{47}$ | 14.5 | X | 252.44109 | 279.62235 | 144.88614 | 2.53639 | 0.0890087 | 0.18460315 | 3.0547568 | 21 | 8 5.4 | 18.7 |
| 105292 2000 $QP_{49}$ | 17.2 | X | 255.27510 | 193.46224 | 138.32961 | 2.41494 | 0.1457977 | 0.31673558 | 2.1314320 | 21 | 3 26.7 | 20.2 |
| 105293 2000 $QY_{49}$ | 15.7 | X | 240.87867 | 11.35352 | 343.20239 | 7.53115 | 0.0530929 | 0.22284415 | 2.6944403 | 21 | 4 22.9 | 19.7 |
| 105294 2000 $QG_{50}$ | 16.5 | X | 346.60535 | 182.92997 | 124.25786 | 1.32831 | 0.0819610 | 0.27840891 | 2.3228115 | 21 | 7 18.5 | 18.6 |
| 105295 2000 $QN_{50}$ | 16.4 | X | 236.99299 | 220.78291 | 139.28361 | 1.72124 | 0.2044740 | 0.26940089 | 2.3743060 | 21 | 4 14.7 | 20.3 |
| 105296 2000 $QM_{51}$ | 15.2 | X | 46.88791 | 356.29883 | 33.49442 | 2.23639 | 0.0807415 | 0.20065212 | 2.8896166 | 21 | — | — |
| 105297 2000 $QA_{53}$ | 16.3 | X | 191.77987 | 115.54158 | 308.30164 | 6.15407 | 0.0892589 | 0.27265599 | 2.3553712 | 21 | 5 24.5 | 19.8 |
| 105298 2000 $QZ_{53}$ | 14.4 | X | 228.04907 | 344.66774 | 349.25205 | 9.22183 | 0.0640901 | 0.21880369 | 2.7275096 | 21 | 3 14.9 | 18.4 |
| 105299 2000 $QU_{54}$ | 15.8 | X | 310.85891 | 192.43374 | 198.54356 | 4.64753 | 0.1392133 | 0.28236381 | 2.3010711 | 21 | 9 15.5 | 17.7 |
| 105300 2000 $QL_{55}$ | 16.5 | X | 189.53176 | 335.42871 | 6.92599 | 2.95830 | 0.1804487 | 0.26170450 | 2.4206310 | 21 | 2 12.1 | 20.4 |
| 105301 2000 $QS_{55}$ | 16.3 | X | 97.16325 | 356.80382 | 358.03844 | 7.53713 | 0.2071178 | 0.29787655 | 2.2204713 | 21 | — | — |
| 105302 2000 $QF_{57}$ | 16.2 | X | 356.85160 | 283.35085 | 74.51002 | 1.92668 | 0.2914198 | 0.19014696 | 2.9950894 | 21 | 10 25.8 | 18.5 |
| 105303 2000 $QV_{57}$ | 15.0 | X | 235.39418 | 42.13184 | 337.10610 | 12.49105 | 0.1817799 | 0.22495382 | 2.6775677 | 21 | 5 5.8 | 19.6 |
| 105304 2000 $QY_{58}$ | 15.6 | X | 131.68311 | 271.24416 | 87.19943 | 4.17408 | 0.1165766 | 0.20882397 | 2.8137304 | 21 | 1 6.2 | 19.4 |
| 105305 2000 $QN_{60}$ | 15.0 | X | 323.90956 | 244.36819 | 142.48390 | 9.44011 | 0.1128690 | 0.18893484 | 3.0078858 | 21 | 9 26.8 | 18.6 |
| 105306 2000 $QS_{60}$ | 14.8 | X | 277.60765 | 273.82991 | 140.05162 | 9.94666 | 0.1456754 | 0.18504709 | 3.0498692 | 21 | 8 15.5 | 18.8 |
| 105307 2000 $QT_{60}$ | 15.7 | X | 180.69217 | 274.74665 | 81.37194 | 3.01663 | 0.0931619 | 0.21455290 | 2.7634172 | 21 | 2 22.7 | 19.9 |
| 105308 2000 $QY_{63}$ | 15.5 | X | 65.91840 | 266.68141 | 95.37667 | 7.38410 | 0.2267520 | 0.19854307 | 2.9100441 | 21 | — | — |
| 105309 2000 $QX_{65}$ | 15.2 | X | 116.71659 | 271.97688 | 129.80967 | 9.60803 | 0.1621772 | 0.20898887 | 2.8122501 | 21 | 2 17.8 | 19.1 |
| 105310 2000 $QM_{67}$ | 14.7 | X | 275.93288 | 184.46786 | 142.22179 | 18.52524 | 0.1977934 | 0.17709647 | 3.1404806 | 21 | 4 23.9 | 19.7 |
| 105311 2000 $QL_{70}$ | 16.2 | X | 350.50986 | 250.15009 | 1.78426 | 19.64838 | 0.0617451 | 0.36473502 | 1.9400715 | 21 | 4 12.5 | 18.0 |
| 105312 2000 $QC_{71}$ | 15.3 | X | 243.04805 | 353.23914 | 103.18427 | 1.03586 | 0.0194468 | 0.18903305 | 3.0068439 | 21 | 9 14.0 | 19.3 |
| 105313 2000 $QV_{71}$ | 15.2 | X | 161.54787 | 39.74513 | 310.56735 | 2.86413 | 0.1059441 | 0.21164418 | 2.7886788 | 21 | 1 27.1 | 19.2 |
| 105314 2000 $QC_{72}$ | 15.5 | X | 133.50243 | 57.36101 | 311.75204 | 2.78034 | 0.1087871 | 0.20985746 | 2.8044849 | 21 | 1 20.1 | 19.4 |
| 105315 2000 $QY_{72}$ | 15.0 | X | 142.44004 | 79.78561 | 328.91189 | 10.63065 | 0.0899164 | 0.21569843 | 2.7536246 | 21 | 3 13.5 | 19.1 |
| 105316 2000 $QN_{73}$ | 16.1 | X | 16.43886 | 15.16944 | 328.43496 | 1.48455 | 0.1002078 | 0.28630670 | 2.2798960 | 21 | 11 7.9 | 18.5 |
| 105317 2000 $QU_{74}$ | 15.0 | X | 57.17146 | 244.96199 | 333.56170 | 10.53672 | 0.0359678 | 0.18096663 | 3.0955445 | 21 | 7 1.6 | 19.4 |
| 105318 2000 $QB_{75}$ | 15.1 | X | 107.54313 | 152.14478 | 208.07230 | 1.64180 | 0.0665812 | 0.20531219 | 2.8457248 | 21 | — | — |
| 105319 2000 $QL_{75}$ | 16.3 | X | 293.86424 | 190.18476 | 156.74134 | 3.42909 | 0.2564385 | 0.27559847 | 2.3385761 | 21 | 5 20.8 | 19.2 |
| 105320 2000 $QP_{75}$ | 15.6 | X | 216.95867 | 44.77746 | 338.39828 | 5.49754 | 0.0432172 | 0.22277753 | 2.6949774 | 21 | 5 3.1 | 19.5 |
| 105321 2000 $QY_{75}$ | 14.8 | X | 180.24279 | 43.52433 | 330.67301 | 8.65230 | 0.2232467 | 0.21562228 | 2.7542728 | 21 | 3 17.5 | 19.5 |
| 105322 2000 $QD_{76}$ | 15.3 | X | 112.33045 | 206.38364 | 258.89084 | 1.74563 | 0.1383610 | 0.21835655 | 2.7312319 | 21 | 4 27.9 | 19.0 |
| 105323 2000 $QQ_{78}$ | 15.2 | X | 311.41174 | 83.17174 | 316.01187 | 3.32695 | 0.2061721 | 0.18651346 | 3.0338627 | 21 | 9 7.1 | 18.6 |
| 105324 2000 $QM_{81}$ | 15.4 | X | 28.65668 | 265.03752 | 160.29318 | 2.34418 | 0.0510838 | 0.20322280 | 2.8651966 | 21 | — | — |
| 105325 2000 $QH_{82}$ | 16.3 | X | 152.24122 | 91.55204 | 258.17743 | 1.38809 | 0.2079213 | 0.25635930 | 2.4541626 | 21 | 1 19.5 | 19.9 |
| 105326 2000 $QS_{82}$ | 14.5 | X | 24.85703 | 272.74131 | 349.06176 | 22.13589 | 0.0228898 | 0.18140358 | 3.0905716 | 21 | 7 18.8 | 19.1 |
| 105327 2000 $QF_{83}$ | 14.9 | X | 326.90608 | 307.40476 | 30.31825 | 0.94982 | 0.2405114 | 0.18431185 | 3.0579746 | 21 | 7 8.2 | 18.0 |
| 105328 2000 $QS_{83}$ | 15.8 | X | 318.90979 | 172.49537 | 223.26180 | 2.28753 | 0.1149369 | 0.23539135 | 2.5978200 | 21 | 10 3.7 | 18.4 |
| 105329 2000 $QA_{84}$ | 14.8 | X | 12.50377 | 284.39037 | 166.39065 | 12.26257 | 0.0194927 | 0.20309834 | 2.8663670 | 21 | — | — |
| 105330 2000 $QG_{84}$ | 16.6 | X | 183.85939 | 199.44293 | 170.83513 | 6.99998 | 0.2074230 | 0.26213976 | 2.4179508 | 21 | 3 13.5 | 20.6 |
| 105331 2000 $QK_{84}$ | 14.9 | X | 193.14550 | 327.61738 | 315.92167 | 12.03927 | 0.1385218 | 0.20942022 | 2.8083872 | 21 | — | — |
| 105332 2000 $QR_{84}$ | 16.0 | X | 36.14573 | 211.04253 | 207.95367 | 4.92222 | 0.1041372 | 0.29846243 | 2.2175645 | 21 | — | — |
| 105333 2000 $QH_{85}$ | 15.0 | X | 136.19360 | 173.02640 | 236.59776 | 4.07095 | 0.1595202 | 0.21457855 | 2.7631970 | 21 | 3 16.9 | 19.3 |
| 105334 2000 $QQ_{85}$ | 15.4 | X | 157.71123 | 80.05878 | 304.08935 | 6.26559 | 0.2367861 | 0.21391514 | 2.7689070 | 21 | 3 11.9 | 20.1 |
| 105335 2000 $QZ_{85}$ | 15.5 | X | 104.78275 | 229.43890 | 178.93730 | 9.60093 | 0.1729784 | 0.20997722 | 2.8034184 | 21 | 2 9.8 | 19.3 |
| 105336 2000 $QC_{86}$ | 15.2 | X | 248.99761 | 48.03439 | 187.22020 | 8.29927 | 0.2559082 | 0.21266074 | 2.7797847 | 21 | — | — |
| 105337 2000 $QR_{86}$ | 15.3 | X | 174.94046 | 89.54028 | 175.72315 | 14.82435 | 0.1261741 | 0.20455392 | 2.8527530 | 21 | — | — |
| 105338 2000 $QD_{89}$ | 14.5 | X | 253.80751 | 134.83622 | 296.94229 | 7.81222 | 0.1340731 | 0.18400188 | 3.0614080 | 21 | 8 9.1 | 19.0 |
| 105339 2000 $QL_{91}$ | 13.2 | X | 85.70884 | 174.03284 | 342.51494 | 23.55005 | 0.0830940 | 0.17495221 | 3.1660888 | 21 | 5 17.5 | 18.1 |
| 105340 2000 $QC_{93}$ | 14.8 | X | 330.08145 | 161.86276 | 179.50728 | 15.44924 | 0.2312094 | 0.18461474 | 3.0546290 | 21 | 7 18.9 | 18.3 |
| 105341 2000 $QY_{93}$ | 14.7 | X | 122.21407 | 256.77402 | 171.40454 | 12.95379 | 0.1797542 | 0.21457288 | 2.7632456 | 21 | 3 30.7 | 18.7 |
| 105342 2000 $QE_{94}$ | 14.7 | X | 251.06904 | 83.21161 | 312.14122 | 10.14453 | 0.0563761 | 0.18133903 | 3.0913051 | 21 | 7 2.9 | 19.2 |
| 105343 2000 $QJ_{94}$ | 14.7 | X | 338.81738 | 304.05598 | 305.83738 | 8.65645 | 0.0869302 | 0.17580432 | 3.1558500 | 21 | 4 14.6 | 19.0 |
| 105344 2000 $QM_{94}$ | 15.5 | X | 249.36428 | 240.10241 | 35.71081 | 3.05034 | 0.1628796 | 0.21735574 | 2.7396093 | 21 | 1 21.4 | 19.9 |
| 105345 2000 $QG_{95}$ | 16.8 | X | 208.64491 | 143.10942 | 269.35385 | 2.12463 | 0.1278422 | 0.31806832 | 2.1254739 | 21 | 5 26.1 | 19.5 |
| 105346 2000 $QN_{96}$ | 14.7 | X | 300.87892 | 324.62488 | 22.76392 | 5.82507 | 0.1923814 | 0.18185892 | 3.0854107 | 21 | 6 13.5 | 18.9 |
| 105347 2000 $QB_{98}$ | 14.6 | X | 356.54262 | 319.55245 | 14.53459 | 8.86159 | 0.2894635 | 0.18786761 | 3.0192664 | 21 | 9 18.9 | 17.0 |
| 105348 2000 $QH_{99}$ | 16.4 | X | 125.35860 | 357.89235 | 15.20982 | 6.30214 | 0.1646654 | 0.30231046 | 2.1987065 | 21 | 1 2.9 | 18.8 |
| 105349 2000 $QC_{100}$ | 16.6 | X | 188.93636 | 295.18379 | 92.46244 | 3.35605 | 0.2256991 | 0.26438862 | 2.4042200 | 21 | 4 9.9 | 20.6 |
| 105350 2000 $QN_{100}$ | 14.9 | X | 118.15649 | 310.00100 | 30.69854 | 6.34026 | 0.0783750 | 0.20278985 | 2.8692732 | 21 | — | — |
| 105351 2000 $QV_{101}$ | 14.7 | X | 309.90633 | 24.77964 | 14.92792 | 11.65366 | 0.2283511 | 0.18529946 | 3.0470993 | 21 | 9 7.1 | 18.2 |
| 105352 2000 $QB_{104}$ | 14.8 | X | 292.80998 | 309.51013 | 60.67280 | 6.67809 | 0.1465285 | 0.18186470 | 3.0853453 | 21 | 7 10.4 | 18.9 |
| 105353 2000 $QN_{105}$ | 15.1 | X | 55.98366 | 304.80070 | 111.60705 | 6.76361 | 0.2328440 | 0.20106448 | 2.8856643 | 21 | — | — |
| 105354 2000 $QF_{107}$ | 14.3 | X | 249.73976 | 127.81017 | 310.65474 | 7.68451 | 0.1692957 | 0.18369266 | 3.0648427 | 21 | 8 9.4 | 18.9 |
| 105355 2000 $QD_{108}$ | 16.7 | X | 135.52011 | 74.73516 | 358.07611 | 0.48087 | 0.1286074 | 0.31181208 | 2.1538102 | 21 | 4 2.3 | 19.3 |
| 105356 2000 $QF_{108}$ | 14.6 | X | 124.50282 | 190.32757 | 147.70829 | 6.66674 | 0.0544912 | 0.15730301 | 3.3986884 | 21 | — | — |
| 105357 2000 $QF_{109}$ | 16.4 | X | 45.54416 | 12.12706 | 27.82490 | 6.03598 | 0.1458819 | 0.29551551 | 2.2322827 | 21 | — | — |
| 105358 2000 $QO_{110}$ | 15.1 | X | 27.39599 | 242.99918 | 172.90278 | 2.82500 | 0.0364699 | 0.20227949 | 2.8740974 | 21 | — | — |
| 105359 2000 $QS_{110}$ | 14.5 | X | 264.95066 | 102.94455 | 161.24059 | 25.91944 | 0.2166728 | 0.16930581 | 3.2360966 | 21 | 1 22.8 | 20.1 |
| 105360 2000 $QU_{110}$ | 14.6 | X | 124.75958 | 217.02957 | 333.89494 | 20.03176 | 0.0283947 | 0.18538872 | 3.0461212 | 21 | 8 21.2 | 19.0 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105361 2000 $QG_{112}$ | 15.3 | X | 265.41062 | 221.33144 | 156.36981 | 2.86148 | 0.2117949 | 0.17956237 | 3.1116626 | 21 | 6 6.8 | 20.0 |
| 105362 2000 $QT_{112}$ | 16.0 | X | 287.54486 | 216.20507 | 158.93775 | 15.13241 | 0.1323065 | 0.22977652 | 2.6399697 | 21 | 7 10.8 | 19.7 |
| 105363 2000 $QK_{115}$ | 16.0 | X | 255.97384 | 136.88438 | 300.86693 | 6.33782 | 0.0834444 | 0.28155829 | 2.3054578 | 21 | 9 1.3 | 18.9 |
| 105364 2000 $QM_{116}$ | 16.3 | X | 282.81714 | 43.42206 | 14.51442 | 6.44135 | 0.2271733 | 0.27938410 | 2.3174031 | 21 | 8 24.2 | 18.7 |
| 105365 2000 $QY_{117}$ | 14.2 | X | 316.72242 | 318.26784 | 324.77415 | 16.22259 | 0.1894863 | 0.17795614 | 3.1303584 | 21 | 4 5.9 | 18.7 |
| 105366 2000 $QZ_{121}$ | 15.3 | X | 166.26103 | 115.32062 | 239.16356 | 5.95360 | 0.1505818 | 0.21060891 | 2.7978100 | 21 | 2 7.2 | 19.7 |
| 105367 2000 $QO_{123}$ | 15.2 | X | 119.94071 | 193.46946 | 191.40048 | 11.78760 | 0.2852781 | 0.20632055 | 2.8364451 | 21 | 2 12.9 | 19.7 |
| 105368 2000 $QG_{124}$ | 16.3 | X | 220.10496 | 343.17538 | 32.52011 | 7.22702 | 0.1231213 | 0.26894553 | 2.3769853 | 21 | 4 21.9 | 19.8 |
| 105369 2000 $QW_{125}$ | 14.6 | X | 289.97863 | 175.51921 | 179.68621 | 11.24634 | 0.0764972 | 0.18087519 | 3.0965877 | 21 | 6 26.5 | 19.0 |
| 105370 2000 $QY_{125}$ | 15.5 | X | 130.94745 | 236.63733 | 175.24169 | 13.40643 | 0.1986953 | 0.21238138 | 2.7822218 | 21 | 3 20.9 | 19.7 |
| 105371 2000 $QD_{126}$ | 16.6 | X | 259.62157 | 193.07283 | 163.36737 | 2.44161 | 0.2004098 | 0.27123940 | 2.3635649 | 21 | 5 1.9 | 20.1 |
| 105372 2000 $QF_{127}$ | 16.2 | X | 128.15088 | 359.15417 | 5.53259 | 4.62425 | 0.1690458 | 0.30082567 | 2.2059354 | 21 | — | — |
| 105373 2000 $QG_{127}$ | 14.5 | X | 95.83867 | 70.55499 | 15.35260 | 17.63820 | 0.1745006 | 0.20956509 | 2.8070928 | 21 | 3 23.5 | 18.2 |
| 105374 2000 $QG_{128}$ | 14.7 | X | 338.94814 | 217.19762 | 186.74588 | 7.79650 | 0.2296080 | 0.18789975 | 3.0189221 | 21 | 11 13.6 | 17.5 |
| 105375 2000 $QC_{129}$ | 16.6 | X | 143.07524 | 17.48341 | 338.37469 | 3.98175 | 0.1523375 | 0.30277591 | 2.1964526 | 21 | 1 1.1 | 19.2 |
| 105376 2000 $QK_{129}$ | 16.1 | X | 245.61099 | 245.53837 | 159.11813 | 5.89367 | 0.0967626 | 0.27497624 | 2.3421027 | 21 | 7 1.5 | 19.3 |
| 105377 2000 $QA_{130}$ | 15.8 | X | 329.43578 | 100.40175 | 172.26651 | 22.04071 | 0.0817753 | 0.36472775 | 1.9400973 | 21 | 4 17.9 | 17.7 |
| 105378 2000 $QF_{130}$ | 15.3 | X | 215.66327 | 47.44876 | 12.87513 | 6.11953 | 0.2319138 | 0.26560074 | 2.3968997 | 21 | 6 9.3 | 19.4 |
| 105379 2000 $QR_{130}$ | 16.7 | X | 42.14142 | 252.00414 | 165.77486 | 4.83963 | 0.1333519 | 0.29783131 | 2.2206962 | 21 | — | — |
| 105380 2000 $QK_{131}$ | 15.1 | X | 59.06484 | 267.21741 | 182.45046 | 4.31079 | 0.0328898 | 0.21191181 | 2.7863304 | 21 | 1 13.3 | 18.8 |
| 105381 2000 $QO_{131}$ | 15.0 | X | 82.14942 | 203.39421 | 175.98031 | 7.80069 | 0.2534349 | 0.20042873 | 2.8917632 | 21 | — | — |
| 105382 2000 $QP_{132}$ | 14.9 | X | 130.28053 | 270.83443 | 120.42232 | 4.34299 | 0.2086065 | 0.21246544 | 2.7814879 | 21 | 2 25.1 | 19.0 |
| 105383 2000 $QT_{133}$ | 14.5 | X | 33.75629 | 248.37371 | 333.98678 | 16.87378 | 0.1361112 | 0.22923567 | 2.6441206 | 21 | 6 8.4 | 17.8 |
| 105384 2000 $QO_{136}$ | 17.4 | X | 252.80406 | 137.12474 | 200.47388 | 1.75780 | 0.2382933 | 0.27038889 | 2.3685187 | 21 | 3 28.2 | 21.1 |
| 105385 2000 $QZ_{137}$ | 15.6 | X | 189.31879 | 139.68056 | 159.58597 | 8.02201 | 0.2126453 | 0.20896985 | 2.8124207 | 21 | — | — |
| 105386 2000 $QC_{138}$ | 16.0 | X | 237.67821 | 12.61572 | 48.80834 | 2.98805 | 0.1822897 | 0.27417739 | 2.3466498 | 21 | 7 6.2 | 19.3 |
| 105387 2000 $QL_{138}$ | 16.2 | X | 91.57523 | 28.43530 | 14.05109 | 5.24538 | 0.1565995 | 0.30053559 | 2.2073546 | 21 | — | — |
| 105388 2000 $QO_{138}$ | 14.1 | X | 167.01672 | 82.67629 | 4.72306 | 15.87102 | 0.0220717 | 0.17518337 | 3.1633031 | 21 | 5 25.9 | 19.0 |
| 105389 2000 $QT_{138}$ | 14.6 | X | 29.44900 | 169.75621 | 173.83503 | 10.32084 | 0.1115873 | 0.19158463 | 2.9800870 | 21 | 11 13.9 | 18.6 |
| 105390 2000 $QZ_{138}$ | 16.1 | X | 332.07234 | 44.43740 | 353.44171 | 3.01230 | 0.2401094 | 0.28364088 | 2.2941589 | 21 | 11 16.9 | 17.2 |
| 105391 2000 $QA_{139}$ | 15.4 | X | 320.38008 | 78.31549 | 177.67507 | 10.14592 | 0.1379435 | 0.26727312 | 2.3868907 | 21 | 3 9.5 | 18.1 |
| 105392 2000 $QB_{140}$ | 14.9 | X | 46.87752 | 241.80829 | 79.65718 | 1.69946 | 0.0560990 | 0.19088218 | 2.9873937 | 21 | 10 30.9 | 19.0 |
| 105393 2000 $QT_{141}$ | 14.4 | X | 266.30389 | 354.70735 | 11.04421 | 21.55598 | 0.1183794 | 0.17750689 | 3.1356379 | 21 | 5 29.0 | 19.4 |
| 105394 2000 $QU_{141}$ | 14.5 | X | 268.96961 | 272.37394 | 107.44159 | 2.68845 | 0.1985189 | 0.17901860 | 3.1179605 | 21 | 6 14.7 | 19.2 |
| 105395 2000 $QD_{142}$ | 14.9 | X | 214.27693 | 223.81163 | 152.22677 | 2.12805 | 0.1723687 | 0.17176526 | 3.2051313 | 21 | 4 22.5 | 20.2 |
| 105396 2000 $QN_{142}$ | 14.6 | X | 300.36999 | 349.77931 | 8.35723 | 20.26442 | 0.1963093 | 0.18111534 | 3.0938498 | 21 | 6 28.1 | 19.1 |
| 105397 2000 $QA_{143}$ | 16.6 | X | 155.15727 | 335.80161 | 34.12116 | 1.89617 | 0.2024580 | 0.25904107 | 2.4371951 | 21 | 2 16.3 | 20.2 |
| 105398 2000 $QX_{143}$ | 16.2 | X | 149.98200 | 155.62145 | 13.32693 | 22.13823 | 0.0246561 | 0.37266704 | 1.9124440 | 21 | 9 14.9 | 18.3 |
| 105399 2000 $QG_{144}$ | 15.2 | X | 339.61931 | 249.40552 | 48.41517 | 4.00739 | 0.2040273 | 0.18255666 | 3.0775439 | 21 | 6 11.3 | 18.5 |
| 105400 2000 $QJ_{144}$ | 14.7 | X | 226.96296 | 286.24107 | 117.40146 | 5.59534 | 0.2170906 | 0.17639495 | 3.1488015 | 21 | 6 2.7 | 20.0 |
| 105401 2000 $QM_{144}$ | 16.0 | X | 219.77521 | 293.00959 | 60.60466 | 2.30290 | 0.1453111 | 0.26565688 | 2.3965620 | 21 | 3 24.7 | 19.7 |
| 105402 2000 $QZ_{144}$ | 16.2 | X | 132.20851 | 311.19700 | 89.78612 | 3.37718 | 0.1631615 | 0.25849344 | 2.4406361 | 21 | 2 27.8 | 19.5 |
| 105403 2000 $QU_{145}$ | 16.0 | X | 227.46906 | 296.99322 | 26.99712 | 6.69113 | 0.1392440 | 0.26331786 | 2.4107333 | 21 | 2 25.1 | 19.7 |
| 105404 2000 $QZ_{145}$ | 16.8 | X | 175.93279 | 10.84765 | 71.50933 | 4.05912 | 0.1491429 | 0.31617216 | 2.1339634 | 21 | 6 2.1 | 19.9 |
| 105405 2000 $QM_{148}$ | 16.8 | X | 233.78678 | 312.87036 | 302.10426 | 3.53218 | 0.2328822 | 0.30547290 | 2.1835053 | 21 | — | — |
| 105406 2000 $QN_{150}$ | 16.4 | X | 204.75491 | 8.45934 | 333.59321 | 5.17220 | 0.2467001 | 0.30909900 | 2.1663950 | 21 | 2 20.3 | 20.0 |
| 105407 2000 $QE_{153}$ | 14.3 | X | 334.11593 | 70.43809 | 308.40440 | 10.82613 | 0.1330608 | 0.19116784 | 2.9844169 | 21 | 9 23.8 | 17.9 |
| 105408 2000 $QO_{153}$ | 16.1 | X | 78.50341 | 166.82588 | 247.40499 | 3.70047 | 0.0945346 | 0.30386467 | 2.1912028 | 21 | — | — |
| 105409 2000 $QX_{153}$ | 16.6 | X | 239.58633 | 198.39794 | 180.53330 | 3.87851 | 0.2138845 | 0.27212878 | 2.3584123 | 21 | 5 10.7 | 20.3 |
| 105410 2000 $QL_{154}$ | 15.0 | X | 18.73960 | 44.57338 | 247.67109 | 9.14895 | 0.0792333 | 0.18726589 | 3.0257306 | 21 | 8 12.1 | 19.1 |
| 105411 2000 $QQ_{154}$ | 15.1 | X | 183.14957 | 150.57500 | 224.48230 | 7.95694 | 0.1760222 | 0.21733915 | 2.7397488 | 21 | 3 19.1 | 19.7 |
| 105412 2000 $QY_{154}$ | 14.8 | X | 115.29518 | 209.09278 | 232.17509 | 8.38129 | 0.1432457 | 0.21660098 | 2.7459699 | 21 | 3 30.3 | 18.7 |
| 105413 2000 $QF_{155}$ | 15.1 | X | 151.75344 | 133.63351 | 231.21189 | 8.02021 | 0.1503766 | 0.21353296 | 2.7722099 | 21 | 2 4.4 | 19.5 |
| 105414 2000 $QA_{159}$ | 14.4 | X | 169.76357 | 172.35717 | 258.93181 | 8.18214 | 0.0799206 | 0.17521505 | 3.1629217 | 21 | 5 15.2 | 19.3 |
| 105415 2000 $QW_{159}$ | 15.1 | X | 107.98673 | 198.89044 | 207.02493 | 7.72535 | 0.2648587 | 0.21053842 | 2.7984345 | 21 | 2 22.9 | 19.2 |
| 105416 2000 $QY_{161}$ | 15.2 | X | 19.81573 | 59.43034 | 246.93399 | 7.66116 | 0.0784853 | 0.18924043 | 3.0046468 | 21 | 9 1.8 | 19.3 |
| 105417 2000 $QL_{163}$ | 16.7 | X | 290.86879 | 72.46458 | 236.38259 | 6.14358 | 0.2239114 | 0.27224261 | 2.3577549 | 21 | 3 27.6 | 20.0 |
| 105418 2000 $QR_{164}$ | 15.0 | X | 23.31494 | 47.47100 | 301.86392 | 9.45774 | 0.1023397 | 0.19321847 | 2.9632637 | 21 | 11 5.7 | 19.0 |
| 105419 2000 $QR_{165}$ | 15.5 | X | 243.11386 | 63.39558 | 194.89778 | 7.79827 | 0.2368351 | 0.21363182 | 2.7713546 | 21 | — | — |
| 105420 2000 $QB_{167}$ | 15.1 | X | 70.10577 | 178.54397 | 271.59030 | 3.26284 | 0.1737937 | 0.20982567 | 2.8047682 | 21 | 2 13.6 | 18.4 |
| 105421 2000 $QL_{167}$ | 14.5 | X | 356.36317 | 66.13375 | 333.31112 | 15.65888 | 0.0857133 | 0.19484978 | 2.9467012 | 21 | 11 28.8 | 18.6 |
| 105422 2000 $QW_{167}$ | 15.0 | X | 198.39046 | 9.44160 | 294.20050 | 7.15023 | 0.2032957 | 0.21155087 | 2.7894987 | 21 | 1 11.4 | 19.7 |
| 105423 2000 $QA_{168}$ | 14.7 | X | 332.14020 | 103.89844 | 316.84850 | 11.07091 | 0.0395962 | 0.19488383 | 2.9463580 | 21 | 11 19.8 | 18.9 |
| 105424 2000 $QD_{173}$ | 14.9 | X | 285.03871 | 121.18767 | 172.50312 | 16.40490 | 0.1838262 | 0.17624294 | 3.1506118 | 21 | 3 21.1 | 19.5 |
| 105425 2000 $QF_{173}$ | 16.1 | X | 8.99375 | 175.33659 | 237.11551 | 4.35818 | 0.1158511 | 0.29364494 | 2.2417527 | 21 | — | — |
| 105426 2000 $QK_{173}$ | 16.3 | X | 295.72946 | 78.86165 | 266.47966 | 3.01253 | 0.1394029 | 0.27652260 | 2.3333629 | 21 | 6 8.9 | 18.9 |
| 105427 2000 $QL_{173}$ | 14.1 | X | 86.59577 | 273.16506 | 166.14460 | 16.20217 | 0.2389646 | 0.21103361 | 2.7940551 | 21 | 3 8.7 | 17.4 |
| 105428 2000 $QT_{173}$ | 14.6 | X | 257.38940 | 182.44928 | 250.82311 | 5.89195 | 0.1262535 | 0.18600290 | 3.0394120 | 21 | 8 15.1 | 19.0 |
| 105429 2000 $QN_{174}$ | 14.9 | X | 282.97249 | 103.13450 | 310.08315 | 12.58512 | 0.1286972 | 0.18653569 | 3.0336217 | 21 | 8 21.8 | 19.1 |
| 105430 2000 $QR_{174}$ | 15.1 | X | 298.73473 | 176.91680 | 206.01089 | 7.71278 | 0.0957094 | 0.18523788 | 3.0477746 | 21 | 8 9.2 | 19.2 |
| 105431 2000 $QH_{176}$ | 16.3 | X | 229.85561 | 56.93888 | 308.48972 | 3.94744 | 0.2322599 | 0.26881944 | 2.3777285 | 21 | 4 11.3 | 20.4 |
| 105432 2000 $QJ_{176}$ | 15.2 | X | 141.00217 | 194.53061 | 178.18389 | 9.46556 | 0.1602726 | 0.21071371 | 2.7968823 | 21 | 2 5.6 | 19.4 |
| 105433 2000 $QN_{176}$ | 14.5 | X | 260.07433 | 68.47973 | 332.01169 | 9.90173 | 0.0575455 | 0.18208317 | 3.0828769 | 21 | 7 21.5 | 18.9 |
| 105434 2000 $QA_{177}$ | 14.9 | X | 233.59476 | 148.88840 | 193.27989 | 4.64064 | 0.1689592 | 0.22002962 | 2.7173690 | 21 | 3 25.4 | 19.4 |
| 105435 2000 $QJ_{177}$ | 13.7 | X | 163.55114 | 143.77176 | 312.31168 | 6.40246 | 0.1908750 | 0.17535305 | 3.1612621 | 21 | 6 12.9 | 19.1 |
| 105436 2000 $QS_{177}$ | 15.8 | X | 167.88635 | 132.63690 | 210.92696 | 3.25354 | 0.1062888 | 0.21111276 | 2.7933567 | 21 | 1 24.7 | 20.1 |
| 105437 2000 $QR_{178}$ | 15.1 | X | 16.36675 | 167.11726 | 187.99785 | 10.07939 | 0.1074583 | 0.19342552 | 2.9611486 | 21 | 11 8.8 | 18.9 |
| 105438 2000 $QD_{179}$ | 15.2 | X | 205.06276 | 190.21643 | 186.20059 | 11.30262 | 0.0959926 | 0.22122941 | 2.7075354 | 21 | 4 12.9 | 19.3 |
| 105439 2000 $QM_{179}$ | 15.2 | X | 49.09828 | 302.25939 | 49.65104 | 2.74272 | 0.0891908 | 0.19579649 | 2.9371950 | 21 | 12 15.1 | 19.2 |
| 105440 2000 $QF_{180}$ | 16.2 | X | 337.72694 | 273.11493 | 353.39704 | 23.87037 | 0.0675158 | 0.36517620 | 1.9385086 | 21 | 4 7.9 | 18.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105441 2000 $QU_{180}$ | 15.4 | X | 272.28887 | 53.94747 | 346.72239 | 5.53981 | 0.2807543 | 0.27199795 | 2.3591685 | 21 | 7 4.4 | 18.8 |
| 105442 2000 $QW_{180}$ | 15.1 | X | 22.84640 | 84.39316 | 306.76978 | 1.97078 | 0.1874997 | 0.23758070 | 2.5818357 | 21 | — | — |
| 105443 2000 $QY_{180}$ | 15.8 | X | 210.82857 | 72.11108 | 28.51016 | 4.65024 | 0.2151110 | 0.26809287 | 2.3820226 | 21 | 7 30.4 | 19.7 |
| 105444 2000 $QU_{182}$ | 14.3 | X | 329.40072 | 305.62506 | 38.42283 | 17.39757 | 0.2496518 | 0.17890571 | 3.1192721 | 21 | 7 26.9 | 17.9 |
| 105445 2000 $QW_{182}$ | 15.0 | X | 205.98764 | 154.61006 | 207.33319 | 22.88759 | 0.0529908 | 0.40696595 | 1.8034219 | 21 | 2 19.7 | 17.4 |
| 105446 2000 $QS_{183}$ | 15.3 | X | 213.03886 | 352.32598 | 350.34858 | 4.98276 | 0.1601395 | 0.21925505 | 2.7237651 | 21 | 3 8.6 | 19.6 |
| 105447 2000 $QU_{183}$ | 14.7 | X | 97.60601 | 85.54181 | 348.13096 | 6.93567 | 0.0520771 | 0.21615872 | 2.7497141 | 21 | 2 16.9 | 18.2 |
| 105448 2000 $QZ_{190}$ | 15.7 | X | 246.41794 | 263.30220 | 133.54576 | 14.81313 | 0.1054846 | 0.22777453 | 2.6554163 | 21 | 6 22.7 | 19.8 |
| 105449 2000 $QA_{191}$ | 15.9 | X | 62.54182 | 190.16217 | 138.73096 | 15.29114 | 0.1861429 | 0.24383148 | 2.5375203 | 21 | 12 25.5 | 19.8 |
| 105450 2000 $QE_{191}$ | 15.3 | X | 199.16873 | 337.22675 | 10.84299 | 8.63728 | 0.2150191 | 0.21595512 | 2.7514421 | 21 | 3 6.1 | 20.1 |
| 105451 2000 $QZ_{192}$ | 15.2 | X | 150.74561 | 323.60710 | 96.40856 | 5.62631 | 0.1593367 | 0.21766782 | 2.7369901 | 21 | 4 17.4 | 19.5 |
| 105452 2000 $QB_{193}$ | 15.6 | X | 201.52540 | 207.76998 | 146.70585 | 13.37414 | 0.1586034 | 0.21802223 | 2.7340232 | 21 | 3 14.9 | 20.1 |
| 105453 2000 $QX_{194}$ | 14.9 | X | 239.70192 | 73.01413 | 311.93091 | 11.10640 | 0.2116606 | 0.22693706 | 2.6619451 | 21 | 5 16.8 | 19.4 |
| 105454 2000 $QP_{195}$ | 15.0 | X | 71.78835 | 101.34529 | 348.62500 | 8.70236 | 0.1303908 | 0.20976327 | 2.8053244 | 21 | 2 13.8 | 18.4 |
| 105455 2000 $QJ_{197}$ | 16.9 | X | 189.59662 | 253.03770 | 147.13166 | 1.61067 | 0.1703296 | 0.26766287 | 2.3845730 | 21 | 4 23.9 | 20.7 |
| 105456 2000 $QK_{197}$ | 16.6 | X | 351.40668 | 288.36687 | 345.96530 | 2.32043 | 0.1507316 | 0.27639869 | 2.3340602 | 21 | 5 30.4 | 18.5 |
| 105457 2000 $QG_{198}$ | 15.1 | X | 285.24063 | 220.36724 | 139.54517 | 11.19797 | 0.0983828 | 0.18204268 | 3.0833340 | 21 | 6 23.9 | 19.5 |
| 105458 2000 $QN_{199}$ | 14.9 | X | 201.24319 | 106.90125 | 346.16063 | 14.16215 | 0.0757445 | 0.18200384 | 3.0837726 | 21 | 7 19.5 | 19.7 |
| 105459 2000 $QX_{199}$ | 16.6 | X | 19.19915 | 3.83609 | 12.71816 | 3.77017 | 0.2135245 | 0.28950033 | 2.2630979 | 21 | — | — |
| 105460 2000 $QV_{201}$ | 16.2 | X | 253.41959 | 10.93697 | 355.84116 | 6.89536 | 0.1321043 | 0.27245510 | 2.3565288 | 21 | 5 12.9 | 19.7 |
| 105461 2000 $QH_{205}$ | 14.8 | X | 342.91336 | 340.61911 | 342.80036 | 10.53687 | 0.1601230 | 0.18432878 | 3.0577873 | 21 | 8 1.0 | 18.3 |
| 105462 2000 $QG_{206}$ | 15.6 | X | 114.03336 | 194.73265 | 173.40420 | 1.69511 | 0.1763532 | 0.20524292 | 2.8463650 | 21 | 1 5.7 | 19.5 |
| 105463 2000 $QT_{206}$ | 14.9 | X | 335.15036 | 14.86173 | 4.20201 | 9.70491 | 0.1002996 | 0.18814990 | 3.0162457 | 21 | 10 1.9 | 18.6 |
| 105464 2000 $QD_{207}$ | 16.2 | X | 188.77185 | 353.58523 | 359.03936 | 1.01036 | 0.2010441 | 0.26124024 | 2.4234980 | 21 | 2 24.1 | 20.2 |
| 105465 2000 $QO_{207}$ | 14.8 | X | 237.30790 | 56.04573 | 340.65890 | 2.63321 | 0.1826993 | 0.17680299 | 3.1439549 | 21 | 6 4.8 | 19.9 |
| 105466 2000 $QP_{207}$ | 15.0 | X | 296.96442 | 255.30281 | 177.95138 | 12.18386 | 0.2805677 | 0.18579387 | 3.0416913 | 21 | 9 16.5 | 18.5 |
| 105467 2000 $QD_{208}$ | 14.4 | X | 271.89633 | 295.95716 | 171.99926 | 14.01243 | 0.1836675 | 0.18909634 | 3.0061730 | 21 | 10 13.1 | 18.5 |
| 105468 2000 $QF_{208}$ | 15.8 | X | 231.78404 | 274.60197 | 146.88581 | 1.45523 | 0.0995277 | 0.27409281 | 2.3471326 | 21 | 7 7.7 | 18.9 |
| 105469 2000 $QA_{209}$ | 17.0 | X | 44.45599 | 200.86279 | 184.94434 | 4.26067 | 0.1478885 | 0.29426525 | 2.2386012 | 21 | — | — |
| 105470 2000 $QE_{209}$ | 16.2 | X | 273.67109 | 186.94474 | 310.55149 | 2.64911 | 0.0761288 | 0.29286768 | 2.2457173 | 21 | 12 29.9 | 18.5 |
| 105471 2000 $QP_{209}$ | 15.1 | X | 189.28867 | 275.47904 | 192.54128 | 11.36045 | 0.1776761 | 0.22702232 | 2.6612786 | 21 | 7 17.5 | 19.7 |
| 105472 2000 $QG_{210}$ | 15.2 | X | 251.52137 | 329.09812 | 334.58737 | 5.23407 | 0.0130817 | 0.21712745 | 2.7415294 | 21 | 3 8.5 | 18.8 |
| 105473 2000 $QA_{211}$ | 15.4 | X | 262.77247 | 244.67594 | 148.48086 | 2.04237 | 0.1855280 | 0.17967618 | 3.1103485 | 21 | 6 26.1 | 19.9 |
| 105474 2000 $QJ_{211}$ | 15.0 | X | 265.19912 | 228.01719 | 156.24020 | 8.34659 | 0.1184629 | 0.18081032 | 3.0973283 | 21 | 6 26.4 | 19.5 |
| 105475 2000 $QK_{211}$ | 16.7 | X | 339.79498 | 336.87678 | 58.04495 | 1.44413 | 0.2130352 | 0.28552923 | 2.2840328 | 21 | 12 2.1 | 17.8 |
| 105476 2000 $QM_{211}$ | 15.3 | X | 58.15258 | 227.44998 | 146.40614 | 2.83643 | 0.0988015 | 0.19955620 | 2.9001863 | 21 | — | — |
| 105477 2000 $QO_{213}$ | 16.4 | X | 286.13715 | 8.39291 | 12.52569 | 4.07221 | 0.1327677 | 0.27750373 | 2.3278598 | 21 | 7 19.8 | 19.0 |
| 105478 2000 $QS_{213}$ | 16.3 | X | 173.04820 | 279.20620 | 141.03585 | 1.80689 | 0.1698448 | 0.26666102 | 2.3905419 | 21 | 5 4.4 | 20.1 |
| 105479 2000 $QO_{214}$ | 16.5 | X | 78.27443 | 347.32550 | 62.90481 | 1.95970 | 0.1394613 | 0.30043727 | 2.2078362 | 21 | — | — |
| 105480 2000 $QF_{215}$ | 16.2 | X | 204.88880 | 319.34465 | 67.30154 | 3.28287 | 0.1136544 | 0.26746748 | 2.3857342 | 21 | 4 21.6 | 19.7 |
| 105481 2000 $QB_{216}$ | 14.5 | X | 237.20562 | 29.25819 | 51.61619 | 6.13096 | 0.1742250 | 0.18051232 | 3.1007362 | 21 | 8 1.0 | 19.4 |
| 105482 2000 $QJ_{216}$ | 15.9 | X | 345.06269 | 165.74419 | 119.89029 | 3.34248 | 0.1782268 | 0.22860535 | 2.6489786 | 21 | 6 5.6 | 18.3 |
| 105483 2000 $QK_{216}$ | 16.5 | X | 88.25810 | 187.48008 | 127.02161 | 3.17642 | 0.1061917 | 0.24461572 | 2.5320939 | 21 | 12 25.6 | 20.1 |
| 105484 2000 $QV_{216}$ | 15.2 | X | 6.67608 | 193.89734 | 104.48224 | 4.27648 | 0.1483842 | 0.18500752 | 3.0503041 | 21 | 8 9.8 | 18.6 |
| 105485 2000 $QW_{216}$ | 16.2 | X | 210.73547 | 269.53884 | 10.69075 | 6.61173 | 0.1451824 | 0.25690679 | 2.4506747 | 21 | — | — |
| 105486 2000 $QX_{216}$ | 14.7 | X | 282.49531 | 229.90260 | 161.47957 | 9.93036 | 0.0570802 | 0.18299107 | 3.0726714 | 21 | 8 4.6 | 18.9 |
| 105487 2000 $QS_{219}$ | 15.4 | X | 131.78678 | 320.07960 | 48.82276 | 4.98404 | 0.2063340 | 0.20986405 | 2.8044262 | 21 | 1 31.4 | 19.6 |
| 105488 2000 $QX_{220}$ | 15.4 | X | 30.39236 | 264.19545 | 105.30682 | 2.47255 | 0.1753581 | 0.19671512 | 2.9280437 | 21 | 12 25.6 | 19.1 |
| 105489 2000 $QE_{221}$ | 15.4 | X | 86.14914 | 238.94907 | 104.59295 | 6.53487 | 0.1280126 | 0.20200092 | 2.8767391 | 21 | — | — |
| 105490 2000 $QS_{223}$ | 15.3 | X | 135.08082 | 94.43430 | 329.70038 | 5.32598 | 0.2211673 | 0.21651428 | 2.7467029 | 21 | 4 8.2 | 19.7 |
| 105491 2000 $QM_{227}$ | 15.3 | X | 111.54515 | 250.87903 | 182.20580 | 11.95525 | 0.1293773 | 0.21330912 | 2.7741489 | 21 | 3 15.9 | 19.2 |
| 105492 2000 $QO_{227}$ | 14.8 | X | 50.75231 | 255.73588 | 351.64235 | 26.92610 | 0.1103594 | 0.18344101 | 3.0676449 | 21 | 8 19.4 | 19.1 |
| 105493 2000 $QB_{228}$ | 15.1 | X | 62.65591 | 315.38689 | 35.56409 | 2.39641 | 0.1112283 | 0.19620175 | 2.9331490 | 21 | — | — |
| 105494 2000 $QF_{228}$ | 15.3 | X | 28.13258 | 235.03347 | 79.14109 | 3.96340 | 0.1864831 | 0.18882137 | 3.0090907 | 21 | 10 14.7 | 18.8 |
| 105495 2000 $QW_{228}$ | 14.8 | X | 310.91479 | 268.04085 | 155.92493 | 11.29560 | 0.1133942 | 0.19128891 | 2.9831575 | 21 | 10 25.9 | 18.6 |
| 105496 2000 $QC_{229}$ | 15.3 | X | 305.69569 | 354.16422 | 26.09637 | 2.63788 | 0.2568641 | 0.18442955 | 3.0566735 | 21 | 7 26.2 | 18.8 |
| 105497 2000 $QF_{229}$ | 15.0 | X | 19.08386 | 349.63784 | 14.78767 | 10.95934 | 0.1252839 | 0.19173414 | 2.9785376 | 21 | 11 21.9 | 18.9 |
| 105498 2000 $QM_{230}$ | 14.4 | X | 238.54809 | 23.59003 | 35.34700 | 12.92830 | 0.1354669 | 0.17855291 | 3.1233795 | 21 | 7 9.5 | 19.4 |
| 105499 2000 $QS_{230}$ | 15.3 | X | 222.69193 | 332.21120 | 88.93423 | 3.08380 | 0.2434538 | 0.17688850 | 3.1429416 | 21 | 6 17.8 | 20.6 |
| 105500 2000 $QL_{231}$ | 16.7 | X | 326.82677 | 66.33992 | 248.32432 | 2.24161 | 0.1821835 | 0.27824317 | 2.3237338 | 21 | 6 9.1 | 18.6 |
| 105501 2000 $QA_{232}$ | 15.3 | X | 12.86832 | 307.93109 | 56.69897 | 7.57412 | 0.2452998 | 0.19142716 | 2.9817211 | 21 | 12 1.4 | 18.7 |
| 105502 2000 $QN_{250}$ | 14.8 | X | 329.26536 | 276.69048 | 121.02229 | 11.68161 | 0.1117666 | 0.19281192 | 2.9674276 | 21 | 10 23.7 | 18.6 |
| 105503 2000 $RG_{1}$ | 16.6 | X | 280.91694 | 74.05632 | 317.84771 | 1.74670 | 0.2117723 | 0.27649227 | 2.3335336 | 21 | 7 13.4 | 19.5 |
| 105504 2000 $RX_{2}$ | 13.7 | X | 230.03072 | 43.03454 | 5.27492 | 26.86457 | 0.1746735 | 0.17603073 | 3.1531434 | 21 | 6 7.8 | 19.3 |
| 105505 2000 $RK_{3}$ | 14.4 | X | 315.66732 | 106.67693 | 314.80361 | 1.46448 | 0.1735912 | 0.18803462 | 3.0174785 | 21 | 10 20.1 | 17.8 |
| 105506 2000 $RO_{3}$ | 14.5 | X | 10.17925 | 41.80769 | 5.18372 | 19.40143 | 0.1155860 | 0.19442757 | 2.9509657 | 21 | — | — |
| 105507 2000 $RZ_{6}$ | 14.8 | X | 321.06624 | 29.84133 | 24.16273 | 13.22461 | 0.1342724 | 0.18694462 | 3.0291962 | 21 | 10 22.7 | 18.4 |
| 105508 2000 $RA_{9}$ | 15.0 | X | 145.74087 | 160.35555 | 357.96290 | 10.92879 | 0.0278044 | 0.18117106 | 3.0932154 | 21 | 8 7.0 | 19.5 |
| 105509 2000 $RL_{9}$ | 15.5 | X | 255.19859 | 277.88925 | 70.94782 | 10.33522 | 0.2102026 | 0.26539962 | 2.3981104 | 21 | 4 20.4 | 19.3 |
| 105510 2000 $RJ_{11}$ | 14.5 | X | 306.77403 | 323.63618 | 98.48165 | 3.01109 | 0.2193224 | 0.18231058 | 3.0803127 | 21 | 9 30.3 | 18.0 |
| 105511 2000 $RF_{13}$ | 14.1 | X | 140.38333 | 167.49606 | 305.59157 | 17.25418 | 0.0418486 | 0.17749805 | 3.1357420 | 21 | 5 31.2 | 18.9 |
| 105512 2000 $RJ_{14}$ | 14.5 | X | 305.93660 | 129.92292 | 269.29625 | 8.77211 | 0.1173387 | 0.18733563 | 3.0249797 | 21 | 9 5.7 | 18.5 |
| 105513 2000 $RL_{14}$ | 14.7 | X | 293.48896 | 141.35041 | 249.79706 | 7.79454 | 0.1081109 | 0.18498618 | 3.0505386 | 21 | 8 10.1 | 18.9 |
| 105514 2000 $RO_{15}$ | 14.8 | X | 15.21740 | 73.59196 | 284.08667 | 8.77785 | 0.1253586 | 0.19234521 | 2.9722258 | 21 | 11 8.0 | 18.6 |
| 105515 2000 $RQ_{15}$ | 14.9 | X | 306.23851 | 34.89678 | 290.39315 | 10.12676 | 0.0869510 | 0.18019582 | 3.1043659 | 21 | 6 8.6 | 19.1 |
| 105516 2000 $RY_{15}$ | 14.7 | X | 161.17787 | 161.51142 | 243.35456 | 7.39638 | 0.1459133 | 0.21636742 | 2.7479456 | 21 | 4 2.8 | 19.1 |
| 105517 2000 $RA_{16}$ | 14.7 | X | 257.60900 | 108.30263 | 315.54884 | 12.75340 | 0.1458895 | 0.18288042 | 3.0739107 | 21 | 8 3.7 | 19.3 |
| 105518 2000 $RP_{16}$ | 14.8 | X | 333.58151 | 16.42289 | 319.70954 | 12.55140 | 0.1419864 | 0.18459055 | 3.0548959 | 21 | 7 31.9 | 18.3 |
| 105519 2000 $RP_{18}$ | 14.4 | X | 319.47071 | 119.12743 | 301.88189 | 9.40022 | 0.0371966 | 0.19266217 | 2.9689651 | 21 | 11 1.7 | 18.6 |
| 105520 2000 $RW_{22}$ | 14.9 | X | 251.65243 | 151.17573 | 233.39499 | 4.38308 | 0.1511255 | 0.17762389 | 3.1342608 | 21 | 6 7.7 | 19.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105521 2000 $RM_{24}$ | 14.3 | X | 151.23087 | 132.86651 | 335.23540 | 26.72327 | 0.0628102 | 0.17640958 | 3.1486274 | 21 | 6 7.9 | 19.5 |
| 105522 2000 $RH_{25}$ | 14.3 | X | 308.81374 | 92.94539 | 189.35504 | 25.54653 | 0.2029748 | 0.17694014 | 3.1423300 | 21 | 4 1.1 | 18.5 |
| 105523 2000 $RC_{26}$ | 16.4 | X | 313.60479 | 152.55513 | 236.03692 | 2.72642 | 0.1611151 | 0.28085814 | 2.3092877 | 21 | 9 14.1 | 18.2 |
| 105524 2000 $RF_{26}$ | 15.0 | X | 15.51990 | 43.93043 | 299.92766 | 10.18891 | 0.2208903 | 0.19058940 | 2.9904524 | 21 | 10 31.8 | 18.6 |
| 105525 2000 $RL_{26}$ | 15.2 | X | 55.30840 | 0.29883 | 315.03097 | 12.65614 | 0.1868128 | 0.19334717 | 2.9619485 | 21 | 11 18.1 | 19.6 |
| 105526 2000 $RQ_{26}$ | 15.0 | X | 183.76708 | 156.94100 | 235.99429 | 8.53210 | 0.2008515 | 0.21708990 | 2.7418454 | 21 | 4 11.4 | 19.7 |
| 105527 2000 $RW_{26}$ | 14.9 | X | 0.74867 | 95.18087 | 286.11826 | 8.81526 | 0.1171727 | 0.19183069 | 2.9775381 | 21 | 11 15.5 | 18.6 |
| 105528 2000 $RZ_{26}$ | 16.2 | X | 265.85713 | 107.14912 | 278.09730 | 6.18649 | 0.1291488 | 0.27492619 | 2.3423870 | 21 | 6 26.1 | 19.0 |
| 105529 2000 $RG_{27}$ | 14.4 | X | 332.92008 | 112.55387 | 294.35830 | 9.20210 | 0.0567140 | 0.19167868 | 2.9791121 | 21 | 11 2.2 | 18.4 |
| 105530 2000 $RM_{27}$ | 15.2 | X | 12.10855 | 117.55822 | 233.94596 | 8.53833 | 0.1038923 | 0.19035641 | 2.9928920 | 21 | 10 24.8 | 18.9 |
| 105531 2000 $RR_{28}$ | 14.5 | X | 243.28666 | 143.00096 | 265.25728 | 8.92759 | 0.0423521 | 0.17997241 | 3.1069345 | 21 | 7 9.7 | 19.0 |
| 105532 2000 $RA_{29}$ | 15.0 | X | 322.64928 | 96.78459 | 296.87513 | 8.76554 | 0.1044845 | 0.18777769 | 3.0202302 | 21 | 9 26.3 | 18.9 |
| 105533 2000 $RB_{29}$ | 14.7 | X | 31.78689 | 30.41713 | 312.67430 | 9.08745 | 0.0737325 | 0.19187498 | 2.9770799 | 21 | 11 5.6 | 18.8 |
| 105534 2000 $RC_{29}$ | 15.0 | X | 346.53312 | 78.90237 | 309.96753 | 9.15357 | 0.0605250 | 0.19107232 | 2.9854114 | 21 | 10 28.9 | 19.1 |
| 105535 2000 $RT_{32}$ | 14.3 | X | 231.61881 | 166.31446 | 223.58611 | 7.31127 | 0.1926355 | 0.17485279 | 3.1672888 | 21 | 5 22.4 | 19.5 |
| 105536 2000 $RG_{37}$ | 16.0 | X | 284.48495 | 349.96796 | 6.17161 | 20.11747 | 0.0615286 | 0.36603218 | 1.9354853 | 21 | 6 16.9 | 18.5 |
| 105537 2000 $RH_{37}$ | 16.6 | X | 28.12644 | 60.40184 | 0.58384 | 23.08236 | 0.1012594 | 0.38737209 | 1.8637336 | 21 | — | — |
| 105538 2000 $RF_{39}$ | 14.3 | X | 253.95006 | 82.84145 | 285.87439 | 12.71083 | 0.1371204 | 0.17639327 | 3.1488215 | 21 | 5 21.4 | 19.2 |
| 105539 2000 $RJ_{39}$ | 14.4 | X | 204.29624 | 142.20512 | 302.22958 | 16.23134 | 0.1855805 | 0.17920567 | 3.1157903 | 21 | 7 4.9 | 19.7 |
| 105540 2000 $RH_{40}$ | 14.5 | X | 181.58496 | 88.79446 | 247.85762 | 8.38845 | 0.1581849 | 0.21073647 | 2.7966809 | 21 | 1 31.1 | 19.1 |
| 105541 2000 $RL_{40}$ | 14.3 | X | 308.36310 | 117.53242 | 322.43752 | 12.94084 | 0.0464976 | 0.19184723 | 2.9773669 | 21 | 11 8.5 | 18.6 |
| 105542 2000 $RR_{40}$ | 14.4 | X | 256.87161 | 237.89067 | 254.53390 | 9.53873 | 0.0461635 | 0.19228126 | 2.9728848 | 21 | 11 10.3 | 18.6 |
| 105543 2000 $RW_{40}$ | 14.5 | X | 25.14471 | 39.33026 | 313.30273 | 9.91546 | 0.0838903 | 0.19135159 | 2.9825060 | 21 | 11 9.7 | 18.6 |
| 105544 2000 $RC_{41}$ | 15.7 | X | 267.42893 | 143.16462 | 245.28373 | 6.29448 | 0.1917170 | 0.27442912 | 2.3452146 | 21 | 6 23.1 | 18.9 |
| 105545 2000 $RY_{41}$ | 14.4 | X | 6.39327 | 115.18502 | 266.33402 | 8.93502 | 0.1138180 | 0.19152322 | 2.9807239 | 21 | 11 25.6 | 18.0 |
| 105546 2000 $RM_{44}$ | 16.5 | X | 319.98003 | 214.96164 | 201.95678 | 20.14327 | 0.0988327 | 0.37868102 | 1.8921419 | 21 | 12 14.8 | 18.3 |
| 105547 2000 $RX_{44}$ | 14.6 | X | 330.70907 | 334.27590 | 342.59892 | 10.16162 | 0.2306638 | 0.18138355 | 3.0907992 | 21 | 6 17.1 | 18.1 |
| 105548 2000 $RF_{45}$ | 13.9 | X | 259.69398 | 14.14058 | 358.17789 | 11.37718 | 0.1595257 | 0.17590926 | 3.1545948 | 21 | 5 28.3 | 18.8 |
| 105549 2000 $RJ_{45}$ | 14.6 | X | 146.58015 | 348.88606 | 341.32839 | 14.87870 | 0.1385809 | 0.20387920 | 2.8590435 | 21 | — | — |
| 105550 2000 $RY_{45}$ | 14.7 | X | 19.43681 | 8.70911 | 352.58189 | 9.48584 | 0.1425913 | 0.18958526 | 3.0010023 | 21 | 11 20.3 | 18.6 |
| 105551 2000 $RW_{46}$ | 16.0 | X | 219.47670 | 50.52092 | 332.04891 | 7.90037 | 0.0832212 | 0.26719515 | 2.3873550 | 21 | 4 28.5 | 19.5 |
| 105552 2000 $RR_{49}$ | 14.1 | X | 268.72432 | 103.12659 | 211.66387 | 24.63905 | 0.2651928 | 0.17159569 | 3.2072426 | 21 | 3 17.3 | 19.5 |
| 105553 2000 $RA_{50}$ | 13.0 | X | 324.76803 | 261.13549 | 37.56907 | 22.94147 | 0.0355541 | 0.17254587 | 3.1954572 | 21 | 6 1.2 | 17.6 |
| 105554 2000 $RJ_{53}$ | 14.1 | X | 273.43317 | 51.44736 | 51.14253 | 8.70369 | 0.2112534 | 0.18476732 | 3.0529470 | 21 | 10 4.9 | 18.2 |
| 105555 2000 $RK_{53}$ | 14.6 | X | 299.40410 | 9.04398 | 40.32919 | 12.29963 | 0.1666119 | 0.18249724 | 3.0782119 | 21 | 9 13.2 | 18.6 |
| 105556 2000 $RU_{53}$ | 16.9 | X | 23.25490 | 347.78053 | 353.93546 | 19.93966 | 0.0749620 | 0.37836250 | 1.8932036 | 21 | 11 25.1 | 19.2 |
| 105557 2000 $RZ_{53}$ | 15.0 | X | 263.94282 | 74.29850 | 318.78738 | 7.15240 | 0.1361652 | 0.17921493 | 3.1156830 | 21 | 7 4.6 | 19.6 |
| 105558 2000 $RK_{54}$ | 14.8 | X | 342.95864 | 52.40753 | 276.47884 | 8.74462 | 0.0697120 | 0.18354705 | 3.0664634 | 21 | 8 6.7 | 18.8 |
| 105559 2000 $RN_{54}$ | 14.3 | X | 324.25897 | 107.24717 | 272.87491 | 9.99223 | 0.1300478 | 0.18353040 | 3.0666488 | 21 | 9 7.6 | 18.2 |
| 105560 2000 $RA_{56}$ | 15.3 | X | 18.20801 | 185.50710 | 200.51329 | 1.49136 | 0.0969077 | 0.19573313 | 2.9378288 | 21 | 12 18.1 | 19.1 |
| 105561 2000 $RB_{56}$ | 14.8 | X | 225.31996 | 119.71946 | 298.31284 | 8.70447 | 0.0663729 | 0.17700391 | 3.1415753 | 21 | 6 29.6 | 19.4 |
| 105562 2000 $RS_{57}$ | 15.9 | X | 104.29660 | 96.09736 | 347.40331 | 8.19982 | 0.0825565 | 0.30684042 | 2.1770129 | 21 | 2 26.7 | 18.0 |
| 105563 2000 $RY_{58}$ | 17.3 | X | 350.15615 | 287.60785 | 317.47727 | 2.51475 | 0.0160546 | 0.31430940 | 2.1423864 | 21 | 4 19.3 | 19.5 |
| 105564 2000 $RR_{60}$ | 13.5 | X | 298.65900 | 79.27256 | 336.82116 | 12.21323 | 0.1100700 | 0.18170190 | 3.0871879 | 21 | 9 19.0 | 17.6 |
| 105565 2000 $RA_{61}$ | 14.5 | X | 340.27809 | 319.85662 | 54.09159 | 10.57063 | 0.2722829 | 0.18360891 | 3.0657746 | 21 | 10 6.2 | 17.2 |
| 105566 2000 $RQ_{63}$ | 15.0 | X | 264.32248 | 96.76491 | 285.40551 | 7.07718 | 0.0921328 | 0.18067743 | 3.0988468 | 21 | 6 26.5 | 19.3 |
| 105567 2000 $RG_{64}$ | 14.5 | X | 270.91120 | 85.26462 | 217.33078 | 17.83244 | 0.2161421 | 0.17576269 | 3.1563483 | 21 | 3 8.4 | 19.7 |
| 105568 2000 $RN_{64}$ | 15.2 | X | 140.23924 | 159.15481 | 165.41630 | 2.09382 | 0.0762935 | 0.20431421 | 2.8549839 | 21 | — | — |
| 105569 2000 $RB_{65}$ | 14.9 | X | 106.29912 | 146.91798 | 205.40196 | 14.67108 | 0.1508282 | 0.20371361 | 2.8605926 | 21 | — | — |
| 105570 2000 $RP_{66}$ | 15.9 | X | 314.23868 | 212.35097 | 158.38709 | 8.30868 | 0.2322629 | 0.27749404 | 2.3279140 | 21 | 8 4.8 | 17.6 |
| 105571 2000 $RT_{67}$ | 16.0 | X | 263.55093 | 249.09996 | 177.89301 | 5.46191 | 0.1629083 | 0.27587834 | 2.3369943 | 21 | 8 15.3 | 18.8 |
| 105572 2000 $RQ_{68}$ | 15.6 | X | 256.70127 | 333.95205 | 19.18257 | 11.65485 | 0.1560510 | 0.26923246 | 2.3752962 | 21 | 4 26.1 | 19.0 |
| 105573 2000 $RF_{70}$ | 14.1 | X | 235.02008 | 274.72752 | 184.93658 | 8.41869 | 0.2445103 | 0.17868529 | 3.1218367 | 21 | 8 11.4 | 19.3 |
| 105574 2000 $RZ_{70}$ | 15.0 | X | 144.85914 | 303.85228 | 34.41689 | 11.03239 | 0.1401052 | 0.20559969 | 2.8430713 | 21 | — | — |
| 105575 2000 $RJ_{71}$ | 16.6 | X | 355.33608 | 187.44469 | 189.24932 | 6.70813 | 0.1905828 | 0.28372667 | 2.2936964 | 21 | 12 4.7 | 18.6 |
| 105576 2000 $RM_{72}$ | 14.7 | X | 294.03237 | 199.04424 | 193.00925 | 8.18573 | 0.2510809 | 0.18072186 | 3.0983389 | 21 | 7 21.9 | 18.9 |
| 105577 2000 $RP_{74}$ | 14.3 | X | 27.00255 | 157.52884 | 239.27640 | 8.98773 | 0.0980086 | 0.15194849 | 3.4780711 | 21 | 12 31.9 | 19.1 |
| 105578 2000 $RE_{75}$ | 16.4 | X | 97.00144 | 236.86248 | 186.11451 | 6.97224 | 0.1653162 | 0.30352462 | 2.1928391 | 21 | 1 26.5 | 18.4 |
| 105579 2000 $RE_{77}$ | 16.6 | X | 320.83120 | 170.24614 | 192.89511 | 1.83733 | 0.2719551 | 0.27952969 | 2.3165984 | 21 | 8 1.3 | 18.1 |
| 105580 2000 $RN_{78}$ | 15.3 | X | 0.92521 | 206.42076 | 180.68709 | 11.22100 | 0.1048254 | 0.19312213 | 2.9642491 | 21 | 11 26.2 | 19.1 |
| 105581 2000 $RW_{80}$ | 14.7 | X | 293.99366 | 48.26592 | 338.47581 | 10.46955 | 0.0973311 | 0.18287300 | 3.0739939 | 21 | 8 11.8 | 18.8 |
| 105582 2000 $RC_{82}$ | 15.2 | X | 97.63241 | 141.70804 | 302.12112 | 12.60027 | 0.1735109 | 0.21174855 | 2.7877624 | 21 | 3 12.7 | 19.2 |
| 105583 2000 $RU_{82}$ | 13.8 | X | 191.51727 | 154.80874 | 293.65132 | 12.79850 | 0.1190995 | 0.17730382 | 3.1380317 | 21 | 6 29.2 | 18.8 |
| 105584 2000 $RV_{82}$ | 14.7 | X | 315.01700 | 115.22839 | 266.81561 | 8.73289 | 0.1038867 | 0.18565239 | 3.0432363 | 21 | 8 29.8 | 18.7 |
| 105585 2000 $RM_{83}$ | 14.4 | X | 155.76341 | 128.31313 | 305.02774 | 9.59996 | 0.1063310 | 0.17040577 | 3.2221557 | 21 | 5 2.0 | 19.6 |
| 105586 2000 $RB_{85}$ | 14.8 | X | 234.44898 | 343.10503 | 97.52578 | 2.44366 | 0.1779661 | 0.18169994 | 3.0872101 | 21 | 7 27.0 | 19.5 |
| 105587 2000 $RM_{85}$ | 15.0 | X | 111.90880 | 95.07340 | 347.81704 | 4.63014 | 0.0999072 | 0.21593649 | 2.7516004 | 21 | 3 24.1 | 18.8 |
| 105588 2000 $RT_{85}$ | 14.8 | X | 321.91136 | 239.09731 | 135.14965 | 1.85157 | 0.1016732 | 0.18504052 | 3.0499414 | 21 | 9 4.6 | 18.4 |
| 105589 2000 $RV_{85}$ | 15.9 | X | 303.98868 | 327.98539 | 8.06525 | 8.95511 | 0.1354869 | 0.22671117 | 2.6637130 | 21 | 6 9.5 | 19.3 |
| 105590 2000 $RJ_{86}$ | 14.9 | X | 17.01906 | 256.16388 | 9.18821 | 9.46916 | 0.0546133 | 0.18027272 | 3.1034830 | 21 | 7 8.5 | 19.1 |
| 105591 2000 $RL_{86}$ | 14.7 | X | 16.33964 | 94.33009 | 217.26201 | 9.94240 | 0.0701165 | 0.18563712 | 3.0434032 | 21 | 9 2.7 | 18.9 |
| 105592 2000 $RK_{88}$ | 15.1 | X | 35.97394 | 48.76785 | 307.39697 | 10.91697 | 0.0679834 | 0.19498725 | 2.9453161 | 21 | 11 29.3 | 19.3 |
| 105593 2000 $RN_{88}$ | 14.7 | X | 293.96342 | 43.46260 | 300.61079 | 10.25283 | 0.0787012 | 0.18001152 | 3.1064845 | 21 | 6 17.8 | 19.0 |
| 105594 2000 $RU_{88}$ | 14.8 | X | 302.53166 | 30.53320 | 287.44672 | 8.73267 | 0.0754056 | 0.17874788 | 3.1211079 | 21 | 5 25.7 | 19.2 |
| 105595 2000 $RK_{89}$ | 16.0 | X | 49.77860 | 334.93629 | 287.62751 | 5.92585 | 0.0861345 | 0.27987852 | 2.3146731 | 21 | 8 28.4 | 18.7 |
| 105596 2000 $RO_{89}$ | 14.9 | X | 16.68248 | 200.37440 | 291.74780 | 7.89314 | 0.0982604 | 0.20853990 | 2.8162850 | 21 | 1 7.7 | 18.1 |
| 105597 2000 $RA_{91}$ | 14.7 | X | 333.15188 | 103.88391 | 203.04375 | 25.44721 | 0.1498703 | 0.17979806 | 3.1089427 | 21 | 6 16.2 | 18.9 |
| 105598 2000 $RD_{91}$ | 13.7 | X | 249.05700 | 117.72633 | 337.66153 | 11.70566 | 0.1913354 | 0.18053403 | 3.1004876 | 21 | 8 27.8 | 18.3 |
| 105599 2000 $RL_{91}$ | 16.1 | X | 131.49204 | 77.93975 | 246.26915 | 2.84842 | 0.1808017 | 0.29793071 | 2.2202023 | 21 | — | — |
| 105600 2000 $RT_{91}$ | 16.3 | X | 205.73135 | 145.48347 | 199.51084 | 5.14255 | 0.2149317 | 0.30988250 | 2.1627418 | 21 | 2 22.2 | 19.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105601 2000 $RZ_{91}$ | 14.9 | X | 301.98189 | 188.82769 | 233.61604 | 4.32732 | 0.1306295 | 0.18688073 | 3.0298865 | 21 | 10 1.9 | 18.8 |
| 105602 2000 $RL_{93}$ | 14.8 | X | 118.16598 | 306.62442 | 174.47076 | 21.92077 | 0.0457406 | 0.22062960 | 2.7124403 | 21 | 5 17.1 | 19.0 |
| 105603 2000 $RS_{93}$ | 15.5 | X | 104.00945 | 276.46225 | 128.30242 | 6.97814 | 0.1106707 | 0.20861808 | 2.8155814 | 21 | 1 28.4 | 19.1 |
| 105604 2000 $RR_{94}$ | 14.8 | X | 6.87550 | 336.84232 | 11.98483 | 9.30535 | 0.1451924 | 0.18831070 | 3.0145285 | 21 | 10 16.5 | 18.2 |
| 105605 2000 $RJ_{95}$ | 16.6 | X | 191.63929 | 357.54810 | 19.13235 | 3.16119 | 0.1591615 | 0.31092315 | 2.1579134 | 21 | 3 22.4 | 19.7 |
| 105606 2000 $RV_{95}$ | 14.8 | X | 16.23582 | 241.86301 | 70.50335 | 6.17356 | 0.1398723 | 0.18592177 | 3.0402961 | 21 | 9 17.5 | 18.4 |
| 105607 2000 $RY_{95}$ | 17.2 | X | 200.00903 | 327.74143 | 53.92498 | 2.51895 | 0.1468581 | 0.31271750 | 2.1496508 | 21 | 4 6.1 | 20.2 |
| 105608 2000 $RY_{96}$ | 14.8 | X | 217.89935 | 100.99258 | 241.34203 | 15.69266 | 0.2414107 | 0.21749907 | 2.7384056 | 21 | 3 4.4 | 20.0 |
| 105609 2000 $RB_{98}$ | 14.3 | X | 311.49909 | 128.14706 | 258.80284 | 14.88121 | 0.0952683 | 0.18585530 | 3.0410209 | 21 | 8 28.3 | 18.5 |
| 105610 2000 $RG_{98}$ | 13.9 | X | 341.14610 | 46.58830 | 274.64288 | 12.28537 | 0.1016736 | 0.18274773 | 3.0753985 | 21 | 7 23.3 | 17.8 |
| 105611 2000 $RL_{98}$ | 14.7 | X | 103.36554 | 183.14885 | 245.63705 | 12.73536 | 0.1414201 | 0.21047241 | 2.7990195 | 21 | 2 24.6 | 18.8 |
| 105612 2000 $RT_{99}$ | 14.2 | X | 304.06698 | 152.75382 | 264.95651 | 9.58726 | 0.0978594 | 0.18808279 | 3.0169632 | 21 | 9 29.6 | 18.3 |
| 105613 2000 $RX_{100}$ | 16.1 | X | 71.41947 | 255.32815 | 326.88819 | 17.57317 | 0.0596828 | 0.36964584 | 1.9228504 | 21 | 8 7.3 | 17.7 |
| 105614 2000 $RT_{101}$ | 14.3 | X | 288.37969 | 128.12200 | 270.26576 | 10.75576 | 0.1105852 | 0.18262758 | 3.0767472 | 21 | 8 10.9 | 18.6 |
| 105615 2000 $RX_{101}$ | 14.7 | X | 123.58623 | 0.67358 | 294.08679 | 10.89300 | 0.0273169 | 0.19642195 | 2.9309565 | 21 | 12 26.0 | 18.9 |
| 105616 2000 $RF_{102}$ | 14.2 | X | 289.08536 | 39.18295 | 271.08881 | 9.22879 | 0.2064076 | 0.17595853 | 3.1540058 | 21 | 4 6.8 | 18.9 |
| 105617 2000 $RJ_{102}$ | 14.7 | X | 22.28726 | 124.59770 | 249.29187 | 11.52283 | 0.1201085 | 0.19312398 | 2.9642301 | 21 | 12 10.9 | 18.5 |
| 105618 2000 $RX_{102}$ | 14.3 | X | 151.15025 | 111.29658 | 313.19300 | 14.81352 | 0.0546752 | 0.16895720 | 3.2405464 | 21 | 4 8.4 | 19.4 |
| 105619 2000 $RA_{104}$ | 13.6 | X | 333.40991 | 320.51714 | 4.91921 | 17.32334 | 0.0469974 | 0.17859089 | 3.1229366 | 21 | 7 29.4 | 18.1 |
| 105620 2000 $RE_{104}$ | 14.3 | X | 329.38727 | 25.89576 | 312.79573 | 14.07325 | 0.2278113 | 0.18293983 | 3.0732452 | 21 | 7 18.4 | 17.5 |
| 105621 2000 $RG_{105}$ | 15.9 | X | 355.03217 | 116.78737 | 216.21735 | 21.87501 | 0.0342969 | 0.37349925 | 1.9096021 | 21 | 9 15.8 | 18.0 |
| 105622 2000 $RK_{105}$ | 14.6 | X | 20.93781 | 76.45209 | 293.43441 | 10.02152 | 0.1757003 | 0.19091575 | 2.9870435 | 21 | 12 11.2 | 18.4 |
| 105623 2000 $SN_{1}$ | 15.3 | X | 186.83145 | 130.15978 | 288.76391 | 18.32050 | 0.0852347 | 0.36123308 | 1.9525899 | 21 | 4 30.8 | 18.2 |
| 105624 2000 $ST_{3}$ | 14.6 | X | 164.45395 | 349.62066 | 60.52295 | 9.87920 | 0.2305066 | 0.21633447 | 2.7482246 | 21 | 4 22.1 | 19.3 |
| 105625 2000 $SG_{4}$ | 16.7 | X | 50.96573 | 225.33040 | 171.16674 | 5.26513 | 0.1904854 | 0.29261357 | 2.2470172 | 21 | — | — |
| 105626 2000 $SW_{4}$ | 16.9 | X | 136.17015 | 330.08749 | 28.05241 | 21.78185 | 0.0750629 | 0.35012068 | 1.9936896 | 21 | — | — |
