| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40001 1998 $HB_{88}$ | 14.7 | X | 228.08366 | 54.98516 | 234.20562 | 8.29476 | 0.2535990 | 0.25706319 | 2.4496806 | 20 | 1 16.7 | 19.1 |
| 40002 1998 $HS_{89}$ | 15.2 | X | 218.97231 | 158.94156 | 182.99917 | 6.11068 | 0.0622060 | 0.22071173 | 2.7117675 | 20 | 3 23.6 | 19.0 |
| 40003 1998 $HW_{92}$ | 14.5 | X | 344.38497 | 153.38880 | 18.33606 | 1.12547 | 0.1230912 | 0.17160709 | 3.2071004 | 20 | 1 25.9 | 18.5 |
| 40004 1998 $HF_{94}$ | 15.2 | X | 9.43272 | 169.13280 | 28.45606 | 6.88553 | 0.3079280 | 0.22287691 | 2.6941762 | 20 | 3 30.9 | 16.7 |
| 40005 1998 $HA_{96}$ | 14.8 | X | 345.04692 | 138.23976 | 198.38140 | 14.50119 | 0.1590860 | 0.23382307 | 2.6094229 | 20 | 9 8.9 | 17.4 |
| 40006 1998 $HV_{101}$ | 14.6 | X | 359.77750 | 33.30457 | 265.53610 | 5.44459 | 0.1785846 | 0.22945258 | 2.6424539 | 20 | 8 14.5 | 17.2 |
| 40007 Vieuxtemps | 14.6 | X | 284.05834 | 287.51664 | 57.43457 | 9.72971 | 0.1512334 | 0.22594843 | 2.6697043 | 20 | 6 1.9 | 18.0 |
| 40008 1998 $HN_{111}$ | 15.1 | X | 153.12368 | 214.02328 | 106.99903 | 7.43102 | 0.1598908 | 0.25332243 | 2.4737375 | 20 | — | — |
| 40009 1998 $HG_{119}$ | 15.0 | X | 17.71322 | 223.62376 | 77.33173 | 11.05531 | 0.1747492 | 0.23354935 | 2.6114614 | 20 | 10 2.6 | 18.1 |
| 40010 1998 $HF_{122}$ | 13.3 | X | 344.17640 | 87.44349 | 148.22123 | 13.15431 | 0.1429277 | 0.17832699 | 3.1260169 | 20 | 4 17.7 | 17.2 |
| 40011 1998 $HK_{123}$ | 15.2 | X | 151.73640 | 15.62571 | 185.81719 | 13.49207 | 0.0680009 | 0.23970875 | 2.5665327 | 20 | 10 21.3 | 18.9 |
| 40012 1998 $HP_{123}$ | 15.3 | X | 151.02850 | 141.59799 | 98.67617 | 8.90568 | 0.1945444 | 0.24362654 | 2.5389432 | 20 | 12 4.6 | 19.6 |
| 40013 1998 $HB_{124}$ | 15.0 | X | 64.61954 | 186.68247 | 167.28417 | 14.41681 | 0.1867004 | 0.24500986 | 2.5293777 | 20 | — | — |
| 40014 1998 $HL_{124}$ | 14.1 | X | 162.55051 | 353.47296 | 101.03710 | 7.49634 | 0.2716219 | 0.23035406 | 2.6355553 | 20 | 6 17.7 | 18.9 |
| 40015 1998 $HB_{125}$ | 14.9 | X | 57.16442 | 146.87447 | 146.30704 | 15.38784 | 0.1223150 | 0.23763003 | 2.5814785 | 20 | 11 8.7 | 18.8 |
| 40016 1998 $HT_{127}$ | 15.8 | X | 15.88159 | 91.85397 | 19.36516 | 2.71147 | 0.1337359 | 0.26024777 | 2.4296556 | 20 | — | — |
| 40017 1998 $HY_{127}$ | 15.3 | X | 175.14676 | 322.25184 | 18.82877 | 4.62075 | 0.0755292 | 0.26124813 | 2.4234492 | 20 | 1 31.5 | 18.8 |
| 40018 1998 $HH_{134}$ | 14.8 | X | 105.37580 | 318.12349 | 125.29656 | 6.03888 | 0.0820640 | 0.26765012 | 2.3846488 | 20 | 3 21.8 | 17.8 |
| 40019 1998 $HR_{136}$ | 15.6 | X | 198.31635 | 64.52927 | 173.74495 | 3.57560 | 0.1170970 | 0.25128484 | 2.4870920 | 20 | — | — |
| 40020 1998 $HX_{136}$ | 15.0 | X | 77.27709 | 235.31251 | 78.81502 | 7.12264 | 0.1547095 | 0.24507468 | 2.5289316 | 20 | 12 26.6 | 18.9 |
| 40021 1998 $HG_{137}$ | 15.1 | X | 139.28501 | 302.55054 | 147.16931 | 7.02357 | 0.0713623 | 0.27215110 | 2.3582833 | 20 | 5 11.6 | 18.3 |
| 40022 1998 $HP_{146}$ | 13.9 | X | 271.46951 | 327.86885 | 84.08756 | 13.68185 | 0.1692810 | 0.19435614 | 2.9516886 | 20 | 8 14.3 | 18.1 |
| 40023 ANPCEN | 14.7 | X | 111.65890 | 49.10666 | 240.19619 | 3.07095 | 0.2587309 | 0.24160216 | 2.5531060 | 20 | 12 30.4 | 19.2 |
| 40024 1998 $HW_{148}$ | 14.8 | X | 317.51127 | 4.09384 | 337.52350 | 0.58182 | 0.0902746 | 0.22984202 | 2.6394682 | 20 | 7 30.7 | 17.6 |
| 40025 1998 $HQ_{149}$ | 14.7 | X | 157.05372 | 336.01001 | 262.28394 | 6.68784 | 0.1013504 | 0.24326385 | 2.5414662 | 20 | 12 9.9 | 18.4 |
| 40026 1998 $JF_{3}$ | 14.6 | X | 100.01185 | 216.45565 | 171.72076 | 7.98819 | 0.0587326 | 0.25511067 | 2.4621640 | 20 | — | — |
| 40027 1998 $JH_{4}$ | 15.0 | X | 297.65020 | 211.29639 | 85.51518 | 3.74232 | 0.0447713 | 0.22317635 | 2.6917658 | 20 | 5 4.9 | 18.4 |
| 40028 1998 $KO_{1}$ | 15.0 | X | 205.41077 | 16.36790 | 228.25437 | 5.19255 | 0.1173297 | 0.25080783 | 2.4902445 | 20 | — | — |
| 40029 1998 $KG_{2}$ | 14.5 | X | 71.37932 | 6.46862 | 253.43948 | 15.10141 | 0.2632717 | 0.23436889 | 2.6053700 | 20 | 10 21.1 | 18.8 |
| 40030 1998 $KL_{2}$ | 15.1 | X | 84.67764 | 219.85223 | 73.73788 | 13.84900 | 0.2873839 | 0.23847496 | 2.5753773 | 20 | 12 16.5 | 19.6 |
| 40031 1998 $KP_{2}$ | 13.7 | X | 241.53774 | 62.87649 | 67.16557 | 23.10248 | 0.0162333 | 0.23979873 | 2.5658906 | 20 | 11 15.3 | 17.2 |
| 40032 1998 $KD_{10}$ | 14.8 | X | 153.40393 | 272.30708 | 58.46996 | 8.49009 | 0.1353679 | 0.25380281 | 2.4706151 | 20 | — | — |
| 40033 1998 $KX_{10}$ | 15.1 | X | 42.78893 | 200.07488 | 145.49462 | 9.51220 | 0.1915952 | 0.24030074 | 2.5623157 | 20 | — | — |
| 40034 1998 $KB_{11}$ | 13.3 | X | 52.82422 | 83.27857 | 87.29861 | 18.05666 | 0.2202850 | 0.17980559 | 3.1088558 | 20 | 5 29.7 | 17.2 |
| 40035 1998 $KO_{15}$ | 14.6 | X | 273.68921 | 46.02347 | 54.04281 | 13.54964 | 0.1292437 | 0.24361787 | 2.5390034 | 20 | 11 3.3 | 17.5 |
| 40036 1998 $KT_{19}$ | 15.1 | X | 78.86259 | 130.60895 | 144.02094 | 5.02052 | 0.2134187 | 0.23750633 | 2.5823747 | 20 | 11 15.7 | 19.2 |
| 40037 1998 $KS_{22}$ | 15.3 | X | 286.56492 | 173.12783 | 91.56432 | 4.66985 | 0.1538292 | 0.21780758 | 2.7358192 | 20 | 2 24.1 | 19.2 |
| 40038 1998 $KT_{22}$ | 14.5 | X | 181.21124 | 163.07065 | 69.61543 | 10.64411 | 0.0968558 | 0.24667767 | 2.5179639 | 20 | 12 29.4 | 18.1 |
| 40039 1998 $KW_{26}$ | 14.7 | X | 94.03350 | 236.32195 | 74.12074 | 13.36273 | 0.2860664 | 0.24006154 | 2.5640176 | 20 | — | — |
| 40040 1998 $KC_{27}$ | 14.7 | X | 342.78899 | 202.83845 | 75.42695 | 15.03931 | 0.1391185 | 0.22582206 | 2.6707002 | 20 | 6 8.4 | 17.5 |
| 40041 1998 $KK_{29}$ | 15.7 | X | 74.15386 | 118.28965 | 172.07459 | 4.76835 | 0.1490243 | 0.23824723 | 2.5770181 | 20 | 11 23.6 | 19.5 |
| 40042 1998 $KM_{30}$ | 15.0 | X | 144.31947 | 201.39812 | 13.16513 | 5.14200 | 0.1358678 | 0.23934760 | 2.5691137 | 20 | 10 27.1 | 19.1 |
| 40043 1998 $KV_{30}$ | 14.9 | X | 80.82273 | 353.10115 | 237.34078 | 11.70248 | 0.0467578 | 0.23285936 | 2.6166175 | 20 | 8 25.3 | 18.7 |
| 40044 1998 $KH_{32}$ | 15.2 | X | 85.46607 | 101.17595 | 238.64574 | 1.98058 | 0.1913216 | 0.24397802 | 2.5365042 | 20 | — | — |
| 40045 1998 $KZ_{33}$ | 14.7 | X | 3.30396 | 282.74802 | 66.91777 | 13.65088 | 0.2220658 | 0.23459814 | 2.6036724 | 20 | 11 17.5 | 17.3 |
| 40046 1998 $KT_{34}$ | 14.0 | X | 54.57242 | 130.89881 | 82.36025 | 12.67344 | 0.2549307 | 0.22833376 | 2.6510787 | 20 | 8 7.6 | 17.5 |
| 40047 1998 $KW_{34}$ | 15.6 | X | 119.56110 | 107.83536 | 182.90607 | 5.08192 | 0.1904523 | 0.24305824 | 2.5428992 | 20 | — | — |
| 40048 1998 $KA_{36}$ | 13.7 | X | 183.10429 | 254.58746 | 244.27322 | 10.98490 | 0.1642665 | 0.23606287 | 2.5928910 | 20 | 8 24.7 | 18.1 |
| 40049 1998 $KB_{37}$ | 14.4 | X | 354.91908 | 246.72606 | 70.02453 | 14.56430 | 0.0663779 | 0.23150226 | 2.6268335 | 20 | 9 5.0 | 17.9 |
| 40050 1998 $KP_{37}$ | 14.7 | X | 220.83494 | 341.77575 | 162.30998 | 4.99631 | 0.0596908 | 0.24005957 | 2.5640316 | 20 | 10 29.2 | 18.1 |
| 40051 1998 $KY_{37}$ | 15.1 | X | 342.15124 | 93.86706 | 166.52657 | 4.14658 | 0.0525679 | 0.22356385 | 2.6886545 | 20 | 5 19.3 | 18.5 |
| 40052 1998 $KB_{38}$ | 15.0 | X | 210.15024 | 115.07344 | 125.08284 | 3.76879 | 0.1229826 | 0.24971764 | 2.4974870 | 20 | — | — |
| 40053 1998 $KH_{41}$ | 15.0 | X | 89.44658 | 121.96514 | 66.44174 | 6.49591 | 0.1698870 | 0.22949638 | 2.6421177 | 20 | 8 4.2 | 18.9 |
| 40054 1998 $KP_{42}$ | 13.8 | X | 5.55974 | 341.77198 | 105.86475 | 13.26082 | 0.0729961 | 0.25240516 | 2.4797272 | 20 | — | — |
| 40055 1998 $KS_{43}$ | 14.6 | X | 349.06031 | 226.44774 | 82.83896 | 19.11287 | 0.3103100 | 0.22704594 | 2.6610940 | 20 | 8 24.4 | 16.7 |
| 40056 1998 $KT_{44}$ | 14.5 | X | 295.64362 | 132.44846 | 198.96286 | 6.90664 | 0.1941240 | 0.22388259 | 2.6861020 | 20 | 5 25.7 | 17.9 |
| 40057 1998 $KJ_{45}$ | 14.5 | X | 1.20298 | 253.00160 | 75.12263 | 13.79390 | 0.2374230 | 0.23094773 | 2.6310368 | 20 | 10 20.2 | 17.2 |
| 40058 1998 $KL_{46}$ | 15.0 | X | 335.75200 | 172.21926 | 113.27916 | 6.21904 | 0.2294312 | 0.26843095 | 2.3800221 | 20 | 5 27.6 | 16.7 |
| 40059 1998 $KR_{47}$ | 14.7 | X | 326.31803 | 100.95577 | 223.04336 | 10.04393 | 0.2762889 | 0.22541706 | 2.6738981 | 20 | 6 26.4 | 17.1 |
| 40060 1998 $KC_{48}$ | 14.7 | X | 335.06787 | 170.53795 | 75.90354 | 16.27937 | 0.1669887 | 0.26519265 | 2.3993580 | 20 | 4 10.8 | 17.5 |
| 40061 1998 $KQ_{48}$ | 14.3 | X | 154.56654 | 56.46292 | 159.40343 | 4.01992 | 0.1418486 | 0.23964057 | 2.5670194 | 20 | 11 9.4 | 18.3 |
| 40062 1998 $KP_{49}$ | 14.7 | X | 312.19844 | 192.83817 | 103.35790 | 18.03647 | 0.1454662 | 0.22378528 | 2.6868806 | 20 | 5 16.3 | 18.2 |
| 40063 1998 $KV_{49}$ | 14.7 | X | 225.27900 | 28.63471 | 141.61014 | 13.02904 | 0.0916384 | 0.24465163 | 2.5318461 | 20 | 12 5.1 | 18.3 |
| 40064 1998 $KW_{50}$ | 14.4 | X | 147.99773 | 78.34953 | 147.65566 | 9.07862 | 0.1112674 | 0.24081069 | 2.5586971 | 20 | 11 17.7 | 18.4 |
| 40065 1998 $KX_{50}$ | 14.6 | X | 58.75372 | 182.63176 | 100.04501 | 15.33866 | 0.1077597 | 0.23558915 | 2.5963657 | 20 | 10 28.1 | 18.5 |
| 40066 1998 $KF_{51}$ | 13.8 | X | 251.36158 | 291.38027 | 214.08977 | 14.84877 | 0.1165118 | 0.24458374 | 2.5323146 | 20 | 12 1.8 | 17.0 |
| 40067 1998 $KA_{54}$ | 13.6 | X | 202.23265 | 323.88879 | 210.65698 | 13.87262 | 0.0544709 | 0.24065687 | 2.5597873 | 20 | 11 14.7 | 17.2 |
| 40068 1998 $KS_{54}$ | 14.7 | X | 158.36159 | 54.19102 | 154.60035 | 7.62524 | 0.0755527 | 0.23927028 | 2.5696672 | 20 | 11 7.5 | 18.5 |
| 40069 1998 $KQ_{55}$ | 14.9 | X | 28.01094 | 151.67331 | 109.84591 | 14.84144 | 0.1584383 | 0.22804081 | 2.6533487 | 20 | 8 16.8 | 18.0 |
| 40070 1998 $KG_{58}$ | 14.9 | X | 104.12025 | 124.69976 | 170.50263 | 14.52710 | 0.1259554 | 0.24184085 | 2.5514258 | 20 | 12 26.9 | 19.2 |
| 40071 1998 $KL_{59}$ | 14.8 | X | 137.67730 | 139.96751 | 111.25274 | 8.55656 | 0.1971066 | 0.24251495 | 2.5466956 | 20 | 12 6.6 | 19.2 |
| 40072 1998 $KZ_{59}$ | 14.7 | X | 177.52498 | 59.75295 | 163.12557 | 14.98620 | 0.1011345 | 0.24431477 | 2.5341729 | 20 | 12 13.9 | 18.7 |
| 40073 1998 $KN_{60}$ | 14.1 | X | 244.89490 | 119.04675 | 107.46000 | 14.40862 | 0.1051417 | 0.25299188 | 2.4758918 | 20 | — | — |
| 40074 1998 $KN_{63}$ | 14.0 | X | 215.19750 | 252.96809 | 83.88967 | 13.43531 | 0.1178879 | 0.21650517 | 2.7467800 | 20 | 3 18.6 | 18.5 |
| 40075 1998 $KS_{63}$ | 15.6 | X | 47.98103 | 241.67552 | 73.08566 | 6.32228 | 0.2531899 | 0.23596832 | 2.5935836 | 20 | 12 6.9 | 19.5 |
| 40076 1998 $LB$ | 14.6 | X | 120.91832 | 95.61615 | 172.08040 | 15.01722 | 0.1109536 | 0.24107040 | 2.5568590 | 20 | 12 10.7 | 18.8 |
| 40077 1998 $MZ_{4}$ | 14.7 | X | 140.88953 | 52.48833 | 170.20660 | 12.19276 | 0.1302167 | 0.23900044 | 2.5716010 | 20 | 11 6.5 | 18.9 |
| 40078 1998 $ML_{8}$ | 14.8 | X | 1.98871 | 145.61662 | 193.07732 | 12.20348 | 0.2701212 | 0.23101237 | 2.6305459 | 20 | 11 6.4 | 17.3 |
| 40079 1998 $MD_{9}$ | 13.8 | X | 226.12973 | 240.68320 | 154.53192 | 13.31107 | 0.1641229 | 0.22294747 | 2.6936078 | 20 | 6 2.3 | 18.3 |
| 40080 1998 $MY_{9}$ | 13.9 | X | 155.12135 | 150.19181 | 228.34594 | 16.71125 | 0.1472158 | 0.21117909 | 2.7927717 | 20 | 2 28.7 | 18.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40081 1998 $MG_{14}$ | 14.6 | X | 65.62403 | 148.65488 | 124.14210 | 15.61425 | 0.0970114 | 0.23389971 | 2.6088529 | 20 | 10 21.5 | 18.5 |
| 40082 1998 $ML_{16}$ | 15.1 | X | 205.88524 | 160.29654 | 333.89955 | 1.08358 | 0.0856187 | 0.18535957 | 3.0464405 | 20 | 9 16.1 | 19.7 |
| 40083 1998 $MS_{18}$ | 14.6 | X | 9.91983 | 100.46825 | 162.69565 | 9.70402 | 0.0656229 | 0.22599294 | 2.6693538 | 20 | 7 4.8 | 18.0 |
| 40084 1998 $MS_{22}$ | 14.2 | X | 345.89472 | 234.10248 | 84.98547 | 14.29614 | 0.0677253 | 0.22900262 | 2.6459142 | 20 | 8 21.2 | 17.6 |
| 40085 1998 $MW_{32}$ | 14.9 | X | 43.34193 | 310.47381 | 253.81182 | 5.50642 | 0.2650767 | 0.26846503 | 2.3798207 | 20 | 7 8.5 | 17.2 |
| 40086 1998 $MK_{33}$ | 14.4 | X | 333.63867 | 235.53879 | 112.49611 | 12.72627 | 0.2280040 | 0.22617984 | 2.6678830 | 20 | 9 7.6 | 16.7 |
| 40087 1998 $MU_{34}$ | 13.9 | X | 102.41145 | 40.50682 | 133.67329 | 14.15376 | 0.1104102 | 0.22381254 | 2.6866624 | 20 | 7 21.2 | 17.7 |
| 40088 1998 $MJ_{37}$ | 14.1 | X | 273.55100 | 228.09698 | 111.76198 | 15.64490 | 0.2198108 | 0.21826928 | 2.7319598 | 20 | 5 9.9 | 18.4 |
| 40089 1998 $MH_{40}$ | 14.1 | X | 9.55453 | 300.14239 | 133.48708 | 11.80878 | 0.1523315 | 0.19699524 | 2.9252673 | 20 | — | — |
| 40090 1998 $MZ_{40}$ | 14.7 | X | 88.05740 | 211.81296 | 102.62376 | 11.51253 | 0.0721389 | 0.19359843 | 2.9593852 | 20 | 12 20.1 | 19.0 |
| 40091 1998 $MH_{41}$ | 14.6 | X | 305.85213 | 215.00170 | 87.82633 | 7.64799 | 0.2176411 | 0.21954305 | 2.7213825 | 20 | 4 29.9 | 18.0 |
| 40092 Memel | 14.7 | X | 325.52244 | 315.20960 | 287.53598 | 7.85208 | 0.0960857 | 0.21553446 | 2.7550210 | 20 | 3 20.8 | 18.4 |
| 40093 1998 $NH$ | 14.1 | X | 161.57167 | 290.58749 | 124.49977 | 12.28067 | 0.1311391 | 0.21363975 | 2.7712859 | 20 | 4 29.9 | 18.7 |
| 40094 1998 $NN$ | 14.2 | X | 9.79578 | 169.74068 | 145.49824 | 14.90424 | 0.1640736 | 0.22760699 | 2.6567192 | 20 | 10 3.8 | 17.2 |
| 40095 1998 $OV_{4}$ | 14.3 | X | 270.67375 | 207.58921 | 143.44834 | 7.99835 | 0.1781921 | 0.21840571 | 2.7308220 | 20 | 5 22.6 | 18.3 |
| 40096 1998 $OR_{9}$ | 13.9 | X | 350.63711 | 164.23889 | 148.03148 | 18.00670 | 0.1383363 | 0.17830166 | 3.1263130 | 20 | 8 7.9 | 17.6 |
| 40097 1998 $OB_{13}$ | 13.1 | X | 191.92491 | 295.16840 | 148.44777 | 14.70358 | 0.0699254 | 0.17250541 | 3.1959569 | 20 | 6 30.4 | 18.1 |
| 40098 1998 $OW_{14}$ | 14.6 | X | 53.08748 | 10.45064 | 336.91837 | 1.36941 | 0.1258115 | 0.18900631 | 3.0071275 | 20 | 12 25.7 | 19.0 |
| 40099 1998 $OB_{15}$ | 14.0 | X | 132.34920 | 9.79091 | 342.66888 | 1.84342 | 0.0639609 | 0.19996389 | 2.8962430 | 20 | 1 3.5 | 18.0 |
| 40100 1998 $PV$ | 13.6 | X | 200.22827 | 277.11949 | 122.15172 | 8.23905 | 0.1522079 | 0.21725976 | 2.7404162 | 20 | 5 14.5 | 18.1 |
| 40101 1998 $QX$ | 14.4 | X | 299.80795 | 156.15854 | 165.36682 | 36.52749 | 0.2018684 | 0.21867453 | 2.7285835 | 20 | 5 21.8 | 18.7 |
| 40102 1998 $QU_{1}$ | 14.8 | X | 315.40988 | 159.03539 | 141.81252 | 6.83280 | 0.1744644 | 0.21847951 | 2.7302070 | 20 | 5 19.1 | 18.1 |
| 40103 1998 $QX_{3}$ | 13.5 | X | 260.91928 | 257.16848 | 142.87625 | 11.83386 | 0.1456799 | 0.17401728 | 3.1774188 | 20 | 7 14.1 | 18.2 |
| 40104 1998 $QE_{4}$ | 13.2 | X | 84.39005 | 216.30197 | 113.04048 | 10.74180 | 0.0837997 | 0.19026046 | 2.9938982 | 20 | — | — |
| 40105 1998 $QL_{4}$ | 14.2 | X | 195.42383 | 244.82405 | 350.21661 | 1.37325 | 0.0372377 | 0.19508578 | 2.9443243 | 20 | — | — |
| 40106 Erben | 15.2 | X | 158.02402 | 42.96214 | 243.23007 | 7.34430 | 0.1526367 | 0.19580183 | 2.9371416 | 20 | — | — |
| 40107 1998 $QB_{7}$ | 14.1 | X | 148.16241 | 258.11579 | 110.92585 | 11.77942 | 0.1582470 | 0.20519967 | 2.8467649 | 20 | 2 21.1 | 18.6 |
| 40108 1998 $QU_{7}$ | 13.6 | X | 0.28052 | 227.15802 | 132.45571 | 12.01571 | 0.0869616 | 0.18583417 | 3.0412514 | 20 | 10 30.8 | 17.7 |
| 40109 1998 $QC_{8}$ | 14.4 | X | 267.25161 | 80.25959 | 245.97826 | 5.71403 | 0.2322049 | 0.21561218 | 2.7543589 | 20 | 4 6.4 | 18.7 |
| 40110 1998 $QM_{9}$ | 14.1 | X | 15.82284 | 115.24397 | 223.90790 | 4.95364 | 0.1500536 | 0.18454662 | 3.0553806 | 20 | 10 29.6 | 17.7 |
| 40111 1998 $QK_{12}$ | 13.9 | X | 44.63756 | 50.14760 | 286.23425 | 9.23977 | 0.0974406 | 0.18774102 | 3.0206236 | 20 | 11 27.4 | 18.1 |
| 40112 1998 $QM_{13}$ | 14.3 | X | 20.90298 | 137.85158 | 129.74993 | 13.80478 | 0.1715923 | 0.22394993 | 2.6855635 | 20 | 8 12.0 | 17.0 |
| 40113 1998 $QZ_{13}$ | 13.6 | X | 280.79891 | 121.65467 | 200.37044 | 3.48170 | 0.0925647 | 0.21623355 | 2.7490797 | 20 | 5 8.1 | 17.3 |
| 40114 1998 $QB_{15}$ | 14.3 | X | 251.08506 | 181.68653 | 149.32333 | 9.99504 | 0.1661750 | 0.21384850 | 2.7694822 | 20 | 4 8.3 | 18.7 |
| 40115 1998 $QB_{19}$ | 13.6 | X | 32.95988 | 245.12876 | 127.67956 | 11.04860 | 0.1084652 | 0.18985136 | 2.9981976 | 20 | 12 30.2 | 17.7 |
| 40116 1998 $QD_{19}$ | 14.3 | X | 24.72130 | 162.72641 | 138.90576 | 11.39471 | 0.0820033 | 0.18127100 | 3.0920784 | 20 | 9 18.5 | 18.4 |
| 40117 1998 $QG_{21}$ | 14.4 | X | 17.86326 | 198.85152 | 158.42192 | 0.12912 | 0.1869117 | 0.18516883 | 3.0485322 | 20 | 11 30.5 | 18.1 |
| 40118 1998 $QX_{22}$ | 13.9 | X | 275.79700 | 283.92328 | 135.42167 | 16.49677 | 0.1173418 | 0.17982966 | 3.1085784 | 20 | 9 3.5 | 18.1 |
| 40119 1998 $QB_{23}$ | 13.9 | X | 242.89462 | 22.95022 | 25.37621 | 5.75918 | 0.1387327 | 0.17313366 | 3.1882207 | 20 | 7 6.0 | 18.8 |
| 40120 1998 $QT_{23}$ | 13.0 | X | 324.07461 | 285.55729 | 150.77346 | 10.66570 | 0.0987800 | 0.18847516 | 3.0127745 | 20 | 12 9.9 | 16.9 |
| 40121 1998 $QA_{29}$ | 14.1 | X | 63.95038 | 157.34720 | 123.56161 | 8.90147 | 0.1008613 | 0.18345456 | 3.0674939 | 20 | 10 18.7 | 18.6 |
| 40122 1998 $QZ_{30}$ | 14.7 | X | 20.75484 | 80.25401 | 237.45444 | 0.21069 | 0.1476967 | 0.18199606 | 3.0838605 | 20 | 10 8.9 | 18.3 |
| 40123 1998 $QC_{31}$ | 13.9 | X | 312.32407 | 200.25710 | 151.79001 | 11.54741 | 0.1867608 | 0.17591303 | 3.1545497 | 20 | 7 18.4 | 17.8 |
| 40124 1998 $QN_{35}$ | 14.4 | X | 89.79197 | 310.80870 | 69.38727 | 3.10148 | 0.0995046 | 0.19712010 | 2.9240319 | 20 | — | — |
| 40125 1998 $QU_{38}$ | 14.3 | X | 75.29169 | 144.94094 | 186.31525 | 10.42810 | 0.1206648 | 0.18942421 | 3.0027031 | 20 | 12 29.4 | 19.0 |
| 40126 1998 $QL_{40}$ | 14.5 | X | 350.31518 | 109.82463 | 183.67108 | 11.81468 | 0.2285352 | 0.22149851 | 2.7053420 | 20 | 7 14.7 | 17.0 |
| 40127 1998 $QD_{43}$ | 13.7 | X | 318.72719 | 232.33614 | 146.92097 | 10.84988 | 0.0610603 | 0.18016864 | 3.1046781 | 20 | 9 20.1 | 17.7 |
| 40128 1998 $QL_{43}$ | 13.5 | X | 30.14022 | 356.34458 | 7.46565 | 9.02260 | 0.0288414 | 0.18798275 | 3.0180335 | 20 | 12 2.4 | 17.8 |
| 40129 1998 $QY_{45}$ | 13.6 | X | 84.70665 | 350.46907 | 331.27192 | 8.99308 | 0.1204299 | 0.18939999 | 3.0029591 | 20 | 12 29.3 | 18.2 |
| 40130 1998 $QV_{47}$ | 14.5 | X | 58.74140 | 129.45062 | 177.32433 | 7.29699 | 0.1535768 | 0.18482700 | 3.0522899 | 20 | 11 17.9 | 18.9 |
| 40131 1998 $QJ_{48}$ | 13.5 | X | 177.62735 | 329.34512 | 265.26620 | 3.53307 | 0.0614048 | 0.19010546 | 2.9955253 | 20 | 12 18.4 | 17.8 |
| 40132 1998 $QL_{48}$ | 13.7 | X | 16.42102 | 69.71081 | 238.01848 | 3.43665 | 0.1460870 | 0.17926778 | 3.1150706 | 20 | 9 16.4 | 17.6 |
| 40133 1998 $QF_{53}$ | 13.5 | X | 352.00509 | 31.80763 | 272.20736 | 5.72076 | 0.1300637 | 0.17409796 | 3.1764371 | 20 | 7 28.9 | 17.3 |
| 40134 Marsili | 14.4 | X | 317.30868 | 111.65535 | 204.00057 | 24.09822 | 0.2714155 | 0.21806066 | 2.7337019 | 20 | 5 25.9 | 17.6 |
| 40135 1998 $QS_{53}$ | 14.3 | X | 45.90244 | 145.01529 | 204.57514 | 9.50155 | 0.1025172 | 0.18746854 | 3.0235498 | 20 | 12 16.4 | 18.7 |
| 40136 1998 $QS_{56}$ | 14.4 | X | 244.04871 | 232.65687 | 166.75160 | 1.36723 | 0.1677634 | 0.17000888 | 3.2271686 | 20 | 6 22.2 | 19.2 |
| 40137 1998 $QO_{60}$ | 13.5 | X | 80.40227 | 283.11291 | 7.66030 | 11.19423 | 0.1877283 | 0.22595195 | 2.6696766 | 20 | 11 28.1 | 17.8 |
| 40138 1998 $QF_{63}$ | 14.5 | X | 352.36559 | 176.01652 | 207.81921 | 9.30201 | 0.1020578 | 0.18520997 | 3.0480808 | 20 | 11 15.7 | 18.3 |
| 40139 1998 $QL_{64}$ | 14.7 | X | 7.23317 | 115.68803 | 166.71103 | 14.64900 | 0.1422119 | 0.22366049 | 2.6878800 | 20 | 8 1.2 | 17.7 |
| 40140 1998 $QQ_{68}$ | 13.9 | X | 311.99023 | 201.77659 | 183.75050 | 17.64549 | 0.2009212 | 0.17872302 | 3.1213974 | 20 | 8 29.8 | 17.5 |
| 40141 1998 $QL_{70}$ | 14.2 | X | 253.91233 | 211.09838 | 204.36248 | 21.60610 | 0.0846674 | 0.17562406 | 3.1580091 | 20 | 7 28.7 | 19.2 |
| 40142 1998 $QT_{70}$ | 14.3 | X | 20.25878 | 89.00783 | 227.82710 | 11.65967 | 0.1821307 | 0.18153078 | 3.0891277 | 20 | 10 9.2 | 18.1 |
| 40143 1998 $QW_{70}$ | 13.5 | X | 316.44378 | 86.03201 | 233.49909 | 10.39126 | 0.1552913 | 0.17357627 | 3.1827985 | 20 | 6 16.0 | 17.5 |
| 40144 1998 $QC_{71}$ | 14.3 | X | 177.98576 | 113.64943 | 236.57075 | 7.23740 | 0.2851320 | 0.20479084 | 2.8505525 | 20 | 2 24.2 | 19.5 |
| 40145 1998 $QF_{71}$ | 14.4 | X | 131.36334 | 82.08609 | 212.70396 | 9.17082 | 0.1100476 | 0.19298495 | 2.9656536 | 20 | — | — |
| 40146 1998 $QR_{71}$ | 13.7 | X | 263.72305 | 127.03516 | 266.03408 | 9.37064 | 0.0884991 | 0.17376737 | 3.1804645 | 20 | 7 15.9 | 18.3 |
| 40147 1998 $QB_{72}$ | 13.3 | X | 281.71406 | 132.86468 | 211.88154 | 16.04306 | 0.1703780 | 0.17147901 | 3.2086972 | 20 | 5 27.9 | 17.9 |
| 40148 1998 $QB_{73}$ | 14.1 | X | 58.32446 | 140.15671 | 217.72701 | 9.17060 | 0.1831728 | 0.18964681 | 3.0003530 | 20 | — | — |
| 40149 1998 $QF_{74}$ | 14.0 | X | 153.16052 | 40.58040 | 218.67783 | 9.62952 | 0.0662654 | 0.19061775 | 2.9901558 | 20 | 12 21.2 | 18.6 |
| 40150 1998 $QF_{75}$ | 13.7 | X | 333.98053 | 114.01721 | 193.24007 | 13.90055 | 0.2289053 | 0.17473865 | 3.1686679 | 20 | 6 22.8 | 17.3 |
| 40151 1998 $QO_{75}$ | 13.7 | X | 46.46100 | 73.52783 | 251.90236 | 13.89569 | 0.0958781 | 0.18433584 | 3.0577093 | 20 | 11 15.5 | 18.0 |
| 40152 1998 $QA_{77}$ | 13.4 | X | 107.55077 | 40.16126 | 275.67520 | 8.47760 | 0.0741489 | 0.19068513 | 2.9894514 | 20 | — | — |
| 40153 1998 $QD_{79}$ | 13.7 | X | 10.20084 | 188.61049 | 176.29093 | 11.49877 | 0.1409826 | 0.18658838 | 3.0330506 | 20 | 11 24.6 | 17.6 |
| 40154 1998 $QE_{83}$ | 14.2 | X | 37.63418 | 120.66643 | 206.12840 | 14.14757 | 0.1874450 | 0.18467272 | 3.0539895 | 20 | 11 21.0 | 18.4 |
| 40155 1998 $QA_{84}$ | 14.3 | X | 20.50977 | 90.64566 | 222.00799 | 16.71479 | 0.2205330 | 0.18127278 | 3.0920581 | 20 | 10 9.8 | 18.0 |
| 40156 1998 $QH_{86}$ | 13.8 | X | 255.31761 | 189.23459 | 205.40830 | 15.66335 | 0.0634814 | 0.17275605 | 3.1928649 | 20 | 7 9.4 | 18.7 |
| 40157 1998 $QA_{88}$ | 13.0 | X | 110.97861 | 35.42269 | 276.41273 | 9.76179 | 0.0890523 | 0.19081538 | 2.9880909 | 20 | — | — |
| 40158 1998 $QP_{88}$ | 14.2 | X | 342.85528 | 127.85134 | 211.47085 | 9.82745 | 0.1961375 | 0.17796679 | 3.1302335 | 20 | 8 27.6 | 17.7 |
| 40159 1998 $QC_{90}$ | 13.8 | X | 150.41562 | 63.39962 | 246.36036 | 10.78007 | 0.1632375 | 0.19559334 | 2.9392284 | 20 | — | — |
| 40160 1998 $QL_{91}$ | 15.6 | X | 220.52108 | 232.35631 | 359.86482 | 21.09222 | 0.0289918 | 0.37352399 | 1.9095178 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40161 1998 $QO_{91}$ | 13.5 | X | 150.20122 | 165.98625 | 165.93610 | 13.98872 | 0.1723581 | 0.24220816 | 2.5488457 | 20 | 1 3.2 | 17.5 |
| 40162 1998 $QK_{95}$ | 13.5 | X | 36.67240 | 139.91086 | 254.18099 | 9.40708 | 0.1146148 | 0.19127516 | 2.9833005 | 20 | — | — |
| 40163 1998 $QC_{96}$ | 14.4 | X | 147.56910 | 2.12551 | 265.46704 | 9.09289 | 0.0698522 | 0.19088832 | 2.9873296 | 20 | 12 25.5 | 19.0 |
| 40164 1998 $QW_{99}$ | 14.5 | X | 37.85984 | 171.05931 | 151.61734 | 12.54849 | 0.1614376 | 0.18327741 | 3.0694702 | 20 | 11 14.8 | 18.8 |
| 40165 1998 $QP_{102}$ | 12.8 | X | 147.48665 | 80.84888 | 153.75136 | 10.17862 | 0.0458798 | 0.18589507 | 3.0405872 | 20 | 11 18.5 | 17.4 |
| 40166 1998 $QW_{102}$ | 14.3 | X | 100.69182 | 176.09748 | 149.30069 | 8.16507 | 0.1692822 | 0.19107002 | 2.9854354 | 20 | — | — |
| 40167 1998 $QF_{103}$ | 13.9 | X | 333.36657 | 319.53038 | 15.75608 | 10.13932 | 0.0825585 | 0.17543775 | 3.1602445 | 20 | 8 15.8 | 18.0 |
| 40168 1998 $QW_{104}$ | 14.1 | X | 62.13294 | 119.54662 | 146.76838 | 9.96884 | 0.1216208 | 0.17937894 | 3.1137835 | 20 | 9 29.3 | 18.5 |
| 40169 1998 $QG_{105}$ | 14.0 | X | 336.70312 | 217.41534 | 92.76297 | 6.27149 | 0.1141992 | 0.17394937 | 3.1782458 | 20 | 7 12.5 | 17.7 |
| 40170 1998 $RK$ | 13.8 | X | 357.30841 | 129.61123 | 160.47613 | 22.02802 | 0.0772130 | 0.17270310 | 3.1935175 | 20 | 7 18.4 | 18.3 |
| 40171 1998 $RS$ | 13.4 | X | 352.77750 | 196.77681 | 185.52453 | 15.82633 | 0.0977262 | 0.18292066 | 3.0734598 | 20 | 11 14.9 | 17.4 |
| 40172 1998 $RQ_{6}$ | 14.2 | X | 40.59456 | 46.71674 | 289.25178 | 7.97107 | 0.0535683 | 0.18609566 | 3.0384019 | 20 | 11 14.4 | 18.5 |
| 40173 1998 $RE_{7}$ | 14.6 | X | 177.04143 | 304.26674 | 336.15202 | 1.44769 | 0.0526191 | 0.19680698 | 2.9271325 | 20 | — | — |
| 40174 1998 $RY_{12}$ | 13.9 | X | 44.04874 | 85.45089 | 187.72247 | 15.70472 | 0.0733034 | 0.17620642 | 3.1510472 | 20 | 9 1.7 | 18.3 |
| 40175 1998 $RE_{16}$ | 13.8 | X | 94.78937 | 162.12965 | 133.89886 | 5.61572 | 0.1651549 | 0.18618367 | 3.0374443 | 20 | 12 11.9 | 18.7 |
| 40176 1998 $RH_{27}$ | 14.1 | X | 192.09551 | 44.14624 | 194.87387 | 9.11871 | 0.0172721 | 0.19254198 | 2.9702004 | 20 | — | — |
| 40177 1998 $RU_{28}$ | 14.1 | X | 352.02759 | 272.70678 | 56.10109 | 2.18202 | 0.1879643 | 0.17870422 | 3.1216163 | 20 | 9 6.4 | 17.4 |
| 40178 1998 $RU_{36}$ | 14.1 | X | 329.31661 | 75.70512 | 241.49675 | 5.37039 | 0.1277944 | 0.17393633 | 3.1784047 | 20 | 7 7.4 | 18.0 |
| 40179 1998 $RM_{38}$ | 14.1 | X | 71.72022 | 206.80007 | 166.62169 | 10.17754 | 0.0866127 | 0.19299362 | 2.9655648 | 20 | — | — |
| 40180 1998 $RR_{48}$ | 14.5 | X | 84.18726 | 40.62753 | 243.04393 | 1.81050 | 0.1575149 | 0.18510382 | 3.0492460 | 20 | 11 16.1 | 19.2 |
| 40181 1998 $RN_{50}$ | 14.5 | X | 69.21711 | 184.53344 | 102.89033 | 1.18452 | 0.1310987 | 0.18337964 | 3.0683294 | 20 | 11 2.1 | 18.9 |
| 40182 1998 $RO_{55}$ | 15.0 | X | 318.64612 | 273.36481 | 260.51795 | 4.43233 | 0.1097308 | 0.28880347 | 2.2667369 | 20 | — | — |
| 40183 1998 $RP_{58}$ | 14.1 | X | 65.49864 | 122.70412 | 186.30904 | 12.00359 | 0.0875258 | 0.18438098 | 3.0572103 | 20 | 11 19.8 | 18.6 |
| 40184 1998 $RQ_{58}$ | 13.3 | X | 19.86321 | 71.88916 | 185.30845 | 9.99830 | 0.0387163 | 0.17140140 | 3.2096657 | 20 | 7 6.3 | 17.8 |
| 40185 1998 $RL_{60}$ | 14.0 | X | 107.21350 | 79.84378 | 204.12172 | 9.51516 | 0.0666556 | 0.18594734 | 3.0400174 | 20 | 12 2.8 | 18.6 |
| 40186 1998 $RN_{60}$ | 13.8 | X | 48.55279 | 108.33068 | 211.75046 | 8.71004 | 0.1140764 | 0.18321759 | 3.0701383 | 20 | 11 15.3 | 18.1 |
| 40187 1998 $RR_{61}$ | 13.3 | X | 105.42244 | 159.97740 | 238.19939 | 2.93590 | 0.1304597 | 0.15268231 | 3.4669180 | 20 | 2 10.1 | 18.4 |
| 40188 1998 $RQ_{64}$ | 14.2 | X | 20.33767 | 187.81055 | 169.90888 | 1.97421 | 0.2268764 | 0.18340464 | 3.0680505 | 20 | 12 10.3 | 17.9 |
| 40189 1998 $RR_{67}$ | 14.1 | X | 46.10481 | 44.03060 | 257.93575 | 2.88014 | 0.1815386 | 0.18130736 | 3.0916650 | 20 | 10 28.9 | 18.2 |
| 40190 1998 $RL_{74}$ | 14.1 | X | 340.73891 | 13.74989 | 311.81471 | 3.71533 | 0.1805180 | 0.17485015 | 3.1673207 | 20 | 8 7.1 | 17.5 |
| 40191 1998 $RM_{75}$ | 13.4 | X | 305.09895 | 315.18244 | 22.09393 | 7.22515 | 0.0642214 | 0.17084867 | 3.2165847 | 20 | 7 4.9 | 17.8 |
| 40192 1998 $RV_{75}$ | 13.5 | X | 293.25037 | 205.15188 | 16.47039 | 13.14796 | 0.2227524 | 0.20235362 | 2.8733955 | 20 | 1 3.2 | 18.1 |
| 40193 1998 $RF_{77}$ | 13.2 | X | 345.15163 | 278.73879 | 33.41150 | 7.15884 | 0.1295548 | 0.17420453 | 3.1751415 | 20 | 7 31.9 | 17.0 |
| 40194 1998 $RG_{78}$ | 14.3 | X | 140.57485 | 112.89003 | 159.97210 | 9.41331 | 0.2136286 | 0.19039138 | 2.9925256 | 20 | 12 24.7 | 19.6 |
| 40195 1998 $RU_{78}$ | 13.6 | X | 318.81611 | 245.70851 | 124.97202 | 6.02839 | 0.1718254 | 0.17625974 | 3.1504116 | 20 | 8 29.3 | 17.1 |
| 40196 1998 $RM_{80}$ | 13.4 | X | 310.35813 | 341.28699 | 16.18882 | 9.31784 | 0.1256063 | 0.17329824 | 3.1862018 | 20 | 8 3.9 | 17.5 |
| 40197 1998 $RP_{80}$ | 13.0 | X | 0.62576 | 115.58660 | 198.23444 | 8.87455 | 0.0859690 | 0.17502279 | 3.1652376 | 20 | 8 22.9 | 17.1 |
| 40198 1998 $SA_{1}$ | 13.8 | X | 297.83734 | 209.40107 | 164.03114 | 1.37429 | 0.1870936 | 0.17214818 | 3.2003767 | 20 | 7 23.4 | 17.7 |
| 40199 1998 $SE_{1}$ | 14.0 | X | 33.55239 | 106.19422 | 197.19068 | 10.47967 | 0.0897944 | 0.17709184 | 3.1405354 | 20 | 9 29.9 | 18.1 |
| 40200 1998 $SW_{9}$ | 14.1 | X | 327.06658 | 202.80193 | 125.94911 | 1.41162 | 0.2099542 | 0.17355488 | 3.1830601 | 20 | 7 11.7 | 17.4 |
| 40201 1998 $SO_{13}$ | 13.7 | X | 129.72408 | 60.34351 | 154.78565 | 12.44198 | 0.0845283 | 0.17973956 | 3.1096172 | 20 | 10 7.8 | 18.5 |
| 40202 1998 $SN_{26}$ | 13.9 | X | 39.07716 | 329.95407 | 319.56287 | 5.11554 | 0.0494145 | 0.17900584 | 3.1181086 | 20 | 9 13.8 | 18.2 |
| 40203 1998 $SP_{27}$ | 15.4 | X | 290.75238 | 57.67240 | 64.02473 | 23.35340 | 0.1033536 | 0.36649096 | 1.9338697 | 20 | — | — |
| 40204 1998 $SV_{27}$ | 13.9 | X | 278.54631 | 257.06150 | 113.35221 | 16.36437 | 0.0404936 | 0.17136160 | 3.2101626 | 20 | 7 14.3 | 18.3 |
| 40205 1998 $SU_{30}$ | 14.2 | X | 358.67776 | 131.84126 | 176.08725 | 8.81560 | 0.2175235 | 0.17592296 | 3.1544310 | 20 | 8 20.0 | 17.4 |
| 40206 Lhenice | 14.3 | X | 55.23515 | 107.22382 | 170.23203 | 13.88972 | 0.1071250 | 0.17809084 | 3.1287798 | 20 | 10 1.1 | 18.6 |
| 40207 1998 $SE_{44}$ | 12.9 | X | 233.44388 | 271.43871 | 170.16633 | 7.17837 | 0.1135566 | 0.17438117 | 3.1729969 | 20 | 8 7.1 | 17.8 |
| 40208 1998 $SK_{53}$ | 13.7 | X | 0.81531 | 74.06379 | 193.92948 | 15.07052 | 0.1072529 | 0.17215135 | 3.2003373 | 20 | 6 24.9 | 17.9 |
| 40209 1998 $SU_{55}$ | 14.1 | X | 49.42075 | 293.24286 | 0.72279 | 4.78625 | 0.1575827 | 0.18150731 | 3.0893940 | 20 | 10 19.4 | 18.3 |
| 40210 1998 $SL_{56}$ | 14.0 | X | 79.38877 | 300.14140 | 4.53787 | 9.12642 | 0.1344405 | 0.18585163 | 3.0410610 | 20 | 12 2.1 | 18.7 |
| 40211 1998 $SC_{57}$ | 14.4 | X | 314.07154 | 333.53650 | 37.09271 | 1.80656 | 0.2160852 | 0.17589012 | 3.1548237 | 20 | 8 14.1 | 17.8 |
| 40212 1998 $SC_{58}$ | 13.8 | X | 0.08228 | 284.61724 | 13.38010 | 21.93384 | 0.0687301 | 0.17434415 | 3.1734461 | 20 | 8 14.4 | 18.3 |
| 40213 1998 $SQ_{58}$ | 13.7 | X | 341.72441 | 119.19974 | 178.32720 | 14.83258 | 0.0773486 | 0.17155645 | 3.2077316 | 20 | 7 3.9 | 18.1 |
| 40214 1998 $SR_{63}$ | 14.4 | X | 57.55497 | 223.67963 | 105.65783 | 1.97515 | 0.2460007 | 0.18519755 | 3.0482170 | 20 | 12 22.9 | 19.0 |
| 40215 1998 $SZ_{69}$ | 13.9 | X | 75.34832 | 333.38990 | 308.74467 | 9.59824 | 0.0801167 | 0.18453330 | 3.0555277 | 20 | 10 22.4 | 18.5 |
| 40216 1998 $SF_{79}$ | 14.0 | X | 69.06680 | 292.57373 | 27.34867 | 10.55463 | 0.1133799 | 0.18668215 | 3.0320348 | 20 | 12 7.1 | 18.5 |
| 40217 1998 $SM_{87}$ | 14.0 | X | 67.61638 | 77.02170 | 216.83255 | 8.59461 | 0.0877823 | 0.18212660 | 3.0823868 | 20 | 11 1.9 | 18.4 |
| 40218 1998 $SQ_{97}$ | 13.7 | X | 318.22592 | 194.98605 | 181.56620 | 17.35777 | 0.1045984 | 0.17730920 | 3.1379682 | 20 | 9 8.4 | 17.6 |
| 40219 1998 $SX_{111}$ | 14.0 | X | 309.81679 | 173.96770 | 167.67903 | 8.07922 | 0.1585314 | 0.17223821 | 3.1992613 | 20 | 7 4.1 | 18.1 |
| 40220 1998 $SH_{122}$ | 13.8 | X | 292.84182 | 145.75668 | 219.73013 | 5.00988 | 0.1478679 | 0.17133975 | 3.2104356 | 20 | 7 10.7 | 18.0 |
| 40221 1998 $SG_{136}$ | 13.7 | X | 107.10642 | 113.01238 | 182.62703 | 16.11901 | 0.1147424 | 0.18649240 | 3.0340911 | 20 | 12 19.1 | 18.7 |
| 40222 1998 $SJ_{137}$ | 14.4 | X | 304.14680 | 278.89890 | 66.54331 | 7.46867 | 0.1519687 | 0.17125535 | 3.2114904 | 20 | 7 1.7 | 18.4 |
| 40223 1998 $SX_{142}$ | 13.2 | X | 149.14150 | 232.89576 | 12.84794 | 16.53245 | 0.1684518 | 0.18553083 | 3.0445655 | 20 | 11 25.7 | 18.5 |
| 40224 1998 $SJ_{143}$ | 14.4 | X | 77.88528 | 127.15119 | 155.77290 | 10.16622 | 0.0738995 | 0.18243938 | 3.0788628 | 20 | 11 1.8 | 19.0 |
| 40225 1998 $SX_{144}$ | 14.4 | X | 27.12167 | 210.57801 | 116.18692 | 2.32502 | 0.1841923 | 0.17996366 | 3.1070352 | 20 | 11 4.9 | 18.3 |
| 40226 1998 $SA_{145}$ | 13.6 | X | 330.09896 | 321.31208 | 21.26375 | 15.15223 | 0.2191996 | 0.17413846 | 3.1759445 | 20 | 8 14.2 | 17.2 |
| 40227 Tahiti | 12.8 | X | 310.15876 | 292.13948 | 35.52765 | 10.32217 | 0.2434253 | 0.12526539 | 3.9559306 | 20 | 6 1.5 | 17.8 |
| 40228 1998 $TR_{1}$ | 14.1 | X | 346.49423 | 179.80728 | 115.89090 | 12.73653 | 0.2293570 | 0.22286628 | 2.6942619 | 20 | 7 10.4 | 16.0 |
| 40229 1998 $TO_{3}$ | 15.1 | X | 311.67273 | 82.87482 | 31.22553 | 21.06757 | 0.0857012 | 0.36853164 | 1.9267241 | 20 | — | — |
| 40230 Rožmberk | 14.0 | X | 37.67186 | 176.82167 | 102.98996 | 2.51602 | 0.1914616 | 0.17508361 | 3.1645045 | 20 | 9 22.1 | 18.0 |
| 40231 1998 $TS_{6}$ | 15.6 | X | 46.74090 | 1.56000 | 25.80287 | 22.32992 | 0.0700134 | 0.37168796 | 1.9158010 | 20 | — | — |
| 40232 1998 $UD$ | 14.3 | X | 16.83982 | 135.95832 | 316.33676 | 23.40209 | 0.1089186 | 0.28409670 | 2.2917043 | 20 | — | — |
| 40233 1998 $UH_{2}$ | 14.0 | X | 17.53077 | 267.66836 | 16.10731 | 7.02192 | 0.1851049 | 0.17327658 | 3.1864673 | 20 | 8 25.5 | 17.7 |
| 40234 1998 $UG_{4}$ | 13.6 | X | 273.84505 | 320.55839 | 43.13368 | 12.32102 | 0.1496342 | 0.17188806 | 3.2036046 | 20 | 6 12.1 | 18.2 |
| 40235 1998 $UX_{7}$ | 13.2 | X | 313.60291 | 147.24808 | 201.86716 | 11.40314 | 0.1132766 | 0.17034551 | 3.2229155 | 20 | 7 23.4 | 17.5 |
| 40236 1998 $UF_{33}$ | 13.5 | X | 165.69244 | 248.78120 | 46.29221 | 11.38585 | 0.1765128 | 0.24133230 | 2.5550089 | 20 | — | — |
| 40237 1998 $VM_{6}$ | 12.0 | X | 271.65126 | 129.22797 | 309.18201 | 6.29802 | 0.2195404 | 0.08270580 | 5.2172952 | 20 | 8 23.9 | 19.0 |
| 40238 1998 $VR_{13}$ | 13.1 | X | 267.42810 | 1.82519 | 6.12287 | 4.90252 | 0.2327890 | 0.12244678 | 4.0164077 | 20 | 5 30.3 | 19.1 |
| 40239 1998 $VY_{16}$ | 13.6 | X | 16.98379 | 297.91140 | 53.21516 | 15.55301 | 0.1790117 | 0.18034608 | 3.1026414 | 20 | 11 18.5 | 17.3 |
| 40240 1998 $VV_{37}$ | 13.7 | X | 12.25608 | 305.77924 | 23.29509 | 9.61408 | 0.2596754 | 0.17768498 | 3.1335423 | 20 | 10 23.7 | 17.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40241 1998 $VA_{46}$ | 15.6 | $X$ | 147.82795 | 306.63582 | 259.40672 | 17.55852 | 0.0513669 | 0.35969430 | 1.9581547 | 20 | 11 11.5 | 18.0 |
| 40242 1998 $VU_{46}$ | 14.0 | $X$ | 13.58871 | 269.19794 | 56.48667 | 5.92033 | 0.1668988 | 0.17625356 | 3.1504852 | 20 | 10 11.3 | 17.7 |
| 40243 1998 $WH_{1}$ | 14.8 | $X$ | 35.77437 | 218.91971 | 205.87083 | 24.26454 | 0.2347252 | 0.27859729 | 2.3217643 | 20 | — | — |
| 40244 1998 $WP_{4}$ | 15.1 | $X$ | 22.06162 | 258.39538 | 201.58954 | 24.66454 | 0.0832730 | 0.37219063 | 1.9140756 | 20 | — | — |
| 40245 1998 $WO_{7}$ | 16.3 | $X$ | 341.30213 | 330.77228 | 78.24224 | 45.79440 | 0.3033803 | 0.31651773 | 2.1324099 | 20 | — | — |
| 40246 1998 $WV_{18}$ | 12.1 | $X$ | 153.74315 | 307.35614 | 243.43717 | 11.28529 | 0.1403749 | 0.12631089 | 3.9340710 | 20 | 9 20.5 | 18.4 |
| 40247 1998 $XK_{4}$ | 15.6 | $X$ | 335.69987 | 58.93218 | 25.01005 | 20.25944 | 0.1147767 | 0.36359650 | 1.9441193 | 20 | — | — |
| 40248 Yukikajiura | 13.9 | $X$ | 33.64422 | 288.14813 | 107.71478 | 14.02551 | 0.2144220 | 0.22963962 | 2.6410189 | 20 | — | — |
| 40249 1998 $XM_{11}$ | 15.0 | $X$ | 115.21865 | 18.48202 | 85.30781 | 6.88090 | 0.1605697 | 0.29111942 | 2.2546992 | 20 | 5 11.1 | 18.0 |
| 40250 1998 $XG_{16}$ | 14.9 | $X$ | 18.13177 | 5.32960 | 66.47723 | 24.62934 | 0.0575276 | 0.36798225 | 1.9286413 | 20 | — | — |
| 40251 1998 $XK_{87}$ | 15.4 | $X$ | 182.80594 | 275.67916 | 215.26832 | 4.20550 | 0.0356066 | 0.30411973 | 2.1899775 | 20 | 8 31.9 | 18.0 |
| 40252 1998 $YE_{6}$ | 15.4 | $X$ | 17.40290 | 341.78984 | 175.66931 | 24.52924 | 0.1735621 | 0.28522587 | 2.2856520 | 20 | 2 1.0 | 17.7 |
| 40253 1999 $BB_{1}$ | 15.3 | $X$ | 33.29167 | 341.23832 | 72.15319 | 23.94752 | 0.0945622 | 0.36192002 | 1.9501184 | 20 | — | — |
| 40254 1999 $BB_{26}$ | 13.8 | $X$ | 102.28141 | 234.11372 | 125.34823 | 10.54748 | 0.1479025 | 0.18272635 | 3.0756383 | 20 | — | — |
| 40255 1999 $CN_{4}$ | 15.8 | $X$ | 79.49007 | 160.22445 | 347.96853 | 8.98612 | 0.1077757 | 0.28626914 | 2.2800955 | 20 | 5 12.8 | 18.6 |
| 40256 1999 $CM_{6}$ | 15.2 | $X$ | 48.90145 | 341.89808 | 128.72302 | 24.01468 | 0.0728703 | 0.37341415 | 1.9098923 | 20 | 1 6.1 | 16.8 |
| 40257 1999 $CZ_{56}$ | 15.9 | $X$ | 186.02260 | 111.51467 | 22.22721 | 1.74651 | 0.0934418 | 0.29933514 | 2.2132523 | 20 | 9 6.5 | 18.9 |
| 40258 1999 $CF_{61}$ | 15.0 | $X$ | 1.81441 | 96.19540 | 255.76903 | 2.84126 | 0.1010358 | 0.30580421 | 2.1819280 | 20 | 11 18.2 | 16.9 |
| 40259 1999 $CZ_{85}$ | 14.7 | $X$ | 177.31622 | 108.62681 | 121.47853 | 7.13502 | 0.0591671 | 0.26603288 | 2.3943033 | 20 | 12 30.5 | 17.8 |
| 40260 1999 $CU_{98}$ | 14.6 | $X$ | 82.83672 | 244.73925 | 100.62732 | 6.76075 | 0.0661206 | 0.22090046 | 2.7102226 | 20 | — | — |
| 40261 1999 $CD_{117}$ | 14.5 | $X$ | 95.79323 | 193.52214 | 225.60054 | 6.58863 | 0.0802962 | 0.27907208 | 2.3191302 | 20 | 1 27.7 | 17.3 |
| 40262 1999 $CF_{156}$ | 12.9 | $X$ | 251.63974 | 35.33642 | 74.72464 | 10.77249 | 0.1515798 | 0.08198870 | 5.2476725 | 20 | 9 22.3 | 20.1 |
| 40263 1999 $FQ_{5}$ | 17.7 | $X$ | 8.99137 | 198.69641 | 172.81781 | 25.84374 | 0.1609822 | 0.53930823 | 1.4947826 | 20 | — | — |
| 40264 1999 $FJ_{7}$ | 15.7 | $X$ | 233.54414 | 40.84196 | 167.76500 | 23.15771 | 0.0401726 | 0.36022411 | 1.9562343 | 20 | — | — |
| 40265 1999 $FQ_{22}$ | 15.0 | $X$ | 144.61897 | 275.72922 | 177.94386 | 7.61517 | 0.1054824 | 0.28984048 | 2.2613269 | 20 | 5 25.4 | 18.2 |
| 40266 1999 $GS$ | 15.7 | $X$ | 305.65838 | 116.08466 | 15.47286 | 3.61865 | 0.1250793 | 0.26622303 | 2.3931631 | 20 | — | — |
| 40267 1999 $GJ_{4}$ | 15.5 | $X$ | 98.47584 | 211.92985 | 148.22656 | 34.49243 | 0.8083344 | 0.63626652 | 1.3387824 | 20 | — | — |
| 40268 1999 $GU_{8}$ | 15.5 | $X$ | 84.46210 | 248.52951 | 65.84868 | 6.51930 | 0.2085076 | 0.30132102 | 2.2035171 | 20 | — | — |
| 40269 1999 $GP_{25}$ | 15.6 | $X$ | 332.45470 | 58.76242 | 154.92728 | 5.17506 | 0.1090365 | 0.27845301 | 2.3225662 | 20 | 2 14.5 | 18.0 |
| 40270 1999 $JE$ | 15.3 | $X$ | 215.71687 | 315.56459 | 232.64192 | 18.60802 | 0.0786514 | 0.35539972 | 1.9738978 | 20 | — | — |
| 40271 1999 $JT$ | 14.7 | $X$ | 303.87175 | 253.80917 | 96.52653 | 23.85000 | 0.2749820 | 0.28358831 | 2.2944424 | 20 | 6 23.0 | 16.6 |
| 40272 1999 $JA_{7}$ | 15.5 | $X$ | 183.26526 | 222.69339 | 73.84910 | 12.19097 | 0.2673416 | 0.26387316 | 2.4073500 | 20 | — | — |
| 40273 1999 $JS_{7}$ | 15.2 | $X$ | 322.98174 | 58.12891 | 269.09418 | 2.15906 | 0.2164236 | 0.28381373 | 2.2932274 | 20 | 7 9.1 | 16.8 |
| 40274 1999 $JT_{14}$ | 15.4 | $X$ | 163.94905 | 181.36684 | 134.85337 | 3.08480 | 0.2105357 | 0.31079074 | 2.1585262 | 20 | — | — |
| 40275 1999 $JW_{15}$ | 15.6 | $X$ | 312.47413 | 101.72602 | 61.61853 | 7.18042 | 0.0740059 | 0.26641071 | 2.3920390 | 20 | — | — |
| 40276 1999 $JR_{19}$ | 14.5 | $X$ | 299.08464 | 276.24908 | 3.12637 | 6.28859 | 0.1618189 | 0.27877930 | 2.3207536 | 20 | 3 20.6 | 17.4 |
| 40277 1999 $JL_{30}$ | 14.7 | $X$ | 12.68182 | 164.34513 | 27.92038 | 13.90754 | 0.1462276 | 0.23246624 | 2.6195667 | 20 | 4 2.8 | 17.2 |
| 40278 1999 $JC_{34}$ | 15.3 | $X$ | 26.59483 | 4.19383 | 337.81284 | 5.02407 | 0.1972754 | 0.29636394 | 2.2280203 | 20 | 12 23.9 | 18.1 |
| 40279 1999 $JD_{35}$ | 15.4 | $X$ | 260.32443 | 121.53918 | 230.01503 | 5.95099 | 0.1431854 | 0.28228769 | 2.3014847 | 20 | 5 12.2 | 18.2 |
| 40280 1999 $JV_{44}$ | 16.1 | $X$ | 200.47097 | 268.02562 | 280.56114 | 0.66010 | 0.0093638 | 0.30150906 | 2.2026008 | 20 | 12 21.3 | 18.5 |
| 40281 1999 $JY_{47}$ | 13.3 | $X$ | 320.22115 | 174.82385 | 43.73813 | 16.02352 | 0.0318051 | 0.22710693 | 2.6606176 | 20 | 3 2.8 | 17.1 |
| 40282 1999 $JD_{48}$ | 13.1 | $X$ | 110.23629 | 237.27412 | 252.78686 | 12.14199 | 0.1168307 | 0.23663790 | 2.5886888 | 20 | 6 3.3 | 16.6 |
| 40283 1999 $JO_{50}$ | 13.9 | $X$ | 310.86314 | 135.30127 | 213.10544 | 13.69710 | 0.2172294 | 0.23932822 | 2.5692524 | 20 | 7 8.8 | 16.9 |
| 40284 1999 $JE_{52}$ | 15.9 | $X$ | 129.85895 | 332.52540 | 321.69300 | 2.19611 | 0.1598457 | 0.30355295 | 2.1927027 | 20 | — | — |
| 40285 1999 $JT_{52}$ | 14.8 | $X$ | 281.26868 | 157.60084 | 209.66374 | 5.33222 | 0.2187830 | 0.28510848 | 2.2862794 | 20 | 6 20.1 | 17.4 |
| 40286 1999 $JN_{53}$ | 15.8 | $X$ | 123.22697 | 181.76234 | 109.69325 | 4.83632 | 0.1407846 | 0.30261848 | 2.1972143 | 20 | — | — |
| 40287 1999 $JS_{61}$ | 15.7 | $X$ | 196.02267 | 133.64844 | 189.60133 | 0.32825 | 0.0367007 | 0.31659971 | 2.1320418 | 20 | 1 20.2 | 18.3 |
| 40288 1999 $JP_{64}$ | 15.5 | $X$ | 231.94065 | 209.82553 | 120.84169 | 3.07946 | 0.2225254 | 0.27273776 | 2.3549003 | 20 | 3 11.9 | 19.5 |
| 40289 1999 $JS_{64}$ | 14.3 | $X$ | 135.85038 | 147.78676 | 202.32054 | 7.13581 | 0.1456955 | 0.21641288 | 2.7475608 | 20 | 1 10.6 | 18.5 |
| 40290 1999 $JV_{64}$ | 15.0 | $X$ | 280.47418 | 42.04366 | 242.13651 | 11.91051 | 0.1984350 | 0.27436334 | 2.3455894 | 20 | 2 22.6 | 18.6 |
| 40291 1999 $JX_{71}$ | 15.5 | $X$ | 37.20474 | 198.03741 | 80.66799 | 5.45843 | 0.2037885 | 0.24373228 | 2.5382088 | 20 | 10 5.6 | 18.6 |
| 40292 1999 $JD_{72}$ | 15.3 | $X$ | 266.33454 | 231.16345 | 110.44149 | 5.92125 | 0.2356796 | 0.28060747 | 2.3106628 | 20 | 4 26.5 | 18.7 |
| 40293 1999 $JG_{73}$ | 15.1 | $X$ | 247.95474 | 208.44612 | 138.72769 | 5.73386 | 0.2118783 | 0.27916840 | 2.3185967 | 20 | 4 17.6 | 18.7 |
| 40294 1999 $JT_{73}$ | 15.5 | $X$ | 297.67653 | 211.13918 | 108.86144 | 5.16482 | 0.2202205 | 0.28130545 | 2.3068390 | 20 | 5 7.7 | 18.1 |
| 40295 1999 $JX_{73}$ | 15.7 | $X$ | 130.56778 | 211.19661 | 107.01354 | 5.51531 | 0.1090807 | 0.30761939 | 2.1733362 | 20 | — | — |
| 40296 1999 $JE_{74}$ | 15.4 | $X$ | 341.21424 | 166.32664 | 155.56354 | 5.37367 | 0.1684320 | 0.28829916 | 2.2693795 | 20 | 8 21.9 | 16.8 |
| 40297 1999 $JJ_{74}$ | 15.6 | $X$ | 67.96969 | 274.46769 | 93.47003 | 6.17068 | 0.0551959 | 0.30797853 | 2.1716463 | 20 | — | — |
| 40298 1999 $JD_{81}$ | 15.4 | $X$ | 21.56961 | 205.74302 | 107.07184 | 6.24956 | 0.2229286 | 0.29105861 | 2.2550132 | 20 | 11 11.9 | 17.9 |
| 40299 1999 $JN_{90}$ | 14.4 | $X$ | 203.35656 | 298.08362 | 130.69563 | 15.43255 | 0.0364185 | 0.24051173 | 2.5608170 | 20 | 6 29.2 | 18.1 |
| 40300 1999 $JT_{93}$ | 15.2 | $X$ | 325.37351 | 237.80506 | 115.76485 | 6.98516 | 0.1375240 | 0.29021300 | 2.2593914 | 20 | 9 12.7 | 17.0 |
| 40301 1999 $JU_{93}$ | 15.9 | $X$ | 338.24251 | 107.25889 | 156.54073 | 6.35406 | 0.0769669 | 0.28163266 | 2.3050519 | 20 | 5 15.6 | 18.3 |
| 40302 1999 $JD_{98}$ | 14.3 | $X$ | 236.53360 | 292.16017 | 100.27593 | 13.59386 | 0.1583189 | 0.23805071 | 2.5784363 | 20 | 6 8.9 | 18.3 |
| 40303 1999 $JU_{98}$ | 16.4 | $X$ | 68.72708 | 159.37541 | 131.03080 | 7.20846 | 0.1421731 | 0.29510033 | 2.2343760 | 20 | 11 28.6 | 19.5 |
| 40304 1999 $JX_{104}$ | 13.9 | $X$ | 204.77774 | 277.28875 | 89.05455 | 4.87847 | 0.0727433 | 0.18611099 | 3.0382351 | 20 | 4 11.5 | 18.5 |
| 40305 1999 $JP_{111}$ | 15.1 | $X$ | 321.31574 | 225.31370 | 143.99926 | 5.24253 | 0.1795784 | 0.29114476 | 2.2545683 | 20 | 9 28.2 | 16.5 |
| 40306 1999 $JN_{112}$ | 15.5 | $X$ | 341.19761 | 317.90806 | 92.66784 | 5.39924 | 0.1158187 | 0.30166746 | 2.2018298 | 20 | — | — |
| 40307 1999 $JN_{115}$ | 16.1 | $X$ | 272.88059 | 235.64680 | 60.63364 | 2.98942 | 0.1874283 | 0.27540462 | 2.3396734 | 20 | 3 9.7 | 19.5 |
| 40308 1999 $JV_{120}$ | 15.0 | $X$ | 272.07568 | 303.76367 | 82.33327 | 7.61937 | 0.1148221 | 0.28695027 | 2.2764859 | 20 | 7 24.3 | 17.5 |
| 40309 1999 $JH_{131}$ | 16.2 | $X$ | 46.84570 | 299.10286 | 16.80358 | 2.45515 | 0.1506174 | 0.29540464 | 2.2328412 | 20 | 12 6.3 | 19.2 |
| 40310 1999 $KU_{4}$ | 16.1 | $X$ | 146.27689 | 223.34815 | 76.37606 | 8.42455 | 0.4056316 | 0.30333224 | 2.1937662 | 20 | — | — |
| 40311 1999 $KH_{13}$ | 15.0 | $X$ | 104.21812 | 270.22449 | 98.09010 | 4.11236 | 0.2151842 | 0.30779709 | 2.1724996 | 20 | — | — |
| 40312 1999 $KZ_{13}$ | 15.9 | $X$ | 73.26971 | 171.09763 | 138.85919 | 3.41105 | 0.1484741 | 0.29715454 | 2.2240667 | 20 | 12 27.8 | 19.0 |
| 40313 1999 $KV_{14}$ | 15.4 | $X$ | 153.58016 | 95.69835 | 201.46566 | 5.48873 | 0.2059955 | 0.30549325 | 2.1834084 | 20 | — | — |
| 40314 1999 $KR_{16}$ | 5.5 | $X$ | 349.73377 | 58.96243 | 205.63125 | 24.80692 | 0.3106459 | 0.00285347 | 49.2289098 | 20 | 5 25.5 | 20.9 |
| 40315 1999 $LS$ | 16.1 | $X$ | 207.80180 | 184.56829 | 119.62199 | 27.27789 | 0.3055676 | 0.31409228 | 2.1433736 | 20 | 1 17.1 | 19.9 |
| 40316 1999 $LU_{4}$ | 13.9 | $X$ | 230.38981 | 242.98584 | 125.35095 | 23.08460 | 0.2499339 | 0.27771603 | 2.3266734 | 20 | 5 3.5 | 18.3 |
| 40317 1999 $LO_{7}$ | 14.6 | $X$ | 336.25610 | 208.33065 | 140.81928 | 4.82866 | 0.2314956 | 0.28428288 | 2.2907037 | 20 | 10 2.8 | 15.7 |
| 40318 1999 $LQ_{9}$ | 14.8 | $X$ | 351.28132 | 205.32215 | 96.91967 | 15.06591 | 0.1691718 | 0.23871324 | 2.5736632 | 20 | 8 7.1 | 17.3 |
| 40319 1999 $LR_{11}$ | 15.6 | $X$ | 356.13394 | 145.74041 | 199.62934 | 4.46729 | 0.2274025 | 0.29098614 | 2.2553876 | 20 | 11 15.9 | 17.4 |
| 40320 1999 $LP_{14}$ | 14.9 | $X$ | 115.43063 | 133.73916 | 208.75363 | 7.84873 | 0.1524482 | 0.25780920 | 2.4449526 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40321 1999 $LA_{21}$ | 15.3 | X | 354.00670 | 212.40090 | 99.75147 | 1.77679 | 0.2120400 | 0.28599694 | 2.2815420 | 20 | 9 11.9 | 16.6 |
| 40322 1999 $LU_{23}$ | 15.1 | X | 169.75534 | 61.22273 | 247.40882 | 2.26003 | 0.1421116 | 0.30905615 | 2.1665953 | 20 | — | — |
| 40323 1999 $LF_{25}$ | 14.9 | X | 135.18887 | 231.57916 | 89.36381 | 10.61277 | 0.2847588 | 0.25721540 | 2.4487140 | 20 | — | — |
| 40324 1999 $LY_{30}$ | 16.5 | X | 175.16030 | 150.98428 | 182.04938 | 2.12620 | 0.2243473 | 0.31294180 | 2.1486235 | 20 | 1 23.4 | 19.7 |
| 40325 1999 $LW_{33}$ | 13.9 | X | 172.17716 | 230.09051 | 97.03824 | 12.14754 | 0.0224044 | 0.17271764 | 3.1933382 | 20 | 1 18.9 | 18.5 |
| 40326 1999 $MA$ | 14.7 | X | 173.53042 | 82.77788 | 263.62917 | 6.77487 | 0.1986303 | 0.26356242 | 2.4092418 | 20 | 2 8.9 | 18.7 |
| 40327 1999 $MB$ | 15.1 | X | 311.95635 | 294.10896 | 71.49472 | 7.37381 | 0.1552647 | 0.28492165 | 2.2872787 | 20 | 9 1.6 | 17.1 |
| 40328 Dow | 15.4 | X | 83.96471 | 67.45698 | 245.28359 | 6.62103 | 0.1686182 | 0.29552957 | 2.2322119 | 20 | — | — |
| 40329 1999 $ML$ | 17.6 | X | 37.95367 | 111.94929 | 210.96407 | 2.52080 | 0.4545177 | 0.28898070 | 2.2658100 | 20 | — | — |
| 40330 1999 $MN_{1}$ | 15.3 | X | 185.26342 | 347.06853 | 352.79523 | 2.71118 | 0.2201302 | 0.26276072 | 2.4141398 | 20 | 2 14.9 | 19.3 |
| 40331 1999 $MS_{1}$ | 15.8 | X | 64.76948 | 30.84012 | 264.72095 | 1.68093 | 0.1187099 | 0.29225889 | 2.2488349 | 20 | 11 25.9 | 18.8 |
| 40332 1999 $NK$ | 14.7 | X | 276.28362 | 41.19380 | 303.06109 | 9.49846 | 0.1876785 | 0.22976806 | 2.6400345 | 20 | 5 14.0 | 18.5 |
| 40333 1999 $NO_{1}$ | 13.3 | X | 342.90826 | 333.19096 | 269.99365 | 28.57405 | 0.1035035 | 0.22785018 | 2.6548285 | 20 | 4 10.1 | 17.2 |
| 40334 1999 $NS_{4}$ | 14.8 | X | 187.97345 | 148.40804 | 148.22395 | 2.86947 | 0.1827421 | 0.25805593 | 2.4433939 | 20 | — | — |
| 40335 1999 $NJ_{5}$ | 14.7 | X | 91.01249 | 5.57259 | 125.02846 | 7.43987 | 0.0465342 | 0.27232263 | 2.3572930 | 20 | 5 1.6 | 17.7 |
| 40336 1999 $NG_{6}$ | 14.9 | X | 11.28495 | 200.25533 | 128.95663 | 7.53680 | 0.1602105 | 0.28746296 | 2.2737783 | 20 | 11 8.6 | 17.3 |
| 40337 1999 $NN_{7}$ | 15.5 | X | 200.58495 | 3.58186 | 274.77478 | 1.60132 | 0.1787987 | 0.26001252 | 2.4311208 | 20 | — | — |
| 40338 1999 $NB_{8}$ | 14.7 | X | 125.89774 | 208.93451 | 160.87090 | 2.71183 | 0.2091414 | 0.25821067 | 2.4424176 | 20 | 1 26.7 | 18.0 |
| 40339 1999 $NF_{8}$ | 15.2 | X | 210.82342 | 14.97482 | 306.03710 | 3.42461 | 0.2053617 | 0.26501637 | 2.4004219 | 20 | 2 11.4 | 19.0 |
| 40340 1999 $NR_{8}$ | 14.4 | X | 114.12808 | 222.97181 | 135.94731 | 8.09931 | 0.1710780 | 0.25570208 | 2.4583660 | 20 | — | — |
| 40341 1999 $NU_{8}$ | 15.2 | X | 134.08982 | 214.78304 | 141.31353 | 3.02303 | 0.2247161 | 0.25764982 | 2.4459608 | 20 | 1 20.5 | 18.8 |
| 40342 1999 $NB_{9}$ | 15.6 | X | 63.56223 | 215.18700 | 108.16302 | 2.34152 | 0.0923970 | 0.24602108 | 2.5224419 | 20 | 12 17.3 | 18.9 |
| 40343 1999 $NH_{9}$ | 14.7 | X | 156.44447 | 250.73929 | 127.47332 | 6.75254 | 0.1574983 | 0.26359433 | 2.4090474 | 20 | 3 5.0 | 18.3 |
| 40344 1999 $NN_{9}$ | 15.4 | X | 8.49174 | 343.24201 | 295.27281 | 5.58698 | 0.1146282 | 0.28102766 | 2.3083589 | 20 | 8 3.5 | 17.5 |
| 40345 1999 $NT_{9}$ | 15.9 | X | 350.61487 | 168.90388 | 140.63288 | 6.09919 | 0.1853631 | 0.28203192 | 2.3028759 | 20 | 8 24.6 | 17.3 |
| 40346 1999 $ND_{10}$ | 15.7 | X | 306.44329 | 359.68413 | 314.94379 | 6.15122 | 0.1352701 | 0.27679032 | 2.3318581 | 20 | 5 25.8 | 18.3 |
| 40347 1999 $NH_{10}$ | 15.4 | X | 85.41245 | 350.37417 | 311.90428 | 5.26620 | 0.1739032 | 0.29395572 | 2.2401724 | 20 | 12 31.3 | 18.8 |
| 40348 1999 $NO_{10}$ | 14.4 | X | 259.75483 | 46.90809 | 332.29105 | 1.78820 | 0.1170383 | 0.22986530 | 2.6392900 | 20 | 6 22.3 | 17.9 |
| 40349 1999 $NF_{11}$ | 15.0 | X | 200.45810 | 202.18276 | 93.88369 | 3.58967 | 0.2134338 | 0.26116376 | 2.4239711 | 20 | 1 5.4 | 19.0 |
| 40350 1999 $NO_{11}$ | 15.6 | X | 266.26869 | 13.78088 | 307.52171 | 6.37825 | 0.1280087 | 0.27186675 | 2.3599274 | 20 | 4 6.7 | 19.0 |