| 105627 2000 $SY_{4}$ | 14.1 | X | 236.87489 | 275.84087 | 39.87754 | 23.51693 | 0.3873193 | 0.17185797 | 3.2039785 | 21 | 3 5.3 | 20.4 |
| 105628 2000 $SG_{5}$ | 16.7 | X | 323.46802 | 125.36693 | 312.59753 | 22.04374 | 0.1127370 | 0.38422824 | 1.8738861 | 21 | — | — |
| 105629 2000 $SS_{5}$ | 14.9 | X | 359.75137 | 71.02154 | 248.76969 | 12.11755 | 0.1132993 | 0.18626819 | 3.0365254 | 21 | 8 18.4 | 18.8 |
| 105630 2000 $SZ_{5}$ | 13.9 | X | 275.99135 | 220.91146 | 115.34805 | 22.98386 | 0.0460014 | 0.17603897 | 3.1530450 | 21 | 5 27.2 | 18.7 |
| 105631 2000 $SU_{7}$ | 16.7 | X | 46.81475 | 132.74555 | 307.98249 | 5.01672 | 0.1060252 | 0.29819931 | 2.2188688 | 21 | — | — |
| 105632 2000 $SQ_{8}$ | 16.1 | X | 205.11200 | 253.60132 | 164.34380 | 4.84831 | 0.1657505 | 0.22250983 | 2.6971385 | 21 | 6 2.2 | 20.5 |
| 105633 2000 $SZ_{9}$ | 16.2 | X | 343.39663 | 83.59199 | 212.66633 | 20.28817 | 0.0749860 | 0.36878845 | 1.9258295 | 21 | 6 20.7 | 18.2 |
| 105634 2000 $SX_{12}$ | 15.0 | X | 76.31837 | 30.24510 | 282.30672 | 2.47151 | 0.1612906 | 0.19739277 | 2.9213386 | 21 | 12 8.3 | 19.4 |
| 105635 2000 $SN_{13}$ | 16.1 | X | 263.99094 | 339.02727 | 1.36620 | 6.70713 | 0.1182306 | 0.27097167 | 2.3651215 | 21 | 4 21.6 | 19.4 |
| 105636 2000 $ST_{13}$ | 14.8 | X | 186.40411 | 37.36632 | 30.28847 | 8.78083 | 0.0822782 | 0.17492027 | 3.1664742 | 21 | 5 27.5 | 19.7 |
| 105637 2000 $SC_{14}$ | 16.4 | X | 181.07674 | 142.48131 | 243.29337 | 4.10428 | 0.2327123 | 0.26611918 | 2.3937857 | 21 | 3 29.1 | 20.4 |
| 105638 2000 $SK_{14}$ | 14.7 | X | 26.78436 | 57.52441 | 276.42578 | 11.99430 | 0.1007554 | 0.19216525 | 2.9740811 | 21 | 10 20.3 | 18.8 |
| 105639 2000 $SL_{15}$ | 14.7 | X | 342.44289 | 59.30079 | 213.05448 | 15.74096 | 0.1597181 | 0.17838040 | 3.1253929 | 21 | 5 18.2 | 18.3 |
| 105640 2000 $SP_{15}$ | 16.3 | X | 321.45282 | 219.40679 | 267.47698 | 5.81527 | 0.0979162 | 0.29532946 | 2.2332201 | 21 | — | — |
| 105641 2000 $SH_{17}$ | 14.5 | X | 59.52443 | 150.04853 | 327.51545 | 14.70920 | 0.1154223 | 0.21052875 | 2.7985202 | 21 | 2 25.1 | 17.7 |
| 105642 2000 $SJ_{17}$ | 14.6 | X | 301.44836 | 43.96371 | 342.33362 | 9.30674 | 0.0497438 | 0.18437869 | 3.0572355 | 21 | 8 27.1 | 18.6 |
| 105643 2000 $SF_{18}$ | 15.1 | X | 0.88898 | 312.39544 | 317.23577 | 8.92406 | 0.0733978 | 0.17866069 | 3.1221233 | 21 | 6 18.9 | 19.2 |
| 105644 2000 $SY_{19}$ | 14.4 | X | 70.45198 | 51.37136 | 269.85026 | 8.60072 | 0.0833196 | 0.19299966 | 2.9655029 | 21 | 12 1.9 | 18.7 |
| 105645 2000 $SQ_{20}$ | 15.0 | X | 80.25556 | 92.40255 | 232.52010 | 4.37595 | 0.1593397 | 0.19512560 | 2.9439237 | 21 | 12 26.1 | 19.5 |
| 105646 2000 $SL_{21}$ | 16.3 | X | 328.11641 | 116.38734 | 3.66386 | 4.17886 | 0.0686488 | 0.29512849 | 2.2342338 | 21 | — | — |
| 105647 2000 $SL_{22}$ | 14.9 | X | 263.48705 | 103.13005 | 4.84298 | 13.30699 | 0.0589022 | 0.18988904 | 2.9978009 | 21 | 10 15.4 | 19.0 |
| 105648 2000 $SA_{23}$ | 16.9 | X | 287.93720 | 172.88571 | 208.62418 | 2.13560 | 0.1871088 | 0.27574186 | 2.3377654 | 21 | 7 12.1 | 19.6 |
| 105649 2000 $SQ_{23}$ | 13.9 | X | 216.57063 | 28.19935 | 31.54833 | 28.01436 | 0.2175096 | 0.17519198 | 3.1631994 | 21 | 6 5.3 | 19.6 |
| 105650 2000 $SU_{23}$ | 16.8 | X | 291.89525 | 100.62923 | 197.47184 | 22.17563 | 0.0706940 | 0.36516340 | 1.9385539 | 21 | 3 24.6 | 18.9 |
| 105651 2000 $SF_{24}$ | 16.2 | X | 140.38930 | 202.25854 | 22.69511 | 21.44940 | 0.0203363 | 0.37814395 | 1.8939330 | 21 | 11 11.5 | 18.4 |
| 105652 2000 $SU_{24}$ | 14.7 | X | 338.85181 | 142.31443 | 213.04063 | 9.50653 | 0.1365389 | 0.18440894 | 3.0569012 | 21 | 9 1.5 | 18.5 |
| 105653 2000 $SA_{26}$ | 15.0 | X | 21.34627 | 151.34889 | 190.67450 | 9.88822 | 0.1008166 | 0.19263976 | 2.9691953 | 21 | 10 29.1 | 18.7 |
| 105654 2000 $SX_{26}$ | 12.9 | X | 248.96754 | 102.60068 | 264.01879 | 4.83958 | 0.1378310 | 0.08203586 | 5.2456609 | 21 | 5 19.1 | 20.1 |
| 105655 2000 $ST_{27}$ | 14.9 | X | 31.68164 | 351.33948 | 321.48286 | 9.35520 | 0.0407719 | 0.18773579 | 3.0206797 | 21 | 9 23.1 | 19.0 |
| 105656 2000 $SA_{28}$ | 14.5 | X | 189.59987 | 185.51114 | 229.18079 | 5.76727 | 0.1522551 | 0.17262481 | 3.1944829 | 21 | 5 16.6 | 19.5 |
| 105657 2000 $SL_{28}$ | 14.2 | X | 126.26588 | 323.44357 | 233.58333 | 13.57846 | 0.1301761 | 0.18511347 | 3.0491400 | 21 | 8 31.8 | 19.3 |
| 105658 2000 $SF_{29}$ | 15.0 | X | 132.44730 | 264.40050 | 347.02436 | 13.16214 | 0.0345128 | 0.19342024 | 2.9612025 | 21 | 11 8.0 | 19.5 |
| 105659 2000 $SV_{31}$ | 15.6 | X | 130.72256 | 348.98929 | 317.04226 | 1.29263 | 0.0323334 | 0.20044264 | 2.8916295 | 21 | — | — |
| 105660 2000 $SG_{32}$ | 15.7 | X | 109.88268 | 253.22245 | 126.00377 | 2.79636 | 0.1186638 | 0.20597916 | 2.8395784 | 21 | 1 5.8 | 19.6 |
| 105661 2000 $SO_{32}$ | 15.5 | X | 352.25933 | 314.09080 | 64.89511 | 3.48274 | 0.1203452 | 0.19028070 | 2.9936858 | 21 | 11 1.2 | 19.1 |
| 105662 2000 $SN_{36}$ | 15.1 | X | 157.41522 | 1.50321 | 28.66238 | 13.75354 | 0.0417899 | 0.21364060 | 2.7712786 | 21 | 3 11.8 | 19.2 |
| 105663 2000 $SZ_{36}$ | 14.7 | X | 202.59401 | 80.40003 | 21.06559 | 5.14536 | 0.1272518 | 0.17945320 | 3.1129245 | 21 | 7 26.6 | 19.6 |
| 105664 2000 $SL_{37}$ | 16.2 | X | 184.79493 | 331.47382 | 163.54005 | 3.60433 | 0.1214905 | 0.27721007 | 2.3295036 | 21 | 8 22.3 | 19.7 |
| 105665 2000 $SQ_{37}$ | 14.9 | X | 294.90837 | 2.16844 | 27.87376 | 9.99851 | 0.2180767 | 0.18265080 | 3.0764863 | 21 | 7 31.6 | 19.0 |
| 105666 2000 $SS_{37}$ | 14.9 | X | 58.11654 | 160.51321 | 159.23067 | 10.12942 | 0.0482127 | 0.19181527 | 2.9776976 | 21 | 11 13.4 | 19.2 |
| 105667 2000 $SO_{38}$ | 15.0 | X | 258.99090 | 233.77518 | 159.16741 | 5.36458 | 0.1801435 | 0.17899844 | 3.1181946 | 21 | 6 22.5 | 19.8 |
| 105668 2000 $SW_{38}$ | 15.9 | X | 243.69458 | 345.58093 | 71.86542 | 4.89793 | 0.1574891 | 0.27415742 | 2.3467638 | 21 | 7 10.2 | 19.2 |
| 105669 2000 $SW_{39}$ | 16.1 | X | 95.10919 | 290.74073 | 144.58090 | 4.61282 | 0.1171818 | 0.30403617 | 2.1903787 | 21 | 2 4.6 | 18.2 |
| 105670 2000 $SK_{40}$ | 14.6 | X | 249.48049 | 278.66830 | 29.05532 | 16.67056 | 0.1537381 | 0.16869365 | 3.2439207 | 21 | 3 12.8 | 19.9 |
| 105671 2000 $SM_{40}$ | 15.9 | X | 159.82661 | 295.73192 | 51.27959 | 7.66558 | 0.2305569 | 0.25618522 | 2.4552742 | 21 | 1 28.0 | 19.8 |
| 105672 2000 $SX_{40}$ | 15.3 | X | 348.66365 | 323.19011 | 150.90177 | 2.55446 | 0.0201163 | 0.20292379 | 2.8680106 | 21 | — | — |
| 105673 2000 $SL_{42}$ | 14.6 | X | 221.13392 | 256.42479 | 205.50358 | 13.63927 | 0.2123767 | 0.17616045 | 3.1515953 | 21 | 8 2.6 | 20.1 |
| 105674 2000 $SQ_{42}$ | 15.5 | X | 327.73065 | 238.29912 | 183.81777 | 22.31426 | 0.3392245 | 0.28236834 | 2.3010464 | 21 | 12 30.5 | 17.2 |
| 105675 Kamiukena | 15.5 | X | 55.86721 | 213.43581 | 201.97127 | 1.99844 | 0.0490254 | 0.20330744 | 2.8644013 | 21 | — | — |
| 105676 2000 $SM_{43}$ | 16.2 | X | 28.16691 | 321.73134 | 117.21349 | 5.20565 | 0.1027222 | 0.29475783 | 2.2361065 | 21 | — | — |
| 105677 2000 $SN_{43}$ | 15.0 | X | 243.71944 | 88.18472 | 7.45559 | 10.12379 | 0.0536495 | 0.18520062 | 3.0481834 | 21 | 9 10.7 | 19.4 |
| 105678 2000 $SM_{46}$ | 14.9 | X | 239.57946 | 102.40762 | 235.59289 | 11.20336 | 0.1985595 | 0.17501235 | 3.1653635 | 21 | 3 24.6 | 20.3 |
| 105679 2000 $SO_{46}$ | 15.0 | X | 275.28761 | 33.22441 | 282.13744 | 13.79411 | 0.0413757 | 0.22347902 | 2.6893348 | 21 | 4 12.4 | 19.1 |
| 105680 2000 $SP_{46}$ | 14.5 | X | 267.27039 | 95.36215 | 220.94327 | 11.95916 | 0.1886991 | 0.22303750 | 2.6928828 | 21 | 3 20.7 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105681 2000 $SR_{46}$ | 13.8 | X | 188.03313 | 215.72049 | 302.08601 | 21.31520 | 0.0734507 | 0.19030708 | 2.9934091 | 21 | 9 9.1 | 18.7 |
| 105682 2000 $SD_{47}$ | 15.0 | X | 258.99184 | 21.13349 | 276.41256 | 10.76691 | 0.1167861 | 0.21891249 | 2.7266058 | 21 | 2 22.8 | 19.4 |
| 105683 2000 $SF_{48}$ | 15.1 | X | 129.52270 | 219.15055 | 207.07692 | 12.93023 | 0.1614843 | 0.21503873 | 2.7592534 | 21 | 3 31.0 | 19.2 |
| 105684 2000 $SV_{48}$ | 16.7 | X | 329.75023 | 154.88125 | 276.89324 | 5.82904 | 0.0904592 | 0.28956915 | 2.2627393 | 21 | 12 28.6 | 18.8 |
| 105685 2000 $SC_{51}$ | 12.5 | X | 183.96085 | 251.60963 | 195.51130 | 15.52764 | 0.0556814 | 0.08109548 | 5.2861354 | 21 | 6 20.6 | 19.9 |
| 105686 2000 $SG_{52}$ | 14.6 | X | 177.97397 | 146.45355 | 303.77196 | 5.09672 | 0.1187214 | 0.17666840 | 3.1455515 | 21 | 6 17.4 | 19.5 |
| 105687 2000 $SS_{55}$ | 15.2 | X | 307.91363 | 171.87511 | 214.24260 | 2.52942 | 0.1950347 | 0.18449027 | 3.0560027 | 21 | 8 15.1 | 18.7 |
| 105688 2000 $SG_{57}$ | 16.6 | X | 141.73070 | 98.00478 | 337.97082 | 3.54776 | 0.0740122 | 0.31204781 | 2.1527253 | 21 | 4 5.9 | 19.3 |
| 105689 2000 $SX_{57}$ | 14.8 | X | 309.24219 | 168.75559 | 179.00353 | 9.81808 | 0.0944848 | 0.18155698 | 3.0888305 | 21 | 7 10.4 | 19.0 |
| 105690 2000 $SA_{58}$ | 15.6 | X | 344.77111 | 267.79462 | 130.94240 | 3.06834 | 0.1578702 | 0.19042425 | 2.9921811 | 21 | 11 16.3 | 18.8 |
| 105691 2000 $SK_{60}$ | 14.8 | X | 240.47444 | 225.48779 | 211.17919 | 0.52284 | 0.1503451 | 0.18047190 | 3.1011992 | 21 | 7 30.5 | 19.5 |
| 105692 2000 $SL_{62}$ | 14.9 | X | 270.98642 | 272.36023 | 124.57447 | 0.29023 | 0.1860745 | 0.18056740 | 3.1001056 | 21 | 7 10.2 | 19.3 |
| 105693 2000 $SU_{62}$ | 15.2 | X | 253.02741 | 68.77040 | 356.65945 | 5.74637 | 0.1242185 | 0.18111295 | 3.0938770 | 21 | 8 4.3 | 19.7 |
| 105694 2000 $SV_{62}$ | 12.1 | X | 329.70228 | 284.20664 | 6.53030 | 24.07887 | 0.1081275 | 0.08248514 | 5.2265956 | 21 | 5 23.8 | 18.9 |
| 105695 2000 $SC_{63}$ | 16.2 | X | 283.00701 | 52.89087 | 277.58215 | 1.24590 | 0.2038707 | 0.27155780 | 2.3617170 | 21 | 4 20.9 | 19.4 |
| 105696 2000 $SJ_{63}$ | 16.5 | X | 201.89850 | 291.29777 | 111.06531 | 2.63271 | 0.1330255 | 0.26742095 | 2.3860109 | 21 | 5 8.9 | 20.0 |
| 105697 2000 $SV_{64}$ | 16.5 | X | 4.80513 | 32.18733 | 7.76304 | 0.33509 | 0.0835848 | 0.28921988 | 2.2645606 | 21 | — | — |
| 105698 2000 $SX_{64}$ | 14.6 | X | 286.25644 | 291.86123 | 7.63594 | 10.93674 | 0.1711566 | 0.17414730 | 3.1758371 | 21 | 3 30.3 | 19.1 |
| 105699 2000 $SH_{66}$ | 15.4 | X | 53.67795 | 137.30868 | 42.52407 | 1.84671 | 0.1237097 | 0.26670656 | 2.3902697 | 21 | 5 8.9 | 17.6 |
| 105700 2000 $SK_{67}$ | 16.5 | X | 220.95713 | 333.81563 | 65.87443 | 3.85791 | 0.2192337 | 0.26911480 | 2.3759885 | 21 | 5 19.8 | 20.3 |
| 105701 2000 $SS_{67}$ | 14.9 | X | 355.46433 | 155.30488 | 178.04925 | 10.00081 | 0.0803521 | 0.18497762 | 3.0506327 | 21 | 9 2.6 | 18.9 |
| 105702 2000 $SB_{68}$ | 16.4 | X | 173.68277 | 301.12139 | 43.24907 | 2.56241 | 0.2283101 | 0.25816191 | 2.4427252 | 21 | 2 4.1 | 20.4 |
| 105703 2000 $SV_{68}$ | 15.2 | X | 93.97129 | 145.76203 | 185.76830 | 1.79375 | 0.1134920 | 0.19810664 | 2.9143164 | 21 | — | — |
| 105704 2000 $SF_{69}$ | 15.3 | X | 315.24423 | 205.74364 | 213.85664 | 0.57346 | 0.1823536 | 0.18790898 | 3.0188233 | 21 | 10 16.6 | 18.5 |
| 105705 2000 $SO_{69}$ | 14.5 | X | 178.64007 | 31.46675 | 62.17866 | 6.08210 | 0.2065219 | 0.17307964 | 3.1888840 | 21 | 6 22.7 | 20.0 |
| 105706 2000 $SR_{69}$ | 14.0 | X | 260.25829 | 26.15307 | 32.24998 | 16.15323 | 0.1107023 | 0.18085384 | 3.0968314 | 21 | 8 11.4 | 18.7 |
| 105707 2000 $SL_{70}$ | 14.8 | X | 286.60478 | 269.93962 | 66.92395 | 6.14561 | 0.1643958 | 0.17712432 | 3.1401514 | 21 | 5 17.3 | 19.1 |
| 105708 2000 $SB_{71}$ | 15.0 | X | 285.92444 | 306.32015 | 75.43132 | 2.39228 | 0.1924850 | 0.18078092 | 3.0976641 | 21 | 7 8.6 | 19.2 |
| 105709 2000 $SH_{71}$ | 16.1 | X | 166.63399 | 56.30916 | 24.15975 | 4.81822 | 0.1183955 | 0.26694530 | 2.3888444 | 21 | 5 20.5 | 19.6 |
| 105710 2000 $SA_{72}$ | 14.8 | X | 237.32199 | 2.86064 | 81.75172 | 5.72612 | 0.1819746 | 0.17900321 | 3.1181392 | 21 | 8 4.4 | 19.7 |
| 105711 2000 $SO_{73}$ | 15.1 | X | 303.53468 | 309.05864 | 74.60246 | 4.12972 | 0.2084299 | 0.18246042 | 3.0786261 | 21 | 8 4.6 | 18.8 |
| 105712 2000 $SO_{74}$ | 16.1 | X | 96.27749 | 302.69590 | 136.60139 | 6.20191 | 0.1091684 | 0.25690307 | 2.4506983 | 21 | 2 22.6 | 19.0 |
| 105713 2000 $SR_{74}$ | 13.4 | X | 188.32518 | 40.49455 | 37.57716 | 13.37593 | 0.1140020 | 0.17355901 | 3.1830095 | 21 | 6 10.9 | 18.6 |
| 105714 2000 $SP_{75}$ | 15.2 | X | 258.85255 | 231.63379 | 126.31905 | 6.02082 | 0.1844497 | 0.17509719 | 3.1643409 | 21 | 5 11.8 | 20.1 |
| 105715 2000 $SQ_{75}$ | 15.3 | X | 137.54714 | 177.31652 | 174.90813 | 12.58161 | 0.1878569 | 0.20529638 | 2.8458708 | 21 | 1 12.9 | 19.8 |
| 105716 2000 $SZ_{75}$ | 13.9 | X | 189.92123 | 55.68430 | 38.24592 | 12.61214 | 0.1022600 | 0.17527966 | 3.1621444 | 21 | 7 4.6 | 19.0 |
| 105717 2000 $SM_{76}$ | 16.1 | X | 250.86332 | 296.68559 | 89.52995 | 4.84949 | 0.1741957 | 0.27144552 | 2.3623683 | 21 | 6 3.6 | 19.6 |
| 105718 2000 $SN_{77}$ | 15.8 | X | 96.09434 | 84.67421 | 301.71309 | 0.87351 | 0.0529635 | 0.20532560 | 2.8456009 | 21 | — | — |
| 105719 2000 $SO_{77}$ | 15.5 | X | 353.10891 | 117.39807 | 320.48805 | 1.13859 | 0.0906813 | 0.19764899 | 2.9188133 | 21 | — | — |
| 105720 2000 $SR_{79}$ | 12.3 | X | 300.14563 | 280.56586 | 45.25798 | 9.82248 | 0.0556912 | 0.08100500 | 5.2900711 | 21 | 6 7.9 | 19.2 |
| 105721 2000 $ST_{79}$ | 16.0 | X | 297.92453 | 51.32406 | 22.48602 | 5.63517 | 0.1289891 | 0.28365203 | 2.2940988 | 21 | 10 29.4 | 18.1 |
| 105722 2000 $SF_{80}$ | 16.6 | X | 161.68038 | 264.67285 | 182.87759 | 1.83435 | 0.1986883 | 0.26649765 | 2.3915188 | 21 | 5 30.1 | 20.4 |
| 105723 2000 $SH_{81}$ | 15.9 | X | 131.09721 | 77.66091 | 44.20642 | 7.85351 | 0.1650437 | 0.26640609 | 2.3920667 | 21 | 6 10.6 | 19.5 |
| 105724 2000 $SN_{81}$ | 16.3 | X | 164.23693 | 266.82621 | 138.29536 | 2.37885 | 0.2280602 | 0.26207258 | 2.4183640 | 21 | 4 10.9 | 20.2 |
| 105725 2000 $SS_{81}$ | 14.6 | X | 167.69625 | 274.36260 | 174.73251 | 8.27605 | 0.1571642 | 0.17185177 | 3.2040555 | 21 | 6 8.1 | 19.9 |
| 105726 2000 $SW_{81}$ | 15.5 | X | 67.71864 | 205.34824 | 166.02613 | 2.13500 | 0.0439342 | 0.19867733 | 2.9087329 | 21 | — | — |
| 105727 2000 $SG_{82}$ | 14.9 | X | 228.33078 | 22.10079 | 62.19005 | 7.95101 | 0.1270728 | 0.17874318 | 3.1211626 | 21 | 7 31.9 | 19.8 |
| 105728 2000 $SR_{82}$ | 14.4 | X | 192.84062 | 34.44640 | 34.99249 | 16.36688 | 0.0792108 | 0.17348761 | 3.1838828 | 21 | 6 4.0 | 19.5 |
| 105729 2000 $SE_{83}$ | 15.2 | X | 25.35164 | 276.72277 | 74.08761 | 2.96332 | 0.2195311 | 0.19158911 | 2.9800405 | 21 | 11 30.5 | 18.9 |
| 105730 2000 $SN_{83}$ | 14.9 | X | 289.37153 | 16.08509 | 13.46708 | 17.92742 | 0.1298674 | 0.18186096 | 3.0853876 | 21 | 8 10.4 | 19.3 |
| 105731 2000 $SU_{83}$ | 16.4 | X | 319.54658 | 336.55564 | 24.28694 | 3.11613 | 0.1855208 | 0.27846270 | 2.3225123 | 21 | 8 11.3 | 18.2 |
| 105732 2000 $SX_{83}$ | 15.1 | X | 330.07693 | 342.36929 | 22.44775 | 9.82201 | 0.0819908 | 0.18449813 | 3.0559159 | 21 | 9 9.8 | 19.0 |
| 105733 2000 $SP_{84}$ | 15.8 | X | 54.12616 | 0.52138 | 42.08317 | 4.18469 | 0.1707145 | 0.29472984 | 2.2362480 | 21 | — | — |
| 105734 2000 $SS_{84}$ | 14.9 | X | 316.22641 | 192.26544 | 178.86528 | 9.68831 | 0.0840442 | 0.18305323 | 3.0719757 | 21 | 8 21.9 | 19.0 |
| 105735 2000 $SG_{85}$ | 16.3 | X | 291.09831 | 323.00634 | 63.41810 | 6.85006 | 0.1159769 | 0.27646137 | 2.3337074 | 21 | 8 9.9 | 18.9 |
| 105736 2000 $SK_{86}$ | 15.2 | X | 302.33605 | 334.01682 | 66.44333 | 8.73023 | 0.0868800 | 0.23167791 | 2.6255057 | 21 | 9 20.8 | 18.5 |
| 105737 2000 $SL_{88}$ | 16.0 | X | 283.97566 | 52.64101 | 53.30612 | 6.88688 | 0.0929383 | 0.28486320 | 2.2875916 | 21 | 11 26.4 | 18.2 |
| 105738 2000 $SU_{88}$ | 14.7 | X | 253.13942 | 257.96132 | 168.98195 | 11.25340 | 0.1008090 | 0.17934765 | 3.1141456 | 21 | 8 5.9 | 19.3 |
| 105739 2000 $SY_{88}$ | 15.9 | X | 35.18993 | 327.90172 | 212.78647 | 5.47062 | 0.0646605 | 0.26673303 | 2.3901116 | 21 | 3 31.9 | 18.5 |
| 105740 2000 $SF_{89}$ | 14.3 | X | 148.73780 | 91.41616 | 308.18150 | 15.76506 | 0.1838008 | 0.21274805 | 2.7790241 | 21 | 3 13.6 | 19.0 |
| 105741 2000 $SJ_{89}$ | 14.4 | X | 323.00190 | 47.86388 | 270.82012 | 16.13806 | 0.2077628 | 0.18094640 | 3.0957752 | 21 | 6 8.7 | 18.0 |
| 105742 2000 $SH_{90}$ | 14.1 | X | 324.45433 | 344.21334 | 301.64421 | 21.13550 | 0.0491877 | 0.17805768 | 3.1291683 | 21 | 5 14.3 | 18.8 |
| 105743 2000 $SA_{91}$ | 14.0 | X | 259.81198 | 139.66710 | 270.46239 | 15.69597 | 0.0839308 | 0.17970347 | 3.1100336 | 21 | 7 23.9 | 18.7 |
| 105744 2000 $SR_{91}$ | 14.5 | X | 323.00302 | 33.47345 | 273.87538 | 11.62804 | 0.1340223 | 0.18103380 | 3.0947787 | 21 | 6 3.3 | 18.5 |
| 105745 2000 $SE_{92}$ | 14.5 | X | 166.77502 | 68.89306 | 290.59784 | 11.34762 | 0.0510968 | 0.21287849 | 2.7778888 | 21 | 2 5.1 | 18.5 |
| 105746 2000 $SP_{92}$ | 12.8 | X | 249.58147 | 43.48125 | 323.35126 | 19.90010 | 0.0744951 | 0.08208809 | 5.2434359 | 21 | 5 23.2 | 20.2 |
| 105747 2000 $SA_{93}$ | 15.0 | X | 22.55937 | 75.07300 | 212.31406 | 16.02422 | 0.1448531 | 0.18594655 | 3.0400260 | 21 | 8 16.4 | 18.9 |
| 105748 2000 $SG_{94}$ | 14.6 | X | 242.95033 | 117.40111 | 324.66041 | 10.68046 | 0.0873821 | 0.18290812 | 3.0736003 | 21 | 8 16.8 | 19.0 |
| 105749 2000 $SK_{94}$ | 14.7 | X | 298.13616 | 91.49780 | 321.76961 | 8.98411 | 0.0890668 | 0.18711811 | 3.0273235 | 21 | 9 17.6 | 18.7 |
| 105750 2000 $SY_{94}$ | 16.3 | X | 233.96900 | 146.24640 | 237.63319 | 5.65395 | 0.1325079 | 0.27052241 | 2.3677393 | 21 | 5 16.7 | 19.5 |
| 105751 2000 $SX_{95}$ | 16.6 | X | 359.99696 | 174.63259 | 293.06246 | 3.10297 | 0.0696975 | 0.29739285 | 2.2228784 | 21 | — | — |
| 105752 2000 $SC_{97}$ | 15.8 | X | 350.55673 | 306.92662 | 306.69888 | 6.12461 | 0.0908905 | 0.27035076 | 2.3687414 | 21 | 4 29.1 | 18.4 |
| 105753 2000 $SU_{97}$ | 15.1 | X | 84.42692 | 278.79695 | 339.63311 | 10.78817 | 0.1035523 | 0.18838629 | 3.0137220 | 21 | 10 1.2 | 19.6 |
| 105754 2000 $SM_{98}$ | 14.7 | X | 342.62212 | 22.47910 | 346.54934 | 9.55733 | 0.0995108 | 0.18744944 | 3.0237551 | 21 | 9 28.9 | 18.4 |
| 105755 2000 $SA_{99}$ | 16.4 | X | 248.19304 | 150.38277 | 274.39186 | 3.43052 | 0.0714459 | 0.27653959 | 2.3332674 | 21 | 8 5.8 | 19.2 |
| 105756 2000 $SV_{99}$ | 15.2 | X | 33.70183 | 9.10329 | 320.42662 | 3.70801 | 0.1006567 | 0.18993506 | 2.9973167 | 21 | 10 27.3 | 19.1 |
| 105757 2000 $SF_{100}$ | 14.2 | X | 263.29495 | 165.41052 | 245.13188 | 15.74585 | 0.1124674 | 0.17977629 | 3.1091937 | 21 | 7 23.4 | 19.0 |
| 105758 2000 $SP_{100}$ | 13.8 | X | 167.23820 | 123.47175 | 322.45290 | 12.49181 | 0.1209446 | 0.17070953 | 3.2183323 | 21 | 5 31.3 | 19.1 |
| 105759 2000 $SF_{101}$ | 14.7 | X | 355.42252 | 265.40675 | 237.73688 | 12.31983 | 0.1205939 | 0.20939735 | 2.8085916 | 21 | — | — |
| 105760 2000 $ST_{101}$ | 16.3 | X | 133.30209 | 317.10429 | 152.33884 | 1.51530 | 0.1425694 | 0.26698833 | 2.3885877 | 21 | 5 26.1 | 19.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105761 2000 $SU_{101}$ | 15.8 | X | 353.86719 | 166.25585 | 248.51338 | 2.63073 | 0.1029981 | 0.19421848 | 2.9530832 | 21 | 12 18.9 | 19.4 |
| 105762 2000 $SJ_{104}$ | 16.1 | X | 12.77452 | 224.41857 | 212.44858 | 1.09985 | 0.1917773 | 0.24532292 | 2.5272253 | 21 | — | — |
| 105763 2000 $SV_{104}$ | 17.4 | X | 218.47103 | 25.10910 | 359.59061 | 2.24371 | 0.1302680 | 0.31506883 | 2.1389424 | 21 | 4 27.7 | 20.3 |
| 105764 2000 $ST_{106}$ | 16.5 | X | 5.73411 | 84.23355 | 316.64862 | 1.48689 | 0.0215214 | 0.28927258 | 2.2642856 | 21 | — | — |
| 105765 2000 $SX_{106}$ | 14.7 | X | 241.03255 | 108.82374 | 202.58515 | 4.60995 | 0.0956236 | 0.16744609 | 3.2600134 | 21 | 3 5.1 | 19.8 |
| 105766 2000 $SB_{107}$ | 15.1 | X | 139.90717 | 26.82176 | 6.81406 | 8.72728 | 0.1594270 | 0.21030044 | 2.8005452 | 21 | 3 5.6 | 19.4 |
| 105767 2000 $SE_{107}$ | 14.6 | X | 307.62747 | 115.99937 | 206.27357 | 9.35417 | 0.1093327 | 0.17777193 | 3.1325205 | 21 | 6 4.2 | 18.9 |
| 105768 2000 $SH_{107}$ | 14.8 | X | 14.81066 | 39.96963 | 4.55613 | 11.75220 | 0.0548948 | 0.19538629 | 2.9413045 | 21 | — | — |
| 105769 2000 $SW_{107}$ | 16.4 | X | 21.17944 | 265.12264 | 199.80325 | 5.86548 | 0.1368195 | 0.29765554 | 2.2215703 | 21 | — | — |
| 105770 2000 $SA_{108}$ | 15.9 | X | 345.97484 | 154.40083 | 227.00666 | 0.74997 | 0.2782140 | 0.18800752 | 3.0177684 | 21 | 10 29.2 | 18.3 |
| 105771 2000 $SG_{108}$ | 15.2 | X | 333.39518 | 344.27489 | 15.26230 | 0.71138 | 0.2633624 | 0.18508568 | 3.0494452 | 21 | 8 22.0 | 18.0 |
| 105772 2000 $ST_{108}$ | 15.0 | X | 350.57275 | 310.02866 | 20.58880 | 9.22585 | 0.1452156 | 0.18417936 | 3.0594410 | 21 | 8 27.7 | 18.5 |
| 105773 2000 $SC_{111}$ | 14.9 | X | 309.43476 | 77.03370 | 21.37121 | 11.14319 | 0.0842373 | 0.19271556 | 2.9684167 | 21 | 12 3.7 | 18.8 |
| 105774 2000 $SX_{111}$ | 14.8 | X | 241.72784 | 342.87536 | 52.77917 | 1.05728 | 0.1953749 | 0.17597206 | 3.1538442 | 21 | 6 6.9 | 19.7 |
| 105775 2000 $SY_{112}$ | 16.2 | X | 60.72094 | 217.27583 | 155.53280 | 1.60056 | 0.1842859 | 0.24497096 | 2.5296454 | 21 | — | — |
| 105776 2000 $SG_{113}$ | 14.9 | X | 309.66995 | 210.36236 | 167.92906 | 2.59657 | 0.0894178 | 0.18259252 | 3.0771410 | 21 | 8 22.3 | 18.9 |
| 105777 2000 $SX_{113}$ | 14.3 | X | 252.45563 | 9.60728 | 25.93006 | 17.40395 | 0.1887476 | 0.17720608 | 3.1391854 | 21 | 6 15.6 | 19.4 |
| 105778 2000 $SW_{114}$ | 16.4 | X | 173.69258 | 233.03367 | 191.15331 | 2.01164 | 0.1821529 | 0.26482778 | 2.4015614 | 21 | 5 10.4 | 20.2 |
| 105779 2000 $SA_{115}$ | 15.1 | X | 338.02790 | 191.88364 | 186.32086 | 1.59564 | 0.2186570 | 0.18637554 | 3.0353592 | 21 | 10 3.3 | 17.7 |
| 105780 2000 $SH_{115}$ | 16.5 | X | 262.28478 | 305.98437 | 50.46703 | 0.72746 | 0.1329255 | 0.31744077 | 2.1282742 | 21 | 5 8.5 | 19.0 |
| 105781 2000 $SM_{115}$ | 14.9 | X | 316.73297 | 349.58809 | 49.24282 | 1.31585 | 0.1923956 | 0.18500267 | 3.0503574 | 21 | 9 19.9 | 18.3 |
| 105782 2000 $SR_{115}$ | 15.0 | X | 333.85504 | 284.65810 | 69.23491 | 1.91564 | 0.1408311 | 0.18346666 | 3.0673591 | 21 | 8 25.7 | 18.4 |
| 105783 2000 $SM_{118}$ | 15.3 | X | 320.19629 | 341.95426 | 52.43510 | 4.22645 | 0.1482675 | 0.18517929 | 3.0484175 | 21 | 9 26.3 | 18.8 |
| 105784 2000 $SV_{118}$ | 15.2 | X | 305.90363 | 268.06697 | 88.72339 | 2.83215 | 0.1760779 | 0.18040710 | 3.1019417 | 21 | 7 6.9 | 18.9 |
| 105785 2000 $SY_{119}$ | 14.7 | X | 209.69415 | 308.60482 | 155.53543 | 6.58839 | 0.0940399 | 0.17799357 | 3.1299195 | 21 | 8 5.7 | 19.4 |
| 105786 2000 $SD_{120}$ | 16.9 | X | 163.67413 | 255.88221 | 166.69540 | 3.04838 | 0.0833661 | 0.31116398 | 2.1567998 | 21 | 4 18.8 | 19.5 |
| 105787 2000 $SM_{120}$ | 16.1 | X | 91.10176 | 301.79952 | 64.18054 | 5.50816 | 0.1687148 | 0.29544836 | 2.2326210 | 21 | — | — |
| 105788 2000 $SB_{121}$ | 14.4 | X | 252.30048 | 18.04428 | 40.50914 | 15.44208 | 0.1618448 | 0.17827169 | 3.1266634 | 21 | 7 22.9 | 19.4 |
| 105789 2000 $SR_{121}$ | 14.3 | X | 197.03807 | 250.47433 | 199.48090 | 18.88734 | 0.1764977 | 0.17401682 | 3.1774244 | 21 | 7 1.8 | 19.9 |
| 105790 2000 $SG_{122}$ | 16.2 | X | 160.95908 | 276.52339 | 118.85310 | 3.83095 | 0.1631537 | 0.30740615 | 2.1743411 | 21 | 3 17.9 | 19.2 |
| 105791 2000 $SH_{122}$ | 15.0 | X | 45.78669 | 256.60830 | 92.41384 | 5.27778 | 0.1173914 | 0.19191761 | 2.9766390 | 21 | 12 11.1 | 19.1 |
| 105792 2000 $SK_{122}$ | 14.5 | X | 197.08969 | 268.28714 | 196.52667 | 15.83142 | 0.0775463 | 0.17672791 | 3.1448453 | 21 | 7 22.3 | 19.6 |
| 105793 2000 $SN_{122}$ | 15.2 | X | 308.69722 | 235.24645 | 178.00969 | 6.68477 | 0.1862847 | 0.18470973 | 3.0535816 | 21 | 9 25.2 | 18.5 |
| 105794 2000 $SV_{122}$ | 16.7 | X | 119.12228 | 355.07247 | 40.12804 | 6.77922 | 0.1826917 | 0.30167795 | 2.2017787 | 21 | 1 30.1 | 19.1 |
| 105795 2000 $SA_{123}$ | 14.5 | X | 219.43737 | 262.19392 | 170.73452 | 5.47993 | 0.1840314 | 0.17499407 | 3.1655839 | 21 | 7 2.4 | 19.8 |
| 105796 2000 $SR_{123}$ | 14.3 | X | 210.42373 | 279.37454 | 175.23738 | 10.06815 | 0.1586724 | 0.17570242 | 3.1570701 | 21 | 7 20.8 | 19.5 |
| 105797 2000 $SD_{124}$ | 14.7 | X | 347.98314 | 258.43515 | 101.00369 | 4.78805 | 0.1017905 | 0.18461939 | 3.0545777 | 21 | 9 29.6 | 18.4 |
| 105798 2000 $SE_{125}$ | 16.0 | X | 273.38700 | 232.62814 | 91.38557 | 4.50012 | 0.2368585 | 0.26810027 | 2.3819787 | 21 | 4 1.7 | 19.6 |
| 105799 2000 $SV_{126}$ | 14.1 | X | 198.08926 | 247.38033 | 192.09180 | 15.82494 | 0.1732980 | 0.17216011 | 3.2002288 | 21 | 6 21.8 | 19.7 |
| 105800 2000 $SG_{127}$ | 16.2 | X | 350.25517 | 276.64300 | 160.45921 | 7.45534 | 0.1734185 | 0.28778334 | 2.2720904 | 21 | — | — |
| 105801 2000 $SK_{128}$ | 14.6 | X | 320.49121 | 189.51580 | 187.22087 | 8.15719 | 0.0602875 | 0.18299298 | 3.0726501 | 21 | 9 7.2 | 18.6 |
| 105802 2000 $SV_{128}$ | 14.8 | X | 28.08356 | 275.26838 | 43.97105 | 10.43346 | 0.1552822 | 0.18677371 | 3.0310439 | 21 | 10 17.0 | 18.5 |
| 105803 2000 $SH_{132}$ | 12.4 | X | 275.04692 | 28.04251 | 328.90871 | 27.97162 | 0.0766161 | 0.08144103 | 5.2711722 | 21 | 6 13.7 | 19.7 |
| 105804 2000 $SY_{133}$ | 14.7 | X | 128.47870 | 169.65700 | 300.07861 | 9.11635 | 0.1225609 | 0.17106209 | 3.2139087 | 21 | 5 21.5 | 19.7 |
| 105805 2000 $SL_{135}$ | 14.0 | X | 220.59917 | 100.91413 | 331.07848 | 10.19706 | 0.1583079 | 0.17763585 | 3.1341201 | 21 | 7 5.9 | 19.1 |
| 105806 2000 $ST_{135}$ | 14.8 | X | 313.08081 | 12.74861 | 330.08241 | 10.92792 | 0.0717909 | 0.18062739 | 3.0994191 | 21 | 7 15.9 | 18.9 |
| 105807 2000 $SY_{135}$ | 14.8 | X | 333.98280 | 76.79121 | 235.83393 | 15.53525 | 0.2367316 | 0.18184265 | 3.0855948 | 21 | 6 16.2 | 18.1 |
| 105808 2000 $SZ_{135}$ | 11.8 | X | 96.51281 | 339.80070 | 202.04438 | 34.47315 | 0.0169603 | 0.08222058 | 5.2378014 | 21 | 6 27.2 | 19.2 |
| 105809 2000 $SJ_{136}$ | 15.2 | X | 232.15037 | 86.48100 | 310.36321 | 4.93322 | 0.1541071 | 0.17570962 | 3.1569838 | 21 | 6 2.1 | 20.3 |
| 105810 2000 $SR_{138}$ | 14.9 | X | 335.68131 | 172.64602 | 247.37619 | 4.32799 | 0.0996876 | 0.19165861 | 2.9793200 | 21 | 11 26.5 | 18.4 |
| 105811 2000 $SY_{138}$ | 14.8 | X | 56.70516 | 39.25083 | 298.11887 | 9.47344 | 0.1174643 | 0.19291984 | 2.9663208 | 21 | 12 9.9 | 19.1 |
| 105812 2000 $SZ_{138}$ | 15.9 | X | 228.79932 | 291.21499 | 348.81769 | 7.59869 | 0.2593148 | 0.25916556 | 2.4364146 | 21 | 1 1.9 | 20.3 |
| 105813 2000 $ST_{140}$ | 14.8 | X | 137.90833 | 134.63057 | 267.11469 | 2.51807 | 0.0980626 | 0.21085730 | 2.7956124 | 21 | 3 3.1 | 18.9 |
| 105814 2000 $SW_{140}$ | 14.8 | X | 333.78249 | 165.55864 | 210.64305 | 9.98123 | 0.1807873 | 0.18593513 | 3.0401504 | 21 | 9 19.9 | 18.2 |
| 105815 2000 $SB_{141}$ | 15.8 | X | 26.03132 | 356.42373 | 340.35452 | 6.20648 | 0.1527596 | 0.28454961 | 2.2892719 | 21 | 11 20.1 | 18.4 |
| 105816 2000 $SJ_{141}$ | 15.9 | X | 60.35292 | 9.83435 | 316.30417 | 7.16671 | 0.1368923 | 0.28744520 | 2.2738720 | 21 | 12 21.2 | 19.1 |
| 105817 2000 $SC_{142}$ | 15.0 | X | 15.31543 | 121.28860 | 275.04885 | 8.48497 | 0.1786086 | 0.19287328 | 2.9667982 | 21 | — | — |
| 105818 2000 $SM_{142}$ | 14.4 | X | 258.02180 | 163.02900 | 243.67403 | 4.47972 | 0.1624579 | 0.17865109 | 3.1222351 | 21 | 7 10.1 | 19.1 |
| 105819 2000 $SN_{142}$ | 14.9 | X | 238.84012 | 65.80620 | 342.20914 | 14.15370 | 0.0803903 | 0.17622869 | 3.1507817 | 21 | 7 2.8 | 19.8 |
| 105820 2000 $SP_{142}$ | 14.3 | X | 296.34455 | 127.28364 | 280.24060 | 9.44978 | 0.0886102 | 0.18327027 | 3.0695500 | 21 | 9 5.5 | 18.5 |
| 105821 2000 $SQ_{142}$ | 13.8 | X | 175.04351 | 279.21549 | 227.88958 | 24.55178 | 0.2141835 | 0.17766542 | 3.1337723 | 21 | 8 13.7 | 19.7 |
| 105822 2000 $SZ_{142}$ | 15.6 | X | 32.17151 | 112.59240 | 209.52873 | 13.88712 | 0.2268431 | 0.18944374 | 3.0024968 | 21 | 11 5.5 | 19.2 |
| 105823 2000 $SF_{143}$ | 14.6 | X | 247.65561 | 58.90915 | 348.27072 | 13.11572 | 0.1573225 | 0.17715135 | 3.1398320 | 21 | 7 2.6 | 19.6 |
| 105824 2000 $SW_{143}$ | 15.2 | X | 243.12483 | 339.08384 | 39.00500 | 1.31985 | 0.1922962 | 0.17530749 | 3.1618097 | 21 | 5 18.1 | 20.1 |
| 105825 2000 $SG_{144}$ | 16.7 | X | 358.87644 | 145.98742 | 298.11671 | 1.81410 | 0.1303125 | 0.29207246 | 2.2497917 | 21 | — | — |
| 105826 2000 $SD_{145}$ | 14.8 | X | 52.04110 | 334.88533 | 334.63249 | 2.61444 | 0.2097474 | 0.19086867 | 2.9875347 | 21 | 11 12.3 | 18.8 |
| 105827 2000 $SM_{146}$ | 15.9 | X | 68.10818 | 92.57659 | 320.06995 | 1.73355 | 0.2264544 | 0.20171478 | 2.8794590 | 21 | 1 1.4 | 18.8 |
| 105828 2000 $SR_{146}$ | 14.9 | X | 329.53338 | 155.42124 | 206.41998 | 10.67744 | 0.1560731 | 0.18367916 | 3.0649928 | 21 | 8 22.8 | 18.7 |
| 105829 2000 $SH_{147}$ | 15.3 | X | 107.01001 | 7.52382 | 19.10414 | 12.79071 | 0.0739327 | 0.20464867 | 2.8518724 | 21 | 1 7.2 | 19.4 |
| 105830 2000 $SC_{148}$ | 16.9 | X | 95.05002 | 44.20519 | 9.68495 | 6.14861 | 0.1241911 | 0.30096479 | 2.2052555 | 21 | 1 6.7 | 19.0 |
| 105831 2000 $SD_{148}$ | 14.6 | X | 260.10798 | 101.02269 | 14.48096 | 10.61039 | 0.0567413 | 0.18808104 | 3.0169819 | 21 | 10 21.8 | 18.9 |
| 105832 2000 $SM_{148}$ | 16.2 | X | 196.49776 | 117.09013 | 216.80399 | 3.78971 | 0.2037001 | 0.25915108 | 2.4365053 | 21 | 2 6.7 | 20.2 |
| 105833 2000 $SA_{150}$ | 15.3 | X | 5.70021 | 124.63200 | 222.58981 | 3.06384 | 0.2115700 | 0.18748378 | 3.0233858 | 21 | 10 19.7 | 18.5 |
| 105834 2000 $SC_{150}$ | 14.4 | X | 220.79676 | 232.33475 | 210.27392 | 5.96236 | 0.1639976 | 0.17653644 | 3.1471188 | 21 | 7 15.8 | 19.5 |
| 105835 2000 $SW_{150}$ | 14.8 | X | 239.71518 | 52.02634 | 13.73686 | 5.34983 | 0.1306804 | 0.17751581 | 3.1355328 | 21 | 7 19.7 | 19.6 |
| 105836 2000 $SJ_{152}$ | 14.4 | X | 177.54537 | 133.15448 | 29.74565 | 10.90275 | 0.0610527 | 0.18266369 | 3.0763416 | 21 | 9 19.5 | 19.1 |
| 105837 2000 $ST_{152}$ | 14.9 | X | 18.46661 | 200.13556 | 219.95435 | 0.49252 | 0.1466144 | 0.19571482 | 2.9380121 | 21 | — | — |
| 105838 2000 $SZ_{152}$ | 15.2 | X | 296.66275 | 20.40978 | 3.88320 | 0.94287 | 0.2146169 | 0.18094958 | 3.0957389 | 21 | 7 23.6 | 19.2 |
| 105839 2000 $SC_{154}$ | 15.2 | X | 338.10576 | 189.26236 | 154.22503 | 0.80250 | 0.2741003 | 0.18380527 | 3.0635907 | 21 | 8 7.9 | 17.8 |
| 105840 2000 $SK_{155}$ | 14.2 | X | 232.67657 | 328.07937 | 161.15864 | 6.13137 | 0.2365055 | 0.18197242 | 3.0841276 | 21 | 9 17.3 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105841 2000 $ST_{155}$ | 16.9 | X | 104.23032 | 19.35681 | 357.91769 | 3.81280 | 0.1588645 | 0.29868048 | 2.2164851 | 21 | — | — |
| 105842 2000 $SJ_{156}$ | 14.5 | X | 224.00636 | 51.01389 | 50.01640 | 1.71741 | 0.1433274 | 0.17856202 | 3.1232733 | 21 | 8 14.2 | 19.2 |
| 105843 2000 $SD_{160}$ | 16.2 | X | 32.06596 | 258.38040 | 333.02950 | 16.52493 | 0.0698827 | 0.36663607 | 1.9333594 | 21 | 6 4.8 | 18.2 |
| 105844 2000 $SH_{160}$ | 16.6 | X | 293.47972 | 81.23671 | 229.42457 | 19.71697 | 0.0761921 | 0.36416657 | 1.9420899 | 21 | 4 13.8 | 18.8 |
| 105845 2000 $SB_{163}$ | 15.0 | X | 97.00262 | 3.01783 | 3.79128 | 14.07462 | 0.1802733 | 0.20373091 | 2.8604307 | 21 | — | — |
| 105846 2000 $SK_{164}$ | 16.1 | X | 256.70004 | 24.04515 | 41.22668 | 23.04824 | 0.0913881 | 0.37099769 | 1.9181766 | 21 | 9 10.5 | 18.6 |
| 105847 2000 $SD_{165}$ | 14.7 | X | 24.32723 | 37.50662 | 290.68386 | 10.23249 | 0.1823276 | 0.18991790 | 2.9974972 | 21 | 10 19.6 | 18.5 |
| 105848 2000 $SK_{165}$ | 14.6 | X | 332.07832 | 104.79418 | 238.73806 | 12.52625 | 0.1240993 | 0.18355904 | 3.0663298 | 21 | 8 3.2 | 18.6 |
| 105849 2000 $SL_{165}$ | 14.5 | X | 234.74711 | 168.91036 | 283.78737 | 8.90077 | 0.0757255 | 0.18228714 | 3.0805767 | 21 | 8 18.7 | 19.1 |
| 105850 2000 $SN_{165}$ | 14.5 | X | 271.71824 | 88.17991 | 281.13259 | 10.31313 | 0.0976808 | 0.17813772 | 3.1282309 | 21 | 6 18.5 | 18.9 |
| 105851 2000 $ST_{165}$ | 14.6 | X | 263.75244 | 47.63678 | 266.74723 | 10.79585 | 0.1089970 | 0.17106247 | 3.2139039 | 21 | 3 26.5 | 19.7 |
| 105852 2000 $SV_{165}$ | 14.6 | X | 292.15095 | 19.24431 | 329.72720 | 10.86146 | 0.0832629 | 0.17808166 | 3.1288872 | 21 | 6 21.3 | 19.1 |
| 105853 2000 $SY_{165}$ | 14.8 | X | 186.14916 | 168.32830 | 299.20221 | 10.26489 | 0.0415233 | 0.17767329 | 3.1336798 | 21 | 7 18.2 | 19.3 |
| 105854 2000 $SB_{167}$ | 14.3 | X | 196.35988 | 99.77485 | 338.93104 | 8.68289 | 0.0705107 | 0.17534449 | 3.1613649 | 21 | 6 22.9 | 19.2 |
| 105855 2000 $SD_{167}$ | 14.7 | X | 300.21680 | 357.40845 | 344.80846 | 14.45348 | 0.0526774 | 0.17715319 | 3.1398102 | 21 | 6 29.2 | 19.2 |
| 105856 2000 $SH_{167}$ | 14.4 | X | 4.74284 | 113.62434 | 227.12460 | 15.01250 | 0.2024017 | 0.18702167 | 3.0283641 | 21 | 10 4.5 | 17.7 |
| 105857 2000 $SZ_{167}$ | 14.4 | X | 190.20195 | 141.59864 | 307.42574 | 4.02323 | 0.1484118 | 0.17416529 | 3.1756185 | 21 | 6 27.6 | 19.5 |
| 105858 2000 $SW_{169}$ | 15.8 | X | 281.81962 | 241.00155 | 206.98365 | 21.25840 | 0.1744904 | 0.28064659 | 2.3104480 | 21 | 10 13.3 | 17.9 |
| 105859 2000 $SY_{169}$ | 14.7 | X | 266.26240 | 357.17165 | 21.58844 | 11.00771 | 0.2304247 | 0.17690667 | 3.1427265 | 21 | 6 4.6 | 19.7 |
| 105860 2000 $SJ_{170}$ | 14.3 | X | 6.62735 | 29.50032 | 22.74378 | 10.30363 | 0.1239772 | 0.19297208 | 2.9657854 | 21 | — | — |
| 105861 2000 $SP_{170}$ | 14.7 | X | 318.83877 | 119.32487 | 214.82655 | 4.17914 | 0.1716988 | 0.17934837 | 3.1141374 | 21 | 6 27.6 | 18.4 |
| 105862 2000 $SU_{170}$ | 14.8 | X | 23.08529 | 143.92108 | 212.67321 | 8.91471 | 0.0791785 | 0.18895682 | 3.0076526 | 21 | 11 15.1 | 18.7 |
| 105863 2000 $SZ_{170}$ | 16.4 | X | 6.08458 | 75.16048 | 10.05543 | 3.28110 | 0.0856990 | 0.29219727 | 2.2491510 | 21 | — | — |
| 105864 2000 $SC_{171}$ | 14.7 | X | 301.69093 | 315.73634 | 26.61147 | 10.59580 | 0.2292559 | 0.17848844 | 3.1241316 | 21 | 5 31.8 | 19.0 |
| 105865 2000 $SE_{171}$ | 14.7 | X | 1.30632 | 103.75722 | 239.54116 | 4.03736 | 0.1534891 | 0.18506892 | 3.0496293 | 21 | 9 28.7 | 18.2 |
| 105866 2000 $SH_{171}$ | 15.0 | X | 308.09076 | 222.18334 | 215.07286 | 12.71732 | 0.0766824 | 0.18810674 | 3.0167071 | 21 | 11 7.3 | 18.8 |
| 105867 2000 $ST_{171}$ | 14.3 | X | 308.08143 | 48.45215 | 334.75855 | 10.55025 | 0.1407449 | 0.17934212 | 3.1142097 | 21 | 8 20.8 | 18.2 |
| 105868 2000 $SC_{173}$ | 14.5 | X | 79.90811 | 202.58509 | 271.71400 | 15.05889 | 0.1745203 | 0.21483416 | 2.7610048 | 21 | 3 25.8 | 18.4 |
| 105869 2000 $SJ_{173}$ | 14.0 | X | 232.54854 | 20.41731 | 335.57209 | 21.85729 | 0.0788990 | 0.17152087 | 3.2081752 | 21 | 4 9.0 | 19.2 |
| 105870 2000 $ST_{173}$ | 14.4 | X | 332.48253 | 72.84740 | 319.28393 | 15.44135 | 0.0567844 | 0.18826013 | 3.0150682 | 21 | 10 7.9 | 18.7 |
| 105871 2000 $SK_{174}$ | 14.6 | X | 332.29842 | 38.75974 | 243.51062 | 17.12317 | 0.1993256 | 0.17799721 | 3.1298769 | 21 | 5 6.5 | 18.2 |
| 105872 2000 $SZ_{174}$ | 16.1 | X | 242.64749 | 58.33818 | 344.41368 | 9.66669 | 0.1295236 | 0.27167862 | 2.3610168 | 21 | 6 21.9 | 19.6 |
| 105873 2000 $SB_{176}$ | 14.4 | X | 309.94316 | 110.58636 | 342.55442 | 9.44205 | 0.0674859 | 0.19097786 | 2.9863958 | 21 | 11 28.5 | 18.4 |
| 105874 2000 $SF_{176}$ | 16.2 | X | 345.44965 | 96.56100 | 282.43373 | 6.00204 | 0.1197069 | 0.28225697 | 2.3016517 | 21 | 11 6.1 | 18.4 |
| 105875 2000 $SD_{177}$ | 14.5 | X | 278.64654 | 121.15479 | 220.34362 | 24.59909 | 0.1281001 | 0.17442394 | 3.1724782 | 21 | 5 18.5 | 19.1 |
| 105876 2000 $SF_{177}$ | 13.7 | X | 1.12792 | 297.98261 | 5.55722 | 11.98289 | 0.0898260 | 0.17951775 | 3.1121781 | 21 | 8 8.6 | 17.7 |
| 105877 2000 $SJ_{177}$ | 15.1 | X | 327.83269 | 33.84255 | 355.63533 | 8.54980 | 0.1280384 | 0.18506048 | 3.0497221 | 21 | 10 1.2 | 18.8 |
| 105878 2000 $SP_{177}$ | 15.7 | X | 93.54577 | 76.18949 | 257.28019 | 5.62807 | 0.2236906 | 0.29272124 | 2.2464662 | 21 | — | — |
| 105879 2000 $SQ_{177}$ | 14.4 | X | 247.21516 | 117.64176 | 346.60686 | 8.93963 | 0.0462065 | 0.18344499 | 3.0676006 | 21 | 9 22.9 | 18.9 |
| 105880 2000 $SW_{177}$ | 16.6 | X | 230.85673 | 123.45301 | 216.93166 | 19.70803 | 0.0555020 | 0.35741295 | 1.9664785 | 21 | 3 1.8 | 19.4 |
| 105881 2000 $SZ_{178}$ | 14.9 | X | 221.62711 | 17.30727 | 11.34883 | 8.54580 | 0.1446203 | 0.17117822 | 3.2124549 | 21 | 5 12.4 | 20.1 |
| 105882 2000 $SL_{179}$ | 14.3 | X | 32.05826 | 15.85664 | 9.23157 | 10.25853 | 0.1033799 | 0.19281259 | 2.9674207 | 21 | — | — |
| 105883 2000 $SY_{179}$ | 16.3 | X | 138.11820 | 350.28765 | 34.78975 | 8.80009 | 0.1387690 | 0.30270685 | 2.1967866 | 21 | 2 5.1 | 19.1 |
| 105884 2000 $SB_{180}$ | 14.9 | X | 2.32181 | 142.67093 | 260.59774 | 9.51386 | 0.0815922 | 0.19249426 | 2.9706913 | 21 | 12 14.6 | 18.5 |
| 105885 2000 $SW_{180}$ | 14.8 | X | 334.45919 | 80.62729 | 250.75430 | 9.01717 | 0.0806160 | 0.18471273 | 3.0535486 | 21 | 7 27.2 | 18.8 |
| 105886 2000 $SP_{181}$ | 15.0 | X | 42.71961 | 317.25254 | 76.52784 | 9.00871 | 0.1223013 | 0.19943319 | 2.9013787 | 21 | — | — |
| 105887 2000 $SM_{182}$ | 15.0 | X | 199.97064 | 306.57546 | 46.76454 | 9.99359 | 0.2054257 | 0.21633277 | 2.7482390 | 21 | 3 15.2 | 19.8 |
| 105888 2000 $SP_{182}$ | 14.6 | X | 244.66425 | 119.48283 | 8.62825 | 9.91377 | 0.2425861 | 0.18691520 | 3.0295140 | 21 | 9 26.9 | 19.2 |
| 105889 2000 $SU_{182}$ | 16.5 | X | 271.71470 | 115.60223 | 16.96121 | 6.42412 | 0.1339458 | 0.28751938 | 2.2734808 | 21 | 12 9.0 | 18.8 |
| 105890 2000 $SB_{183}$ | 14.8 | X | 102.73031 | 296.33269 | 11.12797 | 1.90949 | 0.0808936 | 0.19628651 | 2.9323046 | 21 | 12 21.4 | 19.3 |
| 105891 2000 $SF_{183}$ | 15.7 | X | 340.69797 | 28.46315 | 31.20088 | 1.55630 | 0.0911915 | 0.19269414 | 2.9686366 | 21 | 12 3.7 | 19.2 |
| 105892 2000 $SO_{183}$ | 16.5 | X | 109.70014 | 14.27093 | 40.05678 | 6.37957 | 0.1361520 | 0.30496282 | 2.1859394 | 21 | 2 3.7 | 18.8 |
| 105893 2000 $SD_{184}$ | 14.9 | X | 311.34725 | 10.90547 | 17.24519 | 14.25265 | 0.1163718 | 0.18294158 | 3.0732255 | 21 | 9 9.8 | 18.8 |
| 105894 2000 $SE_{185}$ | 16.0 | X | 75.53028 | 281.51238 | 93.19271 | 6.55486 | 0.2067772 | 0.29465389 | 2.2366323 | 21 | — | — |
| 105895 2000 $SE_{187}$ | 14.8 | X | 233.72989 | 322.33318 | 100.96377 | 7.98585 | 0.1246483 | 0.17799175 | 3.1299409 | 21 | 7 9.6 | 19.5 |
| 105896 2000 $SG_{187}$ | 12.2 | X | 304.68095 | 270.78423 | 50.42105 | 10.71743 | 0.1282577 | 0.08176100 | 5.2574109 | 21 | 5 30.0 | 18.9 |
| 105897 2000 $ST_{187}$ | 14.8 | X | 3.05778 | 295.16643 | 81.40142 | 9.84217 | 0.1012307 | 0.18979683 | 2.9987717 | 21 | 11 15.2 | 18.5 |
| 105898 2000 $SC_{188}$ | 15.2 | X | 8.21745 | 270.03532 | 153.98961 | 2.53541 | 0.1062583 | 0.19560189 | 2.9391428 | 21 | — | — |
| 105899 2000 $SH_{189}$ | 14.8 | X | 334.50150 | 93.66059 | 217.96217 | 11.88517 | 0.2062948 | 0.18095878 | 3.0956340 | 21 | 6 20.0 | 18.3 |
| 105900 2000 $SJ_{190}$ | 15.7 | X | 137.81826 | 197.98410 | 322.01368 | 7.47427 | 0.1406293 | 0.27736066 | 2.3286603 | 21 | 8 7.7 | 19.0 |
| 105901 2000 $SG_{192}$ | 12.4 | X | 16.43784 | 58.92666 | 203.83813 | 15.46578 | 0.0263137 | 0.08175805 | 5.2575374 | 21 | 6 30.1 | 19.4 |
| 105902 2000 $SQ_{192}$ | 16.3 | X | 158.13358 | 234.05389 | 266.59985 | 1.23536 | 0.1575799 | 0.27417109 | 2.3466858 | 21 | 8 2.4 | 20.0 |
| 105903 2000 $SJ_{196}$ | 15.9 | X | 307.49858 | 120.46224 | 107.26956 | 0.53280 | 0.0143386 | 0.21335434 | 2.7737569 | 21 | 2 11.9 | 19.7 |
| 105904 2000 $SB_{197}$ | 12.6 | X | 226.45483 | 230.57117 | 176.62547 | 8.29417 | 0.0246700 | 0.08266074 | 5.2191912 | 21 | 6 22.1 | 19.7 |
| 105905 2000 $SL_{199}$ | 15.5 | X | 39.76884 | 68.87818 | 28.77540 | 2.68982 | 0.0164424 | 0.20645514 | 2.8352123 | 21 | — | — |
| 105906 2000 $SA_{200}$ | 15.3 | X | 348.13161 | 220.24833 | 193.53924 | 9.55827 | 0.0939225 | 0.19286007 | 2.9669337 | 21 | 12 8.7 | 19.1 |
| 105907 2000 $SN_{200}$ | 15.1 | X | 300.49088 | 8.67500 | 53.62279 | 10.51686 | 0.1491787 | 0.18590469 | 3.0404823 | 21 | 10 3.4 | 18.9 |
| 105908 2000 $SO_{200}$ | 14.9 | X | 333.40369 | 193.33929 | 153.26613 | 9.58543 | 0.1672874 | 0.18332750 | 3.0689110 | 21 | 8 10.9 | 18.4 |
| 105909 2000 $SZ_{201}$ | 15.7 | X | 325.13258 | 180.95479 | 51.95645 | 8.91905 | 0.0794580 | 0.26323364 | 2.4112475 | 21 | 2 28.3 | 18.8 |
| 105910 2000 $SY_{202}$ | 15.8 | X | 300.96800 | 287.96605 | 115.17022 | 1.16219 | 0.1624280 | 0.18413269 | 3.0599579 | 21 | 9 2.0 | 19.6 |
| 105911 2000 $SB_{205}$ | 14.8 | X | 203.85534 | 307.45887 | 188.22077 | 9.10856 | 0.1307219 | 0.18214541 | 3.0821745 | 21 | 9 4.5 | 19.6 |
| 105912 2000 $SD_{205}$ | 14.4 | X | 220.69634 | 185.97041 | 202.16592 | 10.17528 | 0.0801405 | 0.17270944 | 3.1934393 | 21 | 5 17.9 | 19.2 |
| 105913 2000 $SF_{205}$ | 14.9 | X | 200.92248 | 99.26280 | 16.37815 | 5.03418 | 0.1138250 | 0.17844064 | 3.1246895 | 21 | 8 12.3 | 19.8 |
| 105914 2000 $ST_{205}$ | 15.1 | X | 65.68377 | 295.59755 | 26.00020 | 9.14375 | 0.0554142 | 0.19148509 | 2.9811196 | 21 | 11 21.2 | 19.4 |
| 105915 2000 $SU_{205}$ | 15.7 | X | 297.87068 | 348.72180 | 79.05495 | 1.33615 | 0.2187619 | 0.18472100 | 3.0534574 | 21 | 9 21.8 | 19.4 |
| 105916 2000 $SJ_{207}$ | 15.6 | X | 290.52621 | 334.73215 | 14.70491 | 2.23485 | 0.1566686 | 0.17873675 | 3.1212374 | 21 | 6 7.8 | 19.8 |
| 105917 2000 $SW_{207}$ | 15.0 | X | 184.35143 | 269.38263 | 198.86955 | 8.62367 | 0.1047364 | 0.17598056 | 3.1537426 | 21 | 7 14.3 | 20.1 |
| 105918 2000 $SS_{208}$ | 16.7 | X | 2.54789 | 270.83632 | 173.80602 | 3.02598 | 0.1108157 | 0.29436069 | 2.2381173 | 21 | — | — |
| 105919 2000 $SR_{209}$ | 14.6 | X | 252.05138 | 327.53944 | 35.26667 | 17.73892 | 0.1119114 | 0.17490224 | 3.1666918 | 21 | 5 13.4 | 19.5 |
| 105920 2000 $SX_{209}$ | 15.6 | X | 209.16818 | 283.74707 | 98.32490 | 6.76889 | 0.1009894 | 0.26617101 | 2.3934749 | 21 | 4 22.7 | 19.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 105921 2000 $SA_{210}$ | 14.5 | X | 283.56251 | 214.59494 | 154.08417 | 12.18468 | 0.2121383 | 0.17945323 | 3.1129241 | 21 | 6 16.7 | 19.1 |
| 105922 2000 $SB_{210}$ | 14.4 | X | 313.55515 | 183.09473 | 141.55779 | 11.15026 | 0.1709575 | 0.17951892 | 3.1121647 | 21 | 6 8.3 | 18.5 |
| 105923 2000 $SX_{210}$ | 14.4 | X | 104.26157 | 248.57250 | 51.09625 | 13.20374 | 0.0715327 | 0.19472011 | 2.9480093 | 21 | 12 11.3 | 18.9 |
| 105924 2000 $SH_{211}$ | 14.7 | X | 324.62780 | 253.46337 | 151.56402 | 10.25281 | 0.1336151 | 0.18756465 | 3.0225168 | 21 | 10 21.5 | 18.3 |
| 105925 2000 $SD_{213}$ | 16.3 | X | 329.66462 | 239.37818 | 138.27497 | 7.17258 | 0.1221919 | 0.28123616 | 2.3072179 | 21 | 10 8.9 | 18.4 |
| 105926 2000 $SE_{218}$ | 14.9 | X | 53.01381 | 270.80332 | 71.90501 | 10.67422 | 0.2036532 | 0.19305556 | 2.9649304 | 21 | 12 23.5 | 19.1 |
| 105927 2000 $SV_{218}$ | 14.3 | X | 175.93715 | 353.69516 | 78.13377 | 11.32417 | 0.0890018 | 0.17056196 | 3.2201882 | 21 | 5 24.6 | 19.3 |
| 105928 2000 $SA_{219}$ | 14.4 | X | 269.25487 | 51.52196 | 81.51435 | 11.46592 | 0.2711336 | 0.18802573 | 3.0175736 | 21 | 10 30.1 | 18.6 |
| 105929 2000 $SU_{219}$ | 15.9 | X | 296.76204 | 297.58853 | 107.93872 | 5.37087 | 0.2508011 | 0.27811045 | 2.3244730 | 21 | 8 24.5 | 17.9 |
| 105930 2000 $SO_{222}$ | 14.7 | X | 287.75486 | 209.96090 | 173.20759 | 16.27238 | 0.0898857 | 0.17832024 | 3.1260959 | 21 | 7 26.0 | 19.2 |
| 105931 2000 $SV_{223}$ | 15.1 | X | 12.72698 | 151.62609 | 191.21940 | 3.72385 | 0.0592388 | 0.18753947 | 3.0227873 | 21 | 10 11.3 | 19.1 |
| 105932 2000 $SC_{224}$ | 15.4 | X | 266.38737 | 26.20975 | 358.16028 | 1.61822 | 0.1484833 | 0.17814391 | 3.1281583 | 21 | 6 23.9 | 20.0 |
| 105933 2000 $SG_{224}$ | 15.4 | X | 258.22436 | 278.76568 | 119.66520 | 2.11783 | 0.1801866 | 0.17800612 | 3.1297724 | 21 | 6 28.4 | 20.0 |
| 105934 2000 $SM_{224}$ | 15.2 | X | 313.37512 | 353.14436 | 41.38170 | 2.91731 | 0.0870692 | 0.18450824 | 3.0558043 | 21 | 9 20.3 | 19.1 |
| 105935 2000 $SP_{224}$ | 13.3 | X | 21.45666 | 218.31697 | 341.60000 | 13.87769 | 0.1325739 | 0.12386426 | 3.9857070 | 21 | 4 21.0 | 18.4 |
| 105936 2000 $SQ_{224}$ | 15.1 | X | 339.01259 | 79.27245 | 202.36680 | 15.90340 | 0.1738714 | 0.17893217 | 3.1189645 | 21 | 5 23.5 | 18.9 |
| 105937 2000 $SR_{225}$ | 15.1 | X | 247.47660 | 267.72758 | 178.87696 | 13.59884 | 0.2651232 | 0.17733636 | 3.1376478 | 21 | 8 4.4 | 20.3 |
| 105938 2000 $SL_{227}$ | 15.5 | X | 282.58225 | 245.31150 | 127.42173 | 6.86654 | 0.1750833 | 0.17810218 | 3.1286469 | 21 | 6 25.1 | 19.8 |
| 105939 2000 $SY_{227}$ | 16.0 | X | 242.18791 | 297.14128 | 56.43451 | 5.44619 | 0.2514067 | 0.26869896 | 2.3784392 | 21 | 4 9.6 | 19.9 |
| 105940 2000 $SR_{230}$ | 16.2 | X | 186.52482 | 22.98978 | 25.83162 | 1.69583 | 0.1783177 | 0.26436945 | 2.4043363 | 21 | 5 1.7 | 20.0 |
| 105941 2000 $SX_{230}$ | 16.8 | X | 25.31144 | 351.30903 | 27.83166 | 4.52560 | 0.1123127 | 0.28794996 | 2.2712139 | 21 | — | — |
| 105942 2000 $SM_{233}$ | 17.2 | X | 78.27217 | 242.23464 | 117.66547 | 6.34153 | 0.2026442 | 0.29477149 | 2.2360374 | 21 | — | — |
| 105943 2000 $SY_{233}$ | 16.5 | X | 32.34595 | 245.74793 | 84.83876 | 5.41577 | 0.3024930 | 0.28670863 | 2.2777648 | 21 | 12 16.6 | 19.3 |
| 105944 2000 $ST_{235}$ | 16.2 | X | 98.67702 | 181.21110 | 293.15697 | 1.07748 | 0.1822900 | 0.26216508 | 2.4177950 | 21 | 4 25.4 | 19.3 |
| 105945 2000 $SU_{237}$ | 15.0 | X | 305.53999 | 256.95373 | 126.51105 | 10.90726 | 0.1368557 | 0.18269473 | 3.0759932 | 21 | 8 18.2 | 18.8 |
| 105946 2000 $ST_{238}$ | 14.6 | X | 318.54547 | 271.22958 | 172.83404 | 14.25077 | 0.1849074 | 0.19008278 | 2.9957636 | 21 | 11 28.2 | 18.1 |
| 105947 2000 $SL_{240}$ | 15.8 | X | 332.63788 | 319.68821 | 341.11483 | 18.96820 | 0.0531334 | 0.36509254 | 1.9388048 | 21 | 6 10.9 | 18.1 |
| 105948 2000 $SZ_{240}$ | 17.3 | X | 196.83638 | 148.85943 | 216.44039 | 20.66775 | 0.0901713 | 0.35790516 | 1.9646751 | 21 | 2 23.3 | 20.3 |
| 105949 2000 $SE_{242}$ | 15.0 | X | 17.09936 | 284.88394 | 12.91577 | 9.30735 | 0.3369568 | 0.18940470 | 3.0029093 | 21 | 9 24.9 | 17.6 |
| 105950 2000 $SA_{243}$ | 15.3 | X | 213.09150 | 209.68095 | 78.07080 | 5.14206 | 0.0740300 | 0.21009075 | 2.8024084 | 21 | 1 3.9 | 19.6 |
| 105951 2000 $ST_{243}$ | 16.1 | X | 2.17317 | 199.80943 | 37.39540 | 6.93391 | 0.0714860 | 0.27039610 | 2.3684766 | 21 | 4 29.2 | 18.4 |
| 105952 2000 $SN_{246}$ | 16.4 | X | 142.96969 | 318.55536 | 95.06856 | 4.07851 | 0.1650820 | 0.26121876 | 2.4236308 | 21 | 3 28.6 | 19.9 |
| 105953 2000 $SY_{246}$ | 14.9 | X | 92.76324 | 83.47213 | 35.01385 | 10.48092 | 0.1611870 | 0.21531641 | 2.7568806 | 21 | 4 24.7 | 18.6 |
| 105954 2000 $SS_{248}$ | 15.0 | X | 347.47604 | 198.77275 | 123.38941 | 3.49670 | 0.1156630 | 0.18367286 | 3.0650629 | 21 | 8 6.6 | 18.5 |
| 105955 2000 $SU_{249}$ | 15.0 | X | 123.65644 | 13.73206 | 92.88921 | 3.95596 | 0.1021567 | 0.21787183 | 2.7352813 | 21 | 5 10.0 | 18.9 |
| 105956 2000 $SX_{249}$ | 15.0 | X | 266.00829 | 237.83550 | 167.82035 | 10.36350 | 0.1195386 | 0.18089879 | 3.0963183 | 21 | 7 23.2 | 19.6 |
| 105957 2000 $SX_{251}$ | 14.2 | X | 208.62502 | 80.28384 | 39.65047 | 11.29094 | 0.0705150 | 0.18213089 | 3.0823384 | 21 | 9 1.6 | 19.0 |
| 105958 2000 $SN_{252}$ | 15.7 | X | 84.22282 | 243.87672 | 41.31975 | 7.58585 | 0.1180140 | 0.28595356 | 2.2817727 | 21 | 11 21.3 | 18.9 |
| 105959 2000 $SX_{255}$ | 16.2 | X | 60.84001 | 222.47866 | 57.69689 | 3.63808 | 0.1119285 | 0.28217106 | 2.3021188 | 21 | 10 17.6 | 18.9 |
| 105960 2000 $ST_{257}$ | 15.0 | X | 340.80555 | 80.41978 | 221.46845 | 4.24323 | 0.1505398 | 0.18015558 | 3.1048282 | 21 | 6 24.8 | 18.7 |
| 105961 2000 $SY_{257}$ | 15.1 | X | 283.78002 | 239.18944 | 133.59890 | 2.65744 | 0.2371443 | 0.17959164 | 3.1113245 | 21 | 6 17.6 | 19.4 |
| 105962 2000 $SB_{258}$ | 14.9 | X | 271.47339 | 52.78871 | 10.70602 | 10.75240 | 0.0620425 | 0.18238840 | 3.0794364 | 21 | 9 4.5 | 19.2 |
| 105963 2000 $SR_{258}$ | 13.9 | X | 118.16637 | 25.92531 | 121.20851 | 3.06834 | 0.1097722 | 0.17213018 | 3.2005998 | 21 | 6 25.9 | 18.5 |
| 105964 2000 $SX_{258}$ | 16.2 | X | 89.35581 | 155.32233 | 163.35773 | 5.65950 | 0.2290008 | 0.24378648 | 2.5378326 | 21 | — | — |
| 105965 2000 $SL_{259}$ | 15.0 | X | 321.99196 | 347.71897 | 9.60241 | 7.37261 | 0.1330499 | 0.18166047 | 3.0876574 | 21 | 8 12.0 | 18.8 |
| 105966 2000 $SN_{259}$ | 15.8 | X | 19.93334 | 189.16878 | 218.78940 | 4.19838 | 0.1697158 | 0.24227888 | 2.5483496 | 21 | — | — |
| 105967 2000 $SU_{259}$ | 16.3 | X | 202.97399 | 258.80458 | 69.87298 | 3.28807 | 0.1638490 | 0.25879245 | 2.4387558 | 21 | 2 7.4 | 20.1 |
| 105968 2000 $SS_{260}$ | 14.5 | X | 129.49633 | 281.80597 | 59.23143 | 11.92383 | 0.2430256 | 0.20246700 | 2.8723226 | 21 | — | — |
| 105969 2000 $SX_{261}$ | 14.7 | X | 67.68309 | 181.65829 | 182.54236 | 9.93783 | 0.1023715 | 0.19554902 | 2.9396726 | 21 | — | — |
| 105970 2000 $SP_{262}$ | 14.8 | X | 268.53488 | 230.44740 | 105.35884 | 4.44759 | 0.0994332 | 0.17451638 | 3.1713579 | 21 | 5 4.7 | 19.5 |
| 105971 2000 $SB_{263}$ | 16.3 | X | 319.04901 | 229.08967 | 60.54820 | 5.56160 | 0.1238107 | 0.27129320 | 2.3632524 | 21 | 4 28.5 | 18.8 |
| 105972 2000 $SZ_{263}$ | 16.1 | X | 156.67772 | 311.50726 | 218.19172 | 1.56499 | 0.1469933 | 0.27860094 | 2.3217440 | 21 | 9 7.9 | 19.6 |
| 105973 2000 $SE_{264}$ | 14.3 | X | 72.93380 | 344.81461 | 177.37205 | 11.56745 | 0.0960192 | 0.17143192 | 3.2092848 | 21 | 5 20.6 | 18.8 |
| 105974 2000 $SX_{264}$ | 15.3 | X | 35.99891 | 261.92860 | 94.98225 | 2.85589 | 0.1061954 | 0.19296406 | 2.9658676 | 21 | 12 6.8 | 19.2 |
| 105975 2000 $SJ_{265}$ | 16.2 | X | 5.96429 | 285.50694 | 164.09706 | 5.00831 | 0.1299641 | 0.29377773 | 2.2410771 | 21 | — | — |
| 105976 2000 $SV_{265}$ | 14.9 | X | 305.49109 | 296.77104 | 60.87027 | 9.89917 | 0.1200887 | 0.18043334 | 3.1016409 | 21 | 7 17.0 | 19.0 |
| 105977 2000 $SF_{266}$ | 16.5 | X | 300.42760 | 332.27676 | 101.61476 | 4.85124 | 0.1156175 | 0.28265124 | 2.2995108 | 21 | 11 7.4 | 18.6 |
| 105978 2000 $SJ_{266}$ | 14.9 | X | 20.13845 | 242.93381 | 96.43150 | 7.16345 | 0.0908063 | 0.18736232 | 3.0246924 | 21 | 10 23.9 | 18.8 |
| 105979 2000 $SS_{266}$ | 14.8 | X | 252.86898 | 284.08308 | 125.22260 | 15.54096 | 0.1554613 | 0.17583298 | 3.1555070 | 21 | 7 9.2 | 19.6 |
| 105980 2000 $SN_{268}$ | 15.2 | X | 2.56648 | 176.65857 | 178.17557 | 10.76160 | 0.1222973 | 0.18681885 | 3.0305556 | 21 | 10 18.0 | 18.8 |
| 105981 2000 $SS_{268}$ | 15.0 | X | 330.94278 | 240.13968 | 182.23962 | 7.64918 | 0.1014342 | 0.18969310 | 2.9998649 | 21 | 11 23.1 | 18.7 |
| 105982 2000 $SV_{268}$ | 14.7 | X | 219.74574 | 336.66362 | 70.33986 | 5.45159 | 0.1157849 | 0.17326263 | 3.1866383 | 21 | 6 5.6 | 19.5 |
| 105983 2000 $SE_{269}$ | 16.1 | X | 338.01382 | 30.85889 | 54.08117 | 6.72495 | 0.1416621 | 0.28797678 | 2.2710729 | 21 | — | — |
| 105984 2000 $SQ_{269}$ | 16.5 | X | 89.03083 | 266.78898 | 136.45980 | 3.55165 | 0.1536593 | 0.29820232 | 2.2188539 | 21 | — | — |
| 105985 2000 $ST_{269}$ | 15.3 | X | 8.78227 | 319.52214 | 75.05872 | 6.32662 | 0.1206427 | 0.23907999 | 2.5710305 | 21 | 12 29.4 | 18.3 |
| 105986 2000 $SX_{269}$ | 14.7 | X | 236.70063 | 232.25527 | 182.32025 | 11.26458 | 0.2289130 | 0.17521566 | 3.1629143 | 21 | 6 22.5 | 20.1 |
| 105987 2000 $SN_{270}$ | 16.7 | X | 193.93703 | 251.29999 | 124.92835 | 2.05682 | 0.1920710 | 0.26238129 | 2.4164666 | 21 | 3 29.8 | 20.5 |
| 105988 2000 $SD_{271}$ | 14.7 | X | 22.79576 | 234.45272 | 68.43697 | 6.99227 | 0.0187846 | 0.18124171 | 3.0924115 | 21 | 9 3.3 | 19.0 |
| 105989 2000 $SV_{271}$ | 14.8 | X | 195.71382 | 275.38795 | 182.84438 | 12.97624 | 0.1569565 | 0.17384170 | 3.1795580 | 21 | 7 11.8 | 20.2 |
| 105990 2000 $SP_{273}$ | 14.4 | X | 281.35070 | 69.94328 | 279.53494 | 7.00406 | 0.1894768 | 0.17663073 | 3.1459987 | 21 | 5 22.0 | 19.0 |
| 105991 2000 $SC_{274}$ | 16.3 | X | 237.76902 | 270.70586 | 57.99896 | 0.51263 | 0.2276645 | 0.26379441 | 2.4078291 | 21 | 3 6.5 | 20.4 |
| 105992 2000 $SR_{275}$ | 13.7 | X | 233.99301 | 354.67227 | 55.01286 | 17.13335 | 0.0864034 | 0.17445729 | 3.1720739 | 21 | 6 25.3 | 18.6 |
| 105993 2000 $SZ_{277}$ | 14.4 | X | 320.18857 | 103.67091 | 216.60604 | 21.79203 | 0.2064179 | 0.17830493 | 3.1262748 | 21 | 6 5.4 | 18.4 |
| 105994 2000 $SG_{278}$ | 14.3 | X | 358.29469 | 282.05214 | 32.33952 | 22.02956 | 0.1065912 | 0.18025253 | 3.1037148 | 21 | 8 27.5 | 18.6 |
| 105995 2000 $SN_{280}$ | 14.2 | X | 236.37314 | 61.74396 | 343.50984 | 4.54333 | 0.1713411 | 0.17533595 | 3.1614676 | 21 | 6 15.5 | 19.2 |
| 105996 2000 $SZ_{280}$ | 16.8 | X | 299.38255 | 200.63506 | 229.42763 | 18.95669 | 0.0904625 | 0.37739802 | 1.8964278 | 21 | 11 24.3 | 17.8 |
| 105997 2000 $SH_{281}$ | 14.9 | X | 289.16365 | 145.42746 | 247.65666 | 9.09107 | 0.1267087 | 0.18525604 | 3.0475755 | 21 | 8 3.5 | 19.2 |
| 105998 2000 $SC_{283}$ | 14.7 | X | 304.48886 | 59.56219 | 256.61467 | 9.18619 | 0.1041345 | 0.17723494 | 3.1388446 | 21 | 5 22.6 | 18.9 |
| 105999 2000 $SG_{283}$ | 14.6 | X | 250.03221 | 191.20827 | 215.36007 | 21.72558 | 0.0419011 | 0.17975508 | 3.1094382 | 21 | 7 11.6 | 19.5 |
| 106000 2000 $SJ_{283}$ | 14.2 | X | 126.52454 | 252.07025 | 286.55933 | 10.86235 | 0.1097077 | 0.17970938 | 3.1099654 | 21 | 8 10.4 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106001 2000 $SR_{283}$ | 12.5 | X | 210.32367 | 90.54958 | 319.78949 | 9.27574 | 0.0184987 | 0.08175867 | 5.2575106 | 21 | 6 7.8 | 19.6 |
| 106002 2000 $SE_{284}$ | 16.4 | X | 281.15192 | 200.27040 | 326.86678 | 5.38822 | 0.0783048 | 0.29627728 | 2.2284547 | 21 | — | — |
| 106003 2000 $SQ_{284}$ | 14.4 | X | 278.16733 | 165.76778 | 314.46126 | 9.71229 | 0.0583143 | 0.19218593 | 2.9738678 | 21 | 11 19.5 | 18.6 |
| 106004 2000 $SN_{285}$ | 14.9 | X | 114.15763 | 292.92072 | 350.26359 | 10.32898 | 0.0359653 | 0.19274002 | 2.9681656 | 21 | 11 28.3 | 19.4 |
| 106005 2000 $SO_{285}$ | 14.4 | X | 349.50780 | 53.46972 | 323.22365 | 8.40571 | 0.0738195 | 0.18797485 | 3.0181180 | 21 | 10 17.5 | 18.4 |
| 106006 2000 $SY_{285}$ | 14.7 | X | 138.86812 | 125.96199 | 348.67657 | 8.48995 | 0.0552044 | 0.17399065 | 3.1777431 | 21 | 6 1.3 | 19.5 |
| 106007 2000 $SX_{287}$ | 14.4 | X | 261.83043 | 49.61677 | 341.80716 | 11.50863 | 0.0717433 | 0.17515446 | 3.1636511 | 21 | 7 10.3 | 19.1 |
| 106008 2000 $SY_{288}$ | 16.4 | X | 301.08665 | 134.49927 | 319.86849 | 6.30822 | 0.0650030 | 0.28778942 | 2.2720584 | 21 | 12 11.3 | 18.9 |
| 106009 2000 $SG_{290}$ | 15.1 | X | 284.33096 | 85.21935 | 279.30209 | 4.29253 | 0.1183801 | 0.17957445 | 3.1115231 | 21 | 6 25.2 | 19.2 |
| 106010 2000 $SR_{290}$ | 14.7 | X | 290.97745 | 213.10623 | 206.68364 | 7.91805 | 0.1350760 | 0.18519685 | 3.0482248 | 21 | 9 10.1 | 18.8 |
| 106011 2000 $SU_{291}$ | 15.1 | X | 83.82719 | 44.49589 | 263.99647 | 2.30135 | 0.0858219 | 0.19367707 | 2.9585841 | 21 | 12 2.3 | 19.2 |
| 106012 2000 $SF_{292}$ | 16.8 | X | 58.93370 | 121.90887 | 329.11062 | 4.36945 | 0.0941316 | 0.30185994 | 2.2008936 | 21 | — | — |
| 106013 2000 $SQ_{292}$ | 13.7 | X | 2.84163 | 287.24156 | 9.50872 | 26.22213 | 0.1997858 | 0.18079408 | 3.0975138 | 21 | 8 16.7 | 17.5 |
| 106014 2000 $SZ_{292}$ | 14.5 | X | 21.60623 | 128.70625 | 262.99149 | 11.07505 | 0.1294879 | 0.19269494 | 2.9686284 | 21 | — | — |
| 106015 2000 $SK_{293}$ | 15.7 | X | 238.81083 | 20.27631 | 298.16184 | 8.11710 | 0.2268459 | 0.26240759 | 2.4163052 | 21 | 2 20.4 | 19.9 |
| 106016 2000 $SS_{293}$ | 14.9 | X | 268.83031 | 102.96732 | 323.79379 | 9.64304 | 0.1510444 | 0.17935747 | 3.1140320 | 21 | 8 19.3 | 19.3 |
| 106017 2000 $SH_{294}$ | 16.4 | X | 84.28600 | 28.50847 | 350.78760 | 8.14572 | 0.2218013 | 0.29444597 | 2.2376851 | 21 | — | — |
| 106018 2000 $SK_{294}$ | 14.3 | X | 193.23622 | 197.71570 | 304.66258 | 10.90584 | 0.1071577 | 0.18072722 | 3.0982777 | 21 | 9 1.1 | 19.3 |
| 106019 2000 $SN_{294}$ | 14.8 | X | 295.28961 | 135.88453 | 312.23399 | 9.16821 | 0.0708519 | 0.18821565 | 3.0155433 | 21 | 10 29.7 | 19.0 |
| 106020 2000 $SS_{294}$ | 14.6 | X | 298.34331 | 21.06985 | 14.07371 | 22.90171 | 0.1185999 | 0.18099514 | 3.0952194 | 21 | 9 4.2 | 18.9 |
| 106021 2000 $SX_{294}$ | 14.1 | X | 49.63060 | 9.42379 | 337.10080 | 9.59836 | 0.0965405 | 0.19014127 | 2.9951491 | 21 | 12 8.2 | 18.4 |
| 106022 2000 $SK_{296}$ | 15.0 | X | 273.69690 | 185.93337 | 269.48184 | 8.82784 | 0.1189859 | 0.18854043 | 3.0120792 | 21 | 10 2.3 | 19.3 |
| 106023 2000 $SN_{296}$ | 15.3 | X | 246.81532 | 95.61077 | 302.78738 | 10.77935 | 0.0941407 | 0.17740955 | 3.1367848 | 21 | 6 26.8 | 19.9 |
| 106024 2000 $SC_{297}$ | 14.8 | X | 200.18552 | 159.87068 | 297.75913 | 6.41561 | 0.1235840 | 0.17809994 | 3.1286732 | 21 | 7 18.2 | 19.6 |
| 106025 2000 $SG_{297}$ | 14.8 | X | 273.70948 | 190.25100 | 315.18694 | 6.61666 | 0.0950441 | 0.24315792 | 2.5422042 | 21 | 12 25.2 | 17.8 |
| 106026 2000 $ST_{297}$ | 14.5 | X | 209.45901 | 169.21842 | 218.93798 | 14.16533 | 0.0673089 | 0.17225708 | 3.1990277 | 21 | 5 5.8 | 19.4 |
| 106027 2000 $SV_{298}$ | 16.4 | X | 314.63494 | 243.50109 | 274.94132 | 5.70248 | 0.0633539 | 0.29758835 | 2.2219047 | 21 | — | — |
| 106028 2000 $SB_{299}$ | 15.0 | X | 342.51553 | 27.03695 | 280.13781 | 9.41238 | 0.1382457 | 0.18043772 | 3.1015907 | 21 | 7 6.3 | 18.4 |
| 106029 2000 $SN_{299}$ | 15.0 | X | 230.09978 | 72.33622 | 346.54755 | 7.76770 | 0.0894860 | 0.17765564 | 3.1338873 | 21 | 7 4.5 | 19.8 |
| 106030 2000 $SB_{300}$ | 15.7 | X | 216.82608 | 135.28816 | 350.62723 | 7.14580 | 0.2013411 | 0.27747122 | 2.3280417 | 21 | 9 7.5 | 19.1 |
| 106031 2000 $SL_{300}$ | 14.7 | X | 197.35642 | 114.66122 | 354.49863 | 10.08509 | 0.1661309 | 0.17700388 | 3.1415757 | 21 | 7 30.9 | 19.9 |
| 106032 2000 $SO_{302}$ | 14.9 | X | 311.20796 | 46.44813 | 235.38764 | 10.25096 | 0.1304250 | 0.17442781 | 3.1724313 | 21 | 4 12.5 | 19.3 |
| 106033 2000 $SJ_{303}$ | 14.4 | X | 224.09742 | 189.65661 | 216.26150 | 8.79934 | 0.0901265 | 0.17482502 | 3.1676242 | 21 | 6 10.8 | 19.3 |
| 106034 2000 $SK_{303}$ | 15.1 | X | 69.17756 | 70.67232 | 234.14334 | 4.66803 | 0.1251766 | 0.19087073 | 2.9875132 | 21 | 11 15.9 | 19.3 |
| 106035 2000 $SU_{303}$ | 14.5 | X | 219.09813 | 168.66785 | 287.72457 | 9.11411 | 0.0512535 | 0.17859508 | 3.1228878 | 21 | 8 8.6 | 19.1 |
| 106036 2000 $SE_{304}$ | 14.1 | X | 173.11816 | 199.38187 | 234.01027 | 13.48574 | 0.0753504 | 0.17206635 | 3.2013913 | 21 | 5 22.3 | 18.9 |
| 106037 2000 $SU_{304}$ | 14.9 | X | 34.31083 | 123.73345 | 229.08160 | 9.86700 | 0.1060443 | 0.19175841 | 2.9782863 | 21 | 11 29.4 | 18.9 |
| 106038 2000 $SG_{305}$ | 14.7 | X | 208.85815 | 107.79997 | 326.02558 | 6.13844 | 0.1865625 | 0.17468595 | 3.1693053 | 21 | 6 24.8 | 20.1 |
| 106039 2000 $SH_{305}$ | 15.3 | X | 108.39960 | 111.04493 | 266.89252 | 4.79943 | 0.0813790 | 0.20387779 | 2.8590567 | 21 | — | — |
| 106040 2000 $SR_{305}$ | 15.8 | X | 358.92668 | 123.06610 | 231.55873 | 6.47203 | 0.1298522 | 0.28213413 | 2.3023197 | 21 | 10 27.8 | 17.9 |
| 106041 2000 $SU_{305}$ | 14.3 | X | 217.83621 | 191.54086 | 232.66970 | 10.44439 | 0.1376717 | 0.17502098 | 3.1652594 | 21 | 6 22.9 | 19.4 |
| 106042 2000 $SK_{306}$ | 14.6 | X | 145.47505 | 23.28362 | 299.15127 | 6.39575 | 0.0697908 | 0.20287924 | 2.8684303 | 21 | — | — |
| 106043 2000 $SA_{307}$ | 14.5 | X | 168.40063 | 95.10968 | 8.33614 | 17.40416 | 0.1854193 | 0.17197714 | 3.2024983 | 21 | 6 26.4 | 20.1 |
| 106044 2000 $SB_{307}$ | 14.7 | X | 50.47512 | 329.33399 | 347.67842 | 10.02783 | 0.1080263 | 0.18930246 | 3.0039904 | 21 | 11 1.7 | 19.0 |
| 106045 2000 $SD_{307}$ | 15.0 | X | 318.43785 | 355.34668 | 343.23488 | 8.39351 | 0.0860601 | 0.17918804 | 3.1159946 | 21 | 7 16.2 | 19.1 |
| 106046 2000 $SF_{307}$ | 14.9 | X | 72.48175 | 43.40090 | 260.68207 | 9.58957 | 0.0789614 | 0.19121851 | 2.9838897 | 21 | 11 11.6 | 19.3 |
| 106047 2000 $SG_{307}$ | 15.2 | X | 255.87071 | 55.49356 | 344.57375 | 11.00633 | 0.1344540 | 0.17811410 | 3.1285074 | 21 | 7 5.3 | 20.0 |
| 106048 2000 $SW_{307}$ | 15.8 | X | 293.61219 | 112.39602 | 327.31856 | 6.81901 | 0.1391596 | 0.28193390 | 2.3034097 | 21 | 10 25.6 | 18.0 |
| 106049 2000 $SX_{307}$ | 15.9 | X | 126.73719 | 182.38344 | 258.29665 | 6.46289 | 0.1193809 | 0.26052158 | 2.4279529 | 21 | 4 3.8 | 19.3 |
| 106050 2000 $SP_{308}$ | 16.8 | X | 324.96092 | 139.74272 | 295.36702 | 5.74859 | 0.1446600 | 0.28588128 | 2.2821573 | 21 | 12 27.5 | 18.6 |
| 106051 2000 $SJ_{312}$ | 14.1 | X | 280.57021 | 42.16110 | 295.64741 | 15.94883 | 0.1262557 | 0.17592324 | 3.1544277 | 21 | 5 12.6 | 18.9 |
| 106052 2000 $ST_{312}$ | 13.9 | X | 255.10761 | 175.38213 | 260.75909 | 16.42955 | 0.1742045 | 0.18049204 | 3.1009685 | 21 | 8 5.5 | 18.8 |
| 106053 2000 $SJ_{313}$ | 13.8 | X | 15.69180 | 305.54048 | 308.84009 | 20.11184 | 0.1566703 | 0.17850154 | 3.1239788 | 21 | 6 28.4 | 17.6 |
| 106054 2000 $SN_{313}$ | 14.8 | X | 85.12174 | 72.63232 | 299.00783 | 12.01616 | 0.0894341 | 0.20012279 | 2.8947097 | 21 | — | — |
| 106055 2000 $SP_{313}$ | 14.1 | X | 280.53633 | 143.30709 | 285.68064 | 11.78140 | 0.0674965 | 0.18461915 | 3.0545803 | 21 | 9 12.8 | 18.6 |
| 106056 2000 $SF_{315}$ | 14.1 | X | 292.35632 | 320.34132 | 349.85513 | 27.05199 | 0.2130579 | 0.17542831 | 3.1603579 | 21 | 4 2.9 | 19.0 |
| 106057 2000 $SZ_{315}$ | 14.7 | X | 231.74966 | 101.49128 | 288.66192 | 13.17350 | 0.0430850 | 0.17647262 | 3.1478775 | 21 | 6 3.2 | 19.4 |
| 106058 2000 $SE_{316}$ | 14.9 | X | 107.91901 | 278.52797 | 205.81745 | 29.80790 | 0.1689663 | 0.21983960 | 2.7189346 | 21 | 5 21.9 | 19.1 |
| 106059 2000 $SK_{316}$ | 14.7 | X | 132.14424 | 149.72584 | 237.50071 | 16.91533 | 0.1541380 | 0.21019428 | 2.8014881 | 21 | 2 7.9 | 19.2 |
| 106060 2000 $SS_{316}$ | 12.4 | X | 287.74267 | 92.74591 | 252.00418 | 17.42337 | 0.0306522 | 0.08332073 | 5.1915934 | 21 | 6 18.4 | 19.2 |
| 106061 2000 $SU_{317}$ | 14.9 | X | 235.54100 | 353.73898 | 279.59827 | 16.71569 | 0.1130725 | 0.21126150 | 2.7920454 | 21 | 1 7.4 | 19.2 |
| 106062 2000 $ST_{318}$ | 14.1 | X | 337.55303 | 22.18840 | 316.73666 | 15.21637 | 0.1978745 | 0.18238287 | 3.0794986 | 21 | 8 7.0 | 17.2 |
| 106063 2000 $SR_{319}$ | 13.4 | X | 265.41459 | 53.14263 | 17.06255 | 16.84402 | 0.2336652 | 0.17722436 | 3.1389695 | 21 | 8 16.1 | 18.3 |
| 106064 2000 $SA_{323}$ | 14.7 | X | 18.40131 | 28.52676 | 238.46723 | 22.00506 | 0.0895792 | 0.18096580 | 3.0955539 | 21 | 7 7.6 | 19.0 |
| 106065 2000 $ST_{324}$ | 15.4 | X | 164.85927 | 142.10657 | 26.04762 | 3.65556 | 0.0509702 | 0.18306193 | 3.0718784 | 21 | 9 9.2 | 19.9 |
| 106066 2000 $SZ_{324}$ | 15.6 | X | 199.70198 | 131.65260 | 40.62109 | 2.40588 | 0.0884077 | 0.18858228 | 3.0116336 | 21 | 10 19.9 | 20.2 |
| 106067 2000 $SC_{328}$ | 14.4 | X | 292.25550 | 143.10716 | 351.87407 | 9.45276 | 0.1540445 | 0.19300908 | 2.9654065 | 21 | 12 19.4 | 18.1 |
| 106068 2000 $SC_{329}$ | 15.0 | X | 190.54872 | 224.75721 | 180.89502 | 5.23344 | 0.0641723 | 0.17360703 | 3.1824226 | 21 | 5 7.6 | 19.7 |
| 106069 2000 $SJ_{330}$ | 15.9 | X | 33.03948 | 72.45411 | 3.09248 | 6.70972 | 0.2071373 | 0.29174075 | 2.2514967 | 21 | — | — |
| 106070 2000 $SK_{333}$ | 16.5 | X | 343.43787 | 220.86579 | 81.91197 | 6.90002 | 0.1406496 | 0.27726494 | 2.3291962 | 21 | 7 1.3 | 18.4 |
| 106071 2000 $SS_{335}$ | 15.9 | X | 280.75115 | 19.92200 | 285.16751 | 7.37637 | 0.1280292 | 0.26727764 | 2.3868638 | 21 | 3 21.9 | 19.3 |
| 106072 2000 $SU_{335}$ | 14.2 | X | 267.37648 | 277.81989 | 120.65755 | 16.84531 | 0.2726046 | 0.17885102 | 3.1199078 | 21 | 6 27.8 | 19.1 |
| 106073 2000 $SP_{338}$ | 15.4 | X | 348.63853 | 62.38822 | 51.20024 | 6.74212 | 0.0227525 | 0.20251113 | 2.8719053 | 21 | — | — |
| 106074 2000 $SO_{339}$ | 15.4 | X | 48.01052 | 106.38074 | 102.44750 | 7.88952 | 0.0510801 | 0.27011654 | 2.3701105 | 21 | 6 3.7 | 18.2 |
| 106075 2000 $SX_{339}$ | 16.6 | X | 146.09392 | 144.04136 | 266.30169 | 2.21822 | 0.0824440 | 0.30712088 | 2.1756874 | 21 | 3 8.3 | 19.1 |
| 106076 2000 $SB_{345}$ | 15.2 | X | 141.11579 | 354.24034 | 310.35639 | 7.25677 | 0.0272681 | 0.20085970 | 2.8876254 | 21 | — | — |
| 106077 2000 $SB_{347}$ | 15.8 | X | 298.64221 | 227.73625 | 140.96248 | 14.17259 | 0.2672578 | 0.22877789 | 2.6476466 | 21 | 6 27.1 | 19.2 |
| 106078 2000 $SK_{347}$ | 14.3 | X | 321.36014 | 34.47125 | 319.16058 | 16.22115 | 0.2099272 | 0.18118003 | 3.0931133 | 21 | 7 26.6 | 17.7 |
| 106079 2000 $SF_{348}$ | 14.8 | X | 249.33909 | 315.96082 | 68.64956 | 14.00124 | 0.2098728 | 0.17747598 | 3.1360020 | 21 | 5 30.3 | 19.7 |
| 106080 2000 $SN_{348}$ | 14.7 | X | 248.34958 | 298.83493 | 80.41835 | 14.98086 | 0.0613744 | 0.17702943 | 3.1412733 | 21 | 6 7.8 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106081 2000 $SU_{348}$ | 14.9 | X | 236.53256 | 284.38552 | 115.90848 | 11.07264 | 0.1164729 | 0.17739202 | 3.1369914 | 21 | 6 15.5 | 19.7 |
| 106082 2000 $SP_{350}$ | 14.6 | X | 349.86586 | 202.83170 | 136.00682 | 17.35435 | 0.1379233 | 0.18550683 | 3.0448281 | 21 | 9 5.4 | 18.1 |
| 106083 2000 $SR_{352}$ | 15.2 | X | 273.27773 | 248.24522 | 142.63314 | 14.30210 | 0.2143698 | 0.17930955 | 3.1145868 | 21 | 7 1.5 | 19.9 |
| 106084 2000 $SA_{355}$ | 14.6 | X | 217.15222 | 338.61540 | 107.42333 | 10.88619 | 0.1001124 | 0.17975304 | 3.1094617 | 21 | 7 22.8 | 19.4 |
| 106085 2000 $SO_{355}$ | 15.1 | X | 257.66552 | 331.06473 | 55.09085 | 11.46349 | 0.2265790 | 0.17783036 | 3.1318343 | 21 | 6 6.4 | 20.0 |
| 106086 2000 $SE_{356}$ | 16.1 | X | 321.82549 | 257.04964 | 76.32325 | 9.94532 | 0.2364260 | 0.27682591 | 2.3316582 | 21 | 6 19.3 | 17.9 |
| 106087 2000 $SY_{357}$ | 14.6 | X | 314.10544 | 325.72356 | 79.79941 | 17.73826 | 0.1270201 | 0.18626100 | 3.0366036 | 21 | 10 11.6 | 18.6 |
| 106088 2000 $SB_{359}$ | 14.4 | X | 343.40153 | 354.04742 | 313.94556 | 21.25118 | 0.1295696 | 0.18152571 | 3.0891852 | 21 | 7 13.9 | 18.2 |
| 106089 2000 $SJ_{359}$ | 14.5 | X | 204.46227 | 160.67991 | 313.38994 | 6.27943 | 0.0681202 | 0.18102504 | 3.0948786 | 21 | 8 14.5 | 19.0 |
| 106090 2000 $SY_{359}$ | 16.1 | X | 131.44758 | 15.72949 | 90.69758 | 3.18393 | 0.1277037 | 0.26577507 | 2.3958515 | 21 | 5 18.6 | 19.3 |
| 106091 2000 $SZ_{361}$ | 12.6 | X | 329.17616 | 168.46792 | 138.50352 | 8.53252 | 0.0522308 | 0.08366808 | 5.1772148 | 21 | 6 23.6 | 19.3 |
| 106092 2000 $SK_{362}$ | 14.8 | X | 129.26882 | 66.69999 | 22.95582 | 22.79248 | 0.2919927 | 0.21507450 | 2.7589475 | 21 | 5 6.6 | 19.6 |
| 106093 2000 $SD_{366}$ | 14.6 | X | 287.72461 | 228.93578 | 177.94569 | 10.77257 | 0.0935748 | 0.18601264 | 3.0393059 | 21 | 8 26.4 | 18.7 |
| 106094 2000 $SA_{368}$ | 15.2 | X | 348.53414 | 6.93960 | 358.24183 | 10.95870 | 0.0755552 | 0.18952246 | 3.0016652 | 21 | 10 3.9 | 18.9 |
| 106095 2000 $SP_{369}$ | 15.7 | X | 94.17683 | 325.54848 | 352.21231 | 10.15966 | 0.2937462 | 0.19812175 | 2.9141682 | 21 | — | — |
| 106096 2000 $TQ$ | 15.1 | X | 288.10371 | 344.14955 | 30.67246 | 1.82357 | 0.1765709 | 0.17994861 | 3.1072084 | 21 | 7 4.9 | 19.4 |
| 106097 2000 $TC_{2}$ | 14.2 | X | 93.65246 | 180.49909 | 221.67591 | 12.68265 | 0.1896372 | 0.20243610 | 2.8726149 | 21 | 1 20.3 | 18.1 |
| 106098 2000 $TC_{5}$ | 15.6 | X | 318.55228 | 234.18263 | 235.37898 | 1.25664 | 0.0579254 | 0.19723317 | 2.9229142 | 21 | — | — |
| 106099 2000 $TF_{7}$ | 15.5 | X | 320.39140 | 103.66712 | 325.25020 | 1.25226 | 0.1508660 | 0.19044949 | 2.9919168 | 21 | 11 10.4 | 18.9 |
| 106100 2000 $TX_{9}$ | 15.1 | X | 350.99892 | 345.52942 | 9.23932 | 9.24783 | 0.0296947 | 0.18581738 | 3.0414346 | 21 | 9 25.2 | 19.0 |
| 106101 2000 $TT_{12}$ | 15.1 | X | 347.06100 | 252.02009 | 59.33320 | 14.67917 | 0.2829919 | 0.18342111 | 3.0678668 | 21 | 7 13.8 | 18.0 |
| 106102 2000 $TE_{13}$ | 15.1 | X | 269.82104 | 252.17283 | 205.68363 | 4.14735 | 0.1026276 | 0.18667473 | 3.0321152 | 21 | 10 6.6 | 19.2 |
| 106103 2000 $TM_{13}$ | 15.5 | X | 333.47830 | 314.89418 | 51.15464 | 3.62979 | 0.1007006 | 0.18450938 | 3.0557917 | 21 | 9 13.8 | 19.2 |
| 106104 2000 $TZ_{15}$ | 16.7 | X | 163.50906 | 260.87993 | 39.96074 | 2.55805 | 0.0525585 | 0.29648453 | 2.2274161 | 21 | — | — |
| 106105 2000 $TW_{16}$ | 15.3 | X | 18.69136 | 150.45557 | 208.37217 | 2.84027 | 0.0308044 | 0.18887841 | 3.0084850 | 21 | 11 6.1 | 19.3 |
| 106106 2000 $TG_{18}$ | 16.1 | X | 36.86426 | 268.11417 | 206.04948 | 5.10701 | 0.1214489 | 0.29958882 | 2.2120027 | 21 | — | — |
| 106107 2000 $TC_{19}$ | 15.9 | X | 51.95813 | 213.50285 | 100.19618 | 7.61226 | 0.1303222 | 0.28698418 | 2.2763065 | 21 | 11 24.9 | 18.7 |
| 106108 2000 $TF_{19}$ | 14.9 | X | 332.31863 | 335.23661 | 52.42864 | 9.61804 | 0.1061481 | 0.18889304 | 3.0083296 | 21 | 10 12.8 | 18.6 |
| 106109 2000 $TV_{21}$ | 14.8 | X | 50.24531 | 156.84259 | 146.02011 | 12.99008 | 0.1344988 | 0.18903194 | 3.0068557 | 21 | 10 27.1 | 19.1 |
| 106110 2000 $TW_{21}$ | 16.6 | X | 275.26575 | 80.37894 | 35.55769 | 1.58461 | 0.1673242 | 0.28375766 | 2.2935295 | 21 | 11 15.2 | 18.6 |
| 106111 2000 $TS_{22}$ | 16.1 | X | 251.61598 | 82.90794 | 241.55202 | 18.16569 | 0.0867079 | 0.35954234 | 1.9587065 | 21 | 2 28.7 | 19.1 |
| 106112 2000 $TT_{23}$ | 16.2 | X | 208.30577 | 283.77516 | 62.01541 | 0.55327 | 0.0814832 | 0.21378455 | 2.7700345 | 21 | 3 9.4 | 20.2 |
| 106113 2000 $TF_{25}$ | 14.0 | X | 99.02753 | 142.30325 | 27.09512 | 26.61722 | 0.0981759 | 0.17387135 | 3.1791965 | 21 | 6 29.8 | 19.1 |
| 106114 2000 $TC_{27}$ | 14.9 | X | 354.40256 | 136.79527 | 201.83537 | 19.29318 | 0.0159440 | 0.18205997 | 3.0831388 | 21 | 9 3.6 | 19.4 |
| 106115 2000 $TU_{27}$ | 15.3 | X | 48.95351 | 245.80760 | 128.37962 | 2.92712 | 0.1174996 | 0.19465362 | 2.9486805 | 21 | — | — |
| 106116 2000 $TP_{28}$ | 15.3 | X | 5.30558 | 348.43493 | 62.76514 | 11.56728 | 0.0281864 | 0.19427307 | 2.9525299 | 21 | 12 23.4 | 19.3 |
| 106117 2000 $TH_{29}$ | 14.0 | X | 60.79571 | 65.64369 | 287.20981 | 9.37280 | 0.1234377 | 0.19313013 | 2.9641672 | 21 | — | — |
| 106118 2000 $TT_{32}$ | 14.7 | X | 326.83201 | 271.00124 | 124.35027 | 7.38916 | 0.1110974 | 0.18640574 | 3.0350314 | 21 | 10 13.4 | 18.4 |
| 106119 2000 $TZ_{32}$ | 13.6 | X | 218.14528 | 163.96525 | 268.67417 | 26.09652 | 0.0676599 | 0.17624231 | 3.1506193 | 21 | 7 6.1 | 18.4 |
| 106120 2000 $TM_{33}$ | 15.8 | X | 233.20130 | 11.05077 | 336.60769 | 18.42085 | 0.0735755 | 0.35796461 | 1.9644576 | 21 | 3 15.9 | 18.3 |
| 106121 2000 $TP_{33}$ | 15.2 | X | 266.43829 | 161.03461 | 269.29758 | 20.21142 | 0.0821247 | 0.37156905 | 1.9162097 | 21 | 9 3.5 | 17.6 |
| 106122 2000 $TE_{34}$ | 15.9 | X | 341.96743 | 188.27417 | 226.07317 | 4.26249 | 0.1536646 | 0.28414210 | 2.2914602 | 21 | 12 29.5 | 17.9 |
| 106123 2000 $TK_{35}$ | 15.0 | X | 140.32790 | 126.14028 | 30.28462 | 5.38344 | 0.0758245 | 0.17661734 | 3.1461577 | 21 | 7 30.6 | 19.8 |
| 106124 2000 $TL_{35}$ | 15.4 | X | 330.00911 | 115.72556 | 206.32772 | 0.24320 | 0.1701187 | 0.18032717 | 3.1028583 | 21 | 7 1.2 | 19.0 |
| 106125 2000 $TS_{35}$ | 16.7 | X | 282.38416 | 273.95265 | 232.15386 | 2.41551 | 0.0595262 | 0.29094726 | 2.2555885 | 21 | — | — |
| 106126 2000 $TH_{36}$ | 15.4 | X | 313.01277 | 116.29381 | 235.64243 | 1.16571 | 0.1138899 | 0.18017238 | 3.1046351 | 21 | 7 20.2 | 19.3 |
| 106127 2000 $TM_{36}$ | 14.9 | X | 296.54697 | 345.07256 | 130.41546 | 2.58446 | 0.1440927 | 0.19160840 | 2.9798405 | 21 | 12 2.6 | 18.3 |
| 106128 2000 $TR_{37}$ | 16.0 | X | 264.19845 | 239.11515 | 120.62113 | 6.59009 | 0.1474338 | 0.27289814 | 2.3539777 | 21 | 5 18.6 | 19.3 |
| 106129 2000 $TM_{38}$ | 14.7 | X | 335.78736 | 267.15627 | 120.80545 | 10.92794 | 0.1070303 | 0.19011581 | 2.9954166 | 21 | 10 20.9 | 18.5 |
| 106130 2000 $TC_{39}$ | 15.0 | X | 305.16275 | 0.43106 | 45.94155 | 10.94951 | 0.1797528 | 0.18654834 | 3.0334845 | 21 | 9 16.6 | 18.7 |
| 106131 2000 $TO_{39}$ | 15.0 | X | 357.16129 | 294.98045 | 43.78240 | 10.35106 | 0.1482323 | 0.18749524 | 3.0232627 | 21 | 9 21.9 | 18.5 |
| 106132 2000 $TT_{40}$ | 14.8 | X | 225.39451 | 272.39658 | 44.42899 | 11.13114 | 0.2039050 | 0.16971501 | 3.2308928 | 21 | 2 26.1 | 20.4 |
| 106133 2000 $TA_{41}$ | 16.2 | X | 62.26305 | 16.11883 | 61.05808 | 8.93648 | 0.0742566 | 0.30250021 | 2.1977870 | 21 | — | — |
| 106134 2000 $TZ_{41}$ | 14.5 | X | 246.25506 | 308.91030 | 135.81728 | 12.60386 | 0.2289722 | 0.18102380 | 3.0948927 | 21 | 8 7.1 | 19.3 |
| 106135 2000 $TE_{42}$ | 15.4 | X | 182.90276 | 239.55951 | 156.39581 | 17.61651 | 0.1103055 | 0.21772013 | 2.7365517 | 21 | 4 18.5 | 19.9 |
| 106136 2000 $TH_{42}$ | 14.5 | X | 335.45327 | 355.40170 | 48.80912 | 10.20129 | 0.0717952 | 0.19157246 | 2.9802132 | 21 | 11 6.2 | 18.2 |
| 106137 2000 $TC_{43}$ | 15.3 | X | 161.08472 | 6.48398 | 40.31874 | 13.39042 | 0.1489453 | 0.21568108 | 2.7537722 | 21 | 4 11.0 | 19.6 |
| 106138 2000 $TO_{43}$ | 14.7 | X | 309.01879 | 334.34228 | 36.98779 | 17.32565 | 0.1225599 | 0.18328119 | 3.0694280 | 21 | 8 17.2 | 18.9 |
| 106139 2000 $TQ_{43}$ | 14.9 | X | 56.29294 | 166.32550 | 142.37483 | 12.26137 | 0.0988490 | 0.19079352 | 2.9883191 | 21 | 11 6.0 | 19.2 |
| 106140 2000 $TP_{44}$ | 15.8 | X | 292.99389 | 240.29844 | 147.62342 | 15.20575 | 0.1262734 | 0.23087900 | 2.6315589 | 21 | 8 7.2 | 19.0 |
| 106141 2000 $TQ_{44}$ | 14.9 | X | 323.79872 | 347.91268 | 66.28409 | 9.74491 | 0.0817594 | 0.19091566 | 2.9870445 | 21 | 11 3.1 | 18.6 |
| 106142 2000 $TT_{44}$ | 16.4 | X | 323.30320 | 357.85522 | 100.16168 | 5.54897 | 0.1131612 | 0.29062338 | 2.2572640 | 21 | — | — |
| 106143 2000 $TU_{44}$ | 12.2 | X | 333.03015 | 181.32678 | 134.61428 | 14.08195 | 0.0654169 | 0.08440730 | 5.1469432 | 21 | 7 7.7 | 18.8 |
| 106144 2000 $TL_{46}$ | 15.3 | X | 56.91938 | 157.16215 | 108.29874 | 0.40724 | 0.2882736 | 0.18954185 | 3.0014605 | 21 | 10 6.9 | 19.4 |
| 106145 2000 $TQ_{49}$ | 14.5 | X | 308.89245 | 53.02676 | 67.20736 | 14.43026 | 0.1143244 | 0.19520239 | 2.9431516 | 21 | 12 31.5 | 18.2 |
| 106146 2000 $TU_{50}$ | 14.0 | X | 303.04857 | 251.12662 | 168.09137 | 16.33431 | 0.2153490 | 0.18448924 | 3.0560141 | 21 | 9 19.7 | 17.5 |
| 106147 2000 $TB_{51}$ | 14.5 | X | 328.70188 | 255.11093 | 44.43068 | 27.14254 | 0.1748049 | 0.17756656 | 3.1349354 | 21 | 5 22.6 | 18.5 |
| 106148 2000 $TH_{51}$ | 16.2 | X | 322.47837 | 248.91103 | 104.74149 | 8.17803 | 0.1541882 | 0.27706512 | 2.3303160 | 21 | 8 10.2 | 18.2 |
| 106149 2000 $TN_{51}$ | 15.9 | X | 225.16593 | 265.49555 | 84.61799 | 9.18248 | 0.1426881 | 0.26384203 | 2.4075394 | 21 | 3 29.8 | 19.7 |
| 106150 2000 $TF_{54}$ | 15.7 | X | 293.46388 | 206.26176 | 161.16830 | 0.82234 | 0.1834086 | 0.17956033 | 3.1116861 | 21 | 7 1.3 | 19.9 |
| 106151 2000 $TR_{56}$ | 16.7 | X | 66.89405 | 282.81116 | 137.24589 | 2.39632 | 0.1345944 | 0.30069757 | 2.2065618 | 21 | — | — |
| 106152 2000 $TZ_{56}$ | 15.2 | X | 359.81759 | 242.19101 | 98.00792 | 9.71382 | 0.2396489 | 0.18790317 | 3.0188855 | 21 | 10 6.4 | 18.3 |
| 106153 2000 $TM_{57}$ | 14.5 | X | 342.33232 | 328.17290 | 89.38997 | 11.38238 | 0.1872963 | 0.19234744 | 2.9722028 | 21 | 12 8.7 | 17.6 |
| 106154 2000 $TV_{58}$ | 15.1 | X | 19.45989 | 244.90439 | 129.93281 | 11.37142 | 0.1285374 | 0.19193357 | 2.9764740 | 21 | 12 10.7 | 19.0 |
| 106155 2000 $TB_{59}$ | 14.9 | X | 290.58019 | 246.39761 | 133.13173 | 13.01366 | 0.0763197 | 0.18015435 | 3.1048423 | 21 | 7 29.2 | 19.1 |
| 106156 2000 $TU_{59}$ | 14.3 | X | 64.81597 | 287.02541 | 117.21446 | 14.14392 | 0.2083745 | 0.20006107 | 2.8953050 | 21 | — | — |
| 106157 2000 $TJ_{60}$ | 14.4 | X | 228.23887 | 275.12351 | 128.74478 | 14.24953 | 0.1598435 | 0.17481962 | 3.1676894 | 21 | 6 9.4 | 19.6 |
| 106158 2000 $TT_{60}$ | 15.6 | X | 347.67637 | 296.27133 | 102.42141 | 8.40580 | 0.2525402 | 0.28511352 | 2.2862524 | 21 | — | — |
| 106159 2000 $TU_{60}$ | 14.6 | X | 30.43387 | 271.03820 | 99.86478 | 11.96115 | 0.1374516 | 0.19312374 | 2.9642326 | 21 | 12 21.3 | 18.6 |
| 106160 2000 $TG_{61}$ | 12.3 | X | 281.67736 | 223.17196 | 130.99395 | 15.13068 | 0.0463621 | 0.08048856 | 5.3126752 | 21 | 6 21.9 | 19.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106161 2000 $TQ_{62}$ | 15.3 | X | 283.44821 | 291.48255 | 129.57364 | 2.29841 | 0.1358672 | 0.18252648 | 3.0778832 | 21 | 9 3.5 | 19.2 |
| 106162 2000 $TR_{62}$ | 17.2 | X | 157.43992 | 127.86107 | 248.14800 | 1.97794 | 0.1582997 | 0.30495554 | 2.1859742 | 21 | 2 13.5 | 20.2 |
| 106163 2000 $TT_{64}$ | 14.7 | X | 3.89987 | 146.88611 | 161.55146 | 10.66146 | 0.0400513 | 0.18241976 | 3.0790834 | 21 | 8 12.0 | 18.9 |
| 106164 2000 $TA_{65}$ | 15.6 | X | 335.74463 | 124.50436 | 335.54409 | 1.04978 | 0.0640290 | 0.19629902 | 2.9321800 | 21 | — | — |
| 106165 2000 $TC_{65}$ | 15.7 | X | 296.71681 | 252.90094 | 147.92189 | 1.23075 | 0.1673223 | 0.18259839 | 3.0770750 | 21 | 8 21.9 | 19.6 |
| 106166 2000 $TN_{66}$ | 15.3 | X | 47.26372 | 261.10708 | 324.67968 | 0.67836 | 0.0311798 | 0.17523743 | 3.1626525 | 21 | 6 25.7 | 19.4 |
| 106167 2000 $TS_{66}$ | 14.5 | X | 180.15124 | 35.64720 | 72.61471 | 5.76216 | 0.1279176 | 0.17483273 | 3.1675311 | 21 | 7 12.1 | 19.6 |
| 106168 2000 $TE_{67}$ | 13.8 | X | 159.73120 | 33.46359 | 94.91251 | 6.09031 | 0.1052798 | 0.17477253 | 3.1682585 | 21 | 7 16.3 | 18.6 |
| 106169 2000 $TP_{67}$ | 15.8 | X | 33.93098 | 175.72143 | 234.54444 | 3.07165 | 0.1627525 | 0.24455946 | 2.5324822 | 21 | — | — |
| 106170 2000 $TF_{68}$ | 14.8 | X | 218.63116 | 226.21022 | 226.75361 | 3.04704 | 0.1208835 | 0.17780365 | 3.1321479 | 21 | 7 29.9 | 19.7 |
| 106171 2000 $TT_{70}$ | 14.3 | X | 216.84043 | 316.66058 | 133.01089 | 23.76105 | 0.1317448 | 0.17561141 | 3.1581608 | 21 | 7 24.1 | 19.4 |
| 106172 2000 $UF$ | 14.3 | X | 1.65483 | 45.83575 | 249.35328 | 9.03705 | 0.0988386 | 0.17987226 | 3.1080877 | 21 | 7 21.9 | 18.3 |
| 106173 2000 $UX_{2}$ | 16.9 | X | 290.96523 | 282.96069 | 52.85793 | 3.72740 | 0.0316929 | 0.31514551 | 2.1385954 | 21 | 6 3.8 | 19.2 |
| 106174 2000 $UX_{3}$ | 15.6 | X | 211.24045 | 196.35392 | 237.91496 | 5.66542 | 0.0835704 | 0.27048166 | 2.3679771 | 21 | 7 1.7 | 18.9 |
| 106175 2000 $UL_{5}$ | 16.5 | X | 48.30796 | 196.28485 | 171.03928 | 2.57901 | 0.2199528 | 0.28859300 | 2.2678388 | 21 | — | — |
| 106176 2000 $UQ_{5}$ | 14.6 | X | 301.10586 | 339.88218 | 68.39678 | 13.35359 | 0.1293509 | 0.18132968 | 3.0914112 | 21 | 9 20.9 | 18.8 |
| 106177 2000 $UZ_{5}$ | 16.3 | X | 150.00716 | 27.27343 | 49.68126 | 22.09971 | 0.1006817 | 0.35617676 | 1.9710259 | 21 | 4 24.5 | 18.7 |
| 106178 2000 $UA_{6}$ | 16.2 | X | 229.03479 | 73.15408 | 239.27710 | 4.46928 | 0.2259723 | 0.30821113 | 2.1705536 | 21 | 2 1.1 | 19.9 |
| 106179 2000 $UD_{6}$ | 15.3 | X | 9.85975 | 9.23490 | 66.41586 | 2.96173 | 0.0961400 | 0.19663667 | 2.9288224 | 21 | — | — |
| 106180 2000 $UL_{6}$ | 14.8 | X | 22.83936 | 289.95669 | 38.67370 | 16.60666 | 0.0383755 | 0.18514262 | 3.0488199 | 21 | 10 9.7 | 19.0 |
| 106181 2000 $UY_{6}$ | 14.4 | X | 270.72389 | 32.70751 | 46.95378 | 2.75931 | 0.1098053 | 0.18188204 | 3.0851492 | 21 | 9 14.8 | 18.5 |
| 106182 2000 $UF_{7}$ | 15.0 | X | 232.49946 | 199.57745 | 163.67911 | 2.53990 | 0.1702938 | 0.17104135 | 3.2141684 | 21 | 4 23.5 | 20.2 |
| 106183 2000 $US_{8}$ | 16.2 | X | 357.85789 | 174.70700 | 215.24193 | 6.76911 | 0.2124686 | 0.28438120 | 2.2901756 | 21 | 12 31.8 | 18.4 |
| 106184 2000 $UG_{9}$ | 16.5 | X | 26.85654 | 16.37602 | 342.03143 | 0.98328 | 0.2575915 | 0.28555328 | 2.2839045 | 21 | — | — |
| 106185 2000 $UP_{9}$ | 14.4 | X | 251.25823 | 322.06024 | 60.32405 | 14.72386 | 0.1407089 | 0.17314060 | 3.1881355 | 21 | 6 4.6 | 19.4 |
| 106186 2000 $US_{9}$ | 14.1 | X | 256.98456 | 331.31236 | 57.04695 | 10.64331 | 0.2456810 | 0.17501717 | 3.1653054 | 21 | 6 6.7 | 19.1 |
| 106187 2000 $UY_{9}$ | 16.5 | X | 23.30443 | 181.21915 | 209.70058 | 3.35666 | 0.1403322 | 0.28710673 | 2.2756587 | 21 | — | — |
| 106188 2000 $UZ_{10}$ | 15.7 | X | 192.11689 | 166.21588 | 269.13377 | 10.14374 | 0.1663161 | 0.21984984 | 2.7188502 | 21 | 6 11.4 | 20.2 |
| 106189 2000 $UM_{11}$ | 15.8 | X | 104.00156 | 88.24040 | 242.57499 | 21.85350 | 0.1158536 | 0.38772125 | 1.8626145 | 21 | — | — |
| 106190 2000 $UH_{12}$ | 16.2 | X | 315.71438 | 307.39064 | 29.88219 | 2.49595 | 0.1115619 | 0.22595331 | 2.6696659 | 21 | 7 5.6 | 19.2 |
| 106191 2000 $UL_{12}$ | 14.4 | X | 249.01930 | 40.68692 | 34.91158 | 3.81154 | 0.1348046 | 0.17737396 | 3.1372044 | 21 | 8 10.9 | 19.1 |
| 106192 2000 $UP_{12}$ | 16.3 | X | 183.68511 | 233.54761 | 225.21702 | 1.13930 | 0.1986645 | 0.22093956 | 2.7099029 | 21 | 7 2.9 | 20.9 |
| 106193 2000 $UU_{14}$ | 14.9 | X | 265.92711 | 70.68137 | 328.45193 | 8.28251 | 0.1351102 | 0.17786497 | 3.1314280 | 21 | 7 15.4 | 19.4 |
| 106194 2000 $UF_{15}$ | 16.0 | X | 330.25572 | 355.58129 | 347.89149 | 2.57989 | 0.2294797 | 0.27578715 | 2.3375094 | 21 | 7 31.2 | 17.4 |
| 106195 2000 $UM_{15}$ | 14.8 | X | 304.79376 | 358.87920 | 54.97215 | 10.16382 | 0.0663503 | 0.18333062 | 3.0688763 | 21 | 10 7.8 | 18.9 |
| 106196 2000 $UF_{16}$ | 16.1 | X | 232.98564 | 357.94389 | 53.76008 | 22.70332 | 0.0876251 | 0.36695161 | 1.9322509 | 21 | 6 22.5 | 18.6 |
| 106197 2000 $UO_{17}$ | 14.7 | X | 305.67566 | 165.06944 | 184.94142 | 10.60283 | 0.0627704 | 0.17737196 | 3.1372279 | 21 | 7 12.1 | 19.1 |
| 106198 2000 $UQ_{18}$ | 14.0 | X | 268.11411 | 68.83337 | 265.49749 | 14.59148 | 0.2138209 | 0.17168925 | 3.2060773 | 21 | 4 12.5 | 19.3 |
| 106199 2000 $UR_{18}$ | 14.2 | X | 301.06126 | 51.98616 | 335.93972 | 8.03323 | 0.0410855 | 0.17892507 | 3.1190470 | 21 | 8 28.5 | 18.4 |
| 106200 2000 $UA_{19}$ | 15.1 | X | 331.65905 | 115.91685 | 223.76986 | 7.76870 | 0.2929178 | 0.18242140 | 3.0790650 | 21 | 7 11.9 | 18.2 |
| 106201 2000 $UR_{21}$ | 14.0 | X | 175.43409 | 344.77125 | 92.67832 | 6.63438 | 0.0814049 | 0.17053341 | 3.2205477 | 21 | 5 30.4 | 18.9 |
| 106202 2000 $UE_{22}$ | 16.2 | X | 162.98779 | 319.01067 | 73.42588 | 6.54787 | 0.1135001 | 0.30687454 | 2.1768515 | 21 | 3 13.5 | 19.1 |
| 106203 2000 $UB_{23}$ | 16.0 | X | 108.99082 | 282.63394 | 122.61230 | 3.42458 | 0.1656578 | 0.25317452 | 2.4747009 | 21 | 2 3.9 | 19.0 |
| 106204 2000 $UP_{27}$ | 16.2 | X | 123.83821 | 253.43938 | 127.11288 | 5.57902 | 0.1737383 | 0.29946869 | 2.2125942 | 21 | 1 12.4 | 18.6 |
| 106205 2000 $UY_{28}$ | 15.6 | X | 266.04451 | 264.64481 | 168.93781 | 2.19654 | 0.1080254 | 0.18148708 | 3.0896236 | 21 | 8 30.9 | 19.9 |
| 106206 2000 $UR_{29}$ | 14.6 | X | 315.78945 | 139.81234 | 242.67939 | 22.80040 | 0.2846166 | 0.27706272 | 2.3303294 | 21 | 8 6.3 | 17.2 |
| 106207 2000 $UU_{29}$ | 15.9 | X | 307.08026 | 273.78589 | 223.76984 | 23.72743 | 0.1674232 | 0.29019353 | 2.2594924 | 21 | — | — |
| 106208 2000 $UW_{30}$ | 14.4 | X | 236.30953 | 316.53789 | 82.70506 | 2.70863 | 0.2177122 | 0.17323688 | 3.1869541 | 21 | 6 4.7 | 19.7 |
| 106209 2000 $UQ_{31}$ | 15.1 | X | 153.58121 | 37.27469 | 82.34732 | 2.85810 | 0.1369913 | 0.17194226 | 3.2029314 | 21 | 6 30.6 | 20.2 |
| 106210 2000 $UA_{32}$ | 15.0 | X | 291.26259 | 10.06481 | 45.73760 | 13.42645 | 0.1114878 | 0.18294703 | 3.0731644 | 21 | 9 18.1 | 19.2 |
| 106211 2000 $UR_{32}$ | 15.6 | X | 208.15921 | 295.15369 | 209.33564 | 5.20566 | 0.1196580 | 0.27655599 | 2.3331751 | 21 | 9 29.1 | 18.9 |
| 106212 2000 $UJ_{33}$ | 16.4 | X | 28.21223 | 51.23177 | 77.79865 | 4.25038 | 0.0602208 | 0.29936913 | 2.2130847 | 21 | — | — |
| 106213 2000 $UU_{33}$ | 16.1 | X | 239.33863 | 128.33122 | 195.38225 | 3.91494 | 0.1713574 | 0.30969865 | 2.1635977 | 21 | 2 25.3 | 19.2 |
| 106214 2000 $UZ_{34}$ | 14.6 | X | 253.78196 | 143.19979 | 245.77111 | 3.76534 | 0.0217664 | 0.17533865 | 3.1614351 | 21 | 7 1.5 | 19.1 |
| 106215 2000 $UD_{35}$ | 16.9 | X | 321.18415 | 92.75660 | 7.85996 | 3.39626 | 0.1232715 | 0.28765605 | 2.2727607 | 21 | — | — |
| 106216 2000 $US_{35}$ | 15.1 | X | 254.90230 | 50.29816 | 22.90765 | 0.83348 | 0.1696255 | 0.17865971 | 3.1221346 | 21 | 8 8.9 | 19.7 |
| 106217 2000 $UT_{35}$ | 14.7 | X | 314.08386 | 131.52990 | 226.17367 | 11.37936 | 0.1451913 | 0.18012419 | 3.1051888 | 21 | 7 22.2 | 18.8 |
| 106218 2000 $UV_{35}$ | 16.2 | X | 150.82476 | 44.68867 | 32.78565 | 2.62515 | 0.1969958 | 0.26195920 | 2.4190617 | 21 | 5 6.5 | 19.8 |
| 106219 2000 $UC_{36}$ | 16.2 | X | 308.58054 | 48.84629 | 24.48875 | 4.71852 | 0.1537131 | 0.28233517 | 2.3012266 | 21 | 11 16.7 | 18.0 |
| 106220 2000 $UD_{37}$ | 16.6 | X | 341.34383 | 0.11642 | 87.24120 | 2.55911 | 0.0772156 | 0.28874617 | 2.2670367 | 21 | — | — |
| 106221 2000 $UA_{38}$ | 16.1 | X | 223.01058 | 38.40985 | 17.09751 | 2.92501 | 0.1627005 | 0.26909872 | 2.3760831 | 21 | 6 14.2 | 19.8 |
| 106222 2000 $UN_{38}$ | 14.7 | X | 287.81204 | 354.70374 | 36.99632 | 7.96408 | 0.0504130 | 0.17935317 | 3.1140817 | 21 | 8 17.9 | 19.0 |
| 106223 2000 $UX_{38}$ | 14.7 | X | 352.56026 | 104.99439 | 205.11914 | 4.70363 | 0.1456295 | 0.17983555 | 3.1085106 | 21 | 7 27.5 | 18.2 |
| 106224 2000 $UA_{39}$ | 16.8 | X | 156.24495 | 248.05364 | 162.03666 | 1.63584 | 0.0991424 | 0.30782788 | 2.1723548 | 21 | 3 24.4 | 19.6 |
| 106225 2000 $UN_{39}$ | 15.1 | X | 26.76062 | 286.96664 | 163.43071 | 2.17822 | 0.0104723 | 0.20045605 | 2.8915005 | 21 | — | — |
| 106226 2000 $US_{39}$ | 14.7 | X | 36.87835 | 263.79086 | 47.12379 | 9.61675 | 0.1359763 | 0.18553406 | 3.0445302 | 21 | 10 16.6 | 18.6 |
| 106227 2000 $UA_{40}$ | 16.4 | X | 261.45263 | 307.07515 | 49.57292 | 1.29200 | 0.2257769 | 0.26920287 | 2.3754703 | 21 | 4 30.8 | 20.0 |
| 106228 2000 $UB_{40}$ | 14.8 | X | 208.78460 | 157.77502 | 238.81126 | 5.83880 | 0.1087892 | 0.17010745 | 3.2259218 | 21 | 5 13.4 | 19.9 |
| 106229 2000 $UM_{40}$ | 14.6 | X | 203.13705 | 349.12683 | 127.02318 | 5.09194 | 0.2145637 | 0.17495855 | 3.1660123 | 21 | 8 8.5 | 19.9 |
| 106230 2000 $UB_{41}$ | 13.9 | X | 203.63358 | 212.83427 | 234.03098 | 13.73154 | 0.1915619 | 0.17310568 | 3.1885643 | 21 | 7 3.4 | 19.4 |
| 106231 2000 $UL_{41}$ | 14.6 | X | 192.30317 | 75.14970 | 24.36383 | 1.47064 | 0.1851599 | 0.17260043 | 3.1947837 | 21 | 7 11.5 | 19.9 |
| 106232 2000 $UK_{42}$ | 15.6 | X | 35.80945 | 94.98828 | 65.76901 | 3.97495 | 0.0830700 | 0.30501210 | 2.1857039 | 21 | 2 27.3 | 17.5 |
| 106233 2000 $UP_{43}$ | 16.6 | X | 120.54028 | 149.11597 | 172.25895 | 0.94930 | 0.2103977 | 0.29382734 | 2.2408249 | 21 | — | — |
| 106234 2000 $UJ_{44}$ | 14.3 | X | 152.27996 | 104.93626 | 40.40253 | 5.64901 | 0.0964324 | 0.17349126 | 3.1838382 | 21 | 7 30.7 | 19.2 |
| 106235 2000 $UP_{44}$ | 15.1 | X | 255.52434 | 186.92636 | 208.98970 | 0.58974 | 0.2169794 | 0.17570057 | 3.1570922 | 21 | 6 18.4 | 19.9 |
| 106236 2000 $UN_{45}$ | 14.8 | X | 68.76828 | 150.87975 | 191.83754 | 5.07477 | 0.1668148 | 0.19310632 | 2.9644109 | 21 | — | — |
| 106237 2000 $UU_{45}$ | 16.6 | X | 232.33882 | 319.73887 | 158.87241 | 2.27058 | 0.1566038 | 0.27610924 | 2.3356912 | 21 | 9 19.2 | 19.8 |
| 106238 2000 $UW_{45}$ | 15.5 | X | 239.16559 | 259.73935 | 132.46673 | 1.86748 | 0.2107921 | 0.17329418 | 3.1862516 | 21 | 5 30.6 | 20.6 |
| 106239 2000 $UM_{46}$ | 15.9 | X | 50.15153 | 106.84009 | 253.55110 | 2.48364 | 0.2746688 | 0.28922289 | 2.2645449 | 21 | — | — |
| 106240 2000 $UB_{47}$ | 14.2 | X | 255.82683 | 278.17903 | 225.38035 | 14.12575 | 0.1437781 | 0.18753284 | 3.0228586 | 21 | 11 9.3 | 18.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106241 2000 $UC_{47}$ | 14.8 | X | 7.49520 | 129.03225 | 225.20503 | 8.07955 | 0.0750828 | 0.18505024 | 3.0498346 | 21 | 10 17.9 | 18.7 |
| 106242 2000 $UL_{47}$ | 14.9 | X | 323.00502 | 140.84704 | 245.12167 | 6.34685 | 0.1127453 | 0.18255228 | 3.0775932 | 21 | 9 17.2 | 18.8 |
| 106243 2000 $UX_{47}$ | 16.3 | X | 349.56932 | 196.95773 | 231.29497 | 5.74455 | 0.1081154 | 0.28666387 | 2.2780019 | 21 | — | — |
| 106244 2000 $UX_{48}$ | 14.4 | X | 9.54685 | 284.67907 | 54.48690 | 11.31124 | 0.0601526 | 0.18268715 | 3.0760782 | 21 | 10 6.4 | 18.5 |
| 106245 2000 $UZ_{48}$ | 16.3 | X | 342.93956 | 2.31653 | 56.13967 | 4.52052 | 0.1602019 | 0.28456503 | 2.2891892 | 21 | — | — |
| 106246 2000 $UF_{50}$ | 15.5 | X | 226.03235 | 303.99465 | 64.53073 | 6.44455 | 0.3013448 | 0.26522921 | 2.3991376 | 21 | 4 14.3 | 19.9 |
| 106247 2000 $UA_{51}$ | 15.0 | X | 324.77313 | 130.85155 | 235.67651 | 9.98522 | 0.1248541 | 0.18132303 | 3.0914868 | 21 | 8 22.2 | 19.0 |
| 106248 2000 $UO_{51}$ | 14.8 | X | 285.74586 | 42.82942 | 28.69248 | 4.10699 | 0.0835494 | 0.18298043 | 3.0727905 | 21 | 9 28.3 | 18.9 |
| 106249 2000 $UK_{52}$ | 14.8 | X | 270.94121 | 325.63588 | 173.70776 | 3.74322 | 0.1780470 | 0.18849319 | 3.0125824 | 21 | 11 19.6 | 18.8 |
| 106250 2000 $UM_{52}$ | 16.1 | X | 46.12703 | 331.30257 | 65.76164 | 6.71329 | 0.0960895 | 0.29083131 | 2.2561879 | 21 | — | — |
| 106251 2000 $UA_{54}$ | 14.4 | X | 275.06028 | 207.19048 | 208.13348 | 10.69511 | 0.1333594 | 0.17895455 | 3.1187045 | 21 | 8 11.7 | 19.0 |
| 106252 2000 $UV_{54}$ | 16.6 | X | 184.84594 | 173.57859 | 176.80960 | 4.99882 | 0.2167898 | 0.30529091 | 2.1843730 | 21 | 2 12.4 | 20.1 |
| 106253 2000 $UE_{56}$ | 16.4 | X | 301.43897 | 252.29221 | 176.56848 | 2.22089 | 0.2216815 | 0.27855445 | 2.3220023 | 21 | 10 16.8 | 17.9 |
| 106254 2000 $UU_{56}$ | 14.8 | X | 307.44116 | 130.78109 | 307.86259 | 8.49160 | 0.0980650 | 0.19018551 | 2.9946847 | 21 | 11 2.5 | 18.7 |
| 106255 2000 $UE_{57}$ | 15.2 | X | 247.35003 | 131.30245 | 36.03011 | 11.46880 | 0.0295840 | 0.19301448 | 2.9653511 | 21 | 12 13.5 | 19.4 |
| 106256 2000 $UK_{57}$ | 14.9 | X | 330.20448 | 89.71875 | 245.00168 | 7.60948 | 0.1117457 | 0.18095514 | 3.0956755 | 21 | 7 22.9 | 18.9 |
| 106257 2000 $UJ_{58}$ | 16.5 | X | 32.62353 | 1.22679 | 350.10591 | 5.51344 | 0.1063014 | 0.28582108 | 2.2824777 | 21 | 12 14.3 | 19.2 |
| 106258 2000 $UN_{59}$ | 14.1 | X | 211.43209 | 73.55607 | 356.25603 | 11.44636 | 0.0743897 | 0.17495652 | 3.1660368 | 21 | 6 28.8 | 19.0 |
| 106259 2000 $UX_{59}$ | 14.9 | X | 24.74490 | 23.99052 | 4.82380 | 9.31762 | 0.0307811 | 0.19322803 | 2.9631659 | 21 | 12 21.1 | 19.2 |
| 106260 2000 $UC_{60}$ | 14.7 | X | 249.74330 | 136.57966 | 350.71673 | 5.98950 | 0.1211202 | 0.18682727 | 3.0304645 | 21 | 10 14.3 | 19.0 |
| 106261 2000 $UD_{60}$ | 14.8 | X | 336.32377 | 22.34436 | 279.58678 | 3.68371 | 0.0732739 | 0.17668548 | 3.1453487 | 21 | 6 23.9 | 18.9 |
| 106262 2000 $UZ_{60}$ | 14.8 | X | 1.67622 | 306.69739 | 11.26396 | 9.40434 | 0.0956347 | 0.18173733 | 3.0867867 | 21 | 8 28.0 | 18.6 |
| 106263 2000 $UG_{62}$ | 17.1 | X | 99.58844 | 108.47988 | 316.07971 | 2.22611 | 0.0995135 | 0.30214309 | 2.1995184 | 21 | 1 25.3 | 19.3 |
| 106264 2000 $UP_{62}$ | 14.4 | X | 295.09695 | 92.50308 | 15.45126 | 11.78050 | 0.0761152 | 0.19041817 | 2.9922448 | 21 | 11 24.3 | 18.4 |
| 106265 2000 $UX_{62}$ | 16.1 | X | 186.04894 | 93.53666 | 312.09685 | 3.50958 | 0.1590744 | 0.26378243 | 2.4079020 | 21 | 4 25.4 | 20.0 |
| 106266 2000 $UA_{63}$ | 14.5 | X | 181.88927 | 236.16259 | 245.35493 | 9.97867 | 0.0683950 | 0.17621874 | 3.1509003 | 21 | 7 27.2 | 19.4 |
| 106267 2000 $UZ_{63}$ | 14.7 | X | 255.71753 | 16.96979 | 1.20355 | 15.91268 | 0.0623323 | 0.17502465 | 3.1652152 | 21 | 6 13.3 | 19.6 |
| 106268 2000 $UD_{64}$ | 15.3 | X | 143.80757 | 50.90970 | 234.02496 | 7.22199 | 0.2930953 | 0.20087608 | 2.8874684 | 21 | — | — |
| 106269 2000 $UW_{64}$ | 16.6 | X | 281.36887 | 108.53448 | 348.46089 | 4.30548 | 0.1265057 | 0.28267364 | 2.2993893 | 21 | 11 2.3 | 18.8 |
| 106270 2000 $UK_{66}$ | 16.1 | X | 103.97350 | 111.31771 | 7.62212 | 4.30714 | 0.0883765 | 0.26199129 | 2.4188642 | 21 | 4 23.5 | 19.2 |
| 106271 2000 $UO_{67}$ | 14.5 | X | 39.20150 | 34.34513 | 261.05810 | 8.75446 | 0.1143359 | 0.18405598 | 3.0608080 | 21 | 9 19.4 | 18.7 |
| 106272 2000 $UP_{67}$ | 14.5 | X | 46.74606 | 229.60985 | 17.26697 | 15.79549 | 0.0446762 | 0.17666105 | 3.1456387 | 21 | 7 30.0 | 19.1 |
| 106273 2000 $UB_{68}$ | 15.0 | X | 345.36031 | 336.88284 | 19.07004 | 10.19660 | 0.0752642 | 0.18322204 | 3.0700886 | 21 | 9 20.6 | 18.9 |
| 106274 2000 $UU_{69}$ | 15.3 | X | 28.86233 | 223.47596 | 21.26662 | 7.44404 | 0.0836037 | 0.26954600 | 2.3734538 | 21 | 6 28.8 | 17.9 |
| 106275 2000 $UY_{69}$ | 15.1 | X | 281.38667 | 176.54944 | 296.37715 | 3.21470 | 0.2306491 | 0.23473701 | 2.6026454 | 21 | 10 29.9 | 18.0 |
| 106276 2000 $UB_{70}$ | 15.1 | X | 278.24302 | 58.04180 | 342.30055 | 4.33302 | 0.1669332 | 0.17905377 | 3.1175523 | 21 | 7 27.2 | 19.3 |
| 106277 2000 $UA_{71}$ | 15.9 | X | 57.02197 | 114.86882 | 306.87938 | 2.02453 | 0.0756455 | 0.29584756 | 2.2306121 | 21 | — | — |
| 106278 2000 $UZ_{71}$ | 14.4 | X | 272.96935 | 358.94675 | 358.85342 | 4.41253 | 0.1477816 | 0.17451149 | 3.1714171 | 21 | 5 28.4 | 19.0 |
| 106279 2000 $UN_{72}$ | 14.3 | X | 291.30639 | 329.63166 | 75.56668 | 10.63700 | 0.0425200 | 0.17945111 | 3.1129486 | 21 | 9 12.2 | 18.7 |
| 106280 2000 $UQ_{72}$ | 14.7 | X | 305.28960 | 62.45016 | 317.73417 | 8.11474 | 0.1231552 | 0.17916334 | 3.1162810 | 21 | 8 13.7 | 18.8 |
| 106281 2000 $UW_{73}$ | 14.4 | X | 328.87641 | 346.41511 | 39.66933 | 13.88740 | 0.1302582 | 0.18410257 | 3.0602917 | 21 | 10 4.7 | 18.1 |
| 106282 2000 $UP_{74}$ | 14.6 | X | 250.65006 | 343.75628 | 89.85415 | 6.26339 | 0.1404281 | 0.17866448 | 3.1220791 | 21 | 8 9.6 | 19.2 |
| 106283 2000 $UZ_{74}$ | 15.0 | X | 2.80563 | 103.65176 | 292.78779 | 10.52333 | 0.0914462 | 0.19046270 | 2.9917784 | 21 | 12 6.9 | 18.9 |
| 106284 2000 $UG_{76}$ | 16.3 | X | 290.48074 | 319.55488 | 41.95964 | 23.18111 | 0.0310204 | 0.36916433 | 1.9245221 | 21 | 7 20.6 | 18.8 |
| 106285 2000 $UG_{77}$ | 14.8 | X | 7.94040 | 149.13943 | 195.09510 | 9.18439 | 0.0993955 | 0.18554525 | 3.0444078 | 21 | 10 8.9 | 18.5 |
| 106286 2000 $UK_{77}$ | 15.9 | X | 343.00468 | 270.02379 | 173.55906 | 5.50519 | 0.0821277 | 0.24097624 | 2.5575251 | 21 | — | — |
| 106287 2000 $UP_{77}$ | 16.6 | X | 257.03963 | 245.48798 | 114.03928 | 3.18341 | 0.2333420 | 0.26880607 | 2.3778073 | 21 | 4 30.8 | 20.3 |
| 106288 2000 $UK_{78}$ | 16.3 | X | 246.47803 | 8.32873 | 70.95630 | 1.82394 | 0.0690932 | 0.27402289 | 2.3475318 | 21 | 8 26.5 | 19.1 |
| 106289 2000 $UY_{78}$ | 16.3 | X | 7.15419 | 86.69047 | 41.94600 | 7.62801 | 0.0822424 | 0.29584485 | 2.2306257 | 21 | — | — |
| 106290 2000 $UR_{79}$ | 14.1 | X | 343.31662 | 127.81518 | 244.75891 | 13.90804 | 0.2871374 | 0.18462549 | 3.0545104 | 21 | 10 1.0 | 17.0 |
| 106291 2000 $UW_{79}$ | 15.8 | X | 277.36570 | 3.55775 | 50.68288 | 7.78077 | 0.1001318 | 0.27449335 | 2.3448487 | 21 | 9 2.8 | 18.6 |
| 106292 2000 $UM_{80}$ | 16.6 | X | 160.98069 | 95.59626 | 6.63134 | 1.38406 | 0.0611388 | 0.31405450 | 2.1435455 | 21 | 6 8.7 | 19.1 |
| 106293 2000 $US_{81}$ | 14.7 | X | 40.21029 | 349.04621 | 70.28146 | 7.38544 | 0.2616016 | 0.19502648 | 2.9449210 | 21 | — | — |
| 106294 2000 $UH_{82}$ | 15.1 | X | 307.17899 | 34.02995 | 23.30048 | 5.93636 | 0.1718577 | 0.18487624 | 3.0517478 | 21 | 9 30.8 | 18.7 |
| 106295 2000 $UJ_{82}$ | 15.9 | X | 265.43826 | 335.23835 | 20.52050 | 1.58712 | 0.1983110 | 0.26807843 | 2.3821081 | 21 | 5 6.4 | 19.1 |
| 106296 2000 $UE_{83}$ | 15.9 | X | 189.89573 | 253.61242 | 79.10545 | 7.07716 | 0.1332414 | 0.25665089 | 2.4523034 | 21 | 1 30.7 | 19.6 |
| 106297 2000 $UQ_{83}$ | 14.0 | X | 127.07115 | 90.52955 | 50.41758 | 5.29110 | 0.1081094 | 0.17244642 | 3.1966857 | 21 | 6 27.9 | 18.8 |
| 106298 2000 $UX_{83}$ | 14.4 | X | 142.36881 | 117.54647 | 71.74693 | 10.87314 | 0.0241747 | 0.18041060 | 3.1019016 | 21 | 9 13.1 | 19.1 |
| 106299 2000 $UJ_{84}$ | 14.5 | X | 265.27537 | 53.84978 | 53.81734 | 11.55099 | 0.0565685 | 0.18695280 | 3.0291078 | 21 | 10 23.1 | 18.7 |
| 106300 2000 $UX_{84}$ | 16.4 | X | 211.79658 | 294.11686 | 80.32080 | 3.82663 | 0.2058461 | 0.26451400 | 2.4034602 | 21 | 4 12.3 | 20.4 |