| 40351 1999 $NZ_{11}$ | 14.9 | X | 358.71088 | 202.11213 | 129.51129 | 6.92323 | 0.1338542 | 0.23879842 | 2.5730511 | 20 | 10 4.7 | 17.6 |
| 40352 1999 $ND_{12}$ | 15.6 | X | 105.93191 | 50.98256 | 300.56352 | 2.69956 | 0.1723766 | 0.25423262 | 2.4678298 | 20 | — | — |
| 40353 1999 $NB_{13}$ | 13.5 | X | 154.57954 | 57.42325 | 296.50493 | 13.55612 | 0.1963826 | 0.26361765 | 2.4089053 | 20 | 2 1.5 | 17.1 |
| 40354 1999 $NQ_{15}$ | 15.8 | X | 111.14611 | 146.65477 | 112.05092 | 3.09309 | 0.1327652 | 0.29459967 | 2.2369067 | 20 | 11 29.5 | 19.0 |
| 40355 1999 $NH_{17}$ | 16.0 | X | 176.74201 | 188.81169 | 106.06414 | 5.59847 | 0.1783175 | 0.30665840 | 2.1778743 | 20 | — | — |
| 40356 1999 $NZ_{17}$ | 15.6 | X | 28.77033 | 265.08282 | 63.48510 | 4.49354 | 0.2094073 | 0.29031077 | 2.2588841 | 20 | 12 8.5 | 18.2 |
| 40357 1999 $NM_{18}$ | 15.4 | X | 190.25099 | 338.68874 | 25.61168 | 3.52792 | 0.2540188 | 0.26719960 | 2.3873285 | 20 | 3 19.9 | 19.6 |
| 40358 1999 $ND_{19}$ | 15.3 | X | 285.26953 | 126.44549 | 92.31265 | 2.31014 | 0.1335579 | 0.26560711 | 2.3968614 | 20 | — | — |
| 40359 1999 $NT_{20}$ | 15.3 | X | 111.83070 | 305.07038 | 311.08041 | 6.27744 | 0.1356685 | 0.29427767 | 2.2385382 | 20 | 11 25.1 | 18.8 |
| 40360 1999 $NE_{21}$ | 15.6 | X | 289.94957 | 7.55163 | 343.44307 | 4.66759 | 0.1566268 | 0.27974859 | 2.3153898 | 20 | 6 20.5 | 18.1 |
| 40361 1999 $NG_{21}$ | 14.9 | X | 207.94353 | 58.97254 | 314.45205 | 13.14019 | 0.1635643 | 0.22469072 | 2.6796575 | 20 | 4 9.4 | 19.6 |
| 40362 1999 $NY_{21}$ | 15.6 | X | 224.63897 | 253.73765 | 6.43705 | 2.34362 | 0.1625263 | 0.26231999 | 2.4168431 | 20 | — | — |
| 40363 1999 $NM_{23}$ | 15.1 | X | 330.54490 | 203.18162 | 119.21512 | 8.60548 | 0.2084424 | 0.23457353 | 2.6038545 | 20 | 7 15.9 | 17.3 |
| 40364 1999 $ND_{24}$ | 15.3 | X | 290.67259 | 224.52132 | 106.12285 | 7.51835 | 0.1507214 | 0.27758499 | 2.3274055 | 20 | 5 24.7 | 18.0 |
| 40365 1999 $NE_{26}$ | 14.3 | X | 358.53812 | 42.89886 | 32.04075 | 2.32727 | 0.1417513 | 0.25244642 | 2.4794569 | 20 | — | — |
| 40366 1999 $NF_{27}$ | 15.9 | X | 179.01035 | 28.21607 | 270.67717 | 2.49007 | 0.1806319 | 0.30694431 | 2.1765217 | 20 | — | — |
| 40367 1999 $NA_{28}$ | 15.5 | X | 273.79881 | 304.56059 | 354.33233 | 3.26504 | 0.2072422 | 0.27227464 | 2.3575700 | 20 | 3 10.6 | 19.0 |
| 40368 1999 $NS_{28}$ | 14.8 | X | 159.07381 | 18.16874 | 321.08393 | 5.70751 | 0.1347730 | 0.26100379 | 2.4249615 | 20 | 1 16.1 | 18.2 |
| 40369 1999 $NY_{28}$ | 15.2 | X | 237.51212 | 174.71086 | 94.46947 | 2.46412 | 0.1590119 | 0.26451884 | 2.4034309 | 20 | 1 3.9 | 18.8 |
| 40370 1999 $NZ_{28}$ | 15.4 | X | 338.69302 | 26.72743 | 307.26309 | 6.02430 | 0.1248430 | 0.28405745 | 2.2919155 | 20 | 9 1.6 | 17.3 |
| 40371 1999 $NF_{30}$ | 15.2 | X | 327.60864 | 35.57763 | 296.54797 | 4.80306 | 0.2091310 | 0.28180525 | 2.3041106 | 20 | 7 31.6 | 16.4 |
| 40372 1999 $NG_{34}$ | 14.9 | X | 354.96622 | 248.80473 | 95.68556 | 5.58079 | 0.1509333 | 0.24000854 | 2.5643950 | 20 | 10 18.4 | 17.5 |
| 40373 1999 $NF_{36}$ | 14.9 | X | 100.25001 | 117.94030 | 111.78882 | 6.57891 | 0.0556074 | 0.28769780 | 2.2725408 | 20 | 10 6.9 | 17.9 |
| 40374 1999 $NG_{36}$ | 15.4 | X | 180.60920 | 156.18250 | 110.23101 | 7.54726 | 0.0940004 | 0.30303450 | 2.1952029 | 20 | — | — |
| 40375 1999 $NO_{36}$ | 14.6 | X | 352.03748 | 221.82211 | 103.33840 | 17.05848 | 0.2472995 | 0.23701828 | 2.5859184 | 20 | 9 29.8 | 17.2 |
| 40376 1999 $NF_{37}$ | 15.7 | X | 341.98494 | 212.21201 | 106.73059 | 3.60023 | 0.1700116 | 0.28239578 | 2.3008974 | 20 | 8 19.1 | 17.2 |
| 40377 1999 $NM_{39}$ | 15.3 | X | 158.89018 | 299.90906 | 20.18983 | 2.64977 | 0.1948986 | 0.25818141 | 2.4426022 | 20 | — | — |
| 40378 1999 $NW_{40}$ | 15.0 | X | 190.58360 | 334.20309 | 343.91706 | 5.95828 | 0.1628177 | 0.26211361 | 2.4181116 | 20 | 1 23.0 | 18.8 |
| 40379 1999 $NG_{41}$ | 14.8 | X | 166.45491 | 316.09122 | 73.79792 | 3.35671 | 0.2184122 | 0.26538495 | 2.3981988 | 20 | 4 1.2 | 18.7 |
| 40380 1999 $NX_{42}$ | 14.9 | X | 154.00626 | 28.68582 | 341.98312 | 7.65929 | 0.1333494 | 0.26295936 | 2.4129239 | 20 | 2 19.1 | 18.4 |
| 40381 1999 $NK_{44}$ | 15.0 | X | 73.19000 | 204.79171 | 163.56446 | 8.58097 | 0.2310624 | 0.25435781 | 2.4670200 | 20 | — | — |
| 40382 1999 $NK_{47}$ | 15.4 | X | 136.27195 | 70.34137 | 235.29546 | 3.82484 | 0.2019886 | 0.30230940 | 2.1987117 | 20 | — | — |
| 40383 1999 $NW_{47}$ | 15.5 | X | 277.18096 | 176.77134 | 188.11635 | 6.35255 | 0.1949300 | 0.27900094 | 2.3195244 | 20 | 6 14.9 | 18.4 |
| 40384 1999 $NC_{49}$ | 15.3 | X | 242.41165 | 154.56055 | 175.66288 | 3.15761 | 0.1718509 | 0.27056854 | 2.3674702 | 20 | 3 22.8 | 18.7 |
| 40385 1999 $NE_{49}$ | 15.2 | X | 146.47522 | 79.23226 | 203.71621 | 2.04360 | 0.1728283 | 0.30080237 | 2.2060493 | 20 | — | — |
| 40386 1999 $NK_{49}$ | 15.1 | X | 181.45836 | 138.46334 | 199.32559 | 5.66869 | 0.1604509 | 0.26315345 | 2.4117374 | 20 | 2 4.4 | 18.9 |
| 40387 1999 $NL_{49}$ | 13.8 | X | 241.70407 | 156.88342 | 262.83315 | 10.06652 | 0.1471662 | 0.23295548 | 2.6158978 | 20 | 7 18.6 | 17.7 |
| 40388 1999 $NY_{49}$ | 15.1 | X | 63.46805 | 57.42986 | 214.51445 | 2.65677 | 0.1821420 | 0.28879145 | 2.2667998 | 20 | 10 31.3 | 18.1 |
| 40389 1999 $ND_{50}$ | 14.1 | X | 314.44532 | 152.36836 | 267.23720 | 11.19012 | 0.0644828 | 0.24385886 | 2.5373304 | 20 | 11 15.7 | 17.2 |
| 40390 1999 $NR_{51}$ | 14.5 | X | 2.43194 | 173.61246 | 182.90748 | 14.84426 | 0.2225905 | 0.24245162 | 2.5471391 | 20 | 11 28.8 | 17.5 |
| 40391 1999 $NR_{52}$ | 14.0 | X | 188.45241 | 225.03985 | 231.22922 | 13.42645 | 0.1361014 | 0.23210711 | 2.6222680 | 20 | 7 9.7 | 18.4 |
| 40392 1999 $NS_{53}$ | 14.6 | X | 266.08702 | 159.30284 | 191.97696 | 12.87666 | 0.2185779 | 0.22765833 | 2.6563197 | 20 | 5 11.8 | 18.6 |
| 40393 1999 $NW_{53}$ | 15.0 | X | 16.51253 | 204.71971 | 175.63017 | 14.67279 | 0.1084499 | 0.24607018 | 2.5221064 | 20 | — | — |
| 40394 1999 $NX_{53}$ | 15.1 | X | 29.82468 | 91.13228 | 204.14667 | 13.77331 | 0.0892267 | 0.23840379 | 2.5758898 | 20 | 9 22.7 | 18.3 |
| 40395 1999 $NP_{54}$ | 15.5 | X | 23.27272 | 45.58763 | 200.86665 | 9.55740 | 0.1805182 | 0.28024513 | 2.3126540 | 20 | 7 19.3 | 17.8 |
| 40396 1999 $NT_{54}$ | 14.3 | X | 5.74708 | 227.20380 | 170.28592 | 15.26075 | 0.1118544 | 0.24631939 | 2.5204049 | 20 | — | — |
| 40397 1999 $NY_{55}$ | 13.8 | X | 144.16875 | 215.50717 | 255.62654 | 12.50380 | 0.1088271 | 0.22635421 | 2.6665128 | 20 | 6 15.6 | 17.8 |
| 40398 1999 $NL_{57}$ | 14.8 | X | 280.57781 | 189.40864 | 159.74756 | 13.50736 | 0.2623933 | 0.27899689 | 2.3195468 | 20 | 5 20.5 | 18.2 |
| 40399 1999 $NW_{63}$ | 15.1 | X | 85.53246 | 340.96634 | 347.65101 | 5.45937 | 0.2167004 | 0.29682503 | 2.2257123 | 20 | — | — |
| 40400 1999 $NJ_{64}$ | 15.1 | X | 341.61596 | 233.60251 | 84.58964 | 1.79470 | 0.1234446 | 0.18777004 | 3.0203122 | 20 | 8 2.3 | 18.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40401 1999 $NS_{64}$ | 15.6 | X | 267.16779 | 22.95546 | 316.01355 | 5.86117 | 0.1503749 | 0.27452553 | 2.3446655 | 20 | 4 29.6 | 19.0 |
| 40402 1999 $NY_{64}$ | 15.4 | X | 53.90307 | 300.63219 | 358.67887 | 2.36059 | 0.1390705 | 0.28954602 | 2.2628598 | 20 | 11 19.5 | 18.2 |
| 40403 1999 $NJ_{65}$ | 15.5 | X | 166.12894 | 168.87390 | 195.29595 | 11.92694 | 0.2116900 | 0.26385194 | 2.4074791 | 20 | 2 24.7 | 19.5 |
| 40404 1999 $OB$ | 14.5 | X | 342.89916 | 189.85300 | 164.68499 | 4.41714 | 0.1362813 | 0.28577942 | 2.2826995 | 20 | 10 19.4 | 16.3 |
| 40405 1999 $OU$ | 15.2 | X | 81.63927 | 268.95600 | 172.79604 | 5.07091 | 0.1389624 | 0.21429506 | 2.7656334 | 20 | 2 27.4 | 18.7 |
| 40406 1999 $OR_1$ | 14.5 | X | 179.61233 | 325.10685 | 115.46566 | 7.40730 | 0.0720167 | 0.27726973 | 2.3291694 | 20 | 6 15.2 | 17.7 |
| 40407 1999 $QT_2$ | 15.6 | X | 112.46050 | 194.78765 | 143.40045 | 6.17042 | 0.1292332 | 0.25175099 | 2.4840210 | 20 | — | — |
| 40408 1999 $RO_2$ | 15.1 | X | 323.63560 | 35.91126 | 254.34922 | 6.53010 | 0.1132717 | 0.27529898 | 2.3402719 | 20 | 5 23.6 | 17.3 |
| 40409 Taichikato | 15.7 | X | 160.12036 | 204.99160 | 115.48038 | 3.52066 | 0.2067155 | 0.25701569 | 2.4499824 | 20 | — | — |
| 40410 Příhoda | 14.7 | X | 297.16918 | 300.75485 | 135.53489 | 2.65958 | 0.0712618 | 0.18952066 | 3.0016843 | 20 | 10 31.9 | 18.5 |
| 40411 1999 $RM_3$ | 14.5 | X | 65.02765 | 356.61367 | 256.29701 | 3.98799 | 0.1243056 | 0.28488257 | 2.2874879 | 20 | 9 26.7 | 17.5 |
| 40412 1999 $RE_9$ | 14.7 | X | 114.96392 | 229.05463 | 165.99057 | 6.28106 | 0.1200831 | 0.21044255 | 2.7992843 | 20 | 2 8.8 | 18.7 |
| 40413 1999 $RS_{10}$ | 13.8 | X | 87.40012 | 246.21398 | 158.01594 | 14.70822 | 0.0667216 | 0.25778268 | 2.4451203 | 20 | — | — |
| 40414 1999 $RP_{11}$ | 15.1 | X | 198.65586 | 91.89299 | 204.25826 | 0.71324 | 0.1745278 | 0.26033323 | 2.4291238 | 20 | 1 2.8 | 18.8 |
| 40415 1999 $RB_{13}$ | 14.9 | X | 222.72121 | 148.12951 | 164.29459 | 14.21614 | 0.1096599 | 0.26392131 | 2.4070572 | 20 | 2 12.2 | 18.5 |
| 40416 1999 $RO_{14}$ | 14.6 | X | 27.42085 | 300.00426 | 179.23707 | 4.54316 | 0.0233914 | 0.25910236 | 2.4368108 | 20 | 1 9.9 | 17.7 |
| 40417 1999 $RD_{16}$ | 13.9 | X | 133.25364 | 287.87847 | 168.90290 | 30.45795 | 0.2012592 | 0.21965439 | 2.7204628 | 20 | 5 28.1 | 18.9 |
| 40418 1999 $RK_{19}$ | 14.2 | X | 270.12856 | 71.05281 | 328.28379 | 9.28097 | 0.1324323 | 0.18272458 | 3.0756582 | 20 | 7 29.2 | 18.5 |
| 40419 1999 $RV_{20}$ | 14.9 | X | 124.41129 | 180.29319 | 229.35312 | 3.06299 | 0.0955635 | 0.21279472 | 2.7786178 | 20 | 3 4.9 | 18.8 |
| 40420 1999 $RJ_{21}$ | 14.4 | X | 12.40053 | 156.34626 | 165.82863 | 13.36395 | 0.0417729 | 0.23549405 | 2.5970646 | 20 | 10 1.5 | 17.6 |
| 40421 1999 $RZ_{22}$ | 15.0 | X | 89.56259 | 188.64162 | 162.82314 | 2.27869 | 0.0551572 | 0.20117158 | 2.8846401 | 20 | — | — |
| 40422 1999 $RF_{23}$ | 15.2 | X | 156.45583 | 171.08120 | 155.52484 | 3.33470 | 0.1960076 | 0.25583901 | 2.4574888 | 20 | 1 3.5 | 18.8 |
| 40423 1999 $RJ_{23}$ | 15.1 | X | 119.29581 | 28.85535 | 32.40676 | 3.79749 | 0.0881952 | 0.21354579 | 2.7720988 | 20 | 3 15.2 | 18.9 |
| 40424 1999 $RB_{24}$ | 14.3 | X | 244.18353 | 323.28766 | 25.11699 | 6.38440 | 0.1647819 | 0.26961042 | 2.3730758 | 20 | 4 17.4 | 17.8 |
| 40425 1999 $RQ_{25}$ | 15.4 | X | 261.68845 | 63.20432 | 264.16256 | 1.96833 | 0.1119957 | 0.22140736 | 2.7060844 | 20 | 4 16.9 | 19.3 |
| 40426 1999 $RV_{25}$ | 14.0 | X | 212.69279 | 52.13805 | 345.10317 | 4.53180 | 0.1825827 | 0.17364632 | 3.1819425 | 20 | 5 18.7 | 19.3 |
| 40427 1999 $RN_{26}$ | 14.6 | X | 14.59748 | 12.74221 | 18.50797 | 10.95905 | 0.1365386 | 0.19508562 | 2.9443259 | 20 | — | — |
| 40428 1999 $RZ_{26}$ | 14.8 | X | 306.07108 | 106.94297 | 150.73090 | 7.88355 | 0.0530010 | 0.21774062 | 2.7363801 | 20 | 3 25.6 | 18.4 |
| 40429 1999 $RL_{27}$ | 12.7 | X | 58.54274 | 262.23961 | 32.24033 | 13.34339 | 0.1742505 | 0.23559874 | 2.5962953 | 20 | 11 11.2 | 16.4 |
| 40430 1999 $RL_{28}$ | 16.1 | X | 296.99750 | 84.01874 | 172.44408 | 20.51290 | 0.4153484 | 0.26987888 | 2.3715017 | 20 | 1 16.6 | 20.5 |
| 40431 1999 $RK_{29}$ | 14.4 | X | 93.72519 | 57.13205 | 173.04367 | 23.72432 | 0.2087514 | 0.28875299 | 2.2670011 | 20 | 10 12.9 | 18.0 |
| 40432 1999 $RW_{29}$ | 14.2 | X | 280.35966 | 3.03055 | 322.01664 | 16.13663 | 0.3034006 | 0.22606256 | 2.6688057 | 20 | 4 2.5 | 18.6 |
| 40433 1999 $RQ_{30}$ | 14.3 | X | 244.02480 | 309.54345 | 343.55165 | 32.53540 | 0.1876919 | 0.21586042 | 2.7522468 | 20 | 2 19.7 | 19.0 |
| 40434 1999 $RH_{32}$ | 14.3 | X | 122.57885 | 212.14001 | 168.99714 | 9.68197 | 0.1675967 | 0.20967292 | 2.8061303 | 20 | 2 6.2 | 18.5 |
| 40435 1999 $RL_{32}$ | 14.8 | X | 305.74790 | 22.56574 | 341.25952 | 1.85279 | 0.1822526 | 0.18276658 | 3.0751869 | 20 | 7 25.8 | 18.4 |
| 40436 Sylviecoyaud | 14.9 | X | 13.07649 | 344.41815 | 359.02386 | 4.98636 | 0.1338081 | 0.23734757 | 2.5835261 | 20 | 11 9.3 | 17.9 |
| 40437 1999 $RU_{33}$ | 15.0 | X | 196.13712 | 201.59611 | 354.17347 | 13.07967 | 0.0717726 | 0.19584857 | 2.9366743 | 20 | 11 18.2 | 19.5 |
| 40438 1999 $RV_{33}$ | 14.8 | X | 297.64647 | 104.86140 | 2.68243 | 1.44082 | 0.0868259 | 0.19597650 | 2.9353961 | 20 | 12 10.3 | 18.4 |
| 40439 1999 $RF_{34}$ | 14.1 | X | 218.33789 | 271.09969 | 147.92659 | 0.54212 | 0.1793696 | 0.17623104 | 3.1507536 | 20 | 6 20.4 | 19.0 |
| 40440 Dobrovský | 14.4 | X | 311.83967 | 202.38172 | 192.49003 | 9.89464 | 0.0938452 | 0.18625572 | 3.0366609 | 20 | 9 25.7 | 18.3 |
| 40441 Jungmann | 15.3 | X | 53.24597 | 154.41319 | 186.85555 | 6.87813 | 0.2560229 | 0.24282472 | 2.5445293 | 20 | — | — |
| 40442 1999 $RO_{35}$ | 15.0 | X | 9.39523 | 274.90859 | 72.99113 | 1.15080 | 0.2951239 | 0.23830726 | 2.5765853 | 20 | 12 7.7 | 17.6 |
| 40443 1999 $RU_{35}$ | 15.5 | X | 54.09264 | 319.67904 | 339.29252 | 6.44988 | 0.2360834 | 0.24017024 | 2.5632438 | 20 | 11 20.7 | 19.3 |
| 40444 Palacký | 15.3 | X | 178.53323 | 21.56976 | 200.06084 | 1.42868 | 0.0456936 | 0.19422993 | 2.9529671 | 20 | 12 6.1 | 19.7 |
| 40445 1999 $RY_{35}$ | 15.9 | X | 294.86996 | 304.15872 | 331.40467 | 6.10377 | 0.1131362 | 0.27124401 | 2.3635381 | 20 | 3 16.0 | 18.8 |
| 40446 1999 $RN_{36}$ | 13.6 | X | 20.28285 | 153.28893 | 217.00299 | 12.84364 | 0.1845963 | 0.23886490 | 2.5725737 | 20 | — | — |
| 40447 Lorenzoni | 15.5 | X | 57.01664 | 309.97307 | 3.13521 | 4.28115 | 0.2484643 | 0.24247529 | 2.5469733 | 20 | 12 14.2 | 19.5 |
| 40448 1999 $RT_{37}$ | 15.2 | X | 214.62540 | 319.10242 | 4.59995 | 6.74321 | 0.1263173 | 0.26261222 | 2.4150498 | 20 | 2 21.4 | 18.8 |
| 40449 1999 $RV_{37}$ | 15.7 | X | 169.91862 | 124.24679 | 189.41645 | 4.36379 | 0.1217261 | 0.25506498 | 2.4624580 | 20 | — | — |
| 40450 1999 $RX_{37}$ | 14.0 | X | 229.10671 | 276.30006 | 186.58737 | 9.42215 | 0.0518958 | 0.18456392 | 3.0551896 | 20 | 9 5.9 | 18.5 |
| 40451 1999 $RD_{38}$ | 14.6 | X | 267.68626 | 218.48647 | 185.58827 | 14.22001 | 0.0937909 | 0.22944125 | 2.6425409 | 20 | 8 6.5 | 18.4 |
| 40452 1999 $RV_{38}$ | 15.5 | X | 267.48294 | 293.22524 | 37.59962 | 6.84410 | 0.1444992 | 0.27194653 | 2.3594659 | 20 | 4 22.8 | 18.5 |
| 40453 1999 $RX_{38}$ | 14.8 | X | 326.65447 | 275.34044 | 44.61093 | 7.09605 | 0.1274864 | 0.27835173 | 2.3231296 | 20 | 7 17.4 | 17.0 |
| 40454 1999 $RY_{39}$ | 14.8 | X | 210.06940 | 129.24371 | 207.75005 | 8.38753 | 0.1651188 | 0.21434817 | 2.7651765 | 20 | 3 3.4 | 19.4 |
| 40455 1999 $RC_{40}$ | 14.2 | X | 192.86888 | 36.95326 | 17.33970 | 16.87313 | 0.1265159 | 0.17107810 | 3.2137082 | 20 | 5 19.7 | 19.6 |
| 40456 1999 $RV_{41}$ | 14.2 | X | 298.24608 | 328.39851 | 45.58703 | 1.97189 | 0.1816223 | 0.18177279 | 3.0863852 | 20 | 7 27.4 | 18.1 |
| 40457 Williamkuhn | 15.4 | X | 316.92034 | 107.00779 | 160.42947 | 8.10073 | 0.1386238 | 0.27054958 | 2.3675808 | 20 | 4 6.1 | 18.0 |
| 40458 1999 $RH_{43}$ | 15.4 | X | 289.37611 | 312.98829 | 358.08181 | 5.92584 | 0.1372061 | 0.27249361 | 2.3563068 | 20 | 4 22.8 | 18.2 |
| 40459 Rektorys | 14.7 | X | 73.61128 | 210.70081 | 250.37490 | 8.31530 | 0.1163223 | 0.21453807 | 2.7635445 | 20 | 3 4.8 | 18.3 |
| 40460 1999 $RV_{43}$ | 15.1 | X | 25.19421 | 194.67579 | 169.15364 | 9.65016 | 0.1371684 | 0.23994854 | 2.5648224 | 20 | 12 26.5 | 18.6 |
| 40461 1999 $RW_{43}$ | 13.8 | X | 309.93876 | 215.44776 | 170.65326 | 10.11303 | 0.0979564 | 0.18404326 | 3.0609491 | 20 | 9 10.9 | 17.5 |
| 40462 1999 $RC_{44}$ | 13.3 | X | 327.92417 | 328.10480 | 45.07159 | 11.86998 | 0.1653221 | 0.23179319 | 2.6246351 | 20 | 10 6.5 | 15.9 |
| 40463 Frankkameny | 15.1 | X | 190.75045 | 32.26360 | 302.73670 | 2.44208 | 0.1815817 | 0.21280257 | 2.7785495 | 20 | 2 15.9 | 19.7 |
| 40464 1999 $RM_{44}$ | 14.5 | X | 348.81198 | 149.72315 | 195.87222 | 17.83792 | 0.2307866 | 0.23574024 | 2.5952562 | 20 | 10 11.7 | 16.4 |
| 40465 1999 $RQ_{44}$ | 14.5 | X | 176.33646 | 216.12104 | 178.41747 | 9.49510 | 0.0656375 | 0.21769428 | 2.7367683 | 20 | 4 13.1 | 18.5 |
| 40466 1999 $RU_{44}$ | 14.9 | X | 20.98131 | 162.11055 | 172.73673 | 13.39732 | 0.1944149 | 0.24018535 | 2.5631363 | 20 | 11 24.3 | 18.2 |
| 40467 1999 $RE_{46}$ | 14.7 | X | 279.59450 | 9.24548 | 344.05086 | 6.91587 | 0.1533955 | 0.27796163 | 2.3253026 | 20 | 6 7.1 | 17.6 |
| 40468 1999 $RF_{46}$ | 14.9 | X | 343.83224 | 293.99515 | 321.42828 | 22.66169 | 0.3023065 | 0.27831013 | 2.3233611 | 20 | 3 22.7 | 17.2 |
| 40469 1999 $RM_{47}$ | 15.0 | X | 157.83876 | 171.90601 | 200.44713 | 3.41823 | 0.1214919 | 0.26373445 | 2.4081940 | 20 | 2 22.0 | 18.4 |
| 40470 1999 $RN_{47}$ | 14.6 | X | 80.04064 | 145.59674 | 233.23020 | 3.58092 | 0.2123433 | 0.25298898 | 2.4759107 | 20 | — | — |
| 40471 1999 $RX_{47}$ | 13.8 | X | 233.66186 | 60.44521 | 336.13341 | 14.46950 | 0.2179080 | 0.22765153 | 2.6563726 | 20 | 6 2.1 | 18.4 |
| 40472 1999 $RU_{49}$ | 15.3 | X | 191.88392 | 169.67876 | 165.57166 | 2.46983 | 0.2227804 | 0.26352030 | 2.4094985 | 20 | 2 13.8 | 19.3 |
| 40473 1999 $RR_{50}$ | 15.5 | X | 252.71792 | 274.79998 | 41.75899 | 3.01607 | 0.1774750 | 0.26999062 | 2.3708474 | 20 | 3 16.2 | 19.0 |
| 40474 1999 $RG_{51}$ | 15.3 | X | 90.81329 | 245.29333 | 148.68793 | 3.15991 | 0.0921889 | 0.25716209 | 2.4490525 | 20 | — | — |
| 40475 1999 $RE_{53}$ | 15.4 | X | 4.33670 | 136.97909 | 261.81854 | 2.78912 | 0.1951423 | 0.24472470 | 2.5313422 | 20 | — | — |
| 40476 1999 $RH_{53}$ | 14.6 | X | 108.40191 | 228.29176 | 176.38191 | 6.58164 | 0.1417754 | 0.25980615 | 2.4324080 | 20 | 2 8.7 | 17.7 |
| 40477 1999 $RS_{54}$ | 15.0 | X | 322.99685 | 33.46964 | 315.11198 | 1.55515 | 0.0918549 | 0.23452877 | 2.6041858 | 20 | 8 19.5 | 17.6 |
| 40478 1999 $RT_{54}$ | 15.7 | X | 261.81713 | 88.88904 | 188.94549 | 0.83031 | 0.1776617 | 0.26710941 | 2.3878659 | 20 | 2 4.3 | 19.2 |
| 40479 1999 $RQ_{60}$ | 14.8 | X | 7.16795 | 135.80524 | 243.73837 | 2.65445 | 0.0538913 | 0.24448806 | 2.5329753 | 20 | 12 11.4 | 17.8 |
| 40480 1999 $RK_{61}$ | 14.2 | X | 211.24739 | 6.64426 | 143.40704 | 8.76020 | 0.1274752 | 0.24142329 | 2.5543668 | 20 | 10 18.9 | 18.0 |

# ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40481 1999 $RQ_{61}$ | 15.3 | X | 305.13196 | 229.58325 | 352.14444 | 2.56839 | 0.1235258 | 0.26488095 | 2.4012400 | 20 | 1 18.9 | 18.4 |
| 40482 1999 $RA_{62}$ | 14.7 | X | 198.52542 | 291.46208 | 174.63675 | 13.31139 | 0.1551136 | 0.23116624 | 2.6293785 | 20 | 8 1.0 | 19.0 |
| 40483 1999 $RE_{62}$ | 14.7 | X | 194.34416 | 225.33384 | 135.56469 | 10.34847 | 0.1638513 | 0.21841608 | 2.7307356 | 20 | 3 23.6 | 19.2 |
| 40484 1999 $RA_{63}$ | 15.0 | X | 311.15540 | 45.03043 | 257.21811 | 2.36652 | 0.1966616 | 0.27544459 | 2.3394471 | 20 | 5 5.1 | 17.3 |
| 40485 1999 $RY_{63}$ | 15.7 | X | 74.87219 | 252.00786 | 7.16498 | 2.66192 | 0.1447304 | 0.28683248 | 2.2771091 | 20 | 10 21.8 | 18.7 |
| 40486 1999 $RJ_{64}$ | 15.5 | X | 232.74445 | 222.86411 | 134.52330 | 7.28320 | 0.1410259 | 0.27040732 | 2.3684111 | 20 | 4 22.6 | 19.1 |
| 40487 1999 $RP_{66}$ | 14.7 | X | 30.12905 | 309.22565 | 81.71032 | 3.17275 | 0.1579573 | 0.19920048 | 2.9036379 | 20 | — | — |
| 40488 1999 $RV_{66}$ | 14.6 | X | 264.05485 | 289.18519 | 111.66101 | 5.32266 | 0.1775455 | 0.18205931 | 3.0831462 | 20 | 7 15.4 | 19.0 |
| 40489 1999 $RH_{67}$ | 15.6 | X | 310.63366 | 81.64492 | 160.57627 | 2.14305 | 0.1633927 | 0.26802233 | 2.3824405 | 20 | 2 14.9 | 18.4 |
| 40490 1999 $RY_{67}$ | 14.5 | X | 95.51779 | 147.48362 | 329.61523 | 8.78269 | 0.0592278 | 0.21991832 | 2.7182858 | 20 | 4 16.1 | 18.3 |
| 40491 1999 $RJ_{68}$ | 15.1 | X | 56.04490 | 207.42838 | 181.68608 | 1.86166 | 0.0804202 | 0.20264978 | 2.8705953 | 20 | — | — |
| 40492 1999 $RO_{69}$ | 15.3 | X | 221.59539 | 195.96262 | 154.48681 | 8.09867 | 0.1238412 | 0.26777920 | 2.3838824 | 20 | 4 2.2 | 18.8 |
| 40493 1999 $RD_{71}$ | 15.5 | X | 142.60392 | 261.47084 | 5.25478 | 2.81249 | 0.0528767 | 0.24695717 | 2.5160637 | 20 | — | — |
| 40494 1999 $RG_{72}$ | 15.2 | X | 320.58890 | 260.99891 | 126.92278 | 4.44216 | 0.0649429 | 0.23765775 | 2.5812777 | 20 | 10 14.9 | 18.2 |
| 40495 1999 $RQ_{74}$ | 14.8 | X | 5.34295 | 26.31244 | 5.42888 | 11.91006 | 0.0636034 | 0.19626392 | 2.9325296 | 20 | 12 11.1 | 18.9 |
| 40496 1999 $RD_{76}$ | 15.0 | X | 169.27005 | 181.04457 | 186.38303 | 5.69549 | 0.0662004 | 0.21466163 | 2.7624839 | 20 | 2 29.1 | 19.1 |
| 40497 1999 $RR_{78}$ | 14.4 | X | 195.02703 | 312.51194 | 167.29761 | 10.21374 | 0.0475665 | 0.18547693 | 3.0451553 | 20 | 8 18.9 | 19.0 |
| 40498 1999 $RG_{80}$ | 15.0 | X | 295.19285 | 320.14976 | 276.26444 | 4.18540 | 0.0656020 | 0.21509098 | 2.7588065 | 20 | 2 8.5 | 18.9 |
| 40499 1999 $RK_{81}$ | 15.5 | X | 30.92281 | 206.28794 | 171.76588 | 2.95425 | 0.0726077 | 0.24512862 | 2.5285606 | 20 | — | — |
| 40500 1999 $RE_{82}$ | 14.3 | X | 228.10204 | 163.61483 | 187.53283 | 17.14060 | 0.0309093 | 0.17277698 | 3.1926070 | 20 | 4 21.6 | 19.0 |
| 40501 1999 $RM_{82}$ | 14.9 | X | 260.00229 | 17.76849 | 277.60415 | 4.01282 | 0.0431004 | 0.21761329 | 2.7374473 | 20 | 3 12.5 | 18.7 |
| 40502 1999 $RT_{82}$ | 15.3 | X | 3.66315 | 59.66696 | 282.08039 | 2.87884 | 0.1090392 | 0.23723508 | 2.5843427 | 20 | 10 19.6 | 18.2 |
| 40503 1999 $RA_{83}$ | 15.3 | X | 218.76794 | 350.97049 | 325.38998 | 1.67378 | 0.1944582 | 0.26358792 | 2.4090864 | 20 | 2 13.0 | 19.1 |
| 40504 1999 $RC_{84}$ | 15.2 | X | 2.83111 | 238.06696 | 134.98343 | 1.75879 | 0.1386060 | 0.24029209 | 2.5623772 | 20 | 12 6.9 | 18.2 |
| 40505 1999 $RJ_{84}$ | 15.3 | X | 286.93929 | 167.44498 | 219.47422 | 2.97672 | 0.1333221 | 0.23131916 | 2.6282196 | 20 | 8 7.0 | 18.6 |
| 40506 1999 $RB_{86}$ | 15.3 | X | 5.95428 | 235.39188 | 100.39134 | 3.95476 | 0.1209905 | 0.23690027 | 2.5867771 | 20 | 10 20.1 | 18.1 |
| 40507 1999 $RK_{86}$ | 15.0 | X | 186.44839 | 161.34260 | 136.19899 | 7.76833 | 0.1087649 | 0.20853191 | 2.8163570 | 20 | — | — |
| 40508 1999 $RU_{86}$ | 15.5 | X | 185.91163 | 256.91144 | 41.03730 | 3.98104 | 0.1300296 | 0.25650586 | 2.4532277 | 20 | — | — |
| 40509 1999 $RJ_{87}$ | 14.5 | X | 214.66971 | 267.10700 | 180.93183 | 9.23427 | 0.1291356 | 0.18027534 | 3.1034530 | 20 | 7 24.6 | 19.5 |
| 40510 1999 $RU_{87}$ | 14.6 | X | 162.02569 | 191.95430 | 94.47500 | 3.30557 | 0.0330177 | 0.20278957 | 2.8692758 | 20 | — | — |
| 40511 1999 $RE_{88}$ | 15.8 | X | 303.60626 | 279.95320 | 341.53628 | 2.04238 | 0.1688817 | 0.26807920 | 2.3821036 | 20 | 3 1.9 | 18.9 |
| 40512 1999 $RP_{88}$ | 15.1 | X | 279.90593 | 91.36879 | 277.34000 | 1.65173 | 0.1004028 | 0.22833783 | 2.6510473 | 20 | 7 7.9 | 18.5 |
| 40513 1999 $RS_{88}$ | 14.5 | X | 141.39706 | 137.20273 | 308.50223 | 3.66773 | 0.0675362 | 0.21964359 | 2.7205520 | 20 | 5 5.9 | 18.4 |
| 40514 1999 $RC_{89}$ | 14.9 | X | 133.87607 | 23.90280 | 194.66235 | 3.57991 | 0.1116333 | 0.23820011 | 2.5773580 | 20 | 10 22.7 | 18.8 |
| 40515 1999 $RE_{89}$ | 14.9 | X | 186.22421 | 113.80459 | 204.70835 | 2.42196 | 0.1030387 | 0.21042176 | 2.7994687 | 20 | 1 21.4 | 19.3 |
| 40516 1999 $RY_{89}$ | 14.0 | X | 80.84626 | 312.04806 | 84.48653 | 3.33697 | 0.0850602 | 0.20554259 | 2.8435977 | 20 | — | — |
| 40517 1999 $RA_{92}$ | 15.6 | X | 294.28930 | 155.81154 | 195.91412 | 0.90979 | 0.1932445 | 0.22852633 | 2.6495893 | 20 | 6 20.4 | 18.5 |
| 40518 1999 $RZ_{93}$ | 15.1 | X | 253.14919 | 341.67083 | 160.45078 | 15.43095 | 0.0115040 | 0.24256721 | 2.5463298 | 20 | 12 15.2 | 18.8 |
| 40519 1999 $RQ_{94}$ | 15.1 | X | 201.52919 | 343.49559 | 18.32366 | 6.30119 | 0.0492772 | 0.21720831 | 2.7408489 | 20 | 3 30.2 | 19.1 |
| 40520 1999 $RG_{95}$ | 14.2 | X | 150.33359 | 11.77184 | 353.35893 | 8.90877 | 0.1678830 | 0.21063014 | 2.7976221 | 20 | 2 18.2 | 18.6 |
| 40521 1999 $RL_{95}$ | 14.6 | X | 107.56187 | 288.33834 | 10.82506 | 12.63509 | 0.0682538 | 0.24484094 | 2.5305409 | 20 | — | — |
| 40522 1999 $RT_{95}$ | 15.1 | X | 172.80427 | 350.62881 | 38.71232 | 7.19266 | 0.0611381 | 0.21668112 | 2.7452928 | 20 | 4 2.9 | 19.0 |
| 40523 1999 $RX_{95}$ | 14.6 | X | 28.06128 | 206.59705 | 162.52115 | 14.53284 | 0.1609160 | 0.24241383 | 2.5474038 | 20 | — | — |
| 40524 1999 $RA_{96}$ | 14.9 | X | 155.49125 | 126.58269 | 127.54518 | 4.98583 | 0.1083073 | 0.24575741 | 2.5242458 | 20 | 12 27.9 | 18.6 |
| 40525 1999 $RO_{96}$ | 16.3 | X | 219.13435 | 245.63349 | 65.17916 | 1.57132 | 0.1940919 | 0.26222107 | 2.4174509 | 20 | 2 7.3 | 20.3 |
| 40526 1999 $RV_{96}$ | 14.8 | X | 178.70957 | 270.08175 | 131.01758 | 3.09889 | 0.0874378 | 0.21957528 | 2.7211162 | 20 | 4 24.3 | 18.8 |
| 40527 1999 $RS_{98}$ | 15.1 | X | 106.62613 | 266.96431 | 20.25288 | 7.42748 | 0.1137430 | 0.24323560 | 2.5416629 | 20 | 12 19.2 | 19.0 |
| 40528 1999 $RT_{98}$ | 13.5 | X | 192.59880 | 318.81806 | 167.67943 | 15.44326 | 0.1672547 | 0.18152281 | 3.0892181 | 20 | 8 17.5 | 18.7 |
| 40529 1999 $RC_{99}$ | 15.1 | X | 219.47439 | 211.07978 | 69.40123 | 5.86819 | 0.2640908 | 0.25922781 | 2.4360245 | 20 | 1 2.2 | 19.3 |
| 40530 1999 $RE_{99}$ | 15.5 | X | 354.90775 | 336.49747 | 280.03879 | 6.20430 | 0.0911306 | 0.27684264 | 2.3315643 | 20 | 5 31.6 | 17.7 |
| 40531 1999 $RB_{100}$ | 14.8 | X | 155.89198 | 139.10636 | 238.75443 | 7.85393 | 0.1574570 | 0.21617070 | 2.7496125 | 20 | 3 2.6 | 19.2 |
| 40532 1999 $RY_{100}$ | 14.9 | X | 105.71510 | 110.41767 | 350.34259 | 8.48525 | 0.1104041 | 0.21861232 | 2.7291011 | 20 | 4 16.5 | 18.8 |
| 40533 1999 $RH_{102}$ | 15.3 | X | 277.44935 | 342.19979 | 199.70075 | 14.13548 | 0.0445563 | 0.25404338 | 2.4690552 | 20 | — | — |
| 40534 1999 $RT_{102}$ | 14.3 | X | 116.46248 | 37.13928 | 241.90210 | 6.84477 | 0.1703873 | 0.29449323 | 2.2374457 | 20 | 12 29.5 | 17.8 |
| 40535 1999 $RG_{103}$ | 14.6 | X | 11.51985 | 150.44413 | 218.57018 | 12.70400 | 0.1746405 | 0.24160197 | 2.5531073 | 20 | 12 19.9 | 17.8 |
| 40536 1999 $RL_{103}$ | 14.8 | X | 222.59695 | 56.79391 | 248.15525 | 6.02383 | 0.1120698 | 0.26300144 | 2.4126665 | 20 | 2 1.9 | 18.4 |
| 40537 1999 $RT_{103}$ | 14.8 | X | 341.00948 | 200.53276 | 185.42079 | 13.33603 | 0.2435492 | 0.23835864 | 2.5762151 | 20 | 11 29.5 | 17.2 |
| 40538 1999 $RV_{103}$ | 14.2 | X | 295.05704 | 11.65136 | 275.29081 | 5.74485 | 0.1152787 | 0.27030164 | 2.3690284 | 20 | 3 30.2 | 17.3 |
| 40539 1999 $RL_{104}$ | 14.9 | X | 209.56290 | 187.70908 | 217.54211 | 11.26216 | 0.1780158 | 0.22376285 | 2.6870602 | 20 | 5 27.4 | 19.3 |
| 40540 1999 $RZ_{104}$ | 14.9 | X | 196.52459 | 88.39595 | 241.21300 | 1.72611 | 0.1746305 | 0.26050947 | 2.4280281 | 20 | 2 9.7 | 18.9 |
| 40541 1999 $RE_{106}$ | 14.5 | X | 138.25530 | 158.56171 | 204.86755 | 8.61746 | 0.1667493 | 0.20972744 | 2.8056439 | 20 | 1 30.9 | 19.0 |
| 40542 1999 $RS_{106}$ | 15.0 | X | 258.99530 | 53.31921 | 241.78222 | 7.44286 | 0.0781116 | 0.21726087 | 2.7404068 | 20 | 3 5.4 | 19.1 |
| 40543 1999 $RZ_{107}$ | 14.9 | X | 179.49952 | 103.94826 | 266.39180 | 5.24258 | 0.0337949 | 0.21667673 | 2.7453299 | 20 | 3 11.7 | 19.0 |
| 40544 1999 $RA_{108}$ | 14.6 | X | 172.38347 | 244.25032 | 192.62683 | 13.31926 | 0.0534996 | 0.22370790 | 2.6875002 | 20 | 6 1.5 | 18.7 |
| 40545 1999 $RO_{109}$ | 14.6 | X | 332.76490 | 355.22947 | 330.79359 | 12.79523 | 0.1697753 | 0.23099546 | 2.6306743 | 20 | 8 1.9 | 17.1 |
| 40546 1999 $RY_{109}$ | 14.3 | X | 244.87175 | 84.26161 | 300.95347 | 9.61711 | 0.0996411 | 0.17618696 | 3.1512792 | 20 | 6 13.3 | 19.0 |
| 40547 1999 $RH_{111}$ | 14.6 | X | 291.55150 | 238.88608 | 169.89761 | 13.69856 | 0.1625697 | 0.23760867 | 2.5816331 | 20 | 9 13.1 | 17.3 |
| 40548 1999 $RK_{112}$ | 15.0 | X | 102.17861 | 67.76552 | 290.06982 | 4.87562 | 0.1070150 | 0.25472353 | 2.4646580 | 20 | — | — |
| 40549 1999 $RP_{112}$ | 15.4 | X | 239.91664 | 97.70537 | 194.87356 | 5.97104 | 0.0985678 | 0.26589975 | 2.3951024 | 20 | 2 4.9 | 18.9 |
| 40550 1999 $RM_{113}$ | 15.5 | X | 74.96720 | 275.43730 | 304.25457 | 3.38781 | 0.0977705 | 0.28268663 | 2.2993188 | 20 | 8 20.9 | 18.2 |
| 40551 1999 $RS_{113}$ | 14.6 | X | 73.01172 | 131.45871 | 232.12802 | 11.08436 | 0.0527787 | 0.20225762 | 2.8743046 | 20 | — | — |
| 40552 1999 $RX_{114}$ | 14.2 | X | 153.09262 | 88.54023 | 303.28480 | 7.23221 | 0.0611406 | 0.21609054 | 2.7502925 | 20 | 3 9.6 | 18.3 |
| 40553 1999 $RE_{115}$ | 15.2 | X | 296.96343 | 237.05104 | 13.41352 | 2.63372 | 0.1292760 | 0.26762271 | 2.3848116 | 20 | 2 14.6 | 18.2 |
| 40554 1999 $RG_{115}$ | 15.2 | X | 322.76074 | 188.55862 | 146.79910 | 5.54115 | 0.2958911 | 0.23276952 | 2.6172908 | 20 | 7 4.0 | 17.2 |
| 40555 1999 $RM_{115}$ | 15.1 | X | 20.55048 | 159.34234 | 149.22301 | 11.30107 | 0.1192700 | 0.23772372 | 2.5808002 | 20 | 10 7.3 | 18.2 |
| 40556 1999 $RS_{115}$ | 14.8 | X | 90.36596 | 130.73753 | 156.22263 | 6.22321 | 0.1526382 | 0.29271603 | 2.2464929 | 20 | 12 15.5 | 18.3 |
| 40557 1999 $RX_{116}$ | 14.8 | X | 27.17846 | 193.90076 | 151.57772 | 14.30440 | 0.1879240 | 0.24291892 | 2.5438714 | 20 | 12 15.6 | 18.4 |
| 40558 1999 $RE_{118}$ | 15.2 | X | 343.41505 | 78.78963 | 231.65480 | 4.05601 | 0.1926631 | 0.28104857 | 2.3082445 | 20 | 8 3.9 | 16.7 |
| 40559 1999 $RO_{118}$ | 14.6 | X | 74.21052 | 62.81732 | 178.57601 | 7.05546 | 0.0790887 | 0.28458150 | 2.2891009 | 20 | 9 17.9 | 17.5 |
| 40560 1999 $RQ_{118}$ | 14.6 | X | 235.55558 | 161.51611 | 229.52673 | 4.58898 | 0.1101791 | 0.22792870 | 2.6542188 | 20 | 6 9.7 | 18.6 |

| Planet | | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | m | | ° | ° | ° | ° | | ° | | | | |
| 40561 | 1999 $RR_{118}$ | 15.6 | X | 268.43940 | 118.16843 | 205.91814 | 5.66457 | 0.1451761 | 0.27253526 | 2.3560667 | 20 | 4 14.3 | 18.7 |
| 40562 | 1999 $RB_{121}$ | 15.3 | X | 46.85803 | 28.84566 | 228.67199 | 6.76317 | 0.0900984 | 0.28270899 | 2.2991976 | 20 | 8 31.5 | 18.0 |
| 40563 | 1999 $RZ_{122}$ | 14.9 | X | 207.88161 | 101.80291 | 228.92094 | 5.63715 | 0.0382762 | 0.21579161 | 2.7528319 | 20 | 2 24.7 | 18.9 |
| 40564 | 1999 $RZ_{123}$ | 13.5 | X | 25.68101 | 289.70954 | 269.66030 | 12.49589 | 0.1577841 | 0.22153912 | 2.7050114 | 20 | 5 5.3 | 16.5 |
| 40565 | 1999 $RD_{124}$ | 15.1 | X | 187.10410 | 109.97404 | 177.86667 | 2.11442 | 0.1647347 | 0.25625805 | 2.4548090 | 20 | — | — |
| 40566 | 1999 $RE_{124}$ | 14.7 | X | 359.09010 | 141.64765 | 194.96025 | 13.76449 | 0.1150483 | 0.23603224 | 2.5931153 | 20 | 10 6.3 | 17.6 |
| 40567 | 1999 $RB_{126}$ | 14.2 | X | 158.33694 | 311.85737 | 170.99233 | 15.38731 | 0.1129978 | 0.22897863 | 2.6460990 | 20 | 7 14.8 | 18.5 |
| 40568 | 1999 $RF_{126}$ | 13.8 | X | 43.30627 | 15.02667 | 322.17109 | 13.42393 | 0.0987604 | 0.24352640 | 2.5396392 | 20 | 12 10.3 | 17.4 |
| 40569 | 1999 $RH_{128}$ | 15.2 | X | 118.68903 | 122.06180 | 240.16756 | 2.39707 | 0.1820790 | 0.25585774 | 2.4573688 | 20 | 1 5.2 | 18.3 |
| 40570 | 1999 $RV_{128}$ | 15.1 | X | 316.28874 | 105.33740 | 283.30539 | 2.80057 | 0.2489399 | 0.23601380 | 2.5932504 | 20 | 9 21.8 | 17.0 |
| 40571 | 1999 $RD_{129}$ | 15.1 | X | 55.99263 | 316.20324 | 315.18814 | 2.82627 | 0.1623896 | 0.28630179 | 2.2799221 | 20 | 10 17.2 | 18.1 |
| 40572 | 1999 $RP_{129}$ | 15.4 | X | 296.18855 | 335.93763 | 340.90595 | 6.37996 | 0.1306548 | 0.27520087 | 2.3408280 | 20 | 5 11.9 | 18.1 |
| 40573 | 1999 $RE_{130}$ | 13.5 | X | 254.95468 | 89.12764 | 338.11481 | 8.59297 | 0.2465134 | 0.18376295 | 3.0640611 | 20 | 7 31.4 | 18.1 |
| 40574 | 1999 $RO_{130}$ | 15.5 | X | 306.54825 | 353.29997 | 321.73406 | 5.77116 | 0.1330608 | 0.27605138 | 2.3360176 | 20 | 5 27.1 | 18.1 |
| 40575 | 1999 $RS_{130}$ | 15.0 | X | 320.50318 | 151.00776 | 193.43719 | 3.99584 | 0.2313483 | 0.23305378 | 2.6151621 | 20 | 7 23.3 | 17.3 |
| 40576 | 1999 $RM_{133}$ | 13.9 | X | 324.16261 | 175.61753 | 221.80139 | 8.99789 | 0.0788848 | 0.19215751 | 2.9741610 | 20 | 10 19.9 | 17.5 |
| 40577 | 1999 $RQ_{134}$ | 15.0 | X | 124.54502 | 68.73614 | 305.93448 | 5.50740 | 0.0762340 | 0.21108627 | 2.7935904 | 20 | 1 21.2 | 19.0 |
| 40578 | 1999 $RT_{134}$ | 13.8 | X | 257.62399 | 198.02928 | 202.68099 | 3.92059 | 0.2292735 | 0.18098667 | 3.0953160 | 20 | 6 30.8 | 18.5 |
| 40579 | 1999 $RJ_{135}$ | 16.1 | X | 343.85054 | 329.28383 | 339.55724 | 2.75354 | 0.1702061 | 0.28035882 | 2.3120288 | 20 | 8 4.7 | 17.6 |
| 40580 | 1999 $RN_{135}$ | 15.3 | X | 22.05592 | 319.17498 | 28.86086 | 2.23121 | 0.1391972 | 0.24180617 | 2.5516698 | 20 | 12 2.2 | 18.4 |
| 40581 | 1999 $RK_{136}$ | 16.3 | X | 344.84024 | 314.87411 | 353.23933 | 4.28411 | 0.2474545 | 0.28069802 | 2.3101658 | 20 | 8 9.2 | 17.2 |
| 40582 | 1999 $RC_{137}$ | 15.6 | X | 287.52511 | 334.55988 | 302.52474 | 1.73878 | 0.2093489 | 0.27024483 | 2.3693604 | 20 | 2 25.5 | 18.9 |
| 40583 | 1999 $RR_{137}$ | 15.0 | X | 325.21925 | 248.12489 | 164.35005 | 9.45360 | 0.1361632 | 0.24119769 | 2.5559594 | 20 | 11 27.8 | 17.7 |
| 40584 | 1999 $RJ_{140}$ | 14.7 | X | 210.15148 | 275.34656 | 182.01292 | 11.61446 | 0.1625351 | 0.23113649 | 2.6296041 | 20 | 7 31.6 | 19.0 |
| 40585 | 1999 $RL_{140}$ | 15.4 | X | 307.19020 | 337.20250 | 37.92771 | 0.22402 | 0.1953279 | 0.23398088 | 2.6082495 | 20 | 8 18.1 | 18.0 |
| 40586 | 1999 $RZ_{140}$ | 14.5 | X | 245.04997 | 57.12162 | 349.13692 | 0.59828 | 0.1597272 | 0.18076248 | 3.0978748 | 20 | 7 3.0 | 19.1 |
| 40587 | 1999 $RB_{141}$ | 15.6 | X | 305.47126 | 172.71386 | 145.92763 | 6.89254 | 0.1280230 | 0.27592114 | 2.3367526 | 20 | 6 3.5 | 18.1 |
| 40588 | 1999 $RF_{141}$ | 14.7 | X | 343.37492 | 71.48108 | 171.98570 | 14.15621 | 0.0551696 | 0.22221250 | 2.6995439 | 20 | 4 29.9 | 18.2 |
| 40589 | 1999 $RP_{141}$ | 15.5 | X | 65.62949 | 8.54245 | 319.02040 | 3.79557 | 0.0791560 | 0.24565648 | 2.5249371 | 20 | 12 23.4 | 19.0 |
| 40590 | 1999 $RQ_{141}$ | 15.6 | X | 8.72126 | 81.96965 | 170.81423 | 5.13360 | 0.0860898 | 0.27674922 | 2.3320890 | 20 | 6 21.5 | 17.9 |
| 40591 | 1999 $RR_{142}$ | 15.4 | X | 232.76159 | 166.10097 | 162.08075 | 12.70245 | 0.1400010 | 0.26584448 | 2.3954344 | 20 | 3 13.9 | 18.9 |
| 40592 | 1999 $RM_{143}$ | 15.0 | X | 306.37895 | 315.91745 | 7.56074 | 4.96383 | 0.2494552 | 0.22821483 | 2.6519997 | 20 | 5 19.5 | 18.2 |
| 40593 | 1999 $RZ_{144}$ | 15.0 | X | 49.41940 | 47.22732 | 207.56923 | 7.87395 | 0.1990102 | 0.28349047 | 2.2949703 | 20 | 9 20.2 | 17.8 |
| 40594 | 1999 $RW_{146}$ | 15.1 | X | 226.25952 | 359.76728 | 254.86359 | 5.54715 | 0.0959254 | 0.25765708 | 2.4459149 | 20 | — | — |
| 40595 | 1999 $RY_{146}$ | 15.4 | X | 74.35521 | 64.87803 | 249.86550 | 5.25516 | 0.1261398 | 0.24489930 | 2.5301388 | 20 | 12 21.7 | 19.1 |
| 40596 | 1999 $RA_{148}$ | 13.5 | X | 259.85977 | 84.05501 | 313.85619 | 7.39913 | 0.1849595 | 0.18105163 | 3.0945756 | 20 | 7 6.5 | 18.1 |
| 40597 | 1999 $RG_{149}$ | 14.8 | X | 188.15761 | 188.05977 | 170.13378 | 2.12056 | 0.0916056 | 0.21727713 | 2.7402701 | 20 | 3 10.6 | 19.0 |
| 40598 | 1999 $RM_{149}$ | 16.1 | X | 248.01741 | 0.41504 | 349.03877 | 2.64345 | 0.2512089 | 0.27129547 | 2.3632392 | 20 | 4 14.2 | 19.8 |
| 40599 | 1999 $RX_{150}$ | 15.0 | X | 152.07111 | 57.53659 | 7.25286 | 5.22934 | 0.1659683 | 0.21952070 | 2.7215672 | 20 | 4 27.9 | 19.4 |
| 40600 | 1999 $RZ_{150}$ | 15.5 | X | 341.88433 | 205.44346 | 91.00739 | 2.64086 | 0.1449509 | 0.27851053 | 2.3222465 | 20 | 7 8.6 | 17.4 |
| 40601 | 1999 $RQ_{151}$ | 14.7 | X | 330.08305 | 327.54078 | 89.66597 | 3.18447 | 0.0907160 | 0.19520873 | 2.9430879 | 20 | 11 25.6 | 18.3 |
| 40602 | 1999 $RO_{152}$ | 15.5 | X | 319.96531 | 167.37094 | 167.44293 | 7.12408 | 0.1956597 | 0.27923004 | 2.3182554 | 20 | 7 16.4 | 17.4 |
| 40603 | 1999 $RD_{154}$ | 14.5 | X | 69.94730 | 126.71128 | 322.54991 | 8.39707 | 0.1169959 | 0.21178770 | 2.7874188 | 20 | 2 17.4 | 17.9 |
| 40604 | 1999 $RO_{154}$ | 15.0 | X | 0.93933 | 89.18616 | 282.10525 | 2.40981 | 0.0735905 | 0.24117101 | 2.5561479 | 20 | 11 22.6 | 18.0 |
| 40605 | 1999 $RA_{155}$ | 14.6 | X | 82.99788 | 232.90449 | 187.01737 | 6.22363 | 0.0541165 | 0.21041532 | 2.7995258 | 20 | 1 20.3 | 18.4 |
| 40606 | 1999 $RR_{157}$ | 14.8 | X | 147.40290 | 348.46123 | 9.78927 | 8.30169 | 0.2321183 | 0.21123773 | 2.7922548 | 20 | 2 13.4 | 19.4 |
| 40607 | 1999 $RH_{158}$ | 14.7 | X | 339.67181 | 279.19070 | 99.23021 | 2.11711 | 0.1538059 | 0.19072524 | 2.9890323 | 20 | 10 22.4 | 17.9 |
| 40608 | 1999 $RS_{159}$ | 15.7 | X | 286.86164 | 142.55021 | 142.76992 | 7.75821 | 0.1102543 | 0.26932718 | 2.3747392 | 20 | 3 23.6 | 18.7 |
| 40609 | 1999 $RD_{160}$ | 14.9 | X | 18.65691 | 267.92819 | 21.98742 | 7.47558 | 0.1837207 | 0.28272801 | 2.2990945 | 20 | 9 24.7 | 17.0 |
| 40610 | 1999 $RF_{160}$ | 14.6 | X | 242.30099 | 311.96172 | 55.84020 | 4.90697 | 0.2354384 | 0.22431367 | 2.6826595 | 20 | 5 6.1 | 18.9 |
| 40611 | 1999 $RS_{160}$ | 15.2 | X | 272.11288 | 242.51068 | 56.82783 | 2.94259 | 0.2083650 | 0.26976964 | 2.3721419 | 20 | 3 10.9 | 18.8 |
| 40612 | 1999 $RM_{162}$ | 14.6 | X | 255.61361 | 2.89644 | 43.14844 | 10.31489 | 0.0723045 | 0.18008237 | 3.1056696 | 20 | 7 29.7 | 19.2 |
| 40613 | 1999 $RR_{162}$ | 14.9 | X | 59.63192 | 351.54122 | 332.95666 | 13.23628 | 0.2037044 | 0.24349073 | 2.5398872 | 20 | 12 27.9 | 18.9 |
| 40614 | 1999 $RW_{162}$ | 14.6 | X | 118.34023 | 205.97151 | 219.09473 | 5.33284 | 0.0344721 | 0.21580239 | 2.7527401 | 20 | 3 7.9 | 18.5 |
| 40615 | 1999 $RD_{163}$ | 14.5 | X | 181.71651 | 71.71649 | 294.98490 | 4.45376 | 0.1346187 | 0.21641285 | 2.7475610 | 20 | 3 13.6 | 18.8 |
| 40616 | 1999 $RW_{163}$ | 14.8 | X | 5.17011 | 162.64987 | 234.18457 | 1.17782 | 0.0744619 | 0.19692147 | 2.9259978 | 20 | 12 20.2 | 18.5 |
| 40617 | 1999 $RZ_{163}$ | 14.3 | X | 76.84562 | 226.89064 | 168.64776 | 13.65189 | 0.1400967 | 0.20555686 | 2.8434662 | 20 | — | — |
| 40618 | 1999 $RG_{164}$ | 15.4 | X | 338.07068 | 108.71982 | 198.03019 | 2.48419 | 0.0812451 | 0.23015424 | 2.6370806 | 20 | 7 14.9 | 18.4 |
| 40619 | 1999 $RQ_{165}$ | 15.3 | X | 338.10303 | 104.59399 | 208.57928 | 1.31477 | 0.0682013 | 0.23064792 | 2.6333163 | 20 | 7 25.1 | 18.3 |
| 40620 | 1999 $RH_{168}$ | 15.0 | X | 340.39406 | 7.06557 | 25.44956 | 1.38484 | 0.1214584 | 0.19223120 | 2.9734009 | 20 | 11 9.5 | 18.3 |
| 40621 | 1999 $RG_{169}$ | 14.5 | X | 84.47376 | 105.45993 | 329.52975 | 8.10738 | 0.1383189 | 0.21080858 | 2.7960431 | 20 | 2 23.2 | 17.9 |
| 40622 | 1999 $RY_{169}$ | 15.9 | X | 241.31662 | 334.45551 | 304.30511 | 1.78272 | 0.1767118 | 0.26274682 | 2.4142250 | 20 | 1 18.5 | 19.8 |
| 40623 | 1999 $RO_{170}$ | 14.7 | X | 71.06857 | 286.87608 | 171.82910 | 5.47235 | 0.0550494 | 0.21326373 | 2.7745425 | 20 | 2 22.7 | 18.2 |
| 40624 | 1999 $RJ_{171}$ | 15.5 | X | 238.93652 | 289.80802 | 20.83184 | 2.69082 | 0.1408210 | 0.26556568 | 2.3971107 | 20 | 2 26.9 | 19.1 |
| 40625 | 1999 $RJ_{172}$ | 14.6 | X | 160.83438 | 12.79039 | 20.27666 | 7.16441 | 0.1026070 | 0.21665357 | 2.7455255 | 20 | 3 27.0 | 18.7 |
| 40626 | 1999 $RP_{172}$ | 15.4 | X | 76.50452 | 251.23139 | 42.73322 | 4.96307 | 0.1420894 | 0.24261431 | 2.5460003 | 20 | 11 28.9 | 19.1 |
| 40627 | 1999 $RJ_{173}$ | 15.0 | X | 274.25949 | 212.48490 | 122.40713 | 8.15905 | 0.1618466 | 0.22539371 | 2.6740828 | 20 | 5 8.8 | 18.9 |
| 40628 | 1999 $RV_{173}$ | 14.9 | X | 31.22981 | 330.62750 | 7.31748 | 11.04818 | 0.1423225 | 0.24095123 | 2.5577020 | 20 | 11 29.4 | 18.3 |
| 40629 | 1999 $RX_{173}$ | 14.8 | X | 203.87411 | 200.60278 | 114.47833 | 4.46537 | 0.2219205 | 0.26189140 | 2.4194792 | 20 | 1 30.9 | 19.0 |
| 40630 | 1999 $RA_{174}$ | 14.0 | X | 259.42804 | 32.49976 | 359.77316 | 12.07483 | 0.1035397 | 0.22907506 | 2.6453563 | 20 | 7 14.8 | 17.8 |
| 40631 | 1999 $RX_{174}$ | 15.3 | X | 102.53305 | 171.22789 | 137.51978 | 3.32457 | 0.1140390 | 0.24696224 | 2.5160292 | 20 | — | — |
| 40632 | 1999 $RJ_{175}$ | 16.1 | X | 322.39370 | 208.39732 | 63.05891 | 0.87915 | 0.2012195 | 0.27290899 | 2.3539152 | 20 | 4 8.5 | 18.4 |
| 40633 | 1999 $RR_{177}$ | 15.6 | X | 49.47662 | 182.65114 | 129.68788 | 1.89131 | 0.1755864 | 0.24095820 | 2.5576527 | 20 | 11 27.1 | 19.0 |
| 40634 | 1999 $RH_{178}$ | 15.9 | X | 29.38634 | 123.42134 | 150.59531 | 6.11163 | 0.1671572 | 0.28154294 | 2.3055416 | 20 | 9 15.3 | 18.2 |
| 40635 | 1999 $RV_{179}$ | 15.4 | X | 210.71425 | 237.05968 | 108.10709 | 5.65136 | 0.1325137 | 0.26536929 | 2.3982932 | 20 | 3 15.8 | 19.1 |
| 40636 | 1999 $RW_{179}$ | 15.2 | X | 179.45879 | 203.43110 | 139.29794 | 10.42078 | 0.1602493 | 0.26090775 | 2.4255565 | 20 | 2 10.7 | 19.1 |
| 40637 | 1999 $RP_{180}$ | 14.7 | X | 204.87995 | 350.49231 | 150.62539 | 14.40939 | 0.0386538 | 0.23686749 | 2.5870158 | 20 | 10 10.0 | 18.4 |
| 40638 | 1999 $RS_{180}$ | 15.6 | X | 96.51289 | 216.60833 | 97.16495 | 4.11283 | 0.1365430 | 0.24684287 | 2.5168403 | 20 | — | — |
| 40639 | 1999 $RW_{180}$ | 15.9 | X | 252.62477 | 273.31481 | 47.70161 | 3.42553 | 0.1876492 | 0.26862373 | 2.3788833 | 20 | 3 21.2 | 19.6 |
| 40640 | 1999 $RQ_{181}$ | 14.6 | X | 254.80246 | 320.29177 | 58.69001 | 1.48951 | 0.2092046 | 0.17811054 | 3.1285490 | 20 | 6 3.5 | 19.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40641 1999 RV$_{181}$ | 15.8 | X | 61.36454 | 318.00521 | 356.65271 | 1.73454 | 0.1456714 | 0.24226278 | 2.5484626 | 20 | 12 9.2 | 19.3 |
| 40642 1999 RW$_{181}$ | 15.0 | X | 85.10217 | 258.27133 | 157.97969 | 2.41612 | 0.0934007 | 0.20872605 | 2.8146104 | 20 | 1 25.0 | 18.5 |
| 40643 1999 RG$_{182}$ | 15.3 | X | 201.46002 | 151.42565 | 176.15680 | 2.66494 | 0.1780475 | 0.26218024 | 2.4177019 | 20 | 2 11.5 | 19.1 |
| 40644 1999 RH$_{183}$ | 14.0 | X | 16.95673 | 277.36387 | 166.15830 | 10.93796 | 0.1360228 | 0.20235232 | 2.8734078 | 20 | — | — |
| 40645 1999 RS$_{183}$ | 14.2 | X | 199.19804 | 89.13433 | 88.06107 | 2.54030 | 0.0738781 | 0.24104728 | 2.5570225 | 20 | 11 11.9 | 17.7 |
| 40646 1999 RV$_{184}$ | 15.7 | X | 298.95344 | 168.10647 | 117.75530 | 5.68154 | 0.2122744 | 0.27154581 | 2.3617866 | 20 | 3 24.8 | 18.6 |
| 40647 1999 RD$_{185}$ | 15.6 | X | 244.51765 | 172.75498 | 95.25978 | 5.41139 | 0.2084008 | 0.26225907 | 2.4172174 | 20 | 1 7.2 | 19.6 |
| 40648 1999 RO$_{185}$ | 15.0 | X | 139.25507 | 225.89926 | 250.37434 | 2.26830 | 0.0176197 | 0.22516379 | 2.6759029 | 20 | 6 9.6 | 18.7 |
| 40649 1999 RY$_{186}$ | 14.4 | X | 181.43290 | 233.67845 | 317.18319 | 2.34197 | 0.1770004 | 0.24165792 | 2.5527132 | 20 | 10 31.1 | 18.4 |
| 40650 1999 RS$_{187}$ | 14.7 | X | 131.53330 | 66.13113 | 6.26929 | 9.33297 | 0.0971805 | 0.21732293 | 2.7398851 | 20 | 4 10.4 | 18.8 |
| 40651 1999 RJ$_{189}$ | 15.4 | X | 229.14928 | 43.39288 | 225.05868 | 0.97530 | 0.3120859 | 0.21355271 | 2.7720389 | 20 | — | — |
| 40652 1999 RP$_{189}$ | 15.5 | X | 343.23821 | 169.29836 | 131.53795 | 4.32903 | 0.1551306 | 0.23036855 | 2.6354448 | 20 | 7 13.6 | 17.9 |
| 40653 1999 RS$_{190}$ | 16.4 | X | 294.94161 | 23.15114 | 274.21782 | 1.60284 | 0.2117421 | 0.27215335 | 2.3582704 | 20 | 3 31.5 | 19.5 |
| 40654 1999 RH$_{191}$ | 15.1 | X | 52.90623 | 170.02617 | 94.98670 | 5.11814 | 0.1381227 | 0.23649477 | 2.5897332 | 20 | 9 27.1 | 18.5 |
| 40655 1999 RM$_{191}$ | 15.3 | X | 50.61341 | 172.77636 | 142.50295 | 5.42145 | 0.2001840 | 0.23904428 | 2.5712866 | 20 | 12 5.4 | 19.0 |
| 40656 1999 RY$_{191}$ | 13.7 | X | 246.82373 | 264.01106 | 86.41025 | 15.60331 | 0.0994746 | 0.22289475 | 2.6940325 | 20 | 5 7.2 | 17.8 |
| 40657 1999 RE$_{192}$ | 15.3 | X | 342.48186 | 236.48914 | 80.68327 | 4.70507 | 0.2286146 | 0.23340678 | 2.6125247 | 20 | 8 8.6 | 17.3 |
| 40658 1999 RD$_{193}$ | 14.6 | X | 119.33779 | 296.51752 | 101.30546 | 8.91828 | 0.1304785 | 0.21052679 | 2.7985375 | 20 | 2 22.4 | 18.7 |
| 40659 1999 RK$_{193}$ | 14.4 | X | 45.49616 | 231.00570 | 94.19341 | 14.08130 | 0.1533610 | 0.19272643 | 2.9683051 | 20 | 11 27.2 | 18.6 |
| 40660 1999 RH$_{194}$ | 14.6 | X | 359.67466 | 34.20126 | 291.04759 | 3.87503 | 0.1163041 | 0.23467922 | 2.6030726 | 20 | 9 18.7 | 17.4 |
| 40661 1999 RS$_{194}$ | 13.1 | X | 243.37261 | 154.20010 | 231.29590 | 5.20178 | 0.1473626 | 0.17720257 | 3.1392269 | 20 | 6 6.8 | 17.9 |
| 40662 1999 RD$_{195}$ | 14.3 | X | 184.60289 | 77.35087 | 264.06328 | 7.77932 | 0.1671394 | 0.21423644 | 2.7661378 | 20 | 2 15.1 | 19.0 |
| 40663 1999 RR$_{195}$ | 14.0 | X | 151.52435 | 225.52191 | 221.52826 | 10.10185 | 0.1362673 | 0.22226480 | 2.6991204 | 20 | 5 25.5 | 18.2 |
| 40664 1999 RF$_{196}$ | 14.3 | X | 314.70523 | 164.00437 | 196.10128 | 14.95455 | 0.1428336 | 0.23294112 | 2.6160052 | 20 | 8 12.2 | 17.4 |
| 40665 1999 RE$_{197}$ | 15.4 | X | 230.94088 | 24.70580 | 278.34973 | 5.61156 | 0.1399556 | 0.26313369 | 2.4118580 | 20 | 2 7.5 | 19.2 |
| 40666 1999 RS$_{197}$ | 14.9 | X | 171.86210 | 345.98525 | 286.01708 | 7.10419 | 0.1803648 | 0.25276938 | 2.4773445 | 20 | — | — |
| 40667 1999 RB$_{200}$ | 13.9 | X | 102.15209 | 340.47653 | 297.66383 | 13.99875 | 0.1017489 | 0.24266794 | 2.5456251 | 20 | 12 2.4 | 17.9 |
| 40668 1999 RX$_{200}$ | 14.9 | X | 186.83065 | 351.88504 | 251.40713 | 10.45666 | 0.0554047 | 0.24810468 | 2.5082996 | 20 | — | — |
| 40669 1999 RN$_{201}$ | 14.2 | X | 322.76200 | 120.00181 | 297.02653 | 9.79031 | 0.0906409 | 0.19173436 | 2.9785353 | 20 | 11 9.6 | 18.0 |
| 40670 1999 RW$_{201}$ | 14.1 | X | 327.22993 | 75.09471 | 238.80456 | 12.57217 | 0.2037676 | 0.22950970 | 2.6420154 | 20 | 6 23.3 | 16.7 |
| 40671 1999 RE$_{202}$ | 13.6 | X | 336.83025 | 148.68082 | 280.07576 | 9.64056 | 0.1264442 | 0.19446417 | 2.9505954 | 20 | 12 22.2 | 17.0 |
| 40672 1999 RJ$_{202}$ | 14.8 | X | 91.94693 | 11.20061 | 276.21483 | 6.76536 | 0.2275476 | 0.24369172 | 2.5384904 | 20 | 12 12.6 | 19.0 |
| 40673 1999 RL$_{203}$ | 14.8 | X | 56.11743 | 5.62904 | 281.82286 | 10.44042 | 0.0531307 | 0.23689478 | 2.5868171 | 20 | 10 9.8 | 18.4 |
| 40674 1999 RX$_{203}$ | 14.9 | X | 140.69007 | 302.20778 | 310.52716 | 12.12778 | 0.1271321 | 0.24447183 | 2.5330874 | 20 | 12 10.8 | 19.0 |
| 40675 1999 RU$_{205}$ | 14.3 | X | 297.52145 | 79.24633 | 294.63363 | 8.93283 | 0.0820835 | 0.18255455 | 3.0775677 | 20 | 8 7.3 | 18.4 |
| 40676 1999 RN$_{206}$ | 14.9 | X | 340.64138 | 127.50769 | 227.09485 | 13.94574 | 0.1210335 | 0.23448714 | 2.6044940 | 20 | 9 24.5 | 18.0 |
| 40677 1999 RP$_{206}$ | 13.5 | X | 175.78871 | 225.28744 | 221.91300 | 21.49135 | 0.1262030 | 0.17451096 | 3.1714235 | 20 | 6 15.5 | 18.8 |
| 40678 1999 RY$_{206}$ | 14.6 | X | 311.57393 | 150.36761 | 230.27629 | 14.07673 | 0.1335703 | 0.23310074 | 2.6148109 | 20 | 9 4.8 | 17.8 |
| 40679 1999 RO$_{207}$ | 14.0 | X | 193.44222 | 166.23892 | 304.45769 | 8.65981 | 0.0465668 | 0.18082857 | 3.0971199 | 20 | 8 5.8 | 18.6 |
| 40680 1999 RY$_{209}$ | 15.2 | X | 346.26581 | 19.93202 | 267.81946 | 3.96631 | 0.2570200 | 0.27687171 | 2.3314011 | 20 | 6 29.6 | 16.2 |
| 40681 1999 RL$_{211}$ | 13.8 | X | 340.72104 | 136.89006 | 238.64029 | 7.74072 | 0.1445138 | 0.18781451 | 3.0198355 | 20 | 10 16.3 | 17.3 |
| 40682 1999 RM$_{211}$ | 14.3 | X | 349.43370 | 211.49163 | 326.73270 | 9.46542 | 0.0141513 | 0.21048763 | 2.7988846 | 20 | 2 13.9 | 17.9 |
| 40683 1999 RB$_{213}$ | 14.0 | X | 265.47394 | 63.59840 | 251.98090 | 10.10009 | 0.1133963 | 0.21890052 | 2.7267052 | 20 | 4 2.9 | 18.1 |
| 40684 Vanhoeck | 15.4 | X | 328.71215 | 350.85516 | 189.69885 | 3.15854 | 0.0308467 | 0.21073151 | 2.7967248 | 20 | 1 18.4 | 19.2 |
| 40685 1999 RL$_{217}$ | 15.2 | X | 147.07216 | 223.98902 | 148.70393 | 8.25211 | 0.1881184 | 0.26208576 | 2.4182829 | 20 | 2 18.9 | 18.9 |
| 40686 1999 RD$_{220}$ | 14.5 | X | 235.23712 | 281.06064 | 102.13030 | 8.75291 | 0.0786695 | 0.22454781 | 2.6807944 | 20 | 6 3.4 | 18.3 |
| 40687 1999 RS$_{220}$ | 14.3 | X | 150.16889 | 274.72191 | 202.80911 | 12.79008 | 0.1557779 | 0.22524188 | 2.6752844 | 20 | 6 30.9 | 18.8 |
| 40688 1999 RL$_{223}$ | 13.9 | X | 317.56834 | 263.01338 | 130.45364 | 9.63890 | 0.0926711 | 0.19131713 | 2.9828641 | 20 | 10 8.9 | 17.7 |
| 40689 1999 RG$_{224}$ | 14.7 | X | 243.74819 | 247.43254 | 137.19379 | 12.20863 | 0.1980186 | 0.22590161 | 2.6700732 | 20 | 6 3.2 | 19.0 |
| 40690 1999 RV$_{225}$ | 15.2 | X | 166.61000 | 198.05416 | 193.96133 | 3.40729 | 0.0974595 | 0.21971048 | 2.7199998 | 20 | 3 29.9 | 19.4 |
| 40691 1999 RH$_{227}$ | 14.9 | X | 203.90064 | 62.23578 | 236.46699 | 9.18003 | 0.2647258 | 0.25890384 | 2.4380562 | 20 | 1 10.7 | 19.4 |
| 40692 1999 RE$_{228}$ | 14.9 | X | 155.74770 | 51.95199 | 228.07736 | 5.49170 | 0.1208099 | 0.25299722 | 2.4758570 | 20 | — | — |
| 40693 1999 RX$_{229}$ | 15.2 | X | 184.53183 | 243.73805 | 106.87407 | 6.81597 | 0.1384538 | 0.26365036 | 2.4087060 | 20 | 2 26.1 | 18.9 |
| 40694 1999 RY$_{230}$ | 14.4 | X | 175.75405 | 217.90327 | 78.52854 | 7.97206 | 0.1157845 | 0.25420788 | 2.4679899 | 20 | — | — |
| 40695 1999 RA$_{231}$ | 15.2 | X | 52.65444 | 225.95128 | 133.74129 | 12.76411 | 0.1125763 | 0.24481701 | 2.5307058 | 20 | — | — |
| 40696 1999 RU$_{231}$ | 14.5 | X | 267.93325 | 253.09743 | 128.22790 | 15.25533 | 0.0685828 | 0.23020118 | 2.6367220 | 20 | 7 13.5 | 18.0 |
| 40697 1999 RZ$_{231}$ | 14.6 | X | 250.02779 | 216.88091 | 110.59005 | 7.50233 | 0.1389012 | 0.26979378 | 2.3720004 | 20 | 4 2.7 | 18.1 |
| 40698 1999 RT$_{232}$ | 15.0 | X | 327.87556 | 320.71125 | 27.54276 | 5.68810 | 0.1808400 | 0.28184764 | 2.3038796 | 20 | 9 5.8 | 16.6 |
| 40699 1999 RB$_{235}$ | 14.1 | X | 117.59076 | 2.22519 | 149.34371 | 14.29506 | 0.0920678 | 0.22539344 | 2.6740850 | 20 | 7 7.2 | 18.2 |
| 40700 1999 RF$_{235}$ | 14.9 | X | 220.04256 | 189.13120 | 122.85405 | 6.07386 | 0.1433442 | 0.26258066 | 2.4152433 | 20 | 2 10.4 | 18.7 |
| 40701 1999 RG$_{235}$ | 14.6 | X | 164.11610 | 322.94374 | 92.37583 | 6.12923 | 0.1580310 | 0.21810287 | 2.7333493 | 20 | 4 30.6 | 19.1 |
| 40702 1999 RH$_{236}$ | 13.6 | X | 337.32819 | 276.36324 | 141.07178 | 13.50967 | 0.1639477 | 0.24064812 | 2.5598493 | 20 | 12 28.2 | 16.3 |
| 40703 1999 RR$_{237}$ | 14.6 | X | 51.96894 | 222.44019 | 119.26150 | 10.78186 | 0.0481889 | 0.19429857 | 2.9522716 | 20 | 12 9.7 | 18.8 |
| 40704 1999 RB$_{238}$ | 14.8 | X | 252.40317 | 178.53614 | 110.93407 | 10.51757 | 0.1250163 | 0.21522605 | 2.7576522 | 20 | 2 22.0 | 19.0 |
| 40705 1999 RG$_{239}$ | 14.9 | X | 208.35437 | 315.06325 | 43.03227 | 8.46940 | 0.0949256 | 0.21748319 | 2.7385389 | 20 | 4 2.9 | 19.0 |
| 40706 1999 RO$_{240}$ | 14.4 | X | 93.81185 | 195.51767 | 141.29907 | 18.07668 | 0.1161313 | 0.19958068 | 2.8999491 | 20 | — | — |
| 40707 1999 RV$_{240}$ | 14.6 | X | 263.25326 | 297.40399 | 85.65134 | 12.00279 | 0.1885217 | 0.22708846 | 2.6607619 | 20 | 6 21.3 | 18.2 |
| 40708 1999 RR$_{242}$ | 14.5 | X | 350.77869 | 261.26333 | 53.03244 | 5.76693 | 0.1479571 | 0.28037802 | 2.3119232 | 20 | 9 2.2 | 16.4 |
| 40709 1999 RW$_{242}$ | 14.0 | X | 223.82877 | 299.45844 | 135.44454 | 14.45532 | 0.1455354 | 0.22830236 | 2.6513218 | 20 | 7 20.0 | 18.0 |
| 40710 1999 RS$_{245}$ | 14.4 | X | 118.22801 | 298.56980 | 129.20991 | 9.97600 | 0.1483855 | 0.21564702 | 2.7540621 | 20 | 4 1.4 | 18.6 |
| 40711 1999 RU$_{245}$ | 15.3 | X | 305.50686 | 356.05909 | 36.32654 | 4.65198 | 0.1798557 | 0.23544167 | 2.5974498 | 20 | 9 14.8 | 17.8 |
| 40712 1999 RB$_{246}$ | 14.5 | X | 118.29785 | 189.00756 | 88.83792 | 6.70847 | 0.2266263 | 0.20049197 | 2.8911551 | 20 | 12 15.5 | 19.5 |
| 40713 1999 RT$_{248}$ | 15.1 | X | 98.28482 | 105.96599 | 241.98498 | 0.87712 | 0.0663458 | 0.20214387 | 2.8753827 | 20 | — | — |
| 40714 1999 RS$_{252}$ | 14.1 | X | 298.04345 | 212.98948 | 218.11560 | 9.95934 | 0.0855390 | 0.19045615 | 2.9918470 | 20 | 10 23.8 | 17.9 |
| 40715 1999 RX$_{253}$ | 15.6 | X | 319.39707 | 298.31149 | 330.68222 | 4.71183 | 0.0582365 | 0.27291662 | 2.3538713 | 20 | 4 19.9 | 18.5 |
| 40716 1999 SL | 13.6 | X | 131.57618 | 12.01118 | 30.29873 | 8.65254 | 0.2268001 | 0.21035406 | 2.8000693 | 20 | 3 21.9 | 18.1 |
| 40717 1999 SC$_{2}$ | 14.1 | X | 213.93191 | 196.28255 | 206.05707 | 24.15070 | 0.2487114 | 0.27013056 | 2.3700285 | 20 | 5 23.8 | 18.4 |
| 40718 1999 SU$_{2}$ | 14.6 | X | 249.28415 | 171.34358 | 195.42452 | 4.89869 | 0.1726162 | 0.17504522 | 3.1649672 | 20 | 5 18.8 | 19.5 |
| 40719 1999 SZ$_{2}$ | 15.5 | X | 86.33899 | 331.55636 | 356.55995 | 4.94573 | 0.2682155 | 0.29740856 | 2.2228001 | 20 | — | — |
| 40720 1999 SL$_{6}$ | 14.9 | X | 18.90512 | 213.48376 | 110.56687 | 11.11080 | 0.1513929 | 0.23751767 | 2.5822925 | 20 | 11 1.7 | 18.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40721 1999 $SM_6$ | 14.1 | X | 131.78944 | 153.74301 | 54.95721 | 13.78932 | 0.0981063 | 0.23626137 | 2.5914385 | 20 | 10 12.8 | 18.1 |
| 40722 1999 $SO_6$ | 15.0 | X | 350.07967 | 286.27088 | 55.22536 | 14.59344 | 0.2199780 | 0.23485572 | 2.6017683 | 20 | 10 13.8 | 17.4 |
| 40723 1999 $SF_7$ | 14.7 | X | 17.47513 | 286.16298 | 38.40591 | 10.46625 | 0.2385510 | 0.23938317 | 2.5688592 | 20 | 11 8.6 | 17.4 |
| 40724 1999 $SY_8$ | 13.6 | X | 220.69269 | 137.70861 | 5.43226 | 13.56883 | 0.1036513 | 0.24111525 | 2.5565420 | 20 | 10 17.2 | 17.3 |
| 40725 1999 $SP_9$ | 15.0 | X | 353.92211 | 52.65915 | 217.75231 | 12.29443 | 0.1313186 | 0.22666562 | 2.6640699 | 20 | 6 18.6 | 18.0 |
| 40726 1999 $SG_{11}$ | 14.0 | X | 17.45392 | 318.67274 | 64.88207 | 10.24962 | 0.0598165 | 0.19275535 | 2.9680081 | 20 | 12 16.8 | 18.1 |
| 40727 1999 $SQ_{11}$ | 14.5 | X | 206.47706 | 293.75370 | 76.82524 | 5.81597 | 0.1269943 | 0.21684015 | 2.7439504 | 20 | 4 15.3 | 18.8 |
| 40728 1999 $SS_{11}$ | 14.5 | X | 354.92259 | 247.54059 | 94.15314 | 4.44696 | 0.2238331 | 0.23423127 | 2.6063904 | 20 | 10 20.8 | 16.8 |
| 40729 1999 $SJ_{12}$ | 13.9 | X | 296.14897 | 233.43798 | 51.97621 | 24.64216 | 0.2479492 | 0.27100579 | 2.3649230 | 20 | 3 28.2 | 17.6 |
| 40730 1999 $SY_{12}$ | 13.4 | X | 245.57454 | 254.17349 | 126.98734 | 19.42489 | 0.2685176 | 0.17583230 | 3.1555152 | 20 | 5 28.0 | 18.9 |
| 40731 1999 $SB_{13}$ | 14.2 | X | 332.34256 | 240.53441 | 130.95332 | 15.74494 | 0.1609886 | 0.23509305 | 2.6000170 | 20 | 10 16.8 | 17.1 |
| 40732 1999 $SC_{13}$ | 13.6 | X | 254.42275 | 326.93777 | 58.04009 | 12.93462 | 0.1909513 | 0.17753589 | 3.1352964 | 20 | 6 11.6 | 18.4 |
| 40733 1999 $SM_{17}$ | 14.5 | X | 162.41092 | 248.66356 | 121.85137 | 7.50136 | 0.1478331 | 0.26216277 | 2.4178092 | 20 | 2 29.9 | 18.2 |
| 40734 1999 $SB_{19}$ | 13.8 | X | 220.90604 | 28.79770 | 30.57242 | 27.68073 | 0.1451101 | 0.17709037 | 3.1405527 | 20 | 6 22.6 | 19.2 |
| 40735 1999 $SU_{19}$ | 15.3 | X | 290.11982 | 269.07681 | 87.09637 | 5.86578 | 0.1692437 | 0.22865530 | 2.6485929 | 20 | 6 24.3 | 18.5 |
| 40736 1999 $SD_{20}$ | 14.4 | X | 34.00795 | 252.00134 | 57.27653 | 14.63629 | 0.1884517 | 0.23741474 | 2.5830388 | 20 | 11 6.6 | 17.7 |
| 40737 1999 $SE_{20}$ | 15.0 | X | 343.48348 | 265.71742 | 65.12267 | 12.43714 | 0.1746039 | 0.23251257 | 2.6192186 | 20 | 9 8.7 | 17.8 |
| 40738 1999 $SG_{20}$ | 13.1 | X | 226.17845 | 307.43455 | 101.25304 | 13.19770 | 0.1963682 | 0.17539274 | 3.1607851 | 20 | 6 14.6 | 18.2 |
| 40739 1999 $SX_{25}$ | 14.1 | X | 125.46790 | 326.39208 | 251.44525 | 12.30254 | 0.1293439 | 0.23861835 | 2.5743454 | 20 | 10 9.5 | 18.3 |
| 40740 1999 $SF_{27}$ | 15.0 | X | 278.02211 | 167.71424 | 218.37350 | 13.90813 | 0.1098195 | 0.23081396 | 2.6320532 | 20 | 7 23.6 | 18.7 |
| 40741 1999 $TD$ | 13.4 | X | 201.83980 | 254.76163 | 201.04679 | 22.33524 | 0.2257208 | 0.17616780 | 3.1515076 | 20 | 7 14.0 | 19.2 |
| 40742 1999 $TK$ | 14.5 | X | 239.77455 | 346.32340 | 76.13844 | 2.17134 | 0.1880610 | 0.17760025 | 3.1345389 | 20 | 7 14.6 | 19.3 |
| 40743 1999 $TL$ | 14.3 | X | 209.87374 | 11.94750 | 89.67460 | 2.15075 | 0.1291106 | 0.17988382 | 3.1079545 | 20 | 8 7.8 | 19.2 |
| 40744 1999 $TG_1$ | 14.6 | X | 44.09131 | 74.11093 | 307.44278 | 0.96301 | 0.1343116 | 0.19671601 | 2.9280349 | 20 | — | — |
| 40745 1999 $TN_2$ | 14.2 | X | 260.89242 | 286.31465 | 106.62025 | 13.96886 | 0.1927780 | 0.22702332 | 2.6612708 | 20 | 7 1.3 | 17.8 |
| 40746 1999 $TP_2$ | 14.8 | X | 327.15089 | 207.58285 | 83.45665 | 12.61406 | 0.1612271 | 0.27316850 | 2.3524242 | 20 | 5 27.1 | 16.9 |
| 40747 1999 $TK_5$ | 14.3 | X | 76.06341 | 97.34340 | 212.48896 | 12.09532 | 0.2137983 | 0.24190760 | 2.5509565 | 20 | 12 23.7 | 18.6 |
| 40748 1999 $TO_5$ | 15.1 | X | 183.91464 | 309.79703 | 20.28249 | 5.14722 | 0.2114762 | 0.25847465 | 2.4407544 | 20 | 2 3.5 | 19.1 |
| 40749 1999 $TP_6$ | 14.2 | X | 282.93829 | 295.84820 | 92.80109 | 2.62979 | 0.2092040 | 0.18011508 | 3.1052935 | 20 | 7 19.2 | 18.4 |
| 40750 1999 $TA_7$ | 15.9 | X | 229.12709 | 125.17899 | 177.45093 | 2.43431 | 0.1748893 | 0.26101322 | 2.4249030 | 20 | 2 5.4 | 19.8 |
| 40751 1999 $TD_7$ | 14.5 | X | 106.09128 | 213.27897 | 182.87486 | 3.98697 | 0.1894773 | 0.20642622 | 2.8354771 | 20 | 2 9.7 | 18.5 |
| 40752 1999 $TO_7$ | 13.6 | X | 319.22285 | 325.41811 | 55.08272 | 14.39066 | 0.1734853 | 0.23116526 | 2.6293860 | 20 | 10 1.9 | 16.4 |
| 40753 1999 $TK_8$ | 15.9 | X | 274.24852 | 211.71100 | 71.65891 | 1.34019 | 0.2268071 | 0.26567086 | 2.3964780 | 20 | 2 19.5 | 19.6 |
| 40754 1999 $TM_8$ | 15.0 | X | 51.20422 | 320.94978 | 77.41582 | 3.14000 | 0.0986464 | 0.19956560 | 2.9000952 | 20 | — | — |
| 40755 1999 $TO_8$ | 14.4 | X | 153.76924 | 151.45017 | 160.68072 | 2.30314 | 0.0716825 | 0.20274852 | 2.8696631 | 20 | — | — |
| 40756 1999 $TQ_8$ | 13.9 | X | 142.32170 | 36.57390 | 211.67009 | 9.48331 | 0.0184283 | 0.19190664 | 2.9767524 | 20 | 11 28.1 | 18.1 |
| 40757 1999 $TS_8$ | 15.3 | X | 53.28595 | 333.17765 | 356.67125 | 4.04077 | 0.2102297 | 0.24115212 | 2.5562814 | 20 | 12 27.1 | 19.1 |
| 40758 1999 $TT_8$ | 13.9 | X | 350.22137 | 127.61466 | 216.66915 | 8.01860 | 0.1536747 | 0.18556344 | 3.0442088 | 20 | 9 20.5 | 17.3 |
| 40759 1999 $TY_9$ | 14.0 | X | 95.64406 | 266.64641 | 246.49617 | 7.11177 | 0.1526728 | 0.22197112 | 2.7015006 | 20 | 6 20.9 | 17.8 |
| 40760 1999 $TH_{11}$ | 13.1 | X | 205.97397 | 179.10257 | 223.28892 | 14.62487 | 0.0793456 | 0.17233051 | 3.1981188 | 20 | 5 25.2 | 18.0 |
| 40761 1999 $TT_{13}$ | 14.2 | X | 285.16530 | 289.12372 | 39.93925 | 5.22807 | 0.0984491 | 0.22238734 | 2.6981288 | 20 | 5 21.2 | 17.6 |
| 40762 1999 $TL_{14}$ | 15.2 | X | 50.37552 | 271.49746 | 67.32808 | 4.92173 | 0.2596638 | 0.24072378 | 2.5593129 | 20 | — | — |
| 40763 1999 $TS_{14}$ | 14.9 | X | 310.54572 | 189.17614 | 206.43487 | 2.06667 | 0.1508558 | 0.18580926 | 3.0415233 | 20 | 9 19.3 | 18.3 |
| 40764 Gerhardiser | 15.0 | X | 334.68425 | 121.24620 | 224.27076 | 1.72333 | 0.1255655 | 0.18259010 | 3.0771682 | 20 | 8 25.6 | 18.6 |
| 40765 1999 $TF_{16}$ | 14.3 | X | 351.18308 | 93.45425 | 143.21098 | 3.51905 | 0.0257406 | 0.21910696 | 2.7249922 | 20 | 5 2.0 | 17.8 |
| 40766 1999 $TB_{17}$ | 13.2 | X | 201.05800 | 359.85324 | 68.19302 | 3.03726 | 0.1882828 | 0.17257444 | 3.1951044 | 20 | 6 15.5 | 18.5 |
| 40767 1999 $TC_{17}$ | 14.2 | X | 95.90755 | 299.95255 | 56.89591 | 2.52701 | 0.0231272 | 0.19960101 | 2.8997522 | 20 | — | — |
| 40768 1999 $TZ_{17}$ | 14.4 | X | 108.05638 | 27.20245 | 205.21613 | 11.77798 | 0.0573041 | 0.23378902 | 2.6096763 | 20 | 10 7.3 | 18.2 |
| 40769 1999 $TJ_{18}$ | 13.3 | X | 296.10880 | 206.64500 | 224.14495 | 10.80727 | 0.0448095 | 0.18551981 | 3.0446861 | 20 | 10 23.1 | 17.4 |
| 40770 1999 $TV_{18}$ | 14.1 | X | 264.93197 | 242.51050 | 214.51476 | 9.61399 | 0.1428989 | 0.18620925 | 3.0371661 | 20 | 9 29.9 | 18.2 |
| 40771 1999 $TP_{19}$ | 15.2 | X | 53.55273 | 279.29057 | 22.53776 | 7.58915 | 0.1828708 | 0.23756767 | 2.5819301 | 20 | 11 16.8 | 19.0 |
| 40772 1999 $TY_{19}$ | 14.7 | X | 334.07408 | 83.97862 | 6.17555 | 1.99248 | 0.0578458 | 0.19590563 | 2.9361040 | 20 | — | — |
| 40773 1999 $TZ_{19}$ | 15.7 | X | 209.36456 | 188.58963 | 125.86551 | 3.14017 | 0.1840844 | 0.25991332 | 2.4317394 | 20 | 2 3.4 | 19.5 |
| 40774 Iwaigame | 14.8 | X | 357.29473 | 236.78799 | 124.16460 | 4.55720 | 0.2518042 | 0.23544366 | 2.5974351 | 20 | 11 27.1 | 17.2 |
| 40775 Kalafina | 14.7 | X | 258.89273 | 109.55713 | 210.13684 | 1.19577 | 0.0619312 | 0.21868718 | 2.7284783 | 20 | 4 10.9 | 18.6 |
| 40776 Yeungkwongyu | 14.2 | X | 344.24899 | 95.61267 | 344.67409 | 3.27965 | 0.0764896 | 0.19536105 | 2.9415579 | 20 | — | — |
| 40777 1999 $TM_{25}$ | 15.1 | X | 4.81157 | 94.20036 | 224.87026 | 3.44087 | 0.2139917 | 0.23348657 | 2.6119295 | 20 | 10 2.4 | 17.5 |
| 40778 1999 $TV_{25}$ | 15.0 | X | 68.79371 | 154.39427 | 218.90524 | 1.32540 | 0.0259261 | 0.19831352 | 2.9122892 | 20 | — | — |
| 40779 1999 $TY_{25}$ | 13.9 | X | 315.86328 | 324.79479 | 24.49721 | 16.55995 | 0.0888605 | 0.18028333 | 3.1033613 | 20 | 8 10.7 | 18.2 |
| 40780 1999 $TB_{26}$ | 14.5 | X | 213.17114 | 325.57054 | 14.56772 | 5.31835 | 0.1655415 | 0.21483375 | 2.7610083 | 20 | 3 13.4 | 18.9 |
| 40781 1999 $TN_{26}$ | 15.0 | X | 45.80925 | 294.93057 | 9.97460 | 5.36647 | 0.2661864 | 0.23809301 | 2.5781309 | 20 | 11 23.3 | 18.7 |
| 40782 1999 $TX_{26}$ | 14.8 | X | 108.59881 | 47.49147 | 322.84151 | 1.17549 | 0.0814926 | 0.20295824 | 2.8676860 | 20 | — | — |
| 40783 1999 $TT_{28}$ | 15.0 | X | 29.87247 | 141.56271 | 268.14391 | 0.67695 | 0.0787621 | 0.19974756 | 2.8983337 | 20 | — | — |
| 40784 1999 $TV_{28}$ | 15.0 | X | 178.94594 | 168.41237 | 210.19678 | 1.47411 | 0.0922618 | 0.21597342 | 2.7512867 | 20 | 3 26.0 | 19.1 |
| 40785 1999 $TA_{29}$ | 14.4 | X | 52.84651 | 262.15194 | 205.87463 | 4.07023 | 0.0318680 | 0.21073537 | 2.7966906 | 20 | 2 7.2 | 18.1 |
| 40786 1999 $TR_{30}$ | 14.4 | X | 106.72308 | 77.52917 | 300.90502 | 0.87344 | 0.0182185 | 0.20569674 | 2.8421769 | 20 | — | — |
| 40787 1999 $TV_{30}$ | 14.0 | X | 352.56147 | 59.21030 | 197.79077 | 12.61116 | 0.1381550 | 0.22389845 | 2.6859752 | 20 | 5 28.4 | 17.0 |
| 40788 1999 $TK_{31}$ | 14.2 | X | 252.70723 | 36.25614 | 7.25935 | 5.05132 | 0.1602485 | 0.17817705 | 3.1277705 | 20 | 7 8.6 | 18.9 |
| 40789 1999 $TW_{31}$ | 14.9 | X | 107.73496 | 137.65749 | 226.74072 | 1.19172 | 0.0791909 | 0.20352485 | 2.8623611 | 20 | — | — |
| 40790 1999 $TP_{32}$ | 15.7 | X | 92.52545 | 69.38183 | 220.36402 | 2.35946 | 0.1031622 | 0.24191063 | 2.5509351 | 20 | 12 7.5 | 19.3 |
| 40791 1999 $TO_{33}$ | 14.9 | X | 315.40223 | 348.92073 | 306.85697 | 1.81634 | 0.0517358 | 0.22266294 | 2.6959019 | 20 | 5 26.6 | 18.3 |
| 40792 1999 $TY_{33}$ | 15.4 | X | 51.31412 | 45.26106 | 318.69422 | 1.02614 | 0.1206001 | 0.19663285 | 2.9288604 | 20 | — | — |
| 40793 1999 $TZ_{33}$ | 14.9 | X | 51.03529 | 175.12324 | 217.42318 | 2.44099 | 0.1294173 | 0.19955169 | 2.9002300 | 20 | — | — |
| 40794 1999 $TD_{36}$ | 14.2 | X | 322.43350 | 330.55740 | 24.45588 | 9.79448 | 0.0721365 | 0.23191741 | 2.6236978 | 20 | 9 2.7 | 17.4 |
| 40795 1999 $TF_{36}$ | 14.5 | X | 211.57058 | 236.65740 | 116.60058 | 7.45990 | 0.1255756 | 0.26582726 | 2.3955379 | 20 | 3 27.9 | 18.2 |
| 40796 1999 $TT_{36}$ | 14.6 | X | 253.43324 | 280.34028 | 94.28081 | 15.90988 | 0.1259884 | 0.22187564 | 2.7022756 | 20 | 6 8.3 | 18.6 |
| 40797 1999 $TM_{37}$ | 13.9 | X | 359.70079 | 115.24773 | 162.06065 | 11.43128 | 0.0863365 | 0.22417487 | 2.6837667 | 20 | 7 8.7 | 17.3 |
| 40798 1999 $TV_{37}$ | 14.5 | X | 30.39218 | 183.97148 | 310.81703 | 8.11479 | 0.0784926 | 0.21257262 | 2.7805530 | 20 | 2 12.1 | 17.7 |
| 40799 1999 $TW_{37}$ | 15.4 | X | 169.05887 | 344.09585 | 250.29625 | 5.45094 | 0.0740179 | 0.24564797 | 2.5249954 | 20 | 12 20.0 | 18.9 |
| 40800 1999 $TD_{38}$ | 15.6 | X | 209.00317 | 264.68745 | 38.20616 | 2.93163 | 0.1990692 | 0.25984947 | 2.4321377 | 20 | 1 20.9 | 19.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40801 1999 $TN_{38}$ | 14.7 | X | 270.94401 | 80.22160 | 1.39392 | 1.73322 | 0.0399978 | 0.18792945 | 3.0186041 | 20 | 10 5.1 | 18.9 |
| 40802 1999 $TL_{39}$ | 15.5 | X | 244.94635 | 200.00665 | 135.04160 | 6.30864 | 0.2749684 | 0.26709499 | 2.3879518 | 20 | 3 26.3 | 19.5 |
| 40803 1999 $TX_{39}$ | 14.0 | X | 47.03053 | 178.65811 | 74.11042 | 13.10072 | 0.1507715 | 0.22769758 | 2.6560145 | 20 | 9 7.4 | 17.6 |
| 40804 1999 $TQ_{40}$ | 13.8 | X | 178.28818 | 12.51497 | 177.42151 | 19.16964 | 0.1478531 | 0.23835099 | 2.5762702 | 20 | 11 1.4 | 18.0 |
| 40805 1999 $TW_{41}$ | 16.0 | X | 148.89804 | 12.86392 | 219.67385 | 2.79568 | 0.0272409 | 0.24210387 | 2.5495776 | 20 | 11 26.5 | 19.6 |
| 40806 1999 $TX_{41}$ | 16.2 | X | 340.46117 | 356.14385 | 250.47694 | 1.64133 | 0.1626075 | 0.27137164 | 2.3627970 | 20 | 4 10.3 | 18.4 |
| 40807 1999 $TQ_{48}$ | 14.6 | X | 110.98987 | 222.35974 | 36.50380 | 3.97334 | 0.1129696 | 0.23998242 | 2.5645810 | 20 | 11 18.1 | 18.3 |
| 40808 1999 $TB_{53}$ | 15.0 | X | 115.95537 | 179.97053 | 245.35406 | 3.49556 | 0.0408352 | 0.21194092 | 2.7860752 | 20 | 3 6.8 | 18.9 |
| 40809 1999 $TZ_{57}$ | 14.7 | X | 19.85615 | 92.62240 | 214.60732 | 15.73921 | 0.0956714 | 0.18224232 | 3.0810818 | 20 | 9 13.1 | 18.9 |
| 40810 1999 $TK_{63}$ | 15.2 | X | 250.26738 | 350.64313 | 184.90648 | 3.04015 | 0.0310836 | 0.19369688 | 2.9583823 | 20 | — | — |
| 40811 1999 $TL_{63}$ | 14.4 | X | 165.23943 | 20.44133 | 201.48219 | 5.01842 | 0.1223255 | 0.18872016 | 3.0101665 | 20 | 11 18.6 | 19.1 |
| 40812 1999 $TV_{63}$ | 14.8 | X | 35.13003 | 123.07561 | 183.37049 | 3.31780 | 0.1043307 | 0.18404756 | 3.0609014 | 20 | 10 10.3 | 18.7 |
| 40813 1999 $TJ_{66}$ | 14.5 | X | 221.72317 | 82.76252 | 14.53880 | 11.21013 | 0.0532210 | 0.18145738 | 3.0899607 | 20 | 8 26.7 | 19.1 |
| 40814 1999 $TY_{69}$ | 15.1 | X | 206.73372 | 253.26257 | 4.52606 | 1.82939 | 0.0283426 | 0.20170395 | 2.8795621 | 20 | — | — |
| 40815 1999 $TY_{77}$ | 15.3 | X | 54.01306 | 8.63461 | 335.03729 | 2.93083 | 0.2095503 | 0.29388858 | 2.2405136 | 20 | — | — |
| 40816 1999 $TX_{78}$ | 14.8 | X | 266.05528 | 260.95265 | 127.42043 | 1.31383 | 0.1096942 | 0.17928954 | 3.1148185 | 20 | 7 11.4 | 19.0 |
| 40817 1999 $TT_{79}$ | 14.7 | X | 136.12110 | 141.69005 | 186.93719 | 12.01838 | 0.0146578 | 0.20311584 | 2.8662024 | 20 | — | — |
| 40818 1999 $TR_{80}$ | 15.9 | X | 235.67450 | 146.47831 | 159.09373 | 2.63012 | 0.2221579 | 0.26372435 | 2.4082555 | 20 | 2 12.8 | 19.8 |
| 40819 1999 $TT_{80}$ | 14.8 | X | 221.32093 | 112.93410 | 144.06007 | 2.71096 | 0.0243096 | 0.20496261 | 2.8489596 | 20 | — | — |
| 40820 1999 $TY_{89}$ | 14.9 | X | 19.30593 | 4.26156 | 36.67687 | 2.31999 | 0.1009480 | 0.19722311 | 2.9230137 | 20 | — | — |
| 40821 1999 $TD_{90}$ | 15.3 | X | 289.48663 | 3.11664 | 8.28597 | 5.26855 | 0.1046933 | 0.22938136 | 2.6430008 | 20 | 7 27.4 | 18.6 |
| 40822 1999 $TM_{90}$ | 15.1 | X | 305.92565 | 219.15567 | 128.08790 | 2.88887 | 0.0636053 | 0.22886258 | 2.6469934 | 20 | 7 22.6 | 18.2 |
| 40823 1999 $TU_{90}$ | 14.9 | X | 309.37898 | 311.86500 | 32.76859 | 11.95853 | 0.1988091 | 0.22989125 | 2.6390914 | 20 | 7 6.9 | 18.0 |
| 40824 1999 $TV_{90}$ | 14.3 | X | 151.74988 | 134.75127 | 48.03552 | 9.18126 | 0.0189655 | 0.23449197 | 2.6044583 | 20 | 9 29.1 | 17.9 |
| 40825 1999 $TZ_{90}$ | 14.9 | X | 267.45851 | 126.39256 | 136.18943 | 7.27583 | 0.1046605 | 0.26169229 | 2.4207063 | 20 | 1 29.3 | 18.4 |
| 40826 1999 $TP_{91}$ | 14.9 | X | 65.46496 | 261.49096 | 46.72501 | 6.25259 | 0.1901939 | 0.24168712 | 2.5525076 | 20 | 12 10.0 | 18.7 |
| 40827 1999 $TT_{92}$ | 15.4 | X | 248.36647 | 167.35019 | 110.58888 | 4.09610 | 0.1679701 | 0.26179714 | 2.4200599 | 20 | 1 24.6 | 19.0 |
| 40828 1999 $TM_{93}$ | 14.6 | X | 270.52873 | 144.17887 | 168.10937 | 12.33628 | 0.0986425 | 0.22013633 | 2.7164908 | 20 | 4 13.3 | 18.5 |
| 40829 1999 $TT_{93}$ | 14.2 | X | 246.89159 | 297.12762 | 76.93617 | 3.57560 | 0.0875744 | 0.22381794 | 2.6866192 | 20 | 6 3.2 | 17.9 |
| 40830 1999 $TV_{93}$ | 15.1 | X | 214.31675 | 186.22171 | 125.90336 | 3.42158 | 0.1750481 | 0.26117844 | 2.4238803 | 20 | 2 4.7 | 18.9 |
| 40831 1999 $TU_{94}$ | 14.5 | X | 80.66679 | 79.94925 | 102.71525 | 7.00225 | 0.0140520 | 0.22399860 | 2.6851745 | 20 | 6 20.9 | 17.9 |
| 40832 1999 $TH_{95}$ | 14.7 | X | 304.25983 | 233.35195 | 83.38504 | 8.36498 | 0.2359830 | 0.22668842 | 2.6638913 | 20 | 5 12.4 | 17.8 |
| 40833 1999 $TJ_{95}$ | 13.8 | X | 214.80815 | 346.19282 | 138.88814 | 11.78982 | 0.1476171 | 0.18476448 | 3.0529784 | 20 | 9 11.1 | 18.6 |
| 40834 1999 $TL_{95}$ | 15.2 | X | 314.08475 | 248.71537 | 96.59669 | 6.88398 | 0.2010897 | 0.22999039 | 2.6383329 | 20 | 7 16.1 | 17.8 |
| 40835 1999 $TM_{95}$ | 14.8 | X | 348.34376 | 296.80854 | 64.76567 | 8.02144 | 0.1253916 | 0.23599434 | 2.5933929 | 20 | 10 26.8 | 17.6 |
| 40836 1999 $TQ_{95}$ | 14.2 | X | 336.64841 | 277.33319 | 127.81132 | 4.87302 | 0.1601412 | 0.19082221 | 2.9880195 | 20 | 11 22.5 | 17.5 |
| 40837 1999 $TX_{95}$ | 15.0 | X | 331.17254 | 201.36855 | 91.96688 | 3.23675 | 0.0612258 | 0.22485221 | 2.6783743 | 20 | 6 15.8 | 18.2 |
| 40838 1999 $TY_{95}$ | 15.2 | X | 247.59401 | 165.17085 | 152.18592 | 5.44415 | 0.1569373 | 0.21811164 | 2.7332760 | 20 | 3 17.6 | 19.4 |
| 40839 1999 $TH_{96}$ | 14.7 | X | 109.54158 | 332.29051 | 98.08502 | 4.78504 | 0.0782456 | 0.21197965 | 2.7857359 | 20 | 3 14.8 | 18.5 |
| 40840 1999 $TS_{96}$ | 13.5 | X | 252.19974 | 26.59830 | 54.63273 | 11.89611 | 0.1058510 | 0.18405685 | 3.0607984 | 20 | 9 7.3 | 18.0 |
| 40841 1999 $TQ_{98}$ | 13.8 | X | 179.36079 | 339.22124 | 53.00237 | 10.44128 | 0.1815058 | 0.21631113 | 2.7484224 | 20 | 4 17.2 | 18.4 |
| 40842 1999 $TX_{98}$ | 15.2 | X | 22.14007 | 180.38479 | 140.41816 | 6.34465 | 0.1922653 | 0.23636437 | 2.5906856 | 20 | 11 5.8 | 18.3 |
| 40843 1999 $TD_{99}$ | 15.4 | X | 315.96737 | 165.05233 | 114.89474 | 6.89806 | 0.2043611 | 0.27068005 | 2.3668200 | 20 | 4 13.3 | 18.0 |
| 40844 1999 $TS_{101}$ | 14.8 | X | 347.65084 | 194.33356 | 166.18870 | 12.88819 | 0.1715895 | 0.23481528 | 2.6020670 | 20 | 10 29.1 | 17.5 |
| 40845 1999 $TL_{102}$ | 15.1 | X | 160.37385 | 210.99415 | 150.59304 | 12.09781 | 0.2738636 | 0.25822692 | 2.4423151 | 20 | 2 24.0 | 19.1 |
| 40846 1999 $TN_{102}$ | 15.2 | X | 39.44130 | 233.45135 | 111.79556 | 15.13421 | 0.1039893 | 0.23922663 | 2.5699797 | 20 | 12 17.3 | 18.7 |
| 40847 1999 $TU_{102}$ | 13.5 | X | 337.93183 | 261.89498 | 154.70051 | 17.23091 | 0.2716474 | 0.18984932 | 2.9982190 | 20 | 12 18.5 | 16.6 |
| 40848 1999 $TZ_{102}$ | 14.5 | X | 258.43181 | 2.26197 | 52.71723 | 16.15545 | 0.0717770 | 0.22888018 | 2.6468577 | 20 | 8 24.0 | 18.4 |
| 40849 1999 $TG_{103}$ | 14.5 | X | 38.93705 | 197.67313 | 117.02059 | 15.22323 | 0.1238379 | 0.23485602 | 2.6017661 | 20 | 11 13.8 | 18.2 |
| 40850 1999 $TR_{104}$ | 14.3 | X | 229.97301 | 250.02742 | 218.88360 | 10.49125 | 0.0707628 | 0.18464422 | 3.0543039 | 20 | 9 10.1 | 18.8 |
| 40851 1999 $TZ_{104}$ | 14.6 | X | 63.35474 | 56.33376 | 225.73259 | 8.30845 | 0.1259486 | 0.23582248 | 2.5946528 | 20 | 10 27.2 | 18.3 |
| 40852 1999 $TX_{105}$ | 14.3 | X | 117.57841 | 198.32041 | 192.31574 | 8.47265 | 0.2155198 | 0.20585247 | 2.8407433 | 20 | 2 17.9 | 18.7 |
| 40853 1999 $TA_{106}$ | 14.2 | X | 131.82424 | 182.84300 | 213.47351 | 25.28936 | 0.1246824 | 0.21527399 | 2.7572428 | 20 | 2 23.7 | 18.7 |
| 40854 1999 $TU_{107}$ | 14.1 | X | 332.02634 | 138.55535 | 235.03853 | 12.54578 | 0.1730358 | 0.23641988 | 2.5902800 | 20 | 10 8.2 | 16.6 |
| 40855 1999 $TG_{108}$ | 13.4 | X | 243.93332 | 177.24598 | 245.30115 | 9.77202 | 0.0961970 | 0.18165050 | 3.0877703 | 20 | 7 27.0 | 18.1 |
| 40856 1999 $TP_{108}$ | 15.4 | X | 271.80331 | 12.58410 | 268.59500 | 3.47622 | 0.1862732 | 0.26663641 | 2.3906890 | 20 | 2 16.3 | 19.0 |
| 40857 1999 $TP_{110}$ | 14.7 | X | 68.01306 | 169.61870 | 318.50432 | 5.38106 | 0.0668794 | 0.21542033 | 2.7559940 | 20 | 3 27.3 | 18.3 |
| 40858 1999 $TR_{110}$ | 14.9 | X | 174.17786 | 40.96316 | 299.49640 | 4.24654 | 0.0435820 | 0.21086960 | 2.7955037 | 20 | 2 1.2 | 18.7 |
| 40859 1999 $TX_{111}$ | 14.9 | X | 271.64209 | 53.38794 | 244.88310 | 1.89017 | 0.0269891 | 0.21862458 | 2.7289991 | 20 | 4 3.2 | 18.5 |
| 40860 1999 $TQ_{113}$ | 15.0 | X | 278.90701 | 350.36230 | 271.47390 | 3.27010 | 0.0476928 | 0.21427184 | 2.7658331 | 20 | 2 22.7 | 18.8 |
| 40861 1999 $TR_{113}$ | 14.9 | X | 248.82086 | 9.46447 | 337.06798 | 5.32822 | 0.0554869 | 0.22117392 | 2.7079882 | 20 | 5 2.0 | 18.7 |
| 40862 1999 $TB_{114}$ | 14.3 | X | 173.28583 | 221.91698 | 192.99731 | 6.25532 | 0.1437659 | 0.17053507 | 3.2205267 | 20 | 5 8.1 | 19.5 |
| 40863 1999 $TL_{115}$ | 15.6 | X | 282.38596 | 151.15618 | 214.61928 | 8.58580 | 0.0893248 | 0.22752934 | 2.6573236 | 20 | 7 7.6 | 19.2 |
| 40864 1999 $TO_{115}$ | 14.1 | X | 243.28001 | 82.24330 | 348.97432 | 9.51753 | 0.0775854 | 0.18186659 | 3.0853239 | 20 | 8 14.3 | 18.5 |
| 40865 1999 $TH_{116}$ | 15.0 | X | 263.21976 | 32.80813 | 313.81267 | 1.19892 | 0.0893731 | 0.22310324 | 2.6923538 | 20 | 5 17.4 | 18.7 |
| 40866 1999 $TU_{117}$ | 14.7 | X | 40.47791 | 7.92709 | 224.35640 | 8.11070 | 0.0865654 | 0.22597530 | 2.6694927 | 20 | 7 10.9 | 18.1 |
| 40867 1999 $TD_{118}$ | 14.6 | X | 39.80924 | 347.08963 | 338.66918 | 5.46897 | 0.2326862 | 0.23998334 | 2.5645745 | 20 | 12 9.4 | 18.2 |
| 40868 1999 $TM_{118}$ | 14.9 | X | 40.84345 | 15.18122 | 316.88040 | 2.92658 | 0.2570502 | 0.24080557 | 2.5587333 | 20 | 12 22.3 | 18.5 |
| 40869 1999 $TN_{118}$ | 14.6 | X | 332.93411 | 59.35852 | 209.85302 | 8.74851 | 0.0905770 | 0.22251200 | 2.6971209 | 20 | 5 13.6 | 17.7 |
| 40870 1999 $TQ_{119}$ | 14.8 | X | 284.22680 | 319.01519 | 6.58601 | 13.84692 | 0.1230044 | 0.22345262 | 2.6895466 | 20 | 5 7.0 | 18.6 |
| 40871 1999 $TS_{120}$ | 14.5 | X | 97.01584 | 280.14141 | 335.60392 | 3.09422 | 0.0775557 | 0.23666331 | 2.5885035 | 20 | 10 26.3 | 18.3 |
| 40872 1999 $TB_{121}$ | 14.2 | X | 158.43403 | 319.73739 | 166.99212 | 1.37412 | 0.1046940 | 0.17645881 | 3.1480418 | 20 | 7 18.4 | 19.2 |
| 40873 1999 $TL_{121}$ | 14.8 | X | 304.93116 | 172.99651 | 124.67249 | 2.90909 | 0.0556934 | 0.22193204 | 2.7018177 | 20 | 5 14.7 | 18.2 |
| 40874 1999 $TL_{122}$ | 15.5 | X | 231.42749 | 187.29500 | 127.68146 | 3.19666 | 0.2008657 | 0.26372538 | 2.4082492 | 20 | 2 22.3 | 19.3 |
| 40875 1999 $TA_{123}$ | 14.8 | X | 57.93469 | 347.38704 | 345.51005 | 2.72870 | 0.2264159 | 0.24241267 | 2.5474119 | 20 | — | — |
| 40876 1999 $TH_{123}$ | 15.3 | X | 147.75444 | 205.95229 | 159.39324 | 4.68116 | 0.1154682 | 0.20924516 | 2.8099533 | 20 | 2 8.8 | 19.6 |
| 40877 1999 $TF_{124}$ | 15.2 | X | 173.53592 | 8.03871 | 16.99013 | 1.65122 | 0.0295028 | 0.21484017 | 2.7609533 | 20 | 3 26.2 | 19.0 |
| 40878 1999 $TU_{124}$ | 15.5 | X | 316.15261 | 125.05110 | 191.87745 | 7.67774 | 0.0696698 | 0.22660970 | 2.6645081 | 20 | 6 24.4 | 18.9 |
| 40879 1999 $TX_{124}$ | 15.1 | X | 202.31982 | 101.46391 | 190.36676 | 5.79426 | 0.1252832 | 0.25680099 | 2.4513477 | 20 | — | — |
| 40880 1999 $TA_{125}$ | 15.3 | X | 115.04868 | 119.95928 | 288.36841 | 2.43169 | 0.0776221 | 0.21052997 | 2.7985094 | 20 | 2 19.7 | 19.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40881 1999 $TY_{125}$ | 15.3 | $X$ | 97.99896 | 299.81873 | 342.96249 | 5.70002 | 0.1790032 | 0.24237572 | 2.5476708 | 20 | 12 8.6 | 19.4 |
| 40882 1999 $TZ_{125}$ | 14.4 | $X$ | 212.69707 | 356.17246 | 207.36343 | 12.81531 | 0.0916382 | 0.19692588 | 2.9259542 | 20 | 12 17.6 | 18.8 |
| 40883 1999 $TB_{126}$ | 15.0 | $X$ | 288.13607 | 276.99573 | 9.25284 | 4.07942 | 0.0871328 | 0.21894170 | 2.7263633 | 20 | 3 31.7 | 18.8 |
| 40884 1999 $TC_{126}$ | 15.8 | $X$ | 102.30659 | 332.30877 | 323.26970 | 0.35994 | 0.1529592 | 0.24410753 | 2.5356069 | 20 | 12 27.5 | 19.6 |
| 40885 1999 $TS_{126}$ | 14.5 | $X$ | 181.64375 | 231.01861 | 208.75941 | 11.05171 | 0.0858890 | 0.17380797 | 3.1799693 | 20 | 6 14.1 | 19.5 |
| 40886 1999 $TE_{127}$ | 15.5 | $X$ | 44.33242 | 309.43664 | 343.60168 | 3.01965 | 0.2379303 | 0.23680244 | 2.5874896 | 20 | 11 2.8 | 19.0 |
| 40887 1999 $TG_{128}$ | 14.8 | $X$ | 327.36757 | 38.69554 | 56.45727 | 2.66191 | 0.0628057 | 0.19600288 | 2.9351327 | 20 | — | — |
| 40888 1999 $TW_{131}$ | 15.3 | $X$ | 57.45478 | 90.52510 | 303.13406 | 0.92742 | 0.0760929 | 0.20135527 | 2.8828854 | 20 | — | — |
| 40889 1999 $TY_{132}$ | 15.5 | $X$ | 99.32043 | 323.42207 | 219.44978 | 1.78353 | 0.0087031 | 0.22635499 | 2.6665066 | 20 | 7 15.4 | 19.0 |
| 40890 1999 $TE_{133}$ | 14.3 | $X$ | 163.56040 | 178.77041 | 338.59108 | 1.32058 | 0.1290431 | 0.18321871 | 3.0701257 | 20 | 8 30.9 | 19.1 |
| 40891 1999 $TH_{136}$ | 15.4 | $X$ | 303.15888 | 21.77516 | 343.56644 | 2.53576 | 0.0888473 | 0.22934543 | 2.6432769 | 20 | 8 10.6 | 18.3 |
| 40892 1999 $TY_{136}$ | 14.9 | $X$ | 168.88476 | 264.46691 | 194.02229 | 4.71184 | 0.1061214 | 0.17511394 | 3.1641392 | 20 | 6 24.1 | 19.9 |
| 40893 1999 $TL_{138}$ | 14.9 | $X$ | 294.74275 | 10.33250 | 240.24744 | 2.39729 | 0.0380510 | 0.21293227 | 2.7774210 | 20 | 3 1.1 | 18.8 |
| 40894 1999 $TQ_{138}$ | 16.1 | $X$ | 75.15519 | 294.29907 | 10.29152 | 4.26563 | 0.1907294 | 0.24115516 | 2.5562599 | 20 | 12 15.1 | 20.1 |
| 40895 1999 $TZ_{140}$ | 15.3 | $X$ | 191.76600 | 80.20276 | 278.75331 | 1.21361 | 0.0575580 | 0.21245133 | 2.7816111 | 20 | 3 14.7 | 19.3 |
| 40896 1999 $TO_{141}$ | 15.7 | $X$ | 247.58317 | 323.24012 | 12.44809 | 2.10620 | 0.0848969 | 0.21810302 | 2.7333480 | 20 | 4 15.1 | 19.6 |
| 40897 1999 $TG_{142}$ | 15.1 | $X$ | 135.55417 | 154.53523 | 259.64374 | 2.33715 | 0.0702914 | 0.21445331 | 2.7642726 | 20 | 3 20.5 | 19.1 |
| 40898 1999 $TP_{142}$ | 14.8 | $X$ | 195.42681 | 303.16684 | 109.26248 | 3.21564 | 0.0062016 | 0.22360187 | 2.6883497 | 20 | 5 28.7 | 18.4 |
| 40899 1999 $TR_{142}$ | 15.4 | $X$ | 265.82831 | 115.90262 | 264.57838 | 2.13610 | 0.1213985 | 0.22763323 | 2.6565150 | 20 | 7 1.1 | 18.8 |
| 40900 1999 $TV_{142}$ | 15.1 | $X$ | 324.08579 | 182.88056 | 196.06307 | 1.48601 | 0.0583712 | 0.18673335 | 3.0314806 | 20 | 9 26.1 | 19.1 |
| 40901 1999 $TG_{143}$ | 14.3 | $X$ | 52.26039 | 179.64295 | 326.78023 | 8.19645 | 0.0229247 | 0.21701785 | 2.7424523 | 20 | 3 23.4 | 17.9 |
| 40902 1999 $TY_{143}$ | 15.2 | $X$ | 295.87727 | 127.32707 | 202.04228 | 17.98098 | 0.0394938 | 0.22524967 | 2.6752227 | 20 | 6 15.0 | 19.1 |
| 40903 1999 $TB_{144}$ | 14.1 | $X$ | 27.82176 | 316.66099 | 215.57031 | 8.84674 | 0.0786168 | 0.21621999 | 2.7491947 | 20 | 3 27.5 | 17.5 |
| 40904 1999 $TC_{144}$ | 15.7 | $X$ | 347.57911 | 338.04552 | 47.66840 | 5.36176 | 0.1225044 | 0.23953606 | 2.5677660 | 20 | 11 26.1 | 18.5 |
| 40905 1999 $TE_{148}$ | 14.3 | $X$ | 262.01004 | 236.89532 | 200.92021 | 10.54175 | 0.0963288 | 0.18541456 | 3.0458381 | 20 | 9 7.8 | 18.7 |
| 40906 1999 $TN_{148}$ | 14.5 | $X$ | 330.64861 | 319.33440 | 205.84736 | 14.77685 | 0.0823793 | 0.20629869 | 2.8366455 | 20 | — | — |
| 40907 1999 $TF_{149}$ | 14.9 | $X$ | 331.63941 | 335.92319 | 120.27994 | 2.17886 | 0.0371064 | 0.19762887 | 2.9190114 | 20 | — | — |
| 40908 1999 $TW_{151}$ | 14.1 | $X$ | 162.40402 | 60.36157 | 190.94084 | 14.72732 | 0.1228891 | 0.24389304 | 2.5370934 | 20 | 12 29.1 | 18.3 |
| 40909 1999 $TR_{152}$ | 14.7 | $X$ | 168.36858 | 53.51412 | 189.73196 | 12.35462 | 0.1581650 | 0.24337654 | 2.5406816 | 20 | 12 23.4 | 18.9 |
| 40910 1999 $TS_{152}$ | 15.4 | $X$ | 260.09448 | 228.52834 | 96.39478 | 3.47961 | 0.2280781 | 0.26803599 | 2.3823596 | 20 | 3 30.1 | 19.1 |
| 40911 1999 $TU_{152}$ | 15.1 | $X$ | 41.05250 | 188.27415 | 107.12322 | 4.54501 | 0.1369991 | 0.23414322 | 2.6070438 | 20 | 10 20.4 | 18.4 |
| 40912 1999 $TX_{152}$ | 13.9 | $X$ | 124.88060 | 279.95731 | 205.98595 | 14.29612 | 0.0706569 | 0.17113994 | 3.2129340 | 20 | 6 9.4 | 18.8 |
| 40913 1999 $TZ_{152}$ | 15.3 | $X$ | 118.31885 | 125.45850 | 187.67521 | 2.72665 | 0.1538169 | 0.24661691 | 2.5183774 | 20 | — | — |
| 40914 1999 $TH_{155}$ | 14.9 | $X$ | 238.48609 | 148.68339 | 182.55214 | 13.12886 | 0.1612904 | 0.21728463 | 2.7402071 | 20 | 3 24.5 | 19.1 |
| 40915 1999 $TT_{155}$ | 14.4 | $X$ | 248.56363 | 152.41604 | 176.23549 | 5.13603 | 0.0543138 | 0.21633036 | 2.7482595 | 20 | 4 12.1 | 18.1 |
| 40916 1999 $TE_{156}$ | 13.8 | $X$ | 61.13154 | 113.86389 | 200.95052 | 9.54149 | 0.0899913 | 0.18898926 | 3.0073084 | 20 | 11 22.2 | 18.1 |
| 40917 Pauljorden | 14.3 | $X$ | 162.27214 | 202.94409 | 273.41067 | 3.97276 | 0.1079140 | 0.17754618 | 3.1351752 | 20 | 7 9.6 | 19.3 |
| 40918 1999 $TG_{158}$ | 14.4 | $X$ | 165.23975 | 334.29943 | 220.74402 | 9.10248 | 0.0536414 | 0.18757596 | 3.0223953 | 20 | 10 17.8 | 19.0 |
| 40919 Johntonry | 15.0 | $X$ | 91.78226 | 155.33450 | 136.99794 | 4.57042 | 0.1930470 | 0.24159376 | 2.5531652 | 20 | 12 16.2 | 19.2 |
| 40920 1999 $TD_{171}$ | 14.4 | $X$ | 140.02045 | 274.46078 | 57.08238 | 2.83679 | 0.0699312 | 0.20285000 | 2.8687060 | 20 | — | — |
| 40921 1999 $TR_{171}$ | 14.6 | $X$ | 147.83713 | 241.99024 | 81.57157 | 3.18048 | 0.0611661 | 0.20272434 | 2.8698914 | 20 | — | — |
| 40922 1999 $TH_{172}$ | 14.6 | $X$ | 253.68666 | 264.26054 | 62.90080 | 6.11768 | 0.0573766 | 0.21674082 | 2.7447886 | 20 | 4 17.0 | 18.5 |
| 40923 1999 $TB_{173}$ | 14.0 | $X$ | 331.57312 | 240.77200 | 191.47326 | 10.22871 | 0.0862682 | 0.19161647 | 2.9797569 | 20 | 12 15.7 | 17.9 |
| 40924 1999 $TB_{174}$ | 14.1 | $X$ | 257.83029 | 314.06593 | 205.81187 | 10.09900 | 0.0424836 | 0.19321133 | 2.9633366 | 20 | 12 24.5 | 18.3 |
| 40925 1999 $TL_{174}$ | 15.4 | $X$ | 99.36122 | 159.63361 | 150.51690 | 4.24689 | 0.2035633 | 0.24361256 | 2.5390403 | 20 | — | — |
| 40926 1999 $TQ_{177}$ | 15.1 | $X$ | 163.43330 | 166.38529 | 197.02177 | 5.81406 | 0.0866834 | 0.20882007 | 2.8137654 | 20 | 2 19.3 | 19.4 |
| 40927 1999 $TZ_{185}$ | 14.7 | $X$ | 348.32568 | 349.54016 | 291.72484 | 10.99929 | 0.1722017 | 0.22656290 | 2.6648750 | 20 | 6 24.1 | 17.2 |
| 40928 1999 $TB_{187}$ | 14.2 | $X$ | 8.79225 | 17.70882 | 328.14960 | 13.15601 | 0.1427796 | 0.18820736 | 3.0156318 | 20 | 10 20.5 | 18.1 |
| 40929 1999 $TB_{188}$ | 14.4 | $X$ | 300.37509 | 244.66217 | 267.27188 | 11.57263 | 0.0225964 | 0.19951640 | 2.9005720 | 20 | — | — |
| 40930 1999 $TJ_{189}$ | 14.0 | $X$ | 48.17425 | 334.61129 | 315.43265 | 9.05199 | 0.0354761 | 0.18477504 | 3.0528620 | 20 | 9 22.9 | 18.3 |
| 40931 1999 $TX_{189}$ | 15.1 | $X$ | 82.61717 | 337.08230 | 308.17984 | 8.37586 | 0.1863001 | 0.23878898 | 2.5731189 | 20 | 11 26.9 | 19.3 |
| 40932 1999 $TF_{191}$ | 13.8 | $X$ | 183.80254 | 221.85886 | 301.77257 | 8.72977 | 0.0402635 | 0.18500658 | 3.0503143 | 20 | 9 26.7 | 18.5 |
| 40933 1999 $TP_{192}$ | 13.7 | $X$ | 273.05523 | 168.73522 | 271.49591 | 8.24182 | 0.0344402 | 0.18548266 | 3.0450926 | 20 | 10 2.4 | 18.1 |
| 40934 1999 $TJ_{194}$ | 13.9 | $X$ | 252.22092 | 339.66304 | 315.40441 | 8.14452 | 0.1285144 | 0.21292537 | 2.7774810 | 20 | 2 24.4 | 18.1 |
| 40935 1999 $TO_{195}$ | 14.5 | $X$ | 198.99794 | 71.28617 | 359.50973 | 4.38646 | 0.0988952 | 0.17215948 | 3.2002366 | 20 | 6 20.6 | 19.4 |
| 40936 1999 $TP_{200}$ | 15.4 | $X$ | 230.06248 | 176.95090 | 193.06474 | 7.32124 | 0.1248855 | 0.27262481 | 2.3555507 | 20 | 5 5.7 | 18.8 |
| 40937 1999 $TQ_{200}$ | 15.8 | $X$ | 282.00789 | 66.02347 | 261.85438 | 3.21261 | 0.1827887 | 0.27493480 | 2.3423380 | 20 | 4 30.2 | 18.9 |
| 40938 1999 $TO_{205}$ | 14.6 | $X$ | 243.78062 | 332.79587 | 347.45832 | 3.39910 | 0.0928061 | 0.21315111 | 2.7755197 | 20 | 3 21.7 | 18.8 |
| 40939 1999 $TU_{209}$ | 14.4 | $X$ | 165.13952 | 116.79029 | 59.42159 | 11.59499 | 0.0699300 | 0.18428205 | 3.0583043 | 20 | 9 30.7 | 19.2 |
| 40940 1999 $TZ_{209}$ | 13.2 | $X$ | 273.71198 | 61.78696 | 10.82097 | 10.96660 | 0.0305633 | 0.18249421 | 3.0782460 | 20 | 9 28.7 | 17.3 |
| 40941 1999 $TS_{211}$ | 15.0 | $X$ | 310.77952 | 353.66675 | 288.69632 | 4.89695 | 0.1090952 | 0.22025383 | 2.7155246 | 20 | 4 21.3 | 18.4 |
| 40942 1999 $TZ_{212}$ | 15.2 | $X$ | 216.25299 | 359.18545 | 345.83305 | 4.55464 | 0.0201236 | 0.21554375 | 2.7549418 | 20 | 3 25.9 | 19.0 |
| 40943 1999 $TT_{213}$ | 15.1 | $X$ | 312.86166 | 65.99296 | 39.72094 | 2.57044 | 0.0555555 | 0.19578122 | 2.9373477 | 20 | 12 31.6 | 18.8 |
| 40944 1999 $TJ_{216}$ | 14.6 | $X$ | 176.06017 | 218.63193 | 95.85797 | 3.28014 | 0.0644550 | 0.20564123 | 2.8426884 | 20 | 1 5.5 | 18.7 |
| 40945 1999 $TX_{216}$ | 14.8 | $X$ | 354.52583 | 258.92545 | 2.69441 | 3.30945 | 0.1825072 | 0.22286798 | 2.6942482 | 20 | 6 5.5 | 17.3 |
| 40946 1999 $TK_{217}$ | 15.5 | $X$ | 27.05408 | 307.87960 | 9.70653 | 4.30840 | 0.0907690 | 0.23605543 | 2.5929455 | 20 | 10 20.5 | 18.6 |
| 40947 1999 $TJ_{218}$ | 14.8 | $X$ | 81.10353 | 170.98364 | 350.34757 | 5.81408 | 0.0331219 | 0.22136456 | 2.7064333 | 20 | 5 24.6 | 18.5 |
| 40948 1999 $TH_{228}$ | 15.0 | $X$ | 51.64379 | 335.15014 | 33.26152 | 2.40596 | 0.0851817 | 0.19805436 | 2.9148291 | 20 | — | — |
| 40949 1999 $TQ_{228}$ | 15.0 | $X$ | 158.04459 | 305.09611 | 48.44757 | 3.82578 | 0.1117773 | 0.20848596 | 2.8167708 | 20 | 2 6.9 | 19.3 |
| 40950 1999 $TQ_{229}$ | 14.4 | $X$ | 159.36070 | 35.33418 | 47.46791 | 6.55117 | 0.0926966 | 0.17199872 | 3.2022304 | 20 | 5 25.3 | 19.3 |
| 40951 1999 $TO_{230}$ | 14.7 | $X$ | 334.62217 | 259.37900 | 138.39669 | 10.28498 | 0.1042633 | 0.19068018 | 2.9895031 | 20 | 11 10.1 | 18.5 |
| 40952 1999 $TD_{231}$ | 15.2 | $X$ | 243.48592 | 224.74817 | 104.10575 | 6.40598 | 0.0774737 | 0.21869720 | 2.7283949 | 20 | 4 6.1 | 19.2 |
| 40953 1999 $TB_{237}$ | 15.1 | $X$ | 137.71330 | 198.25303 | 82.83550 | 8.07333 | 0.1122307 | 0.24365563 | 2.5387411 | 20 | — | — |
| 40954 1999 $TQ_{238}$ | 14.5 | $X$ | 188.20426 | 159.17277 | 131.37461 | 5.86814 | 0.0784905 | 0.20468302 | 2.8515534 | 20 | — | — |
| 40955 1999 $TQ_{241}$ | 14.6 | $X$ | 177.84733 | 180.27084 | 160.28082 | 8.85534 | 0.2272157 | 0.21062511 | 2.7976666 | 20 | 2 13.2 | 19.4 |
| 40956 1999 $TZ_{241}$ | 14.8 | $X$ | 69.18410 | 207.47798 | 93.72611 | 11.91344 | 0.1232083 | 0.23760695 | 2.5816456 | 20 | 11 29.4 | 18.5 |
| 40957 1999 $TR_{242}$ | 14.0 | $X$ | 194.98983 | 74.52845 | 111.05647 | 11.22506 | 0.0458865 | 0.18837550 | 3.0138371 | 20 | 11 13.7 | 18.5 |
| 40958 1999 $TV_{242}$ | 14.8 | $X$ | 0.66315 | 195.88861 | 143.32899 | 7.42182 | 0.1677711 | 0.23316949 | 2.6142969 | 20 | 10 21.9 | 17.6 |
| 40959 1999 $TB_{243}$ | 13.0 | $X$ | 339.76281 | 99.87691 | 204.08157 | 24.89496 | 0.0656579 | 0.17551662 | 3.1592976 | 20 | 7 6.6 | 17.7 |
| 40960 1999 $TL_{244}$ | 14.9 | $X$ | 55.04218 | 55.15860 | 3.69307 | 1.73266 | 0.0390761 | 0.20455416 | 2.8527509 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 40961 1999 $TV_{247}$ | 14.8 | X | 202.45038 | 243.38384 | 128.96752 | 4.11080 | 0.0998176 | 0.21514520 | 2.7583431 | 20 | 4 13.8 | 19.0 |
| 40962 1999 $TW_{247}$ | 14.1 | X | 242.47799 | 220.58269 | 178.62779 | 6.44383 | 0.1473231 | 0.17446268 | 3.1720086 | 20 | 6 22.6 | 19.0 |
| 40963 1999 $TZ_{247}$ | 13.9 | X | 340.07723 | 93.36190 | 163.54604 | 5.31082 | 0.0520496 | 0.16948339 | 3.2338358 | 20 | 5 13.3 | 18.2 |
| 40964 1999 $TE_{248}$ | 14.0 | X | 152.63149 | 257.26603 | 199.44986 | 12.82093 | 0.0963265 | 0.16889389 | 3.2413562 | 20 | 6 5.7 | 19.1 |
| 40965 1999 $TH_{249}$ | 15.0 | X | 7.59876 | 339.68596 | 331.23947 | 9.85417 | 0.0832516 | 0.23303487 | 2.6153036 | 20 | 9 8.4 | 18.0 |
| 40966 1999 $TM_{250}$ | 14.9 | X | 42.97968 | 44.43275 | 230.12491 | 8.66851 | 0.1392092 | 0.23356556 | 2.6113405 | 20 | 9 19.4 | 18.3 |
| 40967 1999 $TC_{251}$ | 13.4 | X | 302.64437 | 35.89761 | 347.61502 | 12.02873 | 0.1552416 | 0.18153533 | 3.0890761 | 20 | 8 22.3 | 17.1 |
| 40968 1999 $TO_{254}$ | 14.4 | X | 286.86914 | 179.22481 | 113.78307 | 14.50314 | 0.1357463 | 0.21903468 | 2.7255916 | 20 | 4 8.0 | 18.4 |
| 40969 1999 $TR_{258}$ | 15.2 | X | 53.31328 | 295.88062 | 9.08909 | 3.20637 | 0.0930360 | 0.23806547 | 2.5783297 | 20 | 11 9.0 | 18.5 |
| 40970 1999 $TK_{261}$ | 14.2 | X | 104.19694 | 208.09589 | 63.13534 | 28.94306 | 0.0831630 | 0.23864267 | 2.5741705 | 20 | 11 24.9 | 18.0 |
| 40971 1999 $TY_{264}$ | 14.6 | X | 325.33975 | 136.98299 | 236.39137 | 21.06527 | 0.0337074 | 0.23660263 | 2.5889461 | 20 | 9 22.9 | 18.3 |
| 40972 1999 $TL_{267}$ | 13.9 | X | 189.49629 | 245.64300 | 228.84924 | 16.66947 | 0.1977751 | 0.17876160 | 3.1209482 | 20 | 7 26.2 | 19.5 |
| 40973 1999 $TL_{269}$ | 14.7 | X | 16.05629 | 44.56054 | 319.92648 | 8.99109 | 0.1054465 | 0.19177781 | 2.9780854 | 20 | 11 25.4 | 18.7 |
| 40974 1999 $TS_{269}$ | 14.4 | X | 104.92807 | 226.57547 | 290.10674 | 7.10283 | 0.0788898 | 0.17442536 | 3.1724610 | 20 | 6 25.9 | 19.0 |
| 40975 1999 $TU_{269}$ | 14.0 | X | 157.73021 | 189.61451 | 295.15078 | 7.81781 | 0.1258705 | 0.17547888 | 3.1597507 | 20 | 7 16.0 | 19.0 |
| 40976 1999 $TV_{272}$ | 13.5 | X | 109.50351 | 279.35199 | 246.87096 | 8.51520 | 0.1678101 | 0.17412923 | 3.1760569 | 20 | 7 20.6 | 18.5 |
| 40977 1999 $TD_{279}$ | 14.5 | X | 338.04139 | 36.18501 | 4.91539 | 10.37638 | 0.1195406 | 0.19210576 | 2.9746951 | 20 | 11 13.5 | 18.2 |
| 40978 1999 $TN_{279}$ | 15.1 | X | 224.40435 | 280.08156 | 185.17018 | 21.52833 | 0.0832371 | 0.23268868 | 2.6178969 | 20 | 9 4.2 | 19.0 |
| 40979 1999 $TL_{280}$ | 14.8 | X | 249.40430 | 171.41123 | 191.59686 | 8.70067 | 0.0942707 | 0.22643900 | 2.6658470 | 20 | 5 23.1 | 18.6 |
| 40980 1999 $TO_{282}$ | 15.2 | X | 321.81359 | 89.85814 | 44.51245 | 2.40405 | 0.0570338 | 0.20014746 | 2.8944718 | 20 | — | — |
| 40981 Stephenholland | 14.9 | X | 214.50817 | 131.52403 | 187.28450 | 11.25752 | 0.1630900 | 0.21138072 | 2.7909955 | 20 | 2 15.2 | 19.6 |
| 40982 1999 $TR_{285}$ | 14.3 | X | 179.91088 | 115.67012 | 356.25118 | 11.27390 | 0.0435904 | 0.17809516 | 3.1287292 | 20 | 7 26.7 | 19.0 |
| 40983 1999 $TB_{286}$ | 14.8 | X | 199.39961 | 236.46032 | 231.63279 | 13.54231 | 0.0457857 | 0.23146319 | 2.6271291 | 20 | 8 8.8 | 18.9 |
| 40984 1999 $TL_{288}$ | 14.3 | X | 81.83288 | 205.25894 | 51.83272 | 10.65611 | 0.0548791 | 0.18463943 | 3.0543567 | 20 | 10 5.0 | 18.7 |
| 40985 1999 $TM_{288}$ | 14.1 | X | 93.03603 | 35.56558 | 140.10971 | 2.31251 | 0.1131556 | 0.17308017 | 3.1888776 | 20 | 7 9.9 | 18.8 |
| 40986 1999 $TY_{292}$ | 14.5 | X | 102.60238 | 299.39029 | 2.54763 | 8.55170 | 0.0749693 | 0.19352431 | 2.9601408 | 20 | 12 20.4 | 19.0 |
| 40987 1999 $TJ_{293}$ | 14.3 | X | 113.55296 | 227.52982 | 359.76968 | 9.20685 | 0.0489098 | 0.18397964 | 3.0616547 | 20 | 9 29.3 | 18.6 |
| 40988 1999 $TN_{311}$ | 14.7 | X | 246.37160 | 50.98274 | 40.73830 | 1.19422 | 0.1442102 | 0.18539479 | 3.0460547 | 20 | 9 2.4 | 19.1 |
| 40989 1999 $UO$ | 14.7 | X | 305.43165 | 176.06803 | 205.46730 | 10.65809 | 0.1078510 | 0.18329104 | 3.0693181 | 20 | 8 24.2 | 18.8 |
| 40990 1999 $UW$ | 14.9 | X | 174.79390 | 216.41986 | 173.64774 | 1.99435 | 0.0928161 | 0.21528607 | 2.7571396 | 20 | 4 5.7 | 19.0 |
| 40991 1999 $UA_{1}$ | 15.1 | X | 197.35854 | 298.92543 | 34.02350 | 7.52859 | 0.2493453 | 0.26047968 | 2.4282132 | 20 | 2 19.6 | 19.4 |
| 40992 1999 $UL_{1}$ | 14.2 | X | 273.70961 | 29.72426 | 32.34333 | 1.88041 | 0.2242091 | 0.18228786 | 3.0805686 | 20 | 8 17.7 | 18.5 |
| 40993 1999 $UF_{2}$ | 14.4 | X | 226.60604 | 246.37350 | 139.79287 | 2.79894 | 0.1087187 | 0.22090569 | 2.7101799 | 20 | 5 24.9 | 18.4 |
| 40994 Tekaridake | 13.8 | X | 274.48674 | 118.78677 | 221.94735 | 11.62570 | 0.2019710 | 0.22384450 | 2.6864067 | 20 | 5 8.3 | 17.6 |
| 40995 1999 $UC_{4}$ | 15.3 | X | 142.70329 | 286.81893 | 33.81640 | 8.35866 | 0.1538847 | 0.25208756 | 2.4818095 | 20 | — | — |
| 40996 1999 $UO_{5}$ | 14.3 | X | 321.58337 | 356.48433 | 337.40946 | 14.88295 | 0.1067356 | 0.22971843 | 2.6404148 | 20 | 7 29.3 | 17.5 |
| 40997 1999 $UE_{6}$ | 15.1 | X | 249.59097 | 89.21581 | 260.47854 | 1.88587 | 0.1169747 | 0.22214028 | 2.7001290 | 20 | 5 1.4 | 18.9 |
| 40998 1999 $US_{7}$ | 13.7 | X | 206.48553 | 311.75373 | 54.91671 | 7.43209 | 0.1314128 | 0.21554030 | 2.7549712 | 20 | 4 10.5 | 18.1 |
| 40999 1999 $UU_{8}$ | 13.7 | X | 238.66117 | 97.76612 | 241.85112 | 4.29612 | 0.1113677 | 0.21614877 | 2.7497985 | 20 | 4 6.5 | 17.9 |
| 41000 1999 $UB_{9}$ | 14.6 | X | 50.52245 | 82.11590 | 55.42731 | 5.21518 | 0.0122666 | 0.21035338 | 2.8000754 | 20 | 3 15.2 | 18.4 |
| 41001 1999 $UG_{9}$ | 14.1 | X | 172.33393 | 246.52212 | 224.67774 | 8.63388 | 0.0385655 | 0.17407068 | 3.1767690 | 20 | 7 11.6 | 18.8 |
| 41002 1999 $UW_{12}$ | 14.6 | X | 264.77937 | 146.14729 | 271.94893 | 3.07752 | 0.1542143 | 0.18248452 | 3.0783550 | 20 | 8 9.8 | 18.8 |
| 41003 1999 $UZ_{12}$ | 15.6 | X | 160.54434 | 7.66889 | 315.84406 | 2.23255 | 0.1778855 | 0.25553460 | 2.4594400 | 20 | 1 2.4 | 19.1 |
| 41004 1999 $UA_{13}$ | 14.9 | X | 189.43045 | 113.51443 | 264.26030 | 2.50685 | 0.0940241 | 0.21715155 | 2.7413265 | 20 | 4 3.9 | 19.0 |
| 41005 1999 $UJ_{13}$ | 15.0 | X | 254.69282 | 80.14501 | 218.33728 | 5.74406 | 0.2174716 | 0.26576135 | 2.3959339 | 20 | 2 18.2 | 19.0 |
| 41006 1999 $UM_{13}$ | 15.4 | X | 95.15884 | 9.50370 | 298.97122 | 1.69964 | 0.1349022 | 0.24466507 | 2.5317534 | 20 | — | — |
| 41007 1999 $UN_{14}$ | 15.3 | X | 36.39449 | 231.34862 | 99.08938 | 4.15152 | 0.1806397 | 0.23811458 | 2.5779751 | 20 | 12 4.5 | 18.7 |
| 41008 1999 $UR_{14}$ | 15.0 | X | 200.91422 | 121.30752 | 57.10591 | 10.52016 | 0.0153884 | 0.18957604 | 3.0010997 | 20 | 11 11.9 | 19.2 |
| 41009 1999 $UG_{15}$ | 13.9 | X | 109.98405 | 333.70163 | 207.30646 | 17.79090 | 0.1431951 | 0.17657226 | 3.1466931 | 20 | 8 3.1 | 19.1 |
| 41010 1999 $UN_{15}$ | 14.5 | X | 284.86551 | 40.14568 | 184.24490 | 1.82525 | 0.0149876 | 0.20680446 | 2.8320187 | 20 | 1 21.0 | 18.5 |
| 41011 1999 $UB_{16}$ | 14.9 | X | 132.57509 | 200.38631 | 157.26552 | 2.34809 | 0.0750089 | 0.20467861 | 2.8515944 | 20 | 1 10.2 | 19.0 |
| 41012 1999 $UD_{17}$ | 14.0 | X | 273.57202 | 259.99680 | 107.52116 | 6.68695 | 0.1574548 | 0.17641473 | 3.1485661 | 20 | 6 17.3 | 18.5 |
| 41013 1999 $UH_{22}$ | 16.0 | X | 33.64857 | 239.88748 | 63.34135 | 1.53490 | 0.1338505 | 0.23387799 | 2.6090144 | 20 | 10 18.1 | 19.0 |
| 41014 1999 $UP_{23}$ | 13.6 | X | 80.04120 | 50.59253 | 346.70378 | 10.26482 | 0.1832074 | 0.20430179 | 2.8550997 | 20 | 1 9.7 | 17.2 |
| 41015 1999 $UB_{24}$ | 13.3 | X | 86.20199 | 330.38439 | 229.41459 | 14.86069 | 0.1171156 | 0.17761698 | 3.1343420 | 20 | 7 28.1 | 18.2 |
| 41016 1999 $UR_{24}$ | 14.2 | X | 350.51119 | 71.38309 | 254.90897 | 8.51953 | 0.1192986 | 0.18289231 | 3.0737774 | 20 | 8 23.6 | 18.0 |
| 41017 1999 $UJ_{26}$ | 14.7 | X | 262.74397 | 47.27709 | 244.07726 | 4.89493 | 0.0582087 | 0.21443814 | 2.7644030 | 20 | 3 8.9 | 18.7 |
| 41018 1999 $UB_{27}$ | 14.5 | X | 223.91171 | 65.97171 | 324.60122 | 5.60336 | 0.0776998 | 0.17272023 | 3.1933063 | 20 | 5 28.7 | 19.4 |
| 41019 1999 $UV_{29}$ | 15.3 | X | 50.79863 | 357.09225 | 46.71171 | 2.46980 | 0.0518403 | 0.20116823 | 2.8846721 | 20 | — | — |
| 41020 1999 $UO_{30}$ | 16.3 | X | 197.53382 | 206.19927 | 58.64744 | 2.78727 | 0.1829362 | 0.25279097 | 2.4772035 | 20 | — | — |
| 41021 1999 $UL_{32}$ | 14.3 | X | 72.50944 | 339.91058 | 53.57814 | 2.82205 | 0.0320118 | 0.20095347 | 2.8867270 | 20 | — | — |
| 41022 1999 $UZ_{36}$ | 15.9 | X | 10.61340 | 117.21658 | 191.06882 | 0.55775 | 0.1309178 | 0.23442498 | 2.6049544 | 20 | 9 17.3 | 18.8 |
| 41023 1999 $UT_{38}$ | 14.1 | X | 182.53440 | 89.57636 | 339.42273 | 4.29137 | 0.1290074 | 0.17149794 | 3.2084610 | 20 | 5 31.7 | 19.2 |
| 41024 1999 $UW_{38}$ | 14.4 | X | 204.77629 | 93.81757 | 267.22966 | 3.71534 | 0.1294969 | 0.21658135 | 2.7461358 | 20 | 3 28.6 | 18.8 |
| 41025 1999 $UY_{38}$ | 14.2 | X | 215.19663 | 134.02234 | 255.80874 | 4.33593 | 0.0710356 | 0.22089932 | 2.7102320 | 20 | 5 18.8 | 18.2 |
| 41026 1999 $UC_{40}$ | 14.3 | X | 315.22276 | 73.51003 | 314.60333 | 10.13318 | 0.0792027 | 0.18799662 | 3.0178850 | 20 | 9 19.4 | 18.2 |
| 41027 1999 $UP_{44}$ | 15.2 | X | 188.21689 | 191.17083 | 181.06341 | 11.01273 | 0.1372207 | 0.21471654 | 2.7620130 | 20 | 3 29.2 | 19.6 |
| 41028 1999 $UL_{45}$ | 14.7 | X | 72.68404 | 257.92950 | 18.74804 | 14.97681 | 0.1275804 | 0.23517635 | 2.5994030 | 20 | 10 28.9 | 18.4 |
| 41029 1999 $UY_{45}$ | 14.5 | X | 191.60923 | 237.43932 | 271.68746 | 9.43562 | 0.0657089 | 0.18371276 | 3.0646191 | 20 | 9 15.3 | 19.3 |
| 41030 1999 $UQ_{46}$ | 13.6 | X | 106.33545 | 90.20794 | 167.29881 | 14.56857 | 0.0626984 | 0.23695077 | 2.5864096 | 20 | 11 11.7 | 17.5 |
| 41031 1999 $UA_{47}$ | 13.7 | X | 227.79681 | 184.00484 | 302.77588 | 8.95631 | 0.0573382 | 0.18780890 | 3.0198956 | 20 | 9 30.7 | 18.2 |
| 41032 1999 $UC_{48}$ | 14.2 | X | 132.28521 | 139.51388 | 306.33026 | 4.76075 | 0.0272447 | 0.16842039 | 3.2474285 | 20 | 4 22.3 | 18.9 |
| 41033 1999 $UW_{48}$ | 14.5 | X | 24.38008 | 39.17001 | 242.42095 | 13.18280 | 0.0873213 | 0.23043547 | 2.6349345 | 20 | 8 19.9 | 18.0 |
| 41034 1999 $UJ_{49}$ | 14.6 | X | 293.78007 | 172.84717 | 244.17357 | 7.63375 | 0.0620706 | 0.18550340 | 3.0448657 | 20 | 9 28.4 | 18.7 |
| 41035 1999 $UT_{50}$ | 14.4 | X | 357.55952 | 81.93717 | 162.43357 | 5.61258 | 0.0798230 | 0.21881157 | 2.7274441 | 20 | 5 20.9 | 17.7 |
| 41036 1999 $UH_{51}$ | 13.9 | X | 111.71401 | 17.47227 | 135.48280 | 7.42471 | 0.0712789 | 0.17124552 | 3.2116132 | 20 | 6 27.9 | 18.7 |
| 41037 1999 $US_{51}$ | 15.3 | X | 36.59307 | 87.86943 | 207.47164 | 5.47549 | 0.1331171 | 0.23305987 | 2.6151166 | 20 | 10 10.5 | 18.4 |
| 41038 1999 $UX_{52}$ | 13.9 | X | 269.71447 | 341.38884 | 158.36885 | 11.39703 | 0.0416391 | 0.19100857 | 2.9860757 | 20 | 12 16.2 | 18.2 |
| 41039 1999 $UX_{56}$ | 15.0 | X | 226.20119 | 50.53754 | 50.16828 | 10.17426 | 0.1337051 | 0.18060276 | 3.0997010 | 20 | 8 27.7 | 19.9 |
| 41040 1999 $VR$ | 14.0 | X | 312.41373 | 325.26149 | 43.90139 | 1.75169 | 0.2128765 | 0.18058105 | 3.0999494 | 20 | 8 9.9 | 17.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41041 1999 $VV_1$ | 14.0 | $X$ | 23.42146 | 111.95961 | 198.61913 | 13.63525 | 0.1075552 | 0.23247363 | 2.6195111 | 20 | 10 7.7 | 17.2 |
| 41042 1999 $VB_2$ | 12.7 | $X$ | 108.21109 | 77.94806 | 87.79061 | 25.39755 | 0.2773979 | 0.17347370 | 3.1840530 | 20 | 8 1.8 | 18.3 |
| 41043 1999 $VW_4$ | 14.6 | $X$ | 2.64364 | 306.82613 | 46.74798 | 4.17168 | 0.1690483 | 0.23532145 | 2.5983343 | 20 | 11 12.3 | 17.3 |
| 41044 1999 $VW_6$ | 13.3 | $X$ | 34.29497 | 217.31297 | 153.60281 | 14.92365 | 0.1953918 | 0.24134639 | 2.5549094 | 20 | — | — |