| 106301 2000 $UJ_{86}$ | 14.3 | X | 257.15899 | 326.97276 | 69.99619 | 5.94240 | 0.0632848 | 0.17628519 | 3.1501083 | 21 | 7 10.9 | 18.8 |
| 106302 2000 $UJ_{87}$ | 14.9 | X | 263.29807 | 298.62630 | 133.68785 | 4.33884 | 0.1883692 | 0.17873467 | 3.1212616 | 21 | 8 14.8 | 19.2 |
| 106303 2000 $UO_{87}$ | 14.9 | X | 256.38195 | 23.98465 | 86.17273 | 9.00178 | 0.0638924 | 0.18418910 | 3.0593331 | 21 | 10 15.1 | 19.3 |
| 106304 2000 $UO_{88}$ | 14.7 | X | 277.20524 | 312.19822 | 46.25692 | 22.33555 | 0.0729396 | 0.17497942 | 3.1657606 | 21 | 6 10.9 | 19.4 |
| 106305 2000 $UD_{90}$ | 16.2 | X | 6.97810 | 189.40989 | 261.46860 | 2.34220 | 0.1561915 | 0.24534961 | 2.5270420 | 21 | — | — |
| 106306 2000 $UU_{91}$ | 15.0 | X | 0.71938 | 58.19608 | 284.70958 | 4.43604 | 0.1707620 | 0.18551574 | 3.0447306 | 21 | 9 27.5 | 18.4 |
| 106307 2000 $UD_{92}$ | 15.6 | X | 45.71297 | 23.21089 | 327.44855 | 2.45207 | 0.0801410 | 0.19118111 | 2.9842788 | 21 | 12 7.1 | 19.7 |
| 106308 2000 $UN_{92}$ | 16.9 | X | 268.15375 | 25.23121 | 281.58959 | 3.82020 | 0.0995909 | 0.31207740 | 2.1525893 | 21 | 3 9.0 | 19.6 |
| 106309 2000 $UU_{92}$ | 14.8 | X | 331.24745 | 328.82951 | 333.58751 | 4.32275 | 0.0862300 | 0.17658069 | 3.1465930 | 21 | 6 15.5 | 18.8 |
| 106310 2000 $UX_{92}$ | 14.5 | X | 190.34450 | 251.90318 | 253.59647 | 9.53913 | 0.0952256 | 0.18097862 | 3.0954078 | 21 | 9 1.6 | 19.5 |
| 106311 2000 $UL_{93}$ | 15.4 | X | 318.32171 | 43.59038 | 331.03510 | 6.27729 | 0.1306012 | 0.18195257 | 3.0843519 | 21 | 8 26.5 | 19.0 |
| 106312 2000 $UC_{94}$ | 14.7 | X | 318.20046 | 55.22491 | 19.66602 | 10.94053 | 0.0426613 | 0.18934945 | 3.0034934 | 21 | 11 17.6 | 18.8 |
| 106313 2000 $UE_{94}$ | 13.9 | X | 312.42098 | 264.80082 | 19.10846 | 8.90840 | 0.0324067 | 0.16919598 | 3.2374968 | 21 | 5 1.2 | 18.4 |
| 106314 2000 $UJ_{94}$ | 14.7 | X | 334.92511 | 309.08177 | 24.71781 | 11.32331 | 0.0844154 | 0.17913213 | 3.1166430 | 21 | 8 7.5 | 18.8 |
| 106315 2000 $UP_{94}$ | 13.9 | X | 220.07776 | 91.21578 | 312.76128 | 5.30581 | 0.1313358 | 0.17223715 | 3.1992744 | 21 | 5 31.7 | 19.0 |
| 106316 2000 $UA_{96}$ | 14.3 | X | 300.83508 | 145.86261 | 257.67248 | 9.68001 | 0.1067720 | 0.18191490 | 3.0847777 | 21 | 9 4.1 | 18.5 |
| 106317 2000 $UK_{96}$ | 14.6 | X | 305.07341 | 128.93949 | 255.78850 | 8.61291 | 0.1137118 | 0.18048837 | 3.1010104 | 21 | 8 16.9 | 18.7 |
| 106318 2000 $UP_{97}$ | 13.9 | X | 210.78743 | 94.00670 | 305.76080 | 6.51000 | 0.0794906 | 0.16981109 | 3.2296740 | 21 | 5 19.2 | 18.9 |
| 106319 2000 $UD_{98}$ | 14.6 | X | 356.36451 | 314.17654 | 13.62394 | 7.64100 | 0.2061861 | 0.18245874 | 3.0786449 | 21 | 9 4.0 | 17.7 |
| 106320 2000 $UN_{98}$ | 15.1 | X | 264.34724 | 84.52751 | 327.60790 | 4.05675 | 0.1602516 | 0.17758022 | 3.1347747 | 21 | 7 25.7 | 19.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106321 2000 $US_{98}$ | 16.3 | X | 70.34115 | 191.67288 | 267.69959 | 5.59240 | 0.1318971 | 0.30074440 | 2.2063328 | 21 | 1 27.9 | 18.1 |
| 106322 2000 $UQ_{99}$ | 16.3 | X | 56.07283 | 141.76035 | 279.19293 | 3.53560 | 0.1159672 | 0.29482973 | 2.2357429 | 21 | — | — |
| 106323 2000 $UD_{100}$ | 14.9 | X | 315.95126 | 349.44865 | 32.33901 | 7.73464 | 0.1064783 | 0.18079439 | 3.0975102 | 21 | 9 7.5 | 18.8 |
| 106324 2000 $UD_{101}$ | 14.8 | X | 44.14060 | 116.86415 | 281.73690 | 8.77364 | 0.1019324 | 0.19458192 | 2.9494048 | 21 | — | — |
| 106325 2000 $UE_{101}$ | 15.2 | X | 292.26157 | 31.32204 | 20.47839 | 9.79976 | 0.1973502 | 0.18024259 | 3.1038288 | 21 | 8 29.3 | 19.2 |
| 106326 2000 $UN_{101}$ | 14.9 | X | 343.80193 | 45.91844 | 289.70228 | 5.89276 | 0.1036903 | 0.18070337 | 3.0985503 | 21 | 8 16.8 | 18.7 |
| 106327 2000 $UF_{102}$ | 15.2 | X | 285.19342 | 355.24114 | 9.88839 | 9.23623 | 0.1668502 | 0.17662933 | 3.1460153 | 21 | 6 19.5 | 19.7 |
| 106328 2000 $UV_{102}$ | 14.8 | X | 305.38709 | 13.13456 | 294.56760 | 4.08773 | 0.1206559 | 0.17262331 | 3.1945014 | 21 | 5 9.9 | 19.1 |
| 106329 2000 $UL_{104}$ | 15.3 | X | 46.31331 | 64.35998 | 2.93375 | 5.00146 | 0.1106048 | 0.29281640 | 2.2459795 | 21 | — | — |
| 106330 2000 $UU_{104}$ | 14.4 | X | 345.31525 | 299.64531 | 45.91602 | 17.66558 | 0.2518554 | 0.18171181 | 3.0870757 | 21 | 9 13.1 | 17.7 |
| 106331 2000 $UW_{105}$ | 14.7 | X | 292.59200 | 304.59142 | 63.51414 | 16.34586 | 0.2047532 | 0.17959479 | 3.1112881 | 21 | 6 26.8 | 19.0 |
| 106332 2000 $UO_{106}$ | 16.4 | X | 64.32708 | 224.93031 | 99.05148 | 6.75593 | 0.1995685 | 0.28768536 | 2.2726063 | 21 | 12 29.5 | 19.7 |
| 106333 2000 $UC_{107}$ | 14.9 | X | 286.72042 | 337.98047 | 82.90742 | 11.93891 | 0.1428459 | 0.18216632 | 3.0819387 | 21 | 9 12.7 | 19.2 |
| 106334 2000 $UM_{107}$ | 14.7 | X | 315.16858 | 255.02229 | 91.52874 | 7.87018 | 0.2987624 | 0.18097111 | 3.0954934 | 21 | 6 18.1 | 18.2 |
| 106335 2000 $UV_{107}$ | 16.6 | X | 113.25600 | 218.00552 | 137.49792 | 5.66723 | 0.1870279 | 0.29645528 | 2.2275626 | 21 | — | — |
| 106336 2000 $UW_{107}$ | 16.0 | X | 219.32718 | 230.84932 | 115.30617 | 7.20609 | 0.1876014 | 0.26193174 | 2.4192307 | 21 | 3 16.5 | 20.0 |
| 106337 2000 $UZ_{107}$ | 15.6 | X | 43.71271 | 96.18985 | 80.27285 | 7.19975 | 0.0640403 | 0.26280831 | 2.4138484 | 21 | 4 14.4 | 18.4 |
| 106338 2000 $UE_{108}$ | 15.0 | X | 349.53681 | 180.51139 | 156.28414 | 8.35648 | 0.1004476 | 0.18208311 | 3.0828775 | 21 | 8 29.9 | 18.7 |
| 106339 2000 $UT_{108}$ | 15.0 | X | 205.87425 | 312.91651 | 134.64278 | 5.57789 | 0.1463738 | 0.17379219 | 3.1801618 | 21 | 7 9.9 | 20.1 |
| 106340 2000 $UV_{108}$ | 16.2 | X | 231.00925 | 308.15157 | 145.89253 | 5.38450 | 0.1423792 | 0.27349839 | 2.3505322 | 21 | 8 16.2 | 19.3 |
| 106341 2000 $UZ_{108}$ | 13.8 | X | 287.27660 | 322.81622 | 99.32493 | 9.25998 | 0.1680077 | 0.18120423 | 3.0928379 | 21 | 9 8.9 | 17.9 |
| 106342 2000 $UP_{110}$ | 16.2 | X | 220.10053 | 359.10615 | 118.09660 | 5.03585 | 0.1366534 | 0.27448753 | 2.3448819 | 21 | 9 6.9 | 19.4 |
| 106343 2000 $UT_{110}$ | 16.4 | X | 307.59951 | 22.03945 | 38.41223 | 20.74178 | 0.1136138 | 0.37497873 | 1.9045760 | 21 | 11 18.3 | 17.5 |
| 106344 2000 $UC_{111}$ | 15.2 | X | 173.98513 | 91.51300 | 29.58506 | 3.68798 | 0.1308172 | 0.17275492 | 3.1928787 | 21 | 7 22.4 | 20.3 |
| 106345 2000 $UQ_{111}$ | 15.8 | X | 35.59188 | 259.06125 | 156.94225 | 1.95724 | 0.0674177 | 0.24560298 | 2.5253038 | 21 | — | — |
| 106346 2000 $UA_{112}$ | 15.3 | X | 275.55239 | 359.69633 | 69.52802 | 9.72490 | 0.1543148 | 0.18032366 | 3.1028986 | 21 | 9 4.9 | 19.7 |
| 106347 2000 $UG_{112}$ | 15.3 | X | 281.43389 | 292.96880 | 48.40658 | 12.02768 | 0.1812190 | 0.17530447 | 3.1618461 | 21 | 5 13.6 | 19.9 |
| 106348 2000 $UJ_{112}$ | 16.5 | X | 75.06151 | 266.32734 | 221.46173 | 0.71402 | 0.1407069 | 0.25832258 | 2.4417122 | 21 | 4 2.2 | 19.1 |
| 106349 2000 $VE$ | 15.9 | X | 18.65188 | 169.67945 | 261.35530 | 4.20568 | 0.1568598 | 0.29047783 | 2.2580179 | 21 | — | — |
| 106350 2000 $VM_{1}$ | 14.8 | X | 268.66695 | 58.57974 | 102.47238 | 24.16610 | 0.2666599 | 0.27994285 | 2.3143185 | 21 | 12 24.2 | 16.7 |
| 106351 2000 $VH_{2}$ | 15.0 | X | 219.76971 | 50.87392 | 97.52807 | 23.52222 | 0.2282243 | 0.27196474 | 2.3593605 | 21 | 10 19.4 | 19.2 |
| 106352 2000 $VA_{3}$ | 16.8 | X | 264.74654 | 250.59743 | 56.76056 | 3.78930 | 0.0655121 | 0.30908568 | 2.1664573 | 21 | 3 13.9 | 19.5 |
| 106353 2000 $VX_{3}$ | 15.3 | X | 282.68275 | 38.89522 | 14.84580 | 1.36660 | 0.0960214 | 0.18132550 | 3.0914588 | 21 | 8 29.7 | 19.4 |
| 106354 2000 $VD_{4}$ | 15.1 | X | 295.65992 | 317.29862 | 14.94378 | 1.87094 | 0.0846386 | 0.17511309 | 3.1641494 | 21 | 6 3.4 | 19.5 |
| 106355 2000 $VS_{4}$ | 16.2 | X | 248.85525 | 239.92393 | 183.13963 | 2.14593 | 0.1975917 | 0.27289369 | 2.3540032 | 21 | 7 18.1 | 19.5 |
| 106356 2000 $VX_{4}$ | 15.2 | X | 246.31384 | 276.25480 | 118.01149 | 4.30037 | 0.2951900 | 0.17473323 | 3.1687335 | 21 | 6 1.7 | 20.6 |
| 106357 2000 $VD_{5}$ | 14.9 | X | 307.82700 | 359.32903 | 39.84004 | 5.06131 | 0.1163752 | 0.18330031 | 3.0692145 | 21 | 9 15.6 | 18.7 |
| 106358 2000 $VE_{5}$ | 14.8 | X | 234.08498 | 302.08029 | 212.33011 | 8.51228 | 0.0636556 | 0.18888005 | 3.0084675 | 21 | 11 8.3 | 19.1 |
| 106359 2000 $VP_{6}$ | 14.5 | X | 259.54977 | 275.44609 | 47.98986 | 6.68113 | 0.0618299 | 0.16845975 | 3.2469226 | 21 | 4 14.3 | 19.3 |
| 106360 2000 $VB_{7}$ | 13.9 | X | 51.67309 | 219.59769 | 40.96023 | 16.89631 | 0.2615954 | 0.18293200 | 3.0733328 | 21 | 9 27.3 | 18.2 |
| 106361 2000 $VK_{7}$ | 14.0 | X | 331.60906 | 259.33796 | 41.12893 | 9.93899 | 0.0542404 | 0.17459577 | 3.1703964 | 21 | 6 15.7 | 18.3 |
| 106362 2000 $VB_{8}$ | 15.4 | X | 342.74177 | 96.86835 | 252.83019 | 1.35274 | 0.0824698 | 0.18205411 | 3.0832050 | 21 | 9 4.6 | 19.1 |
| 106363 2000 $VE_{8}$ | 14.4 | X | 148.52489 | 95.34554 | 30.02009 | 0.37591 | 0.1530228 | 0.17096226 | 3.2151597 | 21 | 7 3.6 | 19.6 |
| 106364 2000 $VO_{8}$ | 15.2 | X | 21.18009 | 4.86781 | 55.04318 | 2.68526 | 0.0858338 | 0.19565143 | 2.9386466 | 21 | — | — |
| 106365 2000 $VS_{8}$ | 15.2 | X | 22.01731 | 236.73675 | 102.99262 | 2.26474 | 0.1880616 | 0.18785769 | 3.0193728 | 21 | 11 6.3 | 18.7 |
| 106366 2000 $VM_{9}$ | 16.8 | X | 171.84070 | 131.21384 | 343.38922 | 0.09295 | 0.1695961 | 0.26824311 | 2.3811331 | 21 | 7 12.7 | 20.6 |
| 106367 2000 $VQ_{9}$ | 16.7 | X | 218.60443 | 70.36135 | 0.48513 | 1.32349 | 0.1660728 | 0.27008514 | 2.3702942 | 21 | 6 30.3 | 20.3 |
| 106368 2000 $VZ_{9}$ | 16.2 | X | 199.29496 | 40.46207 | 51.32915 | 4.08325 | 0.1348325 | 0.26977661 | 2.3721011 | 21 | 7 10.6 | 19.8 |
| 106369 2000 $VE_{10}$ | 14.9 | X | 207.39152 | 93.48122 | 53.78156 | 8.96124 | 0.0335100 | 0.18377057 | 3.0639763 | 21 | 10 5.4 | 19.3 |
| 106370 2000 $VT_{10}$ | 16.5 | X | 262.30432 | 266.62978 | 214.49723 | 5.17812 | 0.1067061 | 0.28190329 | 2.3035764 | 21 | 11 11.3 | 19.1 |
| 106371 2000 $VA_{11}$ | 14.9 | X | 282.92150 | 132.10388 | 229.96318 | 4.23582 | 0.1704037 | 0.17666861 | 3.1455490 | 21 | 6 12.6 | 19.4 |
| 106372 2000 $VJ_{11}$ | 15.0 | X | 195.59190 | 230.45629 | 239.22117 | 0.30862 | 0.1388751 | 0.17452850 | 3.1712110 | 21 | 7 27.7 | 20.0 |
| 106373 2000 $VP_{11}$ | 14.9 | X | 339.35144 | 289.71958 | 79.68819 | 1.64743 | 0.1985188 | 0.18435956 | 3.0574470 | 21 | 9 24.8 | 17.8 |
| 106374 2000 $VQ_{11}$ | 16.1 | X | 204.65351 | 217.08913 | 219.96099 | 5.63972 | 0.1866839 | 0.26852794 | 2.3794490 | 21 | 6 23.5 | 20.0 |
| 106375 2000 $VT_{13}$ | 15.0 | X | 195.76439 | 264.76838 | 175.70911 | 4.10110 | 0.1479524 | 0.17187893 | 3.2037181 | 21 | 6 22.1 | 20.2 |
| 106376 2000 $VW_{13}$ | 14.8 | X | 250.96270 | 203.99844 | 212.06881 | 11.44443 | 0.1579274 | 0.17650978 | 3.1474357 | 21 | 7 12.9 | 19.8 |
| 106377 2000 $VY_{13}$ | 16.9 | X | 121.99174 | 228.05481 | 181.72173 | 2.41692 | 0.1123482 | 0.30260135 | 2.1972973 | 21 | 2 8.7 | 19.2 |
| 106378 2000 $VG_{14}$ | 14.8 | X | 315.18867 | 253.88426 | 60.00931 | 9.87672 | 0.3501771 | 0.17858185 | 3.1230421 | 21 | 4 28.8 | 18.7 |
| 106379 2000 $VL_{14}$ | 14.0 | X | 230.37195 | 353.12735 | 67.22467 | 10.27754 | 0.0895931 | 0.17450385 | 3.1715097 | 21 | 7 5.8 | 18.8 |
| 106380 2000 $VE_{15}$ | 16.6 | X | 323.57594 | 323.67396 | 80.64376 | 4.01583 | 0.1554992 | 0.28087497 | 2.3091955 | 21 | 11 5.2 | 18.3 |
| 106381 2000 $VB_{16}$ | 14.9 | X | 305.11374 | 236.97123 | 128.67021 | 4.78299 | 0.1890516 | 0.17915747 | 3.1163491 | 21 | 7 15.2 | 18.6 |
| 106382 2000 $VF_{16}$ | 14.8 | X | 316.07403 | 160.31506 | 213.32433 | 6.61386 | 0.1511401 | 0.18047614 | 3.1011506 | 21 | 8 16.3 | 18.6 |
| 106383 2000 $VG_{16}$ | 15.4 | X | 304.02231 | 260.76237 | 217.65968 | 10.21490 | 0.1479185 | 0.23812739 | 2.5778827 | 21 | 12 31.1 | 18.2 |
| 106384 2000 $VQ_{16}$ | 16.4 | X | 14.84815 | 256.48825 | 165.58881 | 3.79792 | 0.1818455 | 0.28919636 | 2.2646834 | 21 | — | — |
| 106385 2000 $VH_{17}$ | 15.7 | X | 26.63717 | 158.93611 | 210.63642 | 4.71864 | 0.1195870 | 0.23748293 | 2.5825444 | 21 | 12 21.7 | 19.0 |
| 106386 2000 $VP_{17}$ | 16.1 | X | 232.37321 | 235.87747 | 192.71032 | 3.89486 | 0.2054750 | 0.27063451 | 2.3670855 | 21 | 7 7.3 | 19.7 |
| 106387 2000 $VR_{17}$ | 16.1 | X | 147.83697 | 211.22062 | 205.87296 | 3.99534 | 0.0879393 | 0.30628926 | 2.1796238 | 21 | 3 21.2 | 18.7 |
| 106388 2000 $VV_{17}$ | 14.5 | X | 118.30041 | 86.69598 | 64.29909 | 16.99520 | 0.0385219 | 0.17045322 | 3.2215576 | 21 | 6 21.3 | 19.2 |
| 106389 2000 $VN_{20}$ | 14.8 | X | 353.83454 | 289.50661 | 52.11262 | 10.77463 | 0.0201118 | 0.18155213 | 3.0888855 | 21 | 9 16.7 | 19.2 |
| 106390 2000 $VR_{20}$ | 15.3 | X | 295.02052 | 279.05925 | 209.68439 | 8.89049 | 0.0387614 | 0.19290982 | 2.9664236 | 21 | 12 26.3 | 19.4 |
| 106391 2000 $VZ_{21}$ | 16.2 | X | 349.25389 | 159.59095 | 59.93282 | 3.91614 | 0.0877090 | 0.30701257 | 2.1761990 | 21 | 3 5.8 | 18.4 |
| 106392 2000 $VB_{22}$ | 14.6 | X | 265.02147 | 298.28697 | 57.35708 | 11.25130 | 0.0298947 | 0.17123700 | 3.2117197 | 21 | 6 1.5 | 19.2 |
| 106393 2000 $VW_{22}$ | 14.5 | X | 240.72174 | 0.97360 | 40.13850 | 9.14587 | 0.0508172 | 0.17427691 | 3.1742623 | 21 | 6 27.4 | 19.2 |
| 106394 2000 $VG_{24}$ | 14.6 | X | 255.58644 | 48.04299 | 73.99424 | 1.68876 | 0.2226167 | 0.18383636 | 3.0632453 | 21 | 10 3.2 | 18.9 |
| 106395 2000 $VL_{24}$ | 16.2 | X | 53.20948 | 67.07878 | 82.26202 | 1.20796 | 0.0466595 | 0.30564304 | 2.1826949 | 21 | 3 9.5 | 18.2 |
| 106396 2000 $VQ_{24}$ | 16.0 | X | 177.78908 | 128.01767 | 250.82494 | 1.11450 | 0.1855168 | 0.25914056 | 2.4365713 | 21 | 3 17.4 | 19.7 |
| 106397 2000 $VO_{25}$ | 16.8 | X | 45.05518 | 216.44627 | 251.21627 | 0.69040 | 0.1034490 | 0.29914389 | 2.2141955 | 21 | — | — |
| 106398 2000 $VP_{25}$ | 16.1 | X | 101.59810 | 278.81166 | 218.30004 | 8.22855 | 0.2008084 | 0.26096267 | 2.4252162 | 21 | 6 3.6 | 19.4 |
| 106399 2000 $VS_{25}$ | 14.7 | X | 216.14630 | 21.64057 | 103.98106 | 2.28547 | 0.0860062 | 0.18008001 | 3.1056967 | 21 | 9 10.8 | 19.4 |
| 106400 2000 $VO_{27}$ | 16.0 | X | 41.29547 | 137.43367 | 215.35983 | 7.17257 | 0.1357665 | 0.28506312 | 2.2865219 | 21 | 12 31.7 | 19.0 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106401 2000 $VB_{28}$ | 15.9 | X | 311.47071 | 167.96866 | 200.39230 | 7.21647 | 0.1371581 | 0.27472168 | 2.3435493 | 21 | 8 8.9 | 18.3 |
| 106402 2000 $VD_{28}$ | 16.3 | X | 352.17883 | 237.09490 | 177.82035 | 4.87462 | 0.1340359 | 0.28501907 | 2.2867574 | 21 | — | — |
| 106403 2000 $VN_{28}$ | 16.3 | X | 219.71653 | 263.80799 | 157.98353 | 2.76078 | 0.1502912 | 0.26811793 | 2.3818742 | 21 | 6 20.3 | 19.9 |
| 106404 2000 $VV_{28}$ | 16.1 | X | 328.93290 | 180.24929 | 190.81581 | 5.27299 | 0.1735991 | 0.27744357 | 2.3281964 | 21 | 9 19.4 | 17.8 |
| 106405 2000 $VJ_{29}$ | 14.8 | X | 309.47175 | 190.74330 | 209.61488 | 5.96770 | 0.1394578 | 0.18101073 | 3.0950417 | 21 | 9 12.5 | 18.7 |
| 106406 2000 $VM_{29}$ | 16.0 | X | 162.93343 | 300.43896 | 192.66053 | 4.61066 | 0.1996428 | 0.26636735 | 2.3922986 | 21 | 7 27.7 | 19.9 |
| 106407 2000 $VN_{29}$ | 15.7 | X | 145.99193 | 131.76787 | 224.19380 | 9.59662 | 0.2317162 | 0.25187550 | 2.4832023 | 21 | 1 21.7 | 19.6 |
| 106408 2000 $VK_{30}$ | 14.8 | X | 24.02911 | 158.26096 | 210.33040 | 9.01394 | 0.0949183 | 0.18827804 | 3.0148771 | 21 | 12 3.1 | 18.8 |
| 106409 2000 $VE_{31}$ | 16.5 | X | 330.81085 | 190.26038 | 250.27352 | 2.22541 | 0.0902793 | 0.28520749 | 2.2857502 | 21 | — | — |
| 106410 2000 $VJ_{31}$ | 16.2 | X | 233.62081 | 173.26367 | 218.11857 | 1.82661 | 0.1921756 | 0.26760791 | 2.3848995 | 21 | 5 22.2 | 19.9 |
| 106411 2000 $VK_{31}$ | 16.3 | X | 14.23373 | 22.16126 | 79.17334 | 1.87845 | 0.0747272 | 0.29339893 | 2.2430056 | 21 | — | — |
| 106412 2000 $VL_{31}$ | 16.7 | X | 141.11506 | 161.07957 | 218.96317 | 2.23598 | 0.1581839 | 0.30156235 | 2.2023414 | 21 | 1 31.4 | 19.4 |
| 106413 2000 $VD_{32}$ | 14.7 | X | 279.02711 | 267.02082 | 171.47482 | 2.22359 | 0.1127228 | 0.18142866 | 3.0902868 | 21 | 9 22.8 | 18.9 |
| 106414 2000 $VM_{32}$ | 13.9 | X | 261.61439 | 7.78114 | 68.79712 | 12.63911 | 0.1303034 | 0.17816575 | 3.1279027 | 21 | 9 1.3 | 18.6 |
| 106415 2000 $VR_{32}$ | 14.0 | X | 210.37373 | 6.75621 | 84.02756 | 6.40465 | 0.1262283 | 0.17313943 | 3.1881498 | 21 | 7 20.2 | 19.0 |
| 106416 2000 $VC_{34}$ | 14.7 | X | 263.63451 | 195.23594 | 227.99916 | 4.60246 | 0.1371795 | 0.17666355 | 3.1456091 | 21 | 8 8.7 | 19.3 |
| 106417 2000 $VC_{35}$ | 16.2 | X | 47.98823 | 93.41932 | 240.70745 | 19.92125 | 0.1192191 | 0.37763991 | 1.8956179 | 21 | 12 30.2 | 18.6 |
| 106418 2000 $VU_{35}$ | 15.7 | X | 79.11980 | 177.38145 | 220.86098 | 4.90963 | 0.2248085 | 0.29406123 | 2.2396365 | 21 | — | — |
| 106419 2000 $VO_{37}$ | 15.0 | X | 346.18306 | 251.43241 | 167.25357 | 1.53266 | 0.3715350 | 0.18644479 | 3.0346077 | 21 | — | — |
| 106420 2000 $VC_{38}$ | 15.5 | X | 318.79678 | 357.60414 | 80.25927 | 8.96259 | 0.1789139 | 0.28007995 | 2.3135632 | 21 | 12 17.2 | 17.0 |
| 106421 2000 $VE_{38}$ | 15.9 | X | 128.00943 | 192.10778 | 198.55168 | 3.10095 | 0.0257580 | 0.29945189 | 2.2126769 | 21 | 1 8.3 | 18.3 |
| 106422 2000 $VC_{42}$ | 16.8 | X | 192.02196 | 11.88246 | 7.95786 | 3.65760 | 0.0766793 | 0.30920775 | 2.1658870 | 21 | 3 23.5 | 19.6 |
| 106423 2000 $VH_{42}$ | 16.1 | X | 118.73434 | 70.68077 | 22.05668 | 5.31877 | 0.0988076 | 0.25990696 | 2.4317791 | 21 | 4 10.2 | 19.2 |
| 106424 2000 $VN_{42}$ | 16.3 | X | 176.99108 | 52.76535 | 24.01925 | 6.38089 | 0.1171151 | 0.26560803 | 2.3968558 | 21 | 5 26.4 | 19.8 |
| 106425 2000 $VU_{42}$ | 14.8 | X | 255.73094 | 55.73652 | 6.61225 | 4.59829 | 0.1336278 | 0.17784654 | 3.1316443 | 21 | 8 2.0 | 19.4 |
| 106426 2000 $VN_{43}$ | 15.5 | X | 251.45885 | 84.73321 | 345.99114 | 2.32640 | 0.0991554 | 0.17871140 | 3.1215327 | 21 | 8 11.2 | 20.0 |
| 106427 2000 $VT_{43}$ | 14.9 | X | 0.30281 | 10.97097 | 304.29478 | 4.38691 | 0.1621661 | 0.18178849 | 3.0862075 | 21 | 8 19.8 | 18.3 |
| 106428 2000 $VV_{43}$ | 14.7 | X | 174.38778 | 170.91009 | 12.36285 | 10.60815 | 0.0287271 | 0.18463414 | 3.0544150 | 21 | 10 7.6 | 19.1 |
| 106429 2000 $VZ_{43}$ | 14.0 | X | 80.50983 | 340.29397 | 235.87907 | 21.78830 | 0.1445640 | 0.17550454 | 3.1594426 | 21 | 8 3.8 | 19.0 |
| 106430 2000 $VN_{45}$ | 15.4 | X | 52.37065 | 346.95165 | 52.04108 | 2.86318 | 0.0749620 | 0.19788619 | 2.9164804 | 21 | — | — |
| 106431 2000 $VU_{45}$ | 16.1 | X | 324.44132 | 124.64463 | 62.11320 | 5.97520 | 0.0865621 | 0.29947068 | 2.2125844 | 21 | — | — |
| 106432 2000 $VB_{48}$ | 15.0 | X | 38.41519 | 273.42932 | 44.56856 | 11.42646 | 0.0587194 | 0.18496602 | 3.0507602 | 21 | 10 17.2 | 19.1 |
| 106433 2000 $VM_{48}$ | 16.9 | X | 89.82512 | 38.36780 | 6.78802 | 1.00416 | 0.2147899 | 0.29728757 | 2.2234031 | 21 | — | — |
| 106434 2000 $VV_{49}$ | 15.9 | X | 319.04547 | 40.28882 | 34.11166 | 4.03118 | 0.0705714 | 0.28211141 | 2.3024433 | 21 | 12 10.6 | 18.3 |
| 106435 2000 $VM_{50}$ | 14.3 | X | 258.80298 | 2.50527 | 63.35779 | 19.06654 | 0.1455035 | 0.17622978 | 3.1507686 | 21 | 8 13.6 | 19.2 |
| 106436 2000 $VB_{51}$ | 14.4 | X | 39.23472 | 26.55673 | 258.51822 | 9.77933 | 0.0791237 | 0.18119511 | 3.0929416 | 21 | 8 31.6 | 18.7 |
| 106437 2000 $VL_{51}$ | 16.3 | X | 308.27235 | 180.58077 | 332.69919 | 4.16230 | 0.0791196 | 0.29239165 | 2.2481541 | 21 | — | — |
| 106438 2000 $VK_{52}$ | 14.5 | X | 323.95664 | 300.64418 | 26.63852 | 11.67413 | 0.2283005 | 0.17889953 | 3.1193438 | 21 | 6 18.1 | 18.2 |
| 106439 2000 $VL_{52}$ | 16.6 | X | 232.55745 | 352.49595 | 325.51719 | 3.50614 | 0.1734859 | 0.30770402 | 2.1729377 | 21 | 2 13.2 | 20.0 |
| 106440 2000 $VM_{52}$ | 15.1 | X | 179.75586 | 200.61069 | 27.83599 | 10.33139 | 0.0462025 | 0.19099039 | 2.9862652 | 21 | 12 5.9 | 19.6 |
| 106441 2000 $VA_{53}$ | 15.3 | X | 120.89719 | 13.27660 | 249.54105 | 13.67413 | 0.0800339 | 0.23585790 | 2.5943930 | 21 | 11 22.8 | 19.0 |
| 106442 2000 $VL_{54}$ | 16.3 | X | 72.14069 | 113.66450 | 6.65893 | 4.13092 | 0.0525221 | 0.30425136 | 2.1893458 | 21 | 2 26.4 | 18.4 |
| 106443 2000 $VN_{54}$ | 15.1 | X | 236.84288 | 116.69147 | 282.15417 | 3.64355 | 0.1593819 | 0.17319822 | 3.1874284 | 21 | 6 9.3 | 20.1 |
| 106444 2000 $VP_{54}$ | 15.0 | X | 211.48203 | 260.35538 | 269.48782 | 8.80753 | 0.0650259 | 0.18597097 | 3.0397599 | 21 | 10 28.5 | 19.6 |
| 106445 2000 $VN_{55}$ | 16.2 | X | 23.12857 | 98.29063 | 279.04969 | 6.22102 | 0.1091128 | 0.28546163 | 2.2843933 | 21 | — | — |
| 106446 2000 $VT_{55}$ | 16.6 | X | 66.05645 | 340.53352 | 9.52904 | 3.82121 | 0.2089930 | 0.28926202 | 2.2643407 | 21 | — | — |
| 106447 2000 $VA_{56}$ | 14.9 | X | 346.14246 | 92.63404 | 272.65760 | 6.58424 | 0.1363844 | 0.18320582 | 3.0702698 | 21 | 9 27.9 | 18.6 |
| 106448 2000 $VN_{56}$ | 16.2 | X | 67.24165 | 23.89356 | 12.84808 | 2.87040 | 0.1767287 | 0.29335855 | 2.2432114 | 21 | — | — |
| 106449 2000 $VU_{56}$ | 14.4 | X | 331.81337 | 94.14505 | 274.11088 | 8.33051 | 0.1477024 | 0.18115411 | 3.0934083 | 21 | 9 4.3 | 18.1 |
| 106450 2000 $VJ_{57}$ | 13.9 | X | 334.23836 | 91.96224 | 278.34021 | 4.03301 | 0.2167229 | 0.18218528 | 3.0817249 | 21 | 9 10.1 | 17.1 |
| 106451 2000 $VX_{57}$ | 16.0 | X | 343.03476 | 61.35480 | 37.52632 | 6.36785 | 0.1417055 | 0.28766102 | 2.2727345 | 21 | — | — |
| 106452 2000 $VJ_{59}$ | 13.7 | X | 302.64187 | 353.95892 | 35.58555 | 21.23128 | 0.1294683 | 0.17802283 | 3.1295766 | 21 | 9 3.2 | 18.1 |
| 106453 2000 $VC_{60}$ | 14.5 | X | 216.98366 | 67.42450 | 55.31330 | 12.29379 | 0.0478605 | 0.18010302 | 3.1054322 | 21 | 9 17.4 | 19.2 |
| 106454 2000 $VJ_{60}$ | 14.9 | X | 151.36112 | 283.34368 | 214.97006 | 8.51275 | 0.0556687 | 0.17471210 | 3.1689889 | 21 | 7 15.2 | 19.7 |
| 106455 2000 $VJ_{62}$ | 16.4 | X | 298.68527 | 52.11277 | 42.63491 | 23.19215 | 0.1000175 | 0.37782125 | 1.8950113 | 21 | — | — |
| 106456 2000 $VW_{62}$ | 16.2 | X | 185.84041 | 185.79918 | 266.84411 | 6.10549 | 0.0676781 | 0.26816516 | 2.3815945 | 21 | 6 27.7 | 19.3 |
| 106457 2000 $WC$ | 15.9 | X | 130.11364 | 141.83879 | 98.21996 | 1.92508 | 0.0195802 | 0.23202133 | 2.6229143 | 21 | 11 1.9 | 19.6 |
| 106458 2000 $WT_{2}$ | 16.1 | X | 236.71096 | 242.98569 | 183.22588 | 22.00531 | 0.1036685 | 0.36600518 | 1.9355805 | 21 | 7 18.6 | 18.9 |
| 106459 2000 $WD_{3}$ | 16.2 | X | 213.96082 | 241.32440 | 256.47062 | 19.63650 | 0.0293615 | 0.37277398 | 1.9120782 | 21 | 10 16.1 | 18.6 |
| 106460 2000 $WV_{3}$ | 14.6 | X | 31.80035 | 24.02961 | 338.67793 | 10.61713 | 0.0773435 | 0.18962400 | 3.0005936 | 21 | 12 1.6 | 18.9 |
| 106461 2000 $WZ_{3}$ | 14.2 | X | 343.61379 | 249.86953 | 10.45685 | 16.86043 | 0.0857856 | 0.16927508 | 3.2364883 | 21 | 5 4.8 | 18.6 |
| 106462 2000 $WP_{4}$ | 14.6 | X | 358.75731 | 338.06028 | 342.42941 | 8.77454 | 0.0807355 | 0.18034322 | 3.1026742 | 21 | 8 23.7 | 18.6 |
| 106463 2000 $WR_{4}$ | 15.0 | X | 198.15737 | 225.43694 | 275.96224 | 10.35927 | 0.0654120 | 0.18072106 | 3.0983480 | 21 | 9 5.7 | 19.8 |
| 106464 2000 $WU_{4}$ | 14.8 | X | 208.51902 | 78.80417 | 344.98314 | 11.93552 | 0.0614290 | 0.17065149 | 3.2190619 | 21 | 6 17.7 | 19.8 |
| 106465 2000 $WZ_{4}$ | 16.3 | X | 49.66832 | 252.29311 | 281.23745 | 17.37293 | 0.0495953 | 0.35471791 | 1.9764264 | 21 | 3 18.6 | 18.6 |
| 106466 2000 $WF_{7}$ | 16.4 | X | 157.30430 | 352.51660 | 129.30550 | 5.95256 | 0.1806795 | 0.26610730 | 2.3938569 | 21 | 7 8.4 | 20.1 |
| 106467 2000 $WJ_{7}$ | 16.6 | X | 259.25391 | 228.80844 | 173.19111 | 6.44604 | 0.1096302 | 0.27188393 | 2.3598280 | 21 | 7 13.1 | 19.8 |
| 106468 2000 $WO_{7}$ | 16.4 | X | 249.28461 | 209.24980 | 264.07755 | 3.49024 | 0.0975195 | 0.27838226 | 2.3229597 | 21 | 10 10.8 | 19.3 |
| 106469 2000 $WR_{8}$ | 15.9 | X | 84.38153 | 30.14362 | 325.62429 | 5.73902 | 0.0391401 | 0.28755674 | 2.2732840 | 21 | — | — |
| 106470 2000 $WU_{9}$ | 16.6 | X | 194.61627 | 106.59622 | 51.49152 | 4.92035 | 0.1305436 | 0.27271148 | 2.3550517 | 21 | 10 3.9 | 20.0 |
| 106471 2000 $WJ_{11}$ | 15.8 | X | 306.59544 | 331.83782 | 58.41103 | 7.72802 | 0.1244071 | 0.27253593 | 2.3560628 | 21 | 9 12.9 | 18.3 |
| 106472 2000 $WK_{12}$ | 14.4 | X | 337.01405 | 261.90709 | 99.16350 | 12.24106 | 0.1051925 | 0.18257371 | 3.0773524 | 21 | 9 16.8 | 18.4 |
| 106473 2000 $WV_{13}$ | 14.6 | X | 349.37519 | 249.52585 | 110.18889 | 9.35302 | 0.1021217 | 0.18327263 | 3.0695236 | 21 | 10 4.3 | 18.5 |
| 106474 2000 $WZ_{13}$ | 16.1 | X | 19.69220 | 188.78204 | 350.06778 | 1.56090 | 0.0902482 | 0.30420440 | 2.1895711 | 21 | 2 23.3 | 18.1 |
| 106475 2000 $WF_{14}$ | 16.3 | X | 204.42717 | 176.51059 | 316.93060 | 3.20225 | 0.1117866 | 0.27347214 | 2.3506826 | 21 | 9 10.5 | 19.7 |
| 106476 2000 $WU_{15}$ | 16.2 | X | 345.87768 | 249.40314 | 70.26020 | 3.20704 | 0.1839814 | 0.27450089 | 2.3448058 | 21 | 8 4.4 | 17.7 |
| 106477 2000 $WZ_{16}$ | 16.1 | X | 306.78749 | 24.03926 | 66.77477 | 12.40338 | 0.1565446 | 0.23446215 | 2.6046791 | 21 | 11 26.8 | 18.6 |
| 106478 2000 $WH_{18}$ | 16.3 | X | 293.67659 | 146.67025 | 80.66551 | 6.86876 | 0.0411016 | 0.29973691 | 2.2112740 | 21 | 1 2.7 | 19.0 |
| 106479 2000 $WP_{18}$ | 16.2 | X | 173.13937 | 162.70494 | 259.67295 | 5.19967 | 0.0277012 | 0.30902625 | 2.1667350 | 21 | 4 23.7 | 18.9 |
| 106480 2000 $WX_{18}$ | 15.6 | X | 51.58803 | 164.49031 | 255.89487 | 6.64550 | 0.0908535 | 0.29219148 | 2.2491807 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106481 2000 $WD_{19}$ | 13.8 | X | 315.38393 | 340.77578 | 98.06744 | 14.40209 | 0.2244403 | 0.18823447 | 3.0153423 | 21 | 11 13.7 | 17.1 |
| 106482 2000 $WA_{22}$ | 16.9 | X | 130.56031 | 238.08805 | 169.92312 | 4.75448 | 0.0991120 | 0.30367341 | 2.1921228 | 21 | 2 15.8 | 19.3 |
| 106483 2000 $WF_{22}$ | 14.0 | X | 209.93263 | 10.33026 | 64.04441 | 24.34287 | 0.1314227 | 0.17329250 | 3.1862721 | 21 | 6 26.3 | 19.2 |
| 106484 2000 $WV_{22}$ | 16.4 | X | 56.24030 | 192.45181 | 197.41643 | 6.95110 | 0.1102109 | 0.29183801 | 2.2509965 | 21 | — | — |
| 106485 2000 $WU_{23}$ | 14.4 | X | 308.53726 | 77.01519 | 272.45000 | 7.14373 | 0.0944983 | 0.17554406 | 3.1589684 | 21 | 7 12.3 | 18.6 |
| 106486 2000 $WG_{24}$ | 14.7 | X | 165.47382 | 333.53817 | 140.08866 | 6.66680 | 0.1151089 | 0.17085625 | 3.2164895 | 21 | 7 3.7 | 19.8 |
| 106487 2000 $WH_{24}$ | 14.7 | X | 223.82106 | 49.03428 | 89.18334 | 12.46078 | 0.0862809 | 0.18270995 | 3.0758224 | 21 | 10 10.4 | 19.4 |
| 106488 2000 $WY_{24}$ | 16.4 | X | 72.19207 | 36.42760 | 70.99277 | 5.45944 | 0.1234870 | 0.29823566 | 2.2186885 | 21 | 2 17.8 | 18.4 |
| 106489 2000 $WA_{25}$ | 15.0 | X | 73.69466 | 175.26863 | 247.90056 | 12.79366 | 0.1589905 | 0.24423598 | 2.5347179 | 21 | 1 1.5 | 17.6 |
| 106490 2000 $WB_{26}$ | 14.8 | X | 268.40806 | 100.38944 | 271.67961 | 1.03593 | 0.0549417 | 0.17148899 | 3.2085727 | 21 | 6 23.9 | 19.4 |
| 106491 2000 $WG_{28}$ | 14.4 | X | 314.54355 | 252.60840 | 97.37839 | 17.60790 | 0.2490095 | 0.18162973 | 3.0880057 | 21 | 6 30.1 | 17.9 |
| 106492 2000 $WJ_{28}$ | 14.5 | X | 241.52296 | 243.00561 | 175.25376 | 9.35686 | 0.0756853 | 0.17543797 | 3.1602418 | 21 | 7 15.8 | 19.2 |
| 106493 2000 $WM_{29}$ | 15.4 | X | 225.61501 | 158.88967 | 58.42345 | 24.74232 | 0.1764394 | 0.28997695 | 2.2606174 | 21 | — | — |
| 106494 2000 $WL_{30}$ | 14.3 | X | 160.35458 | 73.43511 | 81.45026 | 12.81744 | 0.1158724 | 0.17482856 | 3.1675814 | 21 | 8 23.1 | 19.5 |
| 106495 2000 $WD_{31}$ | 15.5 | X | 195.31858 | 308.88409 | 87.99236 | 13.46252 | 0.1490147 | 0.21482312 | 2.7610993 | 21 | 5 2.8 | 20.1 |
| 106496 2000 $WK_{31}$ | 14.7 | X | 232.35792 | 290.50401 | 113.70562 | 8.00330 | 0.1436075 | 0.17218616 | 3.1999060 | 21 | 6 13.5 | 19.8 |
| 106497 2000 $WO_{31}$ | 14.4 | X | 211.67537 | 42.20165 | 99.70421 | 11.85598 | 0.0691975 | 0.18074148 | 3.0981147 | 21 | 10 2.5 | 19.2 |
| 106498 2000 $WD_{33}$ | 14.5 | X | 230.88909 | 227.04676 | 229.55096 | 17.12547 | 0.1725635 | 0.17544006 | 3.1602168 | 21 | 8 5.7 | 19.8 |
| 106499 2000 $WE_{33}$ | 14.1 | X | 231.15921 | 300.14173 | 105.67086 | 8.64459 | 0.1709231 | 0.17190963 | 3.2033366 | 21 | 6 12.1 | 19.3 |
| 106500 2000 $WW_{34}$ | 16.0 | X | 157.94454 | 299.98821 | 133.29910 | 7.58145 | 0.0920563 | 0.26045802 | 2.4283478 | 21 | 5 3.9 | 19.6 |
| 106501 2000 $WN_{36}$ | 16.3 | X | 316.55062 | 327.36129 | 122.47413 | 6.64606 | 0.1150492 | 0.28289875 | 2.2981694 | 21 | 12 30.6 | 18.5 |
| 106502 2000 $WO_{36}$ | 14.4 | X | 356.95985 | 343.53673 | 114.26368 | 10.32364 | 0.0104345 | 0.19364190 | 2.9589422 | 21 | — | — |
| 106503 2000 $WS_{36}$ | 16.5 | X | 82.58269 | 180.05127 | 203.03865 | 5.93316 | 0.2154036 | 0.29334186 | 2.2432966 | 21 | — | — |
| 106504 2000 $WT_{36}$ | 15.0 | X | 247.10886 | 293.61797 | 145.34307 | 6.44064 | 0.1842558 | 0.17502654 | 3.1651923 | 21 | 8 5.2 | 19.7 |
| 106505 2000 $WY_{36}$ | 15.6 | X | 139.22206 | 247.88312 | 170.94727 | 4.39979 | 0.2782279 | 0.25675554 | 2.4516370 | 21 | 4 10.6 | 19.5 |
| 106506 2000 $WS_{38}$ | 14.5 | X | 234.18959 | 302.46490 | 113.32620 | 8.41068 | 0.1649540 | 0.17304655 | 3.1892905 | 21 | 6 27.1 | 19.5 |
| 106507 2000 $WO_{39}$ | 16.3 | X | 329.66638 | 303.16754 | 141.20887 | 5.04726 | 0.2217611 | 0.28379813 | 2.2933114 | 21 | — | — |
| 106508 2000 $WR_{39}$ | 14.5 | X | 295.99383 | 287.33664 | 114.11835 | 12.59634 | 0.1429428 | 0.17816364 | 3.1279274 | 21 | 8 28.2 | 18.6 |
| 106509 2000 $WM_{41}$ | 16.4 | X | 222.59866 | 268.79460 | 153.31802 | 6.56396 | 0.1431626 | 0.26713316 | 2.3877243 | 21 | 6 24.3 | 20.1 |
| 106510 2000 $WN_{41}$ | 15.9 | X | 359.00901 | 265.59419 | 118.49151 | 7.08809 | 0.1160188 | 0.28098467 | 2.3085943 | 21 | 12 10.6 | 18.3 |
| 106511 2000 $WK_{42}$ | 14.6 | X | 145.64856 | 59.69011 | 69.29984 | 8.01008 | 0.1146738 | 0.17034282 | 3.2229495 | 21 | 7 3.1 | 19.7 |
| 106512 2000 $WP_{42}$ | 16.7 | X | 43.82478 | 213.03072 | 210.64358 | 3.47364 | 0.0881759 | 0.29341826 | 2.2429071 | 21 | — | — |
| 106513 2000 $WH_{43}$ | 13.8 | X | 186.01466 | 58.30626 | 71.01981 | 26.09397 | 0.1892978 | 0.17354003 | 3.1832416 | 21 | 8 18.9 | 19.6 |
| 106514 2000 $WN_{44}$ | 14.8 | X | 78.80758 | 193.23722 | 64.09017 | 10.72216 | 0.0485155 | 0.18112680 | 3.0937193 | 21 | 9 24.2 | 19.3 |
| 106515 2000 $WS_{44}$ | 16.6 | X | 32.93534 | 135.29290 | 218.39795 | 3.06979 | 0.0771356 | 0.28391040 | 2.2927068 | 21 | 12 13.5 | 19.1 |
| 106516 2000 $WN_{45}$ | 15.0 | X | 341.81920 | 213.91738 | 158.25780 | 4.12193 | 0.1579090 | 0.18370510 | 3.0647043 | 21 | 10 4.4 | 18.2 |
| 106517 2000 $WQ_{45}$ | 14.9 | X | 7.45212 | 115.22195 | 223.73938 | 8.69962 | 0.0408104 | 0.18180811 | 3.0859855 | 21 | 9 23.9 | 19.1 |
| 106518 2000 $WR_{49}$ | 14.5 | X | 317.01215 | 245.18201 | 102.10370 | 17.81062 | 0.2252879 | 0.18046443 | 3.1012847 | 21 | 7 4.7 | 18.2 |
| 106519 2000 $WY_{49}$ | 16.6 | X | 183.75880 | 145.87891 | 56.54975 | 5.17497 | 0.0970142 | 0.28021407 | 2.3128249 | 21 | 11 20.5 | 19.9 |
| 106520 2000 $WA_{51}$ | 14.9 | X | 183.44888 | 352.07165 | 96.23557 | 26.12277 | 0.2925079 | 0.26323063 | 2.4112659 | 21 | 6 20.3 | 19.3 |
| 106521 2000 $WC_{51}$ | 15.3 | X | 338.40652 | 211.76666 | 221.79415 | 24.49511 | 0.2804737 | 0.28815181 | 2.2701531 | 21 | — | — |
| 106522 2000 $WM_{53}$ | 17.0 | X | 163.69364 | 270.77757 | 240.09262 | 3.20180 | 0.1603649 | 0.26961256 | 2.3730632 | 21 | 8 19.9 | 20.8 |
| 106523 2000 $WE_{55}$ | 14.4 | X | 150.55064 | 356.46193 | 297.06208 | 24.40054 | 0.1689892 | 0.28315232 | 2.2967971 | 21 | — | — |
| 106524 2000 $WJ_{55}$ | 15.6 | X | 17.64069 | 354.82576 | 75.49502 | 7.33522 | 0.0712624 | 0.28491057 | 2.2873380 | 21 | — | — |
| 106525 2000 $WZ_{55}$ | 15.4 | X | 251.35339 | 300.56890 | 65.01157 | 5.92507 | 0.1783254 | 0.30872914 | 2.1681249 | 21 | 5 5.4 | 18.6 |
| 106526 2000 $WN_{56}$ | 16.6 | X | 277.89056 | 90.10581 | 326.95083 | 0.04152 | 0.1621552 | 0.27570559 | 2.3379704 | 21 | 8 23.4 | 19.3 |
| 106527 2000 $WW_{56}$ | 14.6 | X | 251.04631 | 358.03718 | 66.02322 | 20.66290 | 0.1526434 | 0.17633275 | 3.1495419 | 21 | 7 29.5 | 19.6 |
| 106528 2000 $WA_{57}$ | 14.5 | X | 352.14938 | 260.75150 | 73.70285 | 14.57862 | 0.2053515 | 0.18076733 | 3.0978194 | 21 | 9 10.1 | 18.0 |
| 106529 2000 $WZ_{57}$ | 16.0 | X | 136.20644 | 37.53662 | 83.36910 | 3.19722 | 0.1785114 | 0.26201915 | 2.4186927 | 21 | 6 16.8 | 19.5 |
| 106530 2000 $WA_{58}$ | 16.3 | X | 352.24057 | 205.30411 | 223.24436 | 3.04361 | 0.1167790 | 0.28593838 | 2.2818535 | 21 | — | — |
| 106531 2000 $WY_{58}$ | 14.1 | X | 289.28569 | 273.21509 | 93.30949 | 21.21225 | 0.1318088 | 0.17288924 | 3.1912249 | 21 | 7 2.0 | 18.5 |
| 106532 2000 $WC_{59}$ | 15.9 | X | 89.70652 | 249.73416 | 252.36668 | 8.08679 | 0.1617932 | 0.25719651 | 2.4488339 | 21 | 5 19.1 | 18.8 |
| 106533 2000 $WD_{60}$ | 15.5 | X | 96.90886 | 200.53017 | 195.78088 | 2.98131 | 0.0641638 | 0.29459062 | 2.2369525 | 21 | — | — |
| 106534 2000 $WK_{60}$ | 16.5 | X | 67.52354 | 210.32821 | 222.70186 | 4.39004 | 0.1658947 | 0.29524177 | 2.2336623 | 21 | — | — |
| 106535 2000 $WR_{62}$ | 13.8 | X | 295.38987 | 243.35278 | 142.24652 | 16.92986 | 0.2159556 | 0.18073542 | 3.0981840 | 21 | 7 22.3 | 18.0 |
| 106536 2000 $WV_{62}$ | 14.6 | X | 297.96610 | 276.51253 | 118.27759 | 17.75002 | 0.3019996 | 0.18116488 | 3.0932858 | 21 | 7 25.1 | 18.3 |
| 106537 McCarthy | 16.2 | X | 25.17797 | 270.77172 | 59.75252 | 7.76436 | 0.1442477 | 0.28057158 | 2.3108598 | 21 | 11 10.5 | 18.7 |
| 106538 2000 $WK_{63}$ | 16.2 | X | 118.45447 | 41.65078 | 163.44958 | 10.33761 | 0.7638544 | 0.26128280 | 2.4232348 | 21 | 10 12.9 | 22.1 |
| 106539 2000 $WA_{66}$ | 15.7 | X | 81.11210 | 230.37348 | 253.81749 | 4.10212 | 0.1052983 | 0.30269334 | 2.1968520 | 21 | 3 22.8 | 17.9 |
| 106540 2000 $WD_{66}$ | 15.8 | X | 317.03314 | 105.33184 | 251.24385 | 18.44218 | 0.0966679 | 0.37050032 | 1.9198928 | 21 | 8 4.9 | 17.7 |
| 106541 2000 $WE_{66}$ | 15.8 | X | 313.24533 | 131.57927 | 250.42504 | 19.99852 | 0.0636569 | 0.37238070 | 1.9134242 | 21 | 9 14.9 | 18.0 |
| 106542 2000 $WP_{66}$ | 15.8 | X | 10.83344 | 54.15001 | 57.17071 | 7.52700 | 0.2080278 | 0.29269080 | 2.2466220 | 21 | — | — |
| 106543 2000 $WA_{67}$ | 16.5 | X | 296.49293 | 272.62078 | 79.06633 | 26.19940 | 0.0990315 | 0.36762211 | 1.9299007 | 21 | 6 23.1 | 18.2 |
| 106544 2000 $WJ_{68}$ | 16.0 | X | 312.97090 | 168.89179 | 292.97394 | 5.13074 | 0.1090108 | 0.28629245 | 2.2799717 | 21 | — | — |
| 106545 Colanduno | 15.2 | X | 42.35514 | 271.42847 | 58.22799 | 0.60160 | 0.0906220 | 0.18634512 | 3.0356897 | 21 | 11 7.9 | 19.3 |
| 106546 2000 $WF_{69}$ | 14.7 | X | 30.49889 | 125.44982 | 245.50703 | 21.67359 | 0.0431985 | 0.23898590 | 2.5717053 | 21 | 12 16.6 | 18.1 |
| 106547 2000 $WH_{69}$ | 15.9 | X | 203.30174 | 157.62225 | 0.70652 | 10.18140 | 0.2013216 | 0.27777736 | 2.3263309 | 21 | 10 4.6 | 19.4 |
| 106548 2000 $WN_{69}$ | 14.5 | X | 295.29066 | 22.47054 | 317.15960 | 8.38665 | 0.0841499 | 0.17503492 | 3.1650914 | 21 | 6 12.6 | 19.0 |
| 106549 2000 $WS_{69}$ | 14.5 | X | 4.45722 | 62.26322 | 269.24748 | 8.67159 | 0.1155016 | 0.18344155 | 3.0676389 | 21 | 9 12.3 | 18.5 |
| 106550 2000 $WG_{72}$ | 14.5 | X | 207.94977 | 231.36954 | 256.66353 | 15.35572 | 0.1758337 | 0.17742247 | 3.1366325 | 21 | 8 21.3 | 19.9 |
| 106551 2000 $WT_{72}$ | 14.7 | X | 219.85343 | 59.88882 | 18.43232 | 9.02984 | 0.0583420 | 0.17540842 | 3.1605968 | 21 | 7 21.6 | 19.5 |
| 106552 2000 $WW_{73}$ | 14.6 | X | 76.44741 | 14.60971 | 246.39219 | 15.57712 | 0.0567663 | 0.18152400 | 3.0892047 | 21 | 9 14.0 | 19.3 |
| 106553 2000 $WP_{74}$ | 14.7 | X | 168.88296 | 109.47729 | 34.07107 | 11.04352 | 0.0331161 | 0.17620373 | 3.1510792 | 21 | 8 17.3 | 19.4 |
| 106554 2000 $WM_{75}$ | 16.6 | X | 346.56967 | 284.97516 | 319.21971 | 3.89179 | 0.0215888 | 0.30996060 | 2.1623785 | 21 | 4 11.5 | 19.0 |
| 106555 2000 $WX_{75}$ | 14.9 | X | 272.04970 | 154.13898 | 268.90285 | 7.92036 | 0.0404244 | 0.17951923 | 3.1121610 | 21 | 8 31.0 | 19.4 |
| 106556 2000 $WC_{77}$ | 14.6 | X | 346.45626 | 103.45746 | 287.64540 | 6.60805 | 0.1041402 | 0.18634440 | 3.0356974 | 21 | 11 2.9 | 18.3 |
| 106557 2000 $WJ_{77}$ | 15.5 | X | 7.37165 | 348.88802 | 338.57703 | 3.78620 | 0.2502077 | 0.27936056 | 2.3175333 | 21 | 10 19.1 | 17.2 |
| 106558 2000 $WW_{80}$ | 16.2 | X | 70.24425 | 178.70757 | 30.78006 | 3.37485 | 0.0295522 | 0.31529070 | 2.1379388 | 21 | 7 5.5 | 18.3 |
| 106559 2000 $WC_{81}$ | 15.5 | X | 124.58918 | 310.02368 | 0.68077 | 3.09937 | 0.0736509 | 0.24158266 | 2.5532434 | 21 | — | — |
| 106560 2000 $WH_{82}$ | 14.4 | X | 13.98855 | 318.60202 | 55.13588 | 11.26919 | 0.1187116 | 0.18719121 | 3.0265354 | 21 | 11 26.6 | 18.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106561 2000 $WL_{83}$ | 16.4 | X | 113.42885 | 224.36213 | 287.77181 | 3.31148 | 0.1391133 | 0.26475337 | 2.4020113 | 21 | 6 29.8 | 19.6 |
| 106562 2000 $WQ_{83}$ | 16.6 | X | 80.82223 | 152.96443 | 319.64614 | 4.06559 | 0.0190803 | 0.30473555 | 2.1870261 | 21 | 2 22.9 | 19.0 |
| 106563 2000 $WR_{85}$ | 14.7 | X | 55.10983 | 60.74055 | 285.16609 | 3.75912 | 0.2501853 | 0.19053208 | 2.9910521 | 21 | — | — |
| 106564 2000 $WY_{85}$ | 16.1 | X | 3.17474 | 307.07735 | 56.41236 | 5.78924 | 0.1920549 | 0.28083072 | 2.3094380 | 21 | 11 27.9 | 18.1 |
| 106565 2000 $WE_{86}$ | 15.3 | X | 210.25561 | 251.45216 | 267.45681 | 11.68246 | 0.1857184 | 0.22762076 | 2.6566120 | 21 | 10 4.6 | 19.7 |
| 106566 2000 $WJ_{88}$ | 15.7 | X | 46.91490 | 60.14774 | 52.87782 | 5.44537 | 0.0635819 | 0.29404398 | 2.2397241 | 21 | 1 7.5 | 17.9 |
| 106567 2000 $WK_{88}$ | 15.2 | X | 311.71460 | 65.12781 | 323.62508 | 6.96877 | 0.2275596 | 0.27337738 | 2.3512258 | 21 | 8 30.3 | 17.0 |
| 106568 2000 $WV_{88}$ | 16.0 | X | 199.93732 | 57.19038 | 62.12138 | 5.96191 | 0.1782243 | 0.26708469 | 2.3880132 | 21 | 8 16.7 | 19.8 |
| 106569 2000 $WC_{89}$ | 16.0 | X | 286.48675 | 99.69468 | 256.97526 | 3.35736 | 0.1794501 | 0.27076919 | 2.3663004 | 21 | 6 5.2 | 18.6 |
| 106570 2000 $WY_{89}$ | 15.0 | X | 85.95383 | 276.10727 | 64.71636 | 14.93707 | 0.1531543 | 0.24139814 | 2.5545443 | 21 | — | — |
| 106571 2000 $WB_{90}$ | 14.6 | X | 269.24499 | 144.93208 | 269.37575 | 3.94326 | 0.1694200 | 0.17703426 | 3.1412163 | 21 | 7 31.5 | 19.1 |
| 106572 2000 $WN_{90}$ | 16.4 | X | 345.96178 | 290.98704 | 251.75524 | 3.12940 | 0.1018150 | 0.29885338 | 2.2156301 | 21 | 1 2.9 | 18.8 |
| 106573 2000 $WR_{90}$ | 15.4 | X | 96.38938 | 200.88183 | 59.02535 | 10.09083 | 0.1034958 | 0.27761328 | 2.3272474 | 21 | 11 2.0 | 18.5 |
| 106574 2000 $WH_{94}$ | 16.1 | X | 282.61776 | 22.42557 | 14.26964 | 1.00167 | 0.1913874 | 0.27347400 | 2.3506719 | 21 | 7 26.6 | 18.6 |
| 106575 2000 $WO_{94}$ | 14.6 | X | 275.67131 | 354.48871 | 59.81844 | 5.94282 | 0.1628389 | 0.17716970 | 3.1396152 | 21 | 8 12.8 | 19.1 |
| 106576 2000 $WX_{94}$ | 16.1 | X | 339.94929 | 211.16780 | 63.79881 | 3.32399 | 0.0450575 | 0.31128456 | 2.1562428 | 21 | 5 17.9 | 18.0 |
| 106577 2000 $WB_{95}$ | 16.5 | X | 54.85369 | 301.48329 | 78.59038 | 3.55762 | 0.2723434 | 0.29020741 | 2.2594204 | 21 | — | — |
| 106578 2000 $WA_{97}$ | 16.2 | X | 316.39211 | 78.44178 | 99.84020 | 2.12658 | 0.1276411 | 0.29254195 | 2.2473840 | 21 | — | — |
| 106579 2000 $WO_{98}$ | 16.3 | X | 203.51345 | 319.15314 | 87.76933 | 4.30464 | 0.1874910 | 0.26302010 | 2.4125524 | 21 | 5 15.7 | 20.3 |
| 106580 2000 $WZ_{98}$ | 15.2 | X | 251.57152 | 18.52281 | 43.66239 | 1.61233 | 0.1666907 | 0.17506377 | 3.1647436 | 21 | 7 22.9 | 20.0 |
| 106581 2000 $WK_{100}$ | 16.0 | X | 319.75521 | 112.84757 | 273.64737 | 6.41541 | 0.1131441 | 0.27569134 | 2.3380509 | 21 | 9 24.5 | 18.3 |
| 106582 2000 $WH_{101}$ | 16.2 | X | 346.33209 | 83.24711 | 25.63980 | 1.59028 | 0.1627693 | 0.28669149 | 2.2778556 | 21 | — | — |
| 106583 2000 $WE_{102}$ | 14.6 | X | 258.55522 | 278.24728 | 137.43979 | 10.56419 | 0.1108052 | 0.17689545 | 3.1428593 | 21 | 7 29.1 | 19.1 |
| 106584 2000 $WG_{104}$ | 16.5 | X | 62.35972 | 326.03489 | 103.40763 | 7.33079 | 0.1322085 | 0.29504163 | 2.2346723 | 21 | — | — |
| 106585 2000 $WJ_{105}$ | 16.6 | X | 214.69885 | 84.65649 | 115.79519 | 3.50797 | 0.0976836 | 0.28085256 | 2.3093182 | 21 | 12 24.7 | 19.4 |
| 106586 2000 $WL_{105}$ | 16.0 | X | 66.53579 | 274.94974 | 108.58824 | 2.33546 | 0.1331599 | 0.28861113 | 2.2677438 | 21 | — | — |
| 106587 2000 $WH_{106}$ | 14.7 | X | 184.58418 | 334.11573 | 130.68878 | 9.28891 | 0.1105879 | 0.17156227 | 3.2076590 | 21 | 7 11.6 | 19.8 |
| 106588 2000 $WW_{106}$ | 15.5 | X | 232.67114 | 312.36177 | 264.19860 | 22.42444 | 0.2199070 | 0.28731032 | 2.2745836 | 21 | — | — |
| 106589 2000 $WN_{107}$ | 15.9 | X | 137.48043 | 11.69889 | 163.36864 | 14.35240 | 0.6151920 | 0.31249284 | 2.1506810 | 21 | 9 11.9 | 20.8 |
| 106590 2000 $WQ_{107}$ | 14.6 | X | 249.15566 | 70.60001 | 41.88121 | 15.10044 | 0.1604715 | 0.18148113 | 3.0896911 | 21 | 9 28.0 | 19.3 |
| 106591 2000 $WF_{108}$ | 16.3 | X | 335.91880 | 96.44151 | 16.08592 | 5.71483 | 0.0645550 | 0.28964491 | 2.2623447 | 21 | — | — |
| 106592 2000 $WM_{108}$ | 16.4 | X | 247.36890 | 15.42924 | 339.71139 | 4.54753 | 0.1764313 | 0.26530496 | 2.3986809 | 21 | 4 17.8 | 20.0 |
| 106593 2000 $WO_{108}$ | 14.7 | X | 280.77937 | 359.96139 | 358.76016 | 5.97358 | 0.1426757 | 0.17401428 | 3.1774553 | 21 | 6 8.9 | 19.2 |
| 106594 2000 $WW_{108}$ | 16.9 | X | 39.21880 | 24.61928 | 26.66788 | 7.30954 | 0.0851312 | 0.29061337 | 2.2573158 | 21 | — | — |
| 106595 2000 $WT_{109}$ | 14.5 | X | 183.80460 | 180.04603 | 320.72846 | 4.49954 | 0.0945141 | 0.17521161 | 3.1629631 | 21 | 8 24.1 | 19.2 |
| 106596 2000 $WE_{110}$ | 16.3 | X | 162.96191 | 90.80908 | 342.08277 | 3.63540 | 0.1697263 | 0.26153166 | 2.4216974 | 21 | 5 9.4 | 20.1 |
| 106597 2000 $WG_{111}$ | 15.4 | X | 23.76552 | 92.35186 | 297.55498 | 5.91577 | 0.0293523 | 0.23750784 | 2.5823638 | 21 | 12 31.4 | 18.8 |
| 106598 2000 $WZ_{112}$ | 15.5 | X | 356.10859 | 219.84591 | 302.16841 | 6.02830 | 0.0608455 | 0.29775902 | 2.2210556 | 21 | — | — |
| 106599 2000 $WA_{113}$ | 16.0 | X | 230.73035 | 6.38930 | 34.27678 | 7.48073 | 0.1192268 | 0.26682115 | 2.3895853 | 21 | 6 4.9 | 19.6 |
| 106600 2000 $WX_{113}$ | 15.1 | X | 297.58562 | 325.96566 | 60.33084 | 13.98117 | 0.1327071 | 0.17762372 | 3.1342628 | 21 | 8 14.7 | 19.4 |
| 106601 2000 $WE_{114}$ | 16.3 | X | 160.64264 | 89.41904 | 275.96655 | 7.15354 | 0.0579051 | 0.30029371 | 2.2085398 | 21 | 1 21.9 | 19.0 |
| 106602 2000 $WH_{114}$ | 16.1 | X | 186.19002 | 72.40931 | 352.54396 | 3.03218 | 0.0692383 | 0.31103283 | 2.1574060 | 21 | 5 17.5 | 18.8 |
| 106603 2000 $WM_{114}$ | 16.2 | X | 161.28146 | 128.22799 | 328.14443 | 2.15538 | 0.1553989 | 0.26304833 | 2.4123798 | 21 | 6 7.7 | 19.8 |
| 106604 2000 $WN_{114}$ | 16.3 | X | 52.70099 | 200.41896 | 311.01790 | 2.85527 | 0.0810797 | 0.30338450 | 2.1935142 | 21 | 3 12.3 | 18.3 |
| 106605 2000 $WD_{115}$ | 15.8 | X | 350.20086 | 116.39582 | 296.67617 | 6.38609 | 0.0908854 | 0.28347732 | 2.2950413 | 21 | — | — |
| 106606 2000 $WR_{115}$ | 15.7 | X | 275.27258 | 8.14990 | 5.85199 | 3.46834 | 0.0764141 | 0.31650010 | 2.1324891 | 21 | 7 1.6 | 18.0 |
| 106607 2000 $WU_{115}$ | 16.0 | X | 330.36831 | 123.82994 | 299.86023 | 3.78522 | 0.1175524 | 0.28194258 | 2.3033624 | 21 | 12 17.2 | 18.1 |
| 106608 2000 $WM_{116}$ | 15.8 | X | 131.61452 | 11.25255 | 305.76672 | 3.59400 | 0.0604397 | 0.28893863 | 2.2660299 | 21 | — | — |
| 106609 2000 $WN_{116}$ | 16.4 | X | 325.84451 | 45.69544 | 33.67724 | 4.88204 | 0.0998446 | 0.28260510 | 2.2997611 | 21 | 12 31.8 | 18.7 |
| 106610 2000 $WU_{116}$ | 16.1 | X | 28.67075 | 336.92017 | 31.45209 | 5.13826 | 0.1254585 | 0.28314519 | 2.2968357 | 21 | — | — |
| 106611 2000 $WJ_{120}$ | 16.1 | X | 221.99296 | 64.37692 | 49.10403 | 7.49653 | 0.1717546 | 0.27098834 | 2.3650245 | 21 | 9 2.3 | 19.7 |
| 106612 2000 $WR_{120}$ | 15.4 | X | 39.97777 | 61.93909 | 38.19854 | 5.98380 | 0.1237842 | 0.29325256 | 2.2437519 | 21 | — | — |
| 106613 2000 $WN_{121}$ | 16.8 | X | 87.23824 | 22.44658 | 212.01958 | 20.93792 | 0.0489599 | 0.37024373 | 1.9207798 | 21 | 9 10.8 | 19.2 |
| 106614 2000 $WQ_{121}$ | 15.8 | X | 21.91569 | 208.98178 | 149.08924 | 7.07154 | 0.1906300 | 0.28304371 | 2.2973846 | 21 | 12 22.1 | 18.4 |
| 106615 2000 $WY_{121}$ | 16.8 | X | 143.04503 | 298.04932 | 88.37440 | 1.82217 | 0.1645064 | 0.30126716 | 2.2037798 | 21 | 2 13.8 | 19.6 |
| 106616 2000 $WJ_{122}$ | 16.7 | X | 302.44354 | 131.34825 | 22.94801 | 1.97247 | 0.1405289 | 0.28804903 | 2.2706931 | 21 | — | — |
| 106617 2000 $WB_{123}$ | 15.8 | X | 15.97559 | 58.87937 | 76.14067 | 3.59261 | 0.1615551 | 0.29403829 | 2.2397530 | 21 | — | — |
| 106618 2000 $WJ_{123}$ | 15.4 | X | 114.66066 | 341.51415 | 82.53644 | 5.74197 | 0.1561405 | 0.25221123 | 2.4809981 | 21 | 3 10.1 | 18.7 |
| 106619 2000 $WB_{124}$ | 15.9 | X | 344.72337 | 23.63008 | 82.19221 | 4.32876 | 0.1171236 | 0.23943750 | 2.5684706 | 21 | — | — |
| 106620 2000 $WL_{124}$ | 15.0 | X | 78.36677 | 266.96393 | 268.87746 | 18.07330 | 0.0497870 | 0.35850816 | 1.9624715 | 21 | 5 26.3 | 16.8 |
| 106621 2000 $WM_{124}$ | 16.6 | X | 338.26898 | 112.50501 | 268.81457 | 17.10430 | 0.1059103 | 0.37410244 | 1.9075489 | 21 | 11 19.1 | 18.1 |
| 106622 2000 $WP_{124}$ | 15.5 | X | 159.50929 | 36.14927 | 76.56758 | 23.50641 | 0.0974938 | 0.35716528 | 1.9673874 | 21 | 6 22.2 | 17.9 |
| 106623 2000 $WT_{124}$ | 16.0 | X | 230.42837 | 185.11285 | 257.48427 | 20.06153 | 0.1372127 | 0.36776137 | 1.9294135 | 21 | 7 26.2 | 18.7 |
| 106624 2000 $WV_{124}$ | 14.5 | X | 281.49013 | 284.88053 | 106.48656 | 17.05851 | 0.2496460 | 0.17894963 | 3.1187616 | 21 | 7 6.7 | 18.8 |
| 106625 2000 $WC_{125}$ | 15.5 | X | 348.65587 | 96.12541 | 321.34306 | 7.44387 | 0.1165093 | 0.28280308 | 2.2986876 | 21 | — | — |
| 106626 2000 $WE_{126}$ | 16.3 | X | 234.29850 | 356.49039 | 19.38358 | 2.78872 | 0.1994183 | 0.26530009 | 2.3987102 | 21 | 5 1.8 | 20.1 |
| 106627 2000 $WG_{126}$ | 16.2 | X | 216.48731 | 197.98764 | 294.08292 | 1.30514 | 0.1719125 | 0.27196468 | 2.3593609 | 21 | 9 16.5 | 19.6 |
| 106628 2000 $WH_{126}$ | 15.0 | X | 355.39505 | 294.72279 | 84.21819 | 23.28624 | 0.3430928 | 0.27991454 | 2.3144746 | 21 | — | — |
| 106629 2000 $WY_{128}$ | 14.8 | X | 164.28255 | 99.44712 | 32.16691 | 5.96052 | 0.0909540 | 0.17357325 | 3.1828355 | 21 | 7 25.9 | 19.7 |
| 106630 2000 $WF_{130}$ | 15.8 | X | 243.71121 | 85.80580 | 74.39594 | 5.37771 | 0.1799907 | 0.23248211 | 2.6194474 | 21 | 11 17.9 | 19.4 |
| 106631 2000 $WX_{130}$ | 14.7 | X | 222.44845 | 237.03221 | 239.65163 | 8.57585 | 0.1040346 | 0.17815937 | 3.1279774 | 21 | 8 30.7 | 19.6 |
| 106632 2000 $WH_{131}$ | 16.1 | X | 68.34706 | 186.66090 | 137.70843 | 1.83797 | 0.1030310 | 0.23701026 | 2.5859768 | 21 | 12 14.2 | 19.6 |
| 106633 2000 $WP_{131}$ | 15.1 | X | 244.76008 | 44.03524 | 84.76795 | 16.57969 | 0.1180718 | 0.23152206 | 2.6266838 | 21 | 10 26.2 | 19.0 |
| 106634 2000 $WY_{131}$ | 14.6 | X | 249.77427 | 331.66055 | 80.14687 | 14.34207 | 0.3199274 | 0.17743237 | 3.1365158 | 21 | 6 22.3 | 19.9 |
| 106635 2000 $WL_{132}$ | 14.8 | X | 172.68172 | 218.77664 | 284.76340 | 12.30617 | 0.0531722 | 0.22553112 | 2.6729966 | 21 | 8 14.7 | 18.8 |
| 106636 2000 $WQ_{132}$ | 14.5 | X | 236.99471 | 161.55650 | 296.13620 | 10.60503 | 0.0776934 | 0.17953828 | 3.1119409 | 21 | 8 26.5 | 19.1 |
| 106637 2000 $WU_{132}$ | 14.1 | X | 279.47939 | 123.20571 | 275.60295 | 15.38443 | 0.1047380 | 0.17856962 | 3.1231846 | 21 | 7 30.9 | 18.6 |
| 106638 2000 $WB_{133}$ | 14.3 | X | 41.30813 | 48.47162 | 269.64372 | 16.10475 | 0.0793764 | 0.18567982 | 3.0429366 | 21 | 10 15.2 | 18.7 |
| 106639 2000 $WL_{133}$ | 14.9 | X | 246.84113 | 183.28655 | 281.32138 | 10.01922 | 0.2801242 | 0.17847590 | 3.1242780 | 21 | 8 22.4 | 20.1 |