| 41045 1999 $VX_6$ | 14.6 | $X$ | 152.10138 | 239.01938 | 129.83270 | 16.27348 | 0.1509394 | 0.20885360 | 2.8134642 | 20 | 2 22.9 | 19.0 |
| 41046 1999 $VZ_6$ | 13.7 | $X$ | 200.08745 | 265.11532 | 156.31359 | 18.19058 | 0.1512142 | 0.17154310 | 3.2078979 | 20 | 6 10.6 | 19.2 |
| 41047 1999 $VP_7$ | 14.8 | $X$ | 58.29484 | 120.91286 | 218.62280 | 10.84807 | 0.2184765 | 0.24112854 | 2.5564480 | 20 | — | — |
| 41048 1999 $VQ_7$ | 14.7 | $X$ | 154.09977 | 198.83332 | 122.79454 | 2.56608 | 0.1303231 | 0.20243093 | 2.8726639 | 20 | — | — |
| 41049 Van Citters | 13.8 | $X$ | 196.79677 | 274.73544 | 74.62560 | 14.51577 | 0.2524784 | 0.21538948 | 2.7562571 | 20 | 3 16.7 | 18.9 |
| 41050 1999 $VF_9$ | 13.4 | $X$ | 285.05118 | 280.56636 | 50.18801 | 13.38364 | 0.1955046 | 0.22154531 | 2.7049610 | 20 | 5 9.1 | 17.1 |
| 41051 1999 $VR_{10}$ | 12.7 | $X$ | 12.01560 | 311.57823 | 81.33342 | 11.40205 | 0.1132228 | 0.18988441 | 2.9978496 | 20 | 12 27.5 | 16.5 |
| 41052 1999 $VJ_{16}$ | 14.5 | $X$ | 235.17848 | 123.86252 | 222.95151 | 11.76572 | 0.0776085 | 0.21786570 | 2.7353326 | 20 | 4 14.8 | 18.5 |
| 41053 1999 $VH_{18}$ | 14.4 | $X$ | 138.50909 | 120.35957 | 24.31521 | 12.01506 | 0.1226652 | 0.17473074 | 3.1687636 | 20 | 7 25.0 | 19.5 |
| 41054 1999 $VL_{18}$ | 14.4 | $X$ | 206.93324 | 111.44436 | 227.20681 | 7.36047 | 0.1615881 | 0.21373418 | 2.7704696 | 20 | 3 2.2 | 19.0 |
| 41055 1999 $VD_{20}$ | 14.6 | $X$ | 42.06216 | 295.50204 | 42.67110 | 2.63630 | 0.0748904 | 0.18912774 | 3.0058402 | 20 | 11 24.1 | 18.7 |
| 41056 1999 $VX_{20}$ | 14.4 | $X$ | 239.29791 | 83.40160 | 248.59323 | 7.71828 | 0.1566055 | 0.21695854 | 2.7429520 | 20 | 3 23.1 | 18.8 |
| 41057 1999 $VU_{22}$ | 14.5 | $X$ | 301.33383 | 244.75004 | 178.76960 | 10.46025 | 0.0966303 | 0.18683159 | 3.0304178 | 20 | 10 19.3 | 18.3 |
| 41058 1999 $VC_{24}$ | 13.9 | $X$ | 249.27523 | 135.85265 | 269.15818 | 4.49243 | 0.1378540 | 0.17600788 | 3.1534162 | 20 | 7 8.2 | 18.6 |
| 41059 1999 $VC_{26}$ | 14.3 | $X$ | 262.60824 | 69.53109 | 312.68894 | 0.83960 | 0.1963657 | 0.17479048 | 3.1680415 | 20 | 6 17.4 | 19.0 |
| 41060 1999 $VB_{28}$ | 14.7 | $X$ | 136.07738 | 5.75076 | 285.67778 | 0.78709 | 0.0901273 | 0.19514893 | 2.9436890 | 20 | — | — |
| 41061 1999 $VD_{28}$ | 14.5 | $X$ | 285.86323 | 89.85709 | 239.00657 | 4.06833 | 0.0528972 | 0.21969008 | 2.7201682 | 20 | 5 29.8 | 18.1 |
| 41062 1999 $VC_{29}$ | 14.5 | $X$ | 130.05519 | 128.37698 | 48.88932 | 1.66117 | 0.1209147 | 0.17658922 | 3.1464917 | 20 | 8 22.7 | 19.3 |
| 41063 1999 $VE_{29}$ | 14.9 | $X$ | 196.07320 | 329.89776 | 48.93556 | 2.88672 | 0.2236515 | 0.21533084 | 2.7567575 | 20 | 4 12.8 | 19.5 |
| 41064 1999 $VK_{29}$ | 14.2 | $X$ | 264.18314 | 316.42310 | 50.47463 | 2.56206 | 0.1891120 | 0.17423387 | 3.1747851 | 20 | 5 31.7 | 18.8 |
| 41065 1999 $VR_{29}$ | 14.6 | $X$ | 112.51786 | 303.06615 | 48.97396 | 2.69130 | 0.0918223 | 0.19949997 | 2.9007312 | 20 | — | — |
| 41066 1999 $VO_{31}$ | 15.0 | $X$ | 275.96249 | 101.48468 | 234.08992 | 12.15944 | 0.1908861 | 0.22154614 | 2.7049542 | 20 | 5 4.0 | 18.8 |
| 41067 1999 $VG_{32}$ | 14.0 | $X$ | 224.27448 | 204.02765 | 232.80209 | 10.03831 | 0.1195491 | 0.17520058 | 3.1630959 | 20 | 7 20.3 | 19.0 |
| 41068 1999 $VO_{32}$ | 14.7 | $X$ | 27.67694 | 56.46218 | 313.37345 | 1.02537 | 0.0688620 | 0.19013148 | 2.9952519 | 20 | 12 14.2 | 18.8 |
| 41069 1999 $VJ_{33}$ | 14.5 | $X$ | 207.36737 | 227.47226 | 38.06205 | 2.50205 | 0.0788184 | 0.19931590 | 2.9025169 | 20 | — | — |
| 41070 1999 $VS_{34}$ | 13.7 | $X$ | 260.58629 | 101.28901 | 250.81692 | 8.07412 | 0.1145716 | 0.17036087 | 3.2227218 | 20 | 5 18.7 | 18.5 |
| 41071 1999 $VY_{36}$ | 14.1 | $X$ | 257.87845 | 74.01497 | 245.33471 | 9.91994 | 0.2625308 | 0.21593744 | 2.7515923 | 20 | 3 15.2 | 18.8 |
| 41072 1999 $VX_{38}$ | 14.7 | $X$ | 117.13273 | 311.07453 | 55.59973 | 2.41931 | 0.0880282 | 0.20151695 | 2.8813432 | 20 | 1 5.7 | 18.6 |
| 41073 1999 $VG_{39}$ | 14.8 | $X$ | 154.70303 | 97.85450 | 242.84362 | 4.01977 | 0.1043596 | 0.20335396 | 2.8639645 | 20 | 1 17.0 | 19.1 |
| 41074 1999 $VL_{40}$ | 14.2 | $X$ | 321.56866 | 246.59190 | 265.39681 | 19.90902 | 0.3094897 | 0.28582458 | 2.2824591 | 20 | — | — |
| 41075 1999 $VG_{43}$ | 15.1 | $X$ | 54.91897 | 80.90904 | 326.87636 | 1.09426 | 0.0803580 | 0.20179551 | 2.8786910 | 20 | — | — |
| 41076 1999 $VH_{43}$ | 14.5 | $X$ | 223.00330 | 78.30552 | 354.92960 | 1.73959 | 0.2355049 | 0.17549253 | 3.1595868 | 20 | 7 8.1 | 19.8 |
| 41077 1999 $VT_{43}$ | 14.9 | $X$ | 317.57256 | 257.35801 | 200.98981 | 10.74512 | 0.0458118 | 0.19519269 | 2.9432490 | 20 | 12 27.8 | 18.9 |
| 41078 1999 $VB_{44}$ | 14.4 | $X$ | 330.20372 | 108.84451 | 226.97059 | 5.71083 | 0.0625681 | 0.18052626 | 3.1005766 | 20 | 8 6.4 | 18.6 |
| 41079 1999 $VP_{45}$ | 14.3 | $X$ | 211.63087 | 348.22994 | 341.56404 | 3.89974 | 0.0718780 | 0.21215325 | 2.7842160 | 20 | 2 29.9 | 18.5 |
| 41080 1999 $VX_{45}$ | 13.2 | $X$ | 42.57840 | 23.25487 | 227.37967 | 18.70300 | 0.0919450 | 0.17923116 | 3.1154949 | 20 | 7 30.8 | 17.7 |
| 41081 1999 $VW_{47}$ | 14.2 | $X$ | 17.53056 | 19.46898 | 273.77334 | 8.65417 | 0.0856562 | 0.18247532 | 3.0784584 | 20 | 8 21.5 | 18.2 |
| 41082 1999 $VQ_{48}$ | 13.8 | $X$ | 27.09009 | 28.82288 | 240.23437 | 11.97641 | 0.1163395 | 0.22704075 | 2.6611346 | 20 | 8 11.1 | 17.2 |
| 41083 1999 $VO_{50}$ | 13.1 | $X$ | 21.49460 | 78.86829 | 8.73824 | 1.95609 | 0.0374073 | 0.19875546 | 2.9079705 | 20 | — | — |
| 41084 1999 $VC_{52}$ | 14.1 | $X$ | 35.53143 | 207.70159 | 356.74929 | 3.42304 | 0.0665769 | 0.16851910 | 3.2461603 | 20 | 5 23.7 | 18.3 |
| 41085 1999 $VL_{55}$ | 15.0 | $X$ | 344.67302 | 80.01420 | 21.43197 | 2.00897 | 0.0041809 | 0.19792242 | 2.9161244 | 20 | — | — |
| 41086 1999 $VU_{55}$ | 14.6 | $X$ | 84.83064 | 191.78911 | 196.67945 | 1.65782 | 0.0571356 | 0.20183193 | 2.8783447 | 20 | — | — |
| 41087 1999 $VS_{56}$ | 14.5 | $X$ | 243.81743 | 270.98805 | 167.94928 | 1.41029 | 0.2081766 | 0.17918024 | 3.1160851 | 20 | 8 5.5 | 19.3 |
| 41088 1999 $VO_{57}$ | 15.2 | $X$ | 36.79836 | 284.19576 | 180.86833 | 1.68222 | 0.0269398 | 0.20509492 | 2.8477342 | 20 | 1 14.9 | 18.9 |
| 41089 1999 $VM_{58}$ | 14.4 | $X$ | 100.67971 | 283.15637 | 59.70151 | 3.10898 | 0.0843666 | 0.19699032 | 2.9253160 | 20 | — | — |
| 41090 1999 $VS_{59}$ | 14.5 | $X$ | 151.83523 | 233.14386 | 38.23329 | 2.29979 | 0.0607816 | 0.19543195 | 2.9408464 | 20 | — | — |
| 41091 1999 $VY_{59}$ | 15.1 | $X$ | 170.94192 | 347.46178 | 219.25703 | 9.01667 | 0.0741898 | 0.18857338 | 3.0117283 | 20 | 11 7.6 | 19.5 |
| 41092 1999 $VD_{60}$ | 14.4 | $X$ | 158.26313 | 68.60471 | 40.27818 | 5.87400 | 0.1090191 | 0.17144411 | 3.2091327 | 20 | 6 26.4 | 19.5 |
| 41093 1999 $VR_{60}$ | 14.9 | $X$ | 188.99730 | 247.52728 | 66.71821 | 2.95445 | 0.0633560 | 0.20628372 | 2.8367828 | 20 | 1 19.4 | 19.1 |
| 41094 1999 $VH_{61}$ | 14.9 | $X$ | 137.73657 | 98.50805 | 181.97943 | 1.71156 | 0.0794238 | 0.19484334 | 2.9467662 | 20 | 12 31.5 | 19.4 |
| 41095 1999 $VK_{61}$ | 14.1 | $X$ | 9.41119 | 328.56377 | 48.78652 | 10.48024 | 0.0959038 | 0.19022783 | 2.9942405 | 20 | 12 1.3 | 17.9 |
| 41096 1999 $VN_{61}$ | 15.1 | $X$ | 198.36372 | 304.72852 | 52.61932 | 2.24449 | 0.0882216 | 0.21317365 | 2.7753241 | 20 | 3 21.4 | 19.4 |
| 41097 1999 $VO_{61}$ | 14.5 | $X$ | 226.14793 | 230.31184 | 217.21802 | 9.44950 | 0.0730146 | 0.17887143 | 3.1196705 | 20 | 8 9.0 | 19.2 |
| 41098 1999 $VG_{63}$ | 15.1 | $X$ | 266.18559 | 21.72566 | 61.35478 | 1.21568 | 0.0763322 | 0.18395591 | 3.0619180 | 20 | 9 25.7 | 19.3 |
| 41099 1999 $VL_{64}$ | 15.4 | $X$ | 116.32133 | 327.59211 | 112.31291 | 1.50098 | 0.0407846 | 0.21148899 | 2.7900429 | 20 | 3 28.4 | 19.2 |
| 41100 1999 $VW_{64}$ | 14.3 | $X$ | 319.71099 | 38.17082 | 221.92775 | 7.17204 | 0.1863550 | 0.21628680 | 2.7486285 | 20 | 3 24.2 | 17.6 |
| 41101 1999 $VE_{65}$ | 15.0 | $X$ | 238.38856 | 205.56419 | 45.82166 | 5.76356 | 0.0594880 | 0.20294714 | 2.8677905 | 20 | — | — |
| 41102 1999 $VX_{66}$ | 14.7 | $X$ | 178.41811 | 258.04248 | 214.96090 | 3.45963 | 0.0552095 | 0.17464170 | 3.1698405 | 20 | 7 21.5 | 19.4 |
| 41103 1999 $VE_{67}$ | 13.9 | $X$ | 249.68888 | 134.61015 | 225.64302 | 8.80692 | 0.2183107 | 0.17263157 | 3.1943995 | 20 | 5 5.9 | 19.0 |
| 41104 1999 $VG_{67}$ | 14.3 | $X$ | 66.63604 | 292.71915 | 65.02942 | 2.98578 | 0.1098746 | 0.19482802 | 2.9469206 | 20 | — | — |
| 41105 1999 $VR_{67}$ | 14.0 | $X$ | 126.12581 | 225.47153 | 57.28321 | 12.62388 | 0.0414014 | 0.19191450 | 2.9766711 | 20 | 12 20.0 | 18.4 |
| 41106 1999 $VL_{69}$ | 13.6 | $X$ | 294.85905 | 309.84107 | 63.22341 | 2.26402 | 0.1727775 | 0.17940011 | 3.1135386 | 20 | 7 21.9 | 17.4 |
| 41107 Ropakov | 15.6 | $X$ | 155.27748 | 311.84338 | 22.83257 | 5.41040 | 0.2579131 | 0.25355899 | 2.4721987 | 20 | 1 19.4 | 19.7 |
| 41108 1999 $VT_{73}$ | 15.0 | $X$ | 252.17536 | 96.16402 | 192.21870 | 8.98059 | 0.1403587 | 0.21477941 | 2.7614740 | 20 | 2 14.4 | 19.4 |
| 41109 1999 $VC_{75}$ | 14.4 | $X$ | 153.58605 | 259.06429 | 194.54581 | 13.29316 | 0.1488673 | 0.17089097 | 3.2160538 | 20 | 6 5.5 | 19.7 |
| 41110 1999 $VB_{78}$ | 14.5 | $X$ | 75.42348 | 60.01827 | 236.01753 | 13.99879 | 0.1089210 | 0.23892385 | 2.5721506 | 20 | 11 26.9 | 18.3 |
| 41111 1999 $VF_{80}$ | 14.7 | $X$ | 342.76174 | 95.72829 | 211.87371 | 11.78086 | 0.1960413 | 0.22779605 | 2.6552490 | 20 | 7 18.3 | 17.4 |
| 41112 1999 $VP_{82}$ | 13.8 | $X$ | 291.61188 | 294.60192 | 115.53617 | 10.03982 | 0.0840881 | 0.18239430 | 3.0793700 | 20 | 9 20.9 | 18.0 |
| 41113 1999 $VQ_{83}$ | 15.3 | $X$ | 274.10845 | 214.15815 | 251.04560 | 2.79991 | 0.0433775 | 0.18954429 | 3.0014348 | 20 | 11 7.4 | 19.2 |
| 41114 1999 $VC_{84}$ | 14.4 | $X$ | 242.17100 | 292.42149 | 45.30198 | 31.26142 | 0.2452411 | 0.21829829 | 2.7317177 | 20 | 4 11.9 | 19.3 |
| 41115 1999 $VQ_{85}$ | 13.9 | $X$ | 39.41244 | 191.14866 | 144.94037 | 16.20647 | 0.1395028 | 0.23820788 | 2.5773020 | 20 | 12 11.7 | 17.7 |
| 41116 1999 $VT_{85}$ | 14.5 | $X$ | 250.74829 | 22.14375 | 261.77000 | 3.02622 | 0.0697153 | 0.21062171 | 2.7976967 | 20 | 2 15.2 | 18.6 |
| 41117 1999 $VM_{87}$ | 14.4 | $X$ | 196.86505 | 134.83142 | 253.01634 | 4.75189 | 0.0591145 | 0.21659800 | 2.7459951 | 20 | 4 25.0 | 18.4 |
| 41118 1999 $VT_{87}$ | 13.7 | $X$ | 5.53347 | 226.85291 | 120.82172 | 11.03202 | 0.1160472 | 0.18506631 | 3.0496581 | 20 | 10 26.1 | 17.7 |
| 41119 1999 $VV_{87}$ | 14.2 | $X$ | 269.78742 | 132.18054 | 169.31485 | 13.44246 | 0.1358202 | 0.21523644 | 2.7575635 | 20 | 3 23.7 | 18.1 |
| 41120 1999 $VX_{87}$ | 14.5 | $X$ | 264.90589 | 294.29569 | 154.81344 | 12.04297 | 0.0943318 | 0.18378245 | 3.0638443 | 20 | 10 1.1 | 18.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41121 1999 $VP_{89}$ | 14.5 | $X$ | 251.10219 | 195.84492 | 172.47298 | 1.68159 | 0.1931535 | 0.17425581 | 3.1745185 | 20 | 5 19.9 | 19.5 |
| 41122 1999 $VD_{90}$ | 13.5 | $X$ | 173.25696 | 36.64372 | 31.71845 | 6.67322 | 0.1159543 | 0.17091254 | 3.2157833 | 20 | 5 21.7 | 18.5 |
| 41123 1999 $VX_{90}$ | 14.8 | $X$ | 276.39530 | 272.57241 | 40.32238 | 11.59289 | 0.1236955 | 0.21953523 | 2.7214471 | 20 | 4 16.9 | 18.6 |
| 41124 1999 $VG_{91}$ | 14.8 | $X$ | 19.23940 | 229.87246 | 38.51472 | 5.15377 | 0.0685805 | 0.22653460 | 2.6650970 | 20 | 7 30.2 | 18.0 |
| 41125 1999 $VD_{92}$ | 14.4 | $X$ | 26.51254 | 332.24923 | 24.57331 | 11.03681 | 0.1034989 | 0.19267562 | 2.9688268 | 20 | 11 29.9 | 18.4 |
| 41126 1999 $VQ_{92}$ | 14.8 | $X$ | 150.82786 | 136.07988 | 323.49505 | 0.24626 | 0.1562742 | 0.17110918 | 3.2133190 | 20 | 6 9.8 | 20.1 |
| 41127 1999 $VZ_{92}$ | 15.3 | $X$ | 324.84317 | 158.38885 | 187.54523 | 2.72407 | 0.1228608 | 0.23065878 | 2.6332336 | 20 | 8 15.5 | 18.1 |
| 41128 1999 $VA_{93}$ | 14.6 | $X$ | 178.68569 | 278.06827 | 171.27552 | 1.90272 | 0.0972185 | 0.17416442 | 3.1756290 | 20 | 6 22.8 | 19.4 |
| 41129 1999 $VD_{94}$ | 15.1 | $X$ | 161.30309 | 261.78769 | 51.08412 | 2.74752 | 0.0764152 | 0.20406813 | 2.8572786 | 20 | — | — |
| 41130 1999 $VC_{96}$ | 15.3 | $X$ | 38.92704 | 306.90833 | 40.36754 | 5.99256 | 0.1869006 | 0.24024059 | 2.5627434 | 20 | 12 30.0 | 18.8 |
| 41131 1999 $VA_{98}$ | 15.3 | $X$ | 322.63767 | 145.59899 | 198.87723 | 2.43735 | 0.1214535 | 0.22824405 | 2.6517734 | 20 | 8 8.9 | 18.3 |
| 41132 1999 $VC_{98}$ | 15.3 | $X$ | 345.80034 | 272.36290 | 52.88792 | 5.06963 | 0.1190172 | 0.22903908 | 2.6456333 | 20 | 8 28.4 | 18.2 |
| 41133 1999 $VF_{98}$ | 16.0 | $X$ | 165.65327 | 99.59918 | 220.62561 | 1.19577 | 0.2137659 | 0.25369761 | 2.4712981 | 20 | 1 6.1 | 19.9 |
| 41134 1999 $VP_{100}$ | 15.0 | $X$ | 79.44162 | 229.17991 | 37.57406 | 1.15791 | 0.0935367 | 0.18430951 | 3.0580005 | 20 | 10 14.7 | 19.4 |
| 41135 1999 $VP_{103}$ | 15.2 | $X$ | 85.09217 | 238.71244 | 73.30112 | 2.82149 | 0.0643197 | 0.19092650 | 2.9869314 | 20 | 12 12.2 | 19.5 |
| 41136 1999 $VL_{104}$ | 14.7 | $X$ | 80.70458 | 26.69824 | 220.46343 | 6.85932 | 0.1272751 | 0.18188853 | 3.0850758 | 20 | 9 23.9 | 19.3 |
| 41137 1999 $VE_{114}$ | 14.2 | $X$ | 21.64081 | 78.96053 | 275.24685 | 7.57378 | 0.0949634 | 0.19030675 | 2.9934126 | 20 | 11 19.5 | 18.1 |
| 41138 1999 $VZ_{114}$ | 13.9 | $X$ | 86.61059 | 38.61930 | 260.82386 | 9.59475 | 0.0830375 | 0.19212034 | 2.9745446 | 20 | 11 30.9 | 18.2 |
| 41139 1999 $VU_{119}$ | 15.8 | $X$ | 287.14299 | 0.92629 | 334.55623 | 1.78535 | 0.2288807 | 0.27260809 | 2.3556470 | 20 | 5 10.8 | 18.9 |
| 41140 1999 $VV_{122}$ | 14.5 | $X$ | 104.78893 | 326.92722 | 175.52935 | 6.07143 | 0.0992834 | 0.17183255 | 3.2042945 | 20 | 6 10.7 | 19.2 |
| 41141 1999 $VB_{125}$ | 15.8 | $X$ | 257.36316 | 264.37237 | 91.16730 | 4.56945 | 0.2739210 | 0.27380031 | 2.3488039 | 20 | 4 30.8 | 19.6 |
| 41142 1999 $VF_{125}$ | 15.3 | $X$ | 202.44723 | 126.32882 | 351.17549 | 0.69958 | 0.0104617 | 0.18042819 | 3.1016999 | 20 | 8 28.6 | 19.8 |
| 41143 1999 $VR_{129}$ | 14.7 | $X$ | 76.25865 | 106.48200 | 226.17562 | 11.16937 | 0.0626561 | 0.19427395 | 2.9525210 | 20 | 12 26.5 | 19.2 |
| 41144 1999 $VA_{131}$ | 14.2 | $X$ | 116.73744 | 325.36481 | 230.08926 | 9.26607 | 0.0486458 | 0.17914966 | 3.1164397 | 20 | 8 20.4 | 18.9 |
| 41145 1999 $VW_{135}$ | 15.2 | $X$ | 115.12413 | 47.12454 | 262.86772 | 0.91189 | 0.0738215 | 0.19625782 | 2.9325903 | 20 | — | — |
| 41146 1999 $VS_{136}$ | 15.1 | $X$ | 124.99690 | 17.26744 | 232.60378 | 2.97925 | 0.2191706 | 0.23845995 | 2.5754854 | 20 | 11 23.6 | 19.5 |
| 41147 1999 $VK_{137}$ | 14.6 | $X$ | 62.23319 | 232.47307 | 33.62943 | 1.54653 | 0.1314091 | 0.18167267 | 3.0875191 | 20 | 9 28.6 | 18.7 |
| 41148 1999 $VU_{143}$ | 14.5 | $X$ | 313.91974 | 14.78731 | 245.91551 | 4.07960 | 0.0415558 | 0.21500618 | 2.7595319 | 20 | 4 7.5 | 18.2 |
| 41149 1999 $VQ_{144}$ | 14.1 | $X$ | 128.45156 | 225.62049 | 315.68768 | 4.26157 | 0.1080297 | 0.17812786 | 3.1283463 | 20 | 8 24.0 | 18.9 |
| 41150 1999 $VE_{146}$ | 15.7 | $X$ | 76.32559 | 28.94395 | 93.27306 | 1.80747 | 0.0162749 | 0.21321503 | 2.7749650 | 20 | 3 27.8 | 19.4 |
| 41151 1999 $VH_{148}$ | 14.8 | $X$ | 4.36513 | 67.92695 | 219.75584 | 11.91614 | 0.1724026 | 0.22659620 | 2.6646140 | 20 | 8 3.5 | 17.7 |
| 41152 1999 $VW_{148}$ | 14.3 | $X$ | 103.33284 | 52.88383 | 136.50448 | 2.10229 | 0.1002294 | 0.17430200 | 3.1739577 | 20 | 8 6.6 | 19.0 |
| 41153 1999 $VB_{150}$ | 14.5 | $X$ | 110.17469 | 259.15625 | 299.33427 | 1.43186 | 0.0894134 | 0.17907299 | 3.1173292 | 20 | 8 24.5 | 19.1 |
| 41154 1999 $VO_{151}$ | 14.0 | $X$ | 63.37174 | 335.78640 | 260.88083 | 3.30070 | 0.1172593 | 0.17625615 | 3.1504544 | 20 | 8 19.3 | 18.3 |
| 41155 1999 $VG_{157}$ | 15.1 | $X$ | 47.71701 | 133.54161 | 228.48797 | 4.56909 | 0.2037714 | 0.24459056 | 2.5322675 | 20 | — | — |
| 41156 1999 $VV_{157}$ | 14.7 | $X$ | 25.76378 | 123.89101 | 220.19441 | 7.86238 | 0.1773047 | 0.23870995 | 2.5736868 | 20 | 12 7.8 | 17.9 |
| 41157 1999 $VX_{159}$ | 14.4 | $X$ | 254.97653 | 71.81679 | 222.71636 | 12.48370 | 0.1876950 | 0.21576890 | 2.7530250 | 20 | 2 17.9 | 19.1 |
| 41158 1999 $VG_{160}$ | 14.9 | $X$ | 145.69024 | 179.03741 | 222.02020 | 5.32834 | 0.1222705 | 0.21223218 | 2.7835256 | 20 | 3 20.2 | 19.2 |
| 41159 1999 $VE_{161}$ | 15.3 | $X$ | 136.82179 | 15.60912 | 333.83440 | 0.92537 | 0.0794770 | 0.20255246 | 2.8715147 | 20 | 1 6.4 | 19.3 |
| 41160 1999 $VP_{163}$ | 15.0 | $X$ | 176.55157 | 275.40356 | 31.10880 | 2.33579 | 0.0497806 | 0.20304495 | 2.8668695 | 20 | — | — |
| 41161 1999 $VM_{165}$ | 14.7 | $X$ | 87.07342 | 249.09421 | 38.16454 | 10.33914 | 0.0861637 | 0.18788834 | 3.0190444 | 20 | 11 15.4 | 19.2 |
| 41162 1999 $VM_{168}$ | 14.2 | $X$ | 73.40416 | 352.17763 | 270.78569 | 7.36237 | 0.0908643 | 0.18103252 | 3.0947933 | 20 | 9 28.2 | 18.7 |
| 41163 1999 $VX_{168}$ | 14.7 | $X$ | 86.84867 | 269.21130 | 53.09798 | 11.86221 | 0.2706256 | 0.24213842 | 2.5493350 | 20 | — | — |
| 41164 1999 $VO_{169}$ | 15.3 | $X$ | 328.01001 | 31.94709 | 350.03699 | 1.86219 | 0.1250662 | 0.18311590 | 3.0712748 | 20 | 10 2.9 | 18.9 |
| 41165 1999 $VW_{170}$ | 13.5 | $X$ | 39.23815 | 60.93628 | 270.64644 | 8.88586 | 0.0933497 | 0.18591713 | 3.0403467 | 20 | 11 13.2 | 17.7 |
| 41166 1999 $VJ_{172}$ | 13.9 | $X$ | 356.11835 | 44.39612 | 301.08615 | 4.21125 | 0.1829108 | 0.18208118 | 3.0828994 | 20 | 10 4.7 | 17.3 |
| 41167 1999 $VV_{172}$ | 13.4 | $X$ | 55.46698 | 256.27288 | 70.55560 | 11.26392 | 0.1280650 | 0.18596367 | 3.0398395 | 20 | 12 3.4 | 17.7 |
| 41168 1999 $VB_{174}$ | 13.5 | $X$ | 29.45397 | 52.43615 | 344.58462 | 8.02269 | 0.2060897 | 0.19574257 | 2.9377344 | 20 | — | — |
| 41169 1999 $VL_{174}$ | 14.6 | $X$ | 80.38823 | 54.09501 | 316.70424 | 3.43990 | 0.1434570 | 0.19790306 | 2.9163146 | 20 | — | — |
| 41170 1999 $VW_{175}$ | 14.0 | $X$ | 330.58392 | 327.99007 | 49.18179 | 12.67049 | 0.1594257 | 0.18638024 | 3.0353082 | 20 | 10 6.8 | 17.5 |
| 41171 1999 $VJ_{176}$ | 14.5 | $X$ | 326.93863 | 89.96226 | 207.33176 | 12.29412 | 0.1854283 | 0.22217358 | 2.6998591 | 20 | 6 1.2 | 17.4 |
| 41172 1999 $VT_{176}$ | 15.3 | $X$ | 314.88168 | 203.58162 | 268.42367 | 0.93285 | 0.0610941 | 0.19502890 | 2.9448967 | 20 | — | — |
| 41173 1999 $VP_{180}$ | 14.3 | $X$ | 209.56053 | 228.53000 | 208.35336 | 0.93535 | 0.1116282 | 0.17706761 | 3.1408218 | 20 | 7 8.3 | 19.2 |
| 41174 1999 $VH_{184}$ | 13.6 | $X$ | 337.94347 | 220.84712 | 48.51966 | 15.52873 | 0.1662449 | 0.17407809 | 3.1766788 | 20 | 5 14.6 | 17.2 |
| 41175 1999 $VN_{185}$ | 14.4 | $X$ | 344.35612 | 216.49450 | 64.54762 | 10.38194 | 0.0161341 | 0.17198540 | 3.2023957 | 20 | 6 18.9 | 18.9 |
| 41176 1999 $VP_{186}$ | 14.8 | $X$ | 306.57074 | 275.68547 | 55.71525 | 13.52436 | 0.2095519 | 0.22621630 | 2.6675963 | 20 | 6 7.2 | 17.9 |
| 41177 1999 $VB_{187}$ | 14.1 | $X$ | 85.88712 | 346.69083 | 203.14089 | 8.95125 | 0.0274880 | 0.17379304 | 3.1801514 | 20 | 7 5.9 | 18.7 |
| 41178 1999 $VY_{187}$ | 14.8 | $X$ | 106.91856 | 50.25092 | 218.54661 | 7.49372 | 0.0679950 | 0.18743265 | 3.0239357 | 20 | 11 14.5 | 19.3 |
| 41179 1999 $VW_{192}$ | 14.6 | $X$ | 107.46064 | 93.66244 | 319.94159 | 5.14745 | 0.0377275 | 0.20901708 | 2.8119971 | 20 | 2 12.1 | 18.2 |
| 41180 1999 $VQ_{193}$ | 15.5 | $X$ | 88.97245 | 39.74182 | 262.20926 | 3.87413 | 0.2374983 | 0.24306297 | 2.5428662 | 20 | 12 27.7 | 19.6 |
| 41181 1999 $VR_{194}$ | 15.3 | $X$ | 305.04123 | 144.79017 | 191.74475 | 13.21125 | 0.2742861 | 0.22586381 | 2.6703711 | 20 | 6 3.2 | 18.6 |
| 41182 1999 $VL_{195}$ | 14.1 | $X$ | 98.28629 | 353.59981 | 168.67530 | 5.95358 | 0.0882006 | 0.17219110 | 3.1998448 | 20 | 6 25.9 | 18.8 |
| 41183 1999 $VP_{195}$ | 14.7 | $X$ | 33.97818 | 298.69760 | 79.21732 | 2.98291 | 0.0800141 | 0.19430710 | 2.9521852 | 20 | — | — |
| 41184 1999 $VW_{199}$ | 14.5 | $X$ | 199.35040 | 154.30943 | 179.73352 | 17.44097 | 0.1550663 | 0.21046973 | 2.7990433 | 20 | 2 20.2 | 19.3 |
| 41185 1999 $VJ_{200}$ | 13.1 | $X$ | 168.66029 | 350.71402 | 163.52461 | 17.84961 | 0.1462292 | 0.17880182 | 3.1204802 | 20 | 8 30.9 | 18.1 |
| 41186 1999 $VT_{200}$ | 15.2 | $X$ | 96.21279 | 192.10487 | 142.42860 | 15.85504 | 0.1301156 | 0.24534083 | 2.5271023 | 20 | — | — |
| 41187 1999 $VB_{201}$ | 15.1 | $X$ | 252.73696 | 209.27233 | 112.37483 | 14.46795 | 0.2178559 | 0.26663580 | 2.3906926 | 20 | 3 24.7 | 19.1 |
| 41188 1999 $VC_{201}$ | 13.7 | $X$ | 251.10736 | 214.57208 | 156.89466 | 19.72126 | 0.1523831 | 0.17261035 | 3.1946613 | 20 | 5 31.6 | 18.9 |
| 41189 1999 $VE_{201}$ | 13.7 | $X$ | 258.42008 | 265.42688 | 141.39745 | 22.71247 | 0.0422213 | 0.17689479 | 3.1428672 | 20 | 8 3.7 | 18.2 |
| 41190 1999 $VJ_{203}$ | 14.8 | $X$ | 77.31125 | 245.47414 | 87.14311 | 14.69147 | 0.1360217 | 0.24442509 | 2.5334103 | 20 | — | — |
| 41191 1999 $VL_{203}$ | 13.9 | $X$ | 217.57906 | 244.19457 | 144.30364 | 22.98830 | 0.1160350 | 0.17032857 | 3.2231293 | 20 | 5 23.9 | 19.3 |
| 41192 1999 $VB_{206}$ | 15.0 | $X$ | 212.19270 | 29.55763 | 51.61853 | 6.91122 | 0.1124972 | 0.17502573 | 3.1652022 | 20 | 7 17.5 | 20.0 |
| 41193 1999 $VV_{206}$ | 14.3 | $X$ | 97.10772 | 321.16903 | 325.72468 | 15.85170 | 0.1865424 | 0.24238136 | 2.5476313 | 20 | 12 13.9 | 18.7 |
| 41194 1999 $VH_{213}$ | 14.4 | $X$ | 256.52520 | 298.95866 | 123.95099 | 7.07047 | 0.1120829 | 0.17832541 | 3.1260354 | 20 | 8 13.0 | 18.8 |
| 41195 1999 $VL_{221}$ | 14.7 | $X$ | 120.53361 | 5.87394 | 241.94577 | 6.64834 | 0.0629746 | 0.18760387 | 3.0220955 | 20 | 11 2.5 | 19.2 |
| 41196 1999 $VV_{224}$ | 14.5 | $X$ | 49.00364 | 137.14933 | 191.19300 | 12.28884 | 0.0283222 | 0.18880326 | 3.0092832 | 20 | 11 16.1 | 18.8 |
| 41197 1999 $VU_{228}$ | 14.7 | $X$ | 163.44679 | 21.13575 | 166.87103 | 3.01741 | 0.0817447 | 0.18591444 | 3.0403761 | 20 | 10 8.2 | 19.2 |
| 41198 1999 $WB$ | 14.0 | $X$ | 311.07094 | 134.31471 | 232.56305 | 13.77259 | 0.1371487 | 0.22793891 | 2.6541395 | 20 | 8 13.1 | 17.3 |
| 41199 Wakanaootaki | 14.2 | $X$ | 332.95068 | 219.10937 | 162.55785 | 16.35606 | 0.2838580 | 0.23281219 | 2.6169709 | 20 | 11 5.6 | 16.3 |
| 41200 1999 $WA_3$ | 14.0 | $X$ | 22.63210 | 336.26555 | 69.84772 | 14.55880 | 0.1017910 | 0.19314689 | 2.9639957 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41201 1999 $WF_{4}$ | 14.3 | X | 332.17042 | 152.59321 | 222.68050 | 9.02492 | 0.0461662 | 0.18094020 | 3.0958459 | 20 | 9 30.2 | 18.4 |
| 41202 1999 $WX_{6}$ | 14.2 | X | 346.70983 | 147.84216 | 235.69020 | 9.26519 | 0.0923789 | 0.18561819 | 3.0436101 | 20 | 11 4.5 | 18.0 |
| 41203 1999 $WK_{7}$ | 13.3 | X | 75.12420 | 351.21626 | 251.00127 | 9.35076 | 0.1722314 | 0.17740378 | 3.1368528 | 20 | 9 14.1 | 18.1 |
| 41204 1999 $WX_{8}$ | 12.8 | X | 144.07364 | 65.17360 | 83.06119 | 17.13386 | 0.0828433 | 0.17295280 | 3.1904429 | 20 | 7 31.6 | 17.8 |
| 41205 1999 $WZ_{8}$ | 14.6 | X | 19.23289 | 209.07046 | 108.63363 | 6.89016 | 0.2488975 | 0.23230674 | 2.6207656 | 20 | 11 5.7 | 17.6 |
| 41206 Sciannameo | 14.7 | X | 330.14307 | 264.35247 | 104.46913 | 14.17014 | 0.1854334 | 0.23147544 | 2.6270365 | 20 | 10 8.2 | 17.5 |
| 41207 1999 $WK_{9}$ | 15.0 | X | 85.71247 | 197.24214 | 118.71783 | 8.23474 | 0.2510384 | 0.24121456 | 2.5558402 | 20 | — | — |
| 41208 1999 $WL_{9}$ | 15.3 | X | 51.31429 | 230.44949 | 93.12627 | 5.50327 | 0.2249905 | 0.23794498 | 2.5792000 | 20 | 12 18.3 | 18.9 |
| 41209 1999 $WB_{15}$ | 14.4 | X | 215.28054 | 351.69892 | 31.41492 | 6.90191 | 0.0398867 | 0.22022867 | 2.7157314 | 20 | 5 11.6 | 18.1 |
| 41210 1999 $WN_{18}$ | 14.7 | X | 243.15137 | 249.51595 | 130.96134 | 10.76239 | 0.2605483 | 0.27353669 | 2.3503128 | 20 | 5 22.8 | 18.6 |
| 41211 1999 $XB_{1}$ | 12.6 | X | 254.29232 | 188.21502 | 108.37191 | 9.05761 | 0.0740173 | 0.15806569 | 3.3877470 | 20 | 3 15.2 | 17.7 |
| 41212 1999 $XO_{1}$ | 15.1 | X | 357.71516 | 310.57575 | 48.48133 | 11.45886 | 0.1723869 | 0.23793435 | 2.5792768 | 20 | 11 12.4 | 17.7 |
| 41213 Mimoun | 14.1 | X | 315.69762 | 116.85689 | 251.66782 | 8.41257 | 0.2138528 | 0.22881237 | 2.6473806 | 20 | 8 17.9 | 16.9 |
| 41214 1999 $XZ_{3}$ | 14.4 | X | 235.11355 | 114.01319 | 206.74303 | 8.44990 | 0.1671690 | 0.21305626 | 2.7763434 | 20 | 3 6.3 | 19.0 |
| 41215 1999 $XH_{4}$ | 14.7 | X | 234.88438 | 347.58484 | 134.63359 | 2.33818 | 0.0350180 | 0.18414407 | 3.0598318 | 20 | 10 11.8 | 18.9 |
| 41216 1999 $XG_{5}$ | 14.6 | X | 21.41577 | 255.01453 | 96.38071 | 3.72083 | 0.1456441 | 0.18768420 | 3.0212332 | 20 | 11 23.6 | 18.4 |
| 41217 1999 $XT_{6}$ | 14.3 | X | 285.85636 | 302.07425 | 51.14437 | 8.93351 | 0.1516783 | 0.22306297 | 2.6926778 | 20 | 6 15.8 | 17.8 |
| 41218 1999 $XK_{10}$ | 13.5 | X | 132.72308 | 154.59188 | 5.31394 | 10.96258 | 0.1281689 | 0.17526110 | 3.1623677 | 20 | 8 7.7 | 18.6 |
| 41219 1999 $XR_{11}$ | 15.0 | X | 222.25285 | 300.42868 | 28.13136 | 17.12425 | 0.2899318 | 0.21521936 | 2.7577094 | 20 | 3 9.7 | 20.2 |
| 41220 1999 $XV_{12}$ | 14.6 | X | 240.79398 | 133.66432 | 184.26553 | 8.74514 | 0.1517057 | 0.21122269 | 2.7923874 | 20 | 3 10.8 | 19.1 |
| 41221 1999 $XQ_{13}$ | 14.1 | X | 215.84917 | 118.80916 | 214.15795 | 12.27621 | 0.2565543 | 0.21282141 | 2.7783855 | 20 | 2 29.1 | 19.3 |
| 41222 1999 $XH_{15}$ | 14.8 | X | 357.99031 | 115.32309 | 214.47196 | 1.03695 | 0.2889434 | 0.18302366 | 3.0723066 | 20 | 9 29.8 | 17.3 |
| 41223 1999 $XD_{16}$ | 13.6 | X | 343.04309 | 329.54285 | 30.25620 | 11.76656 | 0.3720614 | 0.22881897 | 2.6473297 | 20 | 11 3.1 | 14.8 |
| 41224 1999 $XX_{17}$ | 14.1 | X | 55.95086 | 144.15332 | 275.28773 | 1.96962 | 0.1473169 | 0.20393878 | 2.8584867 | 20 | — | — |
| 41225 1999 $XY_{17}$ | 15.1 | X | 210.25257 | 140.91156 | 217.33135 | 4.41236 | 0.1777352 | 0.21827726 | 2.7318932 | 20 | 3 29.8 | 19.7 |
| 41226 1999 $XZ_{17}$ | 14.5 | X | 247.50772 | 162.66220 | 204.10809 | 13.29171 | 0.1589834 | 0.22383256 | 2.6865023 | 20 | 5 18.1 | 18.6 |
| 41227 1999 $XN_{18}$ | 14.1 | X | 56.46480 | 301.14595 | 81.26257 | 3.34829 | 0.0878137 | 0.19930121 | 2.9026595 | 20 | — | — |
| 41228 1999 $XT_{18}$ | 15.3 | X | 49.28169 | 157.86916 | 176.20172 | 3.54510 | 0.2625447 | 0.24185402 | 2.5513332 | 20 | — | — |
| 41229 1999 $XB_{19}$ | 14.6 | X | 261.63417 | 334.11441 | 26.72951 | 12.46924 | 0.2004940 | 0.22526821 | 2.6750759 | 20 | 5 16.9 | 18.7 |
| 41230 1999 $XE_{20}$ | 14.6 | X | 72.24165 | 280.90985 | 101.77353 | 3.01336 | 0.0880179 | 0.19968314 | 2.8989571 | 20 | — | — |
| 41231 1999 $XS_{20}$ | 14.0 | X | 243.71614 | 303.69440 | 58.89057 | 11.85374 | 0.0842588 | 0.21979872 | 2.7192718 | 20 | 5 16.0 | 17.8 |
| 41232 1999 $XK_{21}$ | 14.9 | X | 359.85820 | 114.96948 | 202.64528 | 11.69470 | 0.1601701 | 0.22995246 | 2.6386230 | 20 | 9 10.3 | 17.7 |
| 41233 1999 $XX_{22}$ | 13.5 | X | 99.27219 | 174.08432 | 46.59843 | 14.18611 | 0.1089603 | 0.22895184 | 2.6463054 | 20 | 9 24.5 | 17.6 |
| 41234 1999 $XP_{23}$ | 14.3 | X | 207.85656 | 343.54466 | 108.37938 | 1.83983 | 0.1209634 | 0.17580229 | 3.1558743 | 20 | 7 24.7 | 19.2 |
| 41235 1999 $XB_{24}$ | 13.7 | X | 223.39062 | 206.24414 | 230.87220 | 14.40721 | 0.0712565 | 0.17690438 | 3.1427535 | 20 | 7 22.8 | 18.6 |
| 41236 1999 $XH_{24}$ | 14.8 | X | 299.04729 | 69.97634 | 242.27568 | 5.47094 | 0.2430569 | 0.22296319 | 2.6934811 | 20 | 4 24.3 | 18.2 |
| 41237 1999 $XM_{25}$ | 14.5 | X | 303.66449 | 195.91733 | 162.39675 | 1.44556 | 0.1699181 | 0.17829942 | 3.1263392 | 20 | 7 15.6 | 18.3 |
| 41238 1999 $XU_{25}$ | 14.8 | X | 356.79377 | 221.51495 | 103.33545 | 3.81064 | 0.2129702 | 0.23054135 | 2.6341277 | 20 | 9 26.5 | 17.1 |
| 41239 1999 $XD_{26}$ | 13.7 | X | 16.98290 | 296.67216 | 53.06250 | 10.97812 | 0.0693096 | 0.18781273 | 3.0198546 | 20 | 11 5.7 | 17.7 |
| 41240 1999 $XO_{26}$ | 14.2 | X | 7.48198 | 121.49468 | 233.69224 | 6.40091 | 0.0857003 | 0.18710961 | 3.0274152 | 20 | 10 30.2 | 18.0 |
| 41241 1999 $XV_{26}$ | 15.2 | X | 47.61475 | 135.73709 | 179.77344 | 2.20833 | 0.2223633 | 0.23715036 | 2.5849582 | 20 | 12 4.2 | 18.9 |
| 41242 1999 $XY_{26}$ | 14.3 | X | 345.10001 | 348.82055 | 123.85749 | 2.91691 | 0.0144667 | 0.19824660 | 2.9129446 | 20 | — | — |
| 41243 1999 $XG_{29}$ | 14.5 | X | 28.00555 | 153.23928 | 223.04879 | 10.32057 | 0.1053314 | 0.19060485 | 2.9902908 | 20 | 12 26.8 | 18.7 |
| 41244 1999 $XY_{30}$ | 13.8 | X | 23.41652 | 52.09657 | 228.42238 | 11.84824 | 0.2588503 | 0.22682232 | 2.6628428 | 20 | 9 13.9 | 16.9 |
| 41245 1999 $XJ_{37}$ | 13.7 | X | 293.14669 | 275.29741 | 82.80811 | 16.47670 | 0.1955236 | 0.22557384 | 2.6726590 | 20 | 6 26.7 | 17.0 |
| 41246 1999 $XZ_{38}$ | 14.8 | X | 214.88326 | 205.16129 | 124.23353 | 9.44977 | 0.2064398 | 0.21154202 | 2.7895766 | 20 | 3 2.5 | 19.6 |
| 41247 1999 $XQ_{39}$ | 14.1 | X | 271.27775 | 91.91922 | 230.75364 | 13.75870 | 0.1840304 | 0.21796184 | 2.7345282 | 20 | 4 11.3 | 18.2 |
| 41248 1999 $XG_{40}$ | 14.3 | X | 76.66965 | 9.79774 | 346.45706 | 1.96302 | 0.0737730 | 0.19618734 | 2.9332927 | 20 | — | — |
| 41249 1999 $XJ_{40}$ | 15.0 | X | 348.78362 | 30.79821 | 291.84131 | 2.20697 | 0.0998283 | 0.22841227 | 2.6504712 | 20 | 8 25.6 | 18.0 |
| 41250 1999 $XA_{41}$ | 14.7 | X | 215.95470 | 68.07015 | 13.42646 | 1.03579 | 0.1034358 | 0.17524439 | 3.1625687 | 20 | 7 21.7 | 19.4 |
| 41251 1999 $XD_{41}$ | 14.4 | X | 19.69566 | 28.87880 | 255.30725 | 5.07297 | 0.1102230 | 0.17970074 | 3.1100650 | 20 | 8 16.7 | 18.4 |
| 41252 1999 $XJ_{42}$ | 14.5 | X | 1.50168 | 170.46117 | 247.01184 | 9.66940 | 0.0822258 | 0.19288721 | 2.9666554 | 20 | — | — |
| 41253 1999 $XP_{43}$ | 14.5 | X | 159.55544 | 0.23997 | 28.00945 | 4.40844 | 0.1035722 | 0.21057335 | 2.7981250 | 20 | 3 20.4 | 18.8 |
| 41254 1999 $XT_{43}$ | 14.5 | X | 97.98154 | 58.72107 | 254.49439 | 9.54010 | 0.0935064 | 0.19280198 | 2.9675295 | 20 | 12 29.7 | 19.0 |
| 41255 1999 $XV_{43}$ | 14.7 | X | 60.23938 | 296.77974 | 19.54026 | 3.13670 | 0.1883374 | 0.23775698 | 2.5805594 | 20 | 12 13.9 | 18.6 |
| 41256 1999 $XX_{45}$ | 14.3 | X | 331.18710 | 240.60569 | 57.23788 | 13.25737 | 0.1784285 | 0.22269954 | 2.6956065 | 20 | 6 9.5 | 17.2 |
| 41257 1999 $XG_{46}$ | 15.0 | X | 158.91742 | 206.01215 | 47.25394 | 2.78614 | 0.0552211 | 0.19149744 | 2.9809915 | 20 | 12 21.1 | 19.4 |
| 41258 1999 $XB_{47}$ | 14.4 | X | 327.82042 | 168.32455 | 257.55634 | 7.58164 | 0.0718701 | 0.18884092 | 3.0088831 | 20 | 11 30.7 | 18.1 |
| 41259 1999 $XH_{52}$ | 14.5 | X | 281.10148 | 347.66631 | 41.49488 | 1.97800 | 0.1058264 | 0.17710086 | 3.1404287 | 20 | 8 2.5 | 18.7 |
| 41260 1999 $XZ_{53}$ | 14.3 | X | 158.65439 | 138.89024 | 121.51395 | 2.79848 | 0.0378857 | 0.19175135 | 2.9783594 | 20 | 12 30.0 | 18.5 |
| 41261 1999 $XA_{54}$ | 14.2 | X | 89.02836 | 238.11811 | 112.28494 | 3.06136 | 0.1259134 | 0.19593163 | 2.9358442 | 20 | — | — |
| 41262 1999 $XZ_{55}$ | 14.3 | X | 248.70766 | 312.06626 | 41.34129 | 1.68470 | 0.2187733 | 0.17055119 | 3.2203239 | 20 | 4 26.9 | 19.5 |
| 41263 1999 $XM_{56}$ | 14.7 | X | 23.50306 | 72.27058 | 243.30971 | 8.67310 | 0.0818285 | 0.18176264 | 3.0865001 | 20 | 9 28.3 | 18.8 |
| 41264 1999 $XF_{58}$ | 13.8 | X | 115.22508 | 343.36223 | 229.66638 | 6.12828 | 0.1066319 | 0.17840931 | 3.1250553 | 20 | 9 16.2 | 18.7 |
| 41265 1999 $XG_{58}$ | 14.8 | X | 23.76123 | 252.40067 | 80.81483 | 9.53799 | 0.2173549 | 0.23425124 | 2.6062422 | 20 | 11 26.6 | 18.0 |
| 41266 1999 $XP_{58}$ | 14.5 | X | 283.06998 | 195.74698 | 245.00006 | 9.82800 | 0.0785156 | 0.18380867 | 3.0635529 | 20 | 10 11.6 | 18.7 |
| 41267 1999 $XK_{60}$ | 14.1 | X | 200.19311 | 203.27942 | 223.39990 | 2.63022 | 0.1325746 | 0.16988944 | 3.2286809 | 20 | 6 15.4 | 19.2 |
| 41268 1999 $XO_{64}$ | 12.6 | X | 226.67399 | 36.88904 | 75.29434 | 16.28816 | 0.1305648 | 0.08351098 | 5.1837054 | 20 | 9 4.7 | 20.0 |
| 41269 1999 $XX_{65}$ | 13.6 | X | 72.80302 | 356.55337 | 246.01075 | 5.75650 | 0.1154660 | 0.17667412 | 3.1454836 | 20 | 9 5.9 | 18.2 |
| 41270 1999 $XK_{68}$ | 14.0 | X | 316.15539 | 211.51410 | 87.12124 | 13.77108 | 0.1710306 | 0.21846860 | 2.7302979 | 20 | 5 18.9 | 17.3 |
| 41271 1999 $XQ_{71}$ | 15.2 | X | 17.41114 | 93.64584 | 232.83819 | 2.36831 | 0.2420829 | 0.23189163 | 2.6238923 | 20 | 11 10.5 | 18.0 |
| 41272 1999 $XH_{72}$ | 13.5 | X | 12.98803 | 319.22026 | 80.12058 | 11.61516 | 0.0876931 | 0.18987992 | 2.9978969 | 20 | — | — |
| 41273 1999 $XL_{72}$ | 14.4 | X | 22.93891 | 283.75125 | 83.36615 | 10.76807 | 0.1033062 | 0.18740599 | 3.0242225 | 20 | 12 8.9 | 18.3 |
| 41274 1999 $XS_{72}$ | 13.5 | X | 71.54663 | 237.66008 | 84.02110 | 10.98004 | 0.1081294 | 0.18786538 | 3.0192904 | 20 | 12 13.2 | 17.9 |
| 41275 1999 $XP_{78}$ | 14.7 | X | 59.36167 | 276.22667 | 350.75188 | 0.36095 | 0.0160295 | 0.17847835 | 3.1242494 | 20 | 9 8.6 | 18.8 |
| 41276 1999 $XG_{83}$ | 12.6 | X | 298.84387 | 304.14716 | 96.91799 | 19.53209 | 0.2371956 | 0.17945824 | 3.1128662 | 20 | 8 31.4 | 16.6 |
| 41277 1999 $XS_{85}$ | 13.6 | X | 350.36470 | 292.71466 | 106.81826 | 13.84229 | 0.1705235 | 0.18543092 | 3.0456591 | 20 | 12 9.4 | 17.1 |
| 41278 1999 $XA_{90}$ | 12.9 | X | 125.07852 | 304.97000 | 258.15630 | 7.98444 | 0.1235278 | 0.12500804 | 3.9613578 | 20 | 9 8.4 | 19.0 |
| 41279 Trentman | 14.0 | X | 65.81432 | 6.25151 | 258.52484 | 10.83104 | 0.0549039 | 0.18377333 | 3.0639456 | 20 | 9 14.6 | 18.5 |
| 41280 1999 $XJ_{95}$ | 14.3 | X | 27.77122 | 299.30776 | 71.55700 | 15.00854 | 0.2177355 | 0.23692066 | 2.5866287 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41281 1999 $XZ_{95}$ | 13.6 | X | 300.21157 | 314.39809 | 75.64720 | 15.48173 | 0.1403887 | 0.17721405 | 3.1390914 | 20 | 9 2.9 | 17.8 |
| 41282 1999 $XO_{96}$ | 14.2 | X | 333.97740 | 350.02804 | 47.84828 | 2.46205 | 0.1477862 | 0.18543696 | 3.0455929 | 20 | 11 4.6 | 17.6 |
| 41283 1999 $XM_{99}$ | 12.3 | X | 281.96854 | 274.86672 | 85.24047 | 11.63456 | 0.2150198 | 0.12464194 | 3.9691111 | 20 | 6 9.4 | 17.9 |
| 41284 1999 $XP_{102}$ | 13.4 | X | 66.32490 | 272.76397 | 90.84857 | 11.04861 | 0.1163712 | 0.19075083 | 2.9887649 | 20 | — | — |
| 41285 1999 $XM_{106}$ | 14.3 | X | 51.77047 | 85.53565 | 238.75287 | 13.20604 | 0.1579693 | 0.23908386 | 2.5710028 | 20 | 12 11.5 | 17.9 |
| 41286 1999 $XN_{106}$ | 13.4 | X | 220.44193 | 143.01795 | 238.12229 | 10.17790 | 0.1608541 | 0.17150823 | 3.2083327 | 20 | 5 8.4 | 18.6 |
| 41287 1999 $XZ_{106}$ | 14.6 | X | 88.45315 | 69.29530 | 248.01007 | 13.24737 | 0.1171362 | 0.24189453 | 2.5510483 | 20 | — | — |
| 41288 1999 $XD_{107}$ | 14.3 | X | 115.49322 | 32.39937 | 227.81687 | 24.14255 | 0.1429689 | 0.23742189 | 2.5829869 | 20 | 11 25.4 | 18.5 |
| 41289 1999 $XN_{107}$ | 14.4 | X | 351.45319 | 353.50872 | 2.55843 | 2.15738 | 0.1557261 | 0.18555653 | 3.0442844 | 20 | 10 11.2 | 17.7 |
| 41290 1999 $XB_{108}$ | 14.1 | X | 277.84051 | 314.13389 | 55.45079 | 17.45288 | 0.1305973 | 0.17647480 | 3.1478516 | 20 | 6 28.2 | 18.7 |
| 41291 1999 $XE_{108}$ | 14.2 | X | 81.73971 | 269.51742 | 85.66632 | 3.09057 | 0.1075258 | 0.19692296 | 2.9259831 | 20 | — | — |
| 41292 1999 $XH_{108}$ | 14.2 | X | 260.61004 | 233.87750 | 215.83214 | 8.21043 | 0.0504604 | 0.18401493 | 3.0612633 | 20 | 9 28.2 | 18.4 |
| 41293 1999 $XY_{108}$ | 14.6 | X | 139.57127 | 204.44471 | 140.02748 | 2.68108 | 0.0856330 | 0.20286857 | 2.8685309 | 20 | 1 3.9 | 18.6 |
| 41294 1999 $XH_{109}$ | 14.0 | X | 320.51577 | 291.87129 | 95.05446 | 5.89005 | 0.0335977 | 0.18383230 | 3.0632904 | 20 | 10 5.3 | 18.2 |
| 41295 1999 $XM_{110}$ | 14.6 | X | 51.53088 | 280.39604 | 76.89057 | 10.01705 | 0.1148674 | 0.19262661 | 2.9693304 | 20 | — | — |
| 41296 1999 $XY_{119}$ | 13.4 | X | 313.35056 | 55.49142 | 248.40062 | 20.70389 | 0.0534189 | 0.17161937 | 3.2069475 | 20 | 6 3.6 | 17.6 |
| 41297 1999 $XE_{123}$ | 14.6 | X | 319.85920 | 316.85551 | 25.02335 | 13.37214 | 0.1979096 | 0.22773038 | 2.6557594 | 20 | 7 28.7 | 17.5 |
| 41298 1999 $XT_{123}$ | 13.0 | X | 340.13486 | 97.90169 | 272.46656 | 10.04876 | 0.0557396 | 0.18428554 | 3.0582657 | 20 | 10 2.8 | 17.2 |
| 41299 1999 $XY_{125}$ | 14.4 | X | 109.38180 | 14.50824 | 292.63965 | 5.70186 | 0.2006127 | 0.24246191 | 2.5470670 | 20 | — | — |
| 41300 1999 $XZ_{126}$ | 14.2 | X | 212.12584 | 170.45845 | 45.91510 | 9.89773 | 0.0184847 | 0.19254281 | 2.9701920 | 20 | — | — |
| 41301 1999 $XP_{127}$ | 14.0 | X | 26.59094 | 22.42715 | 271.13378 | 6.69687 | 0.1360192 | 0.17908702 | 3.1171663 | 20 | 9 10.6 | 18.0 |
| 41302 1999 $XO_{129}$ | 14.1 | X | 296.68054 | 6.15711 | 346.18670 | 9.01648 | 0.0926705 | 0.17443145 | 3.1723872 | 20 | 7 10.0 | 18.4 |
| 41303 1999 $XP_{139}$ | 15.1 | X | 113.40954 | 203.70769 | 70.48827 | 2.53584 | 0.1800101 | 0.18941148 | 3.0028376 | 20 | 12 3.9 | 20.1 |
| 41304 1999 $XA_{141}$ | 13.9 | X | 282.86253 | 215.27114 | 108.68015 | 9.79821 | 0.3091942 | 0.21508055 | 2.7588957 | 20 | 4 16.9 | 18.2 |
| 41305 1999 $XK_{143}$ | 13.4 | X | 162.36197 | 213.00842 | 103.54493 | 17.89361 | 0.0816913 | 0.19971450 | 2.8986536 | 20 | — | — |
| 41306 1999 $XT_{146}$ | 15.2 | X | 113.12997 | 197.30466 | 85.16155 | 2.90598 | 0.0675058 | 0.18954088 | 3.0014708 | 20 | 12 7.4 | 19.5 |
| 41307 1999 $XA_{149}$ | 15.3 | X | 168.46019 | 268.67495 | 56.21159 | 2.82782 | 0.0612788 | 0.20303845 | 2.8669307 | 20 | 1 10.2 | 19.6 |
| 41308 1999 $XA_{154}$ | 12.8 | X | 105.63945 | 193.71589 | 113.68469 | 11.37083 | 0.0591427 | 0.18974822 | 2.9992839 | 20 | 12 28.5 | 17.2 |
| 41309 1999 $XT_{157}$ | 13.7 | X | 1.15879 | 127.71010 | 247.46769 | 10.11623 | 0.0547942 | 0.18408462 | 3.0604906 | 20 | 11 11.8 | 17.8 |
| 41310 1999 $XC_{158}$ | 13.1 | X | 110.75467 | 203.76663 | 104.62734 | 11.41884 | 0.0808408 | 0.18935238 | 3.0034624 | 20 | — | — |
| 41311 1999 $XR_{166}$ | 13.5 | X | 147.05860 | 203.54950 | 293.72205 | 8.72141 | 0.0384468 | 0.17293503 | 3.1906615 | 20 | 7 16.5 | 18.2 |
| 41312 1999 $XU_{167}$ | 13.8 | X | 299.38593 | 298.08993 | 53.30357 | 13.03097 | 0.2270998 | 0.17638262 | 3.1489483 | 20 | 6 19.6 | 18.0 |
| 41313 1999 $XD_{168}$ | 13.6 | X | 288.86484 | 263.70879 | 64.04429 | 13.96587 | 0.1991869 | 0.21973908 | 2.7197637 | 20 | 5 11.2 | 17.1 |
| 41314 1999 $XN_{168}$ | 13.3 | X | 271.94082 | 275.48696 | 22.26877 | 9.24787 | 0.1449154 | 0.21369410 | 2.7708160 | 20 | 3 21.6 | 17.4 |
| 41315 1999 $XU_{168}$ | 14.1 | X | 244.97396 | 344.29856 | 51.93857 | 12.58475 | 0.1802123 | 0.17308521 | 3.1888157 | 20 | 6 16.9 | 19.2 |
| 41316 1999 $XJ_{187}$ | 13.0 | X | 120.73544 | 254.96574 | 64.16193 | 11.71266 | 0.1104240 | 0.19087487 | 2.9874700 | 20 | — | — |
| 41317 1999 $XO_{191}$ | 14.2 | X | 196.08306 | 334.00495 | 43.21805 | 11.15119 | 0.1970630 | 0.21259829 | 2.7803291 | 20 | 4 13.0 | 18.9 |
| 41318 1999 $XT_{196}$ | 13.5 | X | 107.79456 | 245.79915 | 68.14937 | 12.66908 | 0.1123388 | 0.18902442 | 3.0069354 | 20 | — | — |
| 41319 1999 $XJ_{208}$ | 13.8 | X | 79.96770 | 21.99056 | 283.79421 | 10.94916 | 0.2389618 | 0.23691589 | 2.5866634 | 20 | 12 24.4 | 18.1 |
| 41320 1999 $XJ_{209}$ | 13.3 | X | 65.68971 | 338.07105 | 17.83397 | 10.71204 | 0.0933673 | 0.19109457 | 2.9851798 | 20 | — | — |
| 41321 1999 $XM_{209}$ | 13.7 | X | 10.13482 | 291.53491 | 56.42598 | 22.21757 | 0.3094332 | 0.18511634 | 3.0491085 | 20 | 11 23.7 | 17.0 |
| 41322 1999 $XK_{212}$ | 14.6 | X | 205.56763 | 255.37789 | 121.52741 | 5.17671 | 0.1049726 | 0.21595916 | 2.7514078 | 20 | 4 22.9 | 18.8 |
| 41323 1999 $XM_{212}$ | 13.5 | X | 251.66761 | 37.11963 | 77.85559 | 10.70834 | 0.0707655 | 0.18579952 | 3.0416296 | 20 | 10 22.3 | 17.8 |
| 41324 1999 $XO_{212}$ | 14.5 | X | 26.91888 | 113.41692 | 212.43114 | 13.26310 | 0.1641218 | 0.23383306 | 2.6093486 | 20 | 11 12.8 | 17.7 |
| 41325 1999 $XR_{212}$ | 13.9 | X | 26.27103 | 191.52673 | 169.54345 | 10.40099 | 0.1092363 | 0.18914912 | 3.0056137 | 20 | 12 8.2 | 18.1 |
| 41326 1999 $XY_{212}$ | 13.8 | X | 279.12728 | 342.75174 | 94.98542 | 18.96143 | 0.1862567 | 0.18322789 | 3.0700232 | 20 | 9 30.1 | 18.2 |
| 41327 1999 $XD_{217}$ | 13.8 | X | 30.49859 | 328.08982 | 341.46883 | 0.28827 | 0.1715695 | 0.17644665 | 3.1481864 | 20 | 10 15.4 | 17.8 |
| 41328 1999 $XP_{220}$ | 14.0 | X | 139.06230 | 282.24798 | 116.38230 | 9.04702 | 0.2655468 | 0.21065407 | 2.7974102 | 20 | 3 28.5 | 18.8 |
| 41329 1999 $XM_{221}$ | 13.5 | X | 165.19339 | 273.52555 | 36.69065 | 11.22539 | 0.0652150 | 0.15094705 | 3.4934374 | 20 | — | — |
| 41330 1999 $XU_{225}$ | 15.1 | X | 231.74407 | 243.89538 | 300.31305 | 3.00199 | 0.1789171 | 0.28000975 | 2.3139499 | 20 | 12 25.7 | 17.8 |
| 41331 1999 $XB_{232}$ | 13.4 | X | 333.18596 | 155.90187 | 238.87711 | 23.53822 | 0.1683902 | 0.27530500 | 2.3402378 | 20 | 11 29.6 | 15.2 |
| 41332 1999 $XM_{233}$ | 13.9 | X | 213.54446 | 27.78059 | 132.70203 | 16.69666 | 0.0336551 | 0.18547657 | 3.0451593 | 20 | 11 7.8 | 18.6 |
| 41333 1999 $XL_{238}$ | 14.5 | X | 73.08923 | 217.35060 | 106.91446 | 16.04742 | 0.1676651 | 0.23968694 | 2.5666883 | 20 | — | — |
| 41334 1999 $XE_{242}$ | 13.8 | X | 22.54457 | 43.90910 | 271.08794 | 9.51831 | 0.0890028 | 0.18182219 | 3.0858262 | 20 | 9 25.4 | 18.1 |
| 41335 1999 $XL_{244}$ | 15.5 | X | 290.96997 | 185.85930 | 134.99717 | 9.96387 | 0.2404566 | 0.26968326 | 2.3726484 | 20 | 4 28.9 | 18.7 |
| 41336 1999 $XX_{244}$ | 15.6 | X | 321.91872 | 27.60548 | 333.95683 | 1.04539 | 0.1187692 | 0.18019245 | 3.1044046 | 20 | 8 26.3 | 19.4 |
| 41337 1999 $XN_{258}$ | 14.0 | X | 245.01711 | 316.27805 | 142.43655 | 18.04153 | 0.0726629 | 0.18090005 | 3.0963040 | 20 | 9 21.9 | 18.5 |
| 41338 1999 $YF_{4}$ | 14.6 | X | 254.02334 | 289.52393 | 85.67143 | 8.70117 | 0.0717172 | 0.22658319 | 2.6647159 | 20 | 6 15.9 | 18.2 |
| 41339 1999 $YR_{9}$ | 14.6 | X | 193.88305 | 1.61926 | 85.61563 | 5.85597 | 0.1318755 | 0.21554662 | 2.7549173 | 20 | 7 6.1 | 18.9 |
| 41340 1999 $YO_{14}$ | 11.1 | X | 243.93572 | 285.42457 | 183.28137 | 33.16536 | 0.0570648 | 0.08401168 | 5.1630889 | 20 | 9 17.9 | 18.2 |
| 41341 1999 $YZ_{21}$ | 13.3 | X | 280.22007 | 120.81515 | 230.22475 | 11.87430 | 0.1100269 | 0.17299133 | 3.1899692 | 20 | 6 11.3 | 17.7 |
| 41342 1999 $YC_{23}$ | 12.4 | X | 268.32779 | 199.43141 | 239.21055 | 2.87944 | 0.0870636 | 0.08011887 | 5.3290057 | 20 | 9 6.1 | 19.5 |
| 41343 2000 $AY_{9}$ | 13.9 | X | 133.59450 | 330.80913 | 277.92750 | 8.40820 | 0.0635331 | 0.18832299 | 3.0143973 | 20 | 11 17.1 | 18.4 |
| 41344 2000 $AR_{16}$ | 12.9 | X | 280.74761 | 179.23685 | 73.97070 | 12.09515 | 0.1087314 | 0.15590362 | 3.4189960 | 20 | 2 19.4 | 18.0 |
| 41345 2000 $AB_{18}$ | 13.0 | X | 15.31252 | 22.28856 | 281.99373 | 6.75620 | 0.1697804 | 0.17597651 | 3.1537911 | 20 | 9 10.1 | 16.8 |
| 41346 2000 $AW_{19}$ | 14.0 | X | 107.28336 | 258.76991 | 70.57511 | 12.19043 | 0.0836351 | 0.19266516 | 2.9689343 | 20 | — | — |
| 41347 2000 $AR_{22}$ | 13.5 | X | 71.35548 | 231.25995 | 81.13264 | 11.28501 | 0.1232647 | 0.18408090 | 3.0605318 | 20 | 12 3.5 | 18.0 |
| 41348 2000 $AH_{23}$ | 14.9 | X | 309.54268 | 190.80268 | 291.64463 | 3.70228 | 0.0440383 | 0.23729368 | 2.5839172 | 20 | — | — |
| 41349 2000 $AA_{24}$ | 12.7 | X | 49.08503 | 197.13447 | 85.97026 | 13.15916 | 0.1642114 | 0.17605470 | 3.1528572 | 20 | 10 13.7 | 17.2 |
| 41350 2000 $AJ_{25}$ | 12.0 | X | 312.54904 | 104.67329 | 294.27213 | 9.70136 | 0.0829462 | 0.08248991 | 5.2263942 | 20 | 9 12.3 | 18.7 |
| 41351 2000 $AS_{27}$ | 13.0 | X | 170.08316 | 109.80699 | 51.58631 | 5.85112 | 0.0255340 | 0.12711931 | 3.9173740 | 20 | 9 9.1 | 18.6 |
| 41352 2000 $AT_{31}$ | 13.3 | X | 312.49643 | 255.35856 | 95.80605 | 15.05661 | 0.1473255 | 0.17166819 | 3.2063394 | 20 | 7 24.3 | 17.3 |
| 41353 2000 $AB_{33}$ | 12.0 | X | 328.19669 | 312.48545 | 92.71645 | 9.97566 | 0.0772548 | 0.08272377 | 5.2165397 | 20 | 10 18.9 | 18.6 |
| 41354 2000 $AW_{33}$ | 13.0 | X | 63.39278 | 13.94088 | 316.98183 | 12.92472 | 0.2548844 | 0.18379694 | 3.0636833 | 20 | — | — |
| 41355 2000 $AF_{36}$ | 12.6 | X | 304.20684 | 326.42257 | 95.86497 | 8.03025 | 0.0794248 | 0.08390765 | 5.1673554 | 20 | 10 6.9 | 19.3 |
| 41356 2000 $AZ_{51}$ | 13.8 | X | 249.52469 | 47.97818 | 344.44788 | 4.21997 | 0.1772426 | 0.17569929 | 3.1571076 | 20 | 6 18.3 | 18.7 |
| 41357 2000 $AD_{52}$ | 14.3 | X | 83.86980 | 41.85338 | 287.04369 | 9.16392 | 0.2439174 | 0.24452492 | 2.5327207 | 20 | — | — |
| 41358 2000 $AJ_{54}$ | 13.1 | X | 216.44469 | 343.81102 | 299.55544 | 11.62718 | 0.0695028 | 0.19592946 | 2.9358659 | 20 | 1 12.8 | 17.4 |
| 41359 2000 $AG_{55}$ | 12.1 | X | 312.50034 | 339.13205 | 102.79129 | 6.76726 | 0.0249930 | 0.08444521 | 5.1454028 | 20 | 11 10.7 | 18.8 |
| 41360 2000 $AN_{68}$ | 13.0 | X | 159.64099 | 333.56137 | 231.00061 | 9.91328 | 0.0744481 | 0.18406095 | 3.0607529 | 20 | 10 22.1 | 17.7 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41361 2000 $AO_{76}$ | 13.4 | X | 343.09826 | 269.64022 | 112.95913 | 12.03585 | 0.1564789 | 0.18359944 | 3.0658800 | 20 | 11 5.8 | 17.1 |
| 41362 2000 $AJ_{81}$ | 13.6 | X | 359.19722 | 269.84185 | 114.62313 | 11.03539 | 0.0805711 | 0.18554568 | 3.0444031 | 20 | 11 26.7 | 17.7 |
| 41363 2000 $AA_{90}$ | 13.1 | X | 180.93552 | 186.78956 | 138.66277 | 10.51034 | 0.0781989 | 0.15032369 | 3.5030884 | 20 | 1 31.1 | 18.5 |
| 41364 2000 $AD_{96}$ | 15.6 | X | 285.55514 | 50.22109 | 124.08905 | 8.24893 | 0.0223910 | 0.28499111 | 2.2869070 | 20 | — | — |
| 41365 2000 $AO_{98}$ | 12.6 | X | 224.53232 | 201.70922 | 168.49898 | 9.27354 | 0.2247554 | 0.12441540 | 3.9739276 | 20 | 4 29.2 | 19.1 |
| 41366 2000 $AU_{98}$ | 14.8 | X | 4.55340 | 282.02316 | 67.72575 | 16.02134 | 0.1797581 | 0.23596807 | 2.5935854 | 20 | 11 14.8 | 17.6 |
| 41367 2000 $AP_{99}$ | 13.6 | X | 273.35531 | 235.21253 | 210.35226 | 10.88175 | 0.0944960 | 0.18518618 | 3.0483419 | 20 | 10 4.0 | 17.8 |
| 41368 2000 $AA_{100}$ | 14.9 | X | 341.03710 | 193.24809 | 161.14802 | 3.84824 | 0.2314725 | 0.23282540 | 2.6168720 | 20 | 10 6.0 | 16.9 |
| 41369 2000 $AG_{100}$ | 13.5 | X | 266.95040 | 321.17647 | 104.80742 | 8.00793 | 0.1166011 | 0.18139027 | 3.0907229 | 20 | 9 1.0 | 17.8 |
| 41370 2000 $AA_{101}$ | 14.0 | X | 97.40167 | 201.61013 | 107.29588 | 11.01368 | 0.0720933 | 0.19207520 | 2.9750106 | 20 | 12 23.1 | 18.4 |
| 41371 2000 $AB_{101}$ | 13.4 | X | 252.15487 | 320.79429 | 94.99775 | 14.12607 | 0.0472923 | 0.17755998 | 3.1350129 | 20 | 8 9.6 | 18.0 |
| 41372 2000 $AC_{101}$ | 13.9 | X | 40.07342 | 223.60547 | 105.63600 | 11.77533 | 0.1123072 | 0.18774867 | 3.0205414 | 20 | 11 19.3 | 18.1 |
| 41373 2000 $AR_{101}$ | 14.5 | X | 24.49010 | 303.18284 | 71.73563 | 11.39856 | 0.0885220 | 0.19147646 | 2.9812093 | 20 | 12 18.9 | 18.4 |
| 41374 2000 $AW_{101}$ | 14.9 | X | 44.07889 | 242.30486 | 90.11905 | 9.01531 | 0.2092354 | 0.23928932 | 2.5695309 | 20 | 12 19.8 | 18.4 |
| 41375 2000 $AD_{102}$ | 13.9 | X | 135.09720 | 179.71192 | 106.21629 | 10.49730 | 0.0311080 | 0.19313463 | 2.9641212 | 20 | — | — |
| 41376 2000 $AT_{103}$ | 14.0 | X | 4.35591 | 233.09113 | 115.02692 | 10.19280 | 0.1455039 | 0.18406773 | 3.0606778 | 20 | 10 27.3 | 17.8 |
| 41377 2000 $AB_{104}$ | 13.9 | X | 21.75066 | 117.16265 | 129.45289 | 8.71241 | 0.0282528 | 0.17029589 | 3.2235416 | 20 | 6 25.8 | 18.4 |
| 41378 2000 $AP_{105}$ | 14.3 | X | 313.71436 | 270.16454 | 122.39284 | 11.64198 | 0.1126976 | 0.18071062 | 3.0984674 | 20 | 9 28.8 | 18.3 |
| 41379 2000 $AS_{105}$ | 11.4 | X | 276.71967 | 343.28176 | 104.95309 | 25.93343 | 0.0605594 | 0.08516074 | 5.1165405 | 20 | 10 13.7 | 18.5 |
| 41380 2000 $AM_{113}$ | 13.4 | X | 12.13195 | 214.64410 | 139.02289 | 11.36497 | 0.1850819 | 0.18173360 | 3.0868289 | 20 | 11 19.3 | 17.3 |
| 41381 2000 $AG_{117}$ | 13.9 | X | 303.78454 | 185.59686 | 147.36537 | 10.07624 | 0.2819341 | 0.21808376 | 2.7335090 | 20 | 5 27.2 | 17.3 |
| 41382 2000 $AV_{124}$ | 13.3 | X | 317.33916 | 223.27430 | 141.86303 | 18.32835 | 0.1347279 | 0.17298402 | 3.1900591 | 20 | 8 21.5 | 17.0 |
| 41383 2000 $AH_{138}$ | 13.2 | X | 204.41629 | 70.09151 | 49.97849 | 22.92818 | 0.1835312 | 0.18042678 | 3.1017162 | 20 | 9 2.7 | 18.7 |
| 41384 2000 $AJ_{138}$ | 14.1 | X | 256.80874 | 359.54640 | 96.01500 | 5.02762 | 0.1320680 | 0.18516779 | 3.0485437 | 20 | 9 23.6 | 18.4 |
| 41385 2000 $AQ_{138}$ | 14.4 | X | 23.99807 | 305.58378 | 64.81263 | 23.24745 | 0.1091381 | 0.24094154 | 2.5577706 | 20 | 12 27.5 | 17.9 |
| 41386 2000 $AD_{140}$ | 14.3 | X | 211.70391 | 227.99465 | 135.51512 | 7.43598 | 0.1648788 | 0.21598340 | 2.7512020 | 20 | 4 10.9 | 18.9 |
| 41387 2000 $AE_{140}$ | 14.1 | X | 62.22146 | 245.46228 | 101.04976 | 12.57259 | 0.2382530 | 0.19437191 | 2.9515290 | 20 | — | — |
| 41388 2000 $AJ_{140}$ | 14.3 | X | 143.73442 | 276.24857 | 86.96505 | 11.20643 | 0.0508557 | 0.20646429 | 2.8351285 | 20 | 1 28.5 | 18.4 |
| 41389 2000 $AM_{140}$ | 14.3 | X | 157.71814 | 190.32384 | 199.08955 | 9.07207 | 0.1688161 | 0.21176969 | 2.7875769 | 20 | 3 21.7 | 18.9 |
| 41390 2000 $AX_{145}$ | 14.3 | X | 180.70137 | 178.12023 | 227.43412 | 6.64130 | 0.2096180 | 0.21766685 | 2.7369983 | 20 | 5 1.8 | 18.8 |
| 41391 2000 $AX_{148}$ | 13.8 | X | 223.70729 | 176.39409 | 176.96660 | 9.41787 | 0.1630298 | 0.21380998 | 2.7698148 | 20 | 4 7.9 | 18.3 |
| 41392 2000 $AA_{149}$ | 13.8 | X | 77.13912 | 221.51828 | 137.32587 | 11.58132 | 0.0686036 | 0.19327050 | 2.9627318 | 20 | — | — |
| 41393 2000 $AV_{151}$ | 14.9 | X | 9.50073 | 260.99890 | 87.28065 | 7.26681 | 0.2349956 | 0.28605095 | 2.2812548 | 20 | 12 12.5 | 17.3 |
| 41394 2000 $AW_{162}$ | 14.2 | X | 198.49949 | 230.80252 | 109.52040 | 8.93228 | 0.2322933 | 0.21329134 | 2.7743030 | 20 | 3 2.9 | 19.1 |
| 41395 2000 $AY_{169}$ | 14.0 | X | 333.56234 | 143.85013 | 197.28325 | 10.79263 | 0.2471892 | 0.17970811 | 3.1099801 | 20 | 8 6.9 | 17.3 |
| 41396 2000 $AG_{175}$ | 12.9 | X | 140.51421 | 158.71209 | 207.36807 | 10.05974 | 0.2213471 | 0.20370861 | 2.8606395 | 20 | 2 10.4 | 17.7 |
| 41397 2000 $AS_{175}$ | 12.8 | X | 258.65591 | 135.85727 | 237.56384 | 13.92040 | 0.0686212 | 0.16910904 | 3.2386063 | 20 | 6 17.9 | 17.6 |
| 41398 2000 $AH_{177}$ | 13.7 | X | 155.67912 | 154.87922 | 129.09836 | 11.23478 | 0.0848654 | 0.19270549 | 2.9685201 | 20 | — | — |
| 41399 2000 $AR_{177}$ | 13.1 | X | 265.87585 | 274.99392 | 127.10390 | 17.37997 | 0.0943672 | 0.17359764 | 3.1825374 | 20 | 7 30.7 | 17.4 |
| 41400 2000 $AR_{185}$ | 14.1 | X | 274.34633 | 174.82864 | 187.55613 | 12.83798 | 0.1635848 | 0.22470652 | 2.6795319 | 20 | 6 11.9 | 18.0 |
| 41401 2000 $AU_{186}$ | 13.5 | X | 328.93967 | 260.36065 | 155.18469 | 10.57570 | 0.1197809 | 0.18843305 | 3.0132234 | 20 | 11 22.4 | 17.2 |
| 41402 2000 $AV_{186}$ | 13.4 | X | 217.32123 | 19.30564 | 116.79531 | 12.36784 | 0.0717116 | 0.18362220 | 3.0656266 | 20 | 10 8.2 | 18.1 |
| 41403 2000 $AW_{186}$ | 13.8 | X | 335.67633 | 233.59214 | 123.06827 | 12.06977 | 0.1120302 | 0.18230037 | 3.0804276 | 20 | 9 17.0 | 17.6 |
| 41404 2000 $AG_{187}$ | 14.2 | X | 345.83230 | 175.58053 | 198.00828 | 15.59335 | 0.1266988 | 0.23328414 | 2.6134402 | 20 | 11 6.8 | 17.1 |
| 41405 2000 $AS_{187}$ | 13.1 | X | 42.10225 | 149.74696 | 123.64425 | 14.58174 | 0.0717017 | 0.17819436 | 3.1275679 | 20 | 9 5.3 | 17.4 |
| 41406 2000 $AD_{188}$ | 12.8 | X | 39.20255 | 56.06313 | 221.47368 | 22.09135 | 0.2023458 | 0.17833240 | 3.1259538 | 20 | 9 16.6 | 17.2 |
| 41407 2000 $AL_{188}$ | 14.8 | X | 206.75279 | 210.11721 | 143.81663 | 13.90620 | 0.2287761 | 0.21322123 | 2.7749112 | 20 | 3 25.4 | 19.7 |
| 41408 2000 $AV_{196}$ | 13.4 | X | 4.76710 | 155.52216 | 171.06418 | 13.92037 | 0.1702843 | 0.17514929 | 3.1637134 | 20 | 9 26.1 | 17.0 |
| 41409 2000 $AW_{199}$ | 14.5 | X | 358.47519 | 222.51382 | 116.94848 | 13.41638 | 0.2913978 | 0.23500565 | 2.6006616 | 20 | 11 9.6 | 17.1 |
| 41410 2000 $AD_{200}$ | 14.2 | X | 237.65336 | 224.19273 | 100.48525 | 18.67378 | 0.1508282 | 0.21513697 | 2.7584133 | 20 | 3 25.6 | 18.9 |
| 41411 2000 $AK_{200}$ | 15.0 | X | 40.13291 | 221.49054 | 126.41915 | 13.99713 | 0.1593957 | 0.23970700 | 2.5665451 | 20 | 12 28.6 | 18.6 |
| 41412 2000 $AO_{200}$ | 14.3 | X | 72.63990 | 127.60120 | 128.98936 | 15.65648 | 0.0921416 | 0.23002371 | 2.6380781 | 20 | 10 6.8 | 18.2 |
| 41413 2000 $AF_{210}$ | 14.8 | X | 18.26812 | 172.99710 | 187.79508 | 0.84308 | 0.1001341 | 0.18519953 | 3.0481953 | 20 | 11 23.7 | 18.8 |
| 41414 2000 $AC_{215}$ | 14.3 | X | 93.36452 | 267.64184 | 89.43081 | 8.61763 | 0.1187792 | 0.19562006 | 2.9389608 | 20 | — | — |
| 41415 2000 $AX_{230}$ | 14.2 | X | 228.95301 | 166.99176 | 229.58906 | 18.29052 | 0.1421485 | 0.17113077 | 3.2130487 | 20 | 6 5.6 | 19.3 |
| 41416 2000 $AF_{231}$ | 14.8 | X | 229.13762 | 213.04107 | 207.44110 | 7.45749 | 0.1339128 | 0.21704911 | 2.7421889 | 20 | 7 6.9 | 19.1 |
| 41417 2000 $AL_{233}$ | 12.4 | X | 306.39161 | 328.71678 | 119.89862 | 1.72358 | 0.0417734 | 0.08346370 | 5.1856631 | 20 | 11 7.9 | 19.0 |
| 41418 2000 $AR_{233}$ | 13.5 | X | 100.50420 | 333.24946 | 66.18868 | 16.29785 | 0.1345352 | 0.20558391 | 2.8432168 | 20 | 2 4.9 | 17.6 |
| 41419 2000 $AW_{234}$ | 13.3 | X | 172.19421 | 355.69949 | 165.44231 | 3.61225 | 0.0583839 | 0.12635156 | 3.9332268 | 20 | 9 7.9 | 19.2 |
| 41420 2000 $AQ_{240}$ | 14.8 | X | 271.01184 | 172.09869 | 193.95352 | 13.66320 | 0.1847486 | 0.22254091 | 2.6968874 | 20 | 6 9.3 | 18.8 |
| 41421 2000 $AZ_{240}$ | 14.5 | X | 18.80261 | 165.54937 | 183.72077 | 13.74870 | 0.2947071 | 0.23584287 | 2.5945032 | 20 | 12 22.1 | 18.1 |
| 41422 2000 $CB_{5}$ | 13.8 | X | 24.88562 | 205.27124 | 157.63721 | 2.68094 | 0.2184538 | 0.18511055 | 3.0491721 | 20 | 12 22.1 | 17.7 |
| 41423 2000 $CU_{24}$ | 15.2 | X | 350.10155 | 336.94062 | 268.44533 | 2.84237 | 0.1229431 | 0.30232639 | 2.1986293 | 20 | 4 30.3 | 17.1 |
| 41424 2000 $CK_{40}$ | 14.7 | X | 20.47157 | 246.02190 | 126.17921 | 25.80267 | 0.0940396 | 0.36665148 | 1.9333052 | 20 | — | — |
| 41425 2000 $CE_{77}$ | 15.6 | X | 259.39988 | 357.04897 | 153.40403 | 6.57381 | 0.0590797 | 0.27630774 | 2.3345724 | 20 | — | — |
| 41426 2000 $CJ_{140}$ | 12.8 | X | 292.55447 | 315.51893 | 128.36033 | 1.51461 | 0.0688065 | 0.08054270 | 5.3102943 | 20 | 10 14.3 | 19.6 |
| 41427 2000 $DY_{4}$ | 12.3 | X | 302.19892 | 14.24618 | 68.39806 | 5.65637 | 0.0790086 | 0.08099217 | 5.2906297 | 20 | 10 24.4 | 19.0 |
| 41428 2000 $EL_{85}$ | 15.2 | X | 227.40863 | 280.95966 | 245.79659 | 6.27379 | 0.0503377 | 0.27520170 | 2.3408233 | 20 | 12 14.7 | 18.1 |
| 41429 2000 $GE_{2}$ | 20.5 | X | 338.35687 | 297.21496 | 351.93216 | 2.17340 | 0.5554977 | 0.49037262 | 1.5926435 | 20 | 2 28.1* | 21.7 |
| 41430 2000 $GN_{4}$ | 13.6 | X | 39.72472 | 222.97799 | 35.27532 | 15.84466 | 0.1405735 | 0.25589648 | 2.4571208 | 20 | 9 8.4 | 16.8 |
| 41431 2000 $GY_{6}$ | 15.7 | X | 153.12491 | 295.53167 | 37.86802 | 0.99876 | 0.2001556 | 0.28263171 | 2.2996167 | 20 | 1 5.5 | 18.9 |
| 41432 2000 $GE_{35}$ | 14.7 | X | 140.56392 | 115.51547 | 202.42162 | 12.29110 | 0.2765450 | 0.22643456 | 2.6658819 | 20 | — | — |
| 41433 2000 $GY_{51}$ | 14.6 | X | 203.28420 | 168.60124 | 187.82362 | 6.07492 | 0.0886739 | 0.29245123 | 2.2478487 | 20 | 3 17.8 | 17.7 |
| 41434 2000 $GB_{82}$ | 16.3 | X | 59.33725 | 338.53403 | 33.11610 | 14.13978 | 0.0612312 | 0.47127964 | 1.6353734 | 20 | — | — |
| 41435 2000 $GQ_{89}$ | 14.5 | X | 219.96751 | 145.07056 | 165.83979 | 12.65093 | 0.1920551 | 0.23697495 | 2.5862336 | 20 | 2 8.5 | 19.0 |
| 41436 2000 $GJ_{95}$ | 14.0 | X | 163.38972 | 108.30605 | 221.39109 | 13.76016 | 0.1264550 | 0.23231106 | 2.6207331 | 20 | 1 8.6 | 18.2 |
| 41437 2000 $GT_{122}$ | 13.3 | X | 65.58368 | 169.99372 | 227.50861 | 13.16771 | 0.1706291 | 0.23353455 | 2.6115717 | 20 | — | — |
| 41438 2000 $GG_{124}$ | 13.8 | X | 150.33511 | 58.08723 | 61.38181 | 14.15679 | 0.1051135 | 0.25349819 | 2.4725940 | 20 | 7 4.1 | 17.6 |
| 41439 2000 $GO_{134}$ | 15.0 | X | 295.54634 | 194.16727 | 84.96841 | 6.24686 | 0.1818839 | 0.29316763 | 2.2441853 | 20 | 3 14.4 | 17.8 |
| 41440 2000 $HZ_{23}$ | 19.9 | X | 27.77649 | 200.05806 | 64.06416 | 15.10656 | 0.2114666 | 0.49834533 | 1.5756114 | 20 | 10 24.7 | 21.1 |

* The additional opposition: 11 17.7, $V = 21.0$

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41441 2000 $HK_{25}$ | 14.3 | X | 22.13997 | 158.59908 | 216.73611 | 17.44097 | 0.1447734 | 0.22006507 | 2.7170772 | 20 | 12 30.1 | 18.2 |
| 41442 2000 $JS_{51}$ | 14.6 | X | 232.42453 | 318.92911 | 358.19168 | 6.40042 | 0.2142854 | 0.28536609 | 2.2849032 | 20 | 2 24.3 | 18.2 |
| 41443 2000 $JD_{73}$ | 14.7 | X | 266.15873 | 207.62288 | 124.29190 | 9.26516 | 0.2208097 | 0.24260141 | 2.5460905 | 20 | 4 18.7 | 18.7 |
| 41444 2000 $JK_{76}$ | 13.1 | X | 145.44759 | 298.17382 | 78.82864 | 11.37708 | 0.1293170 | 0.18478289 | 3.0527756 | 20 | 2 29.8 | 18.0 |
| 41445 2000 $KF_{56}$ | 15.1 | X | 93.33694 | 221.66777 | 107.00167 | 3.68111 | 0.2101233 | 0.26679608 | 2.3897351 | 20 | — | — |
| 41446 2000 $LW$ | 14.3 | X | 83.08558 | 184.02720 | 156.39303 | 9.78584 | 0.1568268 | 0.21313652 | 2.7756464 | 20 | — | — |
| 41447 2000 $LK_{4}$ | 14.4 | X | 321.66344 | 167.59913 | 146.06919 | 9.79746 | 0.2610580 | 0.24552514 | 2.5258375 | 20 | 6 4.7 | 16.8 |
| 41448 2000 $LJ_{12}$ | 13.3 | X | 23.54927 | 136.36848 | 259.80959 | 24.50523 | 0.1515135 | 0.21201619 | 2.7854158 | 20 | — | — |
| 41449 2000 $LN_{12}$ | 15.1 | X | 54.34229 | 159.86116 | 128.63925 | 5.44314 | 0.1624957 | 0.25715939 | 2.4490696 | 20 | 11 5.5 | 18.5 |
| 41450 Medkeff | 16.1 | X | 172.72026 | 33.13633 | 191.96946 | 2.29325 | 0.1393280 | 0.26702888 | 2.3883459 | 20 | 12 11.9 | 19.6 |
| 41451 2000 $LJ_{24}$ | 14.2 | X | 300.88795 | 91.79478 | 177.34095 | 13.30172 | 0.1513326 | 0.23903636 | 2.5713434 | 20 | 3 14.2 | 17.4 |
| 41452 2000 $LD_{29}$ | 14.4 | X | 188.04490 | 259.76210 | 124.36703 | 7.25815 | 0.2575569 | 0.23049137 | 2.6345085 | 20 | 4 15.1 | 19.1 |
| 41453 2000 $MJ_{4}$ | 13.6 | X | 192.20357 | 4.37523 | 270.07081 | 12.81745 | 0.1444068 | 0.22608376 | 2.6686389 | 20 | — | — |
| 41454 2000 $MQ_{5}$ | 15.9 | X | 6.56259 | 246.16024 | 97.83957 | 7.85294 | 0.2278854 | 0.30136262 | 2.2033144 | 20 | 12 5.9 | 18.1 |
| 41455 2000 $NC$ | 13.8 | X | 259.94203 | 100.46714 | 304.84409 | 9.67898 | 0.3055782 | 0.24433348 | 2.5340435 | 20 | 7 3.0 | 17.6 |
| 41456 2000 $NT$ | 14.3 | X | 118.79399 | 146.96943 | 290.50048 | 19.36402 | 0.3074659 | 0.23026325 | 2.6362482 | 20 | 4 18.0 | 19.1 |
| 41457 2000 $ND_{2}$ | 15.6 | X | 101.07209 | 324.09982 | 42.10577 | 3.13164 | 0.1749304 | 0.31158751 | 2.1548449 | 20 | — | — |
| 41458 2000 $NN_{14}$ | 16.0 | X | 169.05554 | 26.13132 | 301.14674 | 3.89997 | 0.2458157 | 0.27259867 | 2.3557014 | 20 | 1 17.7 | 19.8 |
| 41459 2000 $NO_{20}$ | 15.7 | X | 246.96535 | 210.20614 | 141.24433 | 3.93390 | 0.2361553 | 0.23718422 | 2.5847122 | 20 | 4 20.8 | 20.0 |
| 41460 2000 $NC_{28}$ | 12.7 | X | 120.59474 | 172.99118 | 285.71666 | 9.14182 | 0.0217453 | 0.18651470 | 3.0338493 | 20 | 4 21.0 | 17.1 |
| 41461 2000 $ON$ | 14.1 | X | 115.23837 | 183.10851 | 151.47112 | 49.87256 | 0.1624606 | 0.21455063 | 2.7634367 | 20 | — | — |
| 41462 2000 $OJ_{13}$ | 13.8 | X | 184.27039 | 257.42701 | 123.31645 | 11.32075 | 0.0650328 | 0.18468338 | 3.0538720 | 20 | 4 10.0 | 18.6 |
| 41463 2000 $OG_{21}$ | 15.1 | X | 206.17414 | 305.93399 | 50.68069 | 4.40244 | 0.2041493 | 0.27779659 | 2.3262235 | 20 | 3 23.4 | 18.8 |
| 41464 2000 $OL_{22}$ | 16.1 | X | 241.59341 | 138.86714 | 157.73540 | 25.09621 | 0.1275485 | 0.37725006 | 1.8969236 | 20 | 1 28.1 | 18.9 |
| 41465 2000 $OV_{22}$ | 14.4 | X | 254.45767 | 357.52918 | 306.77056 | 3.75174 | 0.2461100 | 0.23536722 | 2.5979975 | 20 | 2 26.7 | 18.7 |
| 41466 2000 $OW_{24}$ | 14.3 | X | 255.01329 | 273.27943 | 96.39093 | 13.92052 | 0.1482618 | 0.24236762 | 2.5477275 | 20 | 6 1.4 | 17.9 |
| 41467 2000 $OG_{29}$ | 15.3 | X | 157.66778 | 52.99051 | 221.91782 | 6.42538 | 0.0911707 | 0.26645848 | 2.3917531 | 20 | — | — |
| 41468 2000 $OS_{46}$ | 15.3 | X | 75.55437 | 16.58206 | 317.29271 | 4.33873 | 0.2175471 | 0.25852993 | 2.4404064 | 20 | — | — |
| 41469 2000 $OT_{49}$ | 15.2 | X | 256.13525 | 7.70179 | 34.04632 | 6.56649 | 0.2696602 | 0.23795682 | 2.5791144 | 20 | 6 27.9 | 19.2 |
| 41470 2000 $OK_{50}$ | 15.6 | X | 147.46844 | 303.08840 | 84.62268 | 6.83110 | 0.1989749 | 0.27218012 | 2.3581157 | 20 | 3 12.8 | 19.3 |
| 41471 2000 $OC_{51}$ | 15.0 | X | 278.98036 | 161.31812 | 229.00591 | 4.57045 | 0.1741521 | 0.29117610 | 2.2544065 | 20 | 7 28.7 | 17.5 |
| 41472 2000 $OA_{59}$ | 14.2 | X | 210.15727 | 131.91803 | 315.47124 | 12.59222 | 0.1242954 | 0.24420728 | 2.5349164 | 20 | 7 26.2 | 18.0 |
| 41473 2000 $PU_{9}$ | 15.9 | X | 129.11579 | 59.95129 | 355.64806 | 1.98268 | 0.1977941 | 0.27424495 | 2.3462644 | 20 | 3 26.0 | 19.2 |
| 41474 2000 $PE_{13}$ | 14.9 | X | 258.63170 | 96.93321 | 221.27986 | 5.99763 | 0.1978786 | 0.28781718 | 2.2719124 | 20 | 3 17.7 | 18.4 |
| 41475 2000 $PR_{13}$ | 14.8 | X | 5.75083 | 228.52955 | 303.45818 | 23.18312 | 0.2774007 | 0.28454733 | 2.2892842 | 20 | 1 18.7 | 16.3 |
| 41476 2000 $PC_{14}$ | 15.1 | X | 218.12447 | 77.50282 | 299.86072 | 2.50297 | 0.1588394 | 0.23683696 | 2.5872381 | 20 | 4 29.4 | 19.3 |
| 41477 2000 $PP_{26}$ | 14.4 | X | 312.57775 | 187.47104 | 215.69316 | 12.99878 | 0.2292530 | 0.24586742 | 2.5234927 | 20 | 10 11.6 | 16.3 |
| 41478 2000 $PR_{28}$ | 14.1 | X | 178.71769 | 250.39564 | 74.47279 | 7.45429 | 0.1379438 | 0.26980985 | 2.3719062 | 20 | 1 17.4 | 17.7 |
| 41479 2000 $QQ_{27}$ | 15.5 | X | 150.75958 | 267.41467 | 154.97346 | 4.30345 | 0.2269905 | 0.27795264 | 2.3253528 | 20 | 4 28.5 | 19.3 |
| 41480 2000 $QZ_{29}$ | 13.8 | X | 212.00113 | 250.20405 | 120.09285 | 6.54446 | 0.1836011 | 0.18101898 | 3.0949476 | 20 | 4 20.0 | 19.0 |
| 41481 Musashifuchu | 15.4 | X | 292.41123 | 180.95366 | 209.34046 | 5.75730 | 0.1431291 | 0.29374183 | 2.2412597 | 20 | 8 27.8 | 17.6 |
| 41482 2000 $QF_{37}$ | 14.3 | X | 180.49814 | 262.72007 | 182.95200 | 2.13574 | 0.0381613 | 0.19028270 | 2.9936649 | 20 | 6 21.0 | 18.5 |
| 41483 2000 $QD_{41}$ | 14.8 | X | 126.71757 | 308.85961 | 166.79705 | 8.32431 | 0.0908143 | 0.23631699 | 2.5910319 | 20 | 6 1.9 | 18.6 |
| 41484 2000 $QB_{44}$ | 15.6 | X | 150.15126 | 277.63121 | 152.86076 | 6.93183 | 0.1844968 | 0.28097143 | 2.3086669 | 20 | 5 6.6 | 19.2 |
| 41485 2000 $QF_{51}$ | 15.5 | X | 239.67329 | 250.86158 | 131.57860 | 2.73988 | 0.1593333 | 0.28707375 | 2.2758330 | 20 | 5 29.1 | 18.8 |
| 41486 2000 $QQ_{62}$ | 14.4 | X | 313.94707 | 164.11026 | 84.65632 | 5.95645 | 0.0978244 | 0.18110551 | 3.0939618 | 20 | 3 23.1 | 18.5 |
| 41487 2000 $QL_{64}$ | 15.5 | X | 36.09504 | 32.45128 | 39.06084 | 9.23726 | 0.2483674 | 0.26252212 | 2.4156024 | 20 | — | — |
| 41488 Sindbad | 12.4 | X | 88.91969 | 312.48344 | 148.52531 | 9.62089 | 0.1525224 | 0.12572436 | 3.9462970 | 20 | 4 13.9 | 18.0 |
| 41489 2000 $QL_{73}$ | 16.7 | X | 349.79006 | 167.59385 | 166.04607 | 3.60933 | 0.1259329 | 0.29739026 | 2.2228913 | 20 | 9 30.9 | 18.4 |
| 41490 2000 $QX_{75}$ | 15.5 | X | 182.62185 | 156.68021 | 230.68936 | 0.59384 | 0.0746192 | 0.23058177 | 2.6338199 | 20 | 4 8.8 | 19.4 |
| 41491 2000 $QK_{80}$ | 15.4 | X | 296.36702 | 125.56056 | 337.66739 | 7.43560 | 0.0790003 | 0.30517932 | 2.1849055 | 20 | — | — |
| 41492 2000 $QC_{89}$ | 15.2 | X | 256.96168 | 185.74177 | 210.60215 | 5.16098 | 0.1977054 | 0.29035610 | 2.2586490 | 20 | 7 2.2 | 18.1 |
| 41493 2000 $QO_{101}$ | 15.2 | X | 264.14845 | 356.62871 | 54.08913 | 5.30400 | 0.2978074 | 0.24012998 | 2.5635304 | 20 | 7 15.6 | 18.9 |
| 41494 2000 $QX_{111}$ | 15.7 | X | 150.24508 | 79.06284 | 339.88370 | 4.92229 | 0.1076464 | 0.27916478 | 2.3186168 | 20 | 4 11.3 | 18.9 |
| 41495 2000 $QH_{117}$ | 15.2 | X | 297.69177 | 234.51301 | 187.71570 | 5.48992 | 0.0865507 | 0.29326547 | 2.2436861 | 20 | 11 7.0 | 17.2 |
| 41496 2000 $QB_{118}$ | 15.2 | X | 205.60078 | 71.08577 | 265.80563 | 4.04302 | 0.1662983 | 0.27717566 | 2.3296964 | 20 | 2 23.8 | 18.9 |
| 41497 2000 $QC_{128}$ | 15.1 | X | 219.42312 | 240.35632 | 157.10194 | 1.81356 | 0.1819954 | 0.28209033 | 2.3025580 | 20 | 5 26.1 | 18.6 |
| 41498 2000 $QK_{128}$ | 15.3 | X | 115.33073 | 351.99333 | 72.18555 | 1.63003 | 0.1908254 | 0.27004610 | 2.3705226 | 20 | 3 22.6 | 18.3 |
| 41499 2000 $QH_{143}$ | 14.6 | X | 276.13191 | 269.82656 | 11.67623 | 4.44489 | 0.1385913 | 0.17978413 | 3.1091033 | 20 | 3 8.8 | 19.2 |
| 41500 2000 $QO_{143}$ | 14.4 | X | 337.81266 | 40.20827 | 166.99819 | 8.35521 | 0.1767735 | 0.22661170 | 2.6644925 | 20 | 2 11.7 | 17.3 |
| 41501 2000 $QA_{146}$ | 15.2 | X | 129.28176 | 101.29783 | 25.08804 | 9.81032 | 0.1501064 | 0.28311730 | 2.2969865 | 20 | 6 24.2 | 18.7 |
| 41502 Denchukun | 15.5 | X | 174.66541 | 156.96622 | 224.64883 | 5.03547 | 0.2762216 | 0.27712925 | 2.3299565 | 20 | 3 27.0 | 19.6 |
| 41503 2000 $QG_{148}$ | 16.1 | X | 192.69033 | 120.89975 | 196.62816 | 22.17093 | 0.1308595 | 0.37395397 | 1.9080538 | 20 | 1 2.4 | 19.1 |
| 41504 2000 $QY_{148}$ | 16.4 | X | 165.04417 | 328.02970 | 5.95630 | 21.22928 | 0.0489089 | 0.37341968 | 1.9098734 | 20 | — | — |
| 41505 2000 $QP_{150}$ | 14.7 | X | 283.26819 | 115.29916 | 301.33205 | 5.42644 | 0.2643296 | 0.24271986 | 2.5452621 | 20 | 8 22.6 | 17.5 |
| 41506 2000 $QD_{151}$ | 15.3 | X | 88.66653 | 132.13447 | 243.64984 | 3.34200 | 0.1447326 | 0.31169681 | 2.1543412 | 20 | — | — |
| 41507 2000 $QU_{157}$ | 14.4 | X | 182.51152 | 101.25276 | 270.22709 | 8.04877 | 0.0635418 | 0.17949091 | 3.1124885 | 20 | 3 19.1 | 19.3 |
| 41508 2000 $QY_{160}$ | 14.3 | X | 345.81551 | 89.85430 | 214.87524 | 8.85895 | 0.0318758 | 0.19266705 | 2.9689149 | 20 | 7 20.7 | 18.4 |
| 41509 2000 $QL_{169}$ | 15.0 | X | 127.39132 | 289.88118 | 215.27551 | 4.46175 | 0.1160231 | 0.23832923 | 2.5764270 | 20 | 7 12.2 | 18.8 |
| 41510 2000 $QU_{171}$ | 14.2 | X | 257.04869 | 125.90331 | 235.31031 | 13.58565 | 0.1280981 | 0.22946886 | 2.6423289 | 20 | 5 24.3 | 17.8 |
| 41511 2000 $QC_{174}$ | 13.8 | X | 110.28617 | 182.52821 | 290.14750 | 5.54798 | 0.1883347 | 0.23216122 | 2.6218606 | 20 | 5 18.9 | 17.8 |
| 41512 2000 $QV_{179}$ | 15.4 | X | 342.02771 | 16.08589 | 48.04502 | 2.64698 | 0.0580962 | 0.20656837 | 2.8341761 | 20 | 12 23.4 | 19.0 |
| 41513 2000 $QL_{180}$ | 15.0 | X | 116.60893 | 52.25965 | 350.94252 | 5.18273 | 0.1828569 | 0.26546997 | 2.3976868 | 20 | 2 24.7 | 18.1 |
| 41514 2000 $QR_{180}$ | 13.8 | X | 104.87300 | 356.24548 | 46.41382 | 8.91786 | 0.2224848 | 0.21347248 | 2.7727334 | 20 | 2 25.4 | 17.8 |
| 41515 2000 $QL_{181}$ | 15.6 | X | 297.16604 | 60.87858 | 311.88487 | 4.18550 | 0.1611605 | 0.28642187 | 2.2792848 | 20 | 8 6.9 | 17.7 |
| 41516 2000 $QN_{181}$ | 14.2 | X | 245.94025 | 79.23894 | 43.55213 | 13.73233 | 0.1249956 | 0.24074688 | 2.5591492 | 20 | 10 24.5 | 17.5 |
| 41517 2000 $QK_{182}$ | 14.5 | X | 216.58218 | 176.85752 | 268.99575 | 8.84320 | 0.0586839 | 0.23356061 | 2.6113775 | 20 | 8 2.3 | 18.2 |
| 41518 2000 $QD_{196}$ | 14.9 | X | 216.20290 | 326.87355 | 84.51625 | 3.90561 | 0.1632686 | 0.18600029 | 3.0394404 | 20 | 6 10.4 | 19.6 |
| 41519 2000 $QH_{196}$ | 15.0 | X | 250.92710 | 294.37390 | 39.11721 | 5.27953 | 0.0480285 | 0.23292043 | 2.6161602 | 20 | 4 20.5 | 18.7 |
| 41520 2000 $QG_{207}$ | 15.2 | X | 219.47782 | 255.34153 | 177.24523 | 13.89379 | 0.1664148 | 0.23806889 | 2.5783050 | 20 | 7 9.9 | 19.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41521 2000 $QL_{207}$ | 15.0 | $X$ | 279.11232 | 214.94063 | 174.86743 | 2.60758 | 0.1635071 | 0.24163430 | 2.5528796 | 20 | 7 26.5 | 18.1 |
| 41522 2000 $QX_{211}$ | 15.2 | $X$ | 266.52077 | 158.33240 | 330.49653 | 4.21084 | 0.0562334 | 0.20644222 | 2.8353306 | 20 | 11 28.7 | 18.9 |
| 41523 2000 $QD_{217}$ | 14.7 | $X$ | 339.33285 | 46.28089 | 153.10302 | 9.28318 | 0.0557672 | 0.22493494 | 2.6777176 | 20 | 2 21.0 | 17.8 |
| 41524 2000 $QU_{217}$ | 14.2 | $X$ | 301.89284 | 347.94453 | 35.95311 | 9.99528 | 0.0707999 | 0.18690739 | 3.0295985 | 20 | 9 4.5 | 18.3 |
| 41525 2000 $QP_{218}$ | 16.0 | $X$ | 200.73524 | 263.36644 | 325.40159 | 1.66504 | 0.1394759 | 0.26632455 | 2.3925549 | 20 | — | — |
| 41526 2000 $QW_{221}$ | 15.0 | $X$ | 142.95467 | 47.82240 | 5.12587 | 13.23582 | 0.2987926 | 0.22634603 | 2.6665770 | 20 | 4 12.3 | 19.7 |
| 41527 2000 $QX_{221}$ | 15.3 | $X$ | 180.91288 | 322.81347 | 87.61397 | 7.61706 | 0.1824053 | 0.28265439 | 2.2994937 | 20 | 5 8.8 | 19.0 |
| 41528 2000 $RN_4$ | 15.1 | $X$ | 94.39516 | 252.62468 | 145.06389 | 7.09397 | 0.1546280 | 0.26462037 | 2.4028161 | 20 | 1 12.1 | 17.7 |
| 41529 2000 $RC_6$ | 15.4 | $X$ | 71.56666 | 229.60725 | 187.41447 | 6.68060 | 0.0961469 | 0.26428168 | 2.4048686 | 20 | — | — |
| 41530 2000 $RD_9$ | 14.9 | $X$ | 232.91397 | 180.77875 | 207.35626 | 2.64247 | 0.1728031 | 0.28072768 | 2.3100031 | 20 | 5 27.9 | 18.3 |
| 41531 2000 $RN_9$ | 14.9 | $X$ | 247.62569 | 299.03133 | 105.20109 | 4.44051 | 0.1734896 | 0.23366877 | 2.6105716 | 20 | 7 3.5 | 18.6 |
| 41532 2000 $RO_9$ | 14.7 | $X$ | 204.73634 | 300.97632 | 165.68114 | 4.81478 | 0.1684335 | 0.23404780 | 2.6077523 | 20 | 8 8.6 | 18.9 |
| 41533 2000 $RV_9$ | 15.2 | $X$ | 31.32120 | 18.34215 | 55.21810 | 3.00511 | 0.1751078 | 0.25659644 | 2.4526503 | 20 | — | — |
| 41534 2000 $RX_9$ | 14.6 | $X$ | 129.89454 | 292.19254 | 207.58309 | 6.25845 | 0.0540902 | 0.27895203 | 2.3197955 | 20 | 7 4.2 | 17.7 |
| 41535 2000 $RL_{10}$ | 14.7 | $X$ | 224.21382 | 353.01775 | 60.46239 | 2.25477 | 0.2428528 | 0.23106986 | 2.6301096 | 20 | 6 15.2 | 19.1 |
| 41536 2000 $RJ_{15}$ | 15.3 | $X$ | 268.03564 | 120.14604 | 222.05941 | 5.50810 | 0.2161487 | 0.28669945 | 2.2778134 | 20 | 4 28.4 | 18.5 |
| 41537 2000 $RS_{15}$ | 15.4 | $X$ | 260.71543 | 63.99069 | 250.66510 | 6.33554 | 0.1531931 | 0.28275973 | 2.2989226 | 20 | 3 18.9 | 18.8 |
| 41538 2000 $RC_{30}$ | 14.5 | $X$ | 277.85109 | 175.68180 | 189.43920 | 18.06804 | 0.2008866 | 0.23910245 | 2.5708695 | 20 | 6 14.3 | 18.3 |
| 41539 2000 $RA_{32}$ | 15.7 | $X$ | 222.17924 | 198.45395 | 262.74483 | 6.32959 | 0.1125743 | 0.29260956 | 2.2470378 | 20 | 8 29.0 | 18.7 |
| 41540 2000 $RT_{38}$ | 15.5 | $X$ | 298.21937 | 310.81980 | 79.89401 | 1.04260 | 0.1575050 | 0.23948180 | 2.5681538 | 20 | 8 31.2 | 18.0 |
| 41541 2000 $RV_{38}$ | 15.4 | $X$ | 233.03099 | 306.16326 | 67.54814 | 0.77368 | 0.2390177 | 0.28125369 | 2.3071220 | 20 | 5 3.5 | 19.0 |
| 41542 2000 $RZ_{38}$ | 14.5 | $X$ | 313.99351 | 157.07255 | 261.80115 | 7.24768 | 0.1253946 | 0.29432072 | 2.2383199 | 20 | 12 1.5 | 16.3 |
| 41543 2000 $RU_{40}$ | 13.7 | $X$ | 156.13212 | 178.17499 | 323.02198 | 12.85849 | 0.0896609 | 0.23933183 | 2.5692266 | 20 | 8 8.2 | 17.6 |
| 41544 2000 $RD_{41}$ | 14.9 | $X$ | 33.09954 | 168.38849 | 275.07451 | 6.84785 | 0.2616362 | 0.21156213 | 2.7893998 | 20 | — | — |
| 41545 2000 $RA_{43}$ | 13.1 | $X$ | 81.96603 | 5.61069 | 217.72558 | 15.71865 | 0.1073404 | 0.24164270 | 2.5528204 | 20 | 8 26.7 | 17.0 |
| 41546 2000 $RZ_{45}$ | 15.0 | $X$ | 248.16373 | 150.06116 | 250.19169 | 4.91406 | 0.1594256 | 0.28644500 | 2.2791621 | 20 | 7 2.2 | 17.9 |
| 41547 2000 $RA_{46}$ | 15.1 | $X$ | 216.32533 | 168.58230 | 246.77399 | 5.51896 | 0.0957650 | 0.28387323 | 2.2929069 | 20 | 6 22.3 | 18.1 |
| 41548 2000 $RG_{46}$ | 14.5 | $X$ | 204.80314 | 176.32688 | 246.02874 | 5.01949 | 0.2633620 | 0.23150446 | 2.6268169 | 20 | 6 9.6 | 19.2 |
| 41549 2000 $RN_{46}$ | 15.2 | $X$ | 162.88723 | 9.29098 | 343.38364 | 5.83265 | 0.1651714 | 0.26959730 | 2.3731527 | 20 | 2 7.8 | 18.8 |
| 41550 2000 $RO_{46}$ | 15.2 | $X$ | 105.75425 | 83.66760 | 288.50663 | 2.91138 | 0.1398366 | 0.31373239 | 2.1450124 | 20 | — | — |
| 41551 2000 $RN_{50}$ | 15.6 | $X$ | 262.34970 | 115.31624 | 226.78932 | 2.75738 | 0.1869165 | 0.28194177 | 2.3033668 | 20 | 4 25.6 | 18.8 |
| 41552 2000 $RS_{52}$ | 15.8 | $X$ | 167.32266 | 225.96075 | 159.71979 | 3.06495 | 0.1930069 | 0.27146224 | 2.3622712 | 20 | 3 25.2 | 19.4 |
| 41553 2000 $RT_{52}$ | 15.2 | $X$ | 186.59298 | 338.79991 | 91.65002 | 4.22742 | 0.2145005 | 0.22770958 | 2.6559211 | 20 | 6 6.5 | 19.7 |
| 41554 2000 $RH_{53}$ | 14.1 | $X$ | 248.85043 | 195.04036 | 185.13789 | 8.58149 | 0.1121427 | 0.18316616 | 3.0707130 | 20 | 6 10.6 | 18.7 |
| 41555 2000 $RT_{53}$ | 15.2 | $X$ | 253.23255 | 170.06764 | 225.43568 | 5.52776 | 0.0930470 | 0.28319994 | 2.2965397 | 20 | 7 11.3 | 18.0 |
| 41556 2000 $RC_{54}$ | 14.4 | $X$ | 89.71306 | 70.31702 | 87.23375 | 6.06258 | 0.0584203 | 0.27654697 | 2.3332258 | 20 | 6 6.4 | 17.2 |
| 41557 2000 $RJ_{54}$ | 15.5 | $X$ | 99.51437 | 150.59913 | 191.62390 | 5.71545 | 0.1149246 | 0.25607048 | 2.4560076 | 20 | — | — |
| 41558 2000 $RG_{57}$ | 15.5 | $X$ | 272.85710 | 165.97677 | 206.49216 | 6.33132 | 0.1291977 | 0.28856042 | 2.2680095 | 20 | 6 30.4 | 18.1 |
| 41559 2000 $RD_{60}$ | 14.9 | $X$ | 149.87220 | 294.63242 | 170.88926 | 7.45344 | 0.1469669 | 0.27935857 | 2.3175443 | 20 | 6 17.8 | 18.5 |
| 41560 2000 $RF_{66}$ | 15.5 | $X$ | 355.02070 | 329.91400 | 98.65404 | 5.05369 | 0.1319432 | 0.30477559 | 2.1868346 | 20 | — | — |
| 41561 2000 $RQ_{66}$ | 14.7 | $X$ | 207.63400 | 339.94944 | 120.79269 | 5.32991 | 0.1277770 | 0.28740287 | 2.2740953 | 20 | 8 12.7 | 17.7 |
| 41562 2000 $RR_{67}$ | 15.4 | $X$ | 83.22919 | 258.15393 | 143.05416 | 2.65394 | 0.2111074 | 0.26309976 | 2.4120654 | 20 | 1 8.2 | 17.7 |
| 41563 2000 $RL_{71}$ | 14.8 | $X$ | 185.61074 | 57.06623 | 55.15854 | 3.23964 | 0.1105672 | 0.23806271 | 2.5783496 | 20 | 8 1.8 | 18.6 |
| 41564 2000 $RX_{71}$ | 14.8 | $X$ | 210.21012 | 239.66167 | 198.88101 | 7.70473 | 0.1129753 | 0.28542285 | 2.2846002 | 20 | 7 14.6 | 18.1 |
| 41565 2000 $RJ_{72}$ | 15.9 | $X$ | 166.98458 | 322.91172 | 25.93988 | 2.17414 | 0.1551473 | 0.32006254 | 2.1166359 | 20 | 1 30.7 | 18.8 |
| 41566 2000 $RU_{72}$ | 15.6 | $X$ | 298.96503 | 219.98940 | 177.52866 | 2.82350 | 0.1384155 | 0.29288568 | 2.2456253 | 20 | 9 25.6 | 17.5 |
| 41567 2000 $RN_{73}$ | 13.6 | $X$ | 250.75093 | 128.56612 | 168.94830 | 7.62423 | 0.0118785 | 0.17473674 | 3.1686910 | 20 | 3 14.2 | 18.0 |
| 41568 2000 $RU_{73}$ | 15.2 | $X$ | 77.50326 | 198.86882 | 210.68445 | 6.03835 | 0.0999995 | 0.26430951 | 2.4046998 | 20 | — | — |
| 41569 2000 $RC_{74}$ | 14.6 | $X$ | 184.52941 | 295.60363 | 209.11584 | 5.70024 | 0.0961615 | 0.29063190 | 2.2572199 | 20 | 9 16.3 | 17.8 |
| 41570 2000 $RW_{75}$ | 15.3 | $X$ | 256.40082 | 116.44001 | 260.48579 | 6.49708 | 0.1269203 | 0.28521697 | 2.2856996 | 20 | 6 14.5 | 18.1 |
| 41571 2000 $RT_{81}$ | 14.9 | $X$ | 216.41279 | 341.87671 | 267.27609 | 9.37314 | 0.0851106 | 0.26731121 | 2.3866639 | 20 | — | — |
| 41572 2000 $RL_{92}$ | 15.4 | $X$ | 235.58653 | 128.71007 | 323.91564 | 6.10082 | 0.0674761 | 0.29206348 | 2.2498378 | 20 | 9 12.3 | 18.1 |
| 41573 2000 $RB_{99}$ | 15.0 | $X$ | 199.66570 | 191.73801 | 248.88000 | 11.77388 | 0.2547895 | 0.23533020 | 2.5982700 | 20 | 6 27.6 | 19.6 |
| 41574 2000 $SQ_1$ | 15.6 | $X$ | 301.40925 | 278.98361 | 65.18158 | 25.77695 | 0.1288958 | 0.38965067 | 1.8564607 | 20 | 7 13.9 | 17.3 |
| 41575 2000 $ST_1$ | 15.5 | $X$ | 217.23036 | 212.38953 | 198.82651 | 5.05369 | 0.1516323 | 0.28478482 | 2.2880113 | 20 | 6 13.3 | 18.8 |
| 41576 2000 $SF_2$ | 13.9 | $X$ | 202.03369 | 229.42251 | 112.90719 | 17.59901 | 0.2692527 | 0.17818708 | 3.1276531 | 20 | 3 12.3 | 19.7 |
| 41577 2000 $SV_2$ | 14.6 | $X$ | 73.09815 | 162.76840 | 41.01778 | 24.97669 | 0.1846483 | 0.39064026 | 1.8533242 | 20 | 9 8.7 | 17.5 |
| 41578 2000 $SE_3$ | 15.9 | $X$ | 45.16687 | 310.30693 | 15.69439 | 19.69311 | 0.0797274 | 0.35346116 | 1.9811084 | 20 | 12 22.4 | 18.7 |
| 41579 2000 $SG_{20}$ | 14.9 | $X$ | 23.77415 | 202.36194 | 248.99359 | 5.59255 | 0.1015025 | 0.26308970 | 2.4121269 | 20 | — | — |
| 41580 2000 $SV_{22}$ | 14.7 | $X$ | 251.73241 | 19.22363 | 34.98177 | 14.57941 | 0.1746081 | 0.23881565 | 2.5729273 | 20 | 7 26.4 | 18.6 |
| 41581 2000 $SY_{22}$ | 15.0 | $X$ | 241.40983 | 211.56679 | 206.75258 | 6.61576 | 0.1843898 | 0.23749720 | 2.5824409 | 20 | 7 12.7 | 18.9 |
| 41582 2000 $SL_{27}$ | 14.4 | $X$ | 5.99689 | 194.57768 | 296.79833 | 11.31088 | 0.1185468 | 0.21741389 | 2.7391208 | 20 | — | — |
| 41583 2000 $SP_{34}$ | 13.4 | $X$ | 347.57583 | 261.21389 | 325.39081 | 15.79183 | 0.0563225 | 0.17836390 | 3.1255857 | 20 | 4 4.4 | 17.8 |
| 41584 2000 $SL_{35}$ | 15.4 | $X$ | 279.10798 | 328.83521 | 135.98911 | 2.84174 | 0.0327040 | 0.20320761 | 2.8653394 | 20 | 11 18.9 | 19.1 |
| 41585 2000 $ST_{37}$ | 13.7 | $X$ | 86.42485 | 24.61556 | 100.51059 | 6.29237 | 0.1132925 | 0.17677477 | 3.1442895 | 20 | 5 1.5 | 18.1 |
| 41586 2000 $SH_{38}$ | 16.1 | $X$ | 129.71554 | 28.02151 | 15.22775 | 7.36247 | 0.1217737 | 0.27294082 | 2.3537322 | 20 | 3 4.1 | 19.2 |
| 41587 2000 $SX_{38}$ | 15.7 | $X$ | 71.74931 | 48.65982 | 54.62809 | 5.43365 | 0.1801380 | 0.27075856 | 2.3663624 | 20 | 3 15.2 | 18.1 |
| 41588 2000 $SC_{46}$ | 13.2 | $X$ | 60.07484 | 274.57992 | 247.39685 | 20.08884 | 0.3212206 | 0.27490238 | 2.3425222 | 20 | 6 13.1 | 15.8 |
| 41589 2000 $SJ_{46}$ | 13.5 | $X$ | 296.56573 | 53.55418 | 286.37426 | 13.73573 | 0.1399448 | 0.23660256 | 2.5889466 | 20 | 6 16.9 | 16.7 |
| 41590 2000 $SZ_{50}$ | 15.0 | $X$ | 50.79336 | 252.88236 | 237.30204 | 3.92044 | 0.0640445 | 0.22448330 | 2.6813079 | 20 | 3 4.2 | 18.3 |
| 41591 2000 $SL_{52}$ | 13.8 | $X$ | 244.64942 | 172.99296 | 267.46011 | 12.13253 | 0.1494809 | 0.24013906 | 2.5634657 | 20 | 8 15.5 | 17.6 |
| 41592 2000 $ST_{53}$ | 14.7 | $X$ | 228.22466 | 333.19585 | 229.49180 | 2.61910 | 0.0338449 | 0.21056172 | 2.7982281 | 20 | — | — |
| 41593 2000 $SH_{58}$ | 15.3 | $X$ | 308.35015 | 234.37676 | 183.78338 | 1.77556 | 0.0688972 | 0.20003739 | 2.8955335 | 20 | 10 26.6 | 19.0 |
| 41594 2000 $SG_{63}$ | 15.8 | $X$ | 3.77416 | 273.07048 | 161.77861 | 5.60216 | 0.2345838 | 0.25724975 | 2.4484961 | 20 | — | — |
| 41595 2000 $SV_{66}$ | 15.7 | $X$ | 57.53928 | 351.99352 | 102.83990 | 3.47352 | 0.1765313 | 0.26749477 | 2.3855719 | 20 | 2 1.2 | 17.5 |
| 41596 2000 $SW_{67}$ | 15.1 | $X$ | 182.86885 | 329.82045 | 177.68323 | 13.05942 | 0.1000496 | 0.24415435 | 2.5352828 | 20 | 9 13.3 | 18.8 |
| 41597 2000 $ST_{72}$ | 15.1 | $X$ | 89.38776 | 16.11868 | 62.49287 | 4.08713 | 0.0937690 | 0.27060405 | 2.3672631 | 20 | 2 22.4 | 17.8 |
| 41598 2000 $SL_{74}$ | 15.5 | $X$ | 9.40115 | 341.50905 | 108.64841 | 5.69000 | 0.1592840 | 0.25992472 | 2.4316683 | 20 | — | — |
| 41599 2000 $SV_{75}$ | 15.2 | $X$ | 106.63631 | 186.53177 | 169.17278 | 7.70198 | 0.0647256 | 0.21228175 | 2.7830923 | 20 | — | — |
| 41600 2000 $SJ_{76}$ | 15.5 | $X$ | 163.30496 | 343.23940 | 94.06240 | 4.28943 | 0.1221132 | 0.27993213 | 2.3143776 | 20 | 5 24.1 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41601 2000 $SH_{78}$ | 15.7 | X | 48.74390 | 333.84257 | 189.44960 | 0.98998 | 0.1744863 | 0.27801808 | 2.3249878 | 20 | 4 28.4 | 17.7 |
| 41602 2000 $SA_{81}$ | 15.8 | X | 56.05175 | 52.07400 | 49.90291 | 4.29318 | 0.1420245 | 0.26850913 | 2.3795601 | 20 | 2 6.5 | 18.0 |
| 41603 2000 $SN_{102}$ | 16.0 | X | 308.48764 | 223.74036 | 223.64946 | 2.79201 | 0.0600255 | 0.30356498 | 2.1926447 | 20 | — | — |
| 41604 2000 $SO_{104}$ | 15.7 | X | 190.60604 | 187.79058 | 190.65362 | 2.72299 | 0.1624662 | 0.27794273 | 2.3254081 | 20 | 4 4.4 | 19.2 |
| 41605 2000 $SV_{106}$ | 16.4 | X | 262.89993 | 197.22667 | 209.23673 | 3.59450 | 0.1395375 | 0.29062566 | 2.2572521 | 20 | 8 3.2 | 19.0 |
| 41606 2000 $SO_{108}$ | 15.5 | X | 217.67986 | 270.42713 | 187.34315 | 2.56219 | 0.1108224 | 0.29066867 | 2.2570295 | 20 | 8 21.3 | 18.3 |
| 41607 2000 $SJ_{113}$ | 15.1 | X | 118.44558 | 359.18468 | 120.87266 | 1.60058 | 0.1927310 | 0.27812273 | 2.3244046 | 20 | 6 8.2 | 18.5 |
| 41608 2000 $SS_{114}$ | 15.3 | X | 63.74808 | 41.32349 | 22.03214 | 9.42040 | 0.1918133 | 0.21369914 | 2.7707725 | 20 | 1 16.2 | 18.4 |
| 41609 2000 $SR_{117}$ | 15.7 | X | 129.18681 | 1.84669 | 59.39461 | 4.20984 | 0.2012421 | 0.27263816 | 2.3554738 | 20 | 4 4.8 | 19.1 |
| 41610 2000 $SR_{119}$ | 15.9 | X | 210.15819 | 55.20443 | 71.87925 | 5.09736 | 0.0728037 | 0.29337743 | 2.2431152 | 20 | 10 1.1 | 18.7 |
| 41611 2000 $SY_{120}$ | 15.2 | X | 277.44799 | 6.33440 | 54.77572 | 5.85252 | 0.2759112 | 0.24207190 | 2.5498021 | 20 | 8 22.2 | 18.2 |
| 41612 2000 $SO_{124}$ | 14.0 | X | 108.78829 | 312.07873 | 117.26082 | 2.78069 | 0.1058990 | 0.16993177 | 3.2281447 | 20 | 3 18.9 | 18.7 |
| 41613 2000 $SP_{144}$ | 14.0 | X | 184.33226 | 345.25372 | 351.64325 | 4.82550 | 0.1439745 | 0.17224166 | 3.1992186 | 20 | 2 16.9 | 19.2 |
| 41614 2000 $SX_{145}$ | 15.6 | X | 309.53945 | 109.45909 | 4.69536 | 5.46076 | 0.0745874 | 0.30600288 | 2.1809835 | 20 | — | — |
| 41615 2000 $SM_{149}$ | 15.8 | X | 281.52887 | 44.52682 | 25.80513 | 5.09659 | 0.1374819 | 0.29521004 | 2.2338224 | 20 | 10 14.3 | 17.7 |
| 41616 2000 $SP_{149}$ | 15.7 | X | 236.32049 | 240.16928 | 182.41476 | 2.76158 | 0.1187876 | 0.28789738 | 2.2714904 | 20 | 7 24.5 | 18.6 |
| 41617 2000 $SK_{151}$ | 15.7 | X | 237.16399 | 345.66831 | 54.80174 | 0.61621 | 0.1133361 | 0.28552217 | 2.2840705 | 20 | 6 25.3 | 18.7 |
| 41618 2000 $SU_{151}$ | 15.0 | X | 29.32642 | 269.95448 | 165.69715 | 2.12644 | 0.1584746 | 0.26032881 | 2.4291513 | 20 | — | — |
| 41619 2000 $SM_{153}$ | 16.0 | X | 234.96618 | 9.38621 | 76.34727 | 1.47129 | 0.1159704 | 0.29022791 | 2.2593140 | 20 | 8 27.3 | 18.8 |
| 41620 2000 $SU_{160}$ | 14.7 | X | 290.12597 | 38.57035 | 17.69463 | 1.60324 | 0.1821006 | 0.23882736 | 2.5728433 | 20 | 9 19.1 | 17.1 |
| 41621 2000 $SY_{161}$ | 14.5 | X | 127.23190 | 254.22701 | 90.70135 | 11.95744 | 0.2172399 | 0.26591927 | 2.3949852 | 20 | — | — |
| 41622 2000 $SP_{166}$ | 15.1 | X | 357.67002 | 97.07702 | 336.65346 | 9.44290 | 0.1927886 | 0.25620162 | 2.4551695 | 20 | — | — |
| 41623 2000 $SN_{167}$ | 14.0 | X | 175.47915 | 215.06105 | 217.13076 | 12.99358 | 0.2313681 | 0.22983636 | 2.6395115 | 20 | 5 30.9 | 18.7 |
| 41624 2000 $SU_{167}$ | 15.4 | X | 107.37424 | 167.30806 | 324.40746 | 6.26910 | 0.1344115 | 0.27917289 | 2.3185718 | 20 | 6 3.6 | 18.6 |
| 41625 2000 $SA_{168}$ | 15.4 | X | 144.64127 | 224.84031 | 250.14607 | 5.00511 | 0.0982340 | 0.28243748 | 2.3006709 | 20 | 6 21.9 | 18.5 |
| 41626 2000 $SQ_{170}$ | 15.0 | X | 34.96059 | 342.84698 | 27.77065 | 12.16798 | 0.0660061 | 0.20296194 | 2.8676511 | 20 | 12 27.4 | 19.1 |
| 41627 2000 $SK_{171}$ | 14.8 | X | 173.94270 | 311.88165 | 27.62947 | 5.37116 | 0.0660230 | 0.21827513 | 2.7319110 | 20 | 2 2.6 | 18.8 |
| 41628 2000 $SW_{176}$ | 15.8 | X | 358.64961 | 161.85384 | 294.27299 | 5.51082 | 0.0993014 | 0.25840358 | 2.4412019 | 20 | — | — |
| 41629 2000 $SA_{177}$ | 14.9 | X | 154.72180 | 269.63852 | 237.71099 | 11.61287 | 0.1842933 | 0.23553970 | 2.5967291 | 20 | 8 9.9 | 19.4 |
| 41630 2000 $SM_{185}$ | 15.8 | X | 319.94121 | 144.49205 | 340.62046 | 2.17073 | 0.1550918 | 0.25885611 | 2.4383560 | 20 | — | — |
| 41631 2000 $SN_{185}$ | 16.1 | X | 139.55086 | 126.21010 | 0.71325 | 4.16698 | 0.1369751 | 0.28399764 | 2.2922372 | 20 | 7 5.9 | 19.5 |
| 41632 2000 $SL_{204}$ | 15.1 | X | 200.47846 | 310.54352 | 194.84536 | 1.59532 | 0.0351743 | 0.19606397 | 2.9345230 | 20 | 9 29.9 | 19.1 |
| 41633 2000 $SR_{216}$ | 15.4 | X | 94.44699 | 34.50622 | 80.27634 | 7.56690 | 0.0693678 | 0.27579916 | 2.3374415 | 20 | 4 17.7 | 18.3 |
| 41634 2000 $SO_{218}$ | 14.6 | X | 292.20079 | 192.37506 | 108.94143 | 8.89594 | 0.0717594 | 0.23069610 | 2.6329496 | 20 | 5 1.9 | 18.1 |
| 41635 2000 $SE_{220}$ | 14.5 | X | 318.10532 | 348.27028 | 134.64124 | 8.77950 | 0.1815522 | 0.25488620 | 2.4636093 | 20 | — | — |
| 41636 2000 $SZ_{220}$ | 14.5 | X | 31.32043 | 153.56789 | 120.59385 | 10.54932 | 0.0583412 | 0.23959675 | 2.5673324 | 20 | 8 26.9 | 17.7 |
| 41637 2000 $SA_{225}$ | 15.6 | X | 149.60494 | 219.33356 | 16.46288 | 6.48598 | 0.1063684 | 0.25333911 | 2.4736290 | 20 | 11 29.8 | 19.3 |
| 41638 2000 $SS_{225}$ | 15.5 | X | 143.57613 | 229.93733 | 139.09361 | 7.94233 | 0.1140688 | 0.26803899 | 2.3823418 | 20 | 2 1.5 | 18.5 |
| 41639 2000 $SD_{227}$ | 14.9 | X | 133.02109 | 300.06897 | 82.89289 | 9.79699 | 0.2394811 | 0.26807061 | 2.3821544 | 20 | 2 26.9 | 18.6 |
| 41640 2000 $SJ_{227}$ | 15.5 | X | 63.08638 | 276.83207 | 178.89902 | 4.31537 | 0.1768021 | 0.21693628 | 2.7431397 | 20 | 2 22.0 | 18.4 |
| 41641 2000 $SV_{229}$ | 15.6 | X | 34.86486 | 270.84008 | 190.10868 | 2.20631 | 0.1450171 | 0.26394726 | 2.4068994 | 20 | — | — |
| 41642 2000 $SK_{230}$ | 15.9 | X | 32.08571 | 200.75388 | 253.04136 | 0.25828 | 0.2149638 | 0.26172153 | 2.4205260 | 20 | — | — |
| 41643 2000 $SH_{268}$ | 15.8 | X | 155.06822 | 157.33121 | 42.33795 | 6.20932 | 0.0905539 | 0.29653218 | 2.2271775 | 20 | 10 30.1 | 18.6 |
| 41644 2000 $SC_{269}$ | 14.2 | X | 123.53210 | 120.10198 | 56.76402 | 13.26343 | 0.2008113 | 0.23597574 | 2.5935292 | 20 | 8 31.9 | 18.7 |
| 41645 2000 $SD_{269}$ | 15.5 | X | 178.94230 | 311.72929 | 104.46145 | 4.03842 | 0.1237109 | 0.22850477 | 2.6497559 | 20 | 5 13.8 | 19.6 |
| 41646 2000 $SJ_{273}$ | 16.2 | X | 205.50912 | 253.53244 | 237.04480 | 5.33422 | 0.0858466 | 0.29464916 | 2.2366562 | 20 | 9 23.1 | 19.2 |
| 41647 2000 $ST_{275}$ | 15.8 | X | 95.07441 | 287.22890 | 204.05490 | 10.93887 | 0.1445443 | 0.27477671 | 2.3432364 | 20 | 5 21.8 | 18.8 |
| 41648 2000 $SP_{276}$ | 15.0 | X | 199.72190 | 240.18239 | 221.41362 | 6.89551 | 0.1567426 | 0.23632564 | 2.5909686 | 20 | 7 27.6 | 19.2 |
| 41649 2000 $SA_{279}$ | 14.6 | X | 205.17249 | 69.41299 | 70.48775 | 4.07952 | 0.0956280 | 0.29048854 | 2.2579624 | 20 | 10 8.3 | 17.4 |
| 41650 2000 $SU_{280}$ | 15.7 | X | 37.36449 | 299.78226 | 137.19902 | 11.34421 | 0.2412270 | 0.26256692 | 2.4153276 | 20 | — | — |
| 41651 2000 $ST_{293}$ | 15.0 | X | 103.64920 | 51.74527 | 336.06283 | 8.51930 | 0.2266734 | 0.21439816 | 2.7647467 | 20 | 2 3.2 | 18.7 |
| 41652 2000 $SA_{294}$ | 14.9 | X | 121.37471 | 348.80059 | 11.81739 | 11.52159 | 0.2861561 | 0.26472839 | 2.4021624 | 20 | 1 23.3 | 18.5 |
| 41653 2000 $SC_{294}$ | 15.0 | X | 316.22057 | 19.70529 | 348.69757 | 6.56952 | 0.1531935 | 0.29144210 | 2.2530346 | 20 | 9 12.7 | 16.5 |
| 41654 2000 $SE_{295}$ | 15.1 | X | 315.82214 | 338.26593 | 17.84530 | 11.90856 | 0.0546246 | 0.28817172 | 2.2700485 | 20 | 9 3.7 | 17.6 |
| 41655 2000 $SJ_{302}$ | 16.0 | X | 282.01543 | 288.59275 | 235.90582 | 3.23567 | 0.0676955 | 0.30913648 | 2.1662199 | 20 | — | — |
| 41656 2000 $SH_{303}$ | 15.3 | X | 152.06062 | 251.04450 | 237.18891 | 4.38835 | 0.1859221 | 0.23355731 | 2.6114020 | 20 | 7 18.2 | 19.7 |
| 41657 2000 $SN_{308}$ | 14.5 | X | 36.40192 | 286.73197 | 293.53953 | 9.49010 | 0.0843469 | 0.18297216 | 3.0728831 | 20 | 6 17.9 | 18.5 |
| 41658 2000 $SP_{319}$ | 13.9 | X | 219.21881 | 90.91046 | 20.96127 | 13.40019 | 0.1427975 | 0.23709366 | 2.5853703 | 20 | 9 8.4 | 17.8 |
| 41659 2000 $SP_{358}$ | 14.4 | X | 295.73295 | 114.94391 | 139.49330 | 15.22616 | 0.0444058 | 0.22621073 | 2.6676401 | 20 | 3 8.7 | 18.0 |
| 41660 2000 $SV_{362}$ | 15.5 | X | 222.94600 | 136.02607 | 70.43183 | 23.95346 | 0.0302391 | 0.35884573 | 1.9612405 | 20 | — | — |
| 41661 2000 $SK_{369}$ | 15.8 | X | 78.28654 | 309.25448 | 289.29294 | 5.98916 | 0.0631485 | 0.29088366 | 2.2559173 | 20 | 9 14.7 | 18.7 |
| 41662 2000 $TB$ | 15.3 | X | 136.55845 | 333.58175 | 67.69680 | 3.28786 | 0.1940676 | 0.27008063 | 2.3703206 | 20 | 3 17.1 | 18.7 |
| 41663 2000 $TK_{16}$ | 16.2 | X | 267.00827 | 320.98595 | 186.31442 | 3.26112 | 0.0555886 | 0.30439970 | 2.1886345 | 20 | — | — |
| 41664 2000 $TR_{16}$ | 16.4 | X | 218.32694 | 244.37821 | 14.23751 | 2.47865 | 0.1381835 | 0.31554080 | 2.1368090 | 20 | — | — |
| 41665 2000 $TH_{18}$ | 15.9 | X | 109.16999 | 197.54812 | 8.31628 | 4.53694 | 0.0401236 | 0.29072316 | 2.2567475 | 20 | 9 11.2 | 18.6 |
| 41666 2000 $TQ_{18}$ | 15.7 | X | 28.71410 | 144.04653 | 304.06018 | 0.53628 | 0.1511105 | 0.26127277 | 2.4232968 | 20 | — | — |
| 41667 2000 $TE_{19}$ | 15.3 | X | 118.72153 | 317.77173 | 104.81049 | 5.90423 | 0.2112850 | 0.27302580 | 2.3532438 | 20 | 3 29.1 | 18.6 |
| 41668 2000 $TP_{25}$ | 14.9 | X | 137.61877 | 33.11032 | 54.35858 | 7.12603 | 0.1662686 | 0.27398947 | 2.3477227 | 20 | 5 12.9 | 18.2 |
| 41669 2000 $TW_{28}$ | 15.2 | X | 221.18881 | 74.49472 | 316.32579 | 5.23536 | 0.1310702 | 0.28140953 | 2.3062702 | 20 | 5 20.7 | 18.7 |
| 41670 2000 $TC_{29}$ | 13.2 | X | 134.03411 | 208.11831 | 266.80241 | 13.61782 | 0.1467643 | 0.17716688 | 3.1396485 | 20 | 6 12.2 | 18.0 |
| 41671 2000 $TF_{34}$ | 13.4 | X | 213.88056 | 359.45790 | 63.55588 | 18.55512 | 0.1911689 | 0.17640503 | 3.1486815 | 20 | 6 18.9 | 18.7 |
| 41672 2000 $TX_{36}$ | 15.0 | X | 94.57338 | 227.53320 | 225.03547 | 24.04218 | 0.0688021 | 0.37654701 | 1.8992840 | 20 | 2 17.4 | 17.5 |
| 41673 2000 $TU_{39}$ | 14.7 | X | 225.87178 | 37.48023 | 28.19892 | 14.02111 | 0.1425678 | 0.24009867 | 2.5637532 | 20 | 7 14.1 | 18.8 |
| 41674 2000 $TV_{62}$ | 15.9 | X | 148.03656 | 318.07041 | 132.53533 | 2.54770 | 0.1859920 | 0.27750153 | 2.3278722 | 20 | 5 29.3 | 19.6 |
| 41675 2000 $UZ_{1}$ | 14.4 | X | 10.84399 | 310.36976 | 119.28857 | 5.16516 | 0.2171494 | 0.25423865 | 2.4677908 | 20 | — | — |
| 41676 2000 $UR_{2}$ | 15.0 | X | 91.34278 | 53.95758 | 350.38183 | 2.46119 | 0.0200335 | 0.31382163 | 2.1446058 | 20 | — | — |
| 41677 2000 $UD_{7}$ | 15.0 | X | 202.81227 | 30.23596 | 57.01788 | 4.28860 | 0.1346499 | 0.28459512 | 2.2890279 | 20 | 7 19.0 | 18.4 |
| 41678 2000 $UV_{7}$ | 15.4 | X | 76.20943 | 91.56485 | 335.74670 | 0.94015 | 0.1567703 | 0.26471207 | 2.4022612 | 20 | 1 24.8 | 17.6 |
| 41679 2000 $UC_{8}$ | 15.3 | X | 159.62236 | 255.82373 | 185.11299 | 1.33385 | 0.1493922 | 0.27800566 | 2.3250571 | 20 | 5 25.8 | 18.7 |
| 41680 2000 $UY_{8}$ | 13.1 | X | 40.40554 | 200.15749 | 60.19256 | 9.77002 | 0.0743650 | 0.23654907 | 2.5893368 | 20 | 8 25.9 | 16.5 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41681 2000 $UA_{10}$ | 14.9 | X | 43.30394 | 267.16718 | 220.01561 | 8.55999 | 0.0479229 | 0.21666227 | 2.7454520 | 20 | 2 16.7 | 18.6 |
| 41682 2000 $UP_{10}$ | 14.1 | X | 197.84570 | 143.02785 | 231.42752 | 8.45758 | 0.1073007 | 0.17489962 | 3.1667235 | 20 | 4 9.9 | 19.2 |
| 41683 2000 $UZ_{14}$ | 16.1 | X | 125.05540 | 41.01270 | 25.42182 | 6.56529 | 0.0795472 | 0.27073938 | 2.3664741 | 20 | 3 23.0 | 19.0 |
| 41684 2000 $UL_{15}$ | 15.4 | X | 216.37611 | 126.78944 | 284.78038 | 1.98071 | 0.1480460 | 0.28139990 | 2.3063228 | 20 | 6 12.8 | 18.6 |
| 41685 2000 $UG_{16}$ | 15.4 | X | 308.74145 | 162.91616 | 57.12879 | 22.56075 | 0.0405660 | 0.37148464 | 1.9164999 | 20 | 1 16.3 | 17.9 |
| 41686 2000 $UN_{16}$ | 13.9 | X | 231.71412 | 147.95401 | 332.73655 | 6.46037 | 0.1557206 | 0.24143929 | 2.5542540 | 20 | 9 25.2 | 17.6 |
| 41687 2000 $UY_{16}$ | 15.5 | X | 141.92530 | 234.76989 | 225.43398 | 3.84369 | 0.1006400 | 0.27823946 | 2.3237544 | 20 | 5 29.7 | 18.8 |
| 41688 2000 $UV_{18}$ | 14.4 | X | 358.79215 | 304.85363 | 14.28542 | 9.90031 | 0.1056198 | 0.18918821 | 3.0051997 | 20 | 9 5.6 | 18.1 |
| 41689 2000 $UW_{18}$ | 15.3 | X | 126.04944 | 355.29676 | 302.56166 | 6.22074 | 0.0982108 | 0.30494024 | 2.1860473 | 20 | — | — |
| 41690 2000 $UR_{19}$ | 14.6 | X | 121.94337 | 50.30245 | 51.96578 | 23.19500 | 0.2719869 | 0.27466920 | 2.3438478 | 20 | 5 23.7 | 18.4 |
| 41691 2000 $UF_{25}$ | 15.4 | X | 238.31863 | 303.36815 | 182.11588 | 6.47504 | 0.1525461 | 0.24371378 | 2.5383373 | 20 | 10 13.4 | 18.8 |
| 41692 2000 $UC_{27}$ | 15.4 | X | 321.44239 | 38.48813 | 168.10575 | 5.99836 | 0.0535941 | 0.26742716 | 2.3859740 | 20 | 1 29.1 | 18.4 |
| 41693 2000 $UU_{39}$ | 15.4 | X | 288.69280 | 105.24633 | 59.43576 | 3.17075 | 0.0639123 | 0.30828735 | 2.1701958 | 20 | — | — |
| 41694 2000 $UT_{41}$ | 14.9 | X | 54.33530 | 265.45114 | 216.74733 | 2.19495 | 0.1068560 | 0.21811671 | 2.7332337 | 20 | 3 5.2 | 18.1 |
| 41695 2000 $UN_{43}$ | 15.9 | X | 190.16302 | 265.52614 | 191.47284 | 1.71233 | 0.1494071 | 0.23292458 | 2.6161291 | 20 | 7 14.4 | 20.0 |
| 41696 2000 $UF_{45}$ | 15.5 | X | 349.57933 | 0.96736 | 97.45914 | 3.15189 | 0.1315636 | 0.25601622 | 2.4563546 | 20 | — | — |
| 41697 2000 $UJ_{46}$ | 15.6 | X | 26.96765 | 115.66895 | 20.07499 | 2.81808 | 0.1258965 | 0.26558116 | 2.3970175 | 20 | 1 30.3 | 17.9 |
| 41698 2000 $UO_{46}$ | 15.4 | X | 92.77378 | 137.61850 | 243.87547 | 5.17814 | 0.1540142 | 0.26192457 | 2.4192749 | 20 | — | — |
| 41699 2000 $UT_{46}$ | 15.5 | X | 325.41601 | 28.70938 | 38.95047 | 4.27507 | 0.0984791 | 0.29945741 | 2.2126497 | 20 | — | — |
| 41700 2000 $UV_{46}$ | 15.3 | X | 198.78836 | 194.75626 | 250.34349 | 0.95225 | 0.0981180 | 0.23286284 | 2.6165915 | 20 | 7 10.5 | 19.0 |
| 41701 2000 $UY_{46}$ | 15.3 | X | 112.57034 | 238.08980 | 227.27983 | 2.87515 | 0.1868699 | 0.22281670 | 2.6946616 | 20 | 5 13.2 | 19.2 |
| 41702 2000 $UN_{49}$ | 14.5 | X | 84.76763 | 329.42557 | 162.84750 | 0.20187 | 0.1350566 | 0.17085299 | 3.2165304 | 20 | 5 9.4 | 19.0 |
| 41703 2000 $UM_{50}$ | 15.4 | X | 76.52469 | 114.56869 | 236.22738 | 5.24965 | 0.1494741 | 0.25492553 | 2.4633559 | 20 | — | — |
| 41704 2000 $UX_{51}$ | 15.3 | X | 160.62327 | 129.87071 | 244.17184 | 5.46645 | 0.1490290 | 0.27078607 | 2.3662021 | 20 | 2 27.1 | 18.9 |
| 41705 2000 $UZ_{52}$ | 14.7 | X | 118.30953 | 29.64861 | 65.56052 | 8.97440 | 0.0936155 | 0.27274650 | 2.3548500 | 20 | 4 25.7 | 17.8 |
| 41706 2000 $UU_{53}$ | 15.3 | X | 223.69592 | 169.94429 | 198.32418 | 6.60869 | 0.1385119 | 0.27893380 | 2.3198965 | 20 | 4 24.8 | 18.6 |
| 41707 2000 $UU_{55}$ | 15.1 | X | 191.18967 | 241.70795 | 102.85114 | 5.96360 | 0.2482077 | 0.27241060 | 2.3567854 | 20 | 2 26.7 | 19.2 |
| 41708 2000 $UG_{56}$ | 14.6 | X | 161.38041 | 251.59373 | 217.36740 | 13.79035 | 0.1129534 | 0.22900646 | 2.6458846 | 20 | 6 29.6 | 18.9 |
| 41709 2000 $UH_{56}$ | 13.7 | X | 160.68916 | 206.69364 | 228.63412 | 17.10774 | 0.1441462 | 0.22512784 | 2.6761878 | 20 | 5 19.8 | 18.0 |
| 41710 2000 $UZ_{59}$ | 15.6 | X | 171.03642 | 83.28860 | 331.83725 | 3.66946 | 0.1232362 | 0.27786861 | 2.3258215 | 20 | 4 30.3 | 19.2 |
| 41711 2000 $US_{63}$ | 15.2 | X | 315.29788 | 298.15425 | 241.64596 | 8.61294 | 0.1484318 | 0.26321968 | 2.4113327 | 20 | — | — |
| 41712 2000 $UZ_{68}$ | 15.2 | X | 144.37999 | 176.01404 | 353.67119 | 5.61672 | 0.0941831 | 0.28851550 | 2.2682449 | 20 | 9 6.6 | 18.4 |
| 41713 2000 $UG_{72}$ | 15.5 | X | 292.45911 | 356.18118 | 24.71301 | 6.28805 | 0.0575762 | 0.28933910 | 2.2639385 | 20 | 8 30.6 | 17.9 |
| 41714 2000 $UO_{72}$ | 15.6 | X | 189.46553 | 324.99161 | 183.92632 | 6.43327 | 0.0403053 | 0.29058277 | 2.2574743 | 20 | 10 5.7 | 18.4 |
| 41715 2000 $UL_{73}$ | 16.2 | X | 58.36929 | 225.67505 | 239.74427 | 2.40429 | 0.1464864 | 0.26726338 | 2.3869486 | 20 | 2 13.6 | 18.4 |
| 41716 2000 $UP_{76}$ | 15.6 | X | 261.25325 | 292.86922 | 37.45693 | 5.22235 | 0.1141350 | 0.27805642 | 2.3247741 | 20 | 4 18.4 | 18.7 |
| 41717 2000 $UX_{78}$ | 14.7 | X | 232.97321 | 91.87705 | 27.32271 | 4.10456 | 0.1377507 | 0.24141463 | 2.5544280 | 20 | 9 30.2 | 18.1 |
| 41718 2000 $UK_{79}$ | 15.6 | X | 75.75565 | 65.37036 | 248.26551 | 4.61448 | 0.1692692 | 0.30100766 | 2.2050461 | 20 | — | — |
| 41719 2000 $UL_{79}$ | 15.4 | X | 246.15272 | 83.14107 | 252.73964 | 5.51853 | 0.1455938 | 0.27713786 | 2.3299082 | 20 | 4 2.1 | 18.8 |
| 41720 2000 $UN_{79}$ | 15.1 | X | 84.91110 | 213.24231 | 247.14064 | 6.10319 | 0.0727039 | 0.26889412 | 2.3772883 | 20 | 3 8.5 | 18.1 |
| 41721 2000 $UU_{79}$ | 15.4 | X | 281.06907 | 358.63095 | 43.19922 | 4.81662 | 0.1311032 | 0.28931351 | 2.2640720 | 20 | 8 31.8 | 17.6 |
| 41722 2000 $UD_{80}$ | 15.1 | X | 22.31889 | 334.82906 | 251.81651 | 2.70596 | 0.1337734 | 0.27717216 | 2.3297160 | 20 | 6 10.1 | 16.8 |
| 41723 2000 $UP_{80}$ | 15.5 | X | 169.32001 | 2.29681 | 64.12875 | 6.67268 | 0.0870974 | 0.27781093 | 2.3261434 | 20 | 5 14.6 | 18.6 |
| 41724 2000 $UV_{84}$ | 15.8 | X | 150.54641 | 358.54092 | 166.62127 | 4.75730 | 0.0469066 | 0.29000491 | 2.2604721 | 20 | 9 6.8 | 18.8 |
| 41725 2000 $UK_{86}$ | 15.4 | X | 164.69746 | 1.05116 | 177.78302 | 5.24966 | 0.1435746 | 0.29244907 | 2.2478598 | 20 | 10 10.4 | 18.6 |
| 41726 2000 $UP_{91}$ | 16.2 | X | 306.50390 | 197.31437 | 282.36643 | 2.42704 | 0.1903989 | 0.25324149 | 2.4742646 | 20 | — | — |
| 41727 2000 $UR_{91}$ | 15.6 | X | 330.34937 | 255.61476 | 335.95894 | 3.73529 | 0.0831812 | 0.27550653 | 2.3390964 | 20 | 3 11.8 | 18.3 |
| 41728 2000 $UF_{92}$ | 15.5 | X | 10.62123 | 227.21844 | 259.26813 | 8.84112 | 0.1543541 | 0.26281605 | 2.4138010 | 20 | — | — |
| 41729 2000 $UF_{95}$ | 16.0 | X | 110.03155 | 119.14525 | 12.83633 | 7.24907 | 0.0600430 | 0.27845797 | 2.3225386 | 20 | 5 27.1 | 19.0 |
| 41730 2000 $UF_{96}$ | 15.8 | X | 358.67910 | 155.30737 | 333.31856 | 5.33445 | 0.0889606 | 0.26149043 | 2.4219519 | 20 | — | — |
| 41731 2000 $UA_{97}$ | 15.9 | X | 53.83526 | 84.59805 | 328.19572 | 2.75132 | 0.0525217 | 0.31048753 | 2.1599313 | 20 | — | — |
| 41732 2000 $UU_{98}$ | 14.8 | X | 115.40825 | 126.58459 | 316.32048 | 3.48652 | 0.2008192 | 0.22092533 | 2.7100193 | 20 | 4 17.5 | 18.9 |
| 41733 2000 $UY_{98}$ | 15.1 | X | 293.03115 | 220.54200 | 281.21183 | 4.96079 | 0.0397811 | 0.30502140 | 2.1856595 | 20 | — | — |
| 41734 2000 $UL_{100}$ | 15.1 | X | 135.60729 | 174.69817 | 12.80744 | 6.74373 | 0.1239673 | 0.28780168 | 2.2719939 | 20 | 9 22.1 | 18.3 |
| 41735 2000 $UY_{100}$ | 14.5 | X | 215.95702 | 119.71904 | 321.74774 | 4.14784 | 0.1213436 | 0.23423591 | 2.6063560 | 20 | 7 23.6 | 18.3 |
| 41736 2000 $UN_{102}$ | 14.9 | X | 41.03686 | 347.84301 | 274.99782 | 4.26327 | 0.0669705 | 0.28762228 | 2.2729386 | 20 | 8 28.5 | 17.6 |
| 41737 2000 $UX_{103}$ | 14.8 | X | 61.55570 | 254.64333 | 324.28752 | 6.49273 | 0.0777930 | 0.28178093 | 2.3042432 | 20 | 7 29.8 | 17.5 |
| 41738 2000 $UR_{104}$ | 15.2 | X | 18.18530 | 281.64553 | 295.44510 | 5.53494 | 0.1165820 | 0.27530638 | 2.3402299 | 20 | 5 13.5 | 17.4 |
| 41739 2000 $UP_{112}$ | 15.0 | X | 324.45445 | 220.98556 | 31.70840 | 4.69609 | 0.1814924 | 0.22644511 | 2.6657991 | 20 | 3 25.0 | 17.9 |