| 106640 2000 $WN_{133}$ | 15.9 | X | 359.94378 | 179.03761 | 341.28083 | 6.00930 | 0.0483925 | 0.25286320 | 2.4767317 | 21 | 1 13.9 | 19.0 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106641 2000 $WR_{133}$ | 16.4 | X | 149.05887 | 22.03582 | 298.38549 | 6.93189 | 0.1896694 | 0.29726843 | 2.2234986 | 21 | — | — |
| 106642 2000 $WL_{134}$ | 14.4 | X | 197.10922 | 120.43634 | 21.77469 | 14.61393 | 0.1124678 | 0.17893853 | 3.1188906 | 21 | 9 13.7 | 19.4 |
| 106643 2000 $WO_{134}$ | 14.7 | X | 348.44843 | 93.67359 | 289.06927 | 8.68563 | 0.1625681 | 0.18624479 | 3.0367798 | 21 | 10 27.0 | 18.2 |
| 106644 2000 $WT_{134}$ | 15.0 | X | 253.12237 | 32.04602 | 19.29231 | 10.97061 | 0.1328503 | 0.17597389 | 3.1538223 | 21 | 7 17.4 | 19.8 |
| 106645 2000 $WV_{134}$ | 14.6 | X | 234.85832 | 154.24240 | 13.64748 | 9.42976 | 0.0167994 | 0.18944291 | 3.0025055 | 21 | 11 29.4 | 19.0 |
| 106646 2000 $WW_{134}$ | 16.2 | X | 230.32090 | 94.16823 | 310.67663 | 5.81001 | 0.1296274 | 0.26836119 | 2.3804345 | 21 | 6 10.1 | 19.7 |
| 106647 2000 $WC_{135}$ | 16.0 | X | 163.57564 | 349.08074 | 355.29654 | 5.77278 | 0.1637369 | 0.30108819 | 2.2046530 | 21 | 1 13.2 | 19.0 |
| 106648 2000 $WU_{135}$ | 15.8 | X | 318.29625 | 256.46916 | 99.94180 | 12.66315 | 0.3057631 | 0.23055767 | 2.6340034 | 21 | 7 6.5 | 18.0 |
| 106649 2000 $WW_{135}$ | 16.5 | X | 102.49984 | 318.81653 | 102.28344 | 6.23103 | 0.0849511 | 0.30137330 | 2.2032623 | 21 | 1 23.4 | 18.7 |
| 106650 2000 $WO_{136}$ | 16.8 | X | 44.20775 | 148.69736 | 22.26194 | 3.36104 | 0.0218310 | 0.30771669 | 2.1728780 | 21 | 3 25.8 | 19.1 |
| 106651 2000 $WA_{137}$ | 17.0 | X | 13.03512 | 244.17679 | 173.57115 | 5.43358 | 0.1255733 | 0.28856924 | 2.2679633 | 21 | — | — |
| 106652 2000 $WV_{140}$ | 14.6 | X | 218.06453 | 16.01955 | 85.49020 | 2.78869 | 0.1238037 | 0.17234828 | 3.1978991 | 21 | 8 10.3 | 19.5 |
| 106653 2000 $WW_{140}$ | 16.3 | X | 267.56823 | 274.76892 | 64.64662 | 2.55249 | 0.1570656 | 0.26458178 | 2.4030498 | 21 | 4 23.0 | 19.7 |
| 106654 2000 $WA_{141}$ | 16.5 | X | 242.29619 | 250.67814 | 231.68998 | 6.16058 | 0.1176248 | 0.27789277 | 2.3256868 | 21 | 10 10.6 | 19.5 |
| 106655 2000 $WP_{141}$ | 13.8 | X | 292.54526 | 341.91281 | 63.46972 | 17.86033 | 0.2331153 | 0.17631205 | 3.1497884 | 21 | 8 18.5 | 18.2 |
| 106656 2000 $WE_{142}$ | 15.8 | X | 286.08169 | 235.08800 | 132.18799 | 10.53541 | 0.1442488 | 0.27341217 | 2.3510263 | 21 | 6 26.4 | 18.6 |
| 106657 2000 $WK_{142}$ | 14.4 | X | 219.74767 | 323.99711 | 86.92189 | 19.93523 | 0.1971852 | 0.17333538 | 3.1857467 | 21 | 6 7.0 | 19.6 |
| 106658 2000 $WA_{143}$ | 14.9 | X | 237.92819 | 263.15887 | 152.67447 | 14.23752 | 0.1894293 | 0.17427309 | 3.1743087 | 21 | 6 28.8 | 20.1 |
| 106659 2000 $WU_{143}$ | 14.9 | X | 285.76665 | 250.77713 | 50.00065 | 7.27853 | 0.0981971 | 0.30325029 | 2.1941614 | 21 | 3 29.6 | 17.6 |
| 106660 2000 $WV_{143}$ | 16.1 | X | 224.47197 | 67.46469 | 32.18736 | 2.55585 | 0.1750050 | 0.26814666 | 2.3817040 | 21 | 8 14.1 | 19.5 |
| 106661 2000 $WH_{144}$ | 14.6 | X | 249.28372 | 259.45873 | 116.84609 | 10.56388 | 0.2434910 | 0.17482041 | 3.1676800 | 21 | 5 20.3 | 19.9 |
| 106662 2000 $WW_{144}$ | 15.0 | X | 246.24180 | 251.96645 | 150.52105 | 2.70555 | 0.2086914 | 0.17384595 | 3.1795061 | 21 | 6 18.4 | 20.0 |
| 106663 2000 $WY_{144}$ | 16.1 | X | 216.47063 | 240.42806 | 203.87319 | 1.54587 | 0.1571955 | 0.26687315 | 2.3892749 | 21 | 7 16.2 | 19.6 |
| 106664 2000 $WY_{145}$ | 14.2 | X | 251.92558 | 301.73968 | 102.04918 | 16.58773 | 0.1280177 | 0.17729396 | 3.1381480 | 21 | 7 4.5 | 19.0 |
| 106665 2000 $WA_{146}$ | 14.8 | X | 49.40434 | 240.70915 | 106.15054 | 11.25251 | 0.1110188 | 0.19212913 | 2.9744539 | 21 | 12 12.8 | 18.9 |
| 106666 2000 $WL_{146}$ | 14.0 | X | 173.23722 | 293.04318 | 199.99968 | 21.41557 | 0.2621471 | 0.16992788 | 3.2281940 | 21 | 7 30.8 | 20.1 |
| 106667 2000 $WN_{146}$ | 15.0 | X | 273.68933 | 286.61999 | 167.01660 | 17.68532 | 0.3049868 | 0.18048588 | 3.1010390 | 21 | 9 6.0 | 19.3 |
| 106668 2000 $WO_{146}$ | 14.2 | X | 218.38174 | 315.72238 | 192.71771 | 23.63755 | 0.2518918 | 0.17958391 | 3.1114138 | 21 | 9 24.7 | 19.4 |
| 106669 2000 $WF_{147}$ | 14.2 | X | 277.51932 | 292.94993 | 65.39095 | 27.08166 | 0.2352538 | 0.17909595 | 3.1170627 | 21 | 5 24.2 | 18.9 |
| 106670 2000 $WX_{149}$ | 17.0 | X | 172.72838 | 293.49062 | 208.34055 | 1.61713 | 0.1397793 | 0.27143964 | 2.3624023 | 21 | 8 17.9 | 20.5 |
| 106671 2000 $WT_{150}$ | 16.0 | X | 303.68428 | 89.14131 | 290.78518 | 17.65184 | 0.1038426 | 0.36850494 | 1.9268172 | 21 | 8 19.5 | 17.7 |
| 106672 2000 $WK_{151}$ | 16.2 | X | 64.81519 | 247.23801 | 261.87825 | 18.16718 | 0.1096857 | 0.35413696 | 1.9785873 | 21 | 3 12.1 | 18.4 |
| 106673 2000 $WL_{151}$ | 16.3 | X | 296.54639 | 188.20901 | 259.01530 | 19.81875 | 0.0244325 | 0.37756121 | 1.8958813 | 21 | 12 18.1 | 17.7 |
| 106674 2000 $WA_{152}$ | 14.3 | X | 278.35085 | 295.73275 | 113.48587 | 10.45888 | 0.0840895 | 0.17977153 | 3.1092486 | 21 | 8 21.4 | 18.6 |
| 106675 2000 $WC_{152}$ | 14.4 | X | 222.15259 | 328.75033 | 117.42322 | 16.80864 | 0.1626062 | 0.17425693 | 3.1745050 | 21 | 7 22.9 | 19.5 |
| 106676 2000 $WO_{152}$ | 14.0 | X | 267.75040 | 135.82523 | 245.76273 | 26.49826 | 0.1879273 | 0.17695463 | 3.1421586 | 21 | 6 14.9 | 18.9 |
| 106677 2000 $WP_{152}$ | 14.7 | X | 322.78274 | 208.16283 | 256.74740 | 13.57859 | 0.1141222 | 0.19309453 | 2.9645315 | 21 | — | — |
| 106678 2000 $WR_{152}$ | 14.7 | X | 281.66202 | 110.50872 | 338.15936 | 8.25965 | 0.1057406 | 0.18524729 | 3.0476714 | 21 | 10 7.5 | 18.8 |
| 106679 2000 $WV_{152}$ | 16.4 | X | 100.81608 | 1.60310 | 357.25117 | 6.55409 | 0.2021205 | 0.29534269 | 2.2331534 | 21 | — | — |
| 106680 2000 $WK_{153}$ | 16.1 | X | 315.65514 | 74.49280 | 92.07520 | 4.17262 | 0.0680786 | 0.29037717 | 2.2585398 | 21 | — | — |
| 106681 2000 $WO_{153}$ | 15.1 | X | 161.84906 | 27.04604 | 43.38074 | 7.86004 | 0.1232916 | 0.30487775 | 2.1863460 | 21 | 4 30.7 | 18.0 |
| 106682 2000 $WL_{154}$ | 14.3 | X | 307.46574 | 74.80202 | 309.79641 | 8.40634 | 0.0958931 | 0.18023957 | 3.1038635 | 21 | 8 24.8 | 18.2 |
| 106683 2000 $WW_{154}$ | 14.8 | X | 55.64442 | 330.28679 | 15.29673 | 10.38409 | 0.2101389 | 0.19148933 | 2.9810757 | 21 | 12 31.4 | 19.4 |
| 106684 2000 $WA_{155}$ | 14.5 | X | 236.62416 | 74.45766 | 9.50728 | 15.41509 | 0.1127516 | 0.17778816 | 3.1323299 | 21 | 8 15.2 | 19.4 |
| 106685 2000 $WE_{156}$ | 14.4 | X | 281.12321 | 33.90527 | 35.40638 | 11.32868 | 0.1704985 | 0.18004297 | 3.1061226 | 21 | 9 10.5 | 18.7 |
| 106686 2000 $WM_{156}$ | 16.2 | X | 286.96000 | 195.92905 | 311.02102 | 5.33129 | 0.1740427 | 0.28619085 | 2.2805112 | 21 | — | — |
| 106687 2000 $WQ_{157}$ | 15.1 | X | 304.37432 | 50.41981 | 76.61258 | 15.52140 | 0.1308652 | 0.23408993 | 2.6074394 | 21 | — | — |
| 106688 2000 $WS_{157}$ | 15.3 | X | 316.23215 | 331.09104 | 59.65000 | 11.57269 | 0.1507819 | 0.27323210 | 2.3520591 | 21 | 10 2.4 | 17.6 |
| 106689 2000 $WW_{157}$ | 15.7 | X | 274.55234 | 92.86518 | 51.54355 | 9.56054 | 0.1963343 | 0.27968322 | 2.3157506 | 21 | 12 20.7 | 17.9 |
| 106690 2000 $WK_{158}$ | 16.0 | X | 128.28019 | 8.04369 | 0.88875 | 5.82818 | 0.2023989 | 0.29581934 | 2.2307540 | 21 | 1 9.5 | 18.6 |
| 106691 2000 $WW_{158}$ | 14.5 | X | 312.74297 | 333.31567 | 88.96519 | 24.61039 | 0.1555269 | 0.18436946 | 3.0573376 | 21 | 10 31.2 | 18.6 |
| 106692 2000 $WF_{159}$ | 16.6 | X | 300.24436 | 133.93613 | 104.49305 | 4.82516 | 0.1444066 | 0.29646386 | 2.2275196 | 21 | 1 13.5 | 19.6 |
| 106693 2000 $WT_{161}$ | 14.7 | X | 16.31701 | 201.74599 | 124.12079 | 11.48855 | 0.1084228 | 0.18250974 | 3.0780713 | 21 | 10 3.5 | 18.7 |
| 106694 2000 $WV_{161}$ | 14.6 | X | 6.04755 | 235.93097 | 119.31535 | 10.70354 | 0.1013387 | 0.18499014 | 3.0504951 | 21 | 10 25.5 | 18.6 |
| 106695 2000 $WP_{164}$ | 14.4 | X | 210.50421 | 39.27435 | 101.04636 | 10.48830 | 0.0898288 | 0.18225353 | 3.0809554 | 21 | 9 26.7 | 19.2 |
| 106696 2000 $WT_{164}$ | 14.8 | X | 9.90812 | 287.98137 | 113.99715 | 10.49891 | 0.0797438 | 0.19191383 | 2.9766781 | 21 | 12 23.7 | 18.6 |
| 106697 2000 $WA_{165}$ | 15.2 | X | 320.14514 | 288.23017 | 94.35480 | 14.63732 | 0.0513135 | 0.22879478 | 2.6475163 | 21 | 9 30.1 | 18.8 |
| 106698 2000 $WO_{166}$ | 16.4 | X | 208.03907 | 301.82811 | 196.83938 | 3.76545 | 0.1756989 | 0.27457589 | 2.3443788 | 21 | 9 16.2 | 19.9 |
| 106699 2000 $WA_{167}$ | 14.7 | X | 175.59027 | 341.22527 | 110.84934 | 4.67921 | 0.0736496 | 0.17122810 | 3.2118310 | 21 | 6 16.9 | 19.5 |
| 106700 2000 $WX_{167}$ | 16.5 | X | 4.62734 | 270.95763 | 63.37512 | 23.09481 | 0.0616043 | 0.37351074 | 1.9095630 | 21 | 10 28.0 | 18.4 |
| 106701 2000 $WA_{168}$ | 14.6 | X | 330.62910 | 255.26915 | 124.40836 | 13.67048 | 0.2448456 | 0.18409826 | 3.0603394 | 21 | 9 21.5 | 17.7 |
| 106702 2000 $WC_{168}$ | 14.8 | X | 285.59306 | 272.24883 | 153.51538 | 15.34267 | 0.1990602 | 0.18178631 | 3.0862322 | 21 | 9 2.9 | 18.9 |
| 106703 2000 $WF_{168}$ | 14.9 | X | 245.81678 | 256.41655 | 128.74513 | 14.39753 | 0.1724673 | 0.17368050 | 3.1815250 | 21 | 6 3.2 | 20.1 |
| 106704 2000 $WN_{168}$ | 15.6 | X | 172.68472 | 15.74587 | 109.48560 | 14.28189 | 0.1286747 | 0.26349814 | 2.4096336 | 21 | 7 27.8 | 19.2 |
| 106705 2000 $WC_{169}$ | 15.7 | X | 95.64415 | 237.09863 | 241.61752 | 4.93428 | 0.0823174 | 0.25271774 | 2.4776820 | 21 | 4 10.9 | 18.8 |
| 106706 2000 $WK_{169}$ | 14.0 | X | 282.22597 | 335.74206 | 85.91198 | 18.06847 | 0.1822968 | 0.18063797 | 3.0992981 | 21 | 9 2.6 | 18.5 |
| 106707 2000 $WF_{170}$ | 14.5 | X | 187.91461 | 171.73937 | 302.55758 | 5.65337 | 0.0992417 | 0.17385900 | 3.1793470 | 21 | 7 27.0 | 19.3 |
| 106708 2000 $WJ_{170}$ | 14.6 | X | 323.92084 | 101.87503 | 273.87987 | 8.71832 | 0.0940866 | 0.18194700 | 3.0844148 | 21 | 9 4.9 | 18.6 |
| 106709 2000 $WF_{171}$ | 15.9 | X | 304.72899 | 226.78662 | 271.42970 | 1.38453 | 0.0766898 | 0.23905271 | 2.5712261 | 21 | — | — |
| 106710 2000 $WB_{172}$ | 14.7 | X | 335.17411 | 194.60490 | 144.20950 | 13.08946 | 0.2134598 | 0.18113810 | 3.0935906 | 21 | 7 29.9 | 17.9 |
| 106711 2000 $WE_{173}$ | 15.5 | X | 75.26233 | 72.55288 | 314.83875 | 7.52070 | 0.1130439 | 0.28761579 | 2.2729728 | 21 | — | — |
| 106712 2000 $WH_{173}$ | 16.4 | X | 304.87927 | 16.23328 | 105.77752 | 5.97418 | 0.1817476 | 0.28181663 | 2.3040486 | 21 | — | — |
| 106713 2000 $WY_{173}$ | 14.9 | X | 349.27177 | 261.82029 | 177.80379 | 10.65276 | 0.1761710 | 0.19228336 | 2.9728631 | 21 | — | — |
| 106714 2000 $WZ_{173}$ | 14.7 | X | 287.31458 | 226.84620 | 143.97564 | 16.93227 | 0.0949107 | 0.17691033 | 3.1426831 | 21 | 7 10.7 | 19.2 |
| 106715 2000 $WJ_{174}$ | 14.7 | X | 263.06219 | 275.43317 | 117.75281 | 10.30072 | 0.0954638 | 0.17553481 | 3.1590795 | 21 | 7 8.3 | 19.2 |
| 106716 2000 $WN_{174}$ | 14.5 | X | 213.69697 | 329.27194 | 89.10409 | 11.03191 | 0.1028470 | 0.17223624 | 3.1992857 | 21 | 6 14.5 | 19.5 |
| 106717 2000 $WQ_{174}$ | 15.6 | X | 295.05850 | 336.12645 | 122.35254 | 11.32082 | 0.1111598 | 0.23477972 | 2.6023298 | 21 | 11 24.3 | 18.7 |
| 106718 2000 $WS_{174}$ | 14.7 | X | 293.43776 | 207.21094 | 141.39444 | 11.78509 | 0.1754663 | 0.17555024 | 3.1588944 | 21 | 6 9.9 | 19.2 |
| 106719 2000 $WD_{175}$ | 14.2 | X | 260.56102 | 224.28651 | 206.88852 | 16.46911 | 0.2069354 | 0.17715548 | 3.1397832 | 21 | 8 2.8 | 19.3 |
| 106720 2000 $WR_{175}$ | 14.1 | X | 219.22049 | 202.10925 | 215.14357 | 22.20248 | 0.1069402 | 0.17098097 | 3.2149252 | 21 | 6 16.5 | 19.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106721 2000 $WJ_{177}$ | 14.7 | X | 51.02547 | 253.42109 | 85.08927 | 7.18842 | 0.1486259 | 0.18947835 | 3.0021311 | 21 | 12 8.7 | 18.9 |
| 106722 2000 $WA_{179}$ | 13.9 | X | 213.19688 | 22.94536 | 82.81344 | 11.69864 | 0.1899650 | 0.17823093 | 3.1271401 | 21 | 8 8.4 | 19.1 |
| 106723 2000 $WE_{179}$ | 15.0 | X | 291.20459 | 334.76501 | 97.49132 | 12.38196 | 0.0854878 | 0.18331682 | 3.0690302 | 21 | 10 12.3 | 19.3 |
| 106724 2000 $WG_{179}$ | 16.3 | X | 234.39742 | 314.53931 | 160.60830 | 6.17632 | 0.1817506 | 0.27442821 | 2.3452198 | 21 | 9 13.8 | 19.4 |
| 106725 2000 $WF_{180}$ | 15.0 | X | 275.96692 | 332.10923 | 91.34286 | 10.53802 | 0.0868369 | 0.17913373 | 3.1166244 | 21 | 9 7.9 | 19.4 |
| 106726 2000 $WQ_{180}$ | 14.5 | X | 264.31743 | 164.32921 | 245.47136 | 8.09876 | 0.0602732 | 0.17616007 | 3.1515999 | 21 | 8 2.3 | 19.1 |
| 106727 2000 $WT_{181}$ | 15.7 | X | 37.88464 | 236.92233 | 107.78847 | 23.04795 | 0.1950948 | 0.28500680 | 2.2868231 | 21 | 12 27.2 | 18.7 |
| 106728 2000 $WR_{182}$ | 14.4 | X | 260.39817 | 301.61642 | 124.62095 | 15.33069 | 0.1033005 | 0.17945582 | 3.1128942 | 21 | 8 16.6 | 18.8 |
| 106729 2000 $WS_{182}$ | 15.5 | X | 330.07666 | 243.99128 | 120.94843 | 14.24433 | 0.0817221 | 0.23035474 | 2.6355501 | 21 | 9 16.2 | 18.8 |
| 106730 2000 $WA_{183}$ | 14.5 | X | 282.44766 | 259.48651 | 120.54867 | 17.12647 | 0.2549149 | 0.18025346 | 3.1037041 | 21 | 6 23.8 | 19.1 |
| 106731 2000 $WW_{183}$ | 14.4 | X | 155.08837 | 298.01963 | 264.44413 | 14.32521 | 0.0483984 | 0.18352228 | 3.0667393 | 21 | 10 2.8 | 19.3 |
| 106732 2000 $WE_{184}$ | 15.8 | X | 216.14576 | 324.65920 | 207.43648 | 3.93563 | 0.0466699 | 0.23402823 | 2.6078977 | 21 | 11 18.1 | 19.3 |
| 106733 2000 $WQ_{184}$ | 16.2 | X | 162.16158 | 73.59451 | 107.73476 | 3.42872 | 0.1041088 | 0.27080619 | 2.3660849 | 21 | 9 30.9 | 19.7 |
| 106734 2000 $WT_{184}$ | 16.5 | X | 182.69119 | 264.71239 | 106.18295 | 2.45972 | 0.1056414 | 0.30188019 | 2.2007953 | 21 | 3 4.1 | 19.5 |
| 106735 2000 $WM_{185}$ | 16.3 | X | 238.73339 | 37.73820 | 66.20691 | 0.35610 | 0.1491532 | 0.27243273 | 2.3566578 | 21 | 9 7.4 | 19.4 |
| 106736 2000 $WN_{185}$ | 15.5 | X | 328.29638 | 103.26586 | 274.85141 | 7.74906 | 0.1116570 | 0.27504656 | 2.3417035 | 21 | 9 27.2 | 17.9 |
| 106737 2000 $WK_{186}$ | 15.0 | X | 153.54394 | 176.44482 | 262.49003 | 23.11933 | 0.0871974 | 0.25832051 | 2.4417252 | 21 | 4 29.2 | 18.8 |
| 106738 2000 $WG_{187}$ | 14.4 | X | 230.29469 | 338.26277 | 129.40474 | 6.40000 | 0.1158224 | 0.17882882 | 3.1201661 | 21 | 9 1.2 | 19.1 |
| 106739 2000 $WS_{187}$ | 15.7 | X | 76.83827 | 295.73443 | 353.82185 | 11.71418 | 0.1645506 | 0.28438480 | 2.2901563 | 21 | 11 20.6 | 19.2 |
| 106740 2000 $WL_{188}$ | 14.9 | X | 327.87129 | 342.28116 | 12.98106 | 9.47641 | 0.0143787 | 0.18018553 | 3.1044841 | 21 | 8 28.5 | 19.2 |
| 106741 2000 $WD_{189}$ | 14.3 | X | 319.22108 | 278.84476 | 39.57303 | 9.99183 | 0.0765226 | 0.17498302 | 3.1657172 | 21 | 6 19.2 | 18.6 |
| 106742 2000 $WQ_{189}$ | 15.7 | X | 350.71347 | 75.35071 | 28.50213 | 5.91766 | 0.0810048 | 0.24323937 | 2.5416366 | 21 | — | — |
| 106743 2000 $WU_{189}$ | 14.8 | X | 1.74190 | 50.48796 | 270.34009 | 4.79778 | 0.1804720 | 0.18192653 | 3.0846462 | 21 | 8 29.7 | 18.2 |
| 106744 2000 $WP_{190}$ | 15.9 | X | 109.62120 | 327.93165 | 231.69426 | 6.55289 | 0.1396955 | 0.27124214 | 2.3635490 | 21 | 8 26.4 | 19.4 |
| 106745 2000 $WU_{191}$ | 15.3 | X | 351.78649 | 271.41937 | 134.30201 | 9.33348 | 0.1372338 | 0.18941560 | 3.0027941 | 21 | 12 7.1 | 18.9 |
| 106746 2000 $WE_{192}$ | 15.4 | X | 190.38089 | 323.57212 | 133.00521 | 14.32595 | 0.1467924 | 0.22077024 | 2.7112882 | 21 | 7 6.9 | 19.8 |
| 106747 2000 $XD_{2}$ | 15.7 | X | 190.52430 | 50.37165 | 298.65165 | 8.03502 | 0.1315182 | 0.30322359 | 2.1942902 | 21 | 2 10.5 | 18.8 |
| 106748 2000 $XG_{2}$ | 16.0 | X | 255.70991 | 156.35195 | 328.22591 | 6.26470 | 0.0594730 | 0.27823718 | 2.3237671 | 21 | 11 10.0 | 18.9 |
| 106749 2000 $XS_{2}$ | 14.0 | X | 294.11188 | 119.75863 | 292.12239 | 14.86947 | 0.0806133 | 0.18204908 | 3.0832617 | 21 | 9 6.0 | 18.4 |
| 106750 2000 $XR_{3}$ | 14.2 | X | 212.43685 | 92.61126 | 329.11422 | 9.92865 | 0.0455982 | 0.17188959 | 3.2035856 | 21 | 6 21.1 | 19.0 |
| 106751 2000 $XL_{4}$ | 14.1 | X | 274.10808 | 98.88862 | 305.54519 | 10.42441 | 0.0652339 | 0.17714719 | 3.1398811 | 21 | 8 9.1 | 18.5 |
| 106752 2000 $XS_{4}$ | 14.1 | X | 359.81554 | 35.76105 | 297.33763 | 9.86128 | 0.1881322 | 0.18219179 | 3.0816514 | 21 | 9 9.9 | 17.6 |
| 106753 2000 $XU_{4}$ | 15.1 | X | 312.38096 | 82.56714 | 0.06251 | 8.63791 | 0.1228572 | 0.18720265 | 3.0264120 | 21 | 11 13.5 | 18.8 |
| 106754 2000 $XZ_{4}$ | 14.4 | X | 238.43183 | 83.08676 | 295.20547 | 10.75887 | 0.1099385 | 0.17051231 | 3.2208133 | 21 | 5 19.4 | 19.4 |
| 106755 2000 $XF_{5}$ | 15.3 | X | 343.45861 | 12.29311 | 11.97232 | 11.58843 | 0.1627843 | 0.18489224 | 3.0515718 | 21 | 10 20.9 | 18.7 |
| 106756 2000 $XS_{5}$ | 14.4 | X | 351.05256 | 325.96749 | 7.18922 | 9.42524 | 0.0826089 | 0.17840570 | 3.1250975 | 21 | 8 30.3 | 18.4 |
| 106757 2000 $XW_{5}$ | 14.3 | X | 260.13868 | 157.62794 | 299.64130 | 8.33861 | 0.1180060 | 0.18082967 | 3.0971073 | 21 | 9 16.9 | 18.8 |
| 106758 2000 $XK_{6}$ | 16.0 | X | 254.63630 | 72.06781 | 4.23578 | 6.31263 | 0.1902831 | 0.27329568 | 2.3516943 | 21 | 8 16.1 | 19.1 |
| 106759 2000 $XT_{6}$ | 13.9 | X | 293.87679 | 32.17801 | 47.16073 | 12.54724 | 0.3165397 | 0.18147194 | 3.0897954 | 21 | 9 20.2 | 17.8 |
| 106760 2000 $XD_{7}$ | 16.6 | X | 114.45878 | 94.10987 | 317.35075 | 4.93083 | 0.1472226 | 0.30013804 | 2.2093034 | 21 | 2 7.0 | 18.7 |
| 106761 2000 $XW_{8}$ | 15.3 | X | 68.27808 | 328.99698 | 296.62506 | 18.03601 | 0.0449583 | 0.36706700 | 1.9318459 | 21 | 9 22.8 | 17.9 |
| 106762 2000 $XU_{9}$ | 14.4 | X | 181.55348 | 164.65074 | 313.09925 | 26.21524 | 0.2450681 | 0.26415372 | 2.4056451 | 21 | 7 27.9 | 18.5 |
| 106763 2000 $XK_{10}$ | 15.1 | X | 240.30326 | 114.07307 | 61.60313 | 14.01293 | 0.1034818 | 0.23135936 | 2.6279152 | 21 | 12 12.5 | 18.6 |
| 106764 2000 $XG_{11}$ | 14.4 | X | 266.27553 | 30.68587 | 300.21693 | 14.93078 | 0.2424514 | 0.17288810 | 3.1912389 | 21 | 3 31.8 | 19.8 |
| 106765 2000 $XW_{11}$ | 14.8 | X | 312.07166 | 49.62251 | 2.53764 | 10.88479 | 0.1488216 | 0.18264916 | 3.0765048 | 21 | 10 2.6 | 18.6 |
| 106766 2000 $XB_{12}$ | 16.0 | X | 111.04515 | 22.90349 | 307.08484 | 8.49088 | 0.1610314 | 0.29070798 | 2.2568260 | 21 | — | — |
| 106767 2000 $XW_{13}$ | 14.3 | X | 357.43083 | 87.04785 | 93.41228 | 21.86042 | 0.1724232 | 0.29047516 | 2.2580318 | 21 | 1 8.4 | 16.5 |
| 106768 2000 $XG_{14}$ | 14.9 | X | 331.33233 | 148.85621 | 297.86515 | 32.65413 | 0.2068745 | 0.23183176 | 2.6243440 | 21 | — | — |
| 106769 2000 $XA_{15}$ | 15.7 | X | 293.09485 | 125.49523 | 270.48098 | 21.62809 | 0.0850384 | 0.37094818 | 1.9183472 | 21 | 8 23.4 | 18.1 |
| 106770 2000 $XD_{15}$ | 16.3 | X | 245.28817 | 334.29279 | 64.00336 | 23.19336 | 0.0769417 | 0.36049107 | 1.9552684 | 21 | 6 20.5 | 18.6 |
| 106771 2000 $XE_{15}$ | 14.3 | X | 358.22575 | 0.14808 | 70.29013 | 25.71559 | 0.4325197 | 0.19043795 | 2.9920376 | 21 | — | — |
| 106772 2000 $XT_{15}$ | 14.2 | X | 217.08388 | 145.46838 | 290.49346 | 16.23903 | 0.1545936 | 0.17485609 | 3.1672490 | 21 | 7 6.7 | 19.2 |
| 106773 2000 $XG_{16}$ | 14.4 | X | 173.31219 | 200.90220 | 281.71951 | 17.02508 | 0.1307453 | 0.17267287 | 3.1938902 | 21 | 7 20.5 | 19.6 |
| 106774 2000 $XM_{16}$ | 15.0 | X | 323.89227 | 74.32011 | 331.07047 | 10.41940 | 0.0321113 | 0.18443851 | 3.0565745 | 21 | 10 16.9 | 19.3 |
| 106775 2000 $XR_{16}$ | 14.8 | X | 253.77883 | 346.60233 | 283.28536 | 13.90004 | 0.1025630 | 0.25430735 | 2.4673463 | 21 | 1 14.1 | 18.5 |
| 106776 2000 $XP_{18}$ | 14.8 | X | 82.89760 | 336.18202 | 24.60072 | 15.29454 | 0.1596434 | 0.19547327 | 2.9404319 | 21 | — | — |
| 106777 2000 $XQ_{18}$ | 14.6 | X | 328.55488 | 96.07982 | 0.68893 | 10.43777 | 0.0815424 | 0.19161994 | 2.9797208 | 21 | — | — |
| 106778 2000 $XL_{19}$ | 14.8 | X | 323.45269 | 60.16130 | 17.30765 | 10.39346 | 0.0882326 | 0.18801253 | 3.0177148 | 21 | 11 26.7 | 18.7 |
| 106779 2000 $XP_{19}$ | 16.0 | X | 338.35999 | 354.55972 | 3.96649 | 6.71940 | 0.1530092 | 0.27719615 | 2.3295816 | 21 | 9 22.4 | 17.9 |
| 106780 2000 $XW_{19}$ | 14.0 | X | 289.43781 | 3.38930 | 40.13692 | 19.12598 | 0.1765048 | 0.17834249 | 3.1258359 | 21 | 8 23.5 | 18.5 |
| 106781 2000 $XU_{20}$ | 14.5 | X | 318.08945 | 299.87360 | 38.44676 | 16.62343 | 0.2441033 | 0.17751530 | 3.1355389 | 21 | 6 19.3 | 18.4 |
| 106782 2000 $XB_{21}$ | 16.2 | X | 311.80577 | 92.92563 | 14.94118 | 6.87238 | 0.0416182 | 0.28553155 | 2.2840204 | 21 | — | — |
| 106783 2000 $XJ_{21}$ | 14.5 | X | 2.57997 | 43.91804 | 324.30852 | 8.25296 | 0.1526956 | 0.18517150 | 3.0485029 | 21 | 11 1.3 | 18.3 |
| 106784 2000 $XQ_{21}$ | 16.1 | X | 37.04584 | 70.13810 | 336.79395 | 7.77526 | 0.1123244 | 0.28954844 | 2.2628472 | 21 | — | — |
| 106785 2000 $XU_{21}$ | 14.3 | X | 273.42719 | 62.99946 | 320.94260 | 10.05442 | 0.0860132 | 0.17419918 | 3.1752066 | 21 | 7 12.4 | 18.8 |
| 106786 2000 $XZ_{21}$ | 13.9 | X | 119.88371 | 133.95920 | 31.55314 | 11.07251 | 0.0757394 | 0.17017249 | 3.2250997 | 21 | 7 19.7 | 18.8 |
| 106787 2000 $XO_{22}$ | 16.6 | X | 338.19978 | 120.03252 | 337.96510 | 4.89708 | 0.1096457 | 0.28714686 | 2.2754467 | 21 | — | — |
| 106788 2000 $XQ_{22}$ | 15.6 | X | 272.53196 | 280.44054 | 338.72424 | 5.66465 | 0.0904639 | 0.30046614 | 2.2076947 | 21 | 1 15.2 | 18.6 |
| 106789 2000 $XZ_{22}$ | 15.4 | X | 186.03220 | 78.06548 | 35.74557 | 13.03181 | 0.1816024 | 0.21972637 | 2.7198686 | 21 | 7 27.9 | 20.1 |
| 106790 2000 $XW_{23}$ | 16.3 | X | 128.77652 | 3.57949 | 14.16921 | 6.14545 | 0.1951349 | 0.29906309 | 2.2145943 | 21 | 1 21.2 | 18.9 |
| 106791 2000 $XF_{24}$ | 13.7 | X | 342.84606 | 44.21693 | 346.39153 | 10.56398 | 0.1530569 | 0.18432958 | 3.0577785 | 21 | 10 25.7 | 17.3 |
| 106792 2000 $XR_{24}$ | 14.7 | X | 284.31598 | 65.88054 | 285.24815 | 16.71051 | 0.2095676 | 0.17335785 | 3.1854714 | 21 | 5 24.7 | 19.6 |
| 106793 2000 $XB_{26}$ | 14.4 | X | 163.75195 | 175.38732 | 329.08567 | 14.06695 | 0.1047036 | 0.17098007 | 3.2149364 | 21 | 8 10.4 | 19.4 |
| 106794 2000 $XK_{26}$ | 16.0 | X | 252.55108 | 104.39641 | 5.17786 | 5.35330 | 0.1871142 | 0.27531496 | 2.3401813 | 21 | 9 27.2 | 18.8 |
| 106795 2000 $XP_{26}$ | 16.1 | X | 147.53405 | 319.55879 | 36.22715 | 8.50275 | 0.1744910 | 0.29769082 | 2.2213948 | 21 | 1 12.1 | 19.1 |
| 106796 2000 $XQ_{26}$ | 16.5 | X | 342.04164 | 105.06238 | 331.35588 | 6.06777 | 0.1409731 | 0.28428326 | 2.2907016 | 21 | — | — |
| 106797 2000 $XX_{27}$ | 15.8 | X | 261.72346 | 144.46775 | 352.05971 | 10.01536 | 0.1423187 | 0.27955957 | 2.3164333 | 21 | 11 22.3 | 18.5 |
| 106798 2000 $XN_{28}$ | 16.6 | X | 325.61952 | 110.98587 | 2.62787 | 7.16871 | 0.1172961 | 0.28560977 | 2.2836034 | 21 | — | — |
| 106799 2000 $XD_{31}$ | 14.6 | X | 296.40244 | 62.15833 | 12.58627 | 10.03823 | 0.0669429 | 0.18265346 | 3.0764565 | 21 | 10 16.9 | 18.6 |
| 106800 2000 $XN_{31}$ | 14.3 | X | 166.27176 | 50.04892 | 56.05159 | 22.31176 | 0.0539808 | 0.16852914 | 3.2460314 | 21 | 6 20.9 | 19.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106801 2000 $XT_{31}$ | 14.4 | X | 272.88262 | 21.09571 | 331.12425 | 9.71111 | 0.0785258 | 0.16927033 | 3.2365487 | 21 | 5 30.2 | 19.2 |
| 106802 2000 $XX_{32}$ | 15.9 | X | 283.42128 | 135.73710 | 31.51874 | 9.30206 | 0.0692546 | 0.28627730 | 2.2800521 | 21 | — | — |
| 106803 2000 $XX_{33}$ | 15.4 | X | 332.63653 | 359.29582 | 27.75419 | 6.26203 | 0.1199688 | 0.27643402 | 2.3338614 | 21 | 10 24.9 | 17.3 |
| 106804 2000 $XY_{33}$ | 16.2 | X | 351.34811 | 15.18617 | 40.24943 | 8.36353 | 0.1797180 | 0.28257227 | 2.2999392 | 21 | — | — |
| 106805 2000 $XM_{35}$ | 15.2 | X | 39.72954 | 9.91203 | 43.51937 | 11.36085 | 0.0951298 | 0.23849342 | 2.5752444 | 21 | — | — |
| 106806 2000 $XO_{35}$ | 14.7 | X | 13.08877 | 21.69126 | 327.82809 | 15.07280 | 0.2497424 | 0.23073144 | 2.6326808 | 21 | 11 17.3 | 17.8 |
| 106807 2000 $XE_{37}$ | 14.3 | X | 291.87309 | 23.84018 | 330.77786 | 13.82898 | 0.1989621 | 0.17594664 | 3.1541480 | 21 | 6 9.4 | 18.9 |
| 106808 2000 $XX_{38}$ | 16.4 | X | 130.13329 | 29.85109 | 35.57272 | 21.68245 | 0.0790503 | 0.35163297 | 1.9879692 | 21 | 3 15.4 | 18.9 |
| 106809 2000 $XP_{39}$ | 14.4 | X | 305.08464 | 62.64122 | 40.34037 | 17.20807 | 0.1692970 | 0.18598543 | 3.0396024 | 21 | 11 23.0 | 17.9 |
| 106810 2000 $XY_{39}$ | 14.5 | X | 54.40481 | 17.50852 | 341.20761 | 15.21699 | 0.1462060 | 0.23964526 | 2.5669859 | 21 | — | — |
| 106811 2000 $XE_{40}$ | 14.5 | X | 279.96442 | 56.49924 | 354.85069 | 19.37051 | 0.1136327 | 0.17780230 | 3.1321638 | 21 | 8 25.7 | 18.9 |
| 106812 2000 $XV_{40}$ | 13.9 | X | 218.28429 | 123.59433 | 8.51295 | 16.48301 | 0.1701488 | 0.17844153 | 3.1246791 | 21 | 9 15.9 | 18.9 |
| 106813 2000 $XW_{41}$ | 14.1 | X | 317.70603 | 15.84871 | 10.65356 | 20.32631 | 0.2515773 | 0.18023646 | 3.1038993 | 21 | 9 4.6 | 17.6 |
| 106814 2000 $XN_{42}$ | 14.2 | X | 298.72057 | 16.97322 | 23.03213 | 17.93826 | 0.2062236 | 0.17844252 | 3.1246676 | 21 | 8 27.3 | 18.4 |
| 106815 2000 $XR_{42}$ | 16.7 | X | 126.21347 | 176.55394 | 305.17370 | 17.87972 | 0.0670306 | 0.35661980 | 1.9693931 | 21 | 5 13.8 | 19.4 |
| 106816 2000 $XE_{43}$ | 14.3 | X | 312.69492 | 22.99440 | 26.39234 | 17.52615 | 0.1987611 | 0.18064390 | 3.0992303 | 21 | 9 30.1 | 17.9 |
| 106817 Yubangtaek | 15.5 | X | 290.01551 | 214.34907 | 200.36190 | 0.99075 | 0.1219665 | 0.17897147 | 3.1185079 | 21 | 9 5.4 | 19.5 |
| 106818 2000 $XV_{44}$ | 13.7 | X | 185.22853 | 119.82145 | 12.41053 | 27.50686 | 0.1654360 | 0.17319290 | 3.1874937 | 21 | 8 28.1 | 19.3 |
| 106819 2000 $XC_{45}$ | 16.3 | X | 289.81668 | 303.46404 | 38.56075 | 20.82268 | 0.0790568 | 0.36178770 | 1.9505939 | 21 | 5 26.1 | 18.4 |
| 106820 2000 $XJ_{45}$ | 16.3 | X | 16.36206 | 258.95413 | 29.04887 | 20.92303 | 0.0675105 | 0.36619906 | 1.9348972 | 21 | 9 3.5 | 18.5 |
| 106821 2000 $XX_{45}$ | 15.8 | X | 114.76612 | 233.73566 | 358.79091 | 18.62953 | 0.0568498 | 0.36979292 | 1.9223405 | 21 | 10 16.9 | 18.1 |
| 106822 2000 $XN_{47}$ | 14.8 | X | 245.28423 | 23.46164 | 13.58086 | 12.82073 | 0.1550876 | 0.17322922 | 3.1870480 | 21 | 6 14.7 | 20.0 |
| 106823 2000 $XB_{49}$ | 14.9 | X | 190.33448 | 128.71503 | 28.94490 | 7.23981 | 0.1179679 | 0.22320486 | 2.6915366 | 21 | 9 25.5 | 19.0 |
| 106824 2000 $XJ_{51}$ | 14.4 | X | 262.99067 | 43.94911 | 353.63050 | 11.46591 | 0.1361249 | 0.17417950 | 3.1754457 | 21 | 7 10.7 | 19.2 |
| 106825 2000 $XY_{53}$ | 15.9 | X | 191.06681 | 237.70385 | 133.19504 | 1.92726 | 0.1970419 | 0.25915673 | 2.4364699 | 21 | 3 20.9 | 19.8 |
| 106826 2000 $YF$ | 16.7 | X | 19.30161 | 57.27741 | 332.02108 | 16.33338 | 0.1089766 | 0.38121027 | 1.8837632 | 21 | — | — |
| 106827 2000 $YU$ | 14.8 | X | 324.39472 | 34.54592 | 359.07655 | 17.09300 | 0.2209526 | 0.18133888 | 3.0913067 | 21 | 9 23.4 | 17.7 |
| 106828 2000 $YG_{1}$ | 15.9 | X | 133.73457 | 266.71605 | 108.16518 | 7.55344 | 0.1285598 | 0.29612023 | 2.2292426 | 21 | 1 12.3 | 18.4 |
| 106829 2000 $YL_{1}$ | 16.2 | X | 46.29895 | 343.57614 | 292.60775 | 18.09263 | 0.0624828 | 0.36890748 | 1.9254152 | 21 | 9 8.1 | 18.5 |
| 106830 2000 $YC_{4}$ | 16.2 | X | 234.83392 | 247.06615 | 190.73350 | 0.40864 | 0.1559261 | 0.26916815 | 2.3756745 | 21 | 7 27.6 | 19.5 |
| 106831 2000 $YQ_{4}$ | 16.0 | X | 252.02483 | 276.80037 | 114.95864 | 0.44464 | 0.1717894 | 0.17402719 | 3.1772982 | 21 | 6 14.7 | 21.0 |
| 106832 2000 $YU_{6}$ | 15.6 | X | 291.09447 | 56.50277 | 6.79506 | 2.74153 | 0.0803413 | 0.22681887 | 2.6628698 | 21 | 9 29.9 | 18.9 |
| 106833 2000 $YF_{7}$ | 15.9 | X | 290.20269 | 18.39046 | 62.25158 | 3.34452 | 0.1873072 | 0.27663083 | 2.3327543 | 21 | 10 17.2 | 17.9 |
| 106834 2000 $YN_{7}$ | 16.1 | X | 275.96513 | 194.91589 | 50.58037 | 6.53711 | 0.1010351 | 0.29606318 | 2.2295290 | 21 | — | — |
| 106835 2000 $YE_{8}$ | 15.5 | X | 261.77908 | 124.08414 | 270.39797 | 1.34667 | 0.2154488 | 0.26860636 | 2.3789858 | 21 | 6 21.9 | 18.9 |
| 106836 2000 $YG_{8}$ | 16.4 | X | 232.84799 | 92.99803 | 339.02297 | 0.87133 | 0.1600452 | 0.26824912 | 2.3810975 | 21 | 7 17.4 | 19.7 |
| 106837 2000 $YW_{8}$ | 16.5 | X | 242.88297 | 107.20101 | 122.56236 | 3.83537 | 0.0913766 | 0.28809182 | 2.2704683 | 21 | — | — |
| 106838 2000 $YT_{9}$ | 15.8 | X | 166.75695 | 159.93064 | 279.85929 | 5.41218 | 0.1062866 | 0.25965100 | 2.4333769 | 21 | 5 19.5 | 19.3 |
| 106839 2000 $YJ_{10}$ | 16.1 | X | 178.65747 | 139.43062 | 293.28093 | 2.13470 | 0.1660163 | 0.26288489 | 2.4133796 | 21 | 5 24.8 | 20.0 |
| 106840 2000 $YA_{11}$ | 15.4 | X | 285.39292 | 96.58098 | 94.26609 | 11.72100 | 0.0685034 | 0.24035539 | 2.5619273 | 21 | — | — |
| 106841 2000 $YB_{11}$ | 15.0 | X | 348.91082 | 263.89547 | 96.52436 | 15.54970 | 0.1474540 | 0.22652928 | 2.6651387 | 21 | 10 17.6 | 18.1 |
| 106842 2000 $YT_{12}$ | 15.4 | X | 347.10079 | 326.02644 | 108.54576 | 7.74615 | 0.0813502 | 0.28331133 | 2.2959376 | 21 | — | — |
| 106843 2000 $YV_{12}$ | 16.1 | X | 183.88966 | 42.27876 | 64.62796 | 7.21383 | 0.1101779 | 0.26499193 | 2.4005695 | 21 | 7 15.5 | 19.6 |
| 106844 2000 $YQ_{14}$ | 16.8 | X | 253.74075 | 46.67367 | 80.55828 | 3.03564 | 0.1543024 | 0.27662738 | 2.3327737 | 21 | 10 29.9 | 19.5 |
| 106845 2000 $YR_{14}$ | 15.8 | X | 30.40478 | 66.65468 | 49.84660 | 4.12491 | 0.1622441 | 0.29231708 | 2.2485364 | 21 | — | — |
| 106846 2000 $YY_{15}$ | 15.5 | X | 358.01375 | 59.64908 | 16.32590 | 4.87571 | 0.0665173 | 0.23583582 | 2.5945549 | 21 | — | — |
| 106847 2000 $YO_{16}$ | 14.9 | X | 251.24744 | 24.94448 | 115.29435 | 14.12541 | 0.2058095 | 0.22825912 | 2.6516567 | 21 | 11 3.0 | 18.8 |
| 106848 2000 $YP_{16}$ | 16.8 | X | 48.95669 | 232.27768 | 266.22308 | 3.32964 | 0.3318079 | 0.34305168 | 2.0209847 | 21 | 1 24.3 | 16.1 |
| 106849 2000 $YC_{17}$ | 16.4 | X | 186.84770 | 310.07840 | 130.00673 | 24.82614 | 0.1092497 | 0.36007600 | 1.9567707 | 21 | 6 14.5 | 19.5 |
| 106850 2000 $YN_{18}$ | 15.0 | X | 197.81177 | 235.45897 | 292.67429 | 10.66486 | 0.2028572 | 0.22253769 | 2.6969134 | 21 | 10 2.7 | 19.8 |
| 106851 2000 $YS_{19}$ | 15.4 | X | 22.31560 | 100.10084 | 338.60047 | 21.88060 | 0.1070467 | 0.24043665 | 2.5613500 | 21 | — | — |
| 106852 2000 $YV_{19}$ | 14.9 | X | 220.47559 | 317.71632 | 141.27390 | 16.19122 | 0.1892954 | 0.17365846 | 3.1817942 | 21 | 8 3.4 | 20.2 |
| 106853 2000 $YZ_{19}$ | 15.9 | X | 24.48059 | 117.48644 | 26.29396 | 2.92251 | 0.0681146 | 0.29647817 | 2.2274480 | 21 | 1 14.4 | 18.2 |
| 106854 2000 $YB_{21}$ | 15.9 | X | 116.71141 | 296.51545 | 121.67327 | 5.26565 | 0.0955987 | 0.29875905 | 2.2160965 | 21 | 2 12.6 | 18.3 |
| 106855 2000 $YN_{21}$ | 15.6 | X | 340.26901 | 264.08400 | 183.63507 | 13.02555 | 0.1487778 | 0.23868359 | 2.5738763 | 21 | — | — |
| 106856 2000 $YF_{22}$ | 16.8 | X | 286.52460 | 158.20512 | 34.28061 | 2.21370 | 0.1479941 | 0.28628791 | 2.2799958 | 21 | — | — |
| 106857 2000 $YU_{22}$ | 16.0 | X | 291.69883 | 295.29717 | 119.36901 | 6.96155 | 0.1092379 | 0.27345577 | 2.3507764 | 21 | 9 24.2 | 18.5 |
| 106858 2000 $YT_{23}$ | 16.0 | X | 120.66172 | 271.67331 | 105.20269 | 7.76940 | 0.1112447 | 0.29430403 | 2.2384046 | 21 | — | — |
| 106859 2000 $YC_{26}$ | 15.1 | X | 274.93285 | 139.45141 | 275.68970 | 6.29382 | 0.1093706 | 0.17677886 | 3.1442411 | 21 | 8 16.1 | 19.5 |
| 106860 2000 $YO_{26}$ | 14.7 | X | 278.96307 | 255.40626 | 135.40194 | 12.54141 | 0.1544750 | 0.17659592 | 3.1464122 | 21 | 7 16.3 | 19.1 |
| 106861 2000 $YV_{26}$ | 15.3 | X | 70.43670 | 202.79374 | 203.44340 | 4.21799 | 0.2388034 | 0.24313763 | 2.5423457 | 21 | — | — |
| 106862 2000 $YZ_{26}$ | 15.8 | X | 222.18682 | 234.96219 | 198.52979 | 9.59336 | 0.1457063 | 0.26552513 | 2.3973547 | 21 | 7 7.4 | 19.5 |
| 106863 2000 $YA_{27}$ | 15.5 | X | 80.80612 | 252.47756 | 181.24761 | 9.76865 | 0.1589777 | 0.24688099 | 2.5165812 | 21 | 1 27.9 | 18.3 |
| 106864 2000 $YL_{27}$ | 16.3 | X | 244.93062 | 193.97184 | 214.20693 | 2.41730 | 0.1586922 | 0.26693701 | 2.3888939 | 21 | 6 28.2 | 19.6 |
| 106865 2000 $YU_{27}$ | 16.7 | X | 186.66795 | 62.80322 | 339.11389 | 1.76349 | 0.2053170 | 0.25832132 | 2.4417201 | 21 | 4 23.5 | 20.8 |
| 106866 2000 $YQ_{28}$ | 16.3 | X | 326.34670 | 235.55321 | 164.92131 | 23.03591 | 0.1065777 | 0.37404803 | 1.9077339 | 21 | 12 4.3 | 18.4 |
| 106867 2000 $YR_{28}$ | 16.5 | X | 182.28710 | 7.89882 | 112.27857 | 23.70592 | 0.0704599 | 0.36400420 | 1.9426674 | 21 | 8 5.4 | 18.8 |
| 106868 2000 $YK_{31}$ | 16.1 | X | 6.65455 | 1.23263 | 352.85732 | 1.50913 | 0.2536008 | 0.27624121 | 2.3349472 | 21 | 11 29.9 | 18.1 |
| 106869 Irinyi | 16.4 | X | 149.68853 | 323.29856 | 92.12258 | 3.10068 | 0.1434816 | 0.25592641 | 2.4569292 | 21 | 4 4.8 | 20.0 |
| 106870 2000 $YN_{32}$ | 16.0 | X | 326.05209 | 270.26550 | 125.24337 | 7.17456 | 0.2566807 | 0.27778214 | 2.3263042 | 21 | 10 28.1 | 17.2 |
| 106871 2000 $YP_{32}$ | 15.5 | X | 333.23361 | 240.55307 | 114.98587 | 23.89267 | 0.2484803 | 0.27307275 | 2.3529740 | 21 | 9 6.9 | 17.4 |
| 106872 2000 $YV_{32}$ | 15.7 | X | 196.89248 | 54.20104 | 270.89878 | 5.40240 | 0.1244714 | 0.29796859 | 2.2200141 | 21 | 1 18.5 | 18.8 |
| 106873 2000 $YA_{33}$ | 16.1 | X | 313.80531 | 97.26463 | 291.09300 | 5.00888 | 0.2617755 | 0.27484914 | 2.3428247 | 21 | 8 27.7 | 17.7 |
| 106874 2000 $YD_{33}$ | 14.7 | X | 228.38001 | 183.46265 | 245.87001 | 11.46838 | 0.1750843 | 0.17292423 | 3.1907944 | 21 | 7 5.6 | 19.9 |
| 106875 2000 $YW_{33}$ | 15.3 | X | 323.53261 | 285.08761 | 226.40654 | 4.63391 | 0.1095721 | 0.23904070 | 2.5713123 | 21 | — | — |
| 106876 2000 $YN_{34}$ | 15.1 | X | 225.98454 | 15.92965 | 152.96403 | 9.93550 | 0.2589347 | 0.22529069 | 2.6748980 | 21 | 11 1.9 | 19.5 |
| 106877 2000 $YU_{34}$ | 15.5 | X | 239.04496 | 34.93388 | 114.68934 | 3.07751 | 0.1516129 | 0.27337658 | 2.3512304 | 21 | 11 9.6 | 18.5 |
| 106878 2000 $YZ_{35}$ | 16.0 | X | 318.54404 | 353.83899 | 125.25709 | 6.83764 | 0.0780378 | 0.28505831 | 2.2865476 | 21 | — | — |
| 106879 2000 $YA_{36}$ | 16.5 | X | 199.61286 | 306.00578 | 164.70432 | 0.71446 | 0.1663210 | 0.26811252 | 2.3819062 | 21 | 8 3.0 | 20.3 |
| 106880 2000 $YM_{36}$ | 14.4 | X | 241.56286 | 329.01372 | 105.54051 | 16.28439 | 0.2591385 | 0.17344338 | 3.1844241 | 21 | 7 18.6 | 19.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106881 2000 $YX_{36}$ | 16.4 | X | 222.66544 | 332.51288 | 161.12471 | 3.35461 | 0.1720453 | 0.27301716 | 2.3532934 | 21 | 9 26.5 | 19.6 |
| 106882 2000 $YY_{36}$ | 15.8 | X | 311.11838 | 354.24923 | 128.96791 | 6.11992 | 0.1063380 | 0.28435324 | 2.2903258 | 21 | — | — |
| 106883 2000 $YJ_{37}$ | 15.5 | X | 47.02504 | 261.50172 | 145.60261 | 3.15086 | 0.1446157 | 0.24107648 | 2.5568160 | 21 | — | — |
| 106884 2000 $YN_{37}$ | 16.3 | X | 256.93060 | 310.78549 | 140.32602 | 2.50417 | 0.1675956 | 0.27335598 | 2.3513485 | 21 | 9 10.7 | 19.3 |
| 106885 2000 $YY_{37}$ | 15.7 | X | 319.09817 | 42.00235 | 126.43675 | 4.86318 | 0.1142975 | 0.24204452 | 2.5499943 | 21 | — | — |
| 106886 2000 $YC_{38}$ | 14.4 | X | 38.91842 | 300.25464 | 114.33807 | 16.34882 | 0.0593002 | 0.19177179 | 2.9781477 | 21 | — | — |
| 106887 2000 $YC_{39}$ | 15.2 | X | 60.83247 | 238.43206 | 128.47133 | 4.72607 | 0.2181698 | 0.23881043 | 2.5729649 | 21 | — | — |
| 106888 2000 $YM_{39}$ | 16.2 | X | 317.83187 | 229.34921 | 229.14299 | 4.06179 | 0.1088783 | 0.28233043 | 2.3012524 | 21 | — | — |
| 106889 2000 $YW_{39}$ | 16.2 | X | 134.33732 | 358.89858 | 166.14823 | 2.34399 | 0.1452246 | 0.26429280 | 2.4048011 | 21 | 8 9.7 | 19.8 |
| 106890 2000 $YA_{40}$ | 15.9 | X | 218.35345 | 105.73809 | 259.63704 | 5.21627 | 0.1408069 | 0.25844986 | 2.4409105 | 21 | 4 4.6 | 19.8 |
| 106891 2000 $YV_{40}$ | 14.7 | X | 231.97205 | 264.04518 | 193.47516 | 3.56868 | 0.1848436 | 0.17269456 | 3.1936227 | 21 | 8 12.0 | 19.8 |
| 106892 2000 $YK_{41}$ | 16.2 | X | 54.47585 | 289.28949 | 123.89534 | 6.41074 | 0.1373111 | 0.29020665 | 2.2594244 | 21 | — | — |
| 106893 2000 $YS_{41}$ | 16.0 | X | 247.96210 | 127.29825 | 281.83854 | 6.35977 | 0.1027348 | 0.26767196 | 2.3845191 | 21 | 7 10.2 | 19.1 |
| 106894 2000 $YT_{41}$ | 15.7 | X | 81.73504 | 324.02799 | 83.51982 | 2.10043 | 0.1426767 | 0.29380525 | 2.2409372 | 21 | — | — |
| 106895 2000 $YX_{41}$ | 15.7 | X | 247.84981 | 233.37308 | 126.20009 | 2.20808 | 0.1952862 | 0.26310977 | 2.4120042 | 21 | 4 25.5 | 19.5 |
| 106896 2000 $YL_{43}$ | 15.6 | X | 49.80501 | 326.61461 | 139.06604 | 4.80495 | 0.0719138 | 0.24671289 | 2.5177242 | 21 | 1 14.3 | 18.5 |
| 106897 2000 $YO_{43}$ | 15.9 | X | 247.73809 | 279.70844 | 151.34460 | 2.27421 | 0.1927691 | 0.27001596 | 2.3706990 | 21 | 7 28.5 | 19.2 |
| 106898 2000 $YU_{43}$ | 16.4 | X | 233.36345 | 88.35859 | 317.67458 | 1.30205 | 0.2076353 | 0.26664968 | 2.3906097 | 21 | 6 8.7 | 20.1 |
| 106899 2000 $YF_{44}$ | 16.6 | X | 244.45177 | 255.00471 | 244.98123 | 0.64430 | 0.1812209 | 0.27672303 | 2.3322361 | 21 | 10 29.3 | 19.5 |
| 106900 2000 $YA_{45}$ | 15.7 | X | 286.88257 | 268.27230 | 126.80730 | 6.87693 | 0.1318960 | 0.27061569 | 2.3671952 | 21 | 8 10.4 | 18.3 |
| 106901 2000 $YB_{45}$ | 16.0 | X | 37.50054 | 291.16641 | 95.78947 | 7.81017 | 0.1201856 | 0.28516878 | 2.2859570 | 21 | — | — |
| 106902 2000 $YJ_{45}$ | 16.3 | X | 210.58398 | 312.74315 | 148.02863 | 4.35688 | 0.1451941 | 0.26754104 | 2.3852969 | 21 | 8 1.9 | 19.9 |
| 106903 2000 $YN_{45}$ | 15.5 | X | 324.07050 | 55.64264 | 118.39921 | 14.26938 | 0.1240750 | 0.24259139 | 2.5461606 | 21 | — | — |
| 106904 2000 $YH_{46}$ | 16.4 | X | 228.20278 | 148.61219 | 233.55426 | 0.74857 | 0.2044757 | 0.26313498 | 2.4118502 | 21 | 5 4.6 | 20.4 |
| 106905 2000 $YP_{46}$ | 16.3 | X | 16.23455 | 158.24593 | 225.49158 | 0.69530 | 0.2515847 | 0.28309521 | 2.2971060 | 21 | — | — |
| 106906 2000 $YJ_{47}$ | 15.7 | X | 161.02639 | 299.01438 | 123.03560 | 4.63127 | 0.0685275 | 0.25637216 | 2.4540805 | 21 | 4 20.0 | 19.1 |
| 106907 2000 $YZ_{47}$ | 16.4 | X | 224.14629 | 260.03844 | 170.61660 | 2.38768 | 0.2043636 | 0.26684232 | 2.3894589 | 21 | 7 2.5 | 20.2 |
| 106908 2000 $YX_{48}$ | 15.6 | X | 212.75293 | 320.04212 | 237.42840 | 1.09538 | 0.2170806 | 0.22907192 | 2.6453805 | 21 | 11 25.5 | 19.7 |
| 106909 2000 $YA_{49}$ | 14.9 | X | 252.63745 | 151.85330 | 276.13859 | 0.81072 | 0.1748623 | 0.17288615 | 3.1912629 | 21 | 7 29.7 | 19.7 |
| 106910 2000 $YF_{49}$ | 15.8 | X | 271.60785 | 136.78530 | 104.57483 | 7.83581 | 0.0828421 | 0.29391762 | 2.2403660 | 21 | — | — |
| 106911 2000 $YH_{49}$ | 15.7 | X | 224.56559 | 226.58802 | 286.49469 | 5.72836 | 0.0603947 | 0.27624753 | 2.3349116 | 21 | 11 6.4 | 18.7 |
| 106912 2000 $YN_{49}$ | 15.7 | X | 185.28138 | 46.18288 | 284.00852 | 2.84065 | 0.1785772 | 0.29620482 | 2.2288182 | 21 | 1 18.0 | 18.9 |
| 106913 2000 $YF_{50}$ | 16.4 | X | 235.57648 | 47.24065 | 345.82390 | 1.70294 | 0.0621195 | 0.31134211 | 2.1559771 | 21 | 6 4.9 | 19.1 |
| 106914 2000 $YO_{51}$ | 16.2 | X | 100.38399 | 300.03576 | 99.24966 | 2.78386 | 0.1602511 | 0.29507996 | 2.2344788 | 21 | — | — |
| 106915 2000 $YX_{51}$ | 15.7 | X | 39.22611 | 123.50907 | 315.00725 | 2.51121 | 0.1831897 | 0.24323710 | 2.5416525 | 21 | — | — |
| 106916 2000 $YS_{52}$ | 15.9 | X | 38.16323 | 240.52279 | 288.99334 | 8.37422 | 0.0381395 | 0.30139199 | 2.2031712 | 21 | 3 9.8 | 18.4 |
| 106917 2000 $YT_{52}$ | 15.2 | X | 155.34572 | 346.83482 | 102.87515 | 9.60803 | 0.1104281 | 0.21135125 | 2.7912549 | 21 | 5 25.6 | 19.6 |
| 106918 2000 $YZ_{52}$ | 16.4 | X | 197.56717 | 177.63031 | 282.86467 | 2.43514 | 0.0893710 | 0.26574414 | 2.3960373 | 21 | 7 21.7 | 19.8 |
| 106919 2000 $YC_{53}$ | 16.3 | X | 184.17859 | 19.12710 | 88.75912 | 4.29582 | 0.0829766 | 0.26487502 | 2.4012758 | 21 | 7 17.1 | 19.6 |
| 106920 2000 $YG_{54}$ | 15.3 | X | 277.36842 | 32.50097 | 96.18983 | 4.41581 | 0.1149877 | 0.27959023 | 2.3162640 | 21 | 12 14.8 | 17.4 |
| 106921 2000 $YN_{54}$ | 16.8 | X | 273.64069 | 199.06390 | 298.88733 | 1.25285 | 0.1570338 | 0.27989241 | 2.3145966 | 21 | 12 15.9 | 18.8 |
| 106922 2000 $YM_{55}$ | 16.0 | X | 195.25782 | 266.43735 | 255.28915 | 5.09417 | 0.1611586 | 0.27262313 | 2.3555604 | 21 | 10 2.7 | 19.8 |
| 106923 2000 $YM_{57}$ | 16.5 | X | 262.54242 | 340.62799 | 145.93885 | 2.44425 | 0.1481487 | 0.27742265 | 2.3283134 | 21 | 11 12.3 | 18.9 |
| 106924 2000 $YT_{57}$ | 16.7 | X | 111.86791 | 9.98121 | 141.08058 | 2.96039 | 0.1482346 | 0.25948481 | 2.4344158 | 21 | 6 27.5 | 20.0 |
| 106925 2000 $YS_{58}$ | 16.0 | X | 114.56549 | 231.01282 | 290.67487 | 6.26864 | 0.0405642 | 0.26263227 | 2.4149269 | 21 | 7 1.6 | 19.1 |
| 106926 2000 $YG_{61}$ | 16.7 | X | 189.28625 | 10.09490 | 145.45327 | 2.76782 | 0.1598053 | 0.26974343 | 2.3722956 | 21 | 9 21.9 | 20.4 |
| 106927 2000 $YV_{61}$ | 16.5 | X | 203.93135 | 256.10204 | 199.17253 | 0.73803 | 0.1472923 | 0.26564548 | 2.3966306 | 21 | 7 18.7 | 20.1 |
| 106928 2000 $YQ_{62}$ | 15.6 | X | 147.87846 | 208.10639 | 292.79297 | 5.94886 | 0.0585776 | 0.26304008 | 2.4124302 | 21 | 7 17.8 | 18.7 |
| 106929 2000 $YV_{62}$ | 16.0 | X | 290.62648 | 7.53772 | 130.90741 | 4.80697 | 0.0850427 | 0.28185889 | 2.3038183 | 21 | — | — |
| 106930 2000 $YY_{63}$ | 15.1 | X | 257.93503 | 267.27762 | 267.43602 | 0.78878 | 0.1143419 | 0.18576457 | 3.0420111 | 21 | 12 23.6 | 19.1 |
| 106931 2000 $YC_{64}$ | 15.7 | X | 302.08347 | 1.42149 | 205.06197 | 2.20156 | 0.1262076 | 0.24285445 | 2.5443216 | 21 | — | — |
| 106932 2000 $YN_{64}$ | 15.4 | X | 327.76553 | 261.79673 | 115.95083 | 6.84721 | 0.2573981 | 0.22720657 | 2.6598397 | 21 | 9 15.8 | 17.4 |
| 106933 2000 $YY_{64}$ | 16.1 | X | 88.30907 | 83.11942 | 304.17688 | 13.05331 | 0.1747872 | 0.24263364 | 2.5458650 | 21 | — | — |
| 106934 2000 $YJ_{65}$ | 15.1 | X | 306.48985 | 324.01128 | 5.07524 | 1.27526 | 0.1287974 | 0.17441136 | 3.1726308 | 21 | 6 8.0 | 19.2 |
| 106935 2000 $YB_{66}$ | 15.9 | X | 234.86358 | 71.06019 | 304.57726 | 4.84741 | 0.2657318 | 0.26351059 | 2.4095577 | 21 | 4 26.7 | 20.0 |
| 106936 2000 $YF_{66}$ | 16.3 | X | 167.51097 | 351.34144 | 293.05655 | 5.41622 | 0.1754401 | 0.28870575 | 2.2672483 | 21 | — | — |
| 106937 2000 $YV_{66}$ | 16.2 | X | 88.16697 | 227.19139 | 321.37025 | 2.13554 | 0.1741851 | 0.26190084 | 2.4194210 | 21 | 7 24.2 | 19.4 |
| 106938 2000 $YR_{69}$ | 16.2 | X | 193.28418 | 268.83453 | 209.81088 | 2.11555 | 0.1724563 | 0.26901961 | 2.3765489 | 21 | 8 6.4 | 19.9 |
| 106939 2000 $YX_{69}$ | 15.0 | X | 125.51732 | 235.51681 | 93.13542 | 6.34550 | 0.1232662 | 0.24385493 | 2.5373577 | 21 | — | — |
| 106940 2000 $YF_{70}$ | 16.0 | X | 138.77885 | 216.63215 | 245.16525 | 5.55464 | 0.0700723 | 0.30886232 | 2.1675016 | 21 | 5 10.3 | 18.5 |
| 106941 2000 $YR_{70}$ | 16.6 | X | 219.11008 | 294.23631 | 190.44319 | 1.93252 | 0.1718240 | 0.27278309 | 2.3546395 | 21 | 9 9.8 | 20.1 |
| 106942 2000 $YY_{70}$ | 15.0 | X | 239.24748 | 279.71817 | 138.12694 | 2.77006 | 0.1914820 | 0.17327630 | 3.1864707 | 21 | 7 1.9 | 20.1 |
| 106943 2000 $YX_{72}$ | 15.4 | X | 351.81418 | 332.38406 | 118.24139 | 4.71888 | 0.1647740 | 0.23948187 | 2.5681534 | 21 | — | — |
| 106944 2000 $YA_{73}$ | 14.7 | X | 285.17694 | 7.14868 | 83.53482 | 6.73127 | 0.1320375 | 0.18307962 | 3.0716806 | 21 | 10 17.3 | 18.7 |
| 106945 2000 $YN_{75}$ | 17.4 | X | 132.00222 | 177.97746 | 211.60865 | 2.81373 | 0.1948963 | 0.29994118 | 2.2102700 | 21 | 2 7.3 | 20.0 |
| 106946 2000 $YD_{76}$ | 16.3 | X | 357.08948 | 19.41442 | 122.98292 | 6.19761 | 0.2071533 | 0.29244320 | 2.2478899 | 21 | — | — |
| 106947 2000 $YL_{76}$ | 16.3 | X | 291.08064 | 3.28157 | 98.30423 | 2.99268 | 0.1695551 | 0.28025777 | 2.3125845 | 21 | 11 23.6 | 18.0 |
| 106948 2000 $YM_{76}$ | 14.5 | X | 320.45951 | 84.53907 | 262.39694 | 14.66659 | 0.2545005 | 0.17693975 | 3.1423347 | 21 | 7 4.4 | 18.2 |
| 106949 2000 $YO_{76}$ | 16.8 | X | 172.24860 | 184.50635 | 235.08561 | 1.54724 | 0.1654760 | 0.26070806 | 2.4267949 | 21 | 5 2.1 | 20.6 |
| 106950 2000 $YW_{76}$ | 16.1 | X | 20.33566 | 13.27239 | 97.94827 | 7.32832 | 0.0905911 | 0.29345946 | 2.2426972 | 21 | — | — |
| 106951 2000 $YQ_{77}$ | 16.3 | X | 63.14386 | 254.15858 | 193.40161 | 3.74389 | 0.1097858 | 0.29610604 | 2.2293138 | 21 | — | — |
| 106952 2000 $YW_{77}$ | 15.1 | X | 226.83982 | 115.67671 | 295.18822 | 1.53411 | 0.1018336 | 0.17021104 | 3.2246127 | 21 | 6 18.9 | 19.9 |
| 106953 2000 $YL_{78}$ | 15.5 | X | 317.90820 | 11.43922 | 82.69011 | 5.20186 | 0.0944482 | 0.23528237 | 2.5986221 | 21 | 12 24.1 | 18.2 |
| 106954 2000 $YS_{78}$ | 14.1 | X | 215.46221 | 112.82338 | 88.98808 | 13.14775 | 0.0493038 | 0.18767902 | 3.0212887 | 21 | 12 15.2 | 18.4 |
| 106955 2000 $YY_{78}$ | 16.1 | X | 251.54672 | 24.85789 | 94.32566 | 7.64783 | 0.1484642 | 0.27659808 | 2.3329384 | 21 | 10 19.6 | 19.0 |
| 106956 2000 $YZ_{78}$ | 16.3 | X | 228.31309 | 165.75419 | 244.15132 | 1.60798 | 0.1744102 | 0.26698655 | 2.3885984 | 21 | 6 11.6 | 20.0 |
| 106957 2000 $YJ_{79}$ | 15.2 | X | 269.20321 | 158.93397 | 280.43195 | 8.87355 | 0.0859167 | 0.22661535 | 2.6644639 | 21 | 9 13.9 | 18.8 |
| 106958 2000 $YN_{79}$ | 16.3 | X | 160.26095 | 276.34471 | 79.61305 | 4.83305 | 0.2219518 | 0.30013695 | 2.2093087 | 21 | 1 31.2 | 19.5 |
| 106959 2000 $YR_{79}$ | 15.8 | X | 302.92960 | 231.75920 | 259.91770 | 0.86110 | 0.2178863 | 0.23635731 | 2.5907372 | 21 | — | — |
| 106960 2000 $YU_{79}$ | 15.7 | X | 45.40799 | 129.98521 | 266.28188 | 2.78289 | 0.1036973 | 0.24017069 | 2.5632406 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 106961 2000 $YZ_{79}$ | 14.8 | X | 6.19502 | 215.66997 | 138.24971 | 2.29287 | 0.2015846 | 0.18300495 | 3.0725161 | 21 | 10 29.2 | 18.1 |
| 106962 2000 $YO_{80}$ | 16.3 | X | 57.79634 | 116.54314 | 268.75861 | 2.31293 | 0.2389721 | 0.29001782 | 2.2604050 | 21 | — | — |
| 106963 2000 $YC_{81}$ | 15.8 | X | 6.98533 | 292.22866 | 163.16301 | 2.68780 | 0.1274691 | 0.24235644 | 2.5478059 | 21 | — | — |
| 106964 2000 $YJ_{82}$ | 16.8 | X | 349.62966 | 193.66605 | 248.08667 | 1.32811 | 0.1215793 | 0.28612606 | 2.2808555 | 21 | — | — |
| 106965 2000 $YR_{84}$ | 16.3 | X | 246.03565 | 305.73289 | 136.85458 | 2.40970 | 0.1776396 | 0.27156737 | 2.3616615 | 21 | 8 13.8 | 19.7 |
| 106966 2000 $YF_{85}$ | 16.2 | X | 220.20317 | 298.43933 | 129.64312 | 2.73165 | 0.1792795 | 0.26702153 | 2.3883897 | 21 | 6 27.2 | 19.8 |
| 106967 2000 $YK_{85}$ | 16.3 | X | 181.97082 | 348.88737 | 132.29638 | 3.01522 | 0.1003017 | 0.26691919 | 2.3890002 | 21 | 7 31.9 | 19.8 |
| 106968 2000 $YT_{86}$ | 16.2 | X | 167.49400 | 31.50038 | 140.64918 | 0.90786 | 0.1476588 | 0.27085005 | 2.3658294 | 21 | 9 22.2 | 19.9 |
| 106969 2000 $YB_{87}$ | 14.5 | X | 206.94267 | 156.60903 | 298.75057 | 3.75070 | 0.1165927 | 0.17118040 | 3.2124277 | 21 | 7 22.2 | 19.5 |
| 106970 2000 $YU_{89}$ | 16.3 | X | 259.07720 | 237.58186 | 153.65089 | 1.60308 | 0.1879237 | 0.26766258 | 2.3845747 | 21 | 6 17.9 | 19.5 |
| 106971 2000 $YB_{90}$ | 14.2 | X | 261.72215 | 100.40390 | 284.50269 | 20.62593 | 0.0967034 | 0.17016764 | 3.2251610 | 21 | 6 27.1 | 18.8 |
| 106972 2000 $YN_{90}$ | 16.3 | X | 305.98190 | 251.37545 | 137.81582 | 2.90085 | 0.2190742 | 0.27366673 | 2.3495681 | 21 | 8 21.0 | 18.3 |
| 106973 2000 $YR_{90}$ | 16.0 | X | 166.95543 | 204.50675 | 276.13339 | 5.51896 | 0.0928078 | 0.26436576 | 2.4043586 | 21 | 7 13.9 | 19.5 |
| 106974 2000 $YW_{90}$ | 16.6 | X | 247.95583 | 240.45237 | 218.31319 | 0.84344 | 0.1293654 | 0.27207915 | 2.3586991 | 21 | 9 14.2 | 19.4 |
| 106975 2000 $YW_{91}$ | 16.3 | X | 317.59754 | 26.05100 | 340.62813 | 1.65507 | 0.2110056 | 0.27238629 | 2.3569257 | 21 | 8 10.9 | 18.1 |
| 106976 2000 $YP_{92}$ | 16.1 | X | 25.60229 | 191.80195 | 228.14191 | 5.30406 | 0.0856210 | 0.28757339 | 2.2731962 | 21 | — | — |
| 106977 2000 $YG_{93}$ | 16.1 | X | 278.81059 | 307.84037 | 99.04446 | 5.82713 | 0.1589045 | 0.27262931 | 2.3555248 | 21 | 8 11.7 | 18.9 |