| 41740 Yuenkwokyung | 14.7 | X | 240.44624 | 92.10749 | 73.55004 | 4.71135 | 0.0781631 | 0.30046677 | 2.2076917 | 20 | — | — |
| 41741 2000 $VG$ | 15.8 | X | 6.76977 | 309.25202 | 60.73308 | 2.41403 | 0.0214166 | 0.29719604 | 2.2238596 | 20 | 12 7.4 | 18.1 |
| 41742 Wongkakui | 14.8 | X | 194.11140 | 341.21602 | 314.24417 | 2.23333 | 0.0780891 | 0.26326764 | 2.4110399 | 20 | — | — |
| 41743 2000 $VJ_{14}$ | 15.4 | X | 211.73751 | 214.79563 | 201.96214 | 5.00814 | 0.1785288 | 0.28220839 | 2.3019158 | 20 | 6 13.2 | 18.9 |
| 41744 2000 $VA_{15}$ | 16.1 | X | 64.50639 | 278.69230 | 80.89403 | 3.76850 | 0.2024089 | 0.30661969 | 2.1780576 | 20 | — | — |
| 41745 2000 $VQ_{15}$ | 15.3 | X | 146.70400 | 15.29724 | 198.62231 | 2.56466 | 0.0207727 | 0.29518244 | 2.2339616 | 20 | 11 10.9 | 17.9 |
| 41746 2000 $VD_{16}$ | 15.3 | X | 92.13974 | 254.21485 | 154.26980 | 3.53166 | 0.1205137 | 0.26454227 | 2.4032890 | 20 | 1 18.3 | 18.0 |
| 41747 2000 $VY_{24}$ | 16.1 | X | 55.82083 | 220.64976 | 16.51310 | 0.77910 | 0.0091708 | 0.28503620 | 2.2866658 | 20 | 8 5.4 | 18.7 |
| 41748 2000 $VC_{27}$ | 15.2 | X | 45.69469 | 103.18046 | 99.79873 | 6.40452 | 0.1098022 | 0.27759866 | 2.3273291 | 20 | 6 14.1 | 17.5 |
| 41749 2000 $VD_{27}$ | 15.5 | X | 272.22343 | 244.05361 | 128.13966 | 3.76599 | 0.1879455 | 0.28579766 | 2.2826024 | 20 | 6 19.8 | 18.4 |
| 41750 2000 $VK_{28}$ | 15.6 | X | 134.84931 | 277.68335 | 82.70945 | 7.18641 | 0.1426845 | 0.26443291 | 2.4039516 | 20 | 1 16.4 | 18.8 |
| 41751 2000 $VT_{29}$ | 14.8 | X | 74.74808 | 320.82923 | 106.72378 | 6.58944 | 0.0904852 | 0.26281581 | 2.4138024 | 20 | 1 14.3 | 17.3 |
| 41752 2000 $VF_{30}$ | 14.6 | X | 219.21539 | 195.61062 | 230.88710 | 12.35629 | 0.0649722 | 0.23090311 | 2.6313757 | 20 | 7 9.7 | 18.6 |
| 41753 2000 $VH_{30}$ | 14.8 | X | 158.09681 | 292.72445 | 119.92207 | 6.20675 | 0.1850591 | 0.27228406 | 2.3575156 | 20 | 4 21.8 | 18.6 |
| 41754 2000 $VS_{31}$ | 14.0 | X | 164.05238 | 359.76091 | 61.10236 | 5.88678 | 0.2629945 | 0.17394460 | 3.1783038 | 20 | 5 9.8 | 19.6 |
| 41755 2000 $VY_{31}$ | 15.1 | X | 255.38481 | 33.79714 | 61.27499 | 6.29515 | 0.0973806 | 0.24147196 | 2.5540236 | 20 | 10 5.6 | 18.4 |
| 41756 2000 $VE_{33}$ | 15.0 | X | 163.02470 | 336.21738 | 71.23797 | 5.98610 | 0.1212895 | 0.22283734 | 2.6944952 | 20 | 4 17.9 | 19.2 |
| 41757 2000 $VM_{33}$ | 15.6 | X | 101.11066 | 186.30457 | 211.89572 | 1.55727 | 0.1701283 | 0.26390576 | 2.4071518 | 20 | 1 25.6 | 18.3 |
| 41758 2000 $VP_{33}$ | 15.3 | X | 207.24762 | 330.67005 | 91.26370 | 2.59861 | 0.1382230 | 0.28089016 | 2.3091122 | 20 | 6 17.9 | 18.7 |
| 41759 2000 $VZ_{33}$ | 15.0 | X | 137.44635 | 338.87465 | 71.63772 | 2.60529 | 0.1274872 | 0.21955775 | 2.7212610 | 20 | 3 26.3 | 19.0 |
| 41760 2000 $VF_{34}$ | 14.1 | X | 176.95271 | 304.13525 | 215.39422 | 6.48886 | 0.0791773 | 0.28885073 | 2.2664896 | 20 | 9 28.7 | 17.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41761 2000 $VP_{34}$ | 15.5 | X | 358.95386 | 128.52448 | 220.72992 | 3.00141 | 0.2177864 | 0.29489537 | 2.2354112 | 20 | 11 26.3 | 17.5 |
| 41762 2000 $VZ_{34}$ | 14.9 | X | 155.75633 | 46.92328 | 69.51182 | 6.40760 | 0.0313551 | 0.22937117 | 2.6430791 | 20 | 7 2.5 | 18.5 |
| 41763 2000 $VA_{35}$ | 15.4 | X | 256.32920 | 108.61091 | 228.06481 | 5.69391 | 0.1623030 | 0.27758716 | 2.3273934 | 20 | 4 13.9 | 18.6 |
| 41764 2000 $VO_{35}$ | 15.1 | X | 16.58077 | 7.12611 | 191.97419 | 1.91713 | 0.1425545 | 0.27186843 | 2.3599177 | 20 | 4 14.2 | 16.9 |
| 41765 2000 $VV_{35}$ | 15.3 | X | 55.60161 | 20.57307 | 220.41225 | 6.13555 | 0.1062857 | 0.28498389 | 2.2869457 | 20 | 8 23.9 | 18.1 |
| 41766 2000 $VB_{36}$ | 14.5 | X | 308.03508 | 318.15109 | 95.91272 | 13.78071 | 0.2223337 | 0.24235427 | 2.5478211 | 20 | 10 27.5 | 16.9 |
| 41767 2000 $VQ_{36}$ | 13.8 | X | 338.89256 | 313.14470 | 106.90192 | 14.92624 | 0.1665964 | 0.24514337 | 2.5284592 | 20 | — | — |
| 41768 2000 $VB_{37}$ | 14.6 | X | 298.93507 | 297.11316 | 109.29521 | 6.45243 | 0.2789730 | 0.23991651 | 2.5650507 | 20 | 9 8.3 | 16.8 |
| 41769 2000 $VH_{37}$ | 14.1 | X | 216.23583 | 335.41352 | 89.44271 | 14.36785 | 0.1532899 | 0.23008603 | 2.6376017 | 20 | 6 28.7 | 18.3 |
| 41770 2000 $VV_{37}$ | 14.7 | X | 213.69233 | 334.32101 | 70.42739 | 5.09707 | 0.2341292 | 0.27806483 | 2.3247273 | 20 | 5 27.0 | 18.5 |
| 41771 2000 $VB_{38}$ | 15.5 | X | 153.00103 | 165.43242 | 223.86711 | 1.39390 | 0.2059009 | 0.26805649 | 2.3822381 | 20 | 3 16.6 | 19.2 |
| 41772 2000 $VE_{43}$ | 15.9 | X | 78.79025 | 140.59029 | 3.60865 | 2.30074 | 0.1450246 | 0.27396325 | 2.3478725 | 20 | 5 15.5 | 18.6 |
| 41773 2000 $VH_{43}$ | 14.8 | X | 353.32863 | 343.04870 | 246.47510 | 7.34065 | 0.1267426 | 0.27626639 | 2.3348053 | 20 | 4 10.9 | 17.2 |
| 41774 2000 $VR_{44}$ | 15.3 | X | 295.46397 | 295.16996 | 48.57062 | 6.61085 | 0.2687521 | 0.28625963 | 2.2801459 | 20 | 5 28.1 | 17.8 |
| 41775 2000 $VS_{44}$ | 15.4 | X | 155.61590 | 31.58858 | 12.88699 | 2.67347 | 0.2183080 | 0.27238173 | 2.3569520 | 20 | 4 8.0 | 19.2 |
| 41776 2000 $VQ_{46}$ | 15.8 | X | 251.96600 | 86.82698 | 21.51871 | 7.20971 | 0.0315006 | 0.29382729 | 2.2408251 | 20 | 11 4.6 | 18.4 |
| 41777 2000 $VW_{46}$ | 15.4 | X | 71.14137 | 56.54678 | 7.63340 | 6.19636 | 0.0955776 | 0.26246690 | 2.4159412 | 20 | 1 5.2 | 18.1 |
| 41778 2000 $VB_{50}$ | 15.4 | X | 316.52256 | 141.29835 | 243.39076 | 6.28079 | 0.1294622 | 0.29200937 | 2.2501157 | 20 | 10 9.5 | 17.2 |
| 41779 2000 $VK_{50}$ | 15.3 | X | 357.57821 | 358.78966 | 261.31229 | 5.54807 | 0.1275765 | 0.27883916 | 2.3204215 | 20 | 6 12.1 | 17.0 |
| 41780 2000 $VK_{53}$ | 15.3 | X | 226.00796 | 27.84739 | 261.47365 | 5.44252 | 0.1056942 | 0.26818010 | 2.3815060 | 20 | 1 17.6 | 18.8 |
| 41781 2000 $VL_{55}$ | 15.6 | X | 205.79977 | 46.48737 | 327.44928 | 3.65854 | 0.1369612 | 0.27655989 | 2.3331532 | 20 | 4 11.7 | 19.0 |
| 41782 2000 $VM_{55}$ | 14.6 | X | 39.03948 | 104.01412 | 31.67028 | 9.58004 | 0.1074877 | 0.21658845 | 2.7460758 | 20 | 3 4.5 | 17.9 |
| 41783 2000 $VS_{55}$ | 14.7 | X | 179.52918 | 117.76742 | 16.69267 | 5.87380 | 0.0936156 | 0.28649949 | 2.2788731 | 20 | 8 31.0 | 17.8 |
| 41784 2000 $VD_{56}$ | 15.1 | X | 113.63573 | 352.04931 | 252.46877 | 10.66925 | 0.0234942 | 0.24375412 | 2.5380572 | 20 | 10 27.3 | 18.7 |
| 41785 2000 $VF_{56}$ | 14.7 | X | 300.38133 | 71.15465 | 254.82931 | 9.61143 | 0.0398155 | 0.28171772 | 2.3045879 | 20 | 6 18.8 | 17.4 |
| 41786 2000 $VL_{57}$ | 14.7 | X | 160.76231 | 19.19278 | 48.98180 | 12.42790 | 0.1706806 | 0.22474440 | 2.6792308 | 20 | 5 11.4 | 18.8 |
| 41787 2000 $VO_{57}$ | 14.2 | X | 215.67142 | 150.62670 | 254.33226 | 10.59015 | 0.0709204 | 0.22931873 | 2.6434821 | 20 | 6 8.6 | 18.1 |
| 41788 2000 $VS_{60}$ | 15.2 | X | 178.58994 | 226.48942 | 169.70027 | 2.49327 | 0.1676923 | 0.27450272 | 2.3447954 | 20 | 4 16.7 | 18.8 |
| 41789 2000 $VW_{60}$ | 14.9 | X | 249.44331 | 326.70121 | 82.76845 | 7.58510 | 0.1133676 | 0.28300386 | 2.2976003 | 20 | 7 25.6 | 17.8 |
| 41790 2000 $WY_{1}$ | 15.2 | X | 335.27857 | 174.77102 | 79.50230 | 3.46802 | 0.0269137 | 0.22360965 | 2.6882873 | 20 | 5 2.5 | 18.5 |
| 41791 2000 $WJ_{3}$ | 15.1 | X | 110.77341 | 85.37783 | 315.65694 | 5.21121 | 0.0997723 | 0.26611046 | 2.3938380 | 20 | 2 1.2 | 17.8 |
| 41792 2000 $WH_{6}$ | 15.0 | X | 173.91241 | 312.12684 | 67.62439 | 24.42392 | 0.2515043 | 0.27145122 | 2.3623352 | 20 | 4 8.2 | 19.5 |
| 41793 2000 $WW_{6}$ | 14.7 | X | 89.04715 | 303.27667 | 340.27313 | 6.94277 | 0.1210980 | 0.29441357 | 2.2378493 | 20 | 12 6.7 | 18.1 |
| 41794 2000 $WK_{11}$ | 14.9 | X | 287.90946 | 348.19634 | 18.23698 | 5.00719 | 0.2179741 | 0.28364367 | 2.2941439 | 20 | 6 30.1 | 17.3 |
| 41795 Wiens | 14.1 | X | 162.10029 | 352.62125 | 171.48939 | 9.71107 | 0.1643745 | 0.18629703 | 3.0362120 | 20 | 9 6.5 | 19.2 |
| 41796 2000 $WL_{17}$ | 14.9 | X | 182.11645 | 30.51710 | 52.23241 | 3.20617 | 0.1347550 | 0.22928176 | 2.6437662 | 20 | 6 18.7 | 19.1 |
| 41797 2000 $WN_{18}$ | 14.6 | X | 310.06444 | 286.51839 | 138.68448 | 2.82509 | 0.0638097 | 0.19483194 | 2.9468811 | 20 | 11 7.0 | 18.3 |
| 41798 2000 $WV_{18}$ | 15.3 | X | 261.60280 | 76.02768 | 255.94033 | 6.05611 | 0.1426594 | 0.27736080 | 2.3286595 | 20 | 4 14.7 | 18.5 |
| 41799 2000 $WL_{19}$ | 13.7 | X | 112.80205 | 262.18182 | 214.67790 | 23.84701 | 0.2695402 | 0.17078147 | 3.2174284 | 20 | 6 4.4 | 19.2 |
| 41800 Robwilliams | 14.0 | X | 188.91890 | 271.73628 | 220.37029 | 24.98371 | 0.2335402 | 0.23448364 | 2.6045199 | 20 | 8 15.2 | 19.0 |
| 41801 2000 $WG_{22}$ | 16.4 | X | 307.42271 | 196.50344 | 164.14929 | 5.56716 | 0.1283733 | 0.28917206 | 2.2648103 | 20 | 8 12.4 | 18.3 |
| 41802 2000 $WD_{24}$ | 15.1 | X | 189.37552 | 320.86846 | 175.46508 | 7.03834 | 0.0466673 | 0.28776500 | 2.2721870 | 20 | 9 16.1 | 18.0 |
| 41803 2000 $WR_{24}$ | 15.7 | X | 93.11373 | 294.70624 | 177.52178 | 6.79735 | 0.0644353 | 0.27164088 | 2.3612355 | 20 | 4 9.1 | 18.5 |
| 41804 2000 $WA_{30}$ | 15.1 | X | 190.36496 | 322.59008 | 162.71077 | 13.13876 | 0.2310609 | 0.23696972 | 2.5862717 | 20 | 8 15.4 | 19.6 |
| 41805 2000 $WC_{30}$ | 15.7 | X | 191.09091 | 244.92831 | 256.94340 | 6.36192 | 0.1470822 | 0.24087141 | 2.5582670 | 20 | 9 8.6 | 19.7 |
| 41806 2000 $WF_{32}$ | 15.0 | X | 83.77699 | 290.20056 | 105.00356 | 9.89084 | 0.1621728 | 0.21064879 | 2.7974569 | 20 | 1 6.1 | 18.3 |
| 41807 2000 $WS_{33}$ | 16.0 | X | 297.99053 | 227.16162 | 113.99996 | 7.67571 | 0.1454110 | 0.28422674 | 2.2910053 | 20 | 6 21.5 | 18.2 |
| 41808 2000 $WG_{34}$ | 15.4 | X | 189.45409 | 255.04721 | 176.00830 | 5.91600 | 0.1552619 | 0.27912133 | 2.3188574 | 20 | 6 11.6 | 19.0 |
| 41809 2000 $WX_{34}$ | 14.9 | X | 255.49102 | 289.19014 | 156.38719 | 6.41425 | 0.1378813 | 0.23951104 | 2.5679448 | 20 | 9 13.8 | 18.2 |
| 41810 2000 $WG_{35}$ | 14.8 | X | 258.50438 | 223.06759 | 216.72294 | 8.40538 | 0.0990286 | 0.18847470 | 3.0127795 | 20 | 9 5.2 | 19.2 |
| 41811 2000 $WK_{35}$ | 15.3 | X | 185.43377 | 39.78512 | 131.94477 | 8.70212 | 0.0466639 | 0.24115186 | 2.5562832 | 20 | 10 25.7 | 19.0 |
| 41812 2000 $WP_{35}$ | 15.6 | X | 228.97246 | 139.58940 | 193.40200 | 6.59216 | 0.1332971 | 0.27265818 | 2.3553585 | 20 | 3 14.2 | 19.0 |
| 41813 2000 $WY_{35}$ | 14.9 | X | 29.23963 | 323.07097 | 163.75176 | 5.47568 | 0.1062261 | 0.21218670 | 2.7839234 | 20 | 1 31.4 | 18.2 |
| 41814 2000 $WP_{36}$ | 15.0 | X | 270.24520 | 297.01073 | 105.94301 | 7.28088 | 0.2273680 | 0.28763090 | 2.2728932 | 20 | 7 26.4 | 17.6 |
| 41815 2000 $WU_{36}$ | 14.9 | X | 41.99258 | 314.62312 | 124.09880 | 7.07630 | 0.1143283 | 0.25873048 | 2.4391452 | 20 | — | — |
| 41816 2000 $WN_{38}$ | 15.7 | X | 190.44752 | 156.92402 | 169.17207 | 6.56767 | 0.0570657 | 0.26594464 | 2.3948330 | 20 | 1 25.1 | 19.0 |
| 41817 2000 $WX_{40}$ | 14.6 | X | 292.09817 | 286.46550 | 136.42479 | 6.74394 | 0.1166722 | 0.29143154 | 2.2530890 | 20 | 10 27.9 | 16.8 |
| 41818 2000 $WC_{41}$ | 14.6 | X | 333.35973 | 269.03991 | 120.41205 | 10.11333 | 0.2818777 | 0.24432869 | 2.5340766 | 20 | 11 24.1 | 16.4 |
| 41819 2000 $WK_{44}$ | 14.8 | X | 311.56497 | 94.05114 | 104.52086 | 8.74820 | 0.1590222 | 0.21031797 | 2.8003896 | 20 | 1 1.5 | 18.7 |
| 41820 2000 $WT_{45}$ | 15.9 | X | 322.57380 | 213.10842 | 198.01152 | 3.55340 | 0.0596425 | 0.29658178 | 2.2269292 | 20 | 12 3.7 | 18.1 |
| 41821 2000 $WU_{45}$ | 15.5 | X | 315.59448 | 47.68626 | 196.77505 | 4.70040 | 0.0443512 | 0.27203756 | 2.3589395 | 20 | 3 13.7 | 18.2 |
| 41822 2000 $WW_{47}$ | 14.9 | X | 27.63593 | 328.77548 | 143.84973 | 6.83831 | 0.0866456 | 0.25958027 | 2.4338189 | 20 | — | — |
| 41823 2000 $WZ_{47}$ | 14.9 | X | 186.28303 | 253.22208 | 241.78680 | 14.72922 | 0.0656967 | 0.23490833 | 2.6013798 | 20 | 8 26.1 | 19.1 |
| 41824 2000 $WQ_{48}$ | 14.8 | X | 259.54751 | 216.46728 | 249.09549 | 6.35945 | 0.1407567 | 0.23969812 | 2.5666085 | 20 | 10 13.1 | 18.1 |
| 41825 2000 $WZ_{48}$ | 14.7 | X | 221.12225 | 262.35804 | 268.26229 | 10.78626 | 0.2401799 | 0.23940074 | 2.5687335 | 20 | 11 5.3 | 18.8 |
| 41826 2000 $WH_{49}$ | 15.1 | X | 114.18672 | 289.17838 | 111.98097 | 9.67327 | 0.2119535 | 0.26233304 | 2.4167630 | 20 | 2 25.6 | 18.4 |
| 41827 2000 $WN_{49}$ | 14.0 | X | 260.50647 | 309.79630 | 124.78502 | 14.51798 | 0.1640685 | 0.23477788 | 2.6023433 | 20 | 9 3.4 | 17.5 |
| 41828 2000 $WM_{50}$ | 15.0 | X | 226.43992 | 184.56703 | 175.85178 | 12.61388 | 0.0428543 | 0.22443923 | 2.6816589 | 20 | 4 28.9 | 18.9 |
| 41829 2000 $WU_{53}$ | 16.2 | X | 358.43607 | 216.72980 | 242.27913 | 1.58489 | 0.1402066 | 0.25608431 | 2.4559192 | 20 | — | — |
| 41830 2000 $WT_{56}$ | 14.0 | X | 206.94713 | 239.60623 | 61.38783 | 7.09973 | 0.1203364 | 0.26627554 | 2.3928485 | 20 | 1 15.3 | 17.6 |
| 41831 2000 $WN_{57}$ | 15.1 | X | 25.34221 | 341.00121 | 104.77970 | 3.43647 | 0.1802879 | 0.25749210 | 2.4469594 | 20 | — | — |
| 41832 2000 $WB_{58}$ | 15.2 | X | 232.72469 | 350.48138 | 103.23031 | 2.63354 | 0.1389310 | 0.23710421 | 2.5852936 | 20 | 8 26.6 | 18.9 |
| 41833 2000 $WE_{58}$ | 14.9 | X | 238.03927 | 311.04503 | 82.68894 | 6.90358 | 0.1005187 | 0.23032746 | 2.6357582 | 20 | 6 17.1 | 18.7 |
| 41834 2000 $WL_{58}$ | 14.8 | X | 149.94107 | 300.64300 | 201.49730 | 1.59070 | 0.1545045 | 0.17883208 | 3.1201281 | 20 | 7 30.4 | 19.7 |
| 41835 2000 $WO_{58}$ | 15.2 | X | 156.72104 | 218.30302 | 144.04781 | 1.59982 | 0.2089826 | 0.26686495 | 2.3893239 | 20 | 2 16.5 | 18.9 |
| 41836 2000 $WP_{58}$ | 14.7 | X | 108.26021 | 350.50510 | 86.91337 | 12.23445 | 0.0142513 | 0.26733530 | 2.3865205 | 20 | 3 11.0 | 17.9 |
| 41837 2000 $WS_{58}$ | 14.8 | X | 323.23951 | 261.07419 | 109.02290 | 3.30080 | 0.0538467 | 0.23785558 | 2.5798462 | 20 | 9 24.1 | 17.8 |
| 41838 2000 $WK_{59}$ | 14.5 | X | 66.37607 | 316.13155 | 106.58107 | 5.76974 | 0.1204329 | 0.20956588 | 2.8070857 | 20 | 1 9.7 | 17.9 |
| 41839 2000 $WO_{59}$ | 14.7 | X | 158.71417 | 76.13031 | 88.05741 | 15.36532 | 0.0769339 | 0.23489209 | 2.6014998 | 20 | 9 16.9 | 18.8 |
| 41840 2000 $WS_{59}$ | 14.6 | X | 103.63220 | 44.92584 | 120.12012 | 4.77736 | 0.1668993 | 0.22536078 | 2.6743433 | 20 | 7 17.6 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41841 2000 $WF_{60}$ | 14.6 | X | 242.97015 | 233.22789 | 194.89526 | 3.56946 | 0.1547422 | 0.23442373 | 2.6049637 | 20 | 7 31.3 | 18.3 |
| 41842 2000 $WO_{60}$ | 14.1 | X | 293.96786 | 299.39630 | 98.93670 | 15.45187 | 0.1092785 | 0.23787447 | 2.5797096 | 20 | 9 18.1 | 17.5 |
| 41843 2000 $WX_{70}$ | 15.3 | X | 188.14511 | 72.00491 | 336.52635 | 5.66197 | 0.1463067 | 0.27843678 | 2.3226565 | 20 | 5 8.8 | 19.0 |
| 41844 2000 $WO_{72}$ | 14.8 | X | 23.39563 | 311.35011 | 80.31469 | 15.35212 | 0.0983434 | 0.24571951 | 2.5245053 | 20 | — | — |
| 41845 2000 $WW_{83}$ | 14.8 | X | 334.38165 | 199.59909 | 352.24216 | 4.39527 | 0.0464529 | 0.21637563 | 2.7478761 | 20 | 2 8.0 | 18.4 |
| 41846 2000 $WB_{86}$ | 14.7 | X | 61.08743 | 55.84972 | 20.20831 | 2.59464 | 0.1291239 | 0.21099415 | 2.7944034 | 20 | 1 20.1 | 18.0 |
| 41847 2000 $WK_{86}$ | 14.7 | X | 314.64671 | 28.88119 | 301.53875 | 4.32732 | 0.1572409 | 0.28263039 | 2.2996239 | 20 | 7 4.4 | 16.6 |
| 41848 2000 $WM_{86}$ | 15.8 | X | 15.44228 | 334.34905 | 15.93967 | 2.50983 | 0.1969074 | 0.29495091 | 2.2351305 | 20 | 12 19.9 | 18.2 |
| 41849 2000 $WS_{86}$ | 14.7 | X | 320.19467 | 256.26209 | 76.85713 | 7.22065 | 0.1479027 | 0.28288138 | 2.2982634 | 20 | 7 23.6 | 16.6 |
| 41850 2000 $WF_{87}$ | 15.3 | X | 53.44185 | 345.85913 | 321.44643 | 4.30033 | 0.1776060 | 0.29196318 | 2.2503530 | 20 | 12 4.9 | 18.5 |
| 41851 2000 $WK_{87}$ | 15.1 | X | 209.11242 | 333.16515 | 71.41573 | 6.08883 | 0.1055721 | 0.27618827 | 2.3352456 | 20 | 5 29.3 | 18.5 |
| 41852 2000 $WN_{87}$ | 13.6 | X | 275.58156 | 275.06019 | 94.33161 | 17.11337 | 0.2357546 | 0.18050185 | 3.1008561 | 20 | 6 11.9 | 18.0 |
| 41853 2000 $WY_{87}$ | 14.7 | X | 310.03124 | 314.56274 | 55.77574 | 7.24868 | 0.1963644 | 0.28632641 | 2.2797914 | 20 | 8 31.7 | 16.4 |
| 41854 2000 $WF_{88}$ | 14.8 | X | 301.67651 | 315.31885 | 67.59826 | 6.98808 | 0.1341316 | 0.28544226 | 2.2844967 | 20 | 9 10.8 | 16.9 |
| 41855 2000 $WV_{89}$ | 15.1 | X | 195.77669 | 73.64865 | 51.77062 | 4.54731 | 0.0766845 | 0.23676874 | 2.5877350 | 20 | 9 2.7 | 18.8 |
| 41856 2000 $WL_{90}$ | 14.5 | X | 276.53968 | 359.89338 | 72.62464 | 2.26490 | 0.0301266 | 0.19101724 | 2.9859854 | 20 | 10 4.0 | 18.5 |
| 41857 2000 $WU_{91}$ | 15.9 | X | 73.61701 | 209.53442 | 36.87600 | 2.84045 | 0.0756243 | 0.28755617 | 2.2732869 | 20 | 9 25.5 | 18.7 |
| 41858 2000 $WU_{93}$ | 14.5 | X | 150.50523 | 252.74248 | 236.55034 | 1.37179 | 0.1479594 | 0.22902315 | 2.6457560 | 20 | 7 17.5 | 18.7 |
| 41859 2000 $WD_{95}$ | 15.0 | X | 229.63397 | 347.66160 | 68.66221 | 13.85712 | 0.0138375 | 0.23141394 | 2.6275019 | 20 | 7 19.8 | 18.7 |
| 41860 2000 $WW_{95}$ | 15.3 | X | 278.43883 | 122.31022 | 266.93127 | 3.58753 | 0.1550916 | 0.28676947 | 2.2774426 | 20 | 7 29.9 | 17.9 |
| 41861 2000 $WH_{96}$ | 15.5 | X | 187.61016 | 81.97729 | 56.47908 | 3.18801 | 0.0425265 | 0.23639739 | 2.5904443 | 20 | 9 12.1 | 19.0 |
| 41862 2000 $WK_{96}$ | 14.9 | X | 215.34023 | 182.41738 | 250.06724 | 5.75528 | 0.2102301 | 0.23164965 | 2.6257192 | 20 | 7 3.2 | 19.2 |
| 41863 2000 $WU_{96}$ | 15.0 | X | 296.89780 | 326.82542 | 92.97295 | 3.58345 | 0.1493601 | 0.24200037 | 2.5503044 | 20 | 10 14.0 | 17.6 |
| 41864 2000 $WC_{97}$ | 15.3 | X | 140.77203 | 345.71525 | 351.01770 | 1.92108 | 0.1910648 | 0.26095274 | 2.4252777 | 20 | — | — |
| 41865 2000 $WW_{97}$ | 14.3 | X | 174.13983 | 313.50820 | 66.98926 | 7.00348 | 0.0466513 | 0.21828731 | 2.7318094 | 20 | 3 25.2 | 18.3 |
| 41866 2000 $WX_{97}$ | 14.7 | X | 220.13097 | 71.21379 | 274.68888 | 5.61301 | 0.1492170 | 0.27241522 | 2.3567588 | 20 | 3 19.1 | 18.5 |
| 41867 2000 $WB_{99}$ | 15.5 | X | 96.97448 | 146.69280 | 326.25515 | 0.94829 | 0.0301478 | 0.22104153 | 2.7090694 | 20 | 4 11.9 | 18.9 |
| 41868 2000 $WH_{99}$ | 15.5 | X | 120.83001 | 62.11711 | 344.68341 | 1.33923 | 0.0882952 | 0.21591733 | 2.7517631 | 20 | 2 26.4 | 19.3 |
| 41869 2000 $WK_{99}$ | 14.6 | X | 126.86178 | 267.97692 | 53.43223 | 2.77537 | 0.0137463 | 0.20410175 | 2.8569649 | 20 | — | — |
| 41870 2000 $WV_{99}$ | 16.0 | X | 334.13049 | 221.65101 | 86.01350 | 4.39287 | 0.0493199 | 0.28164790 | 2.3049687 | 20 | 7 16.1 | 18.4 |
| 41871 2000 $WD_{100}$ | 15.8 | X | 103.20014 | 250.00597 | 52.44178 | 2.09708 | 0.0613036 | 0.29886028 | 2.2155961 | 20 | — | — |
| 41872 2000 $WJ_{100}$ | 15.0 | X | 283.34383 | 11.61981 | 57.72319 | 2.97616 | 0.1147415 | 0.24058223 | 2.5603167 | 20 | 10 7.5 | 18.0 |
| 41873 2000 $WR_{100}$ | 16.3 | X | 126.74826 | 26.67637 | 28.01640 | 1.71708 | 0.1123484 | 0.26856196 | 2.3792480 | 20 | 3 12.9 | 19.2 |
| 41874 2000 $WY_{100}$ | 13.9 | X | 299.63108 | 274.01089 | 280.90449 | 8.42745 | 0.1709671 | 0.20518203 | 2.8469281 | 20 | — | — |
| 41875 2000 $WZ_{100}$ | 14.6 | X | 306.74780 | 198.14271 | 77.77532 | 9.62894 | 0.1294432 | 0.27113328 | 2.3641816 | 20 | 4 7.2 | 17.5 |
| 41876 2000 $WB_{101}$ | 14.9 | X | 149.40185 | 101.85972 | 289.74621 | 4.41671 | 0.1112187 | 0.26697729 | 2.3886536 | 20 | 3 6.3 | 18.3 |
| 41877 2000 $WE_{103}$ | 14.6 | X | 241.89409 | 335.47405 | 120.75595 | 10.62811 | 0.2262229 | 0.23865617 | 2.5740734 | 20 | 8 31.0 | 18.4 |
| 41878 2000 $WH_{104}$ | 14.2 | X | 29.57602 | 216.42330 | 127.51757 | 12.10537 | 0.0207093 | 0.19068385 | 2.9894648 | 20 | 11 13.0 | 18.5 |
| 41879 2000 $WO_{104}$ | 15.2 | X | 275.98015 | 236.57871 | 90.79103 | 4.04084 | 0.2460204 | 0.27638768 | 2.3341222 | 20 | 4 16.1 | 18.5 |
| 41880 2000 $WR_{107}$ | 15.3 | X | 349.23076 | 156.65402 | 15.23652 | 6.66829 | 0.0451556 | 0.26594860 | 2.3948092 | 20 | 1 26.5 | 18.2 |
| 41881 2000 $WH_{109}$ | 15.5 | X | 233.09561 | 120.02494 | 298.83469 | 5.48117 | 0.1173517 | 0.23363876 | 2.6107951 | 20 | 7 13.2 | 19.1 |
| 41882 2000 $WD_{111}$ | 15.3 | X | 255.26434 | 158.91190 | 327.64124 | 3.62184 | 0.1060791 | 0.24473329 | 2.5312829 | 20 | 11 11.8 | 18.4 |
| 41883 2000 $WF_{111}$ | 15.2 | X | 64.31823 | 294.30016 | 330.05170 | 4.63759 | 0.1025779 | 0.28953570 | 2.2629136 | 20 | 10 9.4 | 18.0 |
| 41884 2000 $WO_{113}$ | 14.8 | X | 157.71064 | 279.15034 | 35.03975 | 8.77376 | 0.1420545 | 0.20941178 | 2.8084626 | 20 | — | — |
| 41885 2000 $WA_{115}$ | 15.0 | X | 111.32267 | 85.90068 | 349.67848 | 5.13673 | 0.0471540 | 0.21797805 | 2.7343926 | 20 | 3 15.8 | 18.6 |
| 41886 2000 $WM_{115}$ | 15.4 | X | 206.46976 | 354.70169 | 10.77506 | 3.06547 | 0.1548314 | 0.27420498 | 2.3464925 | 20 | 4 2.8 | 18.9 |
| 41887 2000 $WW_{115}$ | 15.5 | X | 181.37679 | 319.02864 | 28.27024 | 3.05272 | 0.2253057 | 0.26915466 | 2.3757539 | 20 | 2 21.1 | 19.4 |
| 41888 2000 $WC_{118}$ | 15.0 | X | 230.38087 | 279.75981 | 63.54603 | 6.58564 | 0.1112955 | 0.27197904 | 2.3592779 | 20 | 4 3.5 | 18.4 |
| 41889 2000 $WF_{118}$ | 15.2 | X | 341.35839 | 303.62768 | 36.15827 | 4.22865 | 0.1952003 | 0.28823882 | 2.2696962 | 20 | 9 27.5 | 16.6 |
| 41890 2000 $WM_{118}$ | 15.1 | X | 124.51184 | 292.36482 | 32.37141 | 6.39594 | 0.1167501 | 0.25401116 | 2.4692639 | 20 | — | — |
| 41891 2000 $WC_{119}$ | 14.2 | X | 335.41775 | 174.27707 | 297.22108 | 4.69251 | 0.1462320 | 0.20288212 | 2.8684032 | 20 | — | — |
| 41892 2000 $WS_{119}$ | 14.6 | X | 288.79525 | 334.58104 | 46.00682 | 4.72313 | 0.1609410 | 0.23570280 | 2.5955310 | 20 | 7 30.9 | 17.6 |
| 41893 2000 $WU_{119}$ | 15.3 | X | 67.31875 | 350.18315 | 304.65543 | 6.75647 | 0.1483520 | 0.29297068 | 2.2451909 | 20 | 11 30.4 | 18.5 |
| 41894 2000 $WH_{121}$ | 14.9 | X | 67.47375 | 63.76065 | 62.67471 | 6.94431 | 0.0514354 | 0.26804280 | 2.3823192 | 20 | 3 23.5 | 17.7 |
| 41895 2000 $WJ_{121}$ | 14.6 | X | 210.91073 | 343.45663 | 66.45883 | 7.66881 | 0.1352388 | 0.22825250 | 2.6517079 | 20 | 6 5.1 | 18.7 |
| 41896 2000 $WN_{123}$ | 15.1 | X | 309.73344 | 354.55478 | 67.70546 | 2.74232 | 0.1031439 | 0.24292960 | 2.5437969 | 20 | 11 12.2 | 17.8 |
| 41897 2000 $WP_{123}$ | 15.0 | X | 146.29244 | 155.67712 | 50.88683 | 1.17115 | 0.0593539 | 0.23791618 | 2.5794082 | 20 | 10 20.1 | 18.5 |
| 41898 2000 $WN_{124}$ | 14.1 | X | 88.87772 | 331.97647 | 80.81513 | 29.93206 | 0.2813307 | 0.21111145 | 2.7933682 | 20 | 3 8.4 | 18.6 |
| 41899 2000 $WY_{124}$ | 12.8 | X | 292.59327 | 223.99346 | 90.17477 | 16.83909 | 0.0207862 | 0.17894759 | 3.1187853 | 20 | 5 27.3 | 17.2 |
| 41900 2000 $WV_{126}$ | 15.4 | X | 26.42448 | 43.47880 | 244.58651 | 5.42638 | 0.1189424 | 0.28732393 | 2.2745117 | 20 | 9 19.9 | 17.8 |
| 41901 2000 $WP_{127}$ | 15.4 | X | 103.59539 | 142.07979 | 244.59898 | 2.59755 | 0.0505497 | 0.26121420 | 2.4236591 | 20 | — | — |
| 41902 2000 $WA_{128}$ | 14.1 | X | 63.10042 | 41.58066 | 110.45167 | 1.79316 | 0.1135212 | 0.17055336 | 3.2202965 | 20 | 5 3.0 | 18.2 |
| 41903 2000 $WO_{128}$ | 16.0 | X | 122.29911 | 174.68763 | 62.41522 | 5.79814 | 0.1108631 | 0.29426994 | 2.2385774 | 20 | 11 12.5 | 19.1 |
| 41904 2000 $WJ_{130}$ | 14.2 | X | 199.26199 | 20.09731 | 78.78343 | 6.72924 | 0.1403391 | 0.18077096 | 3.0977779 | 20 | 7 24.9 | 19.1 |
| 41905 2000 $WE_{133}$ | 15.8 | X | 336.61277 | 120.70742 | 332.79251 | 7.66556 | 0.0785263 | 0.25473393 | 2.4645910 | 20 | — | — |
| 41906 2000 $WO_{135}$ | 14.3 | X | 154.15919 | 30.74636 | 65.51298 | 18.25746 | 0.1031138 | 0.17261331 | 3.1946248 | 20 | 6 5.4 | 19.3 |
| 41907 2000 $WF_{137}$ | 14.7 | X | 297.36428 | 309.40539 | 108.70342 | 16.08145 | 0.1023553 | 0.24336448 | 2.5407655 | 20 | 10 24.8 | 17.9 |
| 41908 2000 $WR_{137}$ | 15.8 | X | 233.45861 | 359.93333 | 33.59850 | 4.41972 | 0.1419959 | 0.27855003 | 2.3220269 | 20 | 6 7.0 | 19.1 |
| 41909 2000 $WO_{141}$ | 13.8 | X | 84.50293 | 33.24288 | 43.56773 | 8.57123 | 0.2061083 | 0.21203907 | 2.7852154 | 20 | 3 11.5 | 17.5 |
| 41910 2000 $WS_{141}$ | 15.0 | X | 297.72789 | 351.02532 | 55.06168 | 9.05167 | 0.2060667 | 0.28907062 | 2.2653401 | 20 | 10 2.8 | 16.7 |
| 41911 2000 $WH_{143}$ | 14.8 | X | 36.18025 | 333.64866 | 156.21921 | 13.26645 | 0.1420991 | 0.26454011 | 2.4033021 | 20 | 2 6.6 | 17.0 |
| 41912 2000 $WR_{144}$ | 15.2 | X | 282.84742 | 21.97860 | 211.47663 | 4.70863 | 0.1019924 | 0.26399944 | 2.4065823 | 20 | 1 8.9 | 18.6 |
| 41913 2000 $WF_{149}$ | 14.8 | X | 351.91177 | 169.30963 | 232.88072 | 13.32249 | 0.1780708 | 0.24543309 | 2.5264690 | 20 | — | — |
| 41914 2000 $WY_{151}$ | 14.1 | X | 195.81983 | 241.27299 | 193.47114 | 13.15646 | 0.2444113 | 0.22727730 | 2.6592878 | 20 | 6 18.2 | 19.0 |
| 41915 2000 $WJ_{152}$ | 15.0 | X | 125.71058 | 311.11722 | 197.07439 | 7.34773 | 0.0431079 | 0.27944131 | 2.3170868 | 20 | 7 9.2 | 18.2 |
| 41916 2000 $WT_{152}$ | 14.9 | X | 324.17707 | 32.93647 | 336.06039 | 5.60036 | 0.1547784 | 0.29344135 | 2.2427895 | 20 | 9 30.9 | 16.5 |
| 41917 2000 $WC_{153}$ | 15.5 | X | 337.08653 | 124.77944 | 252.79620 | 5.57825 | 0.0796394 | 0.29351493 | 2.2424146 | 20 | 11 7.4 | 17.6 |
| 41918 2000 $WA_{156}$ | 15.4 | X | 337.09280 | 264.12537 | 305.79918 | 6.33408 | 0.1762861 | 0.26779334 | 2.3837984 | 20 | 2 7.4 | 17.9 |
| 41919 2000 $WW_{156}$ | 14.1 | X | 170.15277 | 236.49608 | 286.92660 | 10.35697 | 0.0658831 | 0.18817322 | 3.0159966 | 20 | 9 9.8 | 18.8 |
| 41920 2000 $WA_{158}$ | 14.3 | X | 166.92847 | 328.81002 | 51.06468 | 10.11265 | 0.2491293 | 0.26772540 | 2.3842017 | 20 | 3 24.6 | 18.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 41921 2000 $WL_{158}$ | 14.8 | X | 339.57004 | 334.52966 | 57.42515 | 10.91509 | 0.1132173 | 0.24203290 | 2.5500759 | 20 | 11 21.3 | 17.4 |
| 41922 2000 $WT_{158}$ | 15.5 | X | 271.31249 | 242.46278 | 147.34139 | 5.69675 | 0.1711275 | 0.28680892 | 2.2772338 | 20 | 7 16.9 | 18.2 |
| 41923 2000 $WN_{159}$ | 14.0 | X | 272.24097 | 345.38157 | 65.86863 | 14.57053 | 0.1453458 | 0.23237642 | 2.6202417 | 20 | 8 25.8 | 17.6 |
| 41924 2000 $WF_{160}$ | 14.9 | X | 234.77324 | 139.75404 | 214.98150 | 13.96131 | 0.0818263 | 0.22663184 | 2.6643346 | 20 | 4 25.0 | 18.7 |
| 41925 2000 $WJ_{161}$ | 14.6 | X | 304.52428 | 162.42156 | 200.44270 | 14.29770 | 0.1116500 | 0.23741099 | 2.5830660 | 20 | 8 2.2 | 17.9 |
| 41926 2000 $WQ_{161}$ | 15.5 | X | 134.43499 | 348.27265 | 138.86701 | 8.24626 | 0.0993994 | 0.27881029 | 2.3205816 | 20 | 6 27.0 | 18.8 |
| 41927 2000 $WM_{166}$ | 14.9 | X | 286.89914 | 206.34465 | 122.96135 | 2.74501 | 0.1670440 | 0.18219613 | 3.0816025 | 20 | 5 15.5 | 19.1 |
| 41928 2000 $WQ_{172}$ | 15.1 | X | 77.18116 | 308.89128 | 153.87072 | 13.73871 | 0.1788911 | 0.21646154 | 2.7471490 | 20 | 3 29.2 | 18.6 |
| 41929 2000 $WC_{175}$ | 15.1 | X | 278.62609 | 290.96272 | 165.45228 | 9.50972 | 0.1472934 | 0.24438460 | 2.5336901 | 20 | 11 4.9 | 18.0 |
| 41930 2000 $WO_{175}$ | 14.3 | X | 25.79030 | 266.21785 | 106.44456 | 13.67219 | 0.1183562 | 0.19972129 | 2.8985879 | 20 | 12 25.1 | 18.2 |
| 41931 2000 $WO_{177}$ | 15.5 | X | 326.32852 | 209.56690 | 143.44783 | 4.86676 | 0.1932393 | 0.29082285 | 2.2562317 | 20 | 9 10.5 | 16.6 |
| 41932 2000 $WF_{178}$ | 15.2 | X | 328.00621 | 121.52991 | 85.36952 | 6.38915 | 0.0196818 | 0.21355836 | 2.7719900 | 20 | 2 23.9 | 18.9 |
| 41933 2000 $WH_{179}$ | 15.2 | X | 8.08990 | 2.59045 | 154.45522 | 7.00358 | 0.0949739 | 0.26459934 | 2.4029434 | 20 | 1 27.1 | 17.8 |
| 41934 2000 $WO_{179}$ | 14.7 | X | 6.85377 | 20.97172 | 156.30022 | 7.50318 | 0.1592702 | 0.21606545 | 2.7505054 | 20 | 2 28.6 | 17.5 |
| 41935 2000 $WQ_{179}$ | 14.5 | X | 302.21803 | 213.00045 | 96.54443 | 15.66894 | 0.1253105 | 0.22977325 | 2.6399948 | 20 | 5 20.0 | 18.0 |
| 41936 2000 $WX_{179}$ | 15.9 | X | 121.14317 | 186.80668 | 112.45408 | 3.12215 | 0.0863686 | 0.30396849 | 2.1907039 | 20 | — | — |
| 41937 2000 $WJ_{185}$ | 14.9 | X | 10.06079 | 97.10576 | 62.31655 | 3.76433 | 0.0274551 | 0.21497112 | 2.7598320 | 20 | 2 17.4 | 18.5 |
| 41938 2000 $WO_{185}$ | 15.7 | X | 266.23475 | 4.35921 | 66.35283 | 0.43195 | 0.0950466 | 0.23750680 | 2.5823712 | 20 | 9 14.6 | 18.9 |
| 41939 2000 $WQ_{186}$ | 14.9 | X | 323.36078 | 160.78574 | 225.98105 | 7.26464 | 0.1530415 | 0.24036385 | 2.5618672 | 20 | 10 13.1 | 17.4 |
| 41940 2000 $WR_{190}$ | 15.2 | X | 3.05986 | 281.98984 | 198.75893 | 3.21822 | 0.0462117 | 0.21056310 | 2.7982158 | 20 | — | — |
| 41941 2000 $XF$ | 14.4 | X | 127.77628 | 119.35477 | 96.70405 | 11.91868 | 0.0919948 | 0.23560099 | 2.5962787 | 20 | 10 18.1 | 18.5 |
| 41942 2000 $XW_{1}$ | 15.2 | X | 248.50556 | 282.92833 | 90.79702 | 4.16942 | 0.1294698 | 0.22808163 | 2.6530321 | 20 | 5 30.8 | 19.1 |
| 41943 Fredrick | 14.5 | X | 318.81714 | 358.49728 | 62.68456 | 14.37456 | 0.1425450 | 0.24468785 | 2.5315963 | 20 | 11 26.9 | 17.0 |
| 41944 2000 $XR_{2}$ | 15.1 | X | 166.42066 | 115.09287 | 341.00256 | 12.10834 | 0.1396893 | 0.22988984 | 2.6391021 | 20 | 6 20.9 | 19.5 |
| 41945 2000 $XY_{5}$ | 14.2 | X | 156.31417 | 169.14424 | 337.19647 | 8.32045 | 0.1364858 | 0.23277751 | 2.6172309 | 20 | 8 15.4 | 18.3 |
| 41946 2000 $XF_{6}$ | 14.6 | X | 10.12181 | 191.28911 | 326.01524 | 7.18558 | 0.1862193 | 0.21290999 | 2.7776148 | 20 | 2 6.3 | 17.3 |
| 41947 2000 $XW_{7}$ | 14.7 | X | 137.87289 | 358.48500 | 24.67463 | 6.46259 | 0.1590690 | 0.26510623 | 2.3998795 | 20 | 2 22.0 | 18.1 |
| 41948 2000 $XX_{7}$ | 14.1 | X | 209.90002 | 45.23453 | 68.99308 | 15.26301 | 0.1559493 | 0.23406732 | 2.6076073 | 20 | 9 2.2 | 18.4 |
| 41949 2000 $XB_{8}$ | 15.0 | X | 115.75339 | 331.38290 | 336.22999 | 6.65328 | 0.1269388 | 0.30183884 | 2.2009962 | 20 | — | — |
| 41950 2000 $XA_{9}$ | 14.7 | X | 255.39986 | 341.54309 | 68.27831 | 14.90101 | 0.1762607 | 0.23283499 | 2.6168001 | 20 | 7 21.7 | 18.6 |
| 41951 2000 $XH_{10}$ | 13.7 | X | 192.21486 | 40.74594 | 71.86207 | 22.66018 | 0.0680586 | 0.23017784 | 2.6369003 | 20 | 8 18.3 | 18.0 |
| 41952 2000 $XA_{11}$ | 13.3 | X | 107.26423 | 306.54984 | 197.78752 | 16.21681 | 0.1696354 | 0.17585476 | 3.1552466 | 20 | 6 22.7 | 18.4 |
| 41953 2000 $XK_{16}$ | 14.4 | X | 136.15251 | 208.79364 | 348.23464 | 9.66205 | 0.0400571 | 0.18983654 | 2.9983536 | 20 | 9 17.8 | 18.9 |
| 41954 2000 $XX_{20}$ | 15.9 | X | 232.60018 | 24.86264 | 333.64525 | 6.55837 | 0.1448808 | 0.27762602 | 2.3271762 | 20 | 4 17.1 | 19.5 |
| 41955 2000 $XD_{22}$ | 14.9 | X | 182.98677 | 210.37699 | 341.44018 | 7.04197 | 0.1323008 | 0.24267289 | 2.5455905 | 20 | 11 4.2 | 18.9 |
| 41956 2000 $XB_{27}$ | 14.4 | X | 241.28015 | 17.19415 | 34.07327 | 10.27398 | 0.0794094 | 0.18054895 | 3.1003168 | 20 | 7 16.8 | 19.1 |
| 41957 2000 $XD_{27}$ | 14.9 | X | 324.70047 | 191.11729 | 41.52943 | 8.76173 | 0.1511825 | 0.26690485 | 2.3890857 | 20 | 2 29.6 | 17.7 |
| 41958 2000 $XK_{29}$ | 14.4 | X | 148.58672 | 68.61989 | 57.51412 | 14.84102 | 0.0747490 | 0.22702468 | 2.6612601 | 20 | 7 9.1 | 18.5 |
| 41959 2000 $XV_{29}$ | 15.0 | X | 300.17478 | 294.34923 | 47.00626 | 9.44993 | 0.1787553 | 0.23138623 | 2.6277117 | 20 | 6 16.8 | 18.2 |
| 41960 2000 $XR_{30}$ | 14.4 | X | 284.47773 | 125.84361 | 323.55092 | 8.36696 | 0.1266800 | 0.19341062 | 2.9613007 | 20 | 10 19.2 | 18.2 |
| 41961 2000 $XS_{32}$ | 15.2 | X | 41.13367 | 285.69619 | 5.16141 | 6.20879 | 0.1115099 | 0.28746186 | 2.2737841 | 20 | 10 17.0 | 17.9 |
| 41962 2000 $XG_{35}$ | 14.6 | X | 353.31572 | 287.24849 | 42.83108 | 15.23526 | 0.1243499 | 0.23493632 | 2.6011733 | 20 | 9 25.7 | 17.6 |
| 41963 2000 $XU_{35}$ | 14.7 | X | 200.12854 | 330.13849 | 348.17316 | 14.90584 | 0.1292468 | 0.21860337 | 2.7291756 | 20 | 2 7.9 | 19.1 |
| 41964 2000 $XW_{36}$ | 13.8 | X | 106.35249 | 76.16258 | 29.13128 | 18.05848 | 0.0718174 | 0.22130637 | 2.7069076 | 20 | 4 20.3 | 17.6 |
| 41965 2000 $XP_{37}$ | 14.2 | X | 167.08993 | 22.39147 | 30.02026 | 16.18984 | 0.2534707 | 0.22156723 | 2.7047826 | 20 | 4 28.8 | 19.0 |
| 41966 2000 $XU_{37}$ | 14.3 | X | 271.14594 | 5.42978 | 42.68003 | 15.51500 | 0.0907503 | 0.23369157 | 2.6104017 | 20 | 8 30.5 | 18.0 |
| 41967 2000 $XE_{39}$ | 15.3 | X | 270.83120 | 72.87145 | 325.87561 | 12.33806 | 0.1795563 | 0.23623163 | 2.5916560 | 20 | 7 26.9 | 18.7 |
| 41968 2000 $XE_{53}$ | 14.6 | X | 109.05737 | 49.25326 | 39.87279 | 9.33059 | 0.1090426 | 0.21728496 | 2.7402042 | 20 | 4 10.5 | 18.5 |
| 41969 2000 $YX$ | 14.9 | X | 182.79350 | 218.13990 | 129.55150 | 2.03131 | 0.2094853 | 0.26632765 | 2.3925363 | 20 | 2 21.5 | 18.6 |
| 41970 2000 $YZ_{3}$ | 15.6 | X | 271.11687 | 133.51179 | 80.99450 | 6.06502 | 0.1281149 | 0.25753672 | 2.4466768 | 20 | — | — |
| 41971 2000 $YM_{6}$ | 14.1 | X | 20.32811 | 202.63776 | 292.35998 | 8.32069 | 0.0872269 | 0.21084107 | 2.7957558 | 20 | 1 28.1 | 17.5 |
| 41972 2000 $YO_{8}$ | 15.2 | X | 221.15038 | 327.80784 | 153.60769 | 1.51684 | 0.2212258 | 0.18681829 | 3.0305617 | 20 | 9 4.3 | 20.1 |
| 41973 2000 $YT_{11}$ | 14.2 | X | 100.51916 | 27.98281 | 128.78189 | 26.90644 | 0.0518581 | 0.22333322 | 2.6905051 | 20 | 6 22.2 | 18.3 |
| 41974 2000 $YW_{11}$ | 14.3 | X | 203.52147 | 159.47976 | 229.27397 | 11.93983 | 0.2347418 | 0.22345811 | 2.6895026 | 20 | 4 28.8 | 19.0 |
| 41975 2000 $YU_{12}$ | 14.6 | X | 92.68323 | 301.03458 | 271.13657 | 3.29082 | 0.1046487 | 0.22913484 | 2.6448962 | 20 | 8 27.5 | 18.5 |
| 41976 2000 $YA_{15}$ | 15.3 | X | 325.40189 | 129.72672 | 230.79984 | 4.41125 | 0.1809884 | 0.28960480 | 2.2625536 | 20 | 9 17.6 | 16.9 |
| 41977 2000 $YU_{15}$ | 15.3 | X | 65.54727 | 10.56474 | 36.52085 | 0.53181 | 0.1679361 | 0.25639459 | 2.4539374 | 20 | — | — |
| 41978 2000 $YX_{15}$ | 14.3 | X | 40.34778 | 84.44691 | 39.42249 | 4.11841 | 0.1605015 | 0.21013350 | 2.8020283 | 20 | 2 21.9 | 17.2 |
| 41979 Lelumacri | 14.9 | X | 202.15075 | 39.92048 | 95.75348 | 2.66730 | 0.1981057 | 0.18474517 | 3.0531911 | 20 | 9 7.3 | 20.0 |
| 41980 2000 $YG_{18}$ | 15.1 | X | 173.51307 | 201.52414 | 182.93628 | 6.51412 | 0.1450502 | 0.26901487 | 2.3765768 | 20 | 3 26.9 | 18.7 |
| 41981 Yaobeina | 13.8 | X | 105.61360 | 107.85950 | 110.76239 | 14.40854 | 0.1312242 | 0.23222765 | 2.6213606 | 20 | 9 30.8 | 18.0 |
| 41982 2000 $YE_{21}$ | 15.3 | X | 260.44266 | 20.42619 | 345.19633 | 4.43176 | 0.1467604 | 0.27882051 | 2.3205249 | 20 | 5 30.6 | 18.5 |
| 41983 2000 $YL_{26}$ | 14.8 | X | 146.99062 | 172.69410 | 210.56626 | 14.21040 | 0.0794089 | 0.21595658 | 2.7514297 | 20 | 2 21.6 | 19.0 |
| 41984 2000 $YQ_{26}$ | 14.4 | X | 231.06414 | 237.37530 | 157.87478 | 12.33741 | 0.3024604 | 0.23114043 | 2.6295743 | 20 | 5 27.8 | 19.2 |
| 41985 2000 $YY_{28}$ | 15.4 | X | 317.97967 | 257.57924 | 86.49548 | 7.83345 | 0.2717361 | 0.28198960 | 2.3031063 | 20 | 7 17.9 | 16.8 |
| 41986 Fort Bend | 14.6 | X | 92.34309 | 80.89271 | 61.75138 | 4.23198 | 0.1396668 | 0.22001036 | 2.7175276 | 20 | 6 1.1 | 18.2 |
| 41987 2000 $YW_{29}$ | 13.7 | X | 1.96281 | 283.19862 | 119.21642 | 15.46911 | 0.0964886 | 0.24243619 | 2.5472472 | 20 | — | — |
| 41988 2000 $YX_{30}$ | 15.1 | X | 17.47871 | 281.27783 | 140.88881 | 2.76582 | 0.0460435 | 0.19970749 | 2.8987214 | 20 | — | — |
| 41989 2000 $YX_{33}$ | 14.4 | X | 336.95038 | 302.78225 | 138.47451 | 12.47664 | 0.1152187 | 0.24657702 | 2.5186490 | 20 | — | — |
| 41990 2000 $YG_{34}$ | 14.4 | X | 254.50504 | 227.35143 | 137.01774 | 16.38016 | 0.1592753 | 0.22417687 | 2.6837507 | 20 | 5 26.1 | 18.7 |
| 41991 2000 $YJ_{34}$ | 13.8 | X | 224.57852 | 334.21158 | 142.54162 | 17.63255 | 0.1503406 | 0.18329520 | 3.0692716 | 20 | 9 10.6 | 18.6 |
| 41992 2000 $YR_{35}$ | 15.1 | X | 164.97513 | 228.28241 | 277.19014 | 3.74727 | 0.1349468 | 0.23205391 | 2.6226688 | 20 | 8 20.1 | 19.2 |
| 41993 2000 $YD_{38}$ | 13.7 | X | 79.06476 | 290.20440 | 128.99972 | 10.05604 | 0.0424119 | 0.15767250 | 3.3933768 | 20 | 1 22.9 | 18.3 |
| 41994 2000 $YX_{38}$ | 14.1 | X | 174.38957 | 22.86392 | 111.38174 | 11.83320 | 0.0688425 | 0.23147242 | 2.6270593 | 20 | 8 20.6 | 18.0 |
| 41995 2000 $YF_{41}$ | 14.9 | X | 325.33783 | 193.99151 | 180.34492 | 3.51976 | 0.1730415 | 0.23878634 | 2.5731379 | 20 | 9 29.2 | 16.9 |
| 41996 2000 $YE_{43}$ | 15.4 | X | 243.64664 | 224.52756 | 136.64419 | 5.82572 | 0.2044663 | 0.27665395 | 2.3326243 | 20 | 5 2.3 | 19.0 |
| 41997 2000 $YG_{45}$ | 14.9 | X | 299.19571 | 156.09993 | 328.29468 | 1.12662 | 0.0459181 | 0.19750567 | 2.9202251 | 20 | — | — |
| 41998 2000 $YO_{45}$ | 14.1 | X | 190.82741 | 15.42726 | 128.03356 | 10.21113 | 0.0894396 | 0.18396963 | 3.0617657 | 20 | 9 14.2 | 18.8 |
| 41999 2000 $YX_{45}$ | 14.9 | X | 330.51769 | 66.21493 | 260.37045 | 5.86805 | 0.2387969 | 0.28289662 | 2.2981809 | 20 | 7 25.3 | 16.1 |
| 42000 2000 $YT_{46}$ | 15.0 | X | 209.14809 | 262.86365 | 97.68600 | 10.02938 | 0.1175892 | 0.22014306 | 2.7164354 | 20 | 4 8.5 | 19.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42001 2000 $YW_{46}$ | 15.2 | X | 246.07470 | 252.79052 | 94.83573 | 4.97267 | 0.0321954 | 0.27278748 | 2.3546142 | 20 | 5 5.2 | 18.1 |
| 42002 2000 $YU_{47}$ | 14.9 | X | 294.78263 | 138.12991 | 319.25235 | 1.98331 | 0.1434343 | 0.24425501 | 2.5345862 | 20 | 12 2.5 | 17.4 |
| 42003 2000 $YJ_{48}$ | 15.3 | X | 30.61022 | 223.01105 | 116.99764 | 4.12258 | 0.0979600 | 0.24217118 | 2.5491051 | 20 | 11 28.4 | 18.4 |
| 42004 2000 $YJ_{49}$ | 15.6 | X | 175.31079 | 351.14563 | 15.47305 | 0.33606 | 0.2068316 | 0.26824718 | 2.3811090 | 20 | 3 8.8 | 19.5 |
| 42005 2000 $YW_{49}$ | 15.5 | X | 262.77634 | 207.04784 | 98.61150 | 6.30736 | 0.0346085 | 0.21793482 | 2.7347542 | 20 | 4 4.8 | 19.3 |
| 42006 2000 $YA_{50}$ | 15.2 | X | 68.93307 | 66.00740 | 313.57621 | 1.53024 | 0.1746029 | 0.25430072 | 2.4673892 | 20 | — | — |
| 42007 2000 $YG_{50}$ | 15.2 | X | 199.88274 | 45.12144 | 60.25868 | 2.49874 | 0.0612994 | 0.23121006 | 2.6290463 | 20 | 8 11.3 | 18.8 |
| 42008 2000 $YJ_{50}$ | 15.1 | X | 60.77076 | 232.98391 | 81.88887 | 4.76079 | 0.2116732 | 0.29400159 | 2.2399394 | 20 | 12 26.5 | 18.5 |
| 42009 2000 $YM_{50}$ | 14.4 | X | 112.81014 | 1.22147 | 237.57016 | 3.28919 | 0.1162426 | 0.18477797 | 3.0528297 | 20 | 10 17.9 | 19.2 |
| 42010 2000 $YX_{58}$ | 15.0 | X | 295.63428 | 3.24883 | 13.26240 | 1.10116 | 0.1679065 | 0.23468436 | 2.6030347 | 20 | 8 2.9 | 17.8 |
| 42011 2000 $YS_{59}$ | 15.1 | X | 288.64500 | 173.44801 | 110.78045 | 9.05158 | 0.1127196 | 0.26933401 | 2.3746991 | 20 | 3 26.4 | 18.2 |
| 42012 2000 $YC_{60}$ | 14.1 | X | 316.35280 | 292.20523 | 147.99698 | 10.62152 | 0.0917236 | 0.19174819 | 2.9783921 | 20 | 12 4.5 | 18.0 |
| 42013 2000 $YL_{61}$ | 15.1 | X | 247.29077 | 295.79357 | 148.35980 | 2.77244 | 0.0230078 | 0.23395908 | 2.6084116 | 20 | 9 17.7 | 18.6 |
| 42014 2000 $YM_{61}$ | 14.4 | X | 184.72287 | 88.12639 | 124.45206 | 11.73104 | 0.0497624 | 0.19147766 | 2.9811968 | 20 | 12 3.4 | 18.9 |
| 42015 2000 $YM_{65}$ | 14.8 | X | 203.31225 | 340.84965 | 110.22192 | 2.59766 | 0.1061701 | 0.17993529 | 3.1073618 | 20 | 7 20.2 | 19.4 |
| 42016 2000 $YZ_{68}$ | 15.0 | X | 288.96919 | 9.51414 | 224.73430 | 5.55813 | 0.0953184 | 0.26593237 | 2.3949066 | 20 | 1 17.2 | 18.3 |
| 42017 2000 $YU_{72}$ | 15.5 | X | 40.11154 | 73.87897 | 105.17135 | 7.72854 | 0.0435543 | 0.27157702 | 2.3616056 | 20 | 4 24.8 | 18.3 |
| 42018 2000 $YK_{78}$ | 15.1 | X | 10.13416 | 16.50235 | 6.06590 | 1.21383 | 0.1222065 | 0.24754056 | 2.5121090 | 20 | 12 30.4 | 18.0 |
| 42019 2000 $YE_{79}$ | 15.3 | X | 5.74610 | 282.68609 | 286.01501 | 4.34690 | 0.0753832 | 0.27026673 | 2.3692323 | 20 | 4 5.8 | 17.9 |
| 42020 2000 $YP_{79}$ | 15.6 | X | 44.83458 | 108.67410 | 112.51116 | 1.14264 | 0.0305906 | 0.27792544 | 2.3255045 | 20 | 6 28.2 | 18.3 |
| 42021 2000 $YJ_{80}$ | 14.9 | X | 91.95851 | 293.70446 | 71.45668 | 3.56801 | 0.0893099 | 0.20516583 | 2.8470780 | 20 | — | — |
| 42022 2000 $YS_{81}$ | 14.7 | X | 1.07222 | 250.37061 | 98.52911 | 14.99676 | 0.0874131 | 0.24134900 | 2.5548910 | 20 | 11 1.8 | 18.0 |
| 42023 2000 $YW_{81}$ | 15.7 | X | 121.70755 | 320.41340 | 271.19607 | 5.81464 | 0.0896018 | 0.29090859 | 2.2557884 | 20 | 11 1.2 | 18.9 |
| 42024 2000 $YX_{82}$ | 15.4 | X | 200.34896 | 140.12915 | 222.73925 | 2.47778 | 0.0767927 | 0.22056202 | 2.7129944 | 20 | 3 28.2 | 19.5 |
| 42025 2000 $YL_{84}$ | 15.5 | X | 155.14169 | 246.93785 | 137.41249 | 3.33159 | 0.1819669 | 0.26840862 | 2.3801541 | 20 | 3 12.1 | 19.0 |
| 42026 2000 $YF_{86}$ | 15.3 | X | 4.36892 | 223.31865 | 135.67816 | 2.62087 | 0.1740265 | 0.24337783 | 2.5406726 | 20 | 11 26.8 | 18.1 |
| 42027 2000 $YL_{86}$ | 15.3 | X | 126.13176 | 148.05417 | 260.80343 | 5.50837 | 0.1136058 | 0.26597161 | 2.3946711 | 20 | 3 1.3 | 18.7 |
| 42028 2000 $YT_{88}$ | 14.8 | X | 281.36794 | 170.76728 | 86.62332 | 7.40877 | 0.0992494 | 0.26458428 | 2.4030346 | 20 | 2 10.5 | 18.1 |
| 42029 2000 $YV_{88}$ | 14.5 | X | 209.94146 | 271.95568 | 182.27882 | 1.51941 | 0.1297891 | 0.18094648 | 3.0957743 | 20 | 7 28.9 | 19.4 |
| 42030 2000 $YA_{89}$ | 14.6 | X | 357.27806 | 78.52904 | 152.60145 | 1.91735 | 0.0085210 | 0.16976357 | 3.2302766 | 20 | 5 4.7 | 19.0 |
| 42031 2000 $YJ_{89}$ | 15.7 | X | 58.00445 | 218.56916 | 205.18971 | 1.73594 | 0.1831206 | 0.25805711 | 2.4433865 | 20 | — | — |
| 42032 2000 $YV_{89}$ | 16.0 | X | 237.93253 | 111.54884 | 239.55292 | 1.36296 | 0.1767909 | 0.27387611 | 2.3483705 | 20 | 4 13.1 | 19.4 |
| 42033 2000 $YH_{95}$ | 15.1 | X | 29.85921 | 251.27591 | 88.65463 | 1.72539 | 0.2724043 | 0.24398843 | 2.5364320 | 20 | 12 22.7 | 18.5 |
| 42034 2000 $YD_{96}$ | 14.7 | X | 131.67329 | 120.60709 | 160.24359 | 2.37308 | 0.0416837 | 0.19423356 | 2.9529303 | 20 | 12 25.2 | 19.1 |
| 42035 2000 $YG_{96}$ | 15.4 | X | 43.13436 | 201.88046 | 130.61795 | 6.72961 | 0.1855355 | 0.29288063 | 2.2456511 | 20 | 12 28.1 | 18.4 |
| 42036 2000 $YP_{96}$ | 12.0 | X | 288.59390 | 131.51314 | 282.45120 | 6.50799 | 0.0380498 | 0.08296748 | 5.2063192 | 20 | 9 6.6 | 18.9 |
| 42037 2000 $YQ_{96}$ | 14.3 | X | 148.42347 | 30.42721 | 159.64121 | 1.34690 | 0.1237436 | 0.18235036 | 3.0798646 | 20 | 9 25.1 | 19.2 |
| 42038 2000 $YO_{97}$ | 14.3 | X | 300.73082 | 133.34291 | 125.59205 | 14.21546 | 0.1089934 | 0.21296034 | 2.7771770 | 20 | 3 14.7 | 18.2 |
| 42039 2000 $YN_{98}$ | 14.3 | X | 282.52586 | 246.76582 | 123.15331 | 14.46222 | 0.2627735 | 0.23088368 | 2.6315233 | 20 | 6 18.5 | 18.0 |
| 42040 2000 $YS_{99}$ | 13.9 | X | 359.99251 | 12.51621 | 310.01623 | 9.23537 | 0.1149583 | 0.18114247 | 3.0935409 | 20 | 9 4.4 | 17.7 |
| 42041 2000 $YB_{100}$ | 14.3 | X | 122.08023 | 151.34305 | 99.59470 | 4.22416 | 0.0876083 | 0.18720489 | 3.0263879 | 20 | 11 11.2 | 18.9 |
| 42042 2000 $YR_{101}$ | 14.9 | X | 109.52172 | 327.22978 | 151.25164 | 8.86374 | 0.1469315 | 0.22119305 | 2.7078321 | 20 | 5 24.2 | 19.0 |
| 42043 2000 $YB_{102}$ | 14.0 | X | 148.24270 | 327.50297 | 147.28967 | 13.65652 | 0.0342147 | 0.17316820 | 3.1877967 | 20 | 6 20.3 | 18.8 |
| 42044 2000 $YF_{102}$ | 14.4 | X | 130.62572 | 326.01136 | 144.89459 | 13.32637 | 0.1043815 | 0.22123484 | 2.7074911 | 20 | 6 2.9 | 18.7 |
| 42045 2000 $YJ_{103}$ | 13.4 | X | 283.45139 | 111.44345 | 269.48122 | 10.33900 | 0.0327010 | 0.17744612 | 3.1363538 | 20 | 8 1.7 | 17.8 |
| 42046 2000 $YM_{103}$ | 15.3 | X | 17.39666 | 143.86238 | 210.38909 | 6.63284 | 0.1861405 | 0.29334154 | 2.2432982 | 20 | 12 25.5 | 18.0 |
| 42047 2000 $YV_{105}$ | 13.8 | X | 69.99435 | 158.25541 | 137.14481 | 14.24557 | 0.1473966 | 0.23039598 | 2.6352356 | 20 | 11 26.5 | 18.0 |
| 42048 2000 $YE_{107}$ | 14.9 | X | 257.33617 | 103.86161 | 334.06748 | 2.00693 | 0.1648194 | 0.18648207 | 3.0342032 | 20 | 8 25.8 | 19.2 |
| 42049 2000 $YG_{107}$ | 14.9 | X | 195.33812 | 271.87417 | 83.39929 | 6.42636 | 0.0466197 | 0.21667901 | 2.7453106 | 20 | 3 17.8 | 18.9 |
| 42050 2000 $YN_{107}$ | 14.6 | X | 34.94703 | 347.80958 | 294.19812 | 8.90770 | 0.0452250 | 0.18294550 | 3.0731817 | 20 | 8 27.8 | 18.9 |
| 42051 2000 $YX_{107}$ | 14.9 | X | 118.50219 | 257.20067 | 85.45642 | 7.51047 | 0.1400542 | 0.25573164 | 2.4581766 | 20 | — | — |
| 42052 2000 $YH_{108}$ | 15.2 | X | 115.42005 | 116.52147 | 329.63480 | 2.51215 | 0.1403788 | 0.21783089 | 2.7356240 | 20 | 4 15.2 | 19.1 |
| 42053 2000 $YO_{110}$ | 14.8 | X | 52.53129 | 13.23824 | 312.20874 | 6.41608 | 0.1684896 | 0.29360050 | 2.2419789 | 20 | 12 27.8 | 17.8 |
| 42054 2000 $YA_{111}$ | 15.4 | X | 259.82216 | 338.85495 | 3.54555 | 1.76904 | 0.1523321 | 0.27463751 | 2.3440281 | 20 | 4 27.4 | 18.6 |
| 42055 2000 $YB_{112}$ | 15.2 | X | 83.15961 | 353.26184 | 332.38522 | 5.08077 | 0.1262981 | 0.29735422 | 2.2230709 | 20 | — | — |
| 42056 2000 $YF_{114}$ | 14.8 | X | 308.93285 | 97.39994 | 24.07032 | 2.22152 | 0.1077198 | 0.19803180 | 2.9150505 | 20 | — | — |
| 42057 2000 $YW_{114}$ | 15.2 | X | 27.00403 | 243.29232 | 100.06381 | 13.48681 | 0.0646912 | 0.24042803 | 2.5614113 | 20 | 11 24.9 | 18.6 |
| 42058 2000 $YF_{115}$ | 14.8 | X | 354.45077 | 359.66804 | 89.77288 | 3.26940 | 0.0136377 | 0.19839669 | 2.9114753 | 20 | — | — |
| 42059 2000 $YG_{115}$ | 15.0 | X | 325.09123 | 298.45415 | 98.75188 | 4.72642 | 0.1538175 | 0.24020003 | 2.5630319 | 20 | 11 5.0 | 17.5 |
| 42060 2000 $YX_{115}$ | 14.5 | X | 318.05952 | 247.35510 | 106.72388 | 9.89630 | 0.0703280 | 0.23034753 | 2.6356051 | 20 | 8 23.2 | 17.7 |
| 42061 2000 $YE_{116}$ | 15.1 | X | 175.09234 | 279.20222 | 86.88735 | 3.33802 | 0.2199852 | 0.26535287 | 2.3983921 | 20 | 3 10.3 | 19.1 |
| 42062 2000 $YR_{118}$ | 14.5 | X | 138.43025 | 288.58337 | 215.51057 | 12.02488 | 0.1297656 | 0.22777376 | 2.6554223 | 20 | 7 20.5 | 18.8 |
| 42063 2000 $YS_{122}$ | 15.3 | X | 220.41743 | 225.93015 | 161.98661 | 8.66090 | 0.2244061 | 0.27963106 | 2.3160385 | 20 | 5 13.9 | 19.2 |
| 42064 2000 $YE_{128}$ | 14.7 | X | 316.71623 | 326.33329 | 336.46294 | 6.24587 | 0.1720423 | 0.22258316 | 2.6965461 | 20 | 5 20.2 | 18.0 |
| 42065 2000 $YJ_{128}$ | 14.2 | X | 277.73304 | 269.78250 | 98.13029 | 12.61893 | 0.2429939 | 0.23030048 | 2.6359641 | 20 | 6 12.0 | 17.7 |
| 42066 2000 $YF_{129}$ | 15.6 | X | 283.72274 | 320.25332 | 49.43361 | 4.51697 | 0.1401314 | 0.28004836 | 2.3137372 | 20 | 7 12.6 | 18.1 |
| 42067 2000 $YU_{131}$ | 14.7 | X | 125.57284 | 162.60693 | 16.59936 | 1.56593 | 0.0830767 | 0.17713666 | 3.1400055 | 20 | 8 17.6 | 19.5 |
| 42068 2000 $YA_{133}$ | 13.0 | X | 261.05509 | 277.81662 | 10.89582 | 8.66615 | 0.0900219 | 0.15589577 | 3.4191106 | 20 | 3 9.9 | 18.1 |
| 42069 2000 $YG_{135}$ | 15.1 | X | 99.18188 | 314.71148 | 141.52685 | 6.69992 | 0.0984078 | 0.26983957 | 2.3717321 | 20 | 4 2.4 | 18.0 |
| 42070 2000 $YM_{136}$ | 13.9 | X | 179.57604 | 262.90726 | 198.69278 | 19.33444 | 0.1962129 | 0.17795083 | 3.1304207 | 20 | 7 5.3 | 19.5 |
| 42071 2000 $YS_{137}$ | 15.1 | X | 275.72712 | 118.07064 | 243.17494 | 3.29729 | 0.0670755 | 0.23020284 | 2.6367094 | 20 | 6 26.9 | 18.5 |
| 42072 2000 $YS_{139}$ | 15.7 | X | 237.84158 | 229.62726 | 113.99603 | 3.40023 | 0.2042949 | 0.27003270 | 2.3706011 | 20 | 4 3.8 | 19.4 |
| 42073 Noreen | 14.1 | X | 101.38799 | 95.15641 | 46.57110 | 19.89141 | 0.1744444 | 0.16862293 | 3.2448276 | 20 | 6 11.5 | 19.2 |
| 42074 2001 $AV_{2}$ | 14.8 | X | 41.66036 | 177.50390 | 116.88952 | 15.07610 | 0.0736472 | 0.23293452 | 2.6160546 | 20 | 10 15.2 | 18.5 |
| 42075 2001 $AL_{3}$ | 14.3 | X | 99.08355 | 309.38117 | 126.41993 | 10.09618 | 0.1520482 | 0.21449960 | 2.7638749 | 20 | 3 20.3 | 18.2 |
| 42076 2001 $AQ_{4}$ | 14.0 | X | 157.86172 | 322.92579 | 127.70789 | 20.14543 | 0.1096118 | 0.17161927 | 3.2069487 | 20 | 6 7.7 | 19.3 |
| 42077 2001 $AS_{4}$ | 14.1 | X | 57.45685 | 104.99197 | 133.95632 | 12.90418 | 0.1262865 | 0.22650013 | 2.6653673 | 20 | 8 24.1 | 17.5 |
| 42078 2001 $AT_{4}$ | 14.7 | X | 9.53877 | 231.67085 | 148.60207 | 8.82004 | 0.2045454 | 0.24507339 | 2.5289405 | 20 | — | — |
| 42079 2001 $AD_{7}$ | 15.4 | X | 218.41264 | 225.15281 | 88.35211 | 8.97844 | 0.1414940 | 0.26579305 | 2.3957434 | 20 | 2 12.4 | 19.2 |
| 42080 2001 $AL_{7}$ | 14.7 | X | 283.73180 | 202.74449 | 122.87075 | 15.80942 | 0.1132942 | 0.22455058 | 2.6807723 | 20 | 5 18.6 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42081 2001 $AX_7$ | 15.5 | X | 132.60312 | 177.30393 | 224.75376 | 4.87019 | 0.1388556 | 0.26540347 | 2.3980873 | 20 | 3 4.1 | 18.8 |
| 42082 2001 $AF_{11}$ | 13.3 | X | 10.22130 | 134.20792 | 128.80558 | 23.90203 | 0.1495594 | 0.17300228 | 3.1898346 | 20 | 7 8.6 | 17.2 |
| 42083 2001 $AU_{11}$ | 14.5 | X | 39.18592 | 313.10022 | 249.71718 | 0.32021 | 0.0713674 | 0.17023441 | 3.2243176 | 20 | 5 28.1 | 18.8 |
| 42084 2001 $AA_{12}$ | 15.3 | X | 198.68182 | 342.65076 | 88.02139 | 3.72246 | 0.0295616 | 0.22590730 | 2.6700283 | 20 | 6 25.0 | 18.9 |
| 42085 2001 $AD_{12}$ | 15.5 | X | 276.67357 | 204.38092 | 147.26340 | 6.09093 | 0.2012089 | 0.27807196 | 2.3246875 | 20 | 5 26.4 | 18.5 |
| 42086 2001 $AE_{13}$ | 15.7 | X | 349.88162 | 204.64664 | 169.02555 | 1.46239 | 0.2263511 | 0.24210793 | 2.5495491 | 20 | 11 28.2 | 17.8 |
| 42087 2001 $AB_{14}$ | 14.4 | X | 297.14560 | 309.76663 | 129.85966 | 9.67710 | 0.0666702 | 0.19008182 | 2.9957737 | 20 | 11 8.3 | 18.4 |
| 42088 2001 $AG_{15}$ | 14.6 | X | 218.89166 | 343.94371 | 145.28959 | 10.11628 | 0.0755264 | 0.18427685 | 3.0583619 | 20 | 9 28.3 | 19.1 |
| 42089 2001 $AQ_{15}$ | 14.3 | X | 124.33859 | 36.28270 | 155.02103 | 10.91620 | 0.1645650 | 0.17731488 | 3.1379012 | 20 | 9 5.9 | 19.4 |
| 42090 2001 $AF_{16}$ | 15.2 | X | 243.29592 | 223.66110 | 132.74969 | 4.24720 | 0.2050524 | 0.27402917 | 2.3474960 | 20 | 4 25.2 | 18.8 |
| 42091 2001 $AV_{16}$ | 13.9 | X | 220.25397 | 308.66290 | 127.37103 | 22.59658 | 0.0449351 | 0.22746045 | 2.6578601 | 20 | 7 28.5 | 17.6 |
| 42092 2001 $AU_{20}$ | 15.2 | X | 245.31522 | 218.48566 | 140.98904 | 8.60110 | 0.1408930 | 0.27778775 | 2.3262729 | 20 | 5 8.9 | 18.6 |
| 42093 2001 $AO_{23}$ | 14.9 | X | 289.70038 | 186.08958 | 114.16355 | 10.08256 | 0.1047441 | 0.21834771 | 2.7313055 | 20 | 4 23.5 | 18.7 |
| 42094 2001 $AO_{24}$ | 15.1 | X | 226.93461 | 256.72782 | 93.56989 | 4.71817 | 0.0891642 | 0.26973851 | 2.3723244 | 20 | 4 9.9 | 18.5 |
| 42095 2001 $AY_{25}$ | 14.9 | X | 323.91830 | 264.86819 | 99.28487 | 5.90668 | 0.1992237 | 0.23635850 | 2.5907285 | 20 | 9 11.1 | 17.1 |
| 42096 2001 $AZ_{25}$ | 14.1 | X | 126.29541 | 294.66158 | 345.11425 | 8.14645 | 0.0637243 | 0.19075441 | 2.9887275 | 20 | 12 17.8 | 18.7 |
| 42097 2001 $AO_{28}$ | 14.7 | X | 7.76190 | 316.01915 | 34.27671 | 6.87626 | 0.2581054 | 0.24153428 | 2.5535843 | 20 | 12 1.9 | 17.4 |
| 42098 2001 $AS_{29}$ | 15.2 | X | 28.36121 | 203.48840 | 51.52122 | 5.88080 | 0.0595744 | 0.27993000 | 2.3143893 | 20 | 7 29.4 | 17.8 |
| 42099 2001 $AN_{30}$ | 15.1 | X | 180.22471 | 61.05380 | 40.61343 | 4.43372 | 0.1718316 | 0.22861969 | 2.6488678 | 20 | 7 11.3 | 19.4 |
| 42100 2001 $AL_{31}$ | 15.0 | X | 353.06727 | 282.36345 | 67.94172 | 8.54036 | 0.1879088 | 0.24061908 | 2.5600553 | 20 | 10 27.8 | 17.5 |
| 42101 2001 $AA_{34}$ | 15.0 | X | 240.49942 | 121.07271 | 45.33684 | 4.93632 | 0.0270304 | 0.24437021 | 2.5337895 | 20 | 12 26.9 | 18.4 |
| 42102 2001 $AF_{34}$ | 14.2 | X | 333.26142 | 237.29571 | 96.03940 | 14.75489 | 0.1120411 | 0.23122112 | 2.6289625 | 20 | 8 18.5 | 17.3 |
| 42103 2001 $AO_{34}$ | 14.2 | X | 7.07354 | 178.19958 | 45.59115 | 7.09761 | 0.0653916 | 0.17040794 | 3.2221284 | 20 | 5 7.6 | 18.4 |
| 42104 2001 $AS_{35}$ | 14.1 | X | 288.97924 | 17.23106 | 78.39650 | 11.15934 | 0.0607496 | 0.19160794 | 2.9798453 | 20 | 11 16.3 | 18.1 |
| 42105 2001 $AZ_{35}$ | 14.1 | X | 199.52292 | 215.86816 | 350.10919 | 9.85349 | 0.0482056 | 0.19300366 | 2.9654620 | 20 | 12 9.0 | 18.5 |
| 42106 2001 $AB_{38}$ | 14.5 | X | 219.91642 | 64.27855 | 33.34752 | 11.74622 | 0.2066079 | 0.18037427 | 3.1023181 | 20 | 8 10.9 | 19.7 |
| 42107 2001 $AF_{38}$ | 14.2 | X | 109.79162 | 348.78352 | 23.74195 | 13.46113 | 0.2722020 | 0.25622239 | 2.4550367 | 20 | 1 25.5 | 17.7 |
| 42108 2001 $AM_{41}$ | 14.3 | X | 214.90159 | 357.18682 | 140.13305 | 11.41001 | 0.0134309 | 0.18372509 | 3.0644820 | 20 | 10 12.0 | 18.8 |
| 42109 2001 $AX_{44}$ | 15.1 | X | 152.22147 | 286.45454 | 79.81014 | 4.05146 | 0.1929652 | 0.26035731 | 2.4289740 | 20 | 2 18.1 | 18.8 |
| 42110 2001 $AC_{45}$ | 15.1 | X | 148.64185 | 252.14765 | 114.77898 | 9.46962 | 0.1867018 | 0.25968991 | 2.4331339 | 20 | 2 15.0 | 18.8 |
| 42111 2001 $AZ_{46}$ | 14.7 | X | 281.44623 | 352.07477 | 42.68955 | 24.72312 | 0.2139356 | 0.28496001 | 2.2870734 | 20 | 8 17.9 | 17.9 |
| 42112 2001 $AF_{48}$ | 13.4 | X | 149.66883 | 159.44178 | 192.40804 | 35.78789 | 0.1533735 | 0.20433995 | 2.8547442 | 20 | 1 25.9 | 18.5 |
| 42113 Jura | 15.3 | X | 323.48500 | 232.94484 | 98.54544 | 7.32574 | 0.1489496 | 0.22923358 | 2.6441366 | 20 | 7 21.0 | 17.9 |
| 42114 2001 $BH_4$ | 12.4 | X | 286.13606 | 29.39641 | 32.11970 | 7.24963 | 0.0024609 | 0.08366351 | 5.1774033 | 20 | 9 21.8 | 19.2 |
| 42115 2001 $BO_4$ | 14.5 | X | 8.16886 | 303.73203 | 92.64068 | 14.16701 | 0.1850689 | 0.24509121 | 2.5288179 | 20 | — | — |
| 42116 2001 $BY_5$ | 15.4 | X | 246.88636 | 354.90334 | 25.39503 | 7.22967 | 0.1459648 | 0.27642719 | 2.3338998 | 20 | 6 3.2 | 18.7 |
| 42117 2001 $BD_6$ | 13.9 | X | 215.91184 | 79.69860 | 120.15233 | 12.38816 | 0.2086130 | 0.19695703 | 2.9256456 | 20 | 12 5.9 | 18.6 |
| 42118 2001 $BO_6$ | 15.4 | X | 175.65070 | 215.43545 | 72.02786 | 7.30511 | 0.0936488 | 0.25273162 | 2.4775913 | 20 | — | — |
| 42119 2001 $BP_7$ | 14.2 | X | 217.00869 | 172.91597 | 86.78197 | 6.93388 | 0.0892054 | 0.20168147 | 2.8797761 | 20 | — | — |
| 42120 2001 $BU_7$ | 14.9 | X | 86.25835 | 51.12311 | 45.13888 | 4.09849 | 0.0666847 | 0.21276657 | 2.7788629 | 20 | 3 15.5 | 18.5 |
| 42121 2001 $BW_7$ | 15.2 | X | 193.03801 | 222.70994 | 91.83155 | 8.25310 | 0.1280268 | 0.25868179 | 2.4394512 | 20 | 1 19.3 | 18.9 |
| 42122 2001 $BC_8$ | 15.1 | X | 329.29893 | 250.51695 | 78.76673 | 7.07551 | 0.2236801 | 0.28115809 | 2.3076450 | 20 | 8 1.7 | 16.4 |
| 42123 2001 $BY_8$ | 14.9 | X | 164.05206 | 83.03972 | 35.03874 | 4.93894 | 0.1212069 | 0.17457858 | 3.1706046 | 20 | 7 14.7 | 19.9 |
| 42124 2001 $BA_9$ | 14.0 | X | 80.88823 | 159.02931 | 117.24697 | 12.85397 | 0.1254688 | 0.18399044 | 3.0615348 | 20 | 11 4.8 | 18.8 |
| 42125 2001 $BE_{13}$ | 14.0 | X | 111.06377 | 60.31600 | 149.13949 | 13.17479 | 0.1357453 | 0.23160345 | 2.6260684 | 20 | 9 20.8 | 18.0 |
| 42126 2001 $BC_{15}$ | 14.0 | X | 60.13167 | 154.72355 | 101.51733 | 2.98162 | 0.1443617 | 0.17547158 | 3.1598384 | 20 | 9 15.7 | 18.4 |
| 42127 2001 $BT_{15}$ | 14.2 | X | 70.86570 | 205.78032 | 66.83256 | 2.93319 | 0.1096013 | 0.17972840 | 3.1097459 | 20 | 10 14.3 | 18.6 |
| 42128 2001 $BV_{15}$ | 14.1 | X | 241.00528 | 248.28430 | 133.18137 | 13.50171 | 0.1775349 | 0.22326901 | 2.6910210 | 20 | 5 30.3 | 18.5 |
| 42129 2001 $BG_{17}$ | 14.3 | X | 142.46866 | 244.82371 | 135.51841 | 12.79840 | 0.1992926 | 0.21484288 | 2.7609300 | 20 | 3 2.1 | 18.7 |
| 42130 2001 $BW_{19}$ | 13.8 | X | 145.88186 | 7.48955 | 160.32593 | 13.64775 | 0.0533207 | 0.17934916 | 3.1141282 | 20 | 8 22.9 | 18.4 |
| 42131 2001 $BE_{21}$ | 14.3 | X | 75.06195 | 353.62133 | 321.27623 | 10.62960 | 0.1002893 | 0.19104702 | 2.9856750 | 20 | 12 7.9 | 18.8 |
| 42132 2001 $BP_{24}$ | 13.7 | X | 53.31560 | 135.83346 | 117.96193 | 11.19139 | 0.1628208 | 0.17691228 | 3.1426600 | 20 | 9 8.8 | 18.1 |
| 42133 2001 $BQ_{24}$ | 14.6 | X | 141.77958 | 178.77843 | 112.84163 | 3.27120 | 0.0517901 | 0.19634779 | 2.9316944 | 20 | — | — |
| 42134 2001 $BO_{25}$ | 14.7 | X | 219.56557 | 348.84152 | 131.38314 | 6.25805 | 0.1450970 | 0.18391428 | 3.0623800 | 20 | 9 9.5 | 19.4 |
| 42135 2001 $BK_{26}$ | 14.0 | X | 323.86134 | 238.64129 | 123.78811 | 20.92726 | 0.0923416 | 0.18211636 | 3.0825023 | 20 | 9 6.3 | 18.1 |
| 42136 2001 $BM_{26}$ | 14.3 | X | 74.77840 | 178.62665 | 53.17507 | 1.12597 | 0.1550326 | 0.17592663 | 3.1543871 | 20 | 9 3.6 | 18.8 |
| 42137 2001 $BO_{27}$ | 14.3 | X | 58.21545 | 224.18027 | 346.78868 | 1.36745 | 0.1529778 | 0.17054940 | 3.2203464 | 20 | 7 16.9 | 18.6 |
| 42138 2001 $BP_{28}$ | 13.7 | X | 126.21612 | 67.57931 | 139.08273 | 12.57726 | 0.0221941 | 0.18098989 | 3.0952793 | 20 | 9 19.8 | 18.2 |
| 42139 2001 $BQ_{29}$ | 14.1 | X | 134.99559 | 272.50499 | 310.77286 | 8.92793 | 0.0687359 | 0.18589397 | 3.0405993 | 20 | 10 15.9 | 18.9 |
| 42140 2001 $BM_{31}$ | 14.8 | X | 281.77170 | 173.95763 | 137.60105 | 13.22820 | 0.0768787 | 0.21718983 | 2.7410044 | 20 | 5 2.6 | 18.8 |
| 42141 2001 $BV_{31}$ | 13.8 | X | 115.46514 | 332.44066 | 307.88120 | 4.24303 | 0.2378370 | 0.18571238 | 3.0425810 | 20 | 12 14.2 | 19.1 |
| 42142 2001 $BY_{32}$ | 13.8 | X | 114.71514 | 91.04530 | 148.92696 | 10.89258 | 0.1727334 | 0.18003437 | 3.1062216 | 20 | 10 28.5 | 19.0 |
| 42143 2001 $BN_{37}$ | 15.0 | X | 329.28496 | 182.97388 | 123.44423 | 13.88689 | 0.1640051 | 0.22552506 | 2.6730445 | 20 | 6 22.9 | 17.9 |
| 42144 2001 $BW_{40}$ | 14.2 | X | 4.57708 | 259.93066 | 68.89013 | 12.50504 | 0.2858184 | 0.23902579 | 2.5714191 | 20 | 11 4.3 | 16.6 |
| 42145 2001 $BF_{41}$ | 14.5 | X | 346.23898 | 266.75455 | 147.08433 | 10.18299 | 0.0898041 | 0.19268243 | 2.9687569 | 20 | 12 15.7 | 18.4 |
| 42146 2001 $BN_{42}$ | 11.9 | X | 282.57932 | 193.53536 | 251.56213 | 11.45006 | 0.0320831 | 0.08424067 | 5.1537281 | 20 | 10 4.4 | 18.8 |
| 42147 2001 $BW_{43}$ | 13.9 | X | 204.26735 | 359.99209 | 165.76903 | 17.46325 | 0.1247145 | 0.18490453 | 3.0514366 | 20 | 10 23.0 | 18.8 |
| 42148 2001 $BC_{46}$ | 15.0 | X | 188.05510 | 327.87368 | 168.04622 | 13.03392 | 0.0352523 | 0.23216567 | 2.6218271 | 20 | 9 7.3 | 18.7 |
| 42149 2001 $BQ_{48}$ | 15.0 | X | 317.98730 | 246.82702 | 201.69895 | 9.10366 | 0.0637741 | 0.19274523 | 2.9681120 | 20 | 12 16.3 | 19.0 |
| 42150 2001 $BD_{53}$ | 14.2 | X | 49.20726 | 162.61615 | 101.58336 | 6.56638 | 0.1141864 | 0.17634763 | 3.1493647 | 20 | 9 8.6 | 18.5 |
| 42151 2001 $BD_{54}$ | 13.8 | X | 9.71415 | 138.92476 | 142.63251 | 11.82118 | 0.1134862 | 0.17272143 | 3.1932916 | 20 | 7 28.9 | 17.8 |
| 42152 2001 $BX_{57}$ | 15.0 | X | 359.65258 | 232.06261 | 192.21853 | 1.61530 | 0.0697430 | 0.19548386 | 2.9403258 | 20 | — | — |
| 42153 2001 $BG_{58}$ | 14.9 | X | 329.10138 | 259.17859 | 129.86441 | 10.12940 | 0.0606606 | 0.23688291 | 2.5869035 | 20 | 10 31.9 | 18.2 |
| 42154 2001 $BP_{62}$ | 14.0 | X | 136.29519 | 51.39959 | 147.14788 | 13.22927 | 0.0905763 | 0.18084963 | 3.0968795 | 20 | 9 24.8 | 18.8 |
| 42155 2001 $BA_{63}$ | 15.2 | X | 189.08611 | 202.70425 | 178.93101 | 5.34366 | 0.2342965 | 0.26866080 | 2.3786645 | 20 | 4 8.8 | 19.3 |
| 42156 2001 $BV_{63}$ | 15.1 | X | 293.87063 | 160.37286 | 250.26003 | 4.13703 | 0.2801496 | 0.23750918 | 2.5823540 | 20 | 8 28.6 | 17.8 |
| 42157 2001 $BX_{66}$ | 14.8 | X | 244.97292 | 39.21992 | 126.79366 | 9.56860 | 0.0431046 | 0.19159658 | 2.9799631 | 20 | 12 16.8 | 19.1 |
| 42158 2001 $BT_{70}$ | 14.8 | X | 116.34387 | 245.56954 | 178.37780 | 4.98589 | 0.1531136 | 0.21477906 | 2.7614769 | 20 | 3 22.2 | 18.6 |
| 42159 2001 $BT_{72}$ | 14.2 | X | 306.00154 | 185.81652 | 167.67108 | 12.52556 | 0.1189668 | 0.17721983 | 3.1390231 | 20 | 7 18.6 | 18.5 |
| 42160 2001 $BH_{73}$ | 13.8 | X | 251.03033 | 192.21078 | 175.85016 | 21.86796 | 0.0168151 | 0.17049806 | 3.2209928 | 20 | 6 11.0 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42161 2001 $BJ_{74}$ | 14.5 | X | 91.04326 | 49.56619 | 203.80363 | 0.86522 | 0.1290094 | 0.17938974 | 3.1136585 | 20 | 10 14.4 | 19.2 |
| 42162 2001 $BA_{76}$ | 14.1 | X | 233.02356 | 206.73950 | 201.75097 | 8.67784 | 0.0363778 | 0.17256704 | 3.1951958 | 20 | 7 4.9 | 18.8 |
| 42163 2001 $BC_{77}$ | 15.4 | X | 320.32116 | 167.60525 | 90.91222 | 4.38243 | 0.1859001 | 0.25954566 | 2.4340353 | 20 | 3 23.3 | 18.0 |
| 42164 2001 $CT$ | 14.1 | X | 49.76823 | 2.99209 | 325.41866 | 8.92523 | 0.1794143 | 0.18789211 | 3.0190040 | 20 | 12 5.1 | 18.6 |
| 42165 2001 $CQ_{10}$ | 15.1 | X | 70.66450 | 186.62237 | 112.85369 | 14.44885 | 0.1718841 | 0.23701013 | 2.5859777 | 20 | 12 4.9 | 19.2 |
| 42166 2001 $CL_{11}$ | 15.6 | X | 186.14012 | 339.50826 | 35.90371 | 1.99367 | 0.1975377 | 0.26749788 | 2.3855534 | 20 | 3 29.0 | 19.5 |
| 42167 2001 $CR_{13}$ | 13.2 | X | 83.80036 | 119.99579 | 100.11062 | 5.56659 | 0.1323096 | 0.12438193 | 3.9746405 | 20 | 8 23.6 | 18.9 |
| 42168 2001 $CT_{13}$ | 11.6 | X | 68.50877 | 184.08701 | 120.09711 | 13.99116 | 0.0590153 | 0.08387306 | 5.1687762 | 20 | 10 30.5 | 18.6 |
| 42169 2001 $CV_{13}$ | 14.5 | X | 94.12067 | 217.21858 | 114.06198 | 12.69722 | 0.1378765 | 0.19499515 | 2.9452365 | 20 | — | — |
| 42170 2001 $CA_{16}$ | 14.7 | X | 95.78124 | 174.77033 | 119.22696 | 14.51960 | 0.1475842 | 0.23872928 | 2.5735479 | 20 | 12 19.4 | 18.8 |
| 42171 2001 $CP_{17}$ | 14.8 | X | 11.69552 | 262.92434 | 125.48565 | 15.12479 | 0.2094353 | 0.24358139 | 2.5392570 | 20 | — | — |
| 42172 2001 $CR_{17}$ | 14.0 | X | 247.09897 | 171.61059 | 114.18085 | 9.25008 | 0.0411819 | 0.15832924 | 3.3839866 | 20 | 2 25.6 | 19.0 |
| 42173 2001 $CQ_{18}$ | 15.0 | X | 272.10052 | 172.33029 | 139.24965 | 25.36949 | 0.1999657 | 0.26754664 | 2.3852636 | 20 | 4 2.2 | 18.9 |
| 42174 2001 $CJ_{21}$ | 14.7 | X | 22.83003 | 315.80362 | 35.17314 | 4.60366 | 0.2417610 | 0.29378290 | 2.2410508 | 20 | — | — |
| 42175 2001 $CR_{21}$ | 14.4 | X | 117.78319 | 161.57445 | 13.66387 | 5.24087 | 0.1059239 | 0.17530885 | 3.1617934 | 20 | 8 7.4 | 19.2 |
| 42176 2001 $CK_{22}$ | 12.4 | X | 210.13858 | 179.77082 | 329.25363 | 14.31202 | 0.0915028 | 0.08277563 | 5.2143606 | 20 | 9 20.9 | 19.7 |
| 42177 2001 $CL_{22}$ | 15.3 | X | 132.73706 | 285.63111 | 69.99466 | 3.94618 | 0.1998859 | 0.25722498 | 2.4486533 | 20 | 1 16.3 | 18.7 |
| 42178 2001 $CO_{25}$ | 14.8 | X | 9.65920 | 338.36491 | 350.89182 | 7.55916 | 0.1890458 | 0.23283522 | 2.6167984 | 20 | 10 20.9 | 17.6 |
| 42179 2001 $CP_{25}$ | 12.2 | X | 316.81851 | 318.34610 | 81.62185 | 6.61221 | 0.0553345 | 0.08186509 | 5.2529534 | 20 | 9 28.8 | 18.9 |
| 42180 2001 $CL_{26}$ | 13.9 | X | 252.53107 | 288.61700 | 140.61103 | 11.99514 | 0.1105653 | 0.17714170 | 3.1399460 | 20 | 8 15.7 | 18.4 |
| 42181 2001 $CY_{27}$ | 15.3 | X | 228.79870 | 349.65730 | 60.30395 | 7.71101 | 0.1912343 | 0.27781788 | 2.3261047 | 20 | 6 19.7 | 18.9 |
| 42182 2001 $CP_{29}$ | 12.1 | X | 317.69217 | 319.47207 | 93.16261 | 6.58128 | 0.0311819 | 0.08359221 | 5.1803470 | 20 | 10 15.8 | 18.9 |
| 42183 2001 $CY_{29}$ | 14.6 | X | 81.55640 | 151.29129 | 60.98712 | 6.19731 | 0.0866821 | 0.17458881 | 3.1704807 | 20 | 8 10.4 | 19.1 |
| 42184 2001 $CP_{30}$ | 13.8 | X | 97.26103 | 308.15065 | 25.90874 | 10.90818 | 0.1073060 | 0.19267609 | 2.9688221 | 20 | — | — |
| 42185 2001 $CS_{30}$ | 13.9 | X | 8.21776 | 270.10591 | 66.12497 | 10.34661 | 0.0885749 | 0.18067194 | 3.0989096 | 20 | 10 11.5 | 18.0 |
| 42186 2001 $CH_{32}$ | 13.2 | X | 23.30473 | 349.13119 | 288.22354 | 9.87178 | 0.1226126 | 0.17470707 | 3.1690498 | 20 | 8 13.4 | 17.2 |
| 42187 2001 $CS_{32}$ | 11.4 | X | 81.55654 | 257.39365 | 9.49403 | 24.18720 | 0.0332664 | 0.08296385 | 5.2064710 | 20 | 9 27.0 | 18.3 |
| 42188 2001 $CZ_{32}$ | 14.3 | X | 226.86247 | 282.32515 | 24.95505 | 17.21513 | 0.1682618 | 0.21008335 | 2.8024742 | 20 | 2 22.8 | 19.2 |
| 42189 2001 $CJ_{33}$ | 13.5 | X | 68.31668 | 186.32183 | 40.72005 | 14.57517 | 0.0773716 | 0.17478106 | 3.1681553 | 20 | 8 15.6 | 18.2 |
| 42190 2001 $CM_{36}$ | 13.1 | X | 105.68623 | 183.95534 | 40.16037 | 9.25446 | 0.0971399 | 0.12594323 | 3.9417236 | 20 | 9 18.9 | 18.9 |
| 42191 Thurmann | 15.2 | X | 313.95354 | 250.91488 | 111.22081 | 8.43538 | 0.1987996 | 0.23390664 | 2.6088014 | 20 | 8 13.4 | 17.6 |
| 42192 2001 $CJ_{39}$ | 14.2 | X | 94.58976 | 168.31957 | 102.00832 | 16.32868 | 0.1250870 | 0.23565340 | 2.5958937 | 20 | 11 20.9 | 18.3 |
| 42193 2001 $CV_{43}$ | 13.4 | X | 332.59854 | 244.89773 | 87.34925 | 23.25460 | 0.1141270 | 0.17140164 | 3.2096628 | 20 | 8 7.6 | 17.7 |
| 42194 2001 $DP_{10}$ | 13.7 | X | 64.39772 | 30.32966 | 155.03555 | 12.94496 | 0.0589819 | 0.17016044 | 3.2252520 | 20 | 6 9.8 | 18.4 |
| 42195 2001 $DO_{17}$ | 12.8 | X | 333.06331 | 234.57577 | 132.81440 | 15.67300 | 0.2295931 | 0.18065961 | 3.0990506 | 20 | 9 24.3 | 16.0 |
| 42196 2001 $DE_{21}$ | 13.5 | X | 71.61417 | 309.81484 | 44.57271 | 11.09160 | 0.1100310 | 0.19027713 | 2.9937232 | 20 | — | — |
| 42197 2001 $DM_{23}$ | 14.3 | X | 328.88189 | 219.49598 | 130.07251 | 10.43374 | 0.0809937 | 0.17848429 | 3.1241800 | 20 | 8 25.2 | 18.2 |
| 42198 2001 $DP_{23}$ | 14.8 | X | 46.04250 | 234.00069 | 126.78187 | 11.47328 | 0.1185869 | 0.19162831 | 2.9796341 | 20 | — | — |
| 42199 2001 $DT_{23}$ | 14.2 | X | 177.28617 | 164.52900 | 0.81867 | 8.17934 | 0.0400814 | 0.18171361 | 3.0870553 | 20 | 9 25.3 | 18.7 |
| 42200 2001 $DJ_{26}$ | 12.0 | X | 336.41516 | 4.89129 | 10.66354 | 6.46688 | 0.0384823 | 0.07964741 | 5.3500143 | 20 | 9 23.5 | 18.8 |
| 42201 2001 $DH_{29}$ | 12.4 | X | 260.58377 | 213.05967 | 236.37987 | 7.09266 | 0.1586341 | 0.08360750 | 5.1797154 | 20 | 8 30.4 | 19.4 |
| 42202 2001 $DC_{31}$ | 14.1 | X | 271.98373 | 215.43585 | 135.04580 | 8.73700 | 0.0489651 | 0.16809477 | 3.2516210 | 20 | 6 10.1 | 18.7 |
| 42203 2001 $DB_{35}$ | 14.4 | X | 81.88574 | 168.63837 | 143.98948 | 6.29613 | 0.1050626 | 0.18965930 | 3.0002213 | 20 | 12 14.0 | 19.0 |
| 42204 2001 $DW_{35}$ | 14.4 | X | 281.84757 | 274.83940 | 154.70045 | 10.26590 | 0.0064300 | 0.18371632 | 3.0645795 | 20 | 10 10.6 | 18.7 |
| 42205 2001 $DT_{38}$ | 14.5 | X | 239.09231 | 171.98361 | 198.54815 | 5.74509 | 0.0280663 | 0.22077252 | 2.7112696 | 20 | 5 27.9 | 18.3 |
| 42206 2001 $DJ_{41}$ | 14.2 | X | 32.64003 | 144.11893 | 121.52216 | 1.46686 | 0.1060705 | 0.17352333 | 3.1834459 | 20 | 8 13.5 | 18.2 |
| 42207 2001 $DL_{46}$ | 15.1 | X | 116.48791 | 121.16675 | 228.58520 | 0.84953 | 0.0921695 | 0.19787474 | 2.9165928 | 20 | — | — |
| 42208 2001 $DQ_{47}$ | 13.5 | X | 17.49473 | 128.11258 | 167.85937 | 14.98943 | 0.2652424 | 0.17383274 | 3.1796672 | 20 | 9 20.6 | 16.8 |
| 42209 2001 $DF_{48}$ | 14.0 | X | 122.10654 | 270.37090 | 351.34475 | 10.25213 | 0.0899661 | 0.18874975 | 3.0098519 | 20 | 11 20.1 | 18.8 |
| 42210 2001 $DL_{49}$ | 14.1 | X | 75.29763 | 308.97362 | 26.70076 | 10.21104 | 0.1025290 | 0.19192164 | 2.9765973 | 20 | — | — |
| 42211 2001 $DO_{49}$ | 14.1 | X | 136.34910 | 193.17539 | 91.33688 | 11.65262 | 0.0775043 | 0.19182095 | 2.9776389 | 20 | — | — |
| 42212 2001 $DO_{51}$ | 13.8 | X | 96.77376 | 209.39917 | 60.21169 | 10.46227 | 0.0343706 | 0.18413119 | 3.0599745 | 20 | 11 1.9 | 18.2 |
| 42213 2001 $DU_{51}$ | 14.9 | X | 114.72181 | 347.48655 | 36.95638 | 11.68703 | 0.2900096 | 0.25864265 | 2.4396974 | 20 | 2 18.6 | 18.5 |
| 42214 2001 $DA_{52}$ | 13.7 | X | 347.78597 | 320.13000 | 16.42982 | 16.29157 | 0.1035532 | 0.17834217 | 3.1258396 | 20 | 9 11.6 | 17.6 |
| 42215 2001 $DO_{52}$ | 13.9 | X | 208.46866 | 175.38118 | 330.84588 | 14.43813 | 0.0452242 | 0.18579627 | 3.0416650 | 20 | 10 1.6 | 18.5 |
| 42216 2001 $DX_{52}$ | 15.2 | X | 290.24542 | 28.98929 | 7.67070 | 4.61841 | 0.1220215 | 0.23422453 | 2.6064404 | 20 | 8 31.3 | 18.1 |
| 42217 2001 $DK_{53}$ | 14.7 | X | 82.25342 | 221.29670 | 157.22595 | 11.26599 | 0.0878908 | 0.19760751 | 2.9192218 | 20 | — | — |
| 42218 2001 $DN_{59}$ | 14.1 | X | 61.37229 | 11.42985 | 226.83612 | 8.45944 | 0.0434097 | 0.17417699 | 3.1754762 | 20 | 8 5.8 | 18.7 |
| 42219 2001 $DY_{59}$ | 15.0 | X | 57.81694 | 346.42189 | 310.94149 | 3.94823 | 0.2020248 | 0.23511382 | 2.5998639 | 20 | 11 18.4 | 18.7 |
| 42220 2001 $DC_{60}$ | 14.6 | X | 356.22701 | 221.96573 | 152.50182 | 9.44437 | 0.0499677 | 0.18722599 | 3.0261605 | 20 | 11 8.3 | 18.7 |
| 42221 2001 $DA_{62}$ | 14.7 | X | 180.11935 | 323.87481 | 142.51473 | 10.36486 | 0.0703576 | 0.17557291 | 3.1586224 | 20 | 7 15.3 | 19.5 |
| 42222 2001 $DT_{62}$ | 14.2 | X | 307.65364 | 246.13468 | 158.48309 | 5.48327 | 0.0524759 | 0.18353976 | 3.0665445 | 20 | 10 7.2 | 18.3 |
| 42223 2001 $DC_{63}$ | 14.9 | X | 166.30345 | 16.17953 | 167.29215 | 2.22501 | 0.0057448 | 0.18220537 | 3.0814984 | 20 | 10 6.6 | 19.3 |
| 42224 2001 $DT_{65}$ | 13.9 | X | 127.52887 | 9.85544 | 157.59663 | 14.86916 | 0.0386999 | 0.17355542 | 3.1830535 | 20 | 7 30.2 | 18.6 |
| 42225 2001 $DV_{72}$ | 14.1 | X | 21.85557 | 137.21709 | 157.08094 | 9.69019 | 0.0787457 | 0.17488432 | 3.1669081 | 20 | 8 31.7 | 18.1 |
| 42226 2001 $DO_{81}$ | 14.2 | X | 188.99955 | 149.47136 | 124.97218 | 11.69812 | 0.0626125 | 0.19292951 | 2.9662217 | 20 | — | — |
| 42227 2001 $DS_{93}$ | 14.3 | X | 86.04744 | 132.13764 | 153.47853 | 9.95291 | 0.0639266 | 0.18648617 | 3.0341587 | 20 | 11 13.7 | 18.8 |
| 42228 2001 $DO_{95}$ | 13.7 | X | 344.57101 | 162.23752 | 197.91511 | 15.81973 | 0.0572511 | 0.17951192 | 3.1122455 | 20 | 9 29.4 | 17.7 |
| 42229 2001 $DC_{99}$ | 12.9 | X | 341.63597 | 133.09617 | 179.05329 | 21.95262 | 0.0741093 | 0.17113868 | 3.2129497 | 20 | 7 21.6 | 17.4 |
| 42230 2001 $DE_{108}$ | 12.5 | X | 244.37936 | 123.37124 | 7.43885 | 13.67421 | 0.0523698 | 0.08248959 | 5.2264078 | 20 | 10 12.1 | 19.5 |
| 42231 2001 $EM_{1}$ | 14.2 | X | 314.59295 | 316.41481 | 113.43982 | 11.15433 | 0.0232544 | 0.18688571 | 3.0298327 | 20 | 11 21.1 | 18.5 |
| 42232 2001 $EH_{2}$ | 13.9 | X | 78.73128 | 201.41630 | 97.81288 | 12.70658 | 0.0793840 | 0.18306944 | 3.0717944 | 20 | 11 22.9 | 18.5 |
| 42233 2001 $EL_{2}$ | 14.2 | X | 276.92075 | 359.55507 | 46.99024 | 11.67811 | 0.0642254 | 0.17809017 | 3.1287876 | 20 | 8 30.9 | 18.7 |
| 42234 2001 $EP_{2}$ | 13.9 | X | 265.06950 | 325.00348 | 30.97492 | 15.16245 | 0.2356653 | 0.21982046 | 2.7190924 | 20 | 5 10.1 | 18.2 |
| 42235 2001 $EM_{10}$ | 14.4 | X | 51.77650 | 197.45892 | 161.70430 | 15.22905 | 0.1769754 | 0.23818354 | 2.5774775 | 20 | — | — |
| 42236 2001 $EP_{19}$ | 14.3 | X | 265.18593 | 199.37982 | 200.72370 | 14.78615 | 0.0387855 | 0.17542595 | 3.1603862 | 20 | 7 31.5 | 19.0 |
| 42237 2001 $EG_{21}$ | 12.3 | X | 26.56283 | 108.63065 | 199.45842 | 9.04261 | 0.1297609 | 0.12476278 | 3.9665477 | 20 | 9 21.5 | 17.4 |
| 42238 2001 $FF_{4}$ | 14.6 | X | 229.93182 | 204.63236 | 50.69466 | 16.42339 | 0.1910991 | 0.24424948 | 2.5346244 | 20 | — | — |
| 42239 2001 $FB_{20}$ | 14.0 | X | 346.90374 | 184.74719 | 191.41018 | 11.97989 | 0.2402788 | 0.23154703 | 2.6264949 | 20 | 11 24.8 | 16.5 |
| 42240 2001 $FX_{34}$ | 13.9 | X | 20.66196 | 166.38566 | 162.10597 | 5.57056 | 0.1443867 | 0.17812263 | 3.1284075 | 20 | 10 23.2 | 17.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42241 2001 $FF_{45}$ | 14.8 | X | 223.74034 | 34.79639 | 182.27679 | 13.50587 | 0.1239322 | 0.24039541 | 2.5616430 | 20 | — | — |
| 42242 2001 $FU_{61}$ | 14.0 | X | 52.88109 | 144.83442 | 149.00381 | 9.71483 | 0.0581952 | 0.17877894 | 3.1207463 | 20 | 10 13.2 | 18.4 |
| 42243 2001 $FB_{65}$ | 14.0 | X | 300.76636 | 224.19944 | 169.08449 | 23.04290 | 0.0767250 | 0.17613546 | 3.1518934 | 20 | 9 7.4 | 18.2 |
| 42244 2001 $FH_{65}$ | 14.5 | X | 86.48458 | 308.77204 | 130.37201 | 6.90912 | 0.0424323 | 0.20352708 | 2.8623401 | 20 | 2 19.8 | 18.4 |
| 42245 2001 $FB_{88}$ | 14.0 | X | 332.43176 | 259.40098 | 93.49564 | 7.66680 | 0.2259765 | 0.22317272 | 2.6917950 | 20 | 9 10.9 | 16.3 |
| 42246 2001 $FX_{121}$ | 15.0 | X | 246.30400 | 10.12345 | 205.14128 | 4.42856 | 0.1738200 | 0.24205717 | 2.5499055 | 20 | — | — |
| 42247 2001 $FU_{156}$ | 14.8 | X | 244.18194 | 269.84145 | 112.62606 | 7.99894 | 0.0355430 | 0.21696989 | 2.7428564 | 20 | 6 18.2 | 18.6 |
| 42248 2001 $FU_{186}$ | 15.2 | X | 100.67498 | 222.63880 | 93.20245 | 4.13313 | 0.1776169 | 0.23870800 | 2.5737009 | 20 | — | — |
| 42249 2001 $HZ_{27}$ | 15.3 | X | 331.87746 | 57.30647 | 220.55261 | 3.76597 | 0.0823378 | 0.26046920 | 2.4282784 | 20 | 5 23.9 | 17.8 |
| 42250 2001 $KS_{12}$ | 13.0 | X | 38.22012 | 110.43539 | 225.06604 | 11.76712 | 0.1719993 | 0.16975091 | 3.2304373 | 20 | 11 26.1 | 17.4 |
| 42251 2001 $LA$ | 14.2 | X | 166.78438 | 336.76701 | 198.99827 | 25.00390 | 0.2076532 | 0.27057310 | 2.3674436 | 20 | 10 1.6 | 18.1 |
| 42252 2001 $LU_{2}$ | 14.4 | X | 226.64085 | 201.95184 | 71.46335 | 15.81058 | 0.0651974 | 0.24242929 | 2.5472955 | 20 | 1 3.9 | 18.2 |
| 42253 2001 $NQ_{12}$ | 15.6 | X | 200.07017 | 135.67006 | 137.78738 | 6.87138 | 0.1371520 | 0.28723479 | 2.2749823 | 20 | — | — |
| 42254 2001 $NX_{21}$ | 16.4 | X | 20.28064 | 340.98537 | 340.10124 | 2.16768 | 0.2032976 | 0.26383863 | 2.4075601 | 20 | 11 8.4 | 19.0 |
| 42255 2001 $OT_{22}$ | 15.9 | X | 143.34559 | 327.17972 | 13.38147 | 4.01530 | 0.1767758 | 0.28685003 | 2.2770162 | 20 | 1 1.0 | 19.0 |
| 42256 2001 $OA_{63}$ | 14.9 | X | 222.30519 | 54.39940 | 332.43273 | 3.74246 | 0.1384140 | 0.29484293 | 2.2356762 | 20 | 5 15.9 | 18.1 |
| 42257 2001 $OU_{68}$ | 14.4 | X | 47.56843 | 53.10644 | 285.65681 | 8.52439 | 0.2492295 | 0.21659273 | 2.7460397 | 20 | 12 31.3 | 18.4 |
| 42258 2001 $OZ_{68}$ | 14.5 | X | 298.58325 | 207.46142 | 130.61018 | 3.31891 | 0.2000820 | 0.25610433 | 2.4557912 | 20 | 6 7.4 | 17.3 |
| 42259 2001 $OD_{81}$ | 12.7 | X | 246.38495 | 12.74481 | 327.07771 | 9.84661 | 0.1235591 | 0.19054208 | 2.9909474 | 20 | 4 11.9 | 17.4 |
| 42260 2001 $OX_{82}$ | 13.8 | X | 47.31469 | 60.01191 | 8.18685 | 15.05186 | 0.0616832 | 0.23160418 | 2.6260629 | 20 | — | — |
| 42261 2001 $OC_{92}$ | 14.6 | X | 145.16597 | 31.24633 | 329.05518 | 12.28697 | 0.2128693 | 0.23570953 | 2.5954816 | 20 | 2 8.2 | 18.7 |
| 42262 2001 $PE_{6}$ | 14.1 | X | 259.52848 | 339.63963 | 137.47724 | 10.04462 | 0.1168791 | 0.21426288 | 2.7659103 | 20 | 11 2.4 | 17.9 |
| 42263 2001 $PA_{42}$ | 13.8 | X | 8.69570 | 86.82091 | 287.60131 | 7.85627 | 0.1699129 | 0.21422045 | 2.7662755 | 20 | 12 14.5 | 17.1 |
| 42264 2001 $QZ_{30}$ | 13.4 | X | 262.99975 | 310.46653 | 29.52805 | 15.22198 | 0.1332955 | 0.24381350 | 2.5376451 | 20 | 4 30.1 | 17.1 |
| 42265 2001 $QL_{69}$ | 13.4 | X | 269.02801 | 81.38858 | 212.34769 | 9.41952 | 0.0456662 | 0.19030048 | 2.9934784 | 20 | 3 23.6 | 17.6 |
| 42266 2001 $QZ_{77}$ | 15.3 | X | 70.06582 | 189.50740 | 222.56426 | 5.16945 | 0.1860769 | 0.27529990 | 2.3402667 | 20 | — | — |
| 42267 2001 $QJ_{81}$ | 14.1 | X | 182.18122 | 45.75651 | 337.39090 | 11.93829 | 0.2498629 | 0.23880700 | 2.5729895 | 20 | 4 1.5 | 18.7 |
| 42268 2001 $QO_{91}$ | 14.2 | X | 26.55768 | 216.87969 | 222.04123 | 9.35826 | 0.1933995 | 0.21801013 | 2.7341244 | 20 | — | — |
| 42269 2001 $QB_{117}$ | 14.2 | X | 137.39730 | 56.33375 | 332.45223 | 13.86146 | 0.1582657 | 0.23367515 | 2.6105241 | 20 | 2 27.9 | 18.1 |
| 42270 2001 $QA_{139}$ | 14.7 | X | 21.95911 | 120.65073 | 256.25276 | 7.72279 | 0.2183822 | 0.21339867 | 2.7733727 | 20 | — | — |
| 42271 Keikokubota | 13.9 | X | 200.31385 | 310.64709 | 103.69355 | 10.26785 | 0.1927953 | 0.24291379 | 2.5439072 | 20 | 5 31.0 | 18.1 |
| 42272 2001 $QH_{179}$ | 15.2 | X | 344.38501 | 80.33108 | 0.60170 | 7.54154 | 0.1921619 | 0.26784330 | 2.3835020 | 20 | — | — |
| 42273 2001 $QO_{245}$ | 12.9 | X | 94.72421 | 214.15127 | 94.30368 | 8.12733 | 0.1878994 | 0.21378738 | 2.7700100 | 20 | — | — |
| 42274 2001 $QM_{264}$ | 16.0 | X | 67.12409 | 329.64648 | 21.37428 | 9.23737 | 0.2878187 | 0.27144641 | 2.3623631 | 20 | — | — |
| 42275 2001 $RG_{17}$ | 17.0 | X | 242.22555 | 299.83312 | 33.95584 | 3.26461 | 0.1829637 | 0.29616282 | 2.2290288 | 20 | 3 25.5 | 20.2 |
| 42276 2001 $SV_{35}$ | 14.0 | X | 146.26160 | 86.38863 | 28.56281 | 10.55998 | 0.0734152 | 0.19283567 | 2.9671839 | 20 | 6 19.4 | 18.6 |
| 42277 2001 $SQ_{51}$ | 12.1 | X | 73.95032 | 42.16589 | 115.38722 | 6.13869 | 0.0485628 | 0.08450896 | 5.1428145 | 20 | 5 17.9 | 18.9 |
| 42278 2001 $SH_{265}$ | 14.1 | X | 99.05100 | 262.46833 | 207.42109 | 9.28637 | 0.0623080 | 0.18388477 | 3.0627076 | 20 | 4 18.0 | 18.4 |
| 42279 2001 $SP_{267}$ | 14.7 | X | 257.44273 | 181.66306 | 77.40675 | 5.39752 | 0.0505007 | 0.22922358 | 2.6442135 | 20 | 1 24.9 | 18.4 |
| 42280 2001 $SS_{267}$ | 14.7 | X | 187.73917 | 27.26248 | 207.09011 | 8.94803 | 0.2067188 | 0.26833022 | 2.3806177 | 20 | 12 31.2 | 18.4 |
| 42281 2001 $SW_{267}$ | 14.9 | X | 188.19000 | 36.57269 | 196.49866 | 4.11106 | 0.0432938 | 0.21461794 | 2.7628588 | 20 | — | — |
| 42282 2001 $SB_{283}$ | 14.2 | X | 190.73474 | 83.44638 | 301.03129 | 11.71218 | 0.1925924 | 0.23493616 | 2.6011744 | 20 | 4 7.9 | 18.9 |
| 42283 2001 $SQ_{316}$ | 13.7 | X | 220.64998 | 59.27998 | 331.09006 | 11.91119 | 0.1914442 | 0.24143514 | 2.5542833 | 20 | 5 13.2 | 18.1 |
| 42284 2001 $TV_{8}$ | 12.9 | X | 225.80034 | 284.28403 | 47.03554 | 14.95654 | 0.2148209 | 0.23489859 | 2.6014518 | 20 | 3 16.9 | 17.5 |
| 42285 2001 $TN_{40}$ | 15.3 | X | 233.48244 | 127.52912 | 307.16643 | 4.99054 | 0.1031006 | 0.30000669 | 2.2099482 | 20 | 8 10.9 | 17.8 |
| 42286 2001 $TN_{41}$ | 16.5 | X | 256.22295 | 150.89554 | 55.85409 | 24.07166 | 0.3916596 | 0.58275702 | 1.4195293 | 20 | — | — |
| 42287 2001 $TE_{51}$ | 15.5 | X | 249.64653 | 179.03554 | 27.34224 | 3.74625 | 0.1147433 | 0.27621030 | 2.3351214 | 20 | — | — |
| 42288 2001 $TC_{65}$ | 15.4 | X | 224.95338 | 198.27563 | 134.80372 | 2.48283 | 0.2082203 | 0.23854642 | 2.5748629 | 20 | 3 11.5 | 19.8 |
| 42289 2001 $TY_{105}$ | 14.3 | X | 154.56675 | 344.50066 | 17.98562 | 4.35521 | 0.1372524 | 0.28154119 | 2.3055511 | 20 | 2 8.2 | 17.5 |
| 42290 2001 $TU_{114}$ | 14.5 | X | 117.06422 | 331.67970 | 344.47988 | 4.77387 | 0.0513242 | 0.21668582 | 2.7452531 | 20 | — | — |
| 42291 2001 $TD_{121}$ | 14.0 | X | 306.02373 | 220.34178 | 268.66951 | 11.66902 | 0.0993030 | 0.21645384 | 2.7472141 | 20 | — | — |
| 42292 2001 $TN_{150}$ | 14.6 | X | 225.21673 | 191.44422 | 133.74644 | 4.41282 | 0.1092603 | 0.18450389 | 3.0558523 | 20 | 3 11.3 | 19.4 |
| 42293 2001 $UZ_{3}$ | 15.6 | X | 141.92518 | 219.17419 | 184.50397 | 1.80884 | 0.0531887 | 0.23225657 | 2.6211430 | 20 | 3 12.2 | 19.0 |
| 42294 2001 $UP_{5}$ | 15.8 | X | 295.92584 | 241.84277 | 166.09068 | 4.13486 | 0.1014774 | 0.30754611 | 2.1736814 | 20 | 10 15.2 | 17.6 |
| 42295 Teresateng | 15.1 | X | 290.33080 | 264.84033 | 102.20780 | 7.17550 | 0.1887933 | 0.29812891 | 2.2192181 | 20 | 7 11.6 | 16.9 |
| 42296 2001 $UJ_{31}$ | 14.8 | X | 327.47062 | 144.53622 | 98.40423 | 9.87774 | 0.1314387 | 0.23998696 | 2.5645487 | 20 | 3 26.9 | 17.9 |
| 42297 2001 $UL_{73}$ | 14.6 | X | 39.55760 | 354.59430 | 137.04056 | 1.52453 | 0.1720817 | 0.17577998 | 3.1561413 | 20 | 3 7.1 | 18.1 |
| 42298 2001 $UP_{123}$ | 14.8 | X | 26.20553 | 327.57155 | 174.34232 | 24.46588 | 0.1916324 | 0.28292919 | 2.2980045 | 20 | 1 27.1 | 17.1 |
| 42299 2001 $UQ_{136}$ | 13.0 | X | 48.40458 | 236.28416 | 71.99540 | 13.17304 | 0.1779441 | 0.20474732 | 2.8509564 | 20 | 11 15.4 | 17.0 |
| 42300 2001 $UU_{140}$ | 14.8 | X | 54.29435 | 93.09463 | 46.73192 | 1.63331 | 0.0771531 | 0.18108228 | 3.0942263 | 20 | 3 30.4 | 18.9 |
| 42301 2001 $UR_{163}$ | 4.1 | X | 80.43941 | 343.90957 | 301.27958 | 0.75332 | 0.2870716 | 0.00265617 | 51.6375232 | 20 | 10 31.6 | 21.4 |
| 42302 2001 $VF_{10}$ | 14.4 | X | 227.12767 | 64.83330 | 257.33801 | 15.85447 | 0.2413785 | 0.23768620 | 2.5810717 | 20 | 2 19.8 | 19.3 |
| 42303 2001 $VO_{18}$ | 16.5 | X | 103.36526 | 8.26949 | 334.15757 | 0.71005 | 0.0752053 | 0.27233104 | 2.3572444 | 20 | — | — |
| 42304 2001 $VZ_{34}$ | 13.9 | X | 242.38080 | 208.03054 | 67.01016 | 23.32157 | 0.0629860 | 0.17219684 | 3.1997737 | 20 | 2 8.4 | 19.1 |
| 42305 2001 $VU_{44}$ | 15.1 | X | 45.28089 | 15.86141 | 341.13052 | 1.91206 | 0.2121009 | 0.26447419 | 2.4037014 | 20 | — | — |
| 42306 2001 $VU_{46}$ | 14.7 | X | 109.08828 | 272.56208 | 89.82454 | 13.61116 | 0.1332511 | 0.21770351 | 2.7366910 | 20 | — | — |
| 42307 2001 $VC_{48}$ | 14.8 | X | 120.38389 | 163.16718 | 131.16272 | 2.83062 | 0.2018057 | 0.26523579 | 2.3990979 | 20 | — | — |
| 42308 2001 $VM_{50}$ | 14.3 | X | 277.29630 | 314.94090 | 340.54203 | 8.17520 | 0.0394542 | 0.18502065 | 3.0501597 | 20 | 4 5.2 | 18.7 |
| 42309 2001 $VO_{86}$ | 15.0 | X | 107.54373 | 227.43249 | 158.55345 | 2.84667 | 0.2321956 | 0.27545191 | 2.3394056 | 20 | 1 26.1 | 17.7 |
| 42310 2001 $VB_{88}$ | 14.2 | X | 105.20683 | 304.47678 | 147.55888 | 15.85430 | 0.1615783 | 0.23365393 | 2.6106821 | 20 | 4 19.3 | 18.1 |
| 42311 2001 $VB_{93}$ | 14.8 | X | 241.54220 | 129.81359 | 138.88896 | 11.58860 | 0.1279228 | 0.27987970 | 2.3146666 | 20 | 1 5.9 | 18.3 |
| 42312 2001 $VY_{93}$ | 14.5 | X | 224.36186 | 261.58737 | 122.81145 | 14.45519 | 0.0961890 | 0.24097250 | 2.5575515 | 20 | 5 24.6 | 18.5 |
| 42313 2001 $VH_{97}$ | 13.3 | X | 37.90658 | 175.47662 | 136.27130 | 18.95084 | 0.0437040 | 0.14731806 | 3.5505752 | 20 | 10 12.2 | 18.5 |
| 42314 2001 $VQ_{121}$ | 14.4 | X | 99.29551 | 76.15234 | 91.60925 | 9.87366 | 0.0312184 | 0.19041837 | 2.9922427 | 20 | 6 27.1 | 18.6 |
| 42315 2001 $VW_{121}$ | 14.1 | X | 175.04847 | 340.55521 | 119.15264 | 11.38043 | 0.0785246 | 0.19176209 | 2.9782482 | 20 | 7 2.6 | 18.6 |
| 42316 2001 $WT_{37}$ | 16.5 | X | 138.03870 | 213.58865 | 133.51982 | 3.26669 | 0.0868399 | 0.27779997 | 2.3262047 | 20 | — | — |
| 42317 2001 $WW_{39}$ | 16.2 | X | 300.50728 | 209.81174 | 142.31223 | 4.11323 | 0.1617095 | 0.30064852 | 2.2068019 | 20 | 7 11.5 | 18.0 |
| 42318 2001 $XV_{1}$ | 13.3 | X | 126.83042 | 190.70087 | 201.12458 | 29.42065 | 0.1884515 | 0.17455947 | 3.1708359 | 20 | 2 26.1 | 18.6 |
| 42319 2001 $XU_{15}$ | 15.7 | X | 213.96635 | 25.40332 | 192.84756 | 2.36421 | 0.1186961 | 0.26518831 | 2.3993842 | 20 | — | — |
| 42320 2001 $XH_{17}$ | 14.3 | X | 192.20421 | 200.45426 | 64.13891 | 10.32593 | 0.1202102 | 0.26839543 | 2.3802321 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42321 2001 $XE_{24}$ | 15.1 | $X$ | 131.17483 | 16.27824 | 62.30991 | 5.38275 | 0.2824643 | 0.23082685 | 2.6319552 | 20 | 5 6.3 | 19.5 |
| 42322 2001 $XS_{49}$ | 15.3 | $X$ | 220.34671 | 314.96238 | 75.25082 | 7.16164 | 0.1544775 | 0.29528997 | 2.2334193 | 20 | 5 19.4 | 18.6 |
| 42323 2001 $XQ_{55}$ | 15.2 | $X$ | 180.94199 | 262.53687 | 134.69254 | 2.43834 | 0.1674048 | 0.18271874 | 3.0757238 | 20 | 4 23.8 | 20.2 |
| 42324 2001 $XX_{62}$ | 14.5 | $X$ | 142.19319 | 88.62601 | 253.11301 | 4.67139 | 0.1411209 | 0.27359576 | 2.3499745 | 20 | — | — |
| 42325 2001 $XB_{89}$ | 15.4 | $X$ | 19.02663 | 130.85445 | 38.45636 | 6.46667 | 0.1347229 | 0.28414033 | 2.2914698 | 20 | 3 4.4 | 17.3 |
| 42326 2001 $XW_{104}$ | 15.3 | $X$ | 271.39185 | 117.53648 | 74.17754 | 7.22217 | 0.0468098 | 0.26932999 | 2.3747227 | 20 | — | — |
| 42327 2001 $XQ_{108}$ | 14.6 | $X$ | 160.99528 | 353.55624 | 103.36457 | 10.55052 | 0.0662350 | 0.18279160 | 3.0749063 | 20 | 6 13.8 | 19.2 |
| 42328 2001 $XM_{133}$ | 15.0 | $X$ | 118.89165 | 168.67871 | 109.30730 | 6.67891 | 0.1831014 | 0.26305856 | 2.4123172 | 20 | 12 25.2 | 19.0 |
| 42329 2001 $XL_{169}$ | 16.1 | $X$ | 183.39144 | 44.66810 | 153.36358 | 3.01023 | 0.1127636 | 0.30852399 | 2.1690859 | 20 | 11 30.1 | 18.8 |
| 42330 2001 $XC_{194}$ | 15.5 | $X$ | 167.46883 | 92.55669 | 254.88328 | 1.96773 | 0.1862956 | 0.27652097 | 2.3333721 | 20 | 2 4.6 | 19.0 |
| 42331 2001 $XJ_{195}$ | 15.8 | $X$ | 256.35552 | 306.07304 | 132.08785 | 2.62265 | 0.0453656 | 0.24730509 | 2.5137033 | 20 | 9 20.9 | 18.8 |
| 42332 2001 $XP_{211}$ | 15.7 | $X$ | 134.10065 | 275.75246 | 161.42135 | 4.46702 | 0.1224921 | 0.28549079 | 2.2842378 | 20 | 4 22.1 | 18.7 |
| 42333 2001 $XM_{214}$ | 14.2 | $X$ | 256.25685 | 71.55182 | 126.24927 | 8.39944 | 0.1645517 | 0.21078804 | 2.7962248 | 20 | — | — |
| 42334 2001 $XG_{222}$ | 16.3 | $X$ | 313.82444 | 303.92098 | 278.86132 | 1.67251 | 0.1955591 | 0.28192958 | 2.3034332 | 20 | 1 17.2 | 19.2 |
| 42335 2001 $XX_{232}$ | 16.0 | $X$ | 196.48735 | 336.71729 | 350.05558 | 1.95102 | 0.2611227 | 0.28398451 | 2.2923079 | 20 | 2 7.1 | 20.0 |
| 42336 2001 $XP_{247}$ | 14.9 | $X$ | 14.57799 | 335.40243 | 92.22313 | 4.74621 | 0.0779618 | 0.21262549 | 2.7800920 | 20 | — | — |
| 42337 2001 $YK_{16}$ | 15.7 | $X$ | 77.54661 | 198.61456 | 295.32981 | 1.01145 | 0.0296122 | 0.23172013 | 2.6251868 | 20 | 4 12.8 | 19.0 |
| 42338 2001 $YT_{80}$ | 14.9 | $X$ | 347.73458 | 223.20357 | 86.13374 | 4.44624 | 0.0970945 | 0.18908339 | 3.0063102 | 20 | 8 1.7 | 18.5 |
| 42339 2002 $AX_{16}$ | 14.5 | $X$ | 278.42275 | 79.23382 | 136.54180 | 11.42192 | 0.0956325 | 0.21662940 | 2.7457297 | 20 | — | — |
| 42340 2002 $AH_{23}$ | 14.8 | $X$ | 334.18603 | 88.96944 | 136.87854 | 12.68737 | 0.0149004 | 0.22735689 | 2.6586672 | 20 | 3 28.3 | 18.4 |
| 42341 2002 $AK_{34}$ | 15.3 | $X$ | 220.45264 | 205.24338 | 171.87441 | 7.03675 | 0.1955609 | 0.28667805 | 2.2779267 | 20 | 4 30.9 | 19.0 |
| 42342 2002 $AU_{58}$ | 14.8 | $X$ | 222.14124 | 183.19239 | 138.01431 | 15.51702 | 0.1091214 | 0.22292511 | 2.6937879 | 20 | 2 29.9 | 19.0 |
| 42343 2002 $AB_{63}$ | 14.8 | $X$ | 31.02024 | 122.72183 | 184.13647 | 6.12829 | 0.0371857 | 0.19028118 | 2.9936808 | 20 | 9 26.9 | 18.9 |
| 42344 2002 $AT_{90}$ | 14.6 | $X$ | 22.56028 | 36.72435 | 156.90902 | 24.23730 | 0.1887584 | 0.27653748 | 2.3332792 | 20 | 4 28.6 | 17.0 |
| 42345 2002 $AN_{118}$ | 15.5 | $X$ | 239.47607 | 84.91843 | 319.25422 | 4.36562 | 0.1370400 | 0.29251155 | 2.2475397 | 20 | 7 1.0 | 18.3 |
| 42346 2002 $AV_{131}$ | 14.7 | $X$ | 177.11128 | 308.71987 | 5.28264 | 6.60672 | 0.1348221 | 0.27615240 | 2.3354478 | 20 | — | — |
| 42347 2002 $AV_{155}$ | 15.1 | $X$ | 323.74906 | 138.95275 | 136.10569 | 10.55859 | 0.2225985 | 0.27755289 | 2.3275850 | 20 | 4 17.2 | 17.5 |
| 42348 2002 $BV_{9}$ | 13.9 | $X$ | 24.59590 | 213.54051 | 332.66104 | 14.40829 | 0.0219969 | 0.17071049 | 3.2183202 | 20 | 4 6.3 | 18.6 |
| 42349 2002 $BH_{17}$ | 14.4 | $X$ | 41.33339 | 243.90760 | 128.69213 | 1.68614 | 0.0712008 | 0.15154629 | 3.4842222 | 20 | 12 25.1 | 19.3 |
| 42350 2002 $BN_{19}$ | 14.6 | $X$ | 167.62066 | 270.53015 | 346.64339 | 13.88728 | 0.1803161 | 0.25336302 | 2.4734734 | 20 | — | — |
| 42351 2002 $CB_{6}$ | 15.0 | $X$ | 194.58301 | 144.20315 | 140.94770 | 1.59430 | 0.1949732 | 0.26178030 | 2.4201637 | 20 | — | — |
| 42352 2002 $CV_{32}$ | 14.6 | $X$ | 48.18880 | 331.34933 | 100.39044 | 10.46320 | 0.1426131 | 0.21464673 | 2.7626118 | 20 | — | — |
| 42353 2002 $CZ_{41}$ | 14.9 | $X$ | 3.27870 | 43.99656 | 199.01533 | 12.28548 | 0.1369206 | 0.22918267 | 2.6445282 | 20 | 5 28.7 | 17.8 |
| 42354 Kindleberger | 14.5 | $X$ | 99.24199 | 20.16548 | 95.19680 | 15.89214 | 0.0555628 | 0.22390353 | 2.6859346 | 20 | 4 29.8 | 18.4 |
| 42355 Typhon | 7.6 | $X$ | 21.65873 | 159.18690 | 352.06762 | 2.43262 | 0.5360553 | 0.00422818 | 37.8762550 | 20 | 4 30.9 | 21.2 |
| 42356 2002 $CA_{47}$ | 16.1 | $X$ | 259.06154 | 90.06616 | 164.71292 | 5.81746 | 0.0591241 | 0.27142876 | 2.3624655 | 20 | 1 12.1 | 19.2 |
| 42357 2002 $CS_{52}$ | 15.1 | $X$ | 170.18965 | 198.20308 | 336.56706 | 6.74105 | 0.1477398 | 0.24079191 | 2.5588301 | 20 | 9 30.9 | 19.1 |
| 42358 2002 $CO_{55}$ | 14.6 | $X$ | 168.93957 | 120.13902 | 182.16615 | 7.99414 | 0.2168799 | 0.25961336 | 2.4336121 | 20 | — | — |
| 42359 2002 $CY_{63}$ | 14.4 | $X$ | 322.30137 | 241.53460 | 90.86179 | 12.28164 | 0.1117614 | 0.18353376 | 3.0666113 | 20 | 7 20.0 | 18.2 |
| 42360 2002 $CG_{99}$ | 14.7 | $X$ | 262.14028 | 45.95869 | 100.51753 | 3.20778 | 0.0220122 | 0.19941922 | 2.9015143 | 20 | 12 18.4 | 18.5 |
| 42361 2002 $CS_{101}$ | 15.9 | $X$ | 268.55942 | 359.94744 | 36.05412 | 3.25383 | 0.2060707 | 0.29409349 | 2.2394727 | 20 | 7 17.9 | 18.5 |
| 42362 2002 $CY_{102}$ | 14.8 | $X$ | 173.59801 | 243.87315 | 110.75243 | 3.08259 | 0.0998110 | 0.21673987 | 2.7447967 | 20 | 2 21.7 | 18.8 |
| 42363 2002 $CL_{103}$ | 15.7 | $X$ | 256.15763 | 230.39276 | 42.79082 | 3.29135 | 0.1762426 | 0.26772875 | 2.3841819 | 20 | 1 25.5 | 19.3 |
| 42364 2002 $CS_{107}$ | 15.3 | $X$ | 305.33926 | 152.41966 | 137.91421 | 5.40780 | 0.1669399 | 0.27695977 | 2.3309068 | 20 | 4 16.0 | 17.9 |
| 42365 Caligiuri | 14.4 | $X$ | 158.29190 | 310.25673 | 83.31179 | 18.81589 | 0.0977269 | 0.22620421 | 2.6676915 | 20 | 4 2.8 | 18.8 |
| 42366 2002 $CL_{125}$ | 15.6 | $X$ | 143.73828 | 177.01705 | 206.44145 | 2.67093 | 0.2455176 | 0.27611244 | 2.3356732 | 20 | 3 3.2 | 19.1 |
| 42367 2002 $CQ_{134}$ | 11.0 | $X$ | 211.38291 | 342.78364 | 187.96428 | 29.05258 | 0.0432655 | 0.08277324 | 5.2144610 | 20 | 10 25.7 | 18.2 |
| 42368 2002 $CC_{135}$ | 13.5 | $X$ | 325.13995 | 99.71549 | 109.26879 | 16.71466 | 0.0407718 | 0.17288258 | 3.1913068 | 20 | 2 27.1 | 18.1 |
| 42369 2002 $CT_{135}$ | 14.2 | $X$ | 312.04994 | 269.04249 | 144.91805 | 10.70411 | 0.1920057 | 0.25564530 | 2.4587300 | 20 | 11 9.5 | 16.4 |
| 42370 2002 $CB_{137}$ | 14.8 | $X$ | 333.23975 | 328.69137 | 282.88540 | 10.90216 | 0.1582551 | 0.22672104 | 2.6636357 | 20 | 4 3.2 | 18.0 |
| 42371 2002 $CT_{141}$ | 14.1 | $X$ | 170.36137 | 235.52495 | 310.36130 | 7.72015 | 0.0312550 | 0.19059775 | 2.9903650 | 20 | 10 10.5 | 18.5 |
| 42372 2002 $CD_{146}$ | 14.6 | $X$ | 96.03822 | 283.25394 | 328.00350 | 7.99218 | 0.0250425 | 0.18913743 | 3.0057375 | 20 | 10 3.9 | 19.0 |
| 42373 2002 $CM_{174}$ | 14.9 | $X$ | 111.10102 | 207.00365 | 59.49913 | 5.60348 | 0.2038933 | 0.24403317 | 2.5361220 | 20 | 12 2.2 | 19.1 |
| 42374 2002 $CB_{175}$ | 14.1 | $X$ | 6.11038 | 90.41769 | 161.42132 | 13.22878 | 0.1462349 | 0.22369722 | 2.6875858 | 20 | 6 17.0 | 17.2 |
| 42375 2002 $CA_{233}$ | 15.3 | $X$ | 97.58423 | 321.39822 | 190.45579 | 0.97330 | 0.0846100 | 0.17853107 | 3.1236343 | 20 | 6 11.7 | 19.6 |
| 42376 2002 $DQ_{2}$ | 14.7 | $X$ | 36.05173 | 113.91625 | 82.79019 | 23.76483 | 0.2212075 | 0.27901034 | 2.3194723 | 20 | 6 5.2 | 16.5 |
| 42377 KLENOT | 15.6 | $X$ | 281.79618 | 284.88667 | 294.61937 | 6.20597 | 0.1131390 | 0.26483447 | 2.4015209 | 20 | — | — |
| 42378 2002 $EL_{12}$ | 16.1 | $X$ | 95.40584 | 131.32912 | 155.34476 | 1.18593 | 0.1859897 | 0.29692320 | 2.2252218 | 20 | 12 21.6 | 19.5 |
| 42379 2013 $P$–$L$ | 15.2 | $X$ | 135.21346 | 346.33410 | 333.90353 | 4.06904 | 0.2256451 | 0.30204709 | 2.1999845 | 20 | — | — |
| 42380 2065 $P$–$L$ | 14.5 | $X$ | 33.49928 | 13.40881 | 277.04979 | 4.42682 | 0.1452916 | 0.18084843 | 3.0968931 | 20 | 9 19.9 | 18.5 |
| 42381 2090 $P$–$L$ | 14.7 | $X$ | 84.81568 | 48.34970 | 321.17091 | 4.85495 | 0.0894428 | 0.20203744 | 2.8763925 | 20 | — | — |
| 42382 2183 $P$–$L$ | 16.2 | $X$ | 294.72620 | 117.09479 | 195.71848 | 4.01616 | 0.1872471 | 0.25939679 | 2.4349665 | 20 | 4 28.0 | 19.2 |
| 42383 2231 $P$–$L$ | 15.5 | $X$ | 119.18887 | 212.90997 | 247.61978 | 1.30160 | 0.2178011 | 0.22353222 | 2.6889081 | 20 | 5 16.9 | 19.7 |
| 42384 2506 $P$–$L$ | 15.2 | $X$ | 290.01502 | 316.42654 | 7.01291 | 12.00073 | 0.2121285 | 0.22695173 | 2.6618305 | 20 | 4 29.0 | 19.0 |
| 42385 2844 $P$–$L$ | 15.6 | $X$ | 83.72402 | 205.63316 | 168.25616 | 2.28272 | 0.0901821 | 0.20221940 | 2.8746668 | 20 | — | — |
| 42386 3552 $P$–$L$ | 13.6 | $X$ | 223.37736 | 229.36346 | 213.14180 | 16.91174 | 0.2044119 | 0.17593318 | 3.1543089 | 20 | 7 17.6 | 19.1 |
| 42387 4071 $P$–$L$ | 15.4 | $X$ | 301.36634 | 109.36374 | 199.14627 | 5.43575 | 0.1017585 | 0.27589947 | 2.3368749 | 20 | 5 16.2 | 18.0 |
| 42388 4111 $P$–$L$ | 15.7 | $X$ | 111.02676 | 65.96440 | 354.40146 | 4.30386 | 0.2064918 | 0.22166122 | 2.7040180 | 20 | 3 17.8 | 19.6 |
| 42389 4251 $P$–$L$ | 15.9 | $X$ | 72.08691 | 224.06574 | 228.69901 | 5.22453 | 0.1216571 | 0.27094943 | 2.3652509 | 20 | 2 14.3 | 18.4 |
| 42390 4305 $P$–$L$ | 14.6 | $X$ | 194.01728 | 81.65749 | 353.44090 | 11.27183 | 0.0920232 | 0.17598634 | 3.1536736 | 20 | 6 21.3 | 19.6 |
| 42391 4753 $P$–$L$ | 16.3 | $X$ | 53.37042 | 191.70616 | 132.61042 | 2.52258 | 0.0589453 | 0.29818355 | 2.2189470 | 20 | 12 14.6 | 19.0 |
| 42392 4908 $P$–$L$ | 15.2 | $X$ | 212.54362 | 82.34256 | 160.10311 | 5.42720 | 0.0537094 | 0.20250672 | 2.8719470 | 20 | — | — |
| 42393 6012 $P$–$L$ | 14.9 | $X$ | 146.89602 | 224.82630 | 243.85309 | 3.51699 | 0.1315931 | 0.17477411 | 3.1682393 | 20 | 6 15.9 | 19.9 |
| 42394 6111 $P$–$L$ | 14.2 | $X$ | 0.79059 | 334.83004 | 351.98799 | 9.75538 | 0.1240801 | 0.18071079 | 3.0984655 | 20 | 9 15.3 | 17.9 |
| 42395 6193 $P$–$L$ | 15.6 | $X$ | 329.86496 | 137.37991 | 191.28890 | 12.37465 | 0.1236579 | 0.22860154 | 2.6490081 | 20 | 7 27.4 | 18.8 |
| 42396 6213 $P$–$L$ | 15.9 | $X$ | 123.67784 | 216.58722 | 230.70558 | 2.52008 | 0.1454627 | 0.27319057 | 2.3522975 | 20 | 4 24.9 | 19.1 |
| 42397 6326 $P$–$L$ | 13.8 | $X$ | 189.56067 | 201.88842 | 235.67134 | 1.14750 | 0.1101468 | 0.17579288 | 3.1559869 | 20 | 6 19.1 | 18.8 |
| 42398 6370 $P$–$L$ | 15.5 | $X$ | 354.42100 | 72.41841 | 197.34338 | 12.14822 | 0.1457112 | 0.22738404 | 2.6584555 | 20 | 6 18.9 | 18.5 |
| 42399 6372 $P$–$L$ | 15.5 | $X$ | 358.75338 | 85.23281 | 223.94728 | 2.62977 | 0.1452190 | 0.22932282 | 2.6434506 | 20 | 8 26.6 | 18.3 |
| 42400 6587 $P$–$L$ | 14.7 | $X$ | 307.26493 | 293.58046 | 59.52176 | 2.17792 | 0.1958655 | 0.17910177 | 3.1169951 | 20 | 7 11.2 | 18.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42401 6589 *P–L* | 14.3 | X | 8.34624 | 62.76741 | 7.60480 | 9.87326 | 0.2132248 | 0.20081190 | 2.8880836 | 20 | — | — |
| 42402 6619 *P–L* | 15.7 | X | 70.17446 | 169.55655 | 166.08517 | 3.43483 | 0.2067745 | 0.29976015 | 2.2111598 | 20 | — | — |
| 42403 Andraimon | 12.6 | X | 291.42082 | 28.67908 | 18.12762 | 8.13378 | 0.1141770 | 0.08130187 | 5.2771855 | 20 | 8 29.0 | 19.3 |
| 42404 7606 *P–L* | 16.1 | X | 321.53472 | 249.82222 | 83.20514 | 3.04058 | 0.2611863 | 0.27816131 | 2.3241897 | 20 | 7 8.1 | 17.5 |
| 42405 9085 *P–L* | 16.2 | X | 49.32117 | 323.01772 | 3.93170 | 4.00995 | 0.1970275 | 0.29851907 | 2.2172840 | 20 | 12 30.4 | 19.3 |
| 42406 9104 *P–L* | 14.6 | X | 25.78103 | 143.70632 | 182.72417 | 13.04510 | 0.1377876 | 0.18184519 | 3.0855660 | 20 | 10 28.5 | 18.6 |
| 42407 9509 *P–L* | 15.0 | X | 328.74517 | 125.40511 | 187.36620 | 10.90877 | 0.2602894 | 0.22881952 | 2.6473254 | 20 | 6 18.1 | 17.5 |
| 42408 9555 *P–L* | 14.6 | X | 250.30873 | 25.90553 | 31.58685 | 6.21535 | 0.1847800 | 0.17687828 | 3.1430628 | 20 | 7 21.1 | 19.4 |
| 42409 1108 *T–1* | 15.8 | X | 181.75178 | 120.14312 | 347.67571 | 5.52503 | 0.1115700 | 0.28690581 | 2.2767211 | 20 | 7 26.1 | 19.1 |
| 42410 3062 *T–1* | 16.0 | X | 327.00250 | 267.92194 | 183.10360 | 2.35134 | 0.1389153 | 0.25452692 | 2.4659271 | 20 | — | — |
| 42411 3249 *T–1* | 14.6 | X | 29.65766 | 48.34636 | 352.16237 | 4.86962 | 0.1070708 | 0.25436192 | 2.4669934 | 20 | — | — |
| 42412 4320 *T–1* | 15.6 | X | 145.45752 | 117.26828 | 42.82873 | 3.45412 | 0.1016348 | 0.28737772 | 2.2742279 | 20 | 8 26.9 | 18.8 |
| 42413 1072 *T–2* | 16.0 | X | 240.07319 | 289.42445 | 148.13186 | 1.03822 | 0.1482964 | 0.29192211 | 2.2505641 | 20 | 8 16.8 | 18.9 |
| 42414 1130 *T–2* | 15.3 | X | 323.49204 | 49.46092 | 342.22731 | 6.59042 | 0.0820090 | 0.18936032 | 3.0033785 | 20 | 10 9.3 | 19.0 |
| 42415 1175 *T–2* | 15.3 | X | 296.28601 | 338.92147 | 226.01771 | 0.81750 | 0.1331209 | 0.26165338 | 2.4209462 | 20 | — | — |
| 42416 1195 *T–2* | 15.1 | X | 343.92723 | 293.73187 | 18.02958 | 3.04090 | 0.1555325 | 0.22910899 | 2.6450952 | 20 | 8 2.7 | 17.6 |
| 42417 1613 *T–2* | 16.0 | X | 102.45092 | 59.80544 | 255.01366 | 2.07500 | 0.2330377 | 0.29986635 | 2.2106376 | 20 | — | — |
| 42418 2081 *T–2* | 15.6 | X | 320.55799 | 203.29192 | 306.34132 | 2.53949 | 0.1234662 | 0.25879164 | 2.4387609 | 20 | — | — |
| 42419 2187 *T–2* | 15.4 | X | 2.69828 | 145.98025 | 341.31162 | 2.08777 | 0.1535408 | 0.25956810 | 2.4338950 | 20 | — | — |
| 42420 2290 *T–2* | 15.9 | X | 40.58558 | 205.26468 | 239.68146 | 1.68801 | 0.1679310 | 0.25935646 | 2.4352189 | 20 | — | — |
| 42421 2306 *T–2* | 15.3 | X | 158.30691 | 148.10491 | 196.52013 | 0.77564 | 0.1990742 | 0.26176777 | 2.4202409 | 20 | 1 26.8 | 19.0 |
| 42422 3048 *T–2* | 15.2 | X | 10.89937 | 130.30641 | 155.01640 | 2.53703 | 0.0753113 | 0.22881812 | 2.6473362 | 20 | 8 8.5 | 18.4 |
| 42423 3085 *T–2* | 14.7 | X | 71.48386 | 154.16524 | 173.97811 | 10.15259 | 0.0926431 | 0.19258727 | 2.9697347 | 20 | 12 20.2 | 19.2 |
| 42424 3120 *T–2* | 14.9 | X | 290.92500 | 28.07714 | 75.05734 | 3.63178 | 0.0663731 | 0.19171466 | 2.9787394 | 20 | 11 25.9 | 18.8 |
| 42425 3227 *T–2* | 14.9 | X | 221.18116 | 320.58195 | 46.44456 | 6.71105 | 0.0597326 | 0.22454654 | 2.6808045 | 20 | 4 27.7 | 18.7 |
| 42426 4634 *T–2* | 16.0 | X | 251.14665 | 139.74687 | 154.32614 | 7.04154 | 0.1070119 | 0.26467447 | 2.4024887 | 20 | 2 20.0 | 19.5 |
| 42427 5061 *T–2* | 14.6 | X | 101.02181 | 27.88487 | 303.60069 | 6.09773 | 0.2369564 | 0.30031935 | 2.2084141 | 20 | — | — |
| 42428 5089 *T–2* | 16.2 | X | 57.69554 | 67.19690 | 228.27733 | 7.71470 | 0.1489565 | 0.29587304 | 2.2304840 | 20 | 11 22.4 | 19.1 |
| 42429 5132 *T–2* | 15.5 | X | 50.74461 | 248.69930 | 216.14382 | 12.85787 | 0.3130904 | 0.21791467 | 2.7349228 | 20 | 2 27.0 | 18.1 |
| 42430 5158 *T–2* | 14.6 | X | 166.44111 | 355.69295 | 227.02652 | 12.49772 | 0.0323722 | 0.19159428 | 2.9799869 | 20 | 11 24.3 | 18.9 |
| 42431 1051 *T–3* | 15.2 | X | 77.09075 | 143.91634 | 227.28774 | 14.01888 | 0.1813923 | 0.25887590 | 2.4382317 | 20 | — | — |
| 42432 1134 *T–3* | 16.0 | X | 203.13981 | 28.20698 | 275.33565 | 5.82820 | 0.1267540 | 0.26339011 | 2.4102925 | 20 | 1 13.8 | 19.5 |
| 42433 1887 *T–3* | 14.5 | X | 63.75549 | 276.56222 | 322.44911 | 8.22675 | 0.0342822 | 0.17987441 | 3.1080629 | 20 | 8 12.6 | 18.7 |
| 42434 2121 *T–3* | 14.2 | X | 176.91418 | 107.31047 | 7.03312 | 14.79933 | 0.0934251 | 0.17770971 | 3.1332517 | 20 | 7 27.2 | 19.3 |
| 42435 2164 *T–3* | 14.8 | X | 97.06384 | 226.24498 | 211.10258 | 7.72372 | 0.1791052 | 0.21722101 | 2.7407420 | 20 | 3 17.7 | 18.6 |
| 42436 2204 *T–3* | 15.6 | X | 284.61081 | 358.49170 | 227.08691 | 6.11624 | 0.0902477 | 0.26299206 | 2.4127239 | 20 | 1 2.6 | 18.9 |
| 42437 2266 *T–3* | 15.1 | X | 146.79711 | 183.44801 | 206.43416 | 15.33569 | 0.0697375 | 0.21819812 | 2.7325537 | 20 | 2 28.7 | 19.3 |
| 42438 2317 *T–3* | 15.0 | X | 356.03352 | 160.72631 | 1.88942 | 2.92941 | 0.1153229 | 0.26252398 | 2.4155910 | 20 | 1 14.6 | 17.5 |