| 106978 2000 $YO_{94}$ | 16.5 | X | 145.80568 | 49.15315 | 112.60390 | 4.18852 | 0.1199161 | 0.26535476 | 2.3983807 | 21 | 8 17.4 | 19.9 |
| 106979 2000 $YV_{94}$ | 16.0 | X | 258.43545 | 285.17750 | 107.30892 | 3.70367 | 0.2193777 | 0.26855959 | 2.3792620 | 21 | 6 15.1 | 19.3 |
| 106980 2000 $YM_{96}$ | 15.6 | X | 48.11396 | 104.47696 | 269.37756 | 3.11400 | 0.1858415 | 0.28429045 | 2.2906630 | 21 | — | — |
| 106981 2000 $YU_{96}$ | 15.9 | X | 10.37508 | 271.35053 | 104.72759 | 2.20747 | 0.1614186 | 0.27921255 | 2.3183523 | 21 | 12 23.6 | 18.1 |
| 106982 2000 $YJ_{97}$ | 16.4 | X | 261.31395 | 110.17529 | 305.69112 | 1.31141 | 0.1913141 | 0.26945209 | 2.3740052 | 21 | 7 24.3 | 19.7 |
| 106983 2000 $YC_{98}$ | 15.9 | X | 114.41881 | 61.06776 | 96.36713 | 3.20689 | 0.1441511 | 0.25946551 | 2.4345365 | 21 | 7 8.9 | 19.2 |
| 106984 2000 $YJ_{98}$ | 16.4 | X | 4.82661 | 91.09705 | 338.03592 | 0.56074 | 0.1793647 | 0.28444997 | 2.2898065 | 21 | — | — |
| 106985 2000 $YD_{99}$ | 16.0 | X | 328.89967 | 70.54385 | 109.57574 | 7.47545 | 0.0203222 | 0.29260167 | 2.2470782 | 21 | — | — |
| 106986 2000 $YC_{100}$ | 16.1 | X | 115.25481 | 334.48878 | 105.60050 | 7.32701 | 0.0812836 | 0.29977498 | 2.2110868 | 21 | 3 14.2 | 18.7 |
| 106987 2000 $YG_{100}$ | 15.8 | X | 55.90906 | 256.06134 | 207.33825 | 12.52858 | 0.1578028 | 0.24585397 | 2.5235848 | 21 | 1 22.5 | 18.6 |
| 106988 2000 $YE_{101}$ | 14.7 | X | 102.84336 | 268.77999 | 83.24598 | 18.10416 | 0.3790680 | 0.24126303 | 2.5554979 | 21 | — | — |
| 106989 2000 $YN_{102}$ | 14.1 | X | 332.91544 | 106.90967 | 274.56957 | 18.12828 | 0.2805346 | 0.17933205 | 3.1143262 | 21 | 9 7.7 | 17.5 |
| 106990 2000 $YX_{102}$ | 15.9 | X | 267.26608 | 274.75824 | 171.39767 | 6.23616 | 0.1922272 | 0.27307798 | 2.3529440 | 21 | 9 13.4 | 18.4 |
| 106991 2000 $YL_{103}$ | 15.6 | X | 113.59201 | 131.11595 | 236.89271 | 7.21087 | 0.1659028 | 0.29225444 | 2.2488576 | 21 | — | — |
| 106992 2000 $YT_{103}$ | 15.5 | X | 298.66930 | 299.80457 | 134.05365 | 15.43638 | 0.1196433 | 0.22821270 | 2.6520162 | 21 | 10 28.4 | 18.9 |
| 106993 2000 $YC_{106}$ | 15.3 | X | 179.27925 | 8.18665 | 106.72677 | 8.17179 | 0.1787172 | 0.26023957 | 2.4297066 | 21 | 7 20.2 | 19.2 |
| 106994 2000 $YJ_{106}$ | 15.9 | X | 42.46600 | 193.82887 | 289.23303 | 5.09178 | 0.1074064 | 0.29832664 | 2.2182374 | 21 | 1 11.3 | 17.7 |
| 106995 2000 $YO_{107}$ | 15.7 | X | 219.71662 | 353.00230 | 62.98575 | 3.20849 | 0.1664311 | 0.26539296 | 2.3981506 | 21 | 6 11.4 | 19.4 |
| 106996 2000 $YP_{107}$ | 16.6 | X | 218.24125 | 56.95149 | 58.43767 | 2.29603 | 0.1361466 | 0.27052643 | 2.3677159 | 21 | 9 1.5 | 20.0 |
| 106997 2000 $YR_{108}$ | 16.1 | X | 246.88195 | 201.31238 | 328.36051 | 3.31231 | 0.0921290 | 0.28097984 | 2.3086208 | 21 | 12 28.1 | 18.7 |
| 106998 2000 $YA_{109}$ | 15.7 | X | 85.17158 | 243.14512 | 95.19351 | 7.92980 | 0.1481980 | 0.28462398 | 2.2888731 | 21 | — | — |
| 106999 2000 $YG_{109}$ | 16.0 | X | 102.08332 | 27.09967 | 45.92540 | 2.20450 | 0.1066345 | 0.29850081 | 2.2173744 | 21 | 2 13.8 | 18.3 |
| 107000 2000 $YU_{109}$ | 16.9 | X | 233.17636 | 73.78541 | 11.27459 | 1.65783 | 0.0889803 | 0.26874414 | 2.3781727 | 21 | 8 13.4 | 20.1 |
| 107001 2000 $YW_{109}$ | 16.7 | X | 189.17883 | 143.34661 | 340.99714 | 1.87944 | 0.1573058 | 0.26676385 | 2.3899275 | 21 | 8 11.6 | 20.4 |
| 107002 2000 $YY_{109}$ | 15.9 | X | 94.35424 | 116.92163 | 90.79315 | 8.09731 | 0.0669466 | 0.26497881 | 2.4006488 | 21 | 8 14.8 | 19.0 |
| 107003 2000 $YS_{110}$ | 16.9 | X | 80.62019 | 29.76394 | 41.37448 | 2.30352 | 0.1845326 | 0.29578960 | 2.2309035 | 21 | 1 14.8 | 18.5 |
| 107004 2000 $YC_{112}$ | 12.6 | X | 287.49590 | 356.00285 | 95.90469 | 13.67545 | 0.1082083 | 0.08474801 | 5.1331393 | 21 | 10 15.6 | 19.4 |
| 107005 2000 $YE_{112}$ | 16.6 | X | 317.69446 | 352.83796 | 81.81803 | 6.73765 | 0.0849840 | 0.27887696 | 2.3202118 | 21 | 12 8.6 | 18.9 |
| 107006 2000 $YH_{112}$ | 16.9 | X | 255.81840 | 107.79257 | 347.10715 | 3.40977 | 0.1438126 | 0.27283488 | 2.3543415 | 21 | 9 17.3 | 19.7 |
| 107007 2000 $YL_{112}$ | 14.5 | X | 146.95746 | 275.37799 | 314.19150 | 10.46126 | 0.1489811 | 0.22560304 | 2.6724284 | 21 | 11 4.7 | 19.0 |
| 107008 2000 $YM_{112}$ | 16.6 | X | 281.65328 | 48.70806 | 6.37567 | 3.00652 | 0.1904550 | 0.27259315 | 2.3557331 | 21 | 8 22.3 | 19.3 |
| 107009 2000 $YA_{113}$ | 16.1 | X | 244.38380 | 33.18136 | 69.97596 | 3.59049 | 0.1319808 | 0.27193973 | 2.3595052 | 21 | 9 17.7 | 19.1 |
| 107010 2000 $YD_{113}$ | 15.5 | X | 290.92606 | 298.35607 | 92.27672 | 4.90228 | 0.1275321 | 0.22179758 | 2.7029096 | 21 | 8 9.3 | 18.8 |
| 107011 2000 $YQ_{113}$ | 14.9 | X | 268.79138 | 339.77924 | 91.12591 | 6.42653 | 0.1428584 | 0.17454504 | 3.1710107 | 21 | 8 28.2 | 19.4 |
| 107012 2000 $YS_{113}$ | 16.2 | X | 312.31864 | 351.64637 | 34.18812 | 2.97565 | 0.2070645 | 0.27360855 | 2.3499012 | 21 | 9 2.3 | 18.1 |
| 107013 2000 $YG_{114}$ | 15.5 | X | 196.75976 | 336.64385 | 73.43994 | 5.40748 | 0.1010339 | 0.21255322 | 2.7807221 | 21 | 5 16.7 | 19.6 |
| 107014 2000 $YJ_{114}$ | 16.7 | X | 283.46907 | 112.38282 | 74.41487 | 4.61320 | 0.2220835 | 0.28591034 | 2.2820026 | 21 | — | — |
| 107015 2000 $YQ_{114}$ | 16.8 | X | 37.58984 | 329.37414 | 83.84397 | 3.56788 | 0.1266403 | 0.28751268 | 2.2735162 | 21 | — | — |
| 107016 2000 $YK_{115}$ | 16.3 | X | 273.18993 | 9.20817 | 20.14708 | 1.58764 | 0.1927402 | 0.26796270 | 2.3827939 | 21 | 7 2.1 | 19.4 |
| 107017 2000 $YQ_{115}$ | 15.8 | X | 217.35083 | 162.62816 | 340.28339 | 2.09944 | 0.1576150 | 0.27172833 | 2.3607288 | 21 | 10 3.2 | 19.0 |
| 107018 2000 $YW_{115}$ | 16.2 | X | 210.35506 | 137.50362 | 37.39932 | 2.76819 | 0.1442503 | 0.27428166 | 2.3460551 | 21 | 11 8.5 | 19.5 |
| 107019 2000 $YF_{116}$ | 16.1 | X | 351.30853 | 48.79243 | 350.47379 | 2.45108 | 0.1736679 | 0.27876892 | 2.3208112 | 21 | 12 26.2 | 18.1 |
| 107020 2000 $YJ_{116}$ | 15.7 | X | 241.13624 | 65.22539 | 335.50905 | 2.51444 | 0.1901364 | 0.26444874 | 2.4038556 | 21 | 6 10.8 | 19.4 |
| 107021 2000 $YK_{116}$ | 16.0 | X | 127.31632 | 74.84702 | 85.73851 | 3.19303 | 0.1483714 | 0.26096931 | 2.4251750 | 21 | 7 28.5 | 19.5 |
| 107022 2000 $YL_{116}$ | 15.8 | X | 276.87632 | 38.07484 | 60.17181 | 2.82780 | 0.1658651 | 0.22697803 | 2.6616248 | 21 | 10 14.2 | 18.9 |
| 107023 2000 $YV_{116}$ | 15.7 | X | 304.92339 | 106.99211 | 336.12771 | 5.21007 | 0.0344880 | 0.27595912 | 2.3365382 | 21 | 11 29.0 | 18.5 |
| 107024 2000 $YR_{117}$ | 15.4 | X | 356.37636 | 345.79220 | 107.56837 | 8.50616 | 0.1600629 | 0.23752215 | 2.5822600 | 21 | — | — |
| 107025 2000 $YB_{118}$ | 15.9 | X | 311.66345 | 83.32271 | 328.26476 | 6.16280 | 0.1005481 | 0.27381072 | 2.3487444 | 21 | 10 19.3 | 18.4 |
| 107026 2000 $YQ_{118}$ | 16.1 | X | 254.43133 | 198.02582 | 338.79812 | 6.85975 | 0.0420775 | 0.28352392 | 2.2947898 | 21 | — | — |
| 107027 2000 $YK_{119}$ | 16.3 | X | 229.18511 | 103.21531 | 11.25457 | 5.61718 | 0.1440914 | 0.27108822 | 2.3644436 | 21 | 9 12.1 | 19.6 |
| 107028 2000 $YH_{121}$ | 15.2 | X | 310.67134 | 217.58021 | 284.65031 | 3.44959 | 0.1840930 | 0.23523284 | 2.5989869 | 21 | — | — |
| 107029 2000 $YL_{121}$ | 13.9 | X | 275.05976 | 256.15931 | 107.94279 | 26.12255 | 0.3245523 | 0.17732574 | 3.1377731 | 21 | 5 25.8 | 19.2 |
| 107030 2000 $YR_{121}$ | 14.4 | X | 243.24213 | 242.52550 | 131.25481 | 15.20265 | 0.1684916 | 0.17266446 | 3.1939938 | 21 | 5 19.9 | 19.7 |
| 107031 2000 $YL_{123}$ | 15.9 | X | 247.31855 | 151.28924 | 278.77247 | 1.38078 | 0.1916277 | 0.26863410 | 2.3788220 | 21 | 7 26.9 | 19.1 |
| 107032 2000 $YB_{124}$ | 15.5 | X | 44.34808 | 233.44283 | 263.98663 | 13.56901 | 0.1129322 | 0.25361755 | 2.4718181 | 21 | 2 11.3 | 18.4 |
| 107033 2000 $YD_{124}$ | 15.7 | X | 233.25225 | 309.36435 | 62.45751 | 8.74943 | 0.1736284 | 0.26530403 | 2.3986864 | 21 | 4 29.5 | 19.4 |
| 107034 2000 $YH_{126}$ | 15.9 | X | 331.33927 | 104.02210 | 44.65275 | 9.52122 | 0.1036107 | 0.23857650 | 2.5746465 | 21 | — | — |
| 107035 2000 $YS_{126}$ | 15.7 | X | 44.68199 | 102.35586 | 349.32476 | 5.35327 | 0.2485830 | 0.24449965 | 2.5328952 | 21 | — | — |
| 107036 2000 $YW_{126}$ | 15.8 | X | 190.01698 | 47.23471 | 79.95677 | 6.74780 | 0.0877557 | 0.26624905 | 2.3930072 | 21 | 8 21.7 | 19.3 |
| 107037 2000 $YY_{126}$ | 15.6 | X | 293.05483 | 28.50292 | 44.39501 | 4.22732 | 0.2335496 | 0.22715189 | 2.6602665 | 21 | 9 25.1 | 18.4 |
| 107038 2000 $YO_{127}$ | 15.8 | X | 64.51907 | 7.91217 | 79.16672 | 4.60112 | 0.0751081 | 0.24537879 | 2.5268417 | 21 | 1 13.4 | 18.7 |
| 107039 2000 $YR_{127}$ | 16.0 | X | 21.61872 | 168.35829 | 311.91269 | 12.74905 | 0.1922522 | 0.24370927 | 2.5383686 | 21 | — | — |
| 107040 2000 $YN_{128}$ | 16.2 | X | 119.40025 | 237.19699 | 327.11853 | 6.46479 | 0.1421100 | 0.26547481 | 2.3976576 | 21 | 9 13.6 | 19.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107041 2000 $YR_{128}$ | 15.9 | X | 348.01828 | 166.56993 | 352.99287 | 3.93710 | 0.1908715 | 0.24233098 | 2.5479844 | 21 | — | — |
| 107042 2000 $YD_{129}$ | 15.9 | X | 20.92508 | 139.62586 | 319.57822 | 13.07826 | 0.1319591 | 0.24113560 | 2.5563981 | 21 | — | — |
| 107043 2000 $YE_{129}$ | 16.1 | X | 15.34557 | 87.92374 | 340.84376 | 4.25350 | 0.1452002 | 0.28525265 | 2.2855090 | 21 | — | — |
| 107044 2000 $YP_{131}$ | 16.7 | X | 181.93095 | 295.74226 | 151.27953 | 2.42019 | 0.1842729 | 0.26228698 | 2.4170459 | 21 | 6 16.2 | 20.5 |
| 107045 2000 $YS_{133}$ | 16.6 | X | 280.93715 | 26.61449 | 356.13481 | 2.21839 | 0.1220431 | 0.26775295 | 2.3840382 | 21 | 7 15.4 | 19.3 |
| 107046 2000 $YF_{136}$ | 16.5 | X | 255.78540 | 107.20163 | 101.18439 | 9.28210 | 0.1680952 | 0.28389871 | 2.2927697 | 21 | — | — |
| 107047 2000 $YL_{138}$ | 16.0 | X | 325.26830 | 289.09476 | 72.62979 | 3.25688 | 0.2200540 | 0.27102952 | 2.3647849 | 21 | 8 21.9 | 17.6 |
| 107048 2000 $YR_{138}$ | 16.3 | X | 293.64364 | 105.36505 | 98.09791 | 7.26232 | 0.1059550 | 0.28904832 | 2.2654566 | 21 | — | — |
| 107049 2000 $YZ_{139}$ | 15.1 | X | 240.59052 | 86.91351 | 31.63164 | 14.98085 | 0.1703114 | 0.22382659 | 2.6865500 | 21 | 9 27.3 | 19.1 |
| 107050 2000 $YM_{142}$ | 15.5 | X | 323.86949 | 283.63627 | 258.11307 | 9.37905 | 0.2157435 | 0.24104553 | 2.5570349 | 21 | — | — |
| 107051 2001 $AD$ | 17.4 | X | 265.01161 | 63.20428 | 41.29280 | 1.60872 | 0.2067860 | 0.27448051 | 2.3449219 | 21 | 10 4.6 | 19.9 |
| 107052 Aquincum | 17.0 | X | 261.64322 | 338.38456 | 105.77004 | 5.49601 | 0.1326906 | 0.27239788 | 2.3568588 | 21 | 9 15.2 | 19.8 |
| 107053 2001 $AZ_{1}$ | 15.5 | X | 301.31559 | 58.36603 | 336.83249 | 4.64627 | 0.1841459 | 0.27353949 | 2.3502967 | 21 | 8 27.2 | 17.5 |
| 107054 Daniela | 15.9 | X | 126.80076 | 19.81525 | 339.73075 | 5.05548 | 0.1802074 | 0.29156147 | 2.2524196 | 21 | — | — |
| 107055 2001 $AC_{3}$ | 16.2 | X | 160.49444 | 307.61232 | 104.29501 | 7.13639 | 0.1234567 | 0.25419531 | 2.4680713 | 21 | 4 12.2 | 19.9 |
| 107056 2001 $AC_{4}$ | 15.7 | X | 189.88991 | 280.47593 | 179.01622 | 4.20905 | 0.1163408 | 0.26473039 | 2.4021504 | 21 | 7 10.4 | 19.3 |
| 107057 2001 $AW_{4}$ | 16.1 | X | 145.95823 | 228.26383 | 260.80540 | 3.41575 | 0.1879421 | 0.26109360 | 2.4244053 | 21 | 7 7.5 | 19.8 |
| 107058 2001 $AW_{6}$ | 17.0 | X | 235.98332 | 278.71114 | 216.59771 | 1.76839 | 0.1190602 | 0.27469849 | 2.3436812 | 21 | 10 21.0 | 20.0 |
| 107059 2001 $AK_{8}$ | 16.2 | X | 226.49493 | 346.51849 | 105.98234 | 5.97115 | 0.1342446 | 0.26926235 | 2.3751204 | 21 | 8 10.9 | 19.6 |
| 107060 2001 $AB_{9}$ | 16.3 | X | 254.47840 | 173.46302 | 258.03542 | 7.05290 | 0.0671086 | 0.26950402 | 2.3737003 | 21 | 8 21.7 | 19.5 |
| 107061 2001 $AR_{9}$ | 16.3 | X | 123.71097 | 346.06596 | 205.77335 | 4.43282 | 0.1646356 | 0.26495581 | 2.4007877 | 21 | 9 3.5 | 19.9 |
| 107062 2001 $AP_{10}$ | 16.2 | X | 218.25376 | 304.03637 | 184.93735 | 3.90765 | 0.1204108 | 0.27098512 | 2.3650433 | 21 | 9 19.9 | 19.5 |
| 107063 2001 $AD_{11}$ | 16.7 | X | 174.13451 | 246.50528 | 222.48724 | 2.95331 | 0.1571393 | 0.26302890 | 2.4124986 | 21 | 7 6.9 | 20.4 |
| 107064 2001 $AH_{12}$ | 15.9 | X | 50.36656 | 232.87120 | 242.02583 | 5.16844 | 0.0739718 | 0.24678691 | 2.5172207 | 21 | 1 26.4 | 18.7 |
| 107065 2001 $AB_{13}$ | 15.5 | X | 308.82884 | 207.21594 | 274.54111 | 9.57280 | 0.1225774 | 0.23396335 | 2.6083798 | 21 | — | — |
| 107066 2001 $AC_{13}$ | 16.3 | X | 237.36793 | 222.49418 | 254.87733 | 5.19297 | 0.1565980 | 0.27181712 | 2.3602147 | 21 | 9 19.9 | 19.6 |
| 107067 2001 $AE_{15}$ | 15.9 | X | 333.01720 | 274.56389 | 177.98771 | 4.47838 | 0.1256870 | 0.23383616 | 2.6093256 | 21 | — | — |
| 107068 2001 $AP_{15}$ | 15.9 | X | 12.75900 | 228.40938 | 247.30989 | 4.95605 | 0.1795142 | 0.24135027 | 2.5548820 | 21 | — | — |
| 107069 2001 $AU_{15}$ | 15.9 | X | 183.83522 | 4.58447 | 139.90801 | 10.79973 | 0.1711594 | 0.26615364 | 2.3935791 | 21 | 9 2.3 | 19.7 |
| 107070 2001 $AH_{16}$ | 15.9 | X | 146.35849 | 249.86143 | 268.55950 | 4.36571 | 0.1379258 | 0.26368083 | 2.4085205 | 21 | 8 11.8 | 19.6 |
| 107071 2001 $AJ_{17}$ | 15.3 | X | 283.32938 | 196.99716 | 291.11456 | 4.64748 | 0.1984064 | 0.23006532 | 2.6377600 | 21 | 11 28.4 | 18.2 |
| 107072 2001 $AL_{18}$ | 14.8 | X | 285.35933 | 46.97947 | 161.48086 | 22.58347 | 0.1905009 | 0.28337448 | 2.2955965 | 21 | — | — |
| 107073 2001 $AZ_{18}$ | 16.7 | X | 243.82819 | 276.31476 | 214.50574 | 1.44736 | 0.1477353 | 0.27452789 | 2.3446521 | 21 | 10 20.8 | 19.7 |
| 107074 Ansonsylva | 16.3 | X | 219.50065 | 333.83201 | 67.78967 | 2.45451 | 0.1266915 | 0.30818646 | 2.1706694 | 21 | 5 23.7 | 19.4 |
| 107075 2001 $AW_{20}$ | 16.6 | X | 315.61600 | 269.62537 | 202.81646 | 6.22300 | 0.1735128 | 0.28436242 | 2.2902765 | 21 | — | — |
| 107076 2001 $AM_{21}$ | 15.6 | X | 110.76445 | 195.69025 | 345.13246 | 4.00473 | 0.0136535 | 0.21668109 | 2.7452930 | 21 | 7 19.6 | 19.3 |
| 107077 2001 $AO_{21}$ | 15.7 | X | 27.39676 | 65.92029 | 344.33952 | 3.98430 | 0.1265733 | 0.23826974 | 2.5768558 | 21 | — | — |
| 107078 2001 $AF_{23}$ | 16.5 | X | 15.91574 | 11.90252 | 150.09674 | 6.54340 | 0.0341535 | 0.29671658 | 2.2262547 | 21 | 1 28.6 | 18.8 |
| 107079 2001 $AR_{23}$ | 15.2 | X | 246.96422 | 225.78331 | 301.84484 | 10.42909 | 0.1298829 | 0.22989685 | 2.6390485 | 21 | 12 7.2 | 18.8 |
| 107080 2001 $AY_{23}$ | 15.2 | X | 288.07869 | 88.48822 | 63.21207 | 14.65894 | 0.0534165 | 0.23497519 | 2.6008863 | 21 | — | — |
| 107081 2001 $AC_{24}$ | 16.2 | X | 137.09259 | 282.86846 | 261.36613 | 2.72508 | 0.0597549 | 0.31484541 | 2.1399542 | 21 | 9 4.9 | 18.8 |
| 107082 2001 $AK_{24}$ | 16.3 | X | 306.10160 | 118.11621 | 69.18234 | 7.01080 | 0.1175037 | 0.29068902 | 2.2569242 | 21 | — | — |
| 107083 2001 $AP_{24}$ | 16.0 | X | 317.23372 | 209.60417 | 87.93970 | 8.95112 | 0.0054850 | 0.25901493 | 2.4373591 | 21 | 5 26.2 | 19.0 |
| 107084 2001 $AQ_{24}$ | 16.0 | X | 121.46344 | 339.13049 | 32.03082 | 4.10671 | 0.1844494 | 0.29355500 | 2.2422105 | 21 | — | — |
| 107085 2001 $AT_{24}$ | 15.7 | X | 2.91876 | 321.15007 | 80.13459 | 7.79636 | 0.1072443 | 0.28055492 | 2.3109513 | 21 | — | — |
| 107086 2001 $AE_{25}$ | 15.4 | X | 269.98804 | 63.21567 | 117.95165 | 11.00196 | 0.2129639 | 0.23283258 | 2.6168182 | 21 | — | — |
| 107087 2001 $AK_{25}$ | 16.2 | X | 250.37668 | 44.03755 | 107.99856 | 7.55597 | 0.1337175 | 0.27596174 | 2.3365234 | 21 | 12 2.1 | 18.9 |
| 107088 2001 $AQ_{25}$ | 16.2 | X | 207.21460 | 328.46849 | 59.50521 | 6.68913 | 0.1607866 | 0.30838221 | 2.1697507 | 21 | 4 22.9 | 19.5 |
| 107089 2001 $AA_{28}$ | 16.7 | X | 41.11752 | 88.41528 | 27.63494 | 6.14269 | 0.1044115 | 0.29549835 | 2.2323691 | 21 | — | — |
| 107090 2001 $AG_{28}$ | 15.6 | X | 263.54299 | 34.44930 | 38.30010 | 10.66196 | 0.1145993 | 0.27005584 | 2.3704657 | 21 | 9 7.5 | 18.6 |
| 107091 2001 $AW_{28}$ | 16.1 | X | 295.11998 | 10.92599 | 42.71919 | 4.26862 | 0.1802780 | 0.27602675 | 2.3361565 | 21 | 9 16.5 | 18.2 |
| 107092 2001 $AD_{29}$ | 16.4 | X | 290.71631 | 90.43543 | 332.02132 | 4.06520 | 0.1150478 | 0.27572111 | 2.3378826 | 21 | 9 28.5 | 18.8 |
| 107093 2001 $AG_{29}$ | 16.0 | X | 207.09775 | 17.90556 | 38.91119 | 2.99009 | 0.2036565 | 0.26490647 | 2.4010858 | 21 | 5 29.9 | 19.9 |
| 107094 2001 $AL_{29}$ | 16.7 | X | 311.76846 | 46.29616 | 58.63066 | 2.84188 | 0.1749004 | 0.28295188 | 2.2978817 | 21 | — | — |
| 107095 2001 $AA_{30}$ | 16.0 | X | 184.68030 | 351.60525 | 42.68732 | 5.72859 | 0.2199562 | 0.25954825 | 2.4340191 | 21 | 4 14.3 | 20.1 |
| 107096 2001 $AC_{30}$ | 15.7 | X | 272.35878 | 84.73609 | 63.94310 | 5.14196 | 0.1060682 | 0.28258466 | 2.2998720 | 21 | — | — |
| 107097 2001 $AJ_{30}$ | 16.2 | X | 175.44274 | 94.57601 | 358.30133 | 2.21983 | 0.1697517 | 0.26338212 | 2.4103412 | 21 | 6 17.5 | 19.9 |
| 107098 2001 $AE_{31}$ | 15.5 | X | 48.79917 | 245.28674 | 310.94235 | 5.39740 | 0.1344991 | 0.25785778 | 2.4446455 | 21 | 5 26.3 | 18.0 |
| 107099 2001 $AU_{31}$ | 16.3 | X | 342.83616 | 78.39912 | 342.10327 | 4.26678 | 0.1224039 | 0.28200137 | 2.3030422 | 21 | — | — |
| 107100 2001 $AY_{31}$ | 16.1 | X | 273.02247 | 38.62267 | 65.00287 | 6.83494 | 0.0500824 | 0.27719155 | 2.3296073 | 21 | 11 10.9 | 18.8 |
| 107101 2001 $AM_{32}$ | 15.8 | X | 313.63515 | 32.10992 | 41.39138 | 4.29824 | 0.1511175 | 0.23148287 | 2.6269803 | 21 | 11 14.2 | 18.3 |
| 107102 2001 $AV_{33}$ | 15.9 | X | 4.65155 | 346.59209 | 67.82984 | 6.48262 | 0.1456290 | 0.28345930 | 2.2951386 | 21 | — | — |
| 107103 2001 $AL_{34}$ | 16.0 | X | 166.85870 | 358.23827 | 19.44142 | 4.68033 | 0.1643435 | 0.30027615 | 2.2086259 | 21 | 3 1.7 | 19.1 |
| 107104 2001 $AT_{34}$ | 16.0 | X | 343.23370 | 54.58287 | 336.93980 | 4.40075 | 0.1739910 | 0.27855022 | 2.3220258 | 21 | 11 26.3 | 17.9 |
| 107105 2001 $AB_{35}$ | 15.7 | X | 278.20929 | 341.75941 | 58.26747 | 7.35202 | 0.1845286 | 0.27155370 | 2.3617408 | 21 | 7 27.8 | 18.6 |
| 107106 2001 $AW_{35}$ | 16.1 | X | 187.62891 | 158.41005 | 357.29733 | 6.69612 | 0.0692036 | 0.27073071 | 2.3665247 | 21 | 9 24.7 | 19.1 |
| 107107 2001 $AG_{36}$ | 15.6 | X | 120.93103 | 179.37742 | 12.68190 | 6.93864 | 0.1912660 | 0.26414012 | 2.4057277 | 21 | 9 6.5 | 19.3 |
| 107108 2001 $AJ_{36}$ | 15.8 | X | 106.29465 | 34.42092 | 14.79317 | 4.94501 | 0.0724468 | 0.29505053 | 2.2346274 | 21 | 1 12.6 | 18.2 |
| 107109 2001 $AN_{36}$ | 15.6 | X | 7.34553 | 11.84327 | 0.69802 | 6.41550 | 0.1871946 | 0.27873252 | 2.3210133 | 21 | 12 17.4 | 18.0 |
| 107110 2001 $AG_{37}$ | 15.4 | X | 42.06467 | 183.12335 | 104.52693 | 23.08938 | 0.0672592 | 0.26692094 | 2.3889897 | 21 | 10 3.5 | 19.0 |
| 107111 2001 $AJ_{37}$ | 15.2 | X | 249.51953 | 357.16192 | 34.23447 | 9.58241 | 0.2763593 | 0.26585416 | 2.3953763 | 21 | 5 28.4 | 19.1 |
| 107112 2001 $AR_{37}$ | 15.6 | X | 56.96963 | 147.57990 | 49.25775 | 11.72065 | 0.1595810 | 0.25548510 | 2.4597577 | 21 | 6 15.2 | 18.3 |
| 107113 2001 $AS_{37}$ | 15.1 | X | 277.20438 | 36.02655 | 10.53010 | 11.26560 | 0.0899818 | 0.26800379 | 2.3825504 | 21 | 8 23.8 | 18.1 |
| 107114 2001 $AD_{38}$ | 14.6 | X | 155.75229 | 122.76924 | 70.53336 | 13.51559 | 0.1192926 | 0.21970622 | 2.7200349 | 21 | 10 9.9 | 19.1 |
| 107115 2001 $AG_{38}$ | 15.1 | X | 202.52988 | 357.31409 | 39.08957 | 12.95620 | 0.0239979 | 0.25486947 | 2.4637171 | 21 | 5 2.6 | 18.4 |
| 107116 2001 $AB_{39}$ | 14.9 | X | 39.01076 | 229.81772 | 184.34666 | 13.59150 | 0.1424580 | 0.24225107 | 2.5485447 | 21 | — | — |
| 107117 2001 $AC_{39}$ | 15.9 | X | 263.89547 | 255.46874 | 153.83871 | 1.52424 | 0.1803338 | 0.26826754 | 2.3809885 | 21 | 7 19.7 | 19.0 |
| 107118 2001 $AL_{39}$ | 16.4 | X | 155.97491 | 31.26606 | 82.86129 | 3.28994 | 0.1499766 | 0.26048242 | 2.4281962 | 21 | 6 25.9 | 19.9 |
| 107119 2001 $AM_{39}$ | 17.4 | X | 257.18370 | 51.31203 | 61.73030 | 2.45534 | 0.1425483 | 0.27391572 | 2.3481441 | 21 | 10 16.3 | 20.0 |
| 107120 2001 $AP_{39}$ | 16.0 | X | 295.33814 | 250.75549 | 245.82810 | 3.44290 | 0.0261045 | 0.28592684 | 2.2819148 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107121 2001 $AO_{40}$ | 14.7 | X | 29.66108 | 236.95708 | 305.45188 | 13.91401 | 0.0897476 | 0.20395645 | 2.8583216 | 21 | 3 28.4 | 18.5 |
| 107122 2001 $AE_{41}$ | 16.0 | X | 188.33890 | 114.87364 | 313.34631 | 1.81655 | 0.1735116 | 0.26012627 | 2.4304120 | 21 | 5 28.3 | 19.8 |
| 107123 2001 $AX_{42}$ | 15.2 | X | 238.21076 | 345.93065 | 0.90743 | 8.44049 | 0.2334649 | 0.30684393 | 2.1769963 | 21 | 3 24.6 | 18.8 |
| 107124 2001 $AR_{45}$ | 16.2 | X | 130.68495 | 351.51525 | 28.77549 | 5.76899 | 0.1294403 | 0.29528268 | 2.2334560 | 21 | 1 17.4 | 18.8 |
| 107125 2001 $AU_{45}$ | 15.8 | X | 269.10576 | 231.45724 | 12.91555 | 6.64349 | 0.1247347 | 0.24376915 | 2.5379529 | 21 | — | — |
| 107126 2001 $AN_{46}$ | 16.5 | X | 261.24083 | 64.99454 | 29.81958 | 20.69722 | 0.1203763 | 0.36975666 | 1.9224662 | 21 | 10 16.7 | 17.8 |
| 107127 2001 $AX_{46}$ | 15.7 | X | 259.00819 | 95.33647 | 10.76123 | 23.36323 | 0.1716769 | 0.27363008 | 2.3497780 | 21 | 10 3.6 | 18.2 |
| 107128 2001 $AG_{47}$ | 14.7 | X | 220.81898 | 49.80086 | 18.91764 | 23.96165 | 0.2502399 | 0.26491211 | 2.4010517 | 21 | 6 22.7 | 19.3 |
| 107129 2001 $AS_{47}$ | 15.5 | X | 358.11805 | 358.19329 | 82.55548 | 27.18068 | 0.2466908 | 0.28414489 | 2.2914452 | 21 | — | — |
| 107130 2001 $AV_{47}$ | 16.0 | X | 62.91198 | 313.68649 | 73.02880 | 12.31043 | 0.1203061 | 0.28716115 | 2.2753712 | 21 | — | — |
| 107131 2001 $AP_{48}$ | 16.0 | X | 345.29720 | 278.20132 | 335.69450 | 3.71463 | 0.0979799 | 0.30478364 | 2.1867961 | 21 | 4 15.8 | 18.2 |
| 107132 2001 $AA_{49}$ | 16.4 | X | 231.79278 | 41.45830 | 29.37892 | 22.39309 | 0.1073305 | 0.36149656 | 1.9516410 | 21 | 8 1.5 | 19.3 |
| 107133 2001 $AW_{50}$ | 16.5 | X | 83.50289 | 44.05460 | 128.61866 | 1.95748 | 0.1334008 | 0.25806933 | 2.4433093 | 21 | 6 18.6 | 19.4 |
| 107134 2001 $AE_{51}$ | 12.9 | X | 357.52533 | 264.65085 | 119.27397 | 5.63944 | 0.0486701 | 0.08465433 | 5.1369254 | 21 | 10 27.4 | 19.5 |
| 107135 2001 $BH$ | 16.1 | X | 242.98765 | 12.93046 | 56.74837 | 5.52599 | 0.2372463 | 0.26793984 | 2.3829294 | 21 | 7 17.8 | 19.7 |
| 107136 2001 $BQ$ | 15.5 | X | 67.03782 | 133.15026 | 13.74928 | 5.29738 | 0.0937788 | 0.25128727 | 2.4870760 | 21 | 4 10.4 | 18.2 |
| 107137 2001 $BW$ | 15.4 | X | 271.13978 | 186.98855 | 339.36198 | 12.70698 | 0.0985057 | 0.23258411 | 2.6186816 | 21 | — | — |
| 107138 2001 $BP_{3}$ | 15.1 | X | 215.17357 | 180.35310 | 47.85369 | 7.49405 | 0.1176611 | 0.23441824 | 2.6050043 | 21 | — | — |
| 107139 2001 $BB_{4}$ | 16.7 | X | 296.72416 | 87.84501 | 52.11063 | 5.62597 | 0.0912562 | 0.28223326 | 2.3017806 | 21 | — | — |
| 107140 2001 $BC_{5}$ | 15.9 | X | 7.59422 | 17.68760 | 1.80921 | 6.76742 | 0.1564404 | 0.27697980 | 2.3307945 | 21 | 12 22.6 | 18.4 |
| 107141 2001 $BP_{5}$ | 16.8 | X | 235.70775 | 45.92498 | 315.14578 | 17.04656 | 0.0936999 | 0.35421301 | 1.9783041 | 21 | 4 1.9 | 19.8 |
| 107142 2001 $BN_{6}$ | 16.2 | X | 62.16932 | 80.94095 | 62.79708 | 4.91049 | 0.0312450 | 0.30101279 | 2.2050211 | 21 | 3 17.5 | 18.5 |
| 107143 2001 $BW_{6}$ | 16.7 | X | 182.63054 | 102.56107 | 103.35687 | 6.16911 | 0.1826898 | 0.27474757 | 2.3434020 | 21 | 11 18.3 | 20.4 |
| 107144 2001 $BZ_{7}$ | 16.7 | X | 233.59983 | 31.51422 | 50.35682 | 4.57177 | 0.1231664 | 0.26782334 | 2.3836204 | 21 | 8 6.5 | 20.0 |
| 107145 2001 $BA_{8}$ | 15.2 | X | 217.34179 | 33.25891 | 55.45401 | 5.26259 | 0.0865574 | 0.21794597 | 2.7346610 | 21 | 7 29.6 | 19.2 |
| 107146 2001 $BK_{8}$ | 16.4 | X | 179.55000 | 126.87266 | 26.33402 | 3.06332 | 0.1084492 | 0.26802015 | 2.3824534 | 21 | 9 11.4 | 19.9 |
| 107147 2001 $BG_{9}$ | 16.3 | X | 257.93871 | 91.13140 | 10.14613 | 1.98872 | 0.1784553 | 0.27250014 | 2.3562691 | 21 | 9 24.1 | 18.9 |
| 107148 2001 $BR_{10}$ | 15.9 | X | 317.16099 | 306.96020 | 4.80441 | 19.35763 | 0.0656022 | 0.36062063 | 1.9548000 | 21 | 5 22.9 | 18.2 |
| 107149 2001 $BS_{10}$ | 16.5 | X | 347.41201 | 23.01821 | 239.75339 | 0.77539 | 0.0500159 | 0.30691799 | 2.1766461 | 21 | 5 11.1 | 18.6 |
| 107150 2001 $BW_{10}$ | 16.0 | X | 36.43963 | 297.18038 | 304.68020 | 20.26105 | 0.3194055 | 0.30489352 | 2.1862706 | 21 | 8 14.9 | 17.7 |
| 107151 2001 $BU_{12}$ | 14.1 | X | 274.11614 | 9.78539 | 66.34470 | 17.37572 | 0.0814924 | 0.17440603 | 3.1726955 | 21 | 9 27.2 | 18.8 |
| 107152 2001 $BX_{12}$ | 15.8 | X | 218.37680 | 119.41750 | 359.22736 | 12.38556 | 0.1083304 | 0.26871272 | 2.3783580 | 21 | 9 9.7 | 19.1 |
| 107153 2001 $BW_{13}$ | 15.7 | X | 266.00420 | 3.60105 | 147.41221 | 6.52536 | 0.0747605 | 0.27695958 | 2.3309079 | 21 | — | — |
| 107154 2001 $BN_{14}$ | 16.0 | X | 241.97937 | 292.12064 | 157.32229 | 2.76361 | 0.1921225 | 0.26870030 | 2.3784313 | 21 | 8 16.1 | 19.2 |
| 107155 2001 $BO_{14}$ | 15.5 | X | 339.35049 | 26.07929 | 145.49502 | 5.56854 | 0.2269717 | 0.24091236 | 2.5579772 | 21 | — | — |
| 107156 2001 $BF_{15}$ | 15.5 | X | 91.92975 | 280.74260 | 322.94126 | 5.74830 | 0.1028984 | 0.26556482 | 2.3971158 | 21 | 9 30.2 | 18.9 |
| 107157 2001 $BR_{15}$ | 15.8 | X | 15.16589 | 38.73756 | 114.30302 | 3.14712 | 0.1028076 | 0.24434969 | 2.5339314 | 21 | 1 23.0 | 18.6 |
| 107158 2001 $BU_{15}$ | 16.0 | X | 100.61886 | 42.76907 | 132.03923 | 11.69331 | 0.1890854 | 0.25761077 | 2.4462079 | 21 | 7 21.6 | 19.5 |
| 107159 2001 $BP_{18}$ | 16.3 | X | 11.15185 | 328.80878 | 74.45173 | 4.35567 | 0.1030571 | 0.28201333 | 2.3029771 | 21 | — | — |
| 107160 2001 $BV_{18}$ | 16.4 | X | 238.28624 | 98.10035 | 331.83278 | 6.21096 | 0.1088669 | 0.26726881 | 2.3869164 | 21 | 7 27.7 | 19.6 |
| 107161 2001 $BY_{18}$ | 16.3 | X | 144.47643 | 85.40334 | 38.52219 | 2.99678 | 0.1519192 | 0.26047751 | 2.4282267 | 21 | 6 27.4 | 19.9 |
| 107162 2001 $BV_{19}$ | 16.3 | X | 222.60505 | 285.36501 | 204.97351 | 6.61312 | 0.1188338 | 0.27131407 | 2.3631312 | 21 | 9 26.2 | 19.5 |
| 107163 2001 $BZ_{19}$ | 16.5 | X | 175.02879 | 162.54978 | 39.28890 | 3.05590 | 0.1756253 | 0.27270131 | 2.3551102 | 21 | 11 4.8 | 20.1 |
| 107164 2001 $BA_{20}$ | 16.3 | X | 271.47297 | 313.14573 | 74.34730 | 4.04519 | 0.1742263 | 0.26719359 | 2.3873643 | 21 | 6 29.9 | 19.4 |
| 107165 2001 $BM_{20}$ | 16.7 | X | 0.76956 | 50.16283 | 94.79561 | 7.12419 | 0.0686601 | 0.29141047 | 2.2531976 | 21 | — | — |
| 107166 2001 $BK_{21}$ | 16.3 | X | 176.58411 | 137.00480 | 87.04228 | 7.72847 | 0.0694532 | 0.27702223 | 2.3305565 | 21 | 12 12.4 | 19.2 |
| 107167 2001 $BN_{21}$ | 15.8 | X | 26.85839 | 344.13824 | 127.24668 | 5.95043 | 0.1338716 | 0.28998403 | 2.2605806 | 21 | — | — |
| 107168 2001 $BW_{21}$ | 15.9 | X | 6.85894 | 258.49855 | 105.94290 | 6.41651 | 0.2335972 | 0.28130625 | 2.3068346 | 21 | 12 14.3 | 18.0 |
| 107169 2001 $BQ_{22}$ | 15.9 | X | 331.90704 | 72.40298 | 304.77741 | 5.99905 | 0.1332362 | 0.27449120 | 2.3448610 | 21 | 10 3.8 | 18.0 |
| 107170 2001 $BB_{23}$ | 17.0 | X | 181.68138 | 236.54498 | 291.29643 | 3.51658 | 0.1969442 | 0.27038415 | 2.3685464 | 21 | 9 26.2 | 20.8 |
| 107171 2001 $BC_{23}$ | 14.2 | X | 136.96614 | 6.95796 | 296.39664 | 13.78123 | 0.1990673 | 0.18939188 | 3.0030448 | 21 | — | — |
| 107172 2001 $BM_{23}$ | 16.3 | X | 339.82623 | 13.74339 | 127.39669 | 0.92358 | 0.0110320 | 0.28936222 | 2.2638179 | 21 | — | — |
| 107173 2001 $BT_{23}$ | 16.4 | X | 160.69206 | 292.62671 | 263.83478 | 2.07071 | 0.1726764 | 0.27038352 | 2.3685501 | 21 | 10 15.1 | 20.1 |
| 107174 2001 $BY_{23}$ | 16.6 | X | 87.82878 | 20.05815 | 104.87245 | 0.81744 | 0.1470364 | 0.25316260 | 2.4747786 | 21 | 4 20.8 | 19.5 |
| 107175 2001 $BZ_{23}$ | 16.8 | X | 251.62968 | 325.04896 | 189.40980 | 1.58730 | 0.1461185 | 0.27822969 | 2.3238089 | 21 | 12 4.7 | 19.2 |
| 107176 2001 $BA_{24}$ | 16.2 | X | 76.69118 | 347.43970 | 142.95493 | 4.89273 | 0.0384042 | 0.25237644 | 2.4799153 | 21 | 3 27.6 | 19.2 |
| 107177 2001 $BZ_{24}$ | 16.4 | X | 208.22555 | 297.16521 | 150.80729 | 2.95635 | 0.1422799 | 0.26502247 | 2.4003851 | 21 | 7 13.5 | 20.1 |
| 107178 2001 $BE_{25}$ | 11.9 | X | 297.00517 | 311.10389 | 127.45710 | 22.25518 | 0.1387029 | 0.08366931 | 5.1771640 | 21 | 10 9.3 | 18.7 |
| 107179 2001 $BK_{25}$ | 16.5 | X | 201.72262 | 256.53643 | 174.17565 | 2.28894 | 0.1910526 | 0.26294546 | 2.4130090 | 21 | 6 12.9 | 20.5 |
| 107180 2001 $BP_{25}$ | 16.1 | X | 184.54208 | 294.07797 | 134.70691 | 3.47286 | 0.2249612 | 0.26087365 | 2.4257679 | 21 | 5 27.1 | 20.1 |
| 107181 2001 $BU_{25}$ | 14.2 | X | 155.48971 | 285.29973 | 127.00745 | 23.81316 | 0.2188868 | 0.15849160 | 3.3816751 | 21 | 4 26.9 | 20.3 |
| 107182 2001 $BA_{26}$ | 16.2 | X | 254.02880 | 293.72123 | 178.59292 | 2.37260 | 0.1185509 | 0.27344856 | 2.3508177 | 21 | 10 14.2 | 18.8 |
| 107183 2001 $BE_{26}$ | 16.5 | X | 286.85784 | 258.72089 | 150.09002 | 2.68598 | 0.1688195 | 0.27113785 | 2.3641550 | 21 | 8 24.2 | 18.7 |
| 107184 2001 $BH_{26}$ | 15.8 | X | 44.71879 | 69.70156 | 307.03203 | 3.89345 | 0.1607957 | 0.28278592 | 2.2987806 | 21 | — | — |
| 107185 2001 $BN_{26}$ | 16.3 | X | 136.09743 | 357.39293 | 146.52916 | 0.54103 | 0.1593651 | 0.26067698 | 2.4269878 | 21 | 7 15.7 | 19.8 |
| 107186 2001 $BR_{26}$ | 16.1 | X | 202.91758 | 10.53292 | 128.00172 | 2.81887 | 0.1759449 | 0.26894429 | 2.3769926 | 21 | 9 12.3 | 19.8 |
| 107187 2001 $BW_{26}$ | 16.5 | X | 242.31978 | 57.17785 | 144.14664 | 4.78351 | 0.0774599 | 0.28221369 | 2.3018870 | 21 | — | — |
| 107188 2001 $BB_{27}$ | 14.8 | X | 170.38947 | 68.79715 | 125.79783 | 13.32668 | 0.1210895 | 0.22295749 | 2.6935270 | 21 | 10 24.9 | 19.3 |
| 107189 2001 $BP_{27}$ | 15.7 | X | 167.27336 | 4.77161 | 121.16246 | 6.88670 | 0.0862163 | 0.26287130 | 2.4134627 | 21 | 7 21.7 | 19.1 |
| 107190 2001 $BN_{28}$ | 16.4 | X | 269.76637 | 289.58922 | 156.38241 | 2.45750 | 0.1839422 | 0.27266464 | 2.3553214 | 21 | 9 18.7 | 19.1 |
| 107191 2001 $BS_{28}$ | 16.0 | X | 170.67714 | 170.89696 | 329.19847 | 1.80637 | 0.1544752 | 0.26437798 | 2.4042845 | 21 | 8 13.9 | 19.8 |
| 107192 2001 $BZ_{28}$ | 16.6 | X | 168.44179 | 33.00033 | 134.53265 | 1.96101 | 0.1216228 | 0.26718439 | 2.3874191 | 21 | 9 17.7 | 20.1 |
| 107193 2001 $BC_{30}$ | 16.1 | X | 260.97864 | 303.74373 | 303.11797 | 6.26669 | 0.0985398 | 0.29113966 | 2.2545946 | 21 | — | — |
| 107194 2001 $BE_{30}$ | 16.7 | X | 116.90884 | 217.65090 | 233.67816 | 1.04544 | 0.0787204 | 0.30119475 | 2.2041329 | 21 | 3 27.8 | 19.0 |
| 107195 2001 $BB_{31}$ | 16.1 | X | 293.06621 | 339.74589 | 126.46394 | 7.80480 | 0.1387202 | 0.27765785 | 2.3269984 | 21 | 12 8.2 | 18.3 |
| 107196 2001 $BC_{31}$ | 15.8 | X | 249.58683 | 349.47982 | 119.64952 | 2.74055 | 0.1619670 | 0.27195782 | 2.3594006 | 21 | 9 27.6 | 18.7 |
| 107197 2001 $BG_{31}$ | 16.0 | X | 231.64965 | 272.76064 | 256.08112 | 1.87886 | 0.1071332 | 0.22763578 | 2.6564952 | 21 | 11 22.9 | 19.5 |
| 107198 2001 $BQ_{31}$ | 16.1 | X | 296.31040 | 180.14735 | 272.42493 | 1.58571 | 0.1858324 | 0.27681679 | 2.3317094 | 21 | 11 16.4 | 17.9 |
| 107199 2001 $BA_{32}$ | 16.3 | X | 346.85534 | 298.15482 | 127.18169 | 4.73608 | 0.2275926 | 0.28114456 | 2.3077190 | 21 | — | — |
| 107200 2001 $BB_{32}$ | 15.8 | X | 226.80587 | 4.59283 | 127.40960 | 3.04167 | 0.1589519 | 0.27100760 | 2.3649125 | 21 | 10 1.1 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107201 2001 $BE_{32}$ | 16.0 | X | 229.93102 | 85.76258 | 323.28655 | 4.77961 | 0.1691262 | 0.26264422 | 2.4148536 | 21 | 6 12.3 | 19.8 |
| 107202 2001 $BU_{32}$ | 16.0 | X | 10.25155 | 296.74684 | 153.41462 | 6.22339 | 0.2367261 | 0.23851571 | 2.5750840 | 21 | — | — |
| 107203 2001 $BC_{33}$ | 15.9 | X | 167.04215 | 342.48732 | 129.60263 | 4.27684 | 0.1367321 | 0.26051981 | 2.4279639 | 21 | 7 3.8 | 19.7 |
| 107204 2001 $BV_{33}$ | 15.0 | X | 242.69125 | 52.39010 | 139.98104 | 13.73146 | 0.0918139 | 0.23077601 | 2.6323417 | 21 | — | — |
| 107205 2001 $BW_{33}$ | 16.4 | X | 260.29970 | 346.65336 | 155.07949 | 5.86740 | 0.1753986 | 0.27619684 | 2.3351973 | 21 | 11 26.2 | 19.0 |
| 107206 2001 $BX_{34}$ | 16.6 | X | 321.94788 | 155.83606 | 283.53273 | 1.99958 | 0.1849599 | 0.27887852 | 2.3202031 | 21 | 12 27.2 | 18.1 |
| 107207 2001 $BY_{34}$ | 15.9 | X | 90.79438 | 229.20014 | 315.12373 | 5.59678 | 0.0764431 | 0.25875167 | 2.4390121 | 21 | 7 6.9 | 18.9 |
| 107208 2001 $BU_{35}$ | 15.3 | X | 260.81457 | 284.73276 | 273.16001 | 22.26079 | 0.2472325 | 0.28072698 | 2.3100069 | 21 | — | — |
| 107209 2001 $BW_{39}$ | 16.5 | X | 102.99416 | 8.10551 | 155.89293 | 4.02093 | 0.1187186 | 0.30357626 | 2.1925904 | 21 | 6 30.0 | 19.1 |
| 107210 2001 $BX_{39}$ | 15.3 | X | 234.41157 | 351.68971 | 257.37946 | 11.47322 | 0.1153194 | 0.23899080 | 2.5716701 | 21 | — | — |
| 107211 2001 $BY_{40}$ | 16.2 | X | 241.86492 | 243.13743 | 169.85376 | 10.11442 | 0.2180046 | 0.26644695 | 2.3918221 | 21 | 6 25.3 | 20.0 |
| 107212 2001 $BE_{41}$ | 16.4 | X | 285.80030 | 136.66085 | 281.05876 | 4.62124 | 0.1508032 | 0.27169939 | 2.3608965 | 21 | 9 5.4 | 18.9 |
| 107213 2001 $BJ_{42}$ | 16.4 | X | 198.31501 | 272.01077 | 148.50875 | 3.51004 | 0.1599462 | 0.26033484 | 2.4291138 | 21 | 5 28.9 | 20.2 |
| 107214 2001 $BG_{43}$ | 15.9 | X | 253.38925 | 270.92446 | 200.94271 | 6.59929 | 0.1772647 | 0.27258575 | 2.3557758 | 21 | 10 1.9 | 19.0 |
| 107215 2001 $BK_{43}$ | 16.1 | X | 70.95392 | 323.91489 | 183.27066 | 6.82073 | 0.1356967 | 0.25196296 | 2.4826276 | 21 | 4 25.4 | 18.9 |
| 107216 2001 $BA_{44}$ | 15.7 | X | 102.39673 | 73.09380 | 138.27854 | 10.70728 | 0.2177457 | 0.25985095 | 2.4321285 | 21 | 9 16.1 | 19.5 |
| 107217 2001 $BM_{45}$ | 16.1 | X | 139.39891 | 210.56159 | 302.50050 | 8.65786 | 0.1925851 | 0.26037201 | 2.4288826 | 21 | 8 1.7 | 20.0 |
| 107218 2001 $BG_{46}$ | 15.9 | X | 226.27623 | 210.75087 | 180.03527 | 10.32424 | 0.1573708 | 0.26154092 | 2.4216402 | 21 | 5 18.7 | 19.7 |
| 107219 2001 $BP_{47}$ | 16.3 | X | 140.43811 | 255.39451 | 309.29947 | 4.10371 | 0.1779617 | 0.26584503 | 2.3954311 | 21 | 10 5.8 | 20.1 |
| 107220 2001 $BC_{48}$ | 16.0 | X | 6.11535 | 306.50574 | 178.21413 | 9.07372 | 0.1257775 | 0.24062176 | 2.5600363 | 21 | — | — |
| 107221 2001 $BW_{48}$ | 16.1 | X | 168.76081 | 340.21402 | 231.17510 | 8.45500 | 0.1806858 | 0.27194356 | 2.3594831 | 21 | 11 10.6 | 19.9 |
| 107222 2001 $BM_{49}$ | 16.0 | X | 290.45072 | 268.73833 | 161.07883 | 5.01242 | 0.2073049 | 0.27237987 | 2.3569627 | 21 | 9 26.3 | 18.0 |
| 107223 Ripero | 15.9 | X | 145.32530 | 148.09446 | 313.14086 | 4.55586 | 0.0661824 | 0.20927384 | 2.8096965 | 21 | 5 22.8 | 20.1 |
| 107224 2001 $BZ_{50}$ | 15.3 | X | 287.94285 | 358.35449 | 119.54762 | 15.34122 | 0.1270766 | 0.22837847 | 2.6507328 | 21 | 12 5.7 | 18.6 |
| 107225 2001 $BF_{51}$ | 15.9 | X | 339.67912 | 275.57873 | 305.51873 | 20.41885 | 0.2920528 | 0.29250359 | 2.2475805 | 21 | 1 19.4 | 18.4 |
| 107226 2001 $BC_{52}$ | 17.1 | X | 95.53524 | 64.74412 | 111.99269 | 2.21835 | 0.1223191 | 0.25947371 | 2.4344852 | 21 | 7 9.2 | 20.2 |
| 107227 2001 $BJ_{52}$ | 16.1 | X | 302.89823 | 61.83855 | 316.85524 | 3.28992 | 0.2746664 | 0.27161639 | 2.3613774 | 21 | 7 17.7 | 18.2 |
| 107228 2001 $BS_{52}$ | 16.5 | X | 323.40601 | 213.63215 | 201.52026 | 6.51161 | 0.0983527 | 0.27619101 | 2.3352301 | 21 | 11 20.2 | 18.8 |
| 107229 2001 $BA_{53}$ | 15.5 | X | 183.79997 | 15.87542 | 150.95555 | 14.86024 | 0.0783617 | 0.22198795 | 2.7013641 | 21 | 10 3.5 | 19.6 |
| 107230 2001 $BF_{53}$ | 16.9 | X | 141.83024 | 170.57264 | 30.57852 | 3.11149 | 0.1422827 | 0.26714854 | 2.3876327 | 21 | 10 4.5 | 20.4 |
| 107231 2001 $BW_{53}$ | 16.4 | X | 91.78366 | 306.95292 | 182.43509 | 4.95057 | 0.0645002 | 0.30215076 | 2.1994812 | 21 | 4 14.1 | 18.7 |
| 107232 2001 $BA_{54}$ | 15.7 | X | 255.53257 | 192.23013 | 181.69541 | 6.88053 | 0.2248427 | 0.26330493 | 2.4108123 | 21 | 5 19.3 | 19.4 |
| 107233 2001 $BE_{54}$ | 16.3 | X | 126.84275 | 256.54031 | 299.78661 | 1.29886 | 0.1589263 | 0.26389556 | 2.4072138 | 21 | 9 12.9 | 20.1 |
| 107234 2001 $BL_{54}$ | 15.2 | X | 323.35602 | 43.72192 | 110.80614 | 1.73963 | 0.0913371 | 0.18942922 | 3.0026502 | 21 | — | — |
| 107235 2001 $BR_{54}$ | 16.1 | X | 182.33147 | 228.84424 | 240.15681 | 5.72603 | 0.0753396 | 0.26298008 | 2.4127972 | 21 | 7 14.9 | 19.6 |
| 107236 2001 $BM_{55}$ | 16.0 | X | 253.55662 | 182.81832 | 225.46769 | 5.55591 | 0.0910244 | 0.26640816 | 2.3920543 | 21 | 7 16.7 | 19.1 |
| 107237 2001 $BB_{56}$ | 15.8 | X | 329.38360 | 73.40014 | 50.77175 | 1.98232 | 0.1002227 | 0.23614937 | 2.5922578 | 21 | — | — |
| 107238 2001 $BH_{56}$ | 16.2 | X | 114.56992 | 28.16045 | 357.10102 | 3.24780 | 0.1823280 | 0.29273758 | 2.2463826 | 21 | 1 9.2 | 18.4 |
| 107239 2001 $BS_{56}$ | 15.4 | X | 206.44315 | 298.48087 | 132.97977 | 2.75759 | 0.0812218 | 0.21410272 | 2.7672895 | 21 | 6 23.5 | 19.6 |
| 107240 2001 $BS_{57}$ | 15.9 | X | 114.29725 | 215.17897 | 223.78781 | 7.78907 | 0.1103073 | 0.29818326 | 2.2189484 | 21 | 3 8.9 | 18.5 |
| 107241 2001 $BE_{58}$ | 16.0 | X | 242.06380 | 94.81933 | 256.95591 | 1.25826 | 0.0750956 | 0.30385186 | 2.1912644 | 21 | 4 13.6 | 18.9 |
| 107242 2001 $BH_{58}$ | 16.2 | X | 189.49723 | 273.78697 | 123.66982 | 4.24443 | 0.1027414 | 0.30356413 | 2.1926488 | 21 | 4 17.4 | 19.2 |
| 107243 2001 $BJ_{58}$ | 16.3 | X | 198.17168 | 182.19238 | 239.66958 | 1.84013 | 0.2012534 | 0.26108154 | 2.4244800 | 21 | 5 29.1 | 20.2 |
| 107244 2001 $BQ_{58}$ | 15.8 | X | 178.17542 | 29.46158 | 129.03771 | 7.30746 | 0.0514225 | 0.26758009 | 2.3850648 | 21 | 9 20.8 | 19.1 |
| 107245 2001 $BW_{58}$ | 16.3 | X | 224.82695 | 56.75125 | 123.48625 | 3.98544 | 0.1916773 | 0.27564575 | 2.3383087 | 21 | 11 27.2 | 19.4 |
| 107246 2001 $BY_{58}$ | 16.2 | X | 101.58013 | 46.52557 | 129.86245 | 3.38794 | 0.1385809 | 0.25857212 | 2.4401410 | 21 | 7 18.6 | 19.4 |
| 107247 2001 $BB_{59}$ | 15.3 | X | 327.46839 | 282.39143 | 147.64195 | 15.81845 | 0.1869165 | 0.22971190 | 2.6404648 | 21 | 12 9.8 | 18.1 |
| 107248 2001 $BC_{59}$ | 16.5 | X | 211.20254 | 283.85935 | 267.80125 | 1.94977 | 0.1110690 | 0.27497587 | 2.3421048 | 21 | 12 5.6 | 19.5 |
| 107249 2001 $BE_{59}$ | 15.9 | X | 314.76432 | 95.47982 | 140.37404 | 4.63900 | 0.1645842 | 0.29297683 | 2.2451595 | 21 | 1 24.9 | 18.8 |
| 107250 2001 $BJ_{59}$ | 16.3 | X | 145.83442 | 318.50477 | 151.24411 | 4.69645 | 0.1449859 | 0.25846746 | 2.4407997 | 21 | 6 9.9 | 20.0 |
| 107251 2001 $BN_{59}$ | 16.5 | X | 271.49229 | 226.13942 | 242.20752 | 3.13796 | 0.1769573 | 0.27471465 | 2.3435893 | 21 | 10 24.2 | 18.8 |
| 107252 2001 $BS_{59}$ | 15.4 | X | 280.37163 | 192.21109 | 292.25395 | 5.88440 | 0.1453427 | 0.22902301 | 2.6457571 | 21 | 11 25.7 | 18.5 |
| 107253 2001 $BF_{62}$ | 15.4 | X | 254.52199 | 274.28418 | 257.18226 | 3.04435 | 0.0879447 | 0.23031002 | 2.6358913 | 21 | 12 28.9 | 18.8 |
| 107254 2001 $BJ_{62}$ | 16.1 | X | 115.73680 | 255.85717 | 180.10028 | 3.18707 | 0.0786629 | 0.29700142 | 2.2248310 | 21 | 3 4.7 | 18.6 |
| 107255 2001 $BQ_{62}$ | 16.0 | X | 257.50408 | 187.75692 | 290.37701 | 6.31963 | 0.1555166 | 0.27441312 | 2.3453058 | 21 | 10 17.5 | 18.9 |
| 107256 2001 $BY_{62}$ | 16.2 | X | 157.15346 | 185.34232 | 278.57062 | 4.80390 | 0.1525049 | 0.25928020 | 2.4356964 | 21 | 6 13.7 | 20.0 |
| 107257 2001 $BD_{63}$ | 16.0 | X | 326.01873 | 248.79269 | 168.03659 | 3.80473 | 0.1166628 | 0.27582384 | 2.3373021 | 21 | 11 27.7 | 18.1 |
| 107258 2001 $BG_{63}$ | 15.7 | X | 118.09174 | 75.06212 | 162.15205 | 5.09019 | 0.1942792 | 0.26804149 | 2.3823269 | 21 | 10 30.9 | 19.6 |
| 107259 2001 $BT_{63}$ | 16.3 | X | 9.88658 | 359.95819 | 144.78894 | 3.15938 | 0.1858488 | 0.24260998 | 2.5460305 | 21 | — | — |
| 107260 2001 $BC_{64}$ | 15.2 | X | 141.68551 | 226.94218 | 294.47797 | 8.21152 | 0.0991370 | 0.21398229 | 2.7683277 | 21 | 8 6.9 | 19.3 |
| 107261 2001 $BM_{64}$ | 15.6 | X | 99.21528 | 175.39616 | 329.10276 | 22.39188 | 0.1441921 | 0.25423640 | 2.4678053 | 21 | 5 29.3 | 19.5 |
| 107262 2001 $BR_{64}$ | 16.1 | X | 262.24685 | 286.24436 | 265.34646 | 5.90300 | 0.0526453 | 0.28370111 | 2.2938342 | 21 | — | — |
| 107263 2001 $BX_{65}$ | 16.2 | X | 131.11510 | 68.70123 | 137.21412 | 5.90252 | 0.1223949 | 0.26444641 | 2.4038697 | 21 | 9 30.5 | 19.8 |
| 107264 2001 $BA_{68}$ | 15.8 | X | 86.92062 | 67.63367 | 81.58327 | 3.17368 | 0.1367044 | 0.25302677 | 2.4756642 | 21 | 5 22.1 | 18.8 |
| 107265 2001 $BP_{68}$ | 16.0 | X | 134.66991 | 29.72741 | 18.95566 | 4.96180 | 0.1682131 | 0.29662424 | 2.2267167 | 21 | 3 8.0 | 18.7 |
| 107266 2001 $BZ_{68}$ | 15.9 | X | 184.39621 | 25.03924 | 67.52475 | 2.01701 | 0.1448472 | 0.25989021 | 2.4318835 | 21 | 6 25.7 | 19.5 |
| 107267 2001 $BA_{69}$ | 15.8 | X | 283.75832 | 105.69481 | 351.99287 | 3.19012 | 0.1679991 | 0.27402578 | 2.3475153 | 21 | 10 30.9 | 18.1 |
| 107268 2001 $BS_{69}$ | 15.8 | X | 200.12529 | 79.53493 | 115.26481 | 6.91899 | 0.1591100 | 0.27253337 | 2.3560776 | 21 | 11 23.3 | 19.2 |
| 107269 2001 $BF_{70}$ | 15.1 | X | 337.95764 | 280.78228 | 170.39287 | 23.52499 | 0.2476486 | 0.28104531 | 2.3082623 | 21 | — | — |
| 107270 2001 $BN_{70}$ | 15.9 | X | 274.04919 | 110.05618 | 244.50997 | 2.17790 | 0.2087904 | 0.31009886 | 2.1617358 | 21 | 5 10.5 | 18.7 |
| 107271 2001 $BL_{71}$ | 15.6 | X | 97.21191 | 274.27444 | 129.11543 | 5.78394 | 0.2742628 | 0.24574347 | 2.5243412 | 21 | 2 3.6 | 18.5 |
| 107272 2001 $BO_{71}$ | 16.4 | X | 186.58912 | 31.08912 | 114.97187 | 1.43786 | 0.1507758 | 0.26720031 | 2.3873243 | 21 | 9 6.9 | 20.0 |
| 107273 2001 $BT_{71}$ | 15.1 | X | 104.40966 | 233.22160 | 293.50575 | 8.11507 | 0.2095548 | 0.20984490 | 2.8045968 | 21 | 7 17.2 | 19.2 |
| 107274 2001 $BX_{71}$ | 16.0 | X | 37.43015 | 52.82021 | 143.28617 | 5.84270 | 0.1290001 | 0.25289156 | 2.4765465 | 21 | 5 7.8 | 18.5 |
| 107275 2001 $BZ_{71}$ | 16.5 | X | 112.86081 | 68.54841 | 165.35957 | 5.13146 | 0.1977043 | 0.26710738 | 2.3878779 | 21 | 10 22.2 | 20.3 |
| 107276 2001 $BM_{72}$ | 16.9 | X | 220.72768 | 169.79956 | 336.57043 | 1.88579 | 0.1593507 | 0.27239408 | 2.3568808 | 21 | 10 11.2 | 20.3 |
| 107277 2001 $BA_{73}$ | 14.7 | X | 73.31598 | 172.07810 | 92.97818 | 10.27164 | 0.2810315 | 0.26102119 | 2.4248537 | 21 | 11 3.2 | 18.6 |
| 107278 2001 $BL_{73}$ | 16.5 | X | 203.36843 | 354.97265 | 83.65388 | 7.02957 | 0.1081040 | 0.26188851 | 2.4194970 | 21 | 6 27.8 | 19.9 |
| 107279 2001 $BP_{73}$ | 15.7 | X | 122.98295 | 260.21419 | 214.76656 | 11.09151 | 0.1617367 | 0.25655818 | 2.4528941 | 21 | 5 24.9 | 19.3 |
| 107280 2001 $BU_{74}$ | 16.0 | X | 157.72768 | 119.12454 | 81.30488 | 5.51426 | 0.1515468 | 0.26739453 | 2.3861681 | 21 | 10 20.7 | 19.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107281 2001 $BH_{75}$ | 16.1 | X | 139.72604 | 291.29004 | 314.85873 | 1.63878 | 0.1736389 | 0.27211187 | 2.3585100 | 21 | 11 27.8 | 19.9 |
| 107282 2001 $BL_{75}$ | 15.2 | X | 54.93782 | 158.19672 | 325.11191 | 4.27754 | 0.0687242 | 0.19866333 | 2.9088695 | 21 | 2 24.8 | 19.0 |
| 107283 2001 $BG_{76}$ | 15.0 | X | 298.40298 | 255.00304 | 178.58874 | 21.47783 | 0.2586819 | 0.27488924 | 2.3425969 | 21 | 10 12.1 | 16.8 |
| 107284 2001 $BL_{76}$ | 15.4 | X | 107.84564 | 111.21105 | 275.57921 | 13.06466 | 0.2210554 | 0.24426536 | 2.5345146 | 21 | 1 17.3 | 18.5 |
| 107285 2001 $BN_{76}$ | 15.7 | X | 234.71928 | 349.29613 | 271.19468 | 6.65809 | 0.1084600 | 0.28674930 | 2.2775494 | 21 | — | — |
| 107286 2001 $BU_{76}$ | 16.6 | X | 103.97751 | 38.69130 | 130.45368 | 2.04951 | 0.1209672 | 0.25838199 | 2.4413379 | 21 | 7 9.2 | 19.8 |
| 107287 2001 $BE_{79}$ | 16.5 | X | 256.58827 | 272.24441 | 133.09959 | 2.70978 | 0.1729580 | 0.26675289 | 2.3899930 | 21 | 7 6.2 | 19.6 |
| 107288 2001 $BK_{79}$ | 16.6 | X | 152.43597 | 225.98490 | 315.31605 | 4.94616 | 0.0574884 | 0.26737007 | 2.3863136 | 21 | 9 15.5 | 19.8 |
| 107289 2001 $BM_{82}$ | 15.9 | X | 237.83290 | 255.81567 | 147.90678 | 9.16840 | 0.0967458 | 0.25956125 | 2.4339378 | 21 | 6 21.4 | 19.4 |
| 107290 2001 $CA$ | 16.5 | X | 155.29000 | 187.65563 | 334.16705 | 1.94732 | 0.1436480 | 0.26350663 | 2.4095818 | 21 | 8 27.0 | 20.1 |
| 107291 2001 $CF$ | 15.2 | X | 119.10265 | 109.86746 | 51.00818 | 7.26109 | 0.0400673 | 0.26095974 | 2.4252344 | 21 | 7 6.9 | 18.4 |
| 107292 2001 $CZ$ | 16.2 | X | 302.26010 | 28.25911 | 71.73924 | 2.11425 | 0.1668686 | 0.27841960 | 2.3227520 | 21 | 12 14.3 | 17.8 |
| 107293 2001 $CF_{1}$ | 15.7 | X | 332.34339 | 45.20973 | 0.14571 | 4.54729 | 0.2117882 | 0.27647236 | 2.3336456 | 21 | 11 25.7 | 17.2 |
| 107294 2001 $CR_{1}$ | 15.5 | X | 5.31338 | 96.71414 | 358.70650 | 4.00144 | 0.2618385 | 0.23868872 | 2.5738395 | 21 | — | — |
| 107295 2001 $CG_{3}$ | 16.1 | X | 247.30753 | 43.14785 | 9.64519 | 2.52263 | 0.1648572 | 0.26457270 | 2.4031047 | 21 | 7 7.1 | 19.4 |
| 107296 2001 $CS_{3}$ | 15.3 | X | 105.00135 | 174.14690 | 353.40544 | 7.58956 | 0.1481277 | 0.20914951 | 2.8108099 | 21 | 7 13.2 | 19.5 |
| 107297 2001 $CD_{4}$ | 15.5 | X | 181.16190 | 106.82832 | 22.35443 | 3.94679 | 0.1218950 | 0.26360208 | 2.4090001 | 21 | 8 12.0 | 19.1 |
| 107298 2001 $CH_{4}$ | 15.2 | X | 327.91651 | 334.61062 | 134.58425 | 18.31322 | 0.1009107 | 0.23296341 | 2.6158384 | 21 | — | — |
| 107299 2001 $CX_{4}$ | 16.4 | X | 63.76844 | 34.75744 | 54.27530 | 3.72125 | 0.1551788 | 0.29229320 | 2.2486589 | 21 | 1 4.5 | 18.1 |
| 107300 2001 $CZ_{5}$ | 15.8 | X | 219.37646 | 297.86460 | 113.21484 | 5.41991 | 0.2155546 | 0.26226684 | 2.4171696 | 21 | 6 3.0 | 19.8 |
| 107301 2001 $CC_{6}$ | 15.8 | X | 53.45365 | 277.77428 | 95.80156 | 4.37170 | 0.1062606 | 0.28122198 | 2.3072954 | 21 | — | — |
| 107302 2001 $CD_{6}$ | 16.1 | X | 327.47247 | 117.68708 | 110.96463 | 6.39434 | 0.2255514 | 0.24559861 | 2.5253337 | 21 | 2 2.2 | 19.3 |
| 107303 2001 $CE_{6}$ | 16.6 | X | 295.43677 | 12.83443 | 107.76415 | 3.55813 | 0.1085200 | 0.27902951 | 2.3193660 | 21 | — | — |
| 107304 2001 $CF_{7}$ | 16.4 | X | 34.76956 | 342.73623 | 127.32562 | 5.74898 | 0.0970641 | 0.29074180 | 2.2566510 | 21 | — | — |
| 107305 2001 $CM_{7}$ | 16.1 | X | 45.23736 | 243.32005 | 349.98217 | 4.25376 | 0.1484394 | 0.25707406 | 2.4496115 | 21 | 7 20.6 | 18.7 |
| 107306 2001 $CX_{7}$ | 16.3 | X | 138.52126 | 118.18774 | 4.81434 | 6.17602 | 0.0992905 | 0.25755201 | 2.4465800 | 21 | 6 14.7 | 19.9 |
| 107307 2001 $CE_{8}$ | 16.4 | X | 195.77356 | 166.75609 | 2.17461 | 3.72660 | 0.1466811 | 0.27006654 | 2.3704030 | 21 | 10 15.0 | 19.8 |
| 107308 2001 $CR_{8}$ | 16.6 | X | 257.37982 | 108.33735 | 14.48647 | 4.75723 | 0.0965311 | 0.27317997 | 2.3523583 | 21 | 11 4.7 | 19.3 |
| 107309 2001 $CU_{8}$ | 16.3 | X | 59.18652 | 348.10025 | 64.92335 | 4.44919 | 0.1352976 | 0.28680306 | 2.2772648 | 21 | — | — |
| 107310 2001 $CF_{9}$ | 16.8 | X | 191.92159 | 130.09242 | 28.43983 | 3.13241 | 0.1313053 | 0.26858039 | 2.3791392 | 21 | 9 29.9 | 20.3 |
| 107311 2001 $CY_{9}$ | 16.4 | X | 215.27295 | 67.71095 | 147.78704 | 7.17319 | 0.1642812 | 0.27868480 | 2.3212782 | 21 | — | — |
| 107312 2001 $CA_{10}$ | 15.0 | X | 87.08905 | 12.10851 | 42.41542 | 9.96557 | 0.2465568 | 0.24444551 | 2.5332692 | 21 | 2 2.0 | 17.8 |
| 107313 2001 $CW_{10}$ | 16.3 | X | 233.29859 | 47.06071 | 77.40745 | 3.28748 | 0.1591109 | 0.27163482 | 2.3612706 | 21 | 9 29.0 | 19.5 |
| 107314 2001 $CC_{11}$ | 15.9 | X | 270.87693 | 95.83241 | 111.31680 | 8.31814 | 0.1331262 | 0.23710563 | 2.5852833 | 21 | — | — |
| 107315 2001 $CJ_{11}$ | 17.0 | X | 320.87499 | 21.80902 | 80.08144 | 2.50519 | 0.2022473 | 0.28160125 | 2.3052233 | 21 | — | — |
| 107316 2001 $CQ_{11}$ | 15.5 | X | 269.90665 | 44.69340 | 34.10754 | 3.39212 | 0.1564900 | 0.22330626 | 2.6907217 | 21 | 9 9.5 | 19.0 |
| 107317 2001 $CU_{11}$ | 15.5 | X | 243.88311 | 68.98153 | 340.03270 | 8.97258 | 0.1222427 | 0.21614640 | 2.7498186 | 21 | 7 4.1 | 19.7 |
| 107318 2001 $CE_{12}$ | 15.8 | X | 48.79174 | 47.03132 | 336.30280 | 5.92535 | 0.1123155 | 0.28274745 | 2.2989891 | 21 | — | — |
| 107319 2001 $CL_{12}$ | 16.5 | X | 257.03224 | 107.75438 | 49.47928 | 3.31273 | 0.0989017 | 0.27830610 | 2.3233835 | 21 | 12 24.1 | 18.9 |
| 107320 2001 $CC_{13}$ | 15.8 | X | 192.25562 | 104.35843 | 65.39010 | 3.55582 | 0.1438575 | 0.27020453 | 2.3695960 | 21 | 10 14.8 | 19.2 |
| 107321 2001 $CL_{13}$ | 14.5 | X | 256.56957 | 302.58579 | 128.77758 | 18.36056 | 0.2883456 | 0.17214475 | 3.2004191 | 21 | 7 24.9 | 19.7 |
| 107322 2001 $CF_{14}$ | 15.0 | X | 91.05334 | 297.56824 | 111.88305 | 10.03985 | 0.0716923 | 0.19500976 | 2.9450894 | 21 | 1 14.6 | 19.0 |
| 107323 2001 $CH_{14}$ | 15.7 | X | 291.19956 | 282.37088 | 100.12345 | 2.47550 | 0.1926256 | 0.26823120 | 2.3812036 | 21 | 7 18.3 | 18.2 |
| 107324 2001 $CM_{14}$ | 16.5 | X | 287.44651 | 111.81640 | 107.01862 | 5.52870 | 0.1052941 | 0.28955077 | 2.2628351 | 21 | — | — |
| 107325 2001 $CE_{15}$ | 15.9 | X | 196.43298 | 33.74661 | 35.09098 | 4.27978 | 0.0727600 | 0.25979118 | 2.4325015 | 21 | 6 7.3 | 19.2 |
| 107326 2001 $CM_{15}$ | 16.0 | X | 96.29705 | 328.09345 | 69.90150 | 2.47833 | 0.1580348 | 0.24351685 | 2.5397056 | 21 | 1 7.5 | 18.7 |
| 107327 2001 $CU_{15}$ | 16.2 | X | 191.02891 | 139.30444 | 92.27675 | 4.51584 | 0.1796650 | 0.27710636 | 2.3300848 | 21 | 12 27.3 | 19.6 |
| 107328 2001 $CM_{16}$ | 15.0 | X | 156.31008 | 277.14980 | 332.92906 | 12.04666 | 0.1483975 | 0.22695095 | 2.6618365 | 21 | 12 10.9 | 19.5 |
| 107329 2001 $CR_{16}$ | 16.8 | X | 236.03250 | 27.92580 | 69.40368 | 3.07907 | 0.1597832 | 0.26860240 | 2.3790092 | 21 | 8 25.9 | 20.0 |
| 107330 2001 $CN_{17}$ | 16.6 | X | 231.93290 | 82.53924 | 63.89834 | 3.94721 | 0.1371431 | 0.27322149 | 2.3521200 | 21 | 10 29.2 | 19.6 |
| 107331 2001 $CT_{17}$ | 15.8 | X | 234.49625 | 175.33957 | 13.87370 | 5.36715 | 0.0230019 | 0.23155689 | 2.6264204 | 21 | — | — |
| 107332 2001 $CX_{17}$ | 14.7 | X | 316.57657 | 282.04430 | 224.66975 | 14.52392 | 0.2311286 | 0.23705540 | 2.5856485 | 21 | — | — |
| 107333 2001 $CM_{18}$ | 16.7 | X | 127.28459 | 320.32686 | 122.74074 | 3.73739 | 0.1055905 | 0.30127366 | 2.2037480 | 21 | 4 6.2 | 19.3 |
| 107334 2001 $CH_{19}$ | 16.8 | X | 214.61310 | 185.96548 | 18.69300 | 0.92057 | 0.1573718 | 0.27749624 | 2.3279018 | 21 | 12 21.1 | 20.0 |
| 107335 2001 $CL_{19}$ | 16.8 | X | 97.42578 | 58.37950 | 110.56562 | 2.27785 | 0.1241754 | 0.25786350 | 2.4446093 | 21 | 6 30.9 | 20.0 |
| 107336 2001 $CA_{20}$ | 17.2 | X | 267.87972 | 89.34451 | 71.27921 | 1.82083 | 0.1341487 | 0.27947089 | 2.3169233 | 21 | — | — |
| 107337 2001 $CE_{22}$ | 16.3 | X | 271.48039 | 124.69044 | 345.07845 | 5.23036 | 0.1020739 | 0.27565511 | 2.3382558 | 21 | 11 6.3 | 18.9 |
| 107338 2001 $CG_{22}$ | 16.5 | X | 188.57387 | 122.01246 | 51.49625 | 3.23978 | 0.0987959 | 0.27154619 | 2.3617843 | 21 | 10 18.6 | 19.8 |
| 107339 2001 $CT_{22}$ | 15.1 | X | 339.82968 | 77.06819 | 97.94497 | 3.29768 | 0.0382843 | 0.19582170 | 2.9369429 | 21 | 1 18.9 | 19.0 |
| 107340 2001 $CB_{23}$ | 15.5 | X | 196.98894 | 325.49545 | 310.53004 | 5.39038 | 0.1176047 | 0.23785384 | 2.5798588 | 21 | — | — |
| 107341 2001 $CE_{23}$ | 15.5 | X | 184.84810 | 113.90900 | 137.89367 | 8.44126 | 0.1830825 | 0.23132168 | 2.6282004 | 21 | — | — |
| 107342 2001 $CO_{23}$ | 16.3 | X | 178.24281 | 305.72761 | 124.21953 | 4.59426 | 0.1700522 | 0.25899750 | 2.4374684 | 21 | 5 22.7 | 20.2 |
| 107343 2001 $CP_{23}$ | 16.5 | X | 126.66416 | 171.49142 | 349.74909 | 0.86988 | 0.1307030 | 0.26092841 | 2.4254285 | 21 | 7 26.7 | 19.8 |
| 107344 2001 $CV_{23}$ | 16.4 | X | 156.54981 | 46.39762 | 156.97789 | 2.82676 | 0.1182153 | 0.27040134 | 2.3684460 | 21 | 10 22.6 | 20.0 |
| 107345 2001 $CM_{24}$ | 15.3 | X | 238.75078 | 303.28084 | 291.07795 | 13.01947 | 0.1273903 | 0.23739610 | 2.5831740 | 21 | — | — |
| 107346 2001 $CP_{24}$ | 16.0 | X | 169.57244 | 279.59232 | 267.76967 | 6.13142 | 0.0975543 | 0.27113062 | 2.3641970 | 21 | 10 12.2 | 19.6 |
| 107347 2001 $CG_{25}$ | 15.1 | X | 233.65306 | 292.65384 | 93.32627 | 7.02343 | 0.0712730 | 0.21074830 | 2.7965762 | 21 | 5 28.3 | 19.1 |
| 107348 2001 $CN_{25}$ | 16.6 | X | 152.24215 | 166.99703 | 46.95510 | 3.46918 | 0.1122594 | 0.27035410 | 2.3687219 | 21 | 10 31.0 | 20.1 |
| 107349 2001 $CW_{25}$ | 15.4 | X | 126.47762 | 245.27255 | 14.79289 | 4.04208 | 0.0563420 | 0.22504526 | 2.6768424 | 21 | 11 22.0 | 19.2 |
| 107350 2001 $CA_{26}$ | 16.4 | X | 49.06493 | 103.91668 | 104.05373 | 5.99404 | 0.0885520 | 0.30347657 | 2.1930706 | 21 | 6 6.9 | 18.4 |
| 107351 2001 $CK_{26}$ | 16.3 | X | 216.94523 | 338.62615 | 126.40382 | 4.66525 | 0.1305887 | 0.26461941 | 2.4028219 | 21 | 8 16.6 | 19.6 |
| 107352 2001 $CQ_{26}$ | 16.0 | X | 327.17502 | 267.50648 | 127.29088 | 5.70483 | 0.2035958 | 0.27464614 | 2.3439790 | 21 | 10 28.7 | 17.6 |
| 107353 2001 $CR_{26}$ | 16.5 | X | 91.41523 | 181.26430 | 4.05924 | 1.25183 | 0.1283535 | 0.25864498 | 2.4396827 | 21 | 7 17.0 | 19.5 |
| 107354 2001 $CJ_{27}$ | 16.6 | X | 129.32515 | 163.27933 | 347.82880 | 11.38776 | 0.1442982 | 0.26023757 | 2.4297190 | 21 | 7 20.2 | 20.3 |
| 107355 2001 $CP_{27}$ | 15.4 | X | 255.62417 | 50.34305 | 85.39428 | 11.33151 | 0.1323438 | 0.22742225 | 2.6581577 | 21 | 11 10.6 | 19.0 |
| 107356 2001 $CU_{27}$ | 15.2 | X | 29.48093 | 54.09583 | 91.61379 | 11.61613 | 0.1146864 | 0.24593413 | 2.5230364 | 21 | 2 8.4 | 18.0 |
| 107357 2001 $CB_{28}$ | 14.4 | X | 139.17508 | 269.88097 | 37.61233 | 8.73514 | 0.0698287 | 0.18609082 | 3.0384546 | 21 | — | — |
| 107358 2001 $CH_{28}$ | 15.9 | X | 85.78767 | 184.85268 | 55.33914 | 4.82667 | 0.1771609 | 0.26424441 | 2.4050947 | 21 | 10 1.9 | 19.4 |
| 107359 2001 $CL_{28}$ | 16.3 | X | 44.76260 | 174.39480 | 78.13245 | 5.43340 | 0.0897030 | 0.30971542 | 2.1635196 | 21 | 8 12.6 | 18.4 |
| 107360 2001 $CQ_{28}$ | 16.4 | X | 283.68967 | 13.30215 | 86.78029 | 6.62771 | 0.1671548 | 0.27562526 | 2.3384246 | 21 | 11 7.6 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107361 2001 $CX_{28}$ | 15.9 | X | 40.16308 | 41.56718 | 25.19678 | 6.58599 | 0.1667047 | 0.28752712 | 2.2734400 | 21 | — | — |
| 107362 2001 $CG_{29}$ | 16.0 | X | 321.25536 | 164.22254 | 352.20904 | 9.56870 | 0.1363912 | 0.23771897 | 2.5808345 | 21 | — | — |
| 107363 2001 $CJ_{29}$ | 15.8 | X | 237.17628 | 91.58393 | 96.35337 | 6.78658 | 0.1230246 | 0.27831794 | 2.3233176 | 21 | — | — |
| 107364 2001 $CL_{29}$ | 16.6 | X | 61.92201 | 81.87978 | 123.40241 | 14.29261 | 0.1600108 | 0.25627061 | 2.4547288 | 21 | 7 7.8 | 19.4 |
| 107365 2001 $CQ_{29}$ | 16.5 | X | 143.29776 | 199.48129 | 14.16611 | 3.25422 | 0.1184623 | 0.26929662 | 2.3749189 | 21 | 10 20.7 | 20.1 |
| 107366 2001 $CR_{29}$ | 15.3 | X | 112.59982 | 318.21449 | 115.76772 | 3.24949 | 0.0386273 | 0.20048508 | 2.8912214 | 21 | 3 9.0 | 19.2 |
| 107367 2001 $CG_{30}$ | 15.9 | X | 182.23196 | 93.08752 | 87.96281 | 7.57813 | 0.0615615 | 0.27139949 | 2.3626353 | 21 | 10 26.6 | 19.1 |
| 107368 2001 $CH_{30}$ | 16.2 | X | 285.24631 | 138.51487 | 34.91635 | 5.63768 | 0.2004530 | 0.23470925 | 2.6028506 | 21 | — | — |
| 107369 2001 $CL_{30}$ | 15.2 | X | 351.65121 | 301.15554 | 175.28931 | 12.03238 | 0.2435687 | 0.23683632 | 2.5872427 | 21 | — | — |
| 107370 2001 $CQ_{30}$ | 15.1 | X | 10.51189 | 349.90645 | 113.80613 | 13.24521 | 0.1779377 | 0.23865293 | 2.5740968 | 21 | — | — |
| 107371 2001 $CN_{31}$ | 15.8 | X | 343.64297 | 323.77375 | 315.68691 | 4.69523 | 0.1062188 | 0.25709169 | 2.4494995 | 21 | 5 27.9 | 18.3 |
| 107372 2001 $CP_{31}$ | 16.3 | X | 204.49396 | 322.75339 | 138.13251 | 5.97313 | 0.1499548 | 0.26451021 | 2.4034832 | 21 | 7 26.4 | 19.8 |
| 107373 2001 $CR_{31}$ | 15.7 | X | 306.66694 | 32.10552 | 13.76210 | 21.36735 | 0.0809148 | 0.36803513 | 1.9284566 | 21 | 10 19.5 | 17.1 |
| 107374 2001 $CF_{34}$ | 15.0 | X | 347.22555 | 58.32782 | 83.60131 | 14.34890 | 0.1219326 | 0.23937311 | 2.5689312 | 21 | — | — |
| 107375 2001 $CK_{34}$ | 15.3 | X | 294.59101 | 36.40656 | 74.23319 | 16.15485 | 0.1453343 | 0.22941733 | 2.6427246 | 21 | 12 2.3 | 17.9 |
| 107376 2001 $CG_{36}$ | 16.3 | X | 265.83215 | 110.82716 | 20.20644 | 6.59781 | 0.1389753 | 0.27553210 | 2.3389517 | 21 | 11 22.4 | 18.8 |
| 107377 2001 $CL_{36}$ | 15.9 | X | 153.30283 | 74.73736 | 86.45620 | 7.11308 | 0.0664792 | 0.26317119 | 2.4116289 | 21 | 8 25.1 | 19.3 |
| 107378 2001 $CU_{36}$ | 15.2 | X | 201.26440 | 125.46689 | 150.98545 | 22.41456 | 0.2168989 | 0.28244897 | 2.3006085 | 21 | — | — |
| 107379 Johnlogan | 15.5 | X | 233.20813 | 71.54211 | 358.16023 | 3.93477 | 0.0353085 | 0.21324000 | 2.7747483 | 21 | 7 28.6 | 19.3 |
| 107380 2001 $CY_{38}$ | 14.4 | X | 6.97065 | 6.32149 | 84.56009 | 12.35960 | 0.0973512 | 0.19029586 | 2.9935268 | 21 | — | — |
| 107381 2001 $CP_{39}$ | 15.8 | X | 15.06420 | 40.77163 | 16.23444 | 6.10130 | 0.1440953 | 0.28448219 | 2.2896336 | 21 | — | — |
| 107382 2001 $CT_{39}$ | 15.6 | X | 15.13388 | 21.99603 | 16.85191 | 6.80750 | 0.0854091 | 0.28125943 | 2.3070906 | 21 | — | — |
| 107383 2001 $CN_{40}$ | 15.5 | X | 41.95324 | 56.67164 | 34.97344 | 13.79731 | 0.0633944 | 0.24176069 | 2.5519898 | 21 | — | — |
| 107384 2001 $CC_{41}$ | 15.3 | X | 272.31339 | 6.32634 | 86.70358 | 13.14177 | 0.1463980 | 0.22391693 | 2.6858273 | 21 | 10 9.8 | 19.0 |
| 107385 2001 $CL_{41}$ | 15.6 | X | 124.71026 | 101.00191 | 273.52868 | 1.56365 | 0.2173011 | 0.29237456 | 2.2482417 | 21 | 1 14.2 | 18.2 |
| 107386 2001 $CS_{42}$ | 16.5 | X | 155.50240 | 220.31778 | 348.55386 | 2.72841 | 0.1753617 | 0.26844207 | 2.3799564 | 21 | 10 25.8 | 20.2 |
| 107387 2001 $CU_{42}$ | 16.7 | X | 172.52451 | 354.93875 | 126.38343 | 1.41384 | 0.1611684 | 0.26238867 | 2.4164213 | 21 | 7 21.9 | 20.5 |
| 107388 2001 $CY_{43}$ | 15.3 | X | 155.93581 | 121.27003 | 80.49549 | 10.83768 | 0.1620097 | 0.26831783 | 2.3806910 | 21 | 10 23.1 | 19.2 |
| 107389 2001 $CQ_{44}$ | 15.7 | X | 23.93449 | 80.07092 | 41.13787 | 12.54200 | 0.1431170 | 0.24206516 | 2.5498493 | 21 | — | — |
| 107390 2001 $CT_{45}$ | 15.2 | X | 299.50921 | 81.44055 | 95.08412 | 14.43659 | 0.0336178 | 0.23619858 | 2.5918977 | 21 | — | — |
| 107391 2001 $CW_{45}$ | 15.5 | X | 283.79492 | 132.69824 | 89.92011 | 15.05222 | 0.0316035 | 0.23938256 | 2.5688636 | 21 | — | — |
| 107392 2001 $CZ_{45}$ | 15.8 | X | 311.00695 | 345.74896 | 58.91109 | 11.29154 | 0.0729233 | 0.27033160 | 2.3688534 | 21 | 10 17.4 | 18.4 |
| 107393 Bernacca | 15.4 | X | 222.57044 | 220.74720 | 88.03485 | 3.30387 | 0.0630371 | 0.19897512 | 2.9058300 | 21 | 2 10.7 | 19.7 |
| 107394 2001 $CJ_{49}$ | 15.6 | X | 35.06728 | 206.05599 | 75.52002 | 2.96526 | 0.2124680 | 0.26146689 | 2.4220973 | 21 | 9 25.9 | 18.0 |
| 107395 2001 $CR_{49}$ | 15.4 | X | 134.21024 | 36.13793 | 154.02489 | 8.19005 | 0.0477760 | 0.21780698 | 2.7358242 | 21 | 9 3.2 | 19.1 |
| 107396 2001 $DU$ | 16.2 | X | 355.50716 | 66.72647 | 33.10180 | 1.53142 | 0.0424470 | 0.23523638 | 2.5989608 | 21 | — | — |
| 107397 2001 $DY$ | 15.8 | X | 327.79385 | 225.87044 | 357.10260 | 3.75216 | 0.1950853 | 0.24438924 | 2.5336580 | 21 | 1 31.5 | 18.9 |
| 107398 2001 $DA_{1}$ | 15.9 | X | 101.04741 | 72.85403 | 163.65952 | 3.22602 | 0.1449767 | 0.26341941 | 2.4101137 | 21 | 10 8.8 | 19.4 |
| 107399 2001 $DJ_{1}$ | 17.3 | X | 49.69078 | 136.12386 | 139.73127 | 5.42704 | 0.1777887 | 0.31244562 | 2.1508977 | 21 | 10 12.1 | 19.7 |
| 107400 2001 $DP_{2}$ | 16.6 | X | 79.76605 | 295.27399 | 324.88349 | 7.45694 | 0.2145921 | 0.31350121 | 2.1460668 | 21 | 10 25.6 | 19.7 |
| 107401 2001 $DS_{2}$ | 16.4 | X | 111.66439 | 236.99171 | 340.01837 | 1.76758 | 0.1543237 | 0.26426593 | 2.4049641 | 21 | 9 24.3 | 19.8 |
| 107402 2001 $DW_{2}$ | 16.6 | X | 223.19711 | 271.45176 | 112.19263 | 24.76609 | 0.1018551 | 0.35469888 | 1.9764971 | 21 | 5 12.9 | 19.8 |
| 107403 2001 $DW_{3}$ | 16.0 | X | 89.51368 | 209.51719 | 31.88400 | 6.58512 | 0.0757174 | 0.26598844 | 2.3945700 | 21 | 9 25.4 | 19.1 |
| 107404 2001 $DA_{5}$ | 16.4 | X | 248.01520 | 211.85093 | 16.19995 | 5.74012 | 0.0570905 | 0.28520494 | 2.2857638 | 21 | — | — |
| 107405 2001 $DS_{5}$ | 15.9 | X | 175.92488 | 352.48365 | 50.43322 | 8.00141 | 0.1210482 | 0.30132357 | 2.2035047 | 21 | 4 11.2 | 19.0 |
| 107406 2001 $DG_{6}$ | 16.1 | X | 58.10578 | 345.02261 | 99.43540 | 5.79637 | 0.0532441 | 0.28829980 | 2.2693762 | 21 | — | — |
| 107407 2001 $DS_{6}$ | 16.3 | X | 186.68479 | 42.19161 | 162.15269 | 2.72045 | 0.1175967 | 0.27145615 | 2.3623066 | 21 | 11 23.8 | 19.6 |
| 107408 2001 $DZ_{6}$ | 16.1 | X | 177.07927 | 263.06285 | 165.56912 | 2.01953 | 0.1515816 | 0.25764204 | 2.4460100 | 21 | 5 18.8 | 19.8 |
| 107409 2001 $DS_{7}$ | 16.1 | X | 230.66647 | 20.19194 | 150.30257 | 6.38495 | 0.0727849 | 0.27688131 | 2.3313472 | 21 | 12 9.2 | 19.1 |
| 107410 2001 $DV_{7}$ | 16.8 | X | 189.58739 | 223.89566 | 274.69967 | 1.53792 | 0.1296565 | 0.26621782 | 2.3931944 | 21 | 8 30.8 | 20.4 |
| 107411 2001 $DG_{8}$ | 16.6 | X | 26.63039 | 123.22299 | 133.05132 | 1.82358 | 0.1537733 | 0.25840825 | 2.4411725 | 21 | 7 20.2 | 18.8 |
| 107412 2001 $DX_{8}$ | 16.8 | X | 113.04295 | 146.00425 | 350.90015 | 18.85008 | 0.0543314 | 0.35202213 | 1.9865038 | 21 | 5 11.8 | 19.4 |
| 107413 2001 $DE_{9}$ | 15.6 | X | 100.56869 | 191.88702 | 154.45627 | 23.97050 | 0.1800167 | 0.28057181 | 2.3108585 | 21 | — | — |
| 107414 2001 $DS_{9}$ | 14.7 | X | 164.98651 | 80.91113 | 73.63679 | 8.26125 | 0.0561036 | 0.16727508 | 3.2622349 | 21 | 8 24.9 | 19.7 |
| 107415 2001 $DU_{9}$ | 16.1 | X | 16.55077 | 162.34022 | 70.30216 | 7.38395 | 0.0956596 | 0.25371427 | 2.4711899 | 21 | 5 20.1 | 18.6 |
| 107416 2001 $DX_{9}$ | 15.6 | X | 3.69874 | 347.45546 | 88.22750 | 7.44449 | 0.1446982 | 0.28243329 | 2.3006937 | 21 | — | — |
| 107417 2001 $DZ_{9}$ | 15.7 | X | 145.65475 | 198.71392 | 55.97817 | 7.43539 | 0.0795140 | 0.27392608 | 2.3480849 | 21 | 12 15.3 | 19.0 |
| 107418 2001 $DH_{10}$ | 16.5 | X | 177.60904 | 181.15520 | 40.31688 | 5.55727 | 0.1825043 | 0.27375334 | 2.3490726 | 21 | 11 30.6 | 20.3 |
| 107419 2001 $DV_{10}$ | 15.8 | X | 208.80329 | 136.99462 | 149.11544 | 5.34230 | 0.1132906 | 0.23816432 | 2.5776162 | 21 | — | — |
| 107420 2001 $DC_{11}$ | 16.3 | X | 270.89324 | 55.95387 | 136.21225 | 6.35098 | 0.1286923 | 0.28283318 | 2.2985245 | 21 | — | — |
| 107421 2001 $DF_{11}$ | 16.7 | X | 190.92544 | 48.32116 | 41.43056 | 1.87412 | 0.1580919 | 0.26141015 | 2.4224478 | 21 | 6 28.4 | 20.4 |
| 107422 2001 $DO_{11}$ | 16.3 | X | 276.58024 | 70.68238 | 135.77111 | 6.29852 | 0.1313532 | 0.23609179 | 2.5926793 | 21 | — | — |
| 107423 2001 $DR_{11}$ | 16.4 | X | 222.42430 | 334.87309 | 90.68278 | 2.82600 | 0.1669062 | 0.26235333 | 2.4166384 | 21 | 6 26.9 | 19.9 |
| 107424 2001 $DC_{12}$ | 15.2 | X | 268.29987 | 248.67497 | 116.59848 | 5.37925 | 0.0857827 | 0.20973374 | 2.8055877 | 21 | 6 10.1 | 19.1 |
| 107425 2001 $DF_{12}$ | 15.6 | X | 354.44104 | 219.80545 | 61.42174 | 3.19658 | 0.1764128 | 0.25527060 | 2.4611355 | 21 | 6 18.2 | 17.5 |
| 107426 2001 $DL_{13}$ | 15.2 | X | 104.69772 | 244.45798 | 34.19011 | 7.82111 | 0.2102383 | 0.26760285 | 2.3849296 | 21 | 12 7.1 | 19.1 |
| 107427 2001 $DM_{13}$ | 15.9 | X | 141.99809 | 55.63228 | 77.59465 | 6.95298 | 0.0525018 | 0.25680471 | 2.4513240 | 21 | 6 29.2 | 19.1 |
| 107428 2001 $DP_{13}$ | 16.2 | X | 270.78212 | 50.12592 | 103.43581 | 8.03305 | 0.0366922 | 0.27664816 | 2.3326569 | 21 | — | — |
| 107429 2001 $DQ_{13}$ | 15.4 | X | 6.01732 | 66.59353 | 64.37803 | 6.83538 | 0.2267019 | 0.23969571 | 2.5666257 | 21 | — | — |
| 107430 2001 $DU_{13}$ | 15.2 | X | 161.60974 | 193.49583 | 66.06738 | 8.14387 | 0.2102470 | 0.22435127 | 2.6823598 | 21 | 12 25.0 | 19.7 |
| 107431 2001 $DD_{14}$ | 16.3 | X | 210.57767 | 40.98869 | 322.54063 | 17.10970 | 0.1012551 | 0.34891226 | 1.9982902 | 21 | 3 10.9 | 19.1 |
| 107432 2001 $DM_{14}$ | 16.5 | X | 4.73915 | 302.27803 | 305.37267 | 6.67362 | 0.2066407 | 0.30096371 | 2.2052608 | 21 | 5 5.5 | 18.0 |
| 107433 2001 $DW_{14}$ | 16.8 | X | 93.89178 | 355.35655 | 172.32963 | 2.18182 | 0.1493983 | 0.25638818 | 2.4539783 | 21 | 6 28.3 | 19.9 |
| 107434 2001 $DA_{15}$ | 16.0 | X | 104.30202 | 336.11529 | 212.36640 | 0.89734 | 0.1138047 | 0.25956466 | 2.4339165 | 21 | 8 4.2 | 19.1 |
| 107435 2001 $DL_{15}$ | 16.4 | X | 143.55137 | 149.60403 | 21.55436 | 5.31106 | 0.2603720 | 0.26249423 | 2.4157735 | 21 | 9 2.6 | 20.7 |
| 107436 2001 $DS_{15}$ | 16.1 | X | 70.15852 | 158.60698 | 89.50446 | 6.58682 | 0.1890790 | 0.26120587 | 2.4237106 | 21 | 9 27.3 | 19.4 |
| 107437 2001 $DC_{16}$ | 16.0 | X | 229.29609 | 317.10553 | 55.97584 | 6.82380 | 0.1631805 | 0.30400114 | 2.1905470 | 21 | 4 24.7 | 19.3 |
| 107438 2001 $DK_{16}$ | 16.2 | X | 120.48232 | 136.26568 | 29.70342 | 5.72262 | 0.1065225 | 0.25919880 | 2.4362063 | 21 | 7 25.2 | 19.6 |
| 107439 2001 $DL_{16}$ | 15.5 | X | 208.60805 | 190.85306 | 358.78485 | 11.89495 | 0.2043610 | 0.22474925 | 2.6791923 | 21 | 11 8.8 | 20.0 |
| 107440 2001 $DQ_{16}$ | 16.1 | X | 205.42834 | 164.31866 | 25.21174 | 7.26229 | 0.0454746 | 0.27389235 | 2.3482777 | 21 | 12 2.9 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107441 2001 $DE_{17}$ | 15.9 | X | 351.97848 | 106.49829 | 66.80819 | 7.10556 | 0.1224678 | 0.24259453 | 2.5461386 | 21 | 1 12.1 | 18.9 |
| 107442 2001 $DR_{17}$ | 15.4 | X | 117.20033 | 136.17001 | 127.25560 | 10.96798 | 0.2245356 | 0.22007550 | 2.7169913 | 21 | 11 27.8 | 20.2 |
| 107443 2001 $DX_{17}$ | 15.4 | X | 102.80954 | 177.09263 | 55.19673 | 6.69187 | 0.0824552 | 0.26443949 | 2.4039117 | 21 | 10 1.3 | 18.7 |
| 107444 2001 $DF_{18}$ | 16.7 | X | 250.94626 | 51.52491 | 70.71259 | 6.53915 | 0.1894679 | 0.27241190 | 2.3567779 | 21 | 10 14.9 | 19.6 |
| 107445 2001 $DR_{18}$ | 15.6 | X | 251.92305 | 197.15935 | 49.96364 | 8.25413 | 0.1629381 | 0.23658963 | 2.5890409 | 21 | — | — |
| 107446 2001 $DO_{19}$ | 15.8 | X | 332.13463 | 95.29721 | 121.58629 | 8.29147 | 0.1386260 | 0.24384033 | 2.5374590 | 21 | 2 7.2 | 18.7 |
| 107447 2001 $DR_{19}$ | 15.8 | X | 277.13199 | 65.34898 | 83.60099 | 5.66918 | 0.0930951 | 0.27784033 | 2.3259794 | 21 | — | — |
| 107448 2001 $DS_{19}$ | 14.4 | X | 172.47668 | 21.62255 | 144.96820 | 19.67457 | 0.0737169 | 0.16877411 | 3.2428896 | 21 | 9 16.0 | 19.4 |
| 107449 2001 $DB_{20}$ | 16.3 | X | 123.74603 | 184.90057 | 44.83390 | 7.44547 | 0.0343481 | 0.26825885 | 2.3810399 | 21 | 10 18.2 | 19.4 |
| 107450 2001 $DE_{20}$ | 15.7 | X | 238.56703 | 21.61791 | 94.18007 | 6.06343 | 0.1123282 | 0.22092218 | 2.7100450 | 21 | 9 26.5 | 19.6 |
| 107451 2001 $DG_{20}$ | 16.6 | X | 212.89896 | 68.04662 | 134.26821 | 12.47813 | 0.1177273 | 0.27512587 | 2.3412535 | 21 | 12 21.8 | 19.9 |
| 107452 2001 $DA_{21}$ | 15.6 | X | 57.25798 | 1.06825 | 85.97043 | 5.50201 | 0.2337931 | 0.24269365 | 2.5454453 | 21 | 1 12.4 | 17.5 |
| 107453 2001 $DQ_{23}$ | 16.6 | X | 217.00920 | 94.22532 | 96.08008 | 3.78022 | 0.1050544 | 0.27612709 | 2.3355906 | 21 | 12 12.2 | 19.4 |
| 107454 2001 $DR_{23}$ | 16.8 | X | 114.70100 | 193.42398 | 27.95032 | 3.55366 | 0.0447259 | 0.31502978 | 2.1391192 | 21 | 9 30.5 | 19.3 |
| 107455 2001 $DD_{24}$ | 16.2 | X | 199.66856 | 128.15280 | 7.71921 | 4.42804 | 0.0465098 | 0.26727656 | 2.3868702 | 21 | 9 15.1 | 19.2 |
| 107456 2001 $DF_{24}$ | 16.5 | X | 76.25829 | 153.29633 | 51.90718 | 3.24946 | 0.1362893 | 0.25830833 | 2.4418020 | 21 | 7 26.4 | 19.5 |
| 107457 2001 $DS_{24}$ | 15.6 | X | 56.67616 | 314.56844 | 109.70024 | 5.69164 | 0.1028324 | 0.23982711 | 2.5656881 | 21 | — | — |
| 107458 2001 $DN_{26}$ | 16.0 | X | 300.60306 | 293.32866 | 101.08426 | 3.34974 | 0.1681453 | 0.26880974 | 2.3777857 | 21 | 8 28.2 | 18.2 |
| 107459 2001 $DP_{26}$ | 15.6 | X | 260.72698 | 335.25699 | 84.75212 | 2.86930 | 0.2032457 | 0.21914927 | 2.7246415 | 21 | 7 26.8 | 19.4 |
| 107460 2001 $DV_{26}$ | 16.3 | X | 85.71644 | 114.91961 | 89.77609 | 2.25829 | 0.1301214 | 0.25892735 | 2.4379087 | 21 | 8 6.3 | 19.3 |
| 107461 2001 $DS_{27}$ | 16.4 | X | 279.07759 | 95.42939 | 8.31331 | 7.38592 | 0.0631612 | 0.27363874 | 2.3497284 | 21 | 11 14.5 | 19.1 |
| 107462 2001 $DE_{28}$ | 16.4 | X | 206.55788 | 32.93489 | 46.61847 | 2.62525 | 0.1714711 | 0.26207642 | 2.4183403 | 21 | 6 29.7 | 20.2 |
| 107463 2001 $DG_{28}$ | 16.0 | X | 355.19745 | 217.85358 | 102.40937 | 5.29438 | 0.0335729 | 0.26339371 | 2.4102705 | 21 | 8 23.7 | 18.9 |
| 107464 2001 $DJ_{28}$ | 16.9 | X | 284.62141 | 30.49413 | 122.52385 | 6.63978 | 0.1761548 | 0.28034682 | 2.3120947 | 21 | — | — |
| 107465 2001 $DN_{28}$ | 15.0 | X | 97.42897 | 201.54731 | 21.34880 | 5.17901 | 0.1002499 | 0.21405296 | 2.7677183 | 21 | 9 8.7 | 18.9 |
| 107466 2001 $DV_{28}$ | 15.9 | X | 335.46194 | 70.15752 | 57.43530 | 3.50509 | 0.1516565 | 0.23592611 | 2.5938929 | 21 | — | — |
| 107467 2001 $DY_{28}$ | 15.7 | X | 115.38079 | 123.43713 | 116.24672 | 2.31202 | 0.1427298 | 0.26666450 | 2.3905211 | 21 | 10 27.9 | 19.2 |
| 107468 2001 $DX_{29}$ | 15.9 | X | 340.75102 | 87.04136 | 45.26347 | 3.07605 | 0.1407201 | 0.23687276 | 2.5869774 | 21 | — | — |
| 107469 2001 $DB_{30}$ | 16.5 | X | 186.72105 | 153.30873 | 8.61867 | 5.33484 | 0.1657277 | 0.26762879 | 2.3847755 | 21 | 9 26.7 | 20.1 |
| 107470 2001 $DO_{31}$ | 15.6 | X | 69.33939 | 233.54579 | 31.27904 | 5.15351 | 0.1830887 | 0.26269241 | 2.4145583 | 21 | 10 14.7 | 18.7 |
| 107471 2001 $DT_{31}$ | 16.2 | X | 184.17777 | 120.83611 | 58.66210 | 3.11665 | 0.1309437 | 0.26898916 | 2.3767283 | 21 | 10 19.3 | 19.7 |
| 107472 2001 $DB_{32}$ | 16.2 | X | 134.87646 | 104.76734 | 64.65466 | 3.42111 | 0.1231351 | 0.26098161 | 2.4250989 | 21 | 8 16.5 | 19.7 |
| 107473 2001 $DZ_{32}$ | 15.9 | X | 89.57465 | 188.31233 | 76.09489 | 3.81515 | 0.1891007 | 0.26529359 | 2.3987494 | 21 | 11 6.1 | 19.4 |
| 107474 2001 $DE_{33}$ | 15.9 | X | 268.28722 | 130.63563 | 23.60073 | 4.20230 | 0.1492932 | 0.22949597 | 2.6421208 | 21 | 12 16.9 | 19.0 |
| 107475 2001 $DK_{33}$ | 15.8 | X | 6.88098 | 353.22232 | 75.65198 | 2.82873 | 0.1498835 | 0.28127719 | 2.3069935 | 21 | — | — |
| 107476 2001 $DL_{33}$ | 15.4 | X | 210.43652 | 163.32611 | 143.92055 | 9.88041 | 0.0088213 | 0.24125039 | 2.5555872 | 21 | 1 16.7 | 18.8 |
| 107477 2001 $DW_{33}$ | 15.9 | X | 115.59217 | 187.14003 | 38.75895 | 4.08698 | 0.1944339 | 0.26373613 | 2.4081838 | 21 | 10 13.4 | 19.6 |
| 107478 2001 $DX_{34}$ | 16.1 | X | 228.60943 | 89.77824 | 145.95718 | 6.04616 | 0.0874108 | 0.28421736 | 2.2910557 | 21 | — | — |
| 107479 2001 $DK_{35}$ | 16.5 | X | 251.30915 | 24.10714 | 146.15663 | 7.30278 | 0.1112940 | 0.27890610 | 2.3200501 | 21 | 12 31.6 | 19.3 |
| 107480 2001 $DS_{35}$ | 16.2 | X | 68.16381 | 294.92175 | 149.68504 | 5.64079 | 0.1504628 | 0.24517822 | 2.5282196 | 21 | 1 21.7 | 18.7 |
| 107481 2001 $DH_{36}$ | 16.6 | X | 208.27993 | 330.36635 | 148.78882 | 1.64821 | 0.1383149 | 0.26698101 | 2.3886314 | 21 | 8 25.0 | 19.9 |
| 107482 2001 $DP_{36}$ | 15.8 | X | 329.60114 | 165.01588 | 314.01212 | 2.86781 | 0.1316734 | 0.23532105 | 2.5983373 | 21 | — | — |
| 107483 2001 $DQ_{36}$ | 15.8 | X | 269.97083 | 295.43160 | 116.24279 | 2.68341 | 0.0751315 | 0.21843789 | 2.7305538 | 21 | 8 15.4 | 19.3 |
| 107484 2001 $DS_{36}$ | 15.9 | X | 301.63708 | 53.93291 | 141.91140 | 8.77953 | 0.1324315 | 0.23933237 | 2.5692227 | 21 | — | — |
| 107485 2001 $DG_{37}$ | 16.2 | X | 338.95874 | 23.06259 | 125.29225 | 3.71120 | 0.0651200 | 0.23946204 | 2.5682951 | 21 | — | — |
| 107486 2001 $DL_{37}$ | 15.3 | X | 184.19434 | 114.62172 | 145.38454 | 15.14094 | 0.0770681 | 0.23258476 | 2.6186767 | 21 | — | — |
| 107487 2001 $DN_{37}$ | 16.1 | X | 175.24938 | 67.78820 | 356.54027 | 1.97136 | 0.1609018 | 0.25702092 | 2.4499491 | 21 | 5 10.7 | 19.9 |
| 107488 2001 $DR_{37}$ | 15.9 | X | 307.69127 | 237.79822 | 351.62890 | 2.59916 | 0.2113577 | 0.24299441 | 2.5433445 | 21 | 1 12.6 | 19.6 |
| 107489 2001 $DB_{38}$ | 16.1 | X | 60.65212 | 185.27904 | 274.44989 | 5.60866 | 0.0358988 | 0.29383449 | 2.2407885 | 21 | 1 9.2 | 18.4 |
| 107490 2001 $DR_{39}$ | 15.4 | X | 177.96632 | 319.41135 | 322.84979 | 11.63921 | 0.0874462 | 0.23525470 | 2.5988259 | 21 | — | — |
| 107491 2001 $DB_{41}$ | 15.1 | X | 269.18281 | 198.74457 | 51.89175 | 2.85449 | 0.0342489 | 0.19272694 | 2.9682998 | 21 | 1 26.5 | 19.2 |
| 107492 2001 $DK_{41}$ | 16.2 | X | 347.76824 | 294.44223 | 161.82351 | 5.50828 | 0.1118252 | 0.28305011 | 2.2973500 | 21 | — | — |
| 107493 2001 $DE_{43}$ | 16.0 | X | 162.89328 | 98.53141 | 162.27130 | 2.69755 | 0.2195984 | 0.27499524 | 2.3419948 | 21 | — | — |
| 107494 2001 $DM_{43}$ | 16.6 | X | 20.61383 | 129.81899 | 140.26025 | 5.36259 | 0.1119203 | 0.30720132 | 2.1753075 | 21 | 7 26.9 | 18.2 |
| 107495 2001 $DP_{43}$ | 16.2 | X | 126.61437 | 270.47481 | 341.99123 | 1.95140 | 0.1808286 | 0.26958124 | 2.3732470 | 21 | 11 23.7 | 19.9 |
| 107496 2001 $DS_{43}$ | 16.2 | X | 176.76675 | 321.60575 | 160.99488 | 1.46075 | 0.1317110 | 0.26217732 | 2.4177198 | 21 | 7 27.6 | 19.8 |
| 107497 2001 $DO_{44}$ | 16.3 | X | 244.22444 | 46.46901 | 145.36038 | 7.05466 | 0.0726311 | 0.27922223 | 2.3182987 | 21 | — | — |
| 107498 2001 $DQ_{44}$ | 16.3 | X | 121.31011 | 12.97653 | 149.55526 | 1.48795 | 0.1254680 | 0.25893218 | 2.4378783 | 21 | 7 21.4 | 19.8 |
| 107499 2001 $DZ_{45}$ | 16.3 | X | 357.54469 | 11.47629 | 109.08195 | 2.92278 | 0.0897701 | 0.23762740 | 2.5814974 | 21 | — | — |
| 107500 2001 $DJ_{46}$ | 16.5 | X | 16.83113 | 114.22382 | 142.39348 | 4.72925 | 0.1149603 | 0.30488923 | 2.1862911 | 21 | 6 26.1 | 18.2 |
| 107501 2001 $DP_{46}$ | 16.7 | X | 16.65976 | 123.79932 | 97.87083 | 8.00567 | 0.1284738 | 0.29986767 | 2.2106312 | 21 | 4 30.9 | 18.5 |
| 107502 2001 $DX_{47}$ | 16.4 | X | 218.93833 | 54.29345 | 8.27161 | 19.97008 | 0.0960136 | 0.35640629 | 1.9701796 | 21 | 6 22.7 | 19.4 |
| 107503 2001 $DM_{48}$ | 15.8 | X | 208.85685 | 335.08005 | 34.84972 | 6.95273 | 0.2007195 | 0.30400366 | 2.1905349 | 21 | 4 1.2 | 19.2 |
| 107504 2001 $DQ_{48}$ | 16.7 | X | 205.45226 | 107.42496 | 19.10855 | 7.20393 | 0.1506138 | 0.26778223 | 2.3838644 | 21 | 9 2.7 | 20.4 |
| 107505 2001 $DK_{49}$ | 15.9 | X | 12.05637 | 67.49200 | 44.54167 | 6.69200 | 0.0986931 | 0.28837396 | 2.2689871 | 21 | — | — |
| 107506 2001 $DM_{49}$ | 16.1 | X | 221.00969 | 111.21511 | 53.81116 | 7.06637 | 0.1115853 | 0.27406967 | 2.3472647 | 21 | 11 12.5 | 18.9 |
| 107507 2001 $DP_{49}$ | 15.9 | X | 166.31732 | 11.12778 | 73.27265 | 7.46317 | 0.0545577 | 0.25691580 | 2.4506174 | 21 | 5 23.9 | 19.3 |
| 107508 2001 $DV_{49}$ | 15.7 | X | 249.29961 | 23.68378 | 23.33162 | 6.79975 | 0.1111566 | 0.26526485 | 2.3989227 | 21 | 7 9.1 | 19.0 |
| 107509 2001 $DC_{50}$ | 16.4 | X | 277.02076 | 126.66048 | 79.07313 | 7.26257 | 0.0963800 | 0.28616731 | 2.2806363 | 21 | — | — |
| 107510 2001 $DK_{50}$ | 15.2 | X | 208.92397 | 249.79645 | 0.20800 | 14.24246 | 0.0545956 | 0.23550593 | 2.5969773 | 21 | — | — |
| 107511 2001 $DF_{52}$ | 15.8 | X | 346.98059 | 348.43630 | 49.23925 | 7.58008 | 0.1457289 | 0.27443696 | 2.3451699 | 21 | 12 9.4 | 18.0 |
| 107512 2001 $DB_{53}$ | 15.7 | X | 164.24468 | 119.86422 | 145.94285 | 10.37122 | 0.0528949 | 0.22958005 | 2.6414757 | 21 | — | — |
| 107513 2001 $DO_{53}$ | 16.1 | X | 96.36103 | 79.14841 | 152.86865 | 6.33259 | 0.0612634 | 0.26515054 | 2.3996120 | 21 | 9 18.3 | 19.2 |
| 107514 2001 $DW_{53}$ | 16.1 | X | 329.46670 | 226.04726 | 184.68359 | 2.55927 | 0.2295952 | 0.27594431 | 2.3366218 | 21 | 11 30.4 | 17.4 |
| 107515 2001 $DZ_{53}$ | 16.4 | X | 181.91347 | 153.34060 | 104.29277 | 3.28711 | 0.2275100 | 0.28150129 | 2.3057690 | 21 | — | — |
| 107516 2001 $DC_{54}$ | 16.7 | X | 351.91564 | 92.03912 | 121.68435 | 2.83681 | 0.1019770 | 0.29173358 | 2.2515336 | 21 | 3 1.3 | 18.8 |
| 107517 2001 $DM_{54}$ | 16.3 | X | 208.58833 | 222.77644 | 27.18735 | 10.89405 | 0.2031594 | 0.27795163 | 2.3253584 | 21 | — | — |
| 107518 2001 $DN_{56}$ | 16.3 | X | 269.75915 | 49.03309 | 5.08157 | 1.18021 | 0.1742449 | 0.26740825 | 2.3860865 | 21 | 8 4.9 | 19.0 |
| 107519 2001 $DO_{57}$ | 16.6 | X | 117.24925 | 177.39827 | 5.53007 | 1.39254 | 0.1134360 | 0.26373807 | 2.4081720 | 21 | 8 13.1 | 20.0 |
| 107520 2001 $DF_{58}$ | 16.0 | X | 105.59426 | 291.71843 | 249.68869 | 6.94189 | 0.1172765 | 0.25926001 | 2.4358228 | 21 | 7 25.7 | 19.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107521 2001 $DV_{60}$ | 16.4 | X | 83.09947 | 354.08512 | 193.06725 | 2.21611 | 0.1366856 | 0.25739202 | 2.4475937 | 21 | 7 8.9 | 19.4 |
| 107522 2001 $DY_{60}$ | 15.1 | X | 106.25736 | 324.99799 | 328.45944 | 12.32987 | 0.1756576 | 0.22670493 | 2.6637619 | 21 | 12 20.1 | 19.6 |
| 107523 2001 $DZ_{60}$ | 15.9 | X | 286.05481 | 212.73787 | 320.09899 | 4.46139 | 0.0879884 | 0.28342964 | 2.2952987 | 21 | — | — |
| 107524 2001 $DB_{61}$ | 16.7 | X | 294.94362 | 317.40817 | 152.20974 | 2.91071 | 0.1294268 | 0.27783015 | 2.3260362 | 21 | 12 16.8 | 18.8 |
| 107525 2001 $DG_{61}$ | 15.8 | X | 91.71814 | 335.38577 | 287.63759 | 3.28382 | 0.1591018 | 0.26771244 | 2.3842787 | 21 | 11 1.9 | 19.4 |
| 107526 2001 $DH_{61}$ | 16.5 | X | 161.24652 | 332.37612 | 208.68280 | 2.06130 | 0.1713126 | 0.26688933 | 2.3891784 | 21 | 9 26.4 | 20.2 |
| 107527 2001 $DP_{61}$ | 16.5 | X | 193.95652 | 27.70890 | 203.72490 | 2.12999 | 0.1718662 | 0.27721873 | 2.3294550 | 21 | 12 30.7 | 20.0 |
| 107528 2001 $DQ_{62}$ | 16.5 | X | 122.49260 | 15.26603 | 146.98670 | 2.83597 | 0.1439185 | 0.25968992 | 2.4331338 | 21 | 7 24.2 | 20.1 |
| 107529 2001 $DB_{65}$ | 16.8 | X | 168.51337 | 329.26359 | 245.62001 | 0.61711 | 0.0849541 | 0.27213412 | 2.3583815 | 21 | 11 19.3 | 20.1 |
| 107530 2001 $DE_{65}$ | 16.6 | X | 130.11559 | 335.24049 | 140.02832 | 2.95942 | 0.1296051 | 0.25576836 | 2.4579413 | 21 | 5 29.7 | 20.0 |
| 107531 2001 $DR_{65}$ | 15.9 | X | 338.15532 | 142.22669 | 303.04466 | 3.62161 | 0.1607357 | 0.23234593 | 2.6204709 | 21 | — | — |
| 107532 2001 $DZ_{66}$ | 15.6 | X | 299.27785 | 290.03167 | 335.52866 | 7.68089 | 0.1559804 | 0.29444869 | 2.2376714 | 21 | 2 16.7 | 18.3 |
| 107533 2001 $DF_{67}$ | 15.7 | X | 19.96277 | 143.92042 | 331.43030 | 8.45741 | 0.0672886 | 0.23969358 | 2.5666410 | 21 | — | — |
| 107534 2001 $DR_{67}$ | 16.0 | X | 318.72440 | 278.95443 | 160.38252 | 5.68991 | 0.1242661 | 0.27631843 | 2.3345122 | 21 | 12 17.4 | 18.2 |
| 107535 2001 $DB_{68}$ | 15.9 | X | 89.89664 | 297.70074 | 339.90597 | 6.29620 | 0.1026746 | 0.26892493 | 2.3771067 | 21 | 11 12.1 | 19.2 |
| 107536 2001 $DC_{68}$ | 16.7 | X | 1.20437 | 143.70776 | 342.66568 | 3.27221 | 0.2439111 | 0.23974273 | 2.5662901 | 21 | — | — |
| 107537 2001 $DO_{69}$ | 15.3 | X | 15.97721 | 274.10649 | 164.53403 | 10.09937 | 0.0955594 | 0.23464787 | 2.6033045 | 21 | — | — |
| 107538 2001 $DR_{69}$ | 16.3 | X | 264.14789 | 104.95560 | 320.03070 | 2.48149 | 0.1911574 | 0.26738372 | 2.3862324 | 21 | 8 9.7 | 19.3 |
| 107539 2001 $DB_{70}$ | 15.6 | X | 243.47523 | 276.96566 | 171.29758 | 9.74511 | 0.1778536 | 0.26712071 | 2.3877985 | 21 | 8 16.6 | 19.0 |
| 107540 2001 $DF_{70}$ | 16.2 | X | 275.15054 | 255.82370 | 166.66234 | 2.04270 | 0.2021074 | 0.26863156 | 2.3788370 | 21 | 8 19.4 | 19.0 |
| 107541 2001 $DG_{70}$ | 15.3 | X | 264.91629 | 6.15303 | 163.21542 | 13.97237 | 0.1125074 | 0.23012527 | 2.6373019 | 21 | — | — |
| 107542 2001 $DO_{70}$ | 15.5 | X | 93.38936 | 240.72581 | 156.67543 | 13.87957 | 0.0719484 | 0.23862689 | 2.5742840 | 21 | — | — |
| 107543 2001 $DQ_{70}$ | 16.1 | X | 215.20011 | 329.37902 | 154.45567 | 6.77728 | 0.0722554 | 0.26631493 | 2.3926125 | 21 | 9 15.7 | 19.2 |
| 107544 2001 $DR_{70}$ | 15.0 | X | 316.31121 | 2.69093 | 347.17127 | 11.31172 | 0.2444669 | 0.26162817 | 2.4211018 | 21 | 7 6.3 | 17.4 |
| 107545 2001 $DB_{71}$ | 15.5 | X | 195.84932 | 294.71535 | 173.94146 | 5.19597 | 0.1585031 | 0.21416440 | 2.7667581 | 21 | 7 25.9 | 19.9 |
| 107546 2001 $DG_{71}$ | 16.5 | X | 11.20872 | 278.78611 | 308.90301 | 2.71800 | 0.1692578 | 0.29839302 | 2.2179084 | 21 | 4 20.9 | 18.0 |
| 107547 2001 $DS_{71}$ | 16.4 | X | 337.02787 | 337.28587 | 157.37619 | 6.71114 | 0.1047998 | 0.28427281 | 2.2907578 | 21 | — | — |
| 107548 2001 $DV_{71}$ | 15.7 | X | 342.87081 | 149.75473 | 339.15347 | 7.34316 | 0.1453421 | 0.23614531 | 2.5922875 | 21 | — | — |
| 107549 2001 $DU_{72}$ | 16.2 | X | 352.51076 | 214.14543 | 266.07780 | 1.40265 | 0.1514447 | 0.23745357 | 2.5827572 | 21 | — | — |
| 107550 2001 $DO_{74}$ | 15.3 | X | 137.04761 | 234.41639 | 14.19002 | 14.15203 | 0.1734125 | 0.26667120 | 2.3904811 | 21 | 11 24.3 | 19.4 |
| 107551 2001 $DY_{74}$ | 16.1 | X | 225.59465 | 60.38388 | 183.79431 | 7.07081 | 0.2482698 | 0.27599447 | 2.3363387 | 21 | — | — |
| 107552 2001 $DT_{77}$ | 16.4 | X | 274.62257 | 65.66007 | 350.47870 | 1.03320 | 0.1720874 | 0.26947018 | 2.3738990 | 21 | 8 15.2 | 19.0 |
| 107553 2001 $DU_{78}$ | 16.8 | X | 250.97629 | 19.40287 | 141.63571 | 3.88826 | 0.0925817 | 0.27547817 | 2.3392569 | 21 | 12 20.7 | 19.6 |
| 107554 2001 $DY_{78}$ | 15.1 | X | 291.09886 | 151.16651 | 95.13798 | 9.75081 | 0.1392965 | 0.24251192 | 2.5467168 | 21 | 1 24.9 | 18.8 |
| 107555 2001 $DH_{80}$ | 16.3 | X | 210.39950 | 82.62582 | 102.16554 | 3.06546 | 0.0594101 | 0.27280553 | 2.3545103 | 21 | 12 2.5 | 19.1 |
| 107556 2001 $DF_{81}$ | 15.9 | X | 342.19534 | 113.45480 | 53.72940 | 8.10866 | 0.1177086 | 0.23916302 | 2.5704354 | 21 | — | — |
| 107557 2001 $DT_{81}$ | 16.2 | X | 78.77648 | 213.36532 | 126.62674 | 2.67319 | 0.0827888 | 0.23109920 | 2.6298870 | 21 | — | — |
| 107558 2001 $DK_{85}$ | 16.3 | X | 159.10440 | 278.82964 | 17.42358 | 2.76552 | 0.0825285 | 0.22769483 | 2.6560359 | 21 | — | — |
| 107559 2001 $DK_{86}$ | 16.7 | X | 178.09680 | 173.35437 | 67.01963 | 4.28397 | 0.1222548 | 0.27378664 | 2.3488821 | 21 | 12 29.8 | 20.1 |
| 107560 2001 $DM_{86}$ | 16.5 | X | 119.44381 | 128.42090 | 117.58146 | 5.44673 | 0.1229120 | 0.26652643 | 2.3913466 | 21 | 11 8.9 | 20.1 |
| 107561 2001 $DW_{86}$ | 16.4 | X | 41.54612 | 288.00660 | 309.04158 | 1.46529 | 0.1477801 | 0.25541210 | 2.4602263 | 21 | 7 18.4 | 18.8 |
| 107562 2001 $DV_{87}$ | 15.5 | X | 259.59939 | 6.10758 | 70.24648 | 6.20954 | 0.0249101 | 0.21915805 | 2.7245687 | 21 | 9 14.3 | 19.2 |
| 107563 2001 $DZ_{87}$ | 15.4 | X | 142.43161 | 114.32823 | 119.47339 | 11.31674 | 0.1032074 | 0.22101328 | 2.7093003 | 21 | 11 12.5 | 19.7 |
| 107564 2001 $DZ_{88}$ | 16.1 | X | 314.27024 | 74.28371 | 167.31899 | 15.39429 | 0.0915748 | 0.24428308 | 2.5343920 | 21 | 2 20.2 | 19.4 |
| 107565 2001 $DG_{89}$ | 16.4 | X | 319.36289 | 270.56665 | 6.85596 | 7.08969 | 0.1449713 | 0.29718675 | 2.2239060 | 21 | 4 1.9 | 18.8 |
| 107566 2001 $DH_{89}$ | 15.3 | X | 88.07355 | 249.12834 | 163.37287 | 11.80277 | 0.0552850 | 0.23829717 | 2.5766581 | 21 | 1 1.4 | 18.7 |
| 107567 2001 $DK_{89}$ | 16.4 | X | 305.87474 | 224.74932 | 16.96039 | 6.39794 | 0.1608753 | 0.29146657 | 2.2529085 | 21 | 1 25.3 | 19.5 |
| 107568 2001 $DR_{89}$ | 14.7 | X | 220.54552 | 296.79702 | 158.48396 | 22.26718 | 0.1087647 | 0.17033053 | 3.2231045 | 21 | 8 4.3 | 19.8 |
| 107569 2001 $DD_{90}$ | 16.6 | X | 212.09346 | 331.29115 | 142.99695 | 2.77216 | 0.1194946 | 0.26477103 | 2.4019045 | 21 | 8 24.3 | 19.8 |
| 107570 2001 $DE_{90}$ | 14.3 | X | 202.86117 | 247.20729 | 315.21907 | 21.14740 | 0.0966645 | 0.17753394 | 3.1353194 | 21 | 11 21.4 | 19.5 |
| 107571 2001 $DM_{90}$ | 14.6 | X | 22.52487 | 85.67399 | 179.71130 | 9.73401 | 0.2344579 | 0.20398472 | 2.8580575 | 21 | 7 31.8 | 17.6 |
| 107572 2001 $DB_{91}$ | 15.9 | X | 245.87552 | 305.46338 | 262.65712 | 2.96479 | 0.1962737 | 0.23301340 | 2.6154643 | 21 | — | — |
| 107573 2001 $DM_{92}$ | 16.3 | X | 252.85469 | 109.42117 | 79.98906 | 8.69152 | 0.0593814 | 0.28080965 | 2.3095535 | 21 | — | — |
| 107574 2001 $DS_{92}$ | 16.7 | X | 149.00795 | 95.84697 | 57.40774 | 1.72424 | 0.1270857 | 0.26183921 | 2.4198007 | 21 | 8 9.4 | 20.3 |
| 107575 2001 $DG_{94}$ | 16.6 | X | 303.18115 | 293.35627 | 174.88634 | 5.03635 | 0.2045263 | 0.27829291 | 2.3234569 | 21 | 12 27.7 | 18.2 |
| 107576 2001 $DM_{94}$ | 16.1 | X | 215.64298 | 210.56754 | 291.95621 | 5.57085 | 0.1712159 | 0.26979195 | 2.3720111 | 21 | 9 26.7 | 19.7 |
| 107577 2001 $DS_{95}$ | 16.2 | X | 85.96218 | 122.22253 | 90.81547 | 3.43246 | 0.1347592 | 0.26162787 | 2.4211036 | 21 | 8 19.8 | 19.4 |
| 107578 2001 $DB_{96}$ | 16.1 | X | 274.21916 | 125.12976 | 33.34638 | 3.53136 | 0.0905401 | 0.23246055 | 2.6196094 | 21 | — | — |
| 107579 2001 $DF_{96}$ | 15.3 | X | 104.01042 | 300.42818 | 338.73435 | 11.38755 | 0.2619327 | 0.27127037 | 2.3633850 | 21 | 12 10.2 | 19.6 |
| 107580 2001 $DN_{96}$ | 15.4 | X | 266.04455 | 105.36429 | 28.01909 | 2.96060 | 0.0679996 | 0.18087590 | 3.0965796 | 21 | 11 18.7 | 19.7 |
| 107581 2001 $DA_{97}$ | 16.3 | X | 147.46308 | 193.20999 | 28.53413 | 2.70022 | 0.1675800 | 0.26927152 | 2.3750665 | 21 | 11 4.3 | 19.9 |
| 107582 2001 $DP_{97}$ | 16.5 | X | 70.98194 | 184.86853 | 40.11876 | 3.79906 | 0.1284405 | 0.25919644 | 2.4362210 | 21 | 8 15.8 | 19.5 |
| 107583 2001 $DZ_{97}$ | 16.7 | X | 167.62758 | 307.88616 | 261.07860 | 5.58468 | 0.1967895 | 0.27107160 | 2.3645402 | 21 | 11 4.9 | 20.5 |
| 107584 2001 $DR_{98}$ | 15.8 | X | 41.25684 | 338.46658 | 226.62737 | 6.18244 | 0.1512954 | 0.25292350 | 2.4763380 | 21 | 5 29.8 | 18.1 |
| 107585 2001 $DM_{99}$ | 15.4 | X | 6.14573 | 158.96127 | 262.05354 | 5.53572 | 0.0937787 | 0.27972895 | 2.3154981 | 21 | — | — |
| 107586 2001 $DW_{100}$ | 15.6 | X | 77.80960 | 266.20925 | 5.69892 | 11.28753 | 0.2778540 | 0.26609405 | 2.3939364 | 21 | 11 8.4 | 19.5 |
| 107587 2001 $DA_{101}$ | 16.0 | X | 119.95569 | 161.76767 | 145.74082 | 7.17072 | 0.1328165 | 0.27915956 | 2.3186456 | 21 | — | — |
| 107588 2001 $DU_{101}$ | 15.5 | X | 49.58298 | 123.07237 | 58.38071 | 4.99289 | 0.1261596 | 0.25202580 | 2.4822149 | 21 | 5 6.4 | 17.8 |
| 107589 2001 $DW_{101}$ | 15.8 | X | 353.03609 | 358.56355 | 39.40715 | 5.93557 | 0.1577719 | 0.27684770 | 2.3315359 | 21 | 12 24.3 | 18.0 |
| 107590 2001 $DX_{101}$ | 15.7 | X | 233.42243 | 67.88213 | 39.68062 | 5.90815 | 0.0603119 | 0.26813276 | 2.3817863 | 21 | 9 20.2 | 18.8 |
| 107591 2001 $DA_{102}$ | 15.8 | X | 62.53414 | 285.45589 | 86.69705 | 5.73319 | 0.1470324 | 0.28181233 | 2.3040721 | 21 | — | — |
| 107592 2001 $DB_{102}$ | 16.1 | X | 235.31521 | 40.40399 | 34.35517 | 5.00443 | 0.2010152 | 0.26612589 | 2.3937455 | 21 | 7 20.7 | 19.8 |
| 107593 2001 $DG_{102}$ | 15.5 | X | 22.57239 | 220.41173 | 35.35619 | 7.73183 | 0.2016026 | 0.25611972 | 2.4556928 | 21 | 7 19.1 | 17.7 |
| 107594 2001 $DH_{102}$ | 15.8 | X | 255.38049 | 116.29461 | 96.37136 | 8.48712 | 0.0741930 | 0.23508734 | 2.6000591 | 21 | — | — |
| 107595 2001 $DQ_{102}$ | 16.1 | X | 145.74602 | 181.22971 | 54.11659 | 7.09433 | 0.0626203 | 0.27185538 | 2.3599933 | 21 | 11 20.7 | 19.4 |
| 107596 2001 $DA_{104}$ | 15.5 | X | 239.76231 | 292.89830 | 135.21373 | 13.07828 | 0.1230568 | 0.21705538 | 2.7421361 | 21 | 7 22.5 | 19.6 |
| 107597 2001 $DL_{104}$ | 16.6 | X | 205.35476 | 66.10641 | 150.37897 | 6.89573 | 0.0651761 | 0.27785143 | 2.3259174 | 21 | — | — |
| 107598 2001 $DW_{104}$ | 16.9 | X | 114.42039 | 228.82645 | 336.54637 | 2.15345 | 0.1427191 | 0.26341391 | 2.4101473 | 21 | 9 11.1 | 20.5 |
| 107599 2001 $DC_{109}$ | 16.1 | X | 59.25637 | 304.74475 | 316.45944 | 3.34436 | 0.0906154 | 0.26146956 | 2.4220808 | 21 | 9 10.4 | 19.1 |
| 107600 2001 $EO$ | 15.6 | X | 316.26532 | 193.40552 | 18.52187 | 4.93092 | 0.1665649 | 0.24000902 | 2.5643915 | 21 | 1 7.4 | 19.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107601 2001 $EW$ | 15.7 | X | 120.79411 | 118.61681 | 129.10432 | 6.88882 | 0.0707532 | 0.21870335 | 2.7283437 | 21 | 11 4.0 | 19.8 |
| 107602 2001 $EN_1$ | 16.4 | X | 169.04242 | 136.72224 | 73.97074 | 7.40993 | 0.1975978 | 0.27037735 | 2.3685861 | 21 | 11 10.8 | 20.3 |
| 107603 2001 $EN_2$ | 15.6 | X | 306.29518 | 134.95108 | 60.69480 | 9.80553 | 0.1033548 | 0.23857223 | 2.5746772 | 21 | — | — |
| 107604 2001 $ES_2$ | 16.4 | X | 327.89593 | 48.69961 | 107.96007 | 5.38120 | 0.1459302 | 0.23602235 | 2.5931877 | 21 | — | — |
| 107605 2001 $ET_2$ | 16.2 | X | 194.13753 | 102.79218 | 118.30446 | 6.09475 | 0.0883405 | 0.27373068 | 2.3492022 | 21 | 12 26.4 | 19.3 |
| 107606 2001 $EL_3$ | 17.0 | X | 113.35567 | 125.44299 | 76.89668 | 1.56808 | 0.0275454 | 0.31097866 | 2.1576566 | 21 | 8 29.2 | 19.4 |
| 107607 2001 $ES_3$ | 16.2 | X | 1.68094 | 279.42192 | 153.86009 | 10.03983 | 0.1705088 | 0.28156761 | 2.3054069 | 21 | — | — |
| 107608 2001 $EW_3$ | 16.6 | X | 146.63095 | 164.24138 | 63.88578 | 2.33232 | 0.1404295 | 0.26904564 | 2.3763956 | 21 | 11 12.0 | 20.0 |
| 107609 2001 $EY_3$ | 16.1 | X | 238.57287 | 278.02365 | 154.71771 | 11.16887 | 0.2093435 | 0.26514393 | 2.3996520 | 21 | 7 18.2 | 19.8 |
| 107610 2001 $EO_4$ | 16.5 | X | 190.36492 | 77.16142 | 124.76645 | 3.12986 | 0.1089668 | 0.27205293 | 2.3588507 | 21 | 11 25.6 | 19.7 |
| 107611 2001 $EP_4$ | 16.2 | X | 256.40738 | 72.93016 | 141.80968 | 6.04103 | 0.1235992 | 0.23346650 | 2.6120792 | 21 | — | — |
| 107612 2001 $EV_4$ | 16.5 | X | 163.49537 | 80.08581 | 32.51008 | 2.68602 | 0.1664338 | 0.25890909 | 2.4380233 | 21 | 7 2.2 | 20.4 |
| 107613 2001 $EB_5$ | 17.1 | X | 42.44474 | 115.06039 | 83.99579 | 2.37437 | 0.0932410 | 0.30012672 | 2.2093589 | 21 | 5 11.6 | 19.0 |
| 107614 2001 $ED_5$ | 16.3 | X | 166.10455 | 110.21549 | 90.59557 | 3.33988 | 0.1377360 | 0.26834709 | 2.3805179 | 21 | 10 28.5 | 19.9 |
| 107615 2001 $EK_5$ | 16.8 | X | 357.38912 | 209.45351 | 63.04084 | 3.57403 | 0.2075655 | 0.30128724 | 2.2036818 | 21 | 6 5.1 | 17.5 |
| 107616 2001 $EO_6$ | 15.7 | X | 217.19707 | 28.69526 | 68.82352 | 7.02912 | 0.0982392 | 0.26244879 | 2.4160523 | 21 | 8 11.8 | 19.2 |
| 107617 2001 $EW_6$ | 16.2 | X | 354.42097 | 162.26485 | 48.98804 | 4.25738 | 0.1641964 | 0.29365678 | 2.2416924 | 21 | 2 21.5 | 18.2 |
| 107618 2001 $EO_7$ | 16.5 | X | 41.61514 | 148.94081 | 98.66280 | 3.34116 | 0.0507647 | 0.30564170 | 2.1827013 | 21 | 7 21.9 | 18.7 |
| 107619 2001 $EQ_7$ | 16.3 | X | 97.25612 | 109.12322 | 75.19924 | 3.36126 | 0.1370763 | 0.25652605 | 2.4530990 | 21 | 7 24.8 | 19.7 |
| 107620 2001 $EW_7$ | 16.3 | X | 240.43285 | 91.43329 | 56.60629 | 2.76280 | 0.1474249 | 0.27270872 | 2.3550676 | 21 | 11 8.9 | 19.3 |
| 107621 2001 $EC_8$ | 15.9 | X | 177.46508 | 143.88582 | 66.95713 | 3.34615 | 0.1139855 | 0.27076520 | 2.3663237 | 21 | 11 21.9 | 19.4 |
| 107622 2001 $EJ_9$ | 15.0 | X | 183.68604 | 191.74496 | 151.68034 | 5.85106 | 0.1547763 | 0.24205308 | 2.5499342 | 21 | 2 8.1 | 18.9 |
| 107623 2001 $EM_9$ | 14.8 | X | 275.52615 | 262.60820 | 0.14689 | 12.69539 | 0.2429339 | 0.23967633 | 2.5667641 | 21 | 1 23.1 | 19.2 |
| 107624 2001 $EN_9$ | 15.5 | X | 356.94779 | 297.08904 | 161.25847 | 12.42193 | 0.1793664 | 0.23471023 | 2.6028434 | 21 | — | — |
| 107625 2001 $EX_9$ | 16.4 | X | 265.16258 | 86.78134 | 141.11601 | 3.79830 | 0.2418984 | 0.23428913 | 2.6059613 | 21 | — | — |
| 107626 2001 $EG_{10}$ | 15.2 | X | 323.42211 | 83.29191 | 5.95204 | 13.78525 | 0.0509967 | 0.22670621 | 2.6637519 | 21 | 12 23.9 | 18.8 |
| 107627 2001 $ER_{10}$ | 16.0 | X | 152.15600 | 340.69768 | 311.18460 | 6.62832 | 0.1128335 | 0.27834642 | 2.3231591 | 21 | — | — |
| 107628 2001 $EV_{10}$ | 16.5 | X | 176.06029 | 151.35010 | 66.31016 | 2.07652 | 0.1394688 | 0.27061906 | 2.3671755 | 21 | 11 27.3 | 20.0 |
| 107629 2001 $EY_{10}$ | 15.0 | X | 159.35767 | 291.38822 | 6.36198 | 22.12010 | 0.0096636 | 0.23162862 | 2.6258781 | 21 | — | — |
| 107630 2001 $ET_{11}$ | 15.6 | X | 175.42102 | 195.28903 | 55.79117 | 2.84407 | 0.1256961 | 0.22738880 | 2.6584184 | 21 | 12 31.7 | 19.8 |
| 107631 2001 $EU_{11}$ | 16.9 | X | 216.12938 | 67.38853 | 67.72259 | 2.38223 | 0.1321238 | 0.26836056 | 2.3804383 | 21 | 9 25.8 | 20.1 |
| 107632 2001 $EX_{11}$ | 15.7 | X | 354.44651 | 42.28206 | 101.72847 | 2.26026 | 0.0706849 | 0.23859415 | 2.5745195 | 21 | — | — |
| 107633 2001 $EA_{12}$ | 16.3 | X | 176.08046 | 179.37471 | 22.96783 | 5.62723 | 0.1229928 | 0.26959534 | 2.3731642 | 21 | 11 7.9 | 19.8 |
| 107634 2001 $EG_{12}$ | 15.8 | X | 6.59794 | 40.55237 | 81.91926 | 4.73575 | 0.2386930 | 0.23777326 | 2.5804416 | 21 | — | — |
| 107635 2001 $EL_{12}$ | 15.6 | X | 324.33907 | 85.32592 | 150.11649 | 8.45768 | 0.1315611 | 0.24267284 | 2.5455908 | 21 | 2 21.5 | 18.7 |
| 107636 2001 $EL_{13}$ | 16.6 | X | 153.20070 | 261.48756 | 190.08059 | 21.58264 | 0.1220877 | 0.35188427 | 1.9870226 | 21 | 5 19.6 | 19.5 |
| 107637 2001 $EO_{13}$ | 15.1 | X | 312.08716 | 277.19017 | 168.46825 | 21.67677 | 0.0579000 | 0.22543393 | 2.6737647 | 21 | 12 5.1 | 18.9 |
| 107638 Wendyfreedman | 16.0 | X | 243.47889 | 269.13238 | 6.72747 | 8.59261 | 0.1470326 | 0.23829536 | 2.5766711 | 21 | 1 14.9 | 20.2 |
| 107639 2001 $EV_{13}$ | 15.5 | X | 353.61910 | 10.34140 | 159.54564 | 15.41424 | 0.0596269 | 0.24170010 | 2.5524162 | 21 | 1 16.5 | 18.8 |
| 107640 2001 $EQ_{15}$ | 15.9 | X | 296.31569 | 333.10422 | 37.90172 | 21.52783 | 0.0882462 | 0.35991966 | 1.9573373 | 21 | 8 14.9 | 18.3 |
| 107641 2001 $ER_{16}$ | 14.4 | X | 266.28480 | 198.87233 | 341.88186 | 8.62929 | 0.1044018 | 0.18243314 | 3.0789329 | 21 | — | — |
| 107642 2001 $EZ_{16}$ | 16.4 | X | 158.15326 | 279.68491 | 185.96640 | 22.98417 | 0.0843891 | 0.35244326 | 1.9849211 | 21 | 6 11.3 | 19.4 |
| 107643 2001 $EY_{17}$ | 15.6 | X | 272.18259 | 160.76207 | 145.99731 | 14.23927 | 0.1790174 | 0.24366581 | 2.5386704 | 21 | 3 18.6 | 19.5 |
| 107644 2001 $EG_{18}$ | 16.7 | X | 146.13402 | 83.40524 | 339.19871 | 11.50269 | 0.1286918 | 0.25232761 | 2.4802352 | 21 | 4 2.9 | 20.5 |
| 107645 2001 $EZ_{18}$ | 15.7 | X | 238.17457 | 182.14422 | 274.45033 | 6.20071 | 0.0536769 | 0.26785754 | 2.3834176 | 21 | 9 5.9 | 18.8 |
| 107646 2001 $EG_{20}$ | 16.4 | X | 121.31457 | 22.09214 | 189.31474 | 1.86983 | 0.1219714 | 0.26383659 | 2.4075725 | 21 | 9 24.8 | 19.8 |
| 107647 2001 $EQ_{20}$ | 16.2 | X | 130.95515 | 30.12677 | 198.11307 | 3.59239 | 0.0986347 | 0.26737667 | 2.3862744 | 21 | 10 26.6 | 19.5 |
| 107648 2001 $ER_{20}$ | 15.8 | X | 41.99509 | 255.49059 | 194.33815 | 4.65725 | 0.2215543 | 0.24120186 | 2.5559299 | 21 | — | — |
| 107649 2001 $ET_{20}$ | 16.3 | X | 248.59108 | 209.36903 | 249.23573 | 1.89652 | 0.1721577 | 0.26885737 | 2.3775049 | 21 | 9 7.4 | 19.4 |
| 107650 2001 $ER_{21}$ | 15.7 | X | 78.57599 | 282.81541 | 326.52587 | 13.79077 | 0.1674059 | 0.26198566 | 2.4188988 | 21 | 9 25.9 | 19.2 |
| 107651 2001 $EW_{21}$ | 16.5 | X | 161.34947 | 318.50753 | 282.88183 | 6.07039 | 0.1847622 | 0.27230587 | 2.3573897 | 21 | 12 10.8 | 20.4 |
| 107652 2001 $EP_{23}$ | 15.7 | X | 354.09606 | 2.57103 | 321.71161 | 5.52734 | 0.0571585 | 0.26177950 | 2.4201686 | 21 | 8 25.7 | 18.2 |
| 107653 2001 $EA_{24}$ | 14.9 | X | 72.42688 | 281.98201 | 25.92649 | 13.32766 | 0.1502089 | 0.21694516 | 2.7430648 | 21 | 11 27.7 | 19.1 |
| 107654 2001 $EE_{24}$ | 16.4 | X | 74.24094 | 204.65588 | 311.07264 | 0.57162 | 0.1271465 | 0.25105674 | 2.4885983 | 21 | 5 10.1 | 19.2 |
| 107655 2001 $EF_{24}$ | 15.9 | X | 196.24725 | 35.71040 | 172.89425 | 3.23639 | 0.0923984 | 0.27343764 | 2.3508803 | 21 | 12 12.4 | 19.0 |
| 107656 2001 $EC_{25}$ | 16.1 | X | 258.87571 | 332.13596 | 123.92902 | 2.88869 | 0.1810496 | 0.26745331 | 2.3858185 | 21 | 9 18.2 | 19.0 |
| 107657 2001 $EN_{25}$ | 15.5 | X | 1.03013 | 311.03917 | 127.17881 | 15.96580 | 0.1751072 | 0.23236679 | 2.6203140 | 21 | — | — |
| 107658 2001 $EF_{27}$ | 15.9 | X | 129.96743 | 281.79687 | 242.45381 | 6.47068 | 0.0662665 | 0.26122780 | 2.4235749 | 21 | 7 26.4 | 19.2 |
| 107659 2001 $EK_{27}$ | 14.3 | X | 335.13970 | 259.91663 | 145.83600 | 16.36328 | 0.0896152 | 0.17465095 | 3.1697287 | 21 | 11 9.4 | 18.6 |
| 107660 2001 $FH$ | 15.4 | X | 190.30485 | 66.63221 | 188.37384 | 4.08640 | 0.1105846 | 0.27754195 | 2.3276461 | 21 | — | — |
| 107661 2001 $FC_2$ | 15.7 | X | 215.03271 | 17.96366 | 69.42234 | 6.09154 | 0.1671689 | 0.26120101 | 2.4237406 | 21 | 7 19.4 | 19.4 |
| 107662 2001 $FG_2$ | 15.9 | X | 109.63887 | 304.81575 | 248.03290 | 6.62088 | 0.1995043 | 0.25874948 | 2.4390258 | 21 | 8 22.6 | 19.8 |
| 107663 2001 $FK_2$ | 16.3 | X | 122.75209 | 330.27487 | 209.47832 | 6.33403 | 0.1582833 | 0.26136802 | 2.4227080 | 21 | 8 16.0 | 20.0 |
| 107664 2001 $FO_2$ | 15.9 | X | 55.30346 | 94.14313 | 3.85342 | 9.80495 | 0.0639905 | 0.24129263 | 2.5552889 | 21 | 1 16.7 | 19.1 |
| 107665 2001 $FK_3$ | 15.0 | X | 299.68697 | 77.93409 | 193.05058 | 5.19987 | 0.2602862 | 0.24231177 | 2.5481190 | 21 | 2 16.7 | 18.7 |
| 107666 2001 $FN_3$ | 16.5 | X | 235.06981 | 259.91315 | 219.83829 | 4.00017 | 0.1628736 | 0.26847569 | 2.3797577 | 21 | 9 20.7 | 19.9 |
| 107667 2001 $FW_3$ | 16.3 | X | 43.96363 | 266.65605 | 5.04288 | 5.18177 | 0.1380926 | 0.25796547 | 2.4439651 | 21 | 9 11.9 | 19.1 |
| 107668 2001 $FY_4$ | 15.2 | X | 318.10541 | 73.33818 | 1.14815 | 19.99976 | 0.1311884 | 0.36954662 | 1.9231946 | 21 | — | — |
| 107669 2001 $FC_5$ | 15.6 | X | 80.65250 | 144.25585 | 152.93164 | 5.52585 | 0.2327756 | 0.26724616 | 2.3870512 | 21 | 12 12.1 | 19.4 |
| 107670 2001 $FE_5$ | 15.9 | X | 50.10441 | 272.60343 | 7.11884 | 0.89171 | 0.1743228 | 0.26051107 | 2.4280181 | 21 | 10 7.9 | 18.8 |
| 107671 2001 $FW_5$ | 15.0 | X | 273.24328 | 259.03759 | 22.43383 | 12.60759 | 0.2340969 | 0.23706631 | 2.5855691 | 21 | 2 15.0 | 19.3 |
| 107672 2001 $FE_6$ | 16.2 | X | 124.96293 | 123.03587 | 30.73625 | 3.01809 | 0.1266367 | 0.25756467 | 2.4464998 | 21 | 7 14.7 | 19.8 |
| 107673 2001 $FV_6$ | 15.6 | X | 130.48424 | 252.07605 | 29.54131 | 5.19013 | 0.3493328 | 0.27073423 | 2.3665041 | 21 | — | — |
| 107674 2001 $FU_8$ | 15.2 | X | 227.12515 | 248.11239 | 12.99544 | 10.80834 | 0.2370439 | 0.23301414 | 2.6154587 | 21 | — | — |
| 107675 2001 $FA_9$ | 16.4 | X | 265.72760 | 40.86995 | 262.47380 | 7.06464 | 0.1592002 | 0.29253386 | 2.2474254 | 21 | 2 25.1 | 19.7 |
| 107676 2001 $FD_{10}$ | 16.4 | X | 62.58633 | 220.77628 | 23.88550 | 1.37909 | 0.1529865 | 0.25771774 | 2.4455310 | 21 | 9 3.4 | 19.2 |
| 107677 2001 $FN_{10}$ | 15.7 | X | 32.92059 | 294.96090 | 344.48938 | 5.68687 | 0.1091390 | 0.25849885 | 2.4406021 | 21 | 8 31.0 | 18.3 |
| 107678 2001 $FO_{10}$ | 16.1 | X | 331.75331 | 209.16720 | 320.96667 | 3.19565 | 0.1532460 | 0.23763942 | 2.5814104 | 21 | — | — |
| 107679 2001 $FQ_{10}$ | 15.6 | X | 277.17535 | 321.66351 | 190.01454 | 1.74837 | 0.0136189 | 0.22785742 | 2.6547722 | 21 | — | — |
| 107680 2001 $FS_{10}$ | 16.1 | X | 113.33968 | 249.12109 | 359.19719 | 6.91089 | 0.0920180 | 0.26601216 | 2.3944277 | 21 | 10 30.2 | 19.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107681 2001 $FO_{11}$ | 14.6 | X | 204.98913 | 80.27468 | 163.13597 | 9.63819 | 0.0443264 | 0.18022535 | 3.1040268 | 21 | — | — |
| 107682 2001 $FB_{12}$ | 15.7 | X | 304.58417 | 144.06524 | 41.75522 | 6.03149 | 0.0859522 | 0.23516361 | 2.5994969 | 21 | — | — |
| 107683 2001 $FD_{12}$ | 15.5 | X | 231.41316 | 83.57106 | 177.14412 | 16.48897 | 0.0917577 | 0.23387514 | 2.6090356 | 21 | — | — |
| 107684 2001 $FF_{12}$ | 16.0 | X | 173.89251 | 86.14996 | 71.28160 | 3.07711 | 0.1633444 | 0.26322553 | 2.4112970 | 21 | 9 9.9 | 19.8 |
| 107685 2001 $FJ_{12}$ | 16.3 | X | 113.97523 | 118.86118 | 146.84949 | 2.83298 | 0.1644242 | 0.26672676 | 2.3901491 | 21 | 11 28.8 | 20.1 |
| 107686 2001 $FN_{12}$ | 15.4 | X | 106.88683 | 159.74040 | 47.84174 | 5.13002 | 0.0125937 | 0.21121954 | 2.7924152 | 21 | 8 20.6 | 19.2 |
| 107687 2001 $FZ_{12}$ | 16.9 | X | 4.46627 | 151.14893 | 19.94978 | 5.30562 | 0.2217255 | 0.24227265 | 2.5483933 | 21 | 1 16.8 | 19.3 |
| 107688 2001 $FB_{13}$ | 15.8 | X | 200.31650 | 60.40528 | 175.17041 | 14.81538 | 0.0552852 | 0.22760659 | 2.6567223 | 21 | — | — |
| 107689 2001 $FE_{13}$ | 16.1 | X | 180.57541 | 35.01388 | 155.72760 | 2.83130 | 0.1300653 | 0.26813658 | 2.3817637 | 21 | 10 30.2 | 19.7 |
| 107690 2001 $FB_{14}$ | 14.8 | X | 91.57151 | 130.57602 | 109.55054 | 1.37757 | 0.0881713 | 0.16486435 | 3.2939592 | 21 | 9 16.9 | 19.5 |
| 107691 2001 $FE_{14}$ | 16.2 | X | 156.22824 | 110.33418 | 9.07479 | 6.36089 | 0.0884698 | 0.25656886 | 2.4528260 | 21 | 6 30.7 | 19.8 |
| 107692 2001 $FA_{15}$ | 15.9 | X | 22.76338 | 287.88309 | 186.95389 | 6.15577 | 0.1243507 | 0.23835546 | 2.5762380 | 21 | — | — |
| 107693 2001 $FE_{15}$ | 15.8 | X | 50.60631 | 314.80209 | 323.28524 | 0.54608 | 0.1708174 | 0.25969379 | 2.4331096 | 21 | 10 5.5 | 18.6 |
| 107694 2001 $FO_{15}$ | 15.7 | X | 245.14503 | 251.96146 | 12.44640 | 4.52069 | 0.1219697 | 0.28485112 | 2.2876562 | 21 | — | — |
| 107695 2001 $FP_{15}$ | 14.9 | X | 144.50665 | 347.81862 | 8.37764 | 7.90376 | 0.0377257 | 0.23674746 | 2.5878901 | 21 | 1 2.8 | 18.5 |
| 107696 2001 $FZ_{15}$ | 16.2 | X | 302.27914 | 202.62272 | 3.49269 | 9.16485 | 0.1402481 | 0.28574998 | 2.2828563 | 21 | — | — |
| 107697 2001 $FL_{16}$ | 15.9 | X | 75.08504 | 141.45258 | 167.75014 | 2.87568 | 0.1254368 | 0.26771178 | 2.3842826 | 21 | 12 11.0 | 19.3 |
| 107698 2001 $FS_{16}$ | 15.0 | X | 297.86750 | 83.79918 | 84.64898 | 2.39080 | 0.0597347 | 0.18347474 | 3.0672689 | 21 | — | — |
| 107699 2001 $FC_{17}$ | 16.2 | X | 87.64456 | 96.47101 | 20.53844 | 2.11460 | 0.0964697 | 0.24650334 | 2.5191509 | 21 | 4 1.9 | 19.2 |
| 107700 2001 $FQ_{17}$ | 16.7 | X | 124.84291 | 337.21565 | 225.10438 | 1.87460 | 0.1530492 | 0.26112091 | 2.4242363 | 21 | 9 17.9 | 20.4 |
| 107701 2001 $FS_{17}$ | 15.5 | X | 190.44167 | 204.37209 | 4.59396 | 12.25714 | 0.1196013 | 0.22219206 | 2.6997094 | 21 | 11 21.8 | 19.9 |
| 107702 2001 $FX_{17}$ | 16.2 | X | 114.52176 | 343.60270 | 262.17602 | 1.79936 | 0.1295096 | 0.26449397 | 2.4035815 | 21 | 11 1.2 | 19.9 |
| 107703 2001 $FE_{18}$ | 15.5 | X | 57.56734 | 238.32989 | 4.60047 | 4.70417 | 0.1263939 | 0.25663729 | 2.4523900 | 21 | 8 21.1 | 18.4 |
| 107704 2001 $FL_{18}$ | 16.0 | X | 341.02366 | 249.76072 | 274.52702 | 2.43986 | 0.0594929 | 0.23740327 | 2.5831220 | 21 | — | — |
| 107705 2001 $FP_{18}$ | 16.1 | X | 121.90132 | 20.16435 | 237.65964 | 1.74733 | 0.1583526 | 0.26672358 | 2.3901681 | 21 | 11 25.6 | 19.7 |
| 107706 2001 $FS_{18}$ | 15.7 | X | 219.15032 | 37.68302 | 201.90036 | 7.91485 | 0.1637377 | 0.22904853 | 2.6455606 | 21 | — | — |
| 107707 2001 $FV_{18}$ | 15.4 | X | 256.41388 | 208.52325 | 356.87300 | 13.26040 | 0.1137744 | 0.23097488 | 2.6308306 | 21 | — | — |
| 107708 2001 $FD_{19}$ | 15.5 | X | 227.04917 | 204.00144 | 304.34678 | 4.07738 | 0.1007358 | 0.22087813 | 2.7104053 | 21 | 10 20.7 | 19.5 |
| 107709 2001 $FN_{19}$ | 16.1 | X | 140.58596 | 103.84278 | 203.95195 | 5.97209 | 0.1310467 | 0.27628444 | 2.3347037 | 21 | — | — |
| 107710 2001 $FQ_{19}$ | 16.2 | X | 243.07748 | 305.36093 | 250.75153 | 2.52574 | 0.1467577 | 0.22832065 | 2.6511802 | 21 | — | — |
| 107711 2001 $FC_{20}$ | 15.3 | X | 186.57301 | 123.30049 | 343.60352 | 12.29231 | 0.1086899 | 0.21039684 | 2.7996897 | 21 | 7 20.1 | 19.8 |
| 107712 2001 $FF_{20}$ | 15.7 | X | 113.43219 | 55.06714 | 263.70797 | 4.46350 | 0.1614409 | 0.27424517 | 2.3462632 | 21 | — | — |
| 107713 2001 $FS_{20}$ | 16.5 | X | 72.83846 | 280.41561 | 317.55047 | 3.66025 | 0.1232590 | 0.30685867 | 2.1769266 | 21 | 9 5.9 | 18.9 |
| 107714 2001 $FZ_{21}$ | 15.7 | X | 358.16943 | 341.70648 | 169.94324 | 8.15787 | 0.1317614 | 0.23740613 | 2.5831013 | 21 | — | — |
| 107715 2001 $FH_{22}$ | 15.2 | X | 191.08362 | 127.01995 | 158.26347 | 8.72465 | 0.2382770 | 0.22779696 | 2.6552420 | 21 | — | — |
| 107716 2001 $FJ_{22}$ | 15.1 | X | 91.63294 | 139.05771 | 155.93603 | 6.52054 | 0.2992224 | 0.21501060 | 2.7594941 | 21 | 12 16.2 | 19.9 |
| 107717 2001 $FV_{22}$ | 15.2 | X | 218.44789 | 53.20749 | 188.77070 | 14.01806 | 0.1441156 | 0.22794021 | 2.6541293 | 21 | — | — |
| 107718 2001 $FF_{23}$ | 15.8 | X | 55.86115 | 119.16714 | 28.66058 | 12.61077 | 0.1541430 | 0.24533801 | 2.5271217 | 21 | 4 4.4 | 18.4 |
| 107719 2001 $FP_{23}$ | 16.1 | X | 90.09127 | 195.44642 | 64.45739 | 7.40321 | 0.1160505 | 0.26206273 | 2.4184245 | 21 | 10 25.5 | 19.4 |
| 107720 2001 $FR_{23}$ | 15.4 | X | 264.50941 | 52.62256 | 172.12421 | 13.42686 | 0.2105769 | 0.23243168 | 2.6198263 | 21 | — | — |
| 107721 2001 $FT_{23}$ | 16.7 | X | 328.62120 | 175.71642 | 86.88248 | 6.57842 | 0.1809382 | 0.29377475 | 2.2410923 | 21 | 3 24.8 | 19.1 |
| 107722 2001 $FJ_{24}$ | 15.6 | X | 310.20734 | 327.06664 | 310.94392 | 10.37994 | 0.1635180 | 0.29584521 | 2.2306239 | 21 | 3 12.7 | 18.5 |
| 107723 2001 $FV_{24}$ | 15.8 | X | 27.41593 | 345.78442 | 257.31235 | 5.93695 | 0.0928698 | 0.25397377 | 2.4695063 | 21 | 6 24.2 | 18.5 |
| 107724 2001 $FO_{25}$ | 15.5 | X | 268.75412 | 70.68660 | 192.35462 | 11.38662 | 0.2583266 | 0.23795719 | 2.5791118 | 21 | 1 11.5 | 20.1 |
| 107725 2001 $FR_{25}$ | 15.1 | X | 293.03184 | 357.66374 | 191.90026 | 0.83362 | 0.2128020 | 0.18499321 | 3.0504613 | 21 | — | — |
| 107726 2001 $FZ_{26}$ | 14.8 | X | 214.89278 | 88.34230 | 197.84531 | 27.35779 | 0.2107110 | 0.23275421 | 2.6174056 | 21 | — | — |
| 107727 2001 $FF_{27}$ | 15.7 | X | 277.39626 | 206.90597 | 345.32525 | 11.80909 | 0.1344999 | 0.23256316 | 2.6188388 | 21 | — | — |
| 107728 2001 $FG_{27}$ | 15.8 | X | 270.43498 | 308.40117 | 286.51889 | 4.27069 | 0.0729372 | 0.23691504 | 2.5866696 | 21 | — | — |
| 107729 2001 $FT_{27}$ | 16.0 | X | 333.19776 | 281.86821 | 326.67008 | 2.55757 | 0.2231674 | 0.24463748 | 2.5319437 | 21 | 3 8.8 | 18.6 |
| 107730 2001 $FC_{28}$ | 15.4 | X | 172.75494 | 275.08536 | 23.62746 | 4.91887 | 0.1692773 | 0.28033628 | 2.3121527 | 21 | — | — |
| 107731 2001 $FH_{28}$ | 16.7 | X | 221.62867 | 86.30500 | 87.86239 | 3.01214 | 0.1455986 | 0.27294943 | 2.3536827 | 21 | 11 20.8 | 19.9 |
| 107732 2001 $FK_{28}$ | 15.9 | X | 67.03792 | 183.97399 | 73.87360 | 3.45328 | 0.1559683 | 0.26079779 | 2.4262383 | 21 | 9 29.8 | 19.0 |
| 107733 2001 $FO_{28}$ | 15.2 | X | 110.55782 | 215.47774 | 158.30298 | 11.80965 | 0.1354053 | 0.23592789 | 2.5938799 | 21 | — | — |
| 107734 2001 $FO_{29}$ | 15.9 | X | 213.85101 | 212.03285 | 70.84219 | 8.47122 | 0.2224971 | 0.28118919 | 2.3074748 | 21 | — | — |
| 107735 2001 $FA_{30}$ | 15.0 | X | 101.54535 | 328.43841 | 307.10242 | 14.12990 | 0.0375579 | 0.22189904 | 2.7020856 | 21 | 11 6.3 | 19.1 |
| 107736 2001 $FY_{30}$ | 15.3 | X | 138.26469 | 174.06806 | 180.71389 | 7.12630 | 0.1428356 | 0.23522867 | 2.5990176 | 21 | 1 6.3 | 19.0 |
| 107737 2001 $FA_{31}$ | 16.8 | X | 162.27803 | 352.39125 | 127.50077 | 1.13508 | 0.1626965 | 0.25804437 | 2.4434669 | 21 | 7 10.2 | 20.6 |
| 107738 2001 $FC_{31}$ | 16.2 | X | 70.45252 | 166.57796 | 110.25597 | 2.62798 | 0.1640794 | 0.26240492 | 2.4163216 | 21 | 10 29.8 | 19.5 |
| 107739 2001 $FT_{31}$ | 16.0 | X | 30.20282 | 8.38019 | 133.38263 | 4.89513 | 0.1652616 | 0.24043282 | 2.5613773 | 21 | 2 1.1 | 18.3 |
| 107740 2001 $FN_{32}$ | 16.4 | X | 72.17008 | 56.44105 | 139.46043 | 5.85553 | 0.0657954 | 0.25122970 | 2.4874559 | 21 | 6 24.3 | 19.6 |
| 107741 2001 $FS_{32}$ | 16.7 | X | 43.71115 | 160.14974 | 181.45768 | 21.50972 | 0.0466200 | 0.36793763 | 1.9287973 | 21 | 12 25.7 | 19.4 |
| 107742 2001 $FH_{33}$ | 16.1 | X | 180.97202 | 268.87583 | 247.73141 | 4.40042 | 0.1605842 | 0.26491268 | 2.4010483 | 21 | 9 11.8 | 20.0 |
| 107743 2001 $FN_{33}$ | 15.9 | X | 293.76692 | 248.14319 | 336.01828 | 3.10504 | 0.1884128 | 0.23928249 | 2.5695798 | 21 | — | — |
| 107744 2001 $FS_{33}$ | 15.8 | X | 313.45118 | 352.32216 | 207.75192 | 5.09008 | 0.2280294 | 0.23942892 | 2.5685320 | 21 | — | — |
| 107745 2001 $FA_{35}$ | 16.4 | X | 301.12482 | 239.10685 | 0.47166 | 6.75685 | 0.1041782 | 0.29081518 | 2.2562714 | 21 | 1 24.3 | 19.4 |
| 107746 2001 $FE_{35}$ | 16.3 | X | 219.84004 | 163.12549 | 337.84716 | 1.93769 | 0.1234777 | 0.26900134 | 2.3766565 | 21 | 10 6.9 | 19.5 |
| 107747 2001 $FO_{35}$ | 15.9 | X | 213.45662 | 263.34810 | 317.51743 | 5.32393 | 0.0836178 | 0.27784376 | 2.3259602 | 21 | — | — |
| 107748 2001 $FQ_{35}$ | 16.0 | X | 102.53829 | 350.36564 | 163.53525 | 4.90171 | 0.0747329 | 0.25432490 | 2.4672328 | 21 | 6 9.8 | 19.2 |
| 107749 2001 $FS_{35}$ | 16.1 | X | 167.16631 | 107.37697 | 164.15630 | 5.46889 | 0.0767026 | 0.27712487 | 2.3299810 | 21 | — | — |
| 107750 2001 $FY_{35}$ | 15.8 | X | 137.88410 | 299.86110 | 352.48250 | 6.43343 | 0.1008507 | 0.27573730 | 2.3377911 | 21 | — | — |
| 107751 2001 $FH_{36}$ | 16.3 | X | 79.08622 | 356.79362 | 241.23305 | 1.54275 | 0.1646372 | 0.25970415 | 2.4330449 | 21 | 9 16.4 | 19.5 |
| 107752 2001 $FS_{36}$ | 16.7 | X | 256.68425 | 312.89300 | 181.58326 | 4.97507 | 0.1853462 | 0.27363563 | 2.3497462 | 21 | 11 7.9 | 19.4 |
| 107753 2001 $FW_{36}$ | 15.4 | X | 317.31097 | 293.02991 | 321.52473 | 8.33696 | 0.2330849 | 0.24513381 | 2.5285249 | 21 | 2 19.9 | 18.7 |
| 107754 2001 $FZ_{36}$ | 15.4 | X | 33.68716 | 178.83990 | 163.73626 | 6.44273 | 0.0500803 | 0.22110204 | 2.7085751 | 21 | 11 14.8 | 19.0 |
| 107755 2001 $FA_{37}$ | 16.8 | X | 100.71421 | 6.77950 | 171.84703 | 1.28871 | 0.1247752 | 0.25650975 | 2.4532029 | 21 | 7 18.6 | 20.0 |
| 107756 2001 $FE_{37}$ | 16.9 | X | 226.42774 | 309.86306 | 178.63704 | 2.28151 | 0.1824106 | 0.26857633 | 2.3791632 | 21 | 9 21.6 | 20.4 |
| 107757 2001 $FK_{37}$ | 15.4 | X | 269.12151 | 117.01589 | 184.51369 | 3.95427 | 0.1209528 | 0.24557312 | 2.5255085 | 21 | 3 11.4 | 19.0 |
| 107758 2001 $FM_{37}$ | 15.5 | X | 80.11337 | 83.12364 | 357.60923 | 13.18183 | 0.1451500 | 0.24267865 | 2.5455502 | 21 | 2 11.9 | 18.4 |
| 107759 2001 $FF_{38}$ | 16.0 | X | 138.70698 | 69.95620 | 179.57926 | 21.70320 | 0.1096322 | 0.27038500 | 2.3685415 | 21 | 12 3.0 | 20.0 |
| 107760 2001 $FG_{38}$ | 15.8 | X | 294.79858 | 304.99137 | 192.69238 | 13.53755 | 0.1287414 | 0.23023239 | 2.6364838 | 21 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107761 2001 $FS_{38}$ | 16.1 | X | 116.92075 | 231.45408 | 300.55557 | 4.03364 | 0.0794398 | 0.25784895 | 2.4447013 | 21 | 7 24.1 | 19.5 |
| 107762 2001 $FY_{39}$ | 15.9 | X | 275.03931 | 266.11946 | 336.45315 | 3.67530 | 0.1611303 | 0.23771692 | 2.5808493 | 21 | 1 1.9 | 19.9 |
| 107763 2001 $FK_{40}$ | 15.5 | X | 343.49795 | 306.25179 | 171.74122 | 3.02853 | 0.2817518 | 0.23592213 | 2.5939221 | 21 | — | — |
| 107764 2001 $FN_{40}$ | 16.5 | X | 182.44621 | 99.52647 | 50.33151 | 0.55718 | 0.1134413 | 0.26398595 | 2.4066643 | 21 | 9 8.7 | 20.0 |
| 107765 2001 $FP_{40}$ | 14.9 | X | 306.83362 | 100.18298 | 2.95051 | 13.28964 | 0.0663382 | 0.22633326 | 2.6666773 | 21 | 12 16.1 | 18.4 |
| 107766 2001 $FS_{40}$ | 16.4 | X | 19.11962 | 225.80748 | 6.83639 | 6.78911 | 0.1173744 | 0.29966767 | 2.2116147 | 21 | 5 18.4 | 18.2 |
| 107767 2001 $FW_{40}$ | 15.3 | X | 159.57400 | 165.68977 | 7.91066 | 9.34202 | 0.0905623 | 0.21478312 | 2.7614422 | 21 | 9 13.6 | 19.4 |
| 107768 2001 $FN_{41}$ | 16.1 | X | 78.34028 | 212.66573 | 65.42221 | 1.00381 | 0.1281161 | 0.26451317 | 2.4034652 | 21 | 11 4.3 | 19.2 |
| 107769 2001 $FW_{41}$ | 16.2 | X | 227.09006 | 84.28480 | 29.38233 | 1.71535 | 0.1278174 | 0.26576066 | 2.3959381 | 21 | 9 9.4 | 19.5 |
| 107770 2001 $FY_{41}$ | 16.0 | X | 147.23952 | 208.08003 | 35.12766 | 1.65317 | 0.1537969 | 0.26908653 | 2.3761549 | 21 | 11 30.8 | 19.8 |
| 107771 2001 $FA_{42}$ | 15.6 | X | 161.60070 | 130.80588 | 349.54876 | 7.52481 | 0.1779403 | 0.20987784 | 2.8043034 | 21 | 7 11.9 | 20.3 |
| 107772 2001 $FW_{43}$ | 15.9 | X | 284.22680 | 104.90088 | 148.61946 | 1.87394 | 0.1042202 | 0.24010749 | 2.5636904 | 21 | 1 29.7 | 19.4 |
| 107773 2001 $FL_{44}$ | 15.5 | X | 255.39855 | 281.15110 | 9.94491 | 16.76479 | 0.1895922 | 0.23925236 | 2.5697955 | 21 | 2 15.5 | 19.9 |
| 107774 2001 $FJ_{46}$ | 16.6 | X | 272.04331 | 201.26239 | 49.85157 | 2.73804 | 0.1679238 | 0.28561363 | 2.2835828 | 21 | — | — |
| 107775 2001 $FH_{47}$ | 15.4 | X | 345.81362 | 344.08385 | 185.97404 | 15.21938 | 0.0810591 | 0.23818869 | 2.5774403 | 21 | 1 3.4 | 19.0 |
| 107776 2001 $FN_{47}$ | 15.0 | X | 246.86736 | 262.12022 | 18.21121 | 15.43892 | 0.1615003 | 0.23670344 | 2.5882109 | 21 | 1 26.2 | 19.4 |
| 107777 2001 $FO_{47}$ | 15.0 | X | 181.37088 | 234.43400 | 11.74185 | 11.52060 | 0.1515573 | 0.22412460 | 2.6841680 | 21 | 12 29.9 | 19.5 |
| 107778 2001 $FD_{48}$ | 15.2 | X | 199.10966 | 303.50587 | 357.53915 | 17.06894 | 0.2424753 | 0.23257027 | 2.6187854 | 21 | 1 11.1 | 20.1 |
| 107779 2001 $FG_{48}$ | 16.7 | X | 297.37071 | 11.57176 | 207.16937 | 4.45061 | 0.1631140 | 0.28523830 | 2.2855856 | 21 | — | — |
| 107780 2001 $FW_{48}$ | 15.9 | X | 296.04650 | 56.16819 | 194.87189 | 16.37140 | 0.2615134 | 0.23885372 | 2.5726540 | 21 | 1 18.5 | 20.2 |
| 107781 2001 $FO_{49}$ | 15.7 | X | 78.61667 | 261.22153 | 338.19865 | 3.20571 | 0.0458111 | 0.21193635 | 2.7861153 | 21 | 8 28.2 | 19.4 |
| 107782 2001 $FX_{49}$ | 15.3 | X | 222.50364 | 250.53854 | 358.82119 | 12.53446 | 0.1505749 | 0.23009216 | 2.6375548 | 21 | — | — |
| 107783 2001 $FR_{50}$ | 16.5 | X | 85.75271 | 282.82907 | 279.14497 | 1.35236 | 0.1224291 | 0.25620041 | 2.4551771 | 21 | 7 31.4 | 19.7 |
| 107784 2001 $FA_{51}$ | 15.1 | X | 257.63580 | 327.65817 | 202.11618 | 13.31362 | 0.1874786 | 0.22666442 | 2.6640793 | 21 | 12 15.3 | 18.7 |
| 107785 2001 $FN_{51}$ | 15.7 | X | 131.30612 | 21.58300 | 181.55981 | 7.06442 | 0.0491620 | 0.26188203 | 2.4195369 | 21 | 9 20.0 | 19.0 |
| 107786 2001 $FV_{51}$ | 14.8 | X | 272.32488 | 7.18698 | 180.61123 | 3.21312 | 0.1382127 | 0.18166226 | 3.0876370 | 21 | — | — |
| 107787 2001 $FE_{52}$ | 16.0 | X | 191.42223 | 231.62633 | 18.11035 | 5.46267 | 0.1496443 | 0.27410396 | 2.3470689 | 21 | — | — |
| 107788 2001 $FG_{52}$ | 15.7 | X | 246.08121 | 45.78423 | 215.41349 | 7.20711 | 0.1684908 | 0.23463340 | 2.6034115 | 21 | — | — |
| 107789 2001 $FM_{52}$ | 16.0 | X | 9.79113 | 294.91554 | 333.10083 | 5.28121 | 0.1408137 | 0.30098411 | 2.2051612 | 21 | 7 2.6 | 17.6 |
| 107790 2001 $FR_{52}$ | 16.6 | X | 326.05603 | 127.96977 | 90.32719 | 1.30507 | 0.1008281 | 0.29057941 | 2.2574917 | 21 | 1 26.7 | 19.0 |
| 107791 2001 $FU_{52}$ | 16.3 | X | 14.41912 | 334.99601 | 225.18192 | 6.17633 | 0.0938754 | 0.29411723 | 2.2393522 | 21 | 3 17.6 | 18.4 |
| 107792 2001 $FN_{53}$ | 15.9 | X | 261.19152 | 220.90512 | 22.11732 | 12.89014 | 0.2572741 | 0.23334325 | 2.6129989 | 21 | — | — |
| 107793 2001 $FG_{54}$ | 15.0 | X | 203.20019 | 28.78448 | 213.33203 | 12.28496 | 0.1570601 | 0.22492981 | 2.6777583 | 21 | — | — |
| 107794 2001 $FK_{54}$ | 15.8 | X | 109.89507 | 32.37946 | 200.04213 | 23.07855 | 0.1827136 | 0.26108674 | 2.4244478 | 21 | 10 14.7 | 19.4 |
| 107795 2001 $FN_{54}$ | 15.4 | X | 292.32978 | 6.77529 | 205.66977 | 12.09901 | 0.1913249 | 0.23353100 | 2.6115982 | 21 | — | — |
| 107796 2001 $FQ_{54}$ | 15.3 | X | 214.93413 | 13.54934 | 207.61913 | 13.17052 | 0.1854685 | 0.22507791 | 2.6765835 | 21 | 12 27.5 | 19.6 |
| 107797 2001 $FF_{55}$ | 14.8 | X | 262.03550 | 60.57336 | 208.45122 | 29.34814 | 0.2430239 | 0.23583933 | 2.5945292 | 21 | 1 10.1 | 19.9 |
| 107798 2001 $FJ_{56}$ | 16.2 | X | 271.57866 | 262.77917 | 338.78907 | 5.58945 | 0.1467965 | 0.28475559 | 2.2881679 | 21 | — | — |
| 107799 2001 $FK_{56}$ | 15.9 | X | 143.16780 | 45.77635 | 205.14690 | 6.04022 | 0.0857025 | 0.26929989 | 2.3748997 | 21 | 12 7.8 | 19.3 |
| 107800 2001 $FA_{57}$ | 15.3 | X | 305.68715 | 151.57575 | 38.20445 | 11.86500 | 0.1294641 | 0.23410269 | 2.6073447 | 21 | — | — |
| 107801 2001 $FF_{58}$ | 16.0 | X | 322.92727 | 132.47209 | 158.74092 | 4.89861 | 0.1814991 | 0.29946925 | 2.2125914 | 21 | 4 24.7 | 18.2 |
| 107802 2001 $FT_{58}$ | 15.0 | X | 162.33889 | 247.20643 | 44.04922 | 23.86183 | 0.2175931 | 0.27560142 | 2.3385594 | 21 | — | — |
| 107803 2001 $FU_{58}$ | 16.1 | X | 6.05532 | 149.23153 | 37.71789 | 4.32185 | 0.0960397 | 0.24256971 | 2.5463123 | 21 | 2 27.0 | 18.9 |
| 107804 2001 $FV_{58}$ | 12.1 | X | 27.39255 | 41.12743 | 346.77190 | 6.92940 | 0.0324706 | 0.08095300 | 5.2923359 | 21 | 11 30.9 | 19.1 |
| 107805 Saibi | 16.5 | X | 207.01549 | 357.88095 | 127.08085 | 5.28038 | 0.1169572 | 0.26309841 | 2.4120736 | 21 | 9 3.3 | 19.9 |
| 107806 2001 $FZ_{58}$ | 15.7 | X | 271.31353 | 187.53719 | 76.62730 | 9.32841 | 0.2072451 | 0.24057870 | 2.5603417 | 21 | 1 21.2 | 19.9 |
| 107807 2001 $FG_{59}$ | 16.5 | X | 253.07926 | 32.08711 | 148.12729 | 7.14112 | 0.1074350 | 0.27817747 | 2.3240997 | 21 | — | — |
| 107808 2001 $FH_{59}$ | 16.4 | X | 289.44637 | 12.17987 | 88.64466 | 4.76898 | 0.1097633 | 0.27419367 | 2.3465570 | 21 | 11 24.9 | 18.6 |
| 107809 2001 $FL_{59}$ | 16.1 | X | 263.79149 | 82.69876 | 79.71003 | 3.34172 | 0.1046859 | 0.27759206 | 2.3273660 | 21 | — | — |
| 107810 2001 $FN_{59}$ | 16.2 | X | 293.78236 | 241.88330 | 22.27888 | 6.06373 | 0.1304241 | 0.29277833 | 2.2461742 | 21 | 2 13.9 | 19.2 |
| 107811 2001 $FO_{59}$ | 16.3 | X | 165.37163 | 74.69372 | 127.81292 | 6.72760 | 0.0499127 | 0.26894261 | 2.3770025 | 21 | 11 3.6 | 19.6 |
| 107812 2001 $FR_{59}$ | 14.4 | X | 76.75891 | 13.27106 | 6.02698 | 11.99161 | 0.1796330 | 0.23387003 | 2.6090736 | 21 | — | — |
| 107813 2001 $FS_{59}$ | 15.9 | X | 153.53668 | 263.05717 | 20.28633 | 5.73712 | 0.1761887 | 0.27563480 | 2.3383706 | 21 | — | — |
| 107814 2001 $FQ_{60}$ | 16.3 | X | 160.32130 | 356.65865 | 112.02100 | 2.39932 | 0.1159221 | 0.25693037 | 2.4505247 | 21 | 6 21.6 | 19.9 |
| 107815 2001 $FR_{60}$ | 15.9 | X | 196.69415 | 185.13920 | 61.90799 | 2.86136 | 0.1030494 | 0.22963573 | 2.6410487 | 21 | — | — |
| 107816 2001 $FW_{60}$ | 15.3 | X | 153.27611 | 92.99712 | 162.30921 | 14.66783 | 0.0598197 | 0.22476332 | 2.6790804 | 21 | 12 17.6 | 19.5 |
| 107817 2001 $FO_{61}$ | 15.5 | X | 74.36787 | 325.14597 | 4.57408 | 12.90464 | 0.1720627 | 0.27381177 | 2.3487383 | 21 | — | — |
| 107818 2001 $FX_{61}$ | 15.1 | X | 163.47274 | 152.42238 | 159.84417 | 14.30888 | 0.2873546 | 0.23093169 | 2.6311586 | 21 | — | — |
| 107819 2001 $FM_{62}$ | 16.7 | X | 215.89906 | 14.59334 | 119.30424 | 4.47045 | 0.0943328 | 0.26697561 | 2.3886636 | 21 | 9 28.9 | 19.9 |
| 107820 2001 $FX_{62}$ | 16.3 | X | 172.60175 | 207.70313 | 37.56224 | 7.16782 | 0.0656146 | 0.27445516 | 2.3450662 | 21 | — | — |
| 107821 2001 $FK_{63}$ | 16.7 | X | 189.31279 | 73.52612 | 74.41275 | 2.18948 | 0.1284896 | 0.26497537 | 2.4006695 | 21 | 9 13.8 | 20.1 |
| 107822 2001 $FS_{63}$ | 16.5 | X | 140.01807 | 148.91074 | 71.76725 | 2.31253 | 0.1451723 | 0.26610902 | 2.3938466 | 21 | 10 27.6 | 20.1 |
| 107823 2001 $FA_{64}$ | 15.6 | X | 28.98775 | 303.98490 | 165.01499 | 12.89514 | 0.1945226 | 0.23984389 | 2.5655685 | 21 | — | — |
| 107824 2001 $FB_{64}$ | 16.6 | X | 97.64294 | 142.19818 | 46.79441 | 4.68139 | 0.1117799 | 0.25694463 | 2.4504341 | 21 | 7 29.1 | 19.9 |
| 107825 2001 $FN_{64}$ | 15.3 | X | 155.49539 | 127.18426 | 166.82875 | 8.48718 | 0.1744085 | 0.22784214 | 2.6548909 | 21 | — | — |
| 107826 2001 $FM_{65}$ | 15.5 | X | 228.15133 | 240.50622 | 64.08504 | 4.64433 | 0.0726928 | 0.24048538 | 2.5610040 | 21 | 2 5.4 | 19.2 |
| 107827 2001 $FS_{65}$ | 16.4 | X | 147.94101 | 20.57891 | 107.86059 | 3.50702 | 0.1308952 | 0.25701644 | 2.4499776 | 21 | 7 5.6 | 19.8 |
| 107828 2001 $FS_{67}$ | 16.5 | X | 250.30457 | 139.10373 | 121.58543 | 3.46341 | 0.2109931 | 0.28360934 | 2.2943290 | 21 | — | — |
| 107829 2001 $FZ_{67}$ | 15.5 | X | 313.04038 | 209.36685 | 56.30335 | 5.50657 | 0.1309509 | 0.24546943 | 2.5262196 | 21 | 3 20.5 | 18.6 |
| 107830 2001 $FY_{69}$ | 15.6 | X | 149.27281 | 72.77253 | 136.78745 | 5.02671 | 0.0862742 | 0.26559996 | 2.3969044 | 21 | 10 23.7 | 19.0 |
| 107831 2001 $FB_{70}$ | 15.8 | X | 149.54052 | 67.96306 | 147.43464 | 5.92791 | 0.1884425 | 0.26585361 | 2.3953796 | 21 | 10 31.4 | 19.8 |
| 107832 2001 $FE_{70}$ | 15.2 | X | 209.75433 | 116.33307 | 172.40713 | 13.30616 | 0.1540697 | 0.23351108 | 2.6117467 | 21 | — | — |
| 107833 2001 $FN_{70}$ | 16.2 | X | 115.50190 | 138.65662 | 86.83672 | 2.58028 | 0.1428462 | 0.26228697 | 2.4170459 | 21 | 10 9.8 | 19.8 |
| 107834 2001 $FT_{70}$ | 15.6 | X | 319.43870 | 173.71505 | 20.35856 | 13.84657 | 0.0836954 | 0.23777478 | 2.5804307 | 21 | 1 1.3 | 19.3 |
| 107835 2001 $FQ_{71}$ | 15.4 | X | 128.77864 | 32.23999 | 139.60292 | 5.31599 | 0.1379415 | 0.20921554 | 2.8102185 | 21 | 8 10.6 | 19.7 |
| 107836 2001 $FC_{72}$ | 15.6 | X | 249.75533 | 178.08620 | 55.73612 | 6.99236 | 0.0843548 | 0.23288917 | 2.6163943 | 21 | — | — |
| 107837 2001 $FD_{72}$ | 16.7 | X | 43.05061 | 64.92796 | 123.23859 | 4.79743 | 0.0738808 | 0.29707578 | 2.2244598 | 21 | 4 25.9 | 18.9 |
| 107838 2001 $FJ_{72}$ | 16.0 | X | 197.27935 | 50.44198 | 80.14775 | 5.28990 | 0.1355059 | 0.26272176 | 2.4143785 | 21 | 8 31.1 | 19.7 |
| 107839 2001 $FL_{72}$ | 16.7 | X | 201.40284 | 108.59810 | 138.91018 | 5.73560 | 0.2072432 | 0.27514122 | 2.3411663 | 21 | — | — |
| 107840 2001 $FA_{73}$ | 16.2 | X | 49.42685 | 167.81323 | 106.80284 | 5.13727 | 0.1830826 | 0.25772998 | 2.4454536 | 21 | 10 3.9 | 19.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107841 2001 $FF_{73}$ | 16.7 | X | 9.63345 | 84.60108 | 150.34825 | 6.00115 | 0.1310062 | 0.29716308 | 2.2240241 | 21 | 5 6.8 | 18.5 |
| 107842 2001 $FQ_{73}$ | 16.3 | X | 65.50691 | 118.27043 | 54.69823 | 5.70370 | 0.0805068 | 0.29843519 | 2.2176995 | 21 | 5 10.1 | 18.4 |
| 107843 2001 $FA_{74}$ | 15.5 | X | 275.02341 | 94.34846 | 126.80514 | 3.59029 | 0.0951182 | 0.23439812 | 2.6051534 | 21 | — | — |
| 107844 2001 $FE_{74}$ | 14.9 | X | 154.20960 | 282.13499 | 27.08177 | 27.08461 | 0.2294578 | 0.22690167 | 2.6622219 | 21 | — | — |
| 107845 2001 $FL_{75}$ | 16.4 | X | 244.97455 | 9.92187 | 115.54726 | 3.24517 | 0.1616832 | 0.26948740 | 2.3737979 | 21 | 10 14.1 | 19.4 |
| 107846 2001 $FR_{75}$ | 16.1 | X | 343.46264 | 300.85100 | 136.53165 | 6.29243 | 0.1075004 | 0.27690884 | 2.3311927 | 21 | — | — |
| 107847 2001 $FU_{75}$ | 15.9 | X | 298.55172 | 175.03984 | 99.40915 | 3.59821 | 0.0823723 | 0.24446119 | 2.5331609 | 21 | 3 19.5 | 19.1 |
| 107848 2001 $FE_{76}$ | 15.6 | X | 193.67943 | 252.67731 | 34.07136 | 11.97741 | 0.1921859 | 0.23002051 | 2.6381025 | 21 | — | — |
| 107849 2001 $FV_{76}$ | 15.6 | X | 19.58417 | 133.07979 | 37.02360 | 8.37081 | 0.1098676 | 0.24250351 | 2.5467757 | 21 | 2 27.9 | 18.4 |
| 107850 2001 $FA_{77}$ | 16.4 | X | 185.42134 | 175.38557 | 53.33971 | 6.49331 | 0.2432762 | 0.27094855 | 2.3652561 | 21 | 12 12.1 | 20.2 |
| 107851 2001 $FF_{77}$ | 14.8 | X | 115.49937 | 249.58422 | 37.20003 | 12.93272 | 0.2007078 | 0.21916489 | 2.7245120 | 21 | 12 18.6 | 19.5 |
| 107852 2001 $FP_{77}$ | 15.6 | X | 287.80559 | 180.83937 | 55.91037 | 8.76260 | 0.1388899 | 0.23722395 | 2.5844236 | 21 | 1 10.5 | 19.5 |
| 107853 2001 $FT_{77}$ | 15.9 | X | 55.68975 | 150.59304 | 111.29011 | 3.07637 | 0.1732805 | 0.25643819 | 2.4536593 | 21 | 9 22.0 | 18.9 |
| 107854 2001 $FV_{77}$ | 15.5 | X | 223.33060 | 253.76427 | 40.80278 | 15.30922 | 0.1480262 | 0.23477344 | 2.6023762 | 21 | 1 21.1 | 20.0 |
| 107855 2001 $FU_{78}$ | 16.0 | X | 309.88151 | 64.46718 | 177.65029 | 6.31722 | 0.1260001 | 0.28894304 | 2.2660069 | 21 | 2 1.4 | 19.0 |
| 107856 2001 $FW_{78}$ | 16.2 | X | 321.40046 | 200.92374 | 67.02211 | 6.33843 | 0.1702219 | 0.29364240 | 2.2417656 | 21 | 3 22.8 | 18.7 |
| 107857 2001 $FY_{78}$ | 15.5 | X | 329.20150 | 71.82218 | 187.01876 | 15.93673 | 0.1913309 | 0.24455111 | 2.5325399 | 21 | 3 22.1 | 18.4 |
| 107858 2001 $FB_{79}$ | 15.8 | X | 200.60951 | 46.41354 | 186.00598 | 9.08913 | 0.2450734 | 0.22370544 | 2.6875199 | 21 | 12 22.8 | 20.3 |
| 107859 2001 $FC_{79}$ | 15.7 | X | 284.72853 | 70.58731 | 191.69806 | 14.48911 | 0.1860418 | 0.23798459 | 2.5789138 | 21 | 1 29.2 | 19.9 |
| 107860 2001 $FH_{80}$ | 15.7 | X | 166.40998 | 281.48726 | 234.53303 | 7.20217 | 0.1854114 | 0.26156869 | 2.4214688 | 21 | 8 26.9 | 19.8 |
| 107861 2001 $FN_{80}$ | 14.2 | X | 178.46989 | 294.20286 | 331.13345 | 9.02478 | 0.2018206 | 0.17610633 | 3.1522410 | 21 | — | — |
| 107862 2001 $FP_{80}$ | 14.4 | X | 240.88617 | 316.64381 | 214.62831 | 26.74387 | 0.1669340 | 0.17623064 | 3.1507584 | 21 | 11 20.7 | 19.2 |
| 107863 2001 $FQ_{80}$ | 14.5 | X | 154.11793 | 72.76613 | 238.75347 | 11.82020 | 0.2755486 | 0.22626294 | 2.6672298 | 21 | — | — |
| 107864 2001 $FT_{80}$ | 15.6 | X | 88.73631 | 254.87802 | 316.62102 | 7.11729 | 0.0704602 | 0.25636124 | 2.4541502 | 21 | 8 9.9 | 18.7 |
| 107865 2001 $FO_{82}$ | 15.7 | X | 312.26943 | 104.13634 | 139.42167 | 7.40844 | 0.1774905 | 0.24274738 | 2.5450697 | 21 | 2 8.9 | 19.0 |
| 107866 2001 $FE_{84}$ | 16.6 | X | 101.29648 | 284.34035 | 7.38037 | 6.71705 | 0.1394552 | 0.27004274 | 2.3705423 | 21 | 12 17.1 | 20.2 |
| 107867 2001 $FH_{85}$ | 15.7 | X | 81.49766 | 275.06468 | 75.11368 | 1.29232 | 0.1543223 | 0.17673125 | 3.1448057 | 21 | — | — |
| 107868 2001 $FT_{85}$ | 16.0 | X | 96.09801 | 160.95272 | 190.57848 | 2.24415 | 0.2415819 | 0.27376803 | 2.3489885 | 21 | — | — |
| 107869 2001 $FM_{86}$ | 16.3 | X | 298.04019 | 34.49098 | 185.43998 | 6.19838 | 0.1338413 | 0.28518782 | 2.2858553 | 21 | — | — |
| 107870 2001 $FY_{86}$ | 15.3 | X | 248.49489 | 208.85417 | 120.80930 | 6.58125 | 0.2752002 | 0.24296826 | 2.5435270 | 21 | 3 17.9 | 19.7 |
| 107871 2001 $FB_{87}$ | 15.8 | X | 14.24888 | 34.19996 | 125.53741 | 6.83359 | 0.0874630 | 0.24124955 | 2.5555931 | 21 | 2 1.9 | 18.7 |
| 107872 2001 $FL_{87}$ | 16.6 | X | 320.53104 | 233.08299 | 59.52941 | 6.74556 | 0.0945094 | 0.29860127 | 2.2168771 | 21 | 5 7.1 | 18.7 |
| 107873 2001 $FV_{87}$ | 16.4 | X | 168.16362 | 109.51149 | 90.27602 | 4.32793 | 0.1384419 | 0.26689795 | 2.3891269 | 21 | 10 29.4 | 20.0 |
| 107874 2001 $FD_{88}$ | 14.5 | X | 193.45254 | 137.97893 | 87.43336 | 9.06280 | 0.0464168 | 0.17637207 | 3.1490738 | 21 | 12 16.6 | 19.1 |
| 107875 2001 $FF_{88}$ | 14.8 | X | 229.34794 | 144.55472 | 135.08671 | 7.35472 | 0.1767273 | 0.18514611 | 3.0487817 | 21 | 1 11.8 | 19.9 |
| 107876 2001 $FV_{88}$ | 15.4 | X | 170.01906 | 61.58426 | 173.20269 | 12.96491 | 0.1029838 | 0.21987278 | 2.7186611 | 21 | 12 8.1 | 19.8 |
| 107877 2001 $FZ_{88}$ | 15.9 | X | 119.73644 | 129.18412 | 192.74880 | 2.06310 | 0.2328923 | 0.27678163 | 2.3319069 | 21 | — | — |
| 107878 2001 $FG_{89}$ | 15.9 | X | 352.01085 | 89.98726 | 1.32116 | 10.29214 | 0.1522334 | 0.23283073 | 2.6168320 | 21 | — | — |
| 107879 2001 $FP_{89}$ | 14.8 | X | 221.80868 | 114.89608 | 34.54680 | 1.91263 | 0.1144048 | 0.17219700 | 3.1997717 | 21 | 10 11.5 | 19.7 |
| 107880 2001 $FT_{89}$ | 16.6 | X | 86.85122 | 133.49811 | 183.65923 | 5.93283 | 0.2219673 | 0.26873125 | 2.3782487 | 21 | — | — |
| 107881 2001 $FS_{90}$ | 15.6 | X | 178.50025 | 40.26859 | 109.21605 | 3.13961 | 0.1491916 | 0.26232914 | 2.4167869 | 21 | 9 3.9 | 19.2 |
| 107882 2001 $FA_{91}$ | 15.5 | X | 299.73568 | 320.40497 | 187.13138 | 12.54187 | 0.1989556 | 0.23002347 | 2.6380800 | 21 | — | — |
| 107883 2001 $FJ_{91}$ | 16.3 | X | 105.49759 | 43.05853 | 170.46224 | 4.75933 | 0.1467259 | 0.26090852 | 2.4255517 | 21 | 9 12.6 | 19.9 |
| 107884 2001 $FK_{91}$ | 16.1 | X | 235.61481 | 137.99645 | 13.77171 | 5.45941 | 0.1130988 | 0.27237682 | 2.3569803 | 21 | 11 11.1 | 19.2 |
| 107885 2001 $FY_{91}$ | 15.3 | X | 73.74397 | 208.26986 | 75.01478 | 6.03224 | 0.0870560 | 0.21872010 | 2.7282045 | 21 | 10 26.7 | 19.1 |
| 107886 2001 $FC_{92}$ | 14.7 | X | 63.83490 | 264.37472 | 117.87269 | 10.74034 | 0.0420745 | 0.18330937 | 3.0691134 | 21 | — | — |
| 107887 2001 $FL_{92}$ | 15.2 | X | 281.27695 | 199.56118 | 126.08060 | 8.94006 | 0.1169535 | 0.25175331 | 2.4840057 | 21 | 4 30.9 | 18.7 |
| 107888 2001 $FY_{92}$ | 16.2 | X | 213.74023 | 167.24219 | 52.42833 | 6.60122 | 0.3086766 | 0.27546817 | 2.3393135 | 21 | 12 20.5 | 19.9 |
| 107889 2001 $FA_{93}$ | 15.9 | X | 283.76475 | 354.51819 | 76.52946 | 5.45327 | 0.1252088 | 0.26980193 | 2.3719527 | 21 | 10 1.9 | 18.5 |
| 107890 2001 $FC_{93}$ | 16.0 | X | 264.92320 | 342.08577 | 115.21467 | 7.57263 | 0.0731822 | 0.26956123 | 2.3733644 | 21 | 10 19.4 | 18.9 |
| 107891 2001 $FO_{93}$ | 16.3 | X | 145.44739 | 184.45683 | 70.80580 | 6.75191 | 0.1898268 | 0.27052815 | 2.3677058 | 21 | 12 13.6 | 20.0 |
| 107892 2001 $FS_{93}$ | 16.0 | X | 119.47770 | 331.20814 | 77.20565 | 5.74047 | 0.1958460 | 0.29275777 | 2.2462793 | 21 | 2 22.3 | 18.7 |
| 107893 2001 $FU_{93}$ | 14.8 | X | 89.91892 | 300.43618 | 118.80046 | 11.81299 | 0.1089620 | 0.19229249 | 2.9727690 | 21 | 1 31.4 | 18.7 |
| 107894 2001 $FG_{94}$ | 15.1 | X | 184.10956 | 269.72736 | 58.47114 | 10.56296 | 0.1933505 | 0.23744310 | 2.5828331 | 21 | 1 26.9 | 19.5 |
| 107895 2001 $FR_{94}$ | 15.5 | X | 205.79058 | 251.65393 | 48.29216 | 9.88255 | 0.0703416 | 0.23709270 | 2.5853773 | 21 | 1 6.3 | 19.4 |
| 107896 2001 $FT_{94}$ | 15.1 | X | 100.60174 | 176.32215 | 60.09602 | 9.33612 | 0.0901678 | 0.21402670 | 2.7679448 | 21 | 10 1.4 | 19.2 |
| 107897 2001 $FC_{95}$ | 16.1 | X | 198.40357 | 55.65818 | 64.54750 | 6.92034 | 0.1061266 | 0.26242493 | 2.4161987 | 21 | 8 20.9 | 19.7 |
| 107898 2001 $FL_{95}$ | 14.7 | X | 290.38627 | 119.81864 | 67.45462 | 9.17139 | 0.0160988 | 0.18521262 | 3.0480517 | 21 | — | — |
| 107899 2001 $FR_{95}$ | 16.0 | X | 263.03330 | 209.94662 | 59.69115 | 6.74700 | 0.1507193 | 0.28747180 | 2.2737317 | 21 | 1 16.7 | 19.4 |
| 107900 2001 $FT_{95}$ | 15.0 | X | 92.64629 | 48.00545 | 62.92894 | 8.69869 | 0.0494334 | 0.19751879 | 2.9200958 | 21 | 4 4.0 | 19.1 |
| 107901 2001 $FY_{95}$ | 14.8 | X | 57.53542 | 221.67288 | 44.87957 | 13.38045 | 0.0800519 | 0.21154345 | 2.7895640 | 21 | 9 17.4 | 18.7 |
| 107902 2001 $FB_{96}$ | 15.5 | X | 351.20780 | 29.83175 | 39.69907 | 10.62723 | 0.2498567 | 0.27834995 | 2.3231395 | 21 | — | — |
| 107903 2001 $FV_{96}$ | 15.2 | X | 249.87422 | 262.74318 | 33.67515 | 15.14733 | 0.1068102 | 0.24116299 | 2.5562046 | 21 | 2 22.5 | 19.3 |
| 107904 2001 $FJ_{97}$ | 16.6 | X | 251.85137 | 205.18893 | 58.51425 | 7.25806 | 0.1528490 | 0.28462783 | 2.2888525 | 21 | — | — |
| 107905 2001 $FU_{97}$ | 15.7 | X | 34.54621 | 109.72260 | 25.74501 | 29.16727 | 0.1130549 | 0.24126748 | 2.5554665 | 21 | 2 21.0 | 19.3 |
| 107906 2001 $FY_{97}$ | 14.7 | X | 290.02420 | 193.16297 | 41.94351 | 15.39451 | 0.0606976 | 0.23843406 | 2.5756718 | 21 | 1 23.2 | 18.6 |
| 107907 2001 $FZ_{97}$ | 15.5 | X | 69.61624 | 109.50668 | 127.01362 | 7.89983 | 0.1467309 | 0.25654068 | 2.4530057 | 21 | 9 2.0 | 18.7 |
| 107908 2001 $FH_{99}$ | 15.4 | X | 155.84617 | 180.76001 | 73.06772 | 15.11157 | 0.1645978 | 0.22114015 | 2.7082639 | 21 | 12 13.9 | 19.8 |
| 107909 2001 $FM_{99}$ | 15.6 | X | 247.96923 | 198.06788 | 90.05582 | 9.26403 | 0.2309558 | 0.23784905 | 2.5798935 | 21 | 1 29.3 | 20.0 |
| 107910 2001 $FT_{99}$ | 14.7 | X | 122.01702 | 326.08890 | 63.28675 | 12.59523 | 0.2085237 | 0.23842391 | 2.5757449 | 21 | 2 14.2 | 18.5 |
| 107911 2001 $FC_{100}$ | 16.0 | X | 103.39088 | 243.25285 | 346.26356 | 4.17692 | 0.1467930 | 0.26435795 | 2.4044060 | 21 | 9 30.7 | 19.6 |
| 107912 2001 $FD_{100}$ | 16.4 | X | 102.11304 | 51.63101 | 136.02609 | 1.38295 | 0.1091109 | 0.25583468 | 2.4575165 | 21 | 7 30.9 | 19.7 |
| 107913 2001 $FH_{100}$ | 15.7 | X | 295.87298 | 317.43484 | 279.14786 | 7.56781 | 0.2657236 | 0.24018458 | 2.5631418 | 21 | 1 3.6 | 19.8 |
| 107914 2001 $FU_{100}$ | 15.9 | X | 209.94685 | 102.53941 | 164.84027 | 12.96996 | 0.1502881 | 0.23262177 | 2.6183989 | 21 | — | — |
| 107915 2001 $FZ_{100}$ | 14.9 | X | 335.32052 | 259.77699 | 260.51873 | 9.90961 | 0.1007298 | 0.19014150 | 2.9951467 | 21 | — | — |
| 107916 2001 $FA_{101}$ | 15.5 | X | 335.34272 | 234.83862 | 308.41463 | 14.09801 | 0.0539647 | 0.24107527 | 2.5568246 | 21 | 1 12.4 | 18.8 |
| 107917 2001 $FE_{101}$ | 15.1 | X | 330.56046 | 239.53203 | 236.28836 | 7.87781 | 0.2208219 | 0.23428976 | 2.6059566 | 21 | — | — |
| 107918 2001 $FM_{101}$ | 15.0 | X | 337.36369 | 327.50067 | 211.62309 | 10.10844 | 0.0721559 | 0.19229508 | 2.9727424 | 21 | 1 14.7 | 19.2 |
| 107919 2001 $FJ_{102}$ | 14.6 | X | 227.05605 | 304.35678 | 268.88940 | 5.27564 | 0.0795295 | 0.18081711 | 3.0972508 | 21 | — | — |
| 107920 2001 $FW_{102}$ | 16.1 | X | 121.75490 | 217.50347 | 351.01488 | 4.54321 | 0.0997824 | 0.26415285 | 2.4056504 | 21 | 9 19.7 | 19.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 107921 2001 $FZ_{102}$ | 16.7 | X | 234.14967 | 271.92868 | 212.12199 | 1.23758 | 0.1783982 | 0.26994675 | 2.3711042 | 21 | 9 24.6 | 19.8 |
| 107922 2001 $FB_{103}$ | 15.7 | X | 213.97450 | 314.84971 | 148.19412 | 2.81209 | 0.2135092 | 0.21650262 | 2.7468015 | 21 | 8 2.3 | 20.3 |
| 107923 2001 $FN_{103}$ | 16.0 | X | 65.82566 | 354.21233 | 183.27375 | 6.04444 | 0.0713917 | 0.25253255 | 2.4788932 | 21 | 5 21.0 | 18.9 |
| 107924 2001 $FO_{103}$ | 16.1 | X | 103.87307 | 338.89975 | 311.54000 | 1.74575 | 0.2168974 | 0.26981656 | 2.3718669 | 21 | 12 22.3 | 19.8 |
| 107925 2001 $FQ_{103}$ | 16.3 | X | 24.28957 | 102.54957 | 148.62565 | 3.66839 | 0.1174991 | 0.25521767 | 2.4614757 | 21 | 7 3.0 | 18.8 |
| 107926 2001 $FT_{103}$ | 16.4 | X | 240.84001 | 124.50590 | 160.12987 | 7.06170 | 0.1167870 | 0.28857791 | 2.2679179 | 21 | 1 12.9 | 19.8 |
| 107927 2001 $FE_{104}$ | 16.2 | X | 149.16467 | 167.61621 | 325.37254 | 7.49425 | 0.1308234 | 0.25877087 | 2.4388914 | 21 | 7 14.2 | 19.9 |
| 107928 2001 $FM_{105}$ | 15.7 | X | 60.93862 | 265.59039 | 163.14753 | 8.69209 | 0.2867714 | 0.24220119 | 2.5488945 | 21 | — | — |
| 107929 2001 $FV_{106}$ | 16.8 | X | 80.37278 | 283.75915 | 161.57949 | 4.99531 | 0.2043505 | 0.24546538 | 2.5262474 | 21 | 2 21.9 | 19.4 |
| 107930 2001 $FU_{108}$ | 17.3 | X | 136.89915 | 247.56314 | 307.59193 | 0.55847 | 0.1228068 | 0.26280550 | 2.4138656 | 21 | 9 19.9 | 20.9 |
| 107931 2001 $FV_{108}$ | 15.8 | X | 142.86587 | 296.89108 | 359.71416 | 5.19995 | 0.1505354 | 0.27543887 | 2.3394794 | 21 | — | — |
| 107932 2001 $FZ_{108}$ | 15.7 | X | 307.59124 | 47.48438 | 2.39243 | 4.59495 | 0.1146061 | 0.21925033 | 2.7238042 | 21 | 10 1.9 | 18.9 |
| 107933 2001 $FB_{110}$ | 14.3 | X | 79.71886 | 331.00462 | 351.66796 | 17.96608 | 0.1766874 | 0.22119017 | 2.7078556 | 21 | 12 31.7 | 18.9 |
| 107934 2001 $FK_{110}$ | 16.3 | X | 13.99057 | 31.21918 | 174.29415 | 4.43949 | 0.1392541 | 0.24582237 | 2.5238010 | 21 | 4 4.6 | 18.8 |
| 107935 2001 $FV_{111}$ | 15.0 | X | 296.39451 | 186.26682 | 300.27728 | 3.87000 | 0.1083589 | 0.18023997 | 3.1038589 | 21 | 12 16.9 | 18.9 |
| 107936 2001 $FA_{113}$ | 15.3 | X | 11.55524 | 93.59420 | 130.99627 | 9.39799 | 0.0701816 | 0.24576838 | 2.5241706 | 21 | 5 3.8 | 18.4 |
| 107937 2001 $FN_{113}$ | 15.8 | X | 32.33538 | 178.23911 | 290.33806 | 9.53962 | 0.1446578 | 0.24051454 | 2.5607970 | 21 | — | — |
| 107938 2001 $FQ_{113}$ | 16.2 | X | 280.74287 | 254.12333 | 348.91797 | 9.61988 | 0.1029884 | 0.23910694 | 2.5708373 | 21 | 1 15.6 | 20.1 |
| 107939 2001 $FV_{113}$ | 16.2 | X | 57.91824 | 285.47267 | 7.16462 | 2.48618 | 0.1850061 | 0.26301982 | 2.4125541 | 21 | 11 5.8 | 19.3 |
| 107940 2001 $FE_{114}$ | 16.2 | X | 126.35325 | 249.44771 | 34.72974 | 3.19229 | 0.2201928 | 0.27042043 | 2.3683346 | 21 | — | — |
| 107941 2001 $FY_{114}$ | 15.9 | X | 206.96777 | 139.14760 | 85.45942 | 5.81610 | 0.0453450 | 0.27610819 | 2.3356971 | 21 | — | — |
| 107942 2001 $FB_{115}$ | 15.2 | X | 215.78586 | 353.04631 | 94.70509 | 5.59749 | 0.0341295 | 0.21091102 | 2.7951377 | 21 | 7 30.3 | 19.1 |
| 107943 2001 $FO_{115}$ | 15.7 | X | 123.60311 | 288.47802 | 25.96544 | 2.71022 | 0.2735454 | 0.27611762 | 2.3356439 | 21 | — | — |
| 107944 2001 $FU_{115}$ | 16.2 | X | 224.98426 | 326.21353 | 282.42252 | 3.11459 | 0.1763290 | 0.23085609 | 2.6317330 | 21 | — | — |
| 107945 2001 $FX_{117}$ | 16.1 | X | 296.37141 | 216.53368 | 29.45711 | 4.90607 | 0.0741117 | 0.24018861 | 2.5631131 | 21 | 2 9.6 | 19.6 |
| 107946 2001 $FY_{117}$ | 15.0 | X | 149.92969 | 119.84102 | 191.25836 | 11.15724 | 0.1978135 | 0.22684405 | 2.6626727 | 21 | — | — |
| 107947 2001 $FA_{118}$ | 16.5 | X | 38.52899 | 63.40225 | 155.60846 | 4.31578 | 0.0973105 | 0.29918248 | 2.2140050 | 21 | 6 6.5 | 18.5 |
| 107948 2001 $FC_{118}$ | 16.2 | X | 118.04263 | 171.92715 | 61.02085 | 3.98803 | 0.1308026 | 0.26290547 | 2.4132536 | 21 | 10 21.1 | 19.8 |
| 107949 2001 $FJ_{118}$ | 16.5 | X | 137.51013 | 17.15474 | 221.49445 | 10.30977 | 0.1878726 | 0.26840325 | 2.3801858 | 21 | 11 17.1 | 20.3 |
| 107950 2001 $FA_{120}$ | 16.4 | X | 49.24920 | 59.46557 | 172.67098 | 2.15875 | 0.0229291 | 0.20633621 | 2.8363016 | 21 | 7 5.4 | 20.1 |
| 107951 2001 $FP_{120}$ | 14.8 | X | 186.29361 | 312.95198 | 32.08529 | 12.41852 | 0.1650987 | 0.23930119 | 2.5694459 | 21 | 2 19.5 | 19.1 |
| 107952 2001 $FS_{120}$ | 15.9 | X | 355.26758 | 59.62058 | 94.38202 | 2.36893 | 0.1203461 | 0.23846024 | 2.5754833 | 21 | — | — |
| 107953 2001 $FV_{120}$ | 15.4 | X | 280.43450 | 20.18495 | 181.59656 | 12.76638 | 0.1013366 | 0.23331118 | 2.6132383 | 21 | — | — |
| 107954 2001 $FX_{120}$ | 15.7 | X | 352.71910 | 262.46214 | 32.65265 | 8.42627 | 0.2310074 | 0.30101567 | 2.2050070 | 21 | 7 7.1 | 16.8 |
| 107955 2001 $FY_{120}$ | 15.4 | X | 340.84989 | 303.98193 | 174.63054 | 14.73758 | 0.1193213 | 0.23207349 | 2.6225213 | 21 | — | — |
| 107956 2001 $FF_{122}$ | 15.9 | X | 69.87241 | 156.83575 | 76.17237 | 5.60335 | 0.1561153 | 0.25901324 | 2.4373697 | 21 | 8 31.2 | 19.0 |
| 107957 2001 $FL_{122}$ | 16.0 | X | 119.52432 | 77.13319 | 172.66001 | 6.05822 | 0.0716874 | 0.26688414 | 2.3892094 | 21 | 11 10.8 | 19.4 |
| 107958 2001 $FM_{122}$ | 15.5 | X | 175.05956 | 86.80910 | 39.24470 | 4.42353 | 0.0481949 | 0.21012269 | 2.8021245 | 21 | 7 30.9 | 19.6 |
| 107959 2001 $FT_{122}$ | 16.1 | X | 278.25770 | 255.41461 | 17.37238 | 5.54089 | 0.1740203 | 0.24064800 | 2.5598502 | 21 | 2 10.8 | 20.0 |
| 107960 2001 $FV_{122}$ | 16.5 | X | 134.19616 | 184.81338 | 38.79052 | 3.32645 | 0.1449828 | 0.26472521 | 2.4021817 | 21 | 10 25.1 | 20.0 |
| 107961 2001 $FZ_{122}$ | 15.6 | X | 119.53619 | 35.21902 | 13.01036 | 12.23911 | 0.1866698 | 0.24224234 | 2.5486059 | 21 | 3 2.8 | 19.2 |
| 107962 2001 $FK_{123}$ | 15.3 | X | 335.50493 | 49.89738 | 353.35308 | 8.90458 | 0.0433767 | 0.22087633 | 2.7104200 | 21 | 11 6.5 | 18.9 |
| 107963 2001 $FT_{123}$ | 14.5 | X | 121.67690 | 9.87486 | 358.39981 | 15.28184 | 0.2081458 | 0.23447479 | 2.6045855 | 21 | 1 18.2 | 18.3 |
| 107964 2001 $FR_{124}$ | 16.4 | X | 235.47374 | 274.03467 | 177.14136 | 6.31338 | 0.1251889 | 0.26373915 | 2.4081654 | 21 | 8 17.9 | 19.7 |
| 107965 2001 $FT_{124}$ | 16.1 | X | 197.25995 | 159.30743 | 142.34325 | 4.29040 | 0.2102505 | 0.28148826 | 2.3058401 | 21 | — | — |
| 107966 2001 $FX_{124}$ | 15.8 | X | 248.62799 | 108.27572 | 183.31329 | 12.86336 | 0.1530192 | 0.23944223 | 2.5684368 | 21 | 2 2.5 | 20.1 |
| 107967 2001 $FF_{125}$ | 15.7 | X | 144.16278 | 296.73498 | 346.72637 | 3.46496 | 0.1939410 | 0.22384574 | 2.6863968 | 21 | — | — |
| 107968 2001 $FK_{125}$ | 16.0 | X | 256.71465 | 280.10749 | 186.32054 | 3.50257 | 0.1666837 | 0.22173115 | 2.7034494 | 21 | 9 25.5 | 19.6 |
| 107969 2001 $FM_{125}$ | 16.0 | X | 42.85603 | 163.14175 | 182.45391 | 1.73208 | 0.0996816 | 0.22266175 | 2.6959115 | 21 | 12 6.7 | 19.5 |
| 107970 2001 $FS_{126}$ | 15.3 | X | 327.98417 | 340.61766 | 175.75138 | 21.95720 | 0.0138420 | 0.23427185 | 2.6060894 | 21 | — | — |
| 107971 2001 $FG_{127}$ | 15.8 | X | 350.80780 | 7.26722 | 168.81127 | 14.77556 | 0.1972426 | 0.23963546 | 2.5670559 | 21 | 1 2.0 | 19.1 |
| 107972 2001 $FM_{127}$ | 14.9 | X | 342.43094 | 81.40479 | 47.72926 | 16.57137 | 0.0753718 | 0.18445879 | 3.0563504 | 21 | — | — |
| 107973 2001 $FS_{128}$ | 15.0 | X | 78.61052 | 93.76941 | 202.34444 | 10.06740 | 0.2558646 | 0.26660395 | 2.3908830 | 21 | 12 10.6 | 19.0 |
| 107974 2001 $FY_{128}$ | 15.6 | X | 321.70215 | 86.55330 | 118.50374 | 5.87620 | 0.1491744 | 0.23983024 | 2.5656658 | 21 | 1 7.0 | 18.8 |
| 107975 2001 $FD_{129}$ | 15.6 | X | 100.57671 | 338.90788 | 264.64142 | 5.94798 | 0.2198911 | 0.26165607 | 2.4209297 | 21 | 10 20.5 | 19.6 |
| 107976 2001 $FT_{129}$ | 16.1 | X | 136.12852 | 308.82751 | 197.91006 | 6.66525 | 0.1200412 | 0.25852846 | 2.4404157 | 21 | 7 15.1 | 19.7 |
| 107977 2001 $FZ_{129}$ | 15.6 | X | 330.91050 | 256.93888 | 353.86483 | 13.28936 | 0.1705500 | 0.24662398 | 2.5183293 | 21 | 3 16.8 | 18.6 |
| 107978 2001 $FE_{130}$ | 14.6 | X | 256.24773 | 155.10072 | 350.35269 | 9.67976 | 0.0702954 | 0.17715432 | 3.1397968 | 21 | 11 17.6 | 19.2 |
| 107979 2001 $FR_{130}$ | 15.7 | X | 322.66473 | 37.60936 | 230.04218 | 3.98499 | 0.1497692 | 0.24494784 | 2.5298046 | 21 | 3 30.0 | 18.6 |
| 107980 2001 $FS_{130}$ | 15.7 | X | 333.27491 | 7.42582 | 220.13210 | 8.26284 | 0.2131166 | 0.24643052 | 2.5196471 | 21 | 2 6.6 | 18.8 |
| 107981 2001 $FY_{130}$ | 15.3 | X | 63.79300 | 110.54146 | 202.80411 | 12.56962 | 0.0707768 | 0.22194941 | 2.7016768 | 21 | 11 18.9 | 19.1 |
| 107982 2001 $FG_{131}$ | 14.6 | X | 238.03763 | 86.93341 | 79.18031 | 3.65375 | 0.0288215 | 0.17666435 | 3.1455995 | 21 | 11 29.4 | 19.1 |
| 107983 2001 $FG_{132}$ | 15.7 | X | 12.83538 | 329.78510 | 185.56345 | 15.08827 | 0.0926779 | 0.23854371 | 2.5748824 | 21 | 1 21.6 | 19.0 |
| 107984 2001 $FT_{132}$ | 16.6 | X | 256.57333 | 330.03387 | 285.79976 | 5.87690 | 0.1528704 | 0.28472359 | 2.2883393 | 21 | — | — |
| 107985 2001 $FP_{133}$ | 15.9 | X | 228.68706 | 52.98571 | 208.27021 | 13.08898 | 0.2320553 | 0.23099055 | 2.6307116 | 21 | — | — |
| 107986 2001 $FR_{133}$ | 16.4 | X | 327.68701 | 267.94046 | 294.46274 | 1.58262 | 0.0881692 | 0.28772987 | 2.2723719 | 21 | 1 9.6 | 19.0 |
| 107987 2001 $FG_{134}$ | 16.1 | X | 5.38245 | 305.12679 | 206.01778 | 4.27410 | 0.2036137 | 0.23925233 | 2.5697957 | 21 | — | — |
| 107988 2001 $FJ_{134}$ | 15.9 | X | 274.30399 | 196.29098 | 97.86625 | 4.34841 | 0.0403189 | 0.24380822 | 2.5376817 | 21 | 3 20.9 | 19.3 |
| 107989 2001 $FF_{135}$ | 15.8 | X | 129.28649 | 57.79903 | 205.54672 | 24.05453 | 0.2967828 | 0.26837015 | 2.3803816 | 21 | 12 10.1 | 20.5 |
| 107990 2001 $FJ_{135}$ | 16.1 | X | 192.45274 | 263.61371 | 218.15888 | 20.23228 | 0.0682405 | 0.35997918 | 1.9571215 | 21 | 8 11.8 | 19.1 |
| 107991 2001 $FK_{136}$ | 15.8 | X | 21.27218 | 42.16042 | 133.34204 | 13.50757 | 0.1220902 | 0.24346970 | 2.5400334 | 21 | 3 8.9 | 18.5 |
| 107992 2001 $FM_{136}$ | 15.4 | X | 199.34217 | 184.07213 | 77.01466 | 15.91843 | 0.1407166 | 0.22792855 | 2.6542199 | 21 | — | — |
| 107993 2001 $FQ_{136}$ | 15.5 | X | 166.70399 | 49.70809 | 160.37487 | 18.17842 | 0.1151393 | 0.21776330 | 2.7361901 | 21 | 11 7.5 | 20.1 |
| 107994 2001 $FZ_{136}$ | 15.5 | X | 284.46493 | 38.64393 | 153.50609 | 13.48627 | 0.1129204 | 0.23260624 | 2.6185154 | 21 | — | — |
| 107995 2001 $FB_{137}$ | 16.2 | X | 285.89969 | 188.09211 | 94.07489 | 4.46169 | 0.1342832 | 0.29480054 | 2.2358905 | 21 | 2 27.3 | 19.1 |
| 107996 2001 $FD_{137}$ | 15.0 | X | 254.33051 | 170.92103 | 103.80306 | 11.34595 | 0.1021689 | 0.18816877 | 3.0160441 | 21 | 2 2.9 | 19.7 |
| 107997 2001 $FF_{137}$ | 15.6 | X | 144.75720 | 182.62350 | 92.16223 | 10.50819 | 0.1945584 | 0.26992555 | 2.3712284 | 21 | — | — |
| 107998 2001 $FM_{137}$ | 15.7 | X | 31.70256 | 181.83367 | 244.07895 | 5.75511 | 0.1689268 | 0.28383968 | 2.2930876 | 21 | — | — |
| 107999 2001 $FS_{137}$ | 15.6 | X | 280.49808 | 77.83615 | 165.65154 | 4.79634 | 0.1250808 | 0.23661008 | 2.5888917 | 21 | 1 11.1 | 19.4 |
| 108000 2001 $FW_{137}$ | 15.9 | X | 134.10923 | 350.45623 | 133.40305 | 6.44583 | 0.0538743 | 0.25184265 | 2.4834182 | 21 | 6 7.2 | 19.3 |