| 42439 2355 *T–3* | 14.2 | X | 96.81470 | 89.59370 | 12.32858 | 11.61022 | 0.1718111 | 0.21851300 | 2.7299280 | 20 | 4 16.8 | 18.0 |
| 42440 2484 *T–3* | 14.6 | X | 145.99823 | 123.37247 | 352.31143 | 5.10738 | 0.1386686 | 0.17487375 | 3.1670358 | 20 | 6 24.2 | 19.7 |
| 42441 2492 *T–3* | 13.5 | X | 350.92549 | 355.22754 | 6.81068 | 11.76461 | 0.1337562 | 0.18322417 | 3.0700647 | 20 | 10 14.5 | 17.1 |
| 42442 2603 *T–3* | 14.5 | X | 145.09903 | 328.42380 | 219.04739 | 14.33122 | 0.0989468 | 0.18215536 | 3.0820623 | 20 | 9 13.8 | 19.5 |
| 42443 2640 *T–3* | 16.7 | X | 233.87299 | 124.99717 | 207.75157 | 6.81823 | 0.1403308 | 0.26707248 | 2.3880859 | 20 | 3 18.2 | 20.4 |
| 42444 3064 *T–3* | 15.8 | X | 35.66971 | 94.65810 | 23.92640 | 7.63586 | 0.1669714 | 0.21554793 | 2.7549061 | 20 | 2 6.1 | 18.7 |
| 42445 3123 *T–3* | 14.3 | X | 65.99613 | 60.87494 | 188.90638 | 7.91541 | 0.0560861 | 0.18125952 | 3.0922089 | 20 | 8 30.7 | 18.6 |
| 42446 3248 *T–3* | 14.4 | X | 94.46707 | 137.59111 | 63.64122 | 2.09627 | 0.0980845 | 0.17952647 | 3.1120774 | 20 | 8 12.3 | 18.9 |
| 42447 3265 *T–3* | 15.5 | X | 269.22349 | 169.07997 | 202.36706 | 5.09683 | 0.1290182 | 0.22481734 | 2.6786513 | 20 | 6 21.9 | 19.1 |
| 42448 3393 *T–3* | 13.9 | X | 93.65284 | 122.65057 | 195.43391 | 9.90437 | 0.1039601 | 0.18757165 | 3.0224416 | 20 | 12 30.4 | 18.7 |
| 42449 3496 *T–3* | 14.4 | X | 26.03950 | 105.62143 | 192.81181 | 9.33096 | 0.3452623 | 0.23071113 | 2.6328353 | 20 | 11 4.2 | 17.6 |
| 42450 3504 *T–3* | 16.3 | X | 255.78568 | 299.89093 | 24.95244 | 5.82232 | 0.2328845 | 0.26861136 | 2.3789563 | 20 | 3 24.9 | 19.9 |
| 42451 3727 *T–3* | 14.0 | X | 167.19618 | 27.42028 | 16.09262 | 16.37529 | 0.1118281 | 0.17394795 | 3.1782630 | 20 | 4 14.9 | 19.0 |
| 42452 3970 *T–3* | 14.8 | X | 185.22286 | 281.00176 | 199.49582 | 17.76394 | 0.1391831 | 0.17837072 | 3.1255060 | 20 | 8 1.6 | 20.1 |
| 42453 4055 *T–3* | 14.2 | X | 180.08674 | 136.06531 | 40.64338 | 9.82337 | 0.0306773 | 0.18372231 | 3.0645128 | 20 | 10 15.4 | 18.7 |
| 42454 4134 *T–3* | 14.6 | X | 144.35393 | 338.42716 | 70.95198 | 3.69107 | 0.1925274 | 0.21882925 | 2.7272972 | 20 | 4 6.6 | 19.0 |
| 42455 4293 *T–3* | 14.1 | X | 131.56741 | 65.50058 | 146.50558 | 6.31792 | 0.1944438 | 0.18366914 | 3.0651042 | 20 | 10 10.2 | 19.2 |
| 42456 4322 *T–3* | 15.6 | X | 128.91587 | 303.21741 | 88.54013 | 6.22618 | 0.0630221 | 0.21705616 | 2.7421295 | 20 | 2 15.8 | 19.4 |
| 42457 4341 *T–3* | 14.0 | X | 217.23307 | 16.63370 | 33.67937 | 22.26674 | 0.1646942 | 0.17657634 | 3.1466447 | 20 | 6 4.8 | 19.4 |
| 42458 4359 *T–3* | 15.0 | X | 272.59488 | 288.78586 | 69.89584 | 6.89869 | 0.0586971 | 0.22418034 | 2.6837230 | 20 | 6 20.0 | 18.4 |
| 42459 5036 *T–3* | 14.2 | X | 247.96497 | 1.59753 | 71.16876 | 11.12097 | 0.0830104 | 0.18027794 | 3.1034231 | 20 | 8 23.5 | 18.8 |
| 42460 5106 *T–3* | 15.6 | X | 108.68145 | 222.72737 | 132.19552 | 7.49715 | 0.1466013 | 0.26005430 | 2.4308604 | 20 | — | — |
| 42461 5184 *T–3* | 15.6 | X | 164.38726 | 163.81022 | 127.52820 | 7.25920 | 0.1043151 | 0.30601124 | 2.1809438 | 20 | — | — |
| 42462 5278 *T–3* | 15.6 | X | 134.70896 | 258.90730 | 100.35209 | 8.69398 | 0.1509955 | 0.26194297 | 2.4191616 | 20 | 1 15.9 | 18.8 |
| 42463 5601 *T–3* | 15.1 | X | 54.17307 | 90.69928 | 166.69999 | 13.17189 | 0.1503328 | 0.22765478 | 2.6563474 | 20 | 9 16.8 | 18.6 |
| 42464 1978 $RQ_7$ | 15.2 | X | 105.53586 | 143.39287 | 164.23363 | 4.15720 | 0.1489723 | 0.24160725 | 2.5530701 | 20 | — | — |
| 42465 1978 $VH_4$ | 15.4 | X | 75.49907 | 258.78144 | 229.17241 | 1.59062 | 0.1428586 | 0.26926474 | 2.3751063 | 20 | 4 16.9 | 18.0 |
| 42466 1978 $VP_6$ | 15.2 | X | 46.90928 | 12.83327 | 324.63774 | 1.56188 | 0.2115770 | 0.23611152 | 2.5925348 | 20 | 12 28.7 | 18.8 |
| 42467 1978 $VX_6$ | 14.5 | X | 298.41824 | 71.98019 | 62.31920 | 12.19583 | 0.1328937 | 0.23675201 | 2.5878570 | 20 | — | — |
| 42468 1979 $QY_2$ | 16.1 | X | 47.59981 | 334.90546 | 16.36917 | 1.31017 | 0.1862360 | 0.29434291 | 2.2382074 | 20 | — | — |
| 42469 1981 $DN_3$ | 15.5 | X | 79.98124 | 73.21838 | 254.29229 | 5.21893 | 0.2190916 | 0.29098399 | 2.2553986 | 20 | — | — |
| 42470 1981 $EO_{16}$ | 15.5 | X | 7.42329 | 141.04390 | 217.65424 | 7.97767 | 0.1955039 | 0.28947334 | 2.2632386 | 20 | 12 18.1 | 18.0 |
| 42471 1981 $ES_{16}$ | 16.0 | X | 129.83460 | 293.98653 | 315.89815 | 3.11752 | 0.1444530 | 0.23942104 | 2.5685884 | 20 | 11 25.9 | 20.2 |
| 42472 1981 $EN_{25}$ | 15.8 | X | 171.08000 | 340.24868 | 171.75202 | 3.38085 | 0.1108527 | 0.28704670 | 2.2759760 | 20 | 9 11.2 | 18.9 |
| 42473 1981 $ED_{26}$ | 15.7 | X | 106.62864 | 32.80651 | 185.81003 | 5.12452 | 0.1090988 | 0.28629916 | 2.2799361 | 20 | 9 30.3 | 18.7 |
| 42474 1981 $EJ_{27}$ | 16.4 | X | 104.62799 | 321.16860 | 282.50948 | 0.74367 | 0.1977745 | 0.28707571 | 2.2758227 | 20 | 11 5.0 | 20.0 |
| 42475 1981 $EW_{28}$ | 16.2 | X | 141.57647 | 238.28699 | 287.02682 | 3.12541 | 0.0596227 | 0.28573158 | 2.2829543 | 20 | 8 25.1 | 19.2 |
| 42476 1981 $EP_{36}$ | 14.5 | X | 71.49025 | 105.32565 | 248.26735 | 8.73628 | 0.0999900 | 0.19293227 | 2.9661934 | 20 | — | — |
| 42477 1981 $QB_3$ | 14.4 | X | 91.86401 | 212.28436 | 138.35041 | 3.47076 | 0.2696544 | 0.18442926 | 3.0566766 | 20 | — | — |
| 42478 Inozemtseva | 13.5 | X | 276.40175 | 104.74045 | 270.55722 | 12.16746 | 0.2058139 | 0.22431507 | 2.6826484 | 20 | 6 24.9 | 17.0 |
| 42479 Tolik | 13.6 | X | 334.26164 | 269.89992 | 67.40759 | 6.54623 | 0.1194788 | 0.22535321 | 2.6744032 | 20 | 8 24.4 | 16.5 |
| 42480 1985 *RJ* | 14.7 | X | 50.60790 | 119.71219 | 182.52149 | 12.11223 | 0.2839380 | 0.22915313 | 2.6447555 | 20 | 11 28.4 | 18.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42481 1988 $CX_4$ | 14.9 | X | 266.26120 | 180.54602 | 192.42131 | 8.72178 | 0.0079734 | 0.22436966 | 2.6822132 | 20 | 7 7.8 | 18.7 |
| 42482 Fischer–Dieskau | 15.7 | X | 207.57975 | 11.77717 | 7.52042 | 2.45102 | 0.2315026 | 0.26795449 | 2.3828426 | 20 | 4 19.4 | 19.8 |
| 42483 1990 $VM_1$ | 14.5 | X | 290.89894 | 161.97458 | 239.09599 | 9.79797 | 0.2373249 | 0.25951049 | 2.4342552 | 20 | 8 16.8 | 17.3 |
| 42484 1990 $WM_6$ | 16.0 | X | 23.88982 | 222.63396 | 176.33827 | 2.53693 | 0.1656442 | 0.30097869 | 2.2051877 | 20 | — | — |
| 42485 Stendhal | 16.4 | X | 114.22547 | 27.49370 | 113.37081 | 1.67897 | 0.2221797 | 0.28022902 | 2.3127426 | 20 | 7 4.6 | 19.8 |
| 42486 1991 $GY_2$ | 15.6 | X | 60.58337 | 348.26589 | 196.85908 | 5.27553 | 0.0927162 | 0.27522969 | 2.3406646 | 20 | 6 9.1 | 18.3 |
| 42487 Ångström | 15.1 | X | 140.67616 | 61.75116 | 279.56610 | 3.84295 | 0.1358395 | 0.25221305 | 2.4809862 | 20 | — | — |
| 42488 1991 $RN_{17}$ | 14.9 | X | 345.49661 | 198.77517 | 177.14930 | 9.60842 | 0.2283295 | 0.27464313 | 2.3439961 | 20 | 12 6.4 | 17.0 |
| 42489 1991 $RL_{18}$ | 14.5 | X | 271.42667 | 222.97858 | 179.54800 | 12.73944 | 0.1837943 | 0.23495333 | 2.6010477 | 20 | 7 27.3 | 18.2 |
| 42490 1991 $SU$ | 14.2 | X | 198.54413 | 285.34593 | 109.75529 | 8.38972 | 0.1395665 | 0.26289988 | 2.4132878 | 20 | 5 7.4 | 18.0 |
| 42491 1991 $TF$ | 14.9 | X | 234.60336 | 199.29713 | 173.31264 | 14.63582 | 0.2627195 | 0.22901626 | 2.6458091 | 20 | 5 5.9 | 19.6 |
| 42492 Brüggenthies | 15.8 | X | 221.63749 | 43.78577 | 259.15095 | 4.30785 | 0.2083466 | 0.29213787 | 2.2494559 | 20 | 1 26.1 | 19.5 |
| 42493 1991 $TG_{14}$ | 13.7 | X | 42.29269 | 217.53845 | 162.48646 | 11.22718 | 0.2163693 | 0.17708226 | 3.1406486 | 20 | — | — |
| 42494 1991 $UH_1$ | 14.4 | X | 168.19027 | 139.30658 | 78.97404 | 8.25122 | 0.1435832 | 0.23861577 | 2.5743640 | 20 | 11 24.4 | 18.5 |
| 42495 1991 $VP_{12}$ | 15.0 | X | 104.97851 | 238.22818 | 73.41340 | 5.51042 | 0.1261341 | 0.24244145 | 2.5472103 | 20 | — | — |
| 42496 1991 $XB_1$ | 13.8 | X | 224.09571 | 357.41429 | 86.01004 | 14.54017 | 0.2058359 | 0.22907766 | 2.6453363 | 20 | 7 27.8 | 18.1 |
| 42497 1992 $BZ_1$ | 15.0 | X | 102.34868 | 224.13387 | 228.30443 | 4.96122 | 0.2014757 | 0.21712806 | 2.7415242 | 20 | 4 16.6 | 18.9 |
| 42498 1992 $DG_6$ | 14.4 | X | 45.96345 | 134.33657 | 357.85052 | 9.02605 | 0.0841249 | 0.21140091 | 2.7908178 | 20 | 3 6.4 | 17.7 |
| 42499 1992 $PE_3$ | 14.8 | X | 67.46043 | 112.91155 | 238.65305 | 5.52416 | 0.1954078 | 0.29194869 | 2.2504275 | 20 | — | — |
| 42500 1992 $RV_6$ | 14.2 | X | 38.95505 | 246.15277 | 80.97882 | 2.20269 | 0.1905614 | 0.17950662 | 3.1123068 | 20 | 11 21.6 | 18.3 |
| 42501 1992 $YC$ | 14.9 | X | 7.42406 | 129.94231 | 264.68913 | 24.57743 | 0.2813949 | 0.28565545 | 2.2833599 | 20 | — | — |
| 42502 1993 $CS_1$ | 14.4 | X | 245.32319 | 94.29255 | 29.95164 | 2.22000 | 0.1711459 | 0.24033959 | 2.5620396 | 20 | 10 16.5 | 17.8 |
| 42503 1993 $FU_4$ | 14.6 | X | 120.39565 | 339.95800 | 175.52838 | 14.10372 | 0.1379827 | 0.22719849 | 2.6599027 | 20 | 7 18.4 | 18.9 |
| 42504 1993 $FC_8$ | 15.6 | X | 264.05608 | 346.91106 | 69.96919 | 2.91223 | 0.0372739 | 0.23163552 | 2.6258260 | 20 | 9 2.0 | 18.9 |
| 42505 1993 $FC_{20}$ | 15.5 | X | 301.80391 | 27.56535 | 135.05744 | 7.19326 | 0.0399053 | 0.28164063 | 2.3050084 | 20 | — | — |
| 42506 1993 $FA_{21}$ | 15.1 | X | 261.33317 | 109.80689 | 188.43102 | 9.43435 | 0.0536256 | 0.21768109 | 2.7368789 | 20 | 3 17.8 | 19.0 |
| 42507 1993 $FJ_{25}$ | 14.9 | X | 215.84050 | 94.11421 | 348.87516 | 3.71633 | 0.0359969 | 0.22864050 | 2.6487071 | 20 | 8 3.3 | 18.5 |
| 42508 1993 $FR_{30}$ | 15.3 | X | 102.86927 | 26.83420 | 244.34560 | 3.13887 | 0.2213181 | 0.23434629 | 2.6055375 | 20 | 11 30.6 | 19.6 |
| 42509 1993 $FV_{33}$ | 14.2 | X | 329.98753 | 267.77996 | 161.81295 | 7.23251 | 0.1683535 | 0.24038520 | 2.5617155 | 20 | 12 30.9 | 16.7 |
| 42510 1993 $FX_{55}$ | 15.2 | X | 112.59656 | 247.61977 | 39.61923 | 6.86426 | 0.1883406 | 0.23695877 | 2.5863514 | 20 | 12 26.5 | 19.6 |
| 42511 1993 $FD_{77}$ | 15.5 | X | 17.49323 | 60.56663 | 221.29752 | 0.78996 | 0.0999113 | 0.22708779 | 2.6607671 | 20 | 8 16.8 | 18.6 |
| 42512 1993 $FW_{81}$ | 14.9 | X | 347.66633 | 315.09824 | 29.95831 | 14.36020 | 0.1488056 | 0.23099061 | 2.6307112 | 20 | 10 3.7 | 17.6 |
| 42513 1993 $SH_{15}$ | 15.3 | X | 106.25882 | 285.84803 | 81.05337 | 5.40125 | 0.1913288 | 0.30636016 | 2.1792875 | 20 | — | — |
| 42514 1993 $TG_{17}$ | 14.6 | X | 359.33313 | 329.04967 | 33.58476 | 3.18543 | 0.0191641 | 0.18348710 | 3.0671312 | 20 | 10 22.9 | 18.8 |
| 42515 1993 $TJ_{33}$ | 14.5 | X | 2.02366 | 285.22840 | 51.01183 | 7.53893 | 0.1066109 | 0.18088433 | 3.0964834 | 20 | 10 1.9 | 18.3 |
| 42516 Oistrach | 14.5 | X | 229.46393 | 229.77325 | 124.14175 | 3.98508 | 0.2130147 | 0.20669568 | 2.8330122 | 20 | 4 11.7 | 19.2 |
| 42517 1993 $XU_1$ | 13.8 | X | 164.32537 | 219.55017 | 233.80606 | 23.43756 | 0.2614262 | 0.27802216 | 2.3249651 | 20 | 6 15.7 | 18.1 |
| 42518 1994 $AH_6$ | 15.1 | X | 323.77362 | 89.47637 | 289.67327 | 4.91107 | 0.1869914 | 0.28760201 | 2.2730454 | 20 | 10 15.2 | 16.7 |
| 42519 1994 $AU_6$ | 13.9 | X | 359.56918 | 204.93994 | 123.24407 | 2.47129 | 0.1776938 | 0.17281564 | 3.1921309 | 20 | 9 18.7 | 17.3 |
| 42520 1994 $AB_8$ | 16.4 | X | 5.52190 | 127.07911 | 31.36468 | 1.74833 | 0.1170418 | 0.26510505 | 2.3998866 | 20 | 1 23.9 | 18.6 |
| 42521 1994 $BO_3$ | 13.4 | X | 309.85758 | 259.14172 | 133.17167 | 16.60802 | 0.2382522 | 0.17476419 | 3.1683592 | 20 | 9 3.8 | 16.9 |
| 42522 Chuckberry | 15.7 | X | 333.20142 | 75.03648 | 96.14889 | 3.10629 | 0.1440774 | 0.26064745 | 2.4271711 | 20 | — | — |
| 42523 Ragazzileonardo | 15.5 | X | 348.28489 | 210.49904 | 146.67212 | 25.24391 | 0.2234624 | 0.28532204 | 2.2851384 | 20 | 11 23.4 | 18.2 |
| 42524 1994 $PN_5$ | 14.8 | X | 172.72164 | 276.31327 | 150.27055 | 2.87074 | 0.0713057 | 0.21878086 | 2.7276993 | 20 | 5 19.5 | 18.9 |
| 42525 1994 $PU_{18}$ | 15.6 | X | 325.10867 | 325.60463 | 1.95797 | 1.87984 | 0.0888056 | 0.22471074 | 2.6794984 | 20 | 7 23.3 | 18.6 |
| 42526 1994 $PA_{36}$ | 14.7 | X | 350.93725 | 155.14973 | 165.75301 | 2.22730 | 0.0926435 | 0.22771603 | 2.6558710 | 20 | 8 27.1 | 17.7 |
| 42527 1994 $TO_2$ | 13.7 | X | 234.47182 | 320.20038 | 31.28214 | 9.63109 | 0.1635603 | 0.21547459 | 2.7555313 | 20 | 4 14.9 | 18.0 |
| 42528 1995 $FX_7$ | 15.1 | X | 334.64645 | 45.13557 | 98.43890 | 4.95358 | 0.0594619 | 0.22794910 | 2.6540604 | 20 | — | — |
| 42529 1995 $FA_{16}$ | 15.3 | X | 44.06216 | 151.25491 | 190.96327 | 6.24410 | 0.1991531 | 0.29427924 | 2.2385302 | 20 | — | — |
| 42530 1995 $GA$ | 15.3 | X | 150.58033 | 109.71311 | 136.83337 | 8.13974 | 0.1157396 | 0.29588341 | 2.2304319 | 20 | 12 24.0 | 18.6 |
| 42531 McKenna | 16.0 | X | 36.39545 | 344.25033 | 315.75369 | 7.08056 | 0.3262556 | 0.28087934 | 2.3091715 | 20 | 11 22.4 | 19.3 |
| 42532 1995 $OR$ | 15.3 | X | 46.85460 | 268.94382 | 63.37603 | 4.82093 | 0.2224909 | 0.28493230 | 2.2872217 | 20 | — | — |
| 42533 1995 $SM_{19}$ | 15.0 | X | 178.39337 | 121.34001 | 14.36376 | 12.10629 | 0.0570640 | 0.23210048 | 2.6223180 | 20 | 8 30.2 | 18.9 |
| 42534 1995 $UL_7$ | 14.6 | X | 237.73329 | 342.18650 | 25.07011 | 2.39350 | 0.2203961 | 0.26458183 | 2.4030494 | 20 | 4 30.8 | 18.5 |
| 42535 1995 $VN_9$ | 15.9 | X | 144.15784 | 297.22412 | 357.15173 | 1.52601 | 0.0967927 | 0.24730301 | 2.5137174 | 20 | — | — |
| 42536 1995 $VX_{13}$ | 15.3 | X | 120.82566 | 78.43926 | 165.05166 | 4.37326 | 0.0395591 | 0.23720334 | 2.5845732 | 20 | 11 7.2 | 18.8 |
| 42537 1995 $WZ_1$ | 14.4 | X | 348.84542 | 154.82793 | 250.18691 | 8.57385 | 0.1276633 | 0.23952339 | 2.5678565 | 20 | 12 25.5 | 17.3 |
| 42538 1995 $WZ_7$ | 13.9 | X | 10.60657 | 94.32341 | 277.32164 | 10.74805 | 0.1742702 | 0.23739210 | 2.5832030 | 20 | 12 21.6 | 16.9 |
| 42539 1995 $WQ_9$ | 16.1 | X | 102.17555 | 157.97784 | 27.00718 | 3.50017 | 0.1048706 | 0.22703838 | 2.6611531 | 20 | 8 5.6 | 19.9 |
| 42540 1995 $WX_{17}$ | 16.1 | X | 86.75123 | 287.28970 | 7.88581 | 2.89973 | 0.1011660 | 0.23999029 | 2.5645250 | 20 | 12 7.0 | 19.7 |
| 42541 1996 $AQ$ | 14.7 | X | 137.49048 | 341.33006 | 90.23454 | 4.24984 | 0.0922196 | 0.21343579 | 2.7730512 | 20 | 4 19.2 | 18.8 |
| 42542 1996 $AX$ | 14.4 | X | 41.99521 | 353.66103 | 104.99290 | 5.66106 | 0.1067901 | 0.20525811 | 2.8462246 | 20 | 1 17.7 | 17.7 |
| 42543 1996 $BR$ | 14.7 | X | 178.41650 | 340.03435 | 96.98672 | 10.67030 | 0.1483873 | 0.22009095 | 2.7168642 | 20 | 6 8.5 | 19.1 |
| 42544 1996 $EL_2$ | 15.0 | X | 269.85804 | 9.74004 | 189.45866 | 5.10731 | 0.0506461 | 0.19802696 | 2.9150981 | 20 | — | — |
| 42545 1996 $FR_2$ | 14.3 | X | 77.79494 | 292.76035 | 332.42635 | 8.82941 | 0.0921902 | 0.18163710 | 3.0879222 | 20 | 10 6.6 | 18.9 |
| 42546 1996 $GF_1$ | 14.5 | X | 133.47639 | 30.81122 | 118.13088 | 2.92352 | 0.0513580 | 0.29505198 | 2.2346201 | 20 | 7 23.9 | 17.2 |
| 42547 1996 $GY_{19}$ | 14.2 | X | 40.00949 | 139.64585 | 99.11084 | 2.62369 | 0.1285754 | 0.17040001 | 3.2222282 | 20 | 7 22.9 | 18.2 |
| 42548 1996 $HU_{12}$ | 14.4 | X | 329.70991 | 83.32314 | 42.00917 | 5.88711 | 0.0330039 | 0.27266604 | 2.3553133 | 20 | — | — |
| 42549 1996 $HJ_{17}$ | 14.6 | X | 332.59386 | 87.94465 | 216.83864 | 5.17692 | 0.0460702 | 0.25102922 | 2.4887801 | 20 | 7 5.9 | 17.6 |
| 42550 1996 $HU_{23}$ | 15.0 | X | 205.79921 | 22.97531 | 212.88576 | 5.69135 | 0.0659423 | 0.26996725 | 2.3709842 | 20 | — | — |
| 42551 1996 $JH_{14}$ | 14.2 | X | 47.77069 | 290.66052 | 54.56375 | 10.21698 | 0.0431854 | 0.18400623 | 3.0613597 | 20 | 12 3.6 | 18.5 |
| 42552 1996 $RH_{25}$ | 15.3 | X | 103.97223 | 118.89394 | 350.13205 | 4.74607 | 0.1820688 | 0.27250044 | 2.3562674 | 20 | 5 4.6 | 18.5 |
| 42553 1996 $RN_{25}$ | 15.6 | X | 346.94057 | 245.65424 | 169.01934 | 5.96236 | 0.1043043 | 0.25384043 | 2.4703710 | 20 | — | — |
| 42554 1996 $RJ_{28}$ | 11.7 | X | 36.95951 | 133.09178 | 178.54400 | 17.52061 | 0.0296295 | 0.08490688 | 5.1267341 | 20 | 9 24.1 | 18.4 |
| 42555 1996 $RU_{31}$ | 12.4 | X | 3.17019 | 187.24350 | 165.27871 | 6.43782 | 0.1130988 | 0.08218876 | 5.2391531 | 20 | 10 3.5 | 18.7 |
| 42556 1996 $TA_8$ | 15.8 | X | 303.60124 | 164.25869 | 231.11133 | 0.22801 | 0.1329667 | 0.28683389 | 2.2771016 | 20 | 9 30.5 | 17.5 |
| 42557 1996 $TB_{67}$ | 15.9 | X | 103.33636 | 338.92882 | 207.42347 | 3.22015 | 0.0607629 | 0.28133135 | 2.3066974 | 20 | 8 5.4 | 18.9 |
| 42558 1996 $VV_{15}$ | 15.8 | X | 318.98770 | 174.55560 | 58.71639 | 3.45745 | 0.1348799 | 0.26799133 | 2.3826242 | 20 | 2 21.2 | 18.5 |
| 42559 1996 $VH_{28}$ | 15.9 | X | 289.38208 | 134.96160 | 153.88222 | 7.04788 | 0.1389207 | 0.27168437 | 2.3609834 | 20 | 3 26.5 | 18.8 |
| 42560 1996 $VL_{30}$ | 15.4 | X | 116.56206 | 151.30870 | 239.82174 | 5.85558 | 0.1872258 | 0.30479736 | 2.1867304 | 20 | 1 31.5 | 18.1 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42561 1996 $XK_{6}$ | 15.4 | X | 71.90954 | 232.49553 | 207.19520 | 1.28096 | 0.1457230 | 0.26063536 | 2.4272462 | 20 | 2 2.7 | 17.7 |
| 42562 1996 $XZ_{17}$ | 16.2 | X | 11.07562 | 312.11119 | 19.77117 | 1.26716 | 0.1959082 | 0.28701685 | 2.2761338 | 20 | 11 14.6 | 18.5 |
| 42563 1996 $XK_{22}$ | 15.9 | X | 263.31396 | 288.18864 | 33.07611 | 3.06143 | 0.1964931 | 0.26702997 | 2.3883394 | 20 | 3 30.7 | 19.5 |
| 42564 1996 $XF_{23}$ | 15.5 | X | 354.52064 | 119.98724 | 139.62534 | 7.13365 | 0.0912923 | 0.27429754 | 2.3459645 | 20 | 6 6.6 | 17.9 |
| 42565 1996 $XF_{24}$ | 15.2 | X | 216.17916 | 188.81870 | 63.86526 | 11.11779 | 0.1891846 | 0.25782745 | 2.4448372 | 20 | — | — |
| 42566 Ryutaro | 15.0 | X | 178.97831 | 268.74084 | 127.86664 | 5.99694 | 0.2407113 | 0.27072712 | 2.3665456 | 20 | 4 21.2 | 19.1 |
| 42567 1996 $XF_{33}$ | 14.5 | X | 235.27629 | 333.24555 | 55.81512 | 7.39024 | 0.1365254 | 0.27851743 | 2.3222081 | 20 | 6 3.5 | 17.7 |
| 42568 1996 $YC$ | 14.3 | X | 20.49427 | 226.10543 | 287.16931 | 22.97682 | 0.2084714 | 0.25857005 | 2.4401540 | 20 | 2 1.5 | 16.5 |
| 42569 1996 $YC_{1}$ | 14.7 | X | 279.92701 | 290.79729 | 272.76300 | 6.40684 | 0.1490340 | 0.25203762 | 2.4821373 | 20 | — | — |
| 42570 1996 $YA_{2}$ | 14.1 | X | 28.72020 | 33.07196 | 108.17261 | 9.75932 | 0.2118808 | 0.25808857 | 2.4431879 | 20 | 2 14.2 | 15.9 |
| 42571 1996 $YL_{3}$ | 14.2 | X | 24.26392 | 143.19332 | 296.44102 | 7.34254 | 0.1265787 | 0.25325217 | 2.4741950 | 20 | — | — |
| 42572 1997 $AO$ | 14.7 | X | 96.46624 | 314.95711 | 116.43657 | 23.87237 | 0.2041651 | 0.26050216 | 2.4280735 | 20 | 3 19.3 | 18.2 |
| 42573 1997 $AN_{1}$ | 14.0 | X | 90.82375 | 233.60429 | 299.55951 | 12.20931 | 0.1040648 | 0.22620516 | 2.6676839 | 20 | 7 6.2 | 17.7 |
| 42574 1997 $AE_{3}$ | 14.3 | X | 267.31947 | 39.39452 | 97.68387 | 14.89738 | 0.1067119 | 0.24354795 | 2.5394893 | 20 | 12 15.9 | 17.3 |
| 42575 1997 $AD_{4}$ | 15.0 | X | 245.53593 | 150.94374 | 324.78271 | 3.54545 | 0.0842008 | 0.23867791 | 2.5739171 | 20 | 10 16.6 | 18.5 |
| 42576 1997 $AP_{5}$ | 14.9 | X | 316.95203 | 352.64302 | 66.22348 | 5.45177 | 0.1949926 | 0.24250631 | 2.5467561 | 20 | 11 19.4 | 16.8 |
| 42577 1997 $AB_{18}$ | 14.4 | X | 156.25470 | 93.81396 | 350.57223 | 6.58581 | 0.0745506 | 0.26641290 | 2.3920260 | 20 | 5 20.8 | 17.9 |
| 42578 1997 $BD_{5}$ | 15.8 | X | 192.90449 | 143.48342 | 191.88850 | 2.11765 | 0.2130263 | 0.25834043 | 2.4415997 | 20 | 2 14.7 | 19.9 |
| 42579 1997 $BV_{5}$ | 15.0 | X | 284.33987 | 321.42908 | 134.04839 | 0.07862 | 0.1329590 | 0.24039549 | 2.5616424 | 20 | 11 11.2 | 17.7 |
| 42580 1997 $CX_{22}$ | 15.4 | X | 300.11902 | 38.43756 | 60.84412 | 0.59317 | 0.0722212 | 0.24375299 | 2.5380650 | 20 | 12 18.6 | 18.1 |
| 42581 1997 $CB_{29}$ | 15.2 | X | 152.70209 | 37.70733 | 148.34771 | 5.07110 | 0.0082227 | 0.23367126 | 2.6105530 | 20 | 10 1.9 | 18.6 |
| 42582 1997 $EW_{4}$ | 15.1 | X | 346.47931 | 230.64334 | 7.28713 | 5.11925 | 0.0787132 | 0.21663301 | 2.7456992 | 20 | 4 21.1 | 18.3 |
| 42583 1997 $EP_{33}$ | 14.3 | X | 122.46046 | 70.22068 | 137.29678 | 23.48630 | 0.1235005 | 0.23238968 | 2.6201420 | 20 | 10 3.1 | 18.7 |
| 42584 1997 $ET_{46}$ | 14.3 | X | 67.40621 | 80.11701 | 200.53024 | 10.06009 | 0.1189203 | 0.18677639 | 3.0310148 | 20 | 10 21.9 | 18.6 |
| 42585 Pheidippides | 14.8 | X | 37.78779 | 61.66294 | 186.80610 | 12.29109 | 0.0777056 | 0.22365260 | 2.6879432 | 20 | 7 27.1 | 18.4 |
| 42586 1997 $FG_{3}$ | 14.7 | X | 174.76620 | 247.95848 | 187.55423 | 4.91276 | 0.0755246 | 0.22046714 | 2.7137727 | 20 | 6 2.3 | 18.7 |
| 42587 1997 $GW_{6}$ | 14.1 | X | 268.55710 | 128.72671 | 218.02570 | 16.91407 | 0.1414162 | 0.21610344 | 2.7501830 | 20 | 5 18.0 | 18.0 |
| 42588 1997 $GU_{15}$ | 16.4 | X | 313.58714 | 102.24915 | 183.87756 | 6.30780 | 0.0324545 | 0.30280749 | 2.1962999 | 20 | 5 12.8 | 18.7 |
| 42589 1997 $GP_{33}$ | 14.9 | X | 200.99699 | 255.11722 | 185.33271 | 2.88659 | 0.0691510 | 0.22339516 | 2.6900078 | 20 | 7 7.9 | 18.9 |
| 42590 1997 $GW_{34}$ | 14.8 | X | 153.09169 | 235.03145 | 195.12413 | 8.03811 | 0.1260627 | 0.21742616 | 2.7390178 | 20 | 5 5.9 | 19.0 |
| 42591 1997 $GE_{42}$ | 15.0 | X | 337.39230 | 186.97628 | 92.33833 | 4.07117 | 0.1668904 | 0.21629422 | 2.7485656 | 20 | 5 28.4 | 17.8 |
| 42592 1997 $HT$ | 15.1 | X | 298.48681 | 47.32980 | 190.85930 | 1.44764 | 0.0389518 | 0.20866877 | 2.8151254 | 20 | 2 20.4 | 19.0 |
| 42593 Antoniazzi | 14.8 | X | 349.25914 | 202.51289 | 80.46983 | 7.81475 | 0.2270474 | 0.21818221 | 2.7326866 | 20 | 6 26.1 | 17.0 |
| 42594 1997 $JQ_{1}$ | 14.7 | X | 308.01048 | 35.27435 | 205.27914 | 8.45355 | 0.1588332 | 0.20939293 | 2.8086311 | 20 | 2 15.5 | 18.6 |
| 42595 1997 $PL$ | 15.1 | X | 272.65420 | 157.92553 | 230.25074 | 6.11922 | 0.1350488 | 0.29960596 | 2.2119183 | 20 | 7 22.5 | 17.5 |
| 42596 1997 $SB$ | 16.7 | X | 12.88437 | 196.80376 | 204.33075 | 22.44828 | 0.0954850 | 0.35429783 | 1.9779883 | 20 | — | — |
| 42597 1997 $SR_{5}$ | 15.6 | X | 319.45157 | 6.87906 | 351.21130 | 3.75878 | 0.0595088 | 0.29991667 | 2.2103904 | 20 | 9 9.3 | 17.5 |
| 42598 1997 $UD_{8}$ | 14.9 | X | 156.30163 | 233.87140 | 4.41662 | 7.21792 | 0.1796816 | 0.26453560 | 2.4033294 | 20 | 12 8.6 | 18.8 |
| 42599 1997 $UT_{22}$ | 13.4 | X | 17.02352 | 21.96397 | 344.30407 | 6.04141 | 0.2336757 | 0.17299424 | 3.1899334 | 20 | 12 13.4 | 17.4 |
| 42600 1997 $YF_{10}$ | 14.1 | X | 125.64867 | 99.48288 | 50.15448 | 3.47648 | 0.2418696 | 0.28188745 | 2.3036627 | 20 | 7 29.3 | 17.9 |
| 42601 1998 $AN_{10}$ | 15.2 | X | 272.88460 | 217.49067 | 232.45492 | 2.97509 | 0.0814098 | 0.29428839 | 2.2384838 | 20 | 11 4.8 | 17.5 |
| 42602 1998 $BX_{6}$ | 15.2 | X | 243.54205 | 12.14699 | 111.30721 | 5.27153 | 0.1136968 | 0.29379115 | 2.2410089 | 20 | 11 4.4 | 17.7 |
| 42603 1998 $BP_{12}$ | 15.0 | X | 55.40205 | 83.78740 | 114.32167 | 4.34297 | 0.0976905 | 0.28032868 | 2.3121945 | 20 | 6 21.0 | 17.3 |
| 42604 1998 $BT_{15}$ | 14.2 | X | 177.75100 | 106.93816 | 356.19791 | 6.29745 | 0.1168474 | 0.28374985 | 2.2935715 | 20 | 7 14.9 | 17.6 |
| 42605 1998 $BR_{25}$ | 16.5 | X | 98.98963 | 140.21415 | 54.04244 | 0.99051 | 0.1210087 | 0.28342379 | 2.2953302 | 20 | 8 20.3 | 19.4 |
| 42606 1998 $DD$ | 15.0 | X | 82.92669 | 91.72519 | 59.04505 | 7.30776 | 0.2084800 | 0.27500146 | 2.3419595 | 20 | 6 10.6 | 17.9 |
| 42607 1998 $DQ_{10}$ | 14.4 | X | 14.57955 | 139.67259 | 163.39278 | 6.29939 | 0.1695689 | 0.28089081 | 2.3091086 | 20 | 10 4.2 | 16.5 |
| 42608 1998 $DD_{24}$ | 15.2 | X | 167.44632 | 145.85228 | 94.47018 | 4.99509 | 0.1471614 | 0.29575655 | 2.2310697 | 20 | 12 30.9 | 18.3 |
| 42609 Daubechies | 14.9 | X | 351.37108 | 103.88925 | 149.85919 | 4.77155 | 0.2975372 | 0.27159324 | 2.3615116 | 20 | 5 6.4 | 15.9 |
| 42610 1998 $DD_{35}$ | 15.6 | X | 60.81355 | 23.12628 | 127.69321 | 2.82699 | 0.1463875 | 0.27171321 | 2.3608164 | 20 | 4 28.6 | 18.0 |
| 42611 1998 $EU_{1}$ | 16.1 | X | 335.68882 | 133.77421 | 11.42154 | 2.52408 | 0.1457133 | 0.25887014 | 2.4382678 | 20 | — | — |
| 42612 1998 $EL_{3}$ | 15.4 | X | 58.51859 | 189.08265 | 142.30805 | 5.15807 | 0.0881232 | 0.29439931 | 2.2379215 | 20 | — | — |
| 42613 1998 $EC_{4}$ | 15.8 | X | 105.74189 | 331.45616 | 148.50448 | 3.98460 | 0.1619868 | 0.27408687 | 2.3471665 | 20 | 5 21.9 | 18.9 |
| 42614 Ubaldina | 15.7 | X | 191.18450 | 269.11100 | 269.04027 | 1.24779 | 0.0794125 | 0.29325253 | 2.2437521 | 20 | 11 12.4 | 18.5 |
| 42615 1998 $EV_{11}$ | 15.3 | X | 289.92576 | 237.37850 | 50.85097 | 6.65660 | 0.1151375 | 0.27080732 | 2.3660783 | 20 | 3 31.1 | 18.3 |
| 42616 1998 $EX_{20}$ | 15.4 | X | 235.85303 | 71.51689 | 167.33512 | 2.64637 | 0.1315223 | 0.25863320 | 2.4397568 | 20 | — | — |
| 42617 1998 $FJ_{1}$ | 15.6 | X | 177.72028 | 267.95739 | 236.67435 | 6.06869 | 0.0502251 | 0.28567810 | 2.2832392 | 20 | 9 9.0 | 18.6 |
| 42618 1998 $FM_{8}$ | 15.0 | X | 13.15436 | 318.61749 | 27.79393 | 6.10127 | 0.2094483 | 0.28700962 | 2.2761720 | 20 | 12 10.4 | 17.5 |
| 42619 1998 $FE_{12}$ | 16.4 | X | 341.85755 | 101.50550 | 143.38716 | 9.71809 | 0.2207881 | 0.27107076 | 2.3645451 | 20 | 4 7.0 | 18.4 |
| 42620 1998 $FS_{13}$ | 14.7 | X | 205.51698 | 43.25915 | 60.32795 | 6.55630 | 0.1300495 | 0.28535208 | 2.2849780 | 20 | 8 16.2 | 18.0 |
| 42621 1998 $FW_{20}$ | 14.6 | X | 64.18347 | 155.97404 | 95.51605 | 2.51789 | 0.1655731 | 0.28233680 | 2.3012178 | 20 | 10 2.8 | 17.5 |
| 42622 1998 $FF_{26}$ | 15.4 | X | 39.38011 | 169.58802 | 28.93970 | 1.25919 | 0.1568553 | 0.27378352 | 2.3488999 | 20 | 6 2.2 | 17.4 |
| 42623 1998 $FT_{27}$ | 15.6 | X | 74.47637 | 343.88856 | 260.00715 | 1.97405 | 0.0213268 | 0.28401192 | 2.2921604 | 20 | 9 12.0 | 18.3 |
| 42624 1998 $FJ_{28}$ | 15.4 | X | 75.61872 | 30.10974 | 181.40998 | 4.92884 | 0.0868321 | 0.27968350 | 2.3157490 | 20 | 8 7.4 | 18.4 |
| 42625 1998 $FZ_{29}$ | 15.0 | X | 167.18607 | 46.71757 | 211.14503 | 4.89178 | 0.1634840 | 0.29495812 | 2.2350941 | 20 | — | — |
| 42626 1998 $FU_{31}$ | 16.0 | X | 355.79793 | 199.53150 | 330.06314 | 0.73871 | 0.1239100 | 0.26526693 | 2.3989101 | 20 | 1 21.7 | 18.6 |
| 42627 1998 $FF_{33}$ | 14.9 | X | 352.48959 | 80.27998 | 160.56079 | 3.94843 | 0.1916997 | 0.27135465 | 2.3628956 | 20 | 4 27.2 | 16.6 |
| 42628 1998 $FH_{41}$ | 15.3 | X | 320.15604 | 81.87810 | 189.00008 | 2.19284 | 0.1928489 | 0.27023367 | 2.3694256 | 20 | 4 5.1 | 17.6 |
| 42629 1998 $FL_{43}$ | 15.0 | X | 273.09097 | 26.10557 | 355.32605 | 5.26431 | 0.0703359 | 0.28066828 | 2.3103290 | 20 | 7 26.5 | 17.7 |
| 42630 1998 $FE_{47}$ | 15.3 | X | 55.06709 | 153.83787 | 349.00956 | 6.67362 | 0.0858939 | 0.26927280 | 2.3750589 | 20 | 3 26.2 | 17.8 |
| 42631 1998 $FR_{48}$ | 15.5 | X | 174.93213 | 96.11892 | 255.90577 | 2.15041 | 0.1774041 | 0.30837780 | 2.1697714 | 20 | 2 13.2 | 18.6 |
| 42632 1998 $FQ_{53}$ | 15.6 | X | 145.96301 | 133.52208 | 319.02878 | 2.41626 | 0.0582792 | 0.27401546 | 2.3475742 | 20 | 5 19.4 | 18.8 |
| 42633 1998 $FW_{58}$ | 14.8 | X | 142.15979 | 74.42800 | 14.11829 | 8.79600 | 0.0563365 | 0.27282850 | 2.3543782 | 20 | 5 7.0 | 18.0 |
| 42634 1998 $FF_{60}$ | 15.6 | X | 342.48343 | 37.27337 | 166.91629 | 2.81391 | 0.1497393 | 0.26605981 | 2.3941418 | 20 | 2 13.1 | 17.9 |
| 42635 1998 $FS_{60}$ | 15.7 | X | 352.98288 | 12.53980 | 180.43906 | 1.16094 | 0.1244348 | 0.26634316 | 2.3924435 | 20 | 2 18.9 | 18.2 |
| 42636 1998 $FO_{61}$ | 15.4 | X | 314.10555 | 29.48196 | 219.00484 | 2.74562 | 0.1264325 | 0.26699989 | 2.3885188 | 20 | 3 4.5 | 18.1 |
| 42637 1998 $FZ_{61}$ | 15.0 | X | 201.88407 | 193.40335 | 254.41692 | 3.29359 | 0.1325301 | 0.28053060 | 2.3110848 | 20 | 7 17.3 | 18.4 |
| 42638 1998 $FL_{62}$ | 15.0 | X | 256.43200 | 121.69255 | 218.99537 | 4.73481 | 0.0530630 | 0.27198756 | 2.3592286 | 20 | 5 4.9 | 17.9 |
| 42639 1998 $FW_{63}$ | 15.4 | X | 334.36487 | 97.91908 | 119.65031 | 3.32465 | 0.1346813 | 0.26641146 | 2.3920346 | 20 | 2 22.3 | 17.8 |
| 42640 1998 $FX_{63}$ | 15.6 | X | 308.15578 | 146.07801 | 69.38551 | 3.41225 | 0.1252333 | 0.26290563 | 2.4132527 | 20 | 1 14.6 | 18.6 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42641 1998 $FD_{65}$ | 15.5 | X | 75.25648 | 75.65165 | 198.32725 | 4.32651 | 0.1342398 | 0.28431253 | 2.2905444 | 20 | 11 10.4 | 18.6 |
| 42642 1998 $FQ_{66}$ | 14.8 | X | 280.92052 | 351.54217 | 20.46642 | 7.92142 | 0.1453842 | 0.27911604 | 2.3188866 | 20 | 7 11.4 | 17.5 |
| 42643 1998 $FX_{66}$ | 15.6 | X | 38.07739 | 29.26004 | 123.99230 | 2.06813 | 0.1287247 | 0.26771608 | 2.3842571 | 20 | 3 18.1 | 17.7 |
| 42644 1998 $FE_{67}$ | 14.6 | X | 202.74157 | 345.30651 | 33.45619 | 7.33134 | 0.1344761 | 0.27071016 | 2.3666444 | 20 | 4 17.4 | 18.2 |
| 42645 1998 $FW_{67}$ | 15.3 | X | 314.39574 | 66.48221 | 164.53756 | 3.80146 | 0.0683218 | 0.26544212 | 2.3978545 | 20 | 2 20.2 | 18.3 |
| 42646 1998 $FF_{69}$ | 15.6 | X | 36.97897 | 325.20677 | 185.34808 | 0.96698 | 0.1238817 | 0.26696941 | 2.3887006 | 20 | 3 10.4 | 17.9 |
| 42647 1998 $FY_{69}$ | 15.4 | X | 37.08734 | 5.58426 | 156.18295 | 4.89016 | 0.0726855 | 0.26793917 | 2.3829334 | 20 | 3 25.4 | 17.8 |
| 42648 1998 $FR_{72}$ | 15.3 | X | 45.71586 | 286.65210 | 23.31685 | 2.76322 | 0.2206716 | 0.28349382 | 2.2949523 | 20 | 12 3.6 | 18.5 |
| 42649 1998 $FM_{76}$ | 15.1 | X | 115.44019 | 101.69347 | 86.54683 | 4.58845 | 0.1243343 | 0.28064161 | 2.3104753 | 20 | 9 1.8 | 18.4 |
| 42650 1998 $FZ_{76}$ | 15.7 | X | 294.75900 | 157.09869 | 88.14383 | 3.85055 | 0.1413694 | 0.26383913 | 2.4075570 | 20 | 2 3.9 | 18.8 |
| 42651 1998 $FF_{77}$ | 15.5 | X | 95.98694 | 169.98155 | 124.05230 | 5.94583 | 0.1375073 | 0.28916541 | 2.2648450 | 20 | 12 27.9 | 18.7 |
| 42652 1998 $FS_{78}$ | 15.0 | X | 291.74912 | 262.21162 | 114.46262 | 4.64280 | 0.1539626 | 0.28000923 | 2.3139528 | 20 | 8 3.9 | 17.2 |
| 42653 1998 $FE_{88}$ | 15.1 | X | 215.99142 | 58.44057 | 19.64806 | 7.10113 | 0.0845062 | 0.28248537 | 2.3004109 | 20 | 7 27.9 | 18.3 |
| 42654 1998 $FC_{107}$ | 15.5 | X | 39.86325 | 247.59679 | 233.97560 | 5.61819 | 0.1733874 | 0.26535418 | 2.3983843 | 20 | 2 1.3 | 17.5 |
| 42655 1998 $FU_{108}$ | 14.5 | X | 258.79424 | 57.28400 | 318.06365 | 5.76553 | 0.1404273 | 0.27717570 | 2.3296961 | 20 | 6 13.0 | 17.5 |
| 42656 1998 $FU_{113}$ | 15.0 | X | 6.76622 | 302.72973 | 255.21604 | 4.94694 | 0.0448208 | 0.26832462 | 2.3806508 | 20 | 3 23.9 | 17.7 |
| 42657 1998 $FC_{117}$ | 14.7 | X | 21.55893 | 92.48765 | 233.92009 | 5.69329 | 0.1336526 | 0.28399661 | 2.2922428 | 20 | 11 11.9 | 17.2 |
| 42658 1998 $FQ_{118}$ | 15.7 | X | 94.37828 | 253.14156 | 230.61547 | 5.96733 | 0.0502311 | 0.27017699 | 2.3697570 | 20 | 4 23.1 | 18.5 |
| 42659 1998 $FR_{121}$ | 15.6 | X | 138.86871 | 212.56752 | 250.10138 | 2.23226 | 0.0440848 | 0.27353565 | 2.3503187 | 20 | 5 23.8 | 18.5 |
| 42660 1998 $FR_{126}$ | 15.3 | X | 77.99801 | 94.72405 | 60.53793 | 7.44330 | 0.0525126 | 0.27301041 | 2.3533322 | 20 | 5 15.9 | 18.0 |
| 42661 1998 $FT_{126}$ | 14.8 | X | 358.38516 | 152.18855 | 34.51205 | 12.42339 | 0.1278038 | 0.22227331 | 2.6990515 | 20 | 3 4.9 | 18.0 |
| 42662 1998 $FQ_{133}$ | 15.1 | X | 343.57677 | 10.30473 | 327.18719 | 4.14339 | 0.1731042 | 0.28281099 | 2.2986448 | 20 | 9 21.8 | 16.7 |
| 42663 1998 $FD_{134}$ | 15.8 | X | 69.09259 | 265.40935 | 193.46118 | 2.06315 | 0.1331511 | 0.26501815 | 2.4004112 | 20 | 2 22.6 | 18.1 |
| 42664 1998 $FG_{143}$ | 15.2 | X | 3.40481 | 34.34959 | 197.77759 | 7.58096 | 0.0394663 | 0.22694349 | 2.6618948 | 20 | 5 12.8 | 18.5 |
| 42665 1998 $HF_{4}$ | 15.4 | X | 195.70041 | 283.29022 | 75.85838 | 6.92572 | 0.1345019 | 0.26485397 | 2.4014030 | 20 | 3 20.0 | 19.2 |
| 42666 1998 $HU_{6}$ | 14.7 | X | 263.44574 | 244.91739 | 87.09419 | 6.46722 | 0.1922064 | 0.26565301 | 2.3965853 | 20 | 4 16.8 | 18.2 |
| 42667 1998 $HK_{20}$ | 15.6 | X | 55.74055 | 95.64951 | 197.51459 | 3.98943 | 0.1895641 | 0.28361596 | 2.2942933 | 20 | 11 20.1 | 18.7 |
| 42668 1998 $HR_{20}$ | 15.0 | X | 125.94905 | 63.98930 | 59.64068 | 5.71649 | 0.1355808 | 0.27577580 | 2.3375735 | 20 | 6 15.1 | 18.3 |
| 42669 1998 $HH_{33}$ | 15.4 | X | 59.55885 | 98.07826 | 0.54242 | 4.61921 | 0.1595113 | 0.26432136 | 2.4046279 | 20 | 2 10.8 | 17.7 |
| 42670 1998 $HY_{35}$ | 14.7 | X | 74.10179 | 214.58381 | 66.50713 | 2.90220 | 0.1318590 | 0.28462093 | 2.2888895 | 20 | 11 17.7 | 17.6 |
| 42671 1998 $HQ_{68}$ | 14.7 | X | 249.93604 | 138.06233 | 236.37589 | 6.26170 | 0.1235300 | 0.27339567 | 2.3511209 | 20 | 6 3.1 | 17.7 |
| 42672 1998 $HL_{91}$ | 14.6 | X | 328.91880 | 136.72672 | 177.14991 | 6.86505 | 0.1349408 | 0.27380451 | 2.3487799 | 20 | 7 8.1 | 16.9 |
| 42673 1998 $HL_{94}$ | 15.7 | X | 176.51812 | 296.01071 | 303.68236 | 0.82191 | 0.0853004 | 0.24726135 | 2.5139997 | 20 | — | — |
| 42674 1998 $HS_{95}$ | 14.9 | X | 331.91884 | 5.14396 | 158.34867 | 2.79576 | 0.1359996 | 0.25888132 | 2.4381976 | 20 | — | — |
| 42675 1998 $HW_{119}$ | 14.7 | X | 39.41399 | 19.90148 | 130.56802 | 7.30775 | 0.0661349 | 0.26516837 | 2.3995045 | 20 | 3 14.1 | 17.3 |
| 42676 1998 $HS_{121}$ | 15.0 | X | 266.97928 | 150.66084 | 98.74285 | 10.29187 | 0.1078431 | 0.21455983 | 2.7633577 | 20 | 1 19.5 | 19.1 |
| 42677 1998 $HY_{129}$ | 16.2 | X | 316.81590 | 69.66104 | 176.60697 | 1.29249 | 0.1492473 | 0.26698433 | 2.3886116 | 20 | 3 2.8 | 18.7 |
| 42678 1998 $HR_{130}$ | 16.0 | X | 262.64469 | 270.82680 | 339.97798 | 0.74124 | 0.1474860 | 0.26047759 | 2.4282262 | 20 | 1 6.3 | 19.6 |
| 42679 1998 $HL_{138}$ | 16.0 | X | 53.10868 | 117.98048 | 121.60641 | 6.43820 | 0.1366481 | 0.27750189 | 2.3278702 | 20 | 8 27.0 | 18.7 |
| 42680 1998 $HL_{143}$ | 15.1 | X | 17.38994 | 251.65703 | 125.35765 | 5.75932 | 0.0926134 | 0.28967910 | 2.2621667 | 20 | — | — |
| 42681 1998 $HV_{143}$ | 14.7 | X | 172.42194 | 344.46332 | 29.49239 | 7.52289 | 0.1210573 | 0.26333283 | 2.4106420 | 20 | 3 14.3 | 18.3 |
| 42682 1998 $HF_{145}$ | 14.7 | X | 309.79297 | 110.53897 | 96.44751 | 7.42736 | 0.0695444 | 0.26042018 | 2.4285831 | 20 | 1 14.1 | 17.6 |
| 42683 1998 $HS_{148}$ | 15.3 | X | 115.82911 | 282.97572 | 6.89128 | 0.80468 | 0.1485833 | 0.24308068 | 2.5427427 | 20 | — | — |
| 42684 1998 $HQ_{150}$ | 16.1 | X | 93.61745 | 359.43422 | 121.98084 | 3.22149 | 0.1505887 | 0.27147674 | 2.3621871 | 20 | 5 6.9 | 19.0 |
| 42685 1998 $JY$ | 13.9 | X | 343.31650 | 131.85087 | 214.38376 | 24.35866 | 0.2602568 | 0.27852140 | 2.3221860 | 20 | 10 15.7 | 15.4 |
| 42686 1998 $JH_{1}$ | 14.3 | X | 223.12150 | 19.26983 | 258.27008 | 8.04732 | 0.0506972 | 0.25699884 | 2.4500895 | 20 | 1 2.6 | 17.6 |
| 42687 1998 $JS_{1}$ | 15.0 | X | 283.27011 | 54.00698 | 193.41313 | 6.12452 | 0.1043211 | 0.26086066 | 2.4258484 | 20 | 1 26.7 | 18.4 |
| 42688 1998 $JV_{4}$ | 15.2 | X | 7.55839 | 326.73228 | 249.03084 | 4.88353 | 0.1801187 | 0.26811588 | 2.3818863 | 20 | 4 19.3 | 17.1 |
| 42689 1998 $KX$ | 15.1 | X | 221.50030 | 51.49008 | 114.73922 | 7.55206 | 0.1119573 | 0.24258056 | 2.5462364 | 20 | 11 21.3 | 18.6 |
| 42690 1998 $KY_{5}$ | 15.2 | X | 181.67663 | 4.05546 | 28.07383 | 6.84724 | 0.1606438 | 0.26722912 | 2.3871527 | 20 | 4 14.2 | 18.8 |
| 42691 1998 $KT_{11}$ | 15.6 | X | 78.66676 | 201.30676 | 140.74606 | 10.14194 | 0.0760691 | 0.24576059 | 2.5242240 | 20 | — | — |
| 42692 1998 $KG_{35}$ | 15.0 | X | 103.98338 | 263.40404 | 75.96489 | 5.64839 | 0.1973941 | 0.24589861 | 2.5232794 | 20 | — | — |
| 42693 1998 $KQ_{38}$ | 14.7 | X | 69.18673 | 155.37153 | 25.28533 | 2.54065 | 0.1397403 | 0.27094602 | 2.3652708 | 20 | 6 23.5 | 17.4 |
| 42694 1998 $KQ_{44}$ | 15.1 | X | 340.93491 | 14.47372 | 218.56919 | 5.52767 | 0.1050750 | 0.26506924 | 2.4001027 | 20 | 3 28.8 | 17.7 |
| 42695 1998 $KM_{54}$ | 15.1 | X | 121.85580 | 117.67845 | 114.93811 | 10.92085 | 0.1250483 | 0.23771041 | 2.5808965 | 20 | 11 1.9 | 19.3 |
| 42696 1998 $KO_{62}$ | 15.2 | X | 348.04261 | 308.51102 | 301.13522 | 4.56555 | 0.1148763 | 0.26860386 | 2.3790006 | 20 | 5 4.6 | 17.5 |
| 42697 Lucapaolini | 15.0 | X | 143.20190 | 73.02034 | 223.85473 | 13.49207 | 0.1095186 | 0.24541812 | 2.5265717 | 20 | — | — |
| 42698 1998 $MB_{1}$ | 14.9 | X | 262.77136 | 147.50101 | 239.67451 | 2.87349 | 0.1237530 | 0.27331271 | 2.3515966 | 20 | 7 7.8 | 17.9 |
| 42699 1998 $MO_{8}$ | 14.9 | X | 111.54172 | 185.72871 | 137.84086 | 7.49948 | 0.2630589 | 0.24316338 | 2.5421662 | 20 | — | — |
| 42700 1998 $MO_{10}$ | 13.5 | X | 349.27125 | 212.80969 | 140.94901 | 15.40226 | 0.0815228 | 0.18792027 | 3.0187023 | 20 | 10 6.6 | 17.5 |
| 42701 1998 $MD_{13}$ | 13.1 | X | 191.78886 | 56.91434 | 165.84461 | 8.78147 | 0.2135059 | 0.24428736 | 2.5343624 | 20 | 12 17.1 | 17.2 |
| 42702 1998 $ME_{19}$ | 14.1 | X | 275.67959 | 25.13311 | 125.39344 | 10.65583 | 0.0410579 | 0.24464264 | 2.5319081 | 20 | — | — |
| 42703 1998 $MM_{29}$ | 14.1 | X | 103.23395 | 100.96408 | 92.21502 | 13.96519 | 0.1120870 | 0.22746491 | 2.6578254 | 20 | 8 21.5 | 18.2 |
| 42704 1998 $MB_{32}$ | 13.4 | X | 215.87371 | 90.15414 | 95.67369 | 15.75711 | 0.0450654 | 0.23959167 | 2.5673687 | 20 | 12 16.8 | 16.9 |
| 42705 1998 $OW_{8}$ | 15.1 | X | 351.33530 | 357.28069 | 294.15162 | 2.16591 | 0.2922892 | 0.22318390 | 2.6917050 | 20 | 7 17.6 | 16.7 |
| 42706 1998 $QY$ | 14.4 | X | 116.14248 | 160.97998 | 147.85607 | 14.06208 | 0.1655249 | 0.23970083 | 2.5665891 | 20 | — | — |
| 42707 1998 $QM_{2}$ | 14.1 | X | 77.97040 | 65.03733 | 211.39395 | 5.18556 | 0.0844851 | 0.27397926 | 2.3477810 | 20 | 11 9.1 | 17.1 |
| 42708 1998 $QD_{11}$ | 13.6 | X | 94.64358 | 125.69004 | 123.28517 | 18.87783 | 0.2012352 | 0.23219386 | 2.6216149 | 20 | 11 3.5 | 18.2 |
| 42709 1998 $QM_{17}$ | 14.5 | X | 325.88561 | 160.66764 | 129.73971 | 4.21787 | 0.1649754 | 0.21881715 | 2.7273978 | 20 | 5 23.3 | 17.4 |
| 42710 1998 $QD_{20}$ | 14.1 | X | 45.56781 | 225.26129 | 185.78994 | 11.02568 | 0.0932289 | 0.19549053 | 2.9402589 | 20 | — | — |
| 42711 1998 $QY_{25}$ | 14.1 | X | 318.74662 | 188.33279 | 160.21616 | 18.31211 | 0.1262009 | 0.17567712 | 3.1573731 | 20 | 7 31.5 | 18.1 |
| 42712 1998 $QX_{28}$ | 14.4 | X | 293.61656 | 231.29822 | 175.62043 | 17.04534 | 0.2153761 | 0.17847281 | 3.1243140 | 20 | 8 24.8 | 18.4 |
| 42713 1998 $QS_{33}$ | 14.0 | X | 339.57610 | 142.09238 | 246.84078 | 5.26166 | 0.0584620 | 0.18444035 | 3.0565541 | 20 | 10 29.9 | 17.9 |
| 42714 1998 $QW_{38}$ | 14.9 | X | 97.85642 | 4.33146 | 294.79425 | 7.02378 | 0.1878694 | 0.23518379 | 2.5993482 | 20 | 12 28.0 | 19.0 |
| 42715 1998 $QE_{44}$ | 16.1 | X | 307.97330 | 343.54236 | 16.72756 | 2.55512 | 0.2068450 | 0.31220065 | 2.1520227 | 20 | 8 7.3 | 17.4 |
| 42716 1998 $QQ_{44}$ | 14.4 | X | 337.97544 | 244.09951 | 149.44095 | 4.00226 | 0.1246714 | 0.18357360 | 3.0661677 | 20 | 11 6.3 | 18.1 |
| 42717 1998 $QM_{47}$ | 13.9 | X | 355.37310 | 186.29267 | 196.82062 | 11.12740 | 0.1387932 | 0.18412829 | 3.0600066 | 20 | 11 22.7 | 17.6 |
| 42718 1998 $QU_{52}$ | 13.9 | X | 19.22280 | 110.41618 | 271.11568 | 7.51768 | 0.1102166 | 0.18636649 | 3.0354576 | 20 | 12 22.1 | 17.8 |
| 42719 1998 $QL_{66}$ | 14.0 | X | 61.24875 | 34.12321 | 247.07857 | 12.13184 | 0.1561138 | 0.22967133 | 2.6407758 | 20 | 10 24.8 | 17.9 |
| 42720 1998 $QH_{69}$ | 14.3 | X | 110.23700 | 31.42934 | 298.66751 | 12.80279 | 0.2837299 | 0.23966093 | 2.5668740 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42721 1998 $QM_{70}$ | 14.8 | $X$ | 80.82299 | 57.27457 | 260.15330 | 12.23979 | 0.1794084 | 0.23464127 | 2.6033534 | 20 | — | — |
| 42722 1998 $QX_{70}$ | 14.1 | $X$ | 30.27031 | 133.00814 | 263.09153 | 9.55093 | 0.1227779 | 0.19065627 | 2.9897531 | 20 | — | — |
| 42723 1998 $QL_{73}$ | 13.6 | $X$ | 276.16102 | 230.48963 | 236.73213 | 9.41902 | 0.0663391 | 0.18562790 | 3.0435040 | 20 | 11 8.9 | 17.6 |
| 42724 1998 $QJ_{76}$ | 13.3 | $X$ | 7.84340 | 55.41533 | 239.05716 | 12.28720 | 0.1684917 | 0.22216994 | 2.6998887 | 20 | 8 18.5 | 16.5 |
| 42725 1998 $QK_{80}$ | 14.1 | $X$ | 21.26925 | 93.04294 | 255.92711 | 13.55176 | 0.1335148 | 0.23110924 | 2.6298109 | 20 | 11 28.8 | 17.2 |
| 42726 1998 $QW_{84}$ | 14.5 | $X$ | 62.93198 | 339.42208 | 290.24729 | 10.71804 | 0.0448094 | 0.22605450 | 2.6688691 | 20 | 9 21.4 | 18.3 |
| 42727 1998 $QX_{85}$ | 14.0 | $X$ | 244.73523 | 214.82914 | 195.76100 | 14.95816 | 0.1757841 | 0.17155772 | 3.2077157 | 20 | 7 4.0 | 19.2 |
| 42728 1998 $QX_{86}$ | 13.5 | $X$ | 314.39648 | 167.70348 | 243.79612 | 15.05841 | 0.1571845 | 0.18144047 | 3.0901527 | 20 | 10 12.4 | 17.3 |
| 42729 1998 $QE_{90}$ | 14.6 | $X$ | 1.28680 | 10.41015 | 305.22281 | 13.54346 | 0.1975205 | 0.22341000 | 2.6898887 | 20 | 9 8.6 | 17.4 |
| 42730 1998 $QE_{106}$ | 14.8 | $X$ | 49.46325 | 295.00453 | 63.69852 | 3.80931 | 0.2329776 | 0.23370373 | 2.6103112 | 20 | — | — |
| 42731 1998 $QJ_{106}$ | 14.1 | $X$ | 150.52847 | 261.84332 | 20.99488 | 10.32167 | 0.0753027 | 0.19292422 | 2.9662759 | 20 | — | — |
| 42732 1998 $RD_1$ | 13.3 | $X$ | 318.35981 | 5.07192 | 347.58510 | 8.67264 | 0.0787916 | 0.17397782 | 3.1778993 | 20 | 8 13.5 | 17.4 |
| 42733 1998 $RH_2$ | 14.6 | $X$ | 35.89414 | 236.73914 | 98.85360 | 4.46472 | 0.2004303 | 0.22956628 | 2.6415813 | 20 | 12 11.1 | 18.1 |
| 42734 1998 $RH_{19}$ | 14.9 | $X$ | 128.47649 | 238.79509 | 134.70064 | 6.53917 | 0.1646200 | 0.20092096 | 2.8870384 | 20 | 2 5.4 | 19.2 |
| 42735 1998 $RZ_{19}$ | 14.7 | $X$ | 249.83889 | 99.56274 | 164.22993 | 15.21974 | 0.1248638 | 0.20538511 | 2.8450512 | 20 | 1 17.2 | 19.3 |
| 42736 1998 $RJ_{25}$ | 14.7 | $X$ | 188.85018 | 314.66555 | 331.92174 | 1.22535 | 0.1518202 | 0.19939094 | 2.9017886 | 20 | — | — |
| 42737 1998 $RJ_{45}$ | 14.1 | $X$ | 287.56085 | 120.35156 | 291.43968 | 1.74102 | 0.0771855 | 0.17877523 | 3.1207896 | 20 | 9 12.4 | 18.2 |
| 42738 1998 $RK_{46}$ | 14.2 | $X$ | 3.37554 | 45.97398 | 295.70703 | 3.71310 | 0.1749005 | 0.18035799 | 3.1025047 | 20 | 10 12.3 | 17.7 |
| 42739 1998 $RJ_{57}$ | 14.5 | $X$ | 8.29758 | 201.48936 | 158.32634 | 2.10305 | 0.0994953 | 0.18277788 | 3.0750603 | 20 | 11 8.1 | 18.3 |
| 42740 1998 $RY_{62}$ | 14.1 | $X$ | 272.77343 | 16.61969 | 16.49133 | 9.21003 | 0.0765186 | 0.17392617 | 3.1785283 | 20 | 8 3.3 | 18.6 |
| 42741 1998 $RW_{65}$ | 14.7 | $X$ | 166.58100 | 72.74412 | 279.01762 | 0.98329 | 0.0746032 | 0.20143518 | 2.8821229 | 20 | 2 9.9 | 19.1 |
| 42742 1998 $RT_{66}$ | 13.3 | $X$ | 47.74788 | 139.71939 | 215.16109 | 7.30877 | 0.0727394 | 0.18639961 | 3.0350979 | 20 | 12 20.4 | 17.6 |
| 42743 1998 $RP_{73}$ | 14.9 | $X$ | 19.97188 | 2.79030 | 248.72574 | 3.41068 | 0.0662181 | 0.21556358 | 2.7547728 | 20 | 7 4.2 | 18.2 |
| 42744 1998 $RH_{74}$ | 13.0 | $X$ | 69.82327 | 46.82648 | 275.55401 | 3.80106 | 0.1453389 | 0.18564262 | 3.0433431 | 20 | 12 15.9 | 17.6 |
| 42745 1998 $RK_{77}$ | 14.5 | $X$ | 156.64487 | 75.93657 | 32.02828 | 7.30514 | 0.0776383 | 0.21308308 | 2.7761104 | 20 | 6 23.3 | 18.7 |
| 42746 1998 $SV_8$ | 14.8 | $X$ | 64.28033 | 60.51847 | 151.71758 | 0.94020 | 0.1124134 | 0.17015736 | 3.2252908 | 20 | 7 20.2 | 19.0 |
| 42747 Fuser | 13.7 | $X$ | 286.76854 | 196.75862 | 200.21919 | 0.55258 | 0.1380448 | 0.17623179 | 3.1507447 | 20 | 8 14.8 | 17.8 |
| 42748 Andrisani | 14.8 | $X$ | 196.08764 | 167.22027 | 166.81789 | 2.19622 | 0.2544099 | 0.20484962 | 2.8500071 | 20 | 2 20.5 | 20.0 |
| 42749 1998 $SL_{25}$ | 14.2 | $X$ | 33.99996 | 313.39118 | 63.56203 | 8.49729 | 0.1871785 | 0.18603784 | 3.0390314 | 20 | — | — |
| 42750 1998 $SO_{53}$ | 14.4 | $X$ | 334.00278 | 165.78591 | 193.76482 | 8.95352 | 0.1007348 | 0.17845697 | 3.1244988 | 20 | 9 11.7 | 18.3 |
| 42751 1998 $SP_{55}$ | 14.9 | $X$ | 186.15286 | 171.07736 | 153.33016 | 3.29359 | 0.1404957 | 0.20183427 | 2.8783224 | 20 | 1 30.8 | 19.6 |
| 42752 1998 $SV_{55}$ | 13.9 | $X$ | 234.98809 | 254.55491 | 173.73510 | 1.47601 | 0.1134718 | 0.17196130 | 3.2026950 | 20 | 7 24.1 | 18.6 |
| 42753 1998 $SS_{59}$ | 14.6 | $X$ | 356.07779 | 298.01850 | 55.27295 | 7.39614 | 0.1323482 | 0.17938552 | 3.1137074 | 20 | 10 15.5 | 18.3 |
| 42754 1998 $SN_{60}$ | 14.0 | $X$ | 17.99147 | 235.86448 | 122.02918 | 2.86155 | 0.0882408 | 0.18321710 | 3.0701438 | 20 | 11 18.4 | 17.9 |
| 42755 1998 $ST_{61}$ | 14.1 | $X$ | 337.80206 | 177.47971 | 211.55243 | 12.78819 | 0.1000964 | 0.18113287 | 3.0936502 | 20 | 10 28.8 | 17.7 |
| 42756 1998 $SA_{63}$ | 14.3 | $X$ | 307.05792 | 166.32838 | 180.15010 | 7.81052 | 0.0610402 | 0.17134764 | 3.2103370 | 20 | 7 17.9 | 18.8 |
| 42757 1998 $SY_{67}$ | 14.1 | $X$ | 179.38206 | 172.95334 | 281.95010 | 8.51903 | 0.0555452 | 0.17119689 | 3.2122214 | 20 | 6 30.8 | 18.7 |
| 42758 1998 $SD_{72}$ | 14.6 | $X$ | 77.81074 | 300.12870 | 65.49418 | 2.51999 | 0.2582226 | 0.19081072 | 2.9881395 | 20 | — | — |
| 42759 1998 $SR_{73}$ | 13.9 | $X$ | 12.21121 | 130.40926 | 170.92711 | 8.98537 | 0.2404951 | 0.17659843 | 3.1463823 | 20 | 9 13.4 | 17.2 |
| 42760 1998 $SY_{78}$ | 14.9 | $X$ | 60.31160 | 38.57026 | 320.74075 | 0.84787 | 0.1089688 | 0.18946505 | 3.0022716 | 20 | — | — |
| 42761 1998 $SK_{104}$ | 14.4 | $X$ | 146.96276 | 171.28514 | 34.51819 | 9.63682 | 0.0764668 | 0.22636919 | 2.6663951 | 20 | 10 18.8 | 18.2 |
| 42762 1998 $SB_{116}$ | 14.2 | $X$ | 339.32655 | 173.30959 | 217.09455 | 5.39985 | 0.2187116 | 0.18031012 | 3.1030538 | 20 | 11 5.4 | 17.3 |
| 42763 1998 $SV_{119}$ | 16.3 | $X$ | 96.35093 | 17.01650 | 280.28405 | 3.72367 | 0.2736651 | 0.27947183 | 2.3169181 | 20 | — | — |
| 42764 1998 $SJ_{122}$ | 13.7 | $X$ | 281.37388 | 184.98003 | 216.21958 | 5.65319 | 0.1223192 | 0.17367492 | 3.1815932 | 20 | 8 12.7 | 18.0 |
| 42765 1998 $SR_{137}$ | 14.2 | $X$ | 41.31840 | 272.03630 | 70.31089 | 6.20467 | 0.1187476 | 0.18337495 | 3.0683816 | 20 | 12 3.4 | 18.4 |
| 42766 1998 $SN_{143}$ | 14.1 | $X$ | 45.48213 | 128.96964 | 192.21291 | 9.12376 | 0.0705891 | 0.18095791 | 3.0956439 | 20 | 11 6.9 | 18.5 |
| 42767 1998 $SJ_{150}$ | 13.6 | $X$ | 239.47901 | 52.60419 | 219.83946 | 11.44665 | 0.0401456 | 0.15529866 | 3.4278692 | 20 | 1 27.5 | 18.8 |
| 42768 1998 $SA_{168}$ | 14.3 | $X$ | 283.38283 | 63.78121 | 250.43158 | 7.83894 | 0.2848519 | 0.21425387 | 2.7659879 | 20 | 3 31.5 | 18.7 |
| 42769 1998 $TA_1$ | 14.5 | $X$ | 76.54090 | 214.12952 | 61.85001 | 1.22554 | 0.1709724 | 0.17960235 | 3.1112008 | 20 | 10 31.3 | 19.1 |
| 42770 1998 $TH_5$ | 14.4 | $X$ | 338.67045 | 243.74287 | 134.39439 | 2.85849 | 0.1766206 | 0.17776430 | 3.1326101 | 20 | 10 17.4 | 17.8 |
| 42771 1998 $TB_{32}$ | 13.9 | $X$ | 343.19078 | 152.54405 | 226.33484 | 13.53207 | 0.1362853 | 0.17885262 | 3.1198892 | 20 | 10 23.4 | 17.6 |
| 42772 1998 $TJ_{34}$ | 13.9 | $X$ | 348.35904 | 217.17830 | 172.55697 | 5.93747 | 0.1517177 | 0.18053600 | 3.1004650 | 20 | 11 19.6 | 17.5 |
| 42773 1998 $UN_{15}$ | 14.1 | $X$ | 331.98023 | 266.91951 | 88.45667 | 1.90865 | 0.1871791 | 0.17381460 | 3.1798884 | 20 | 8 31.7 | 17.4 |
| 42774 1998 $UZ_{20}$ | 15.6 | $X$ | 57.65433 | 315.93312 | 42.92629 | 6.26375 | 0.1327275 | 0.27678726 | 2.3318753 | 20 | — | — |
| 42775 Bianchini | 13.1 | $X$ | 331.34108 | 133.05478 | 249.06848 | 22.83118 | 0.2414964 | 0.17647688 | 3.1478268 | 20 | 9 24.5 | 16.8 |
| 42776 Casablanca | 13.2 | $X$ | 138.57554 | 134.77687 | 69.22605 | 10.30840 | 0.0428419 | 0.17543772 | 3.1602449 | 20 | 10 3.5 | 18.0 |
| 42777 1998 $UY_{30}$ | 13.9 | $X$ | 341.24252 | 170.22298 | 153.60801 | 7.71110 | 0.1256793 | 0.17098420 | 3.2148847 | 20 | 8 6.1 | 17.8 |
| 42778 1998 $UC_{33}$ | 14.6 | $X$ | 260.10756 | 135.96122 | 243.02641 | 8.33834 | 0.1700750 | 0.21515582 | 2.7582523 | 20 | 6 14.5 | 18.5 |
| 42779 1998 $VD_{13}$ | 13.9 | $X$ | 178.23546 | 308.66669 | 44.70358 | 3.24600 | 0.0708229 | 0.20054963 | 2.8906010 | 20 | 2 25.9 | 18.2 |
| 42780 1998 $VW_{17}$ | 13.5 | $X$ | 21.15280 | 93.82626 | 230.50056 | 14.52033 | 0.1084793 | 0.17715091 | 3.1398372 | 20 | 10 8.9 | 17.6 |
| 42781 1998 $VL_{28}$ | 14.6 | $X$ | 242.31387 | 267.55129 | 202.07221 | 9.23934 | 0.1781863 | 0.26523307 | 2.3991143 | 20 | 9 24.4 | 17.8 |
| 42782 1998 $VC_{48}$ | 13.6 | $X$ | 26.28965 | 49.44066 | 225.17535 | 7.84957 | 0.0763695 | 0.16961338 | 3.2321833 | 20 | 8 8.5 | 18.1 |
| 42783 1998 $VV_{53}$ | 12.5 | $X$ | 303.61949 | 123.59237 | 250.96419 | 21.03363 | 0.0666652 | 0.17239575 | 3.1973120 | 20 | 8 9.3 | 17.2 |
| 42784 1998 $WD_1$ | 13.2 | $X$ | 282.74361 | 263.52080 | 129.41983 | 20.73034 | 0.1461320 | 0.16987339 | 3.2288842 | 20 | 8 2.2 | 17.4 |
| 42785 1998 $WJ_1$ | 14.6 | $X$ | 84.16300 | 156.73632 | 210.82919 | 25.48648 | 0.2325535 | 0.27948258 | 2.3168587 | 20 | — | — |
| 42786 1998 $WU_4$ | 14.0 | $X$ | 186.53434 | 337.10784 | 193.68186 | 22.24255 | 0.0999497 | 0.26222951 | 2.4173990 | 20 | 10 22.0 | 17.4 |
| 42787 1998 $WC_{16}$ | 13.2 | $X$ | 164.19872 | 234.85684 | 74.56645 | 11.43083 | 0.0913805 | 0.19126930 | 2.9833615 | 20 | — | — |
| 42788 1998 $XF_{13}$ | 14.0 | $X$ | 260.13183 | 246.66873 | 65.67446 | 4.72150 | 0.1688163 | 0.20583251 | 2.8409269 | 20 | 3 24.9 | 18.3 |
| 42789 1998 $XP_{74}$ | 14.7 | $X$ | 272.69485 | 69.06302 | 312.97105 | 5.44960 | 0.1339464 | 0.25701856 | 2.4499641 | 20 | 7 13.1 | 17.6 |
| 42790 1998 $XS_{93}$ | 13.2 | $X$ | 181.17093 | 127.09924 | 229.59055 | 14.08984 | 0.1332040 | 0.24199673 | 2.5503300 | 20 | 2 24.1 | 17.5 |
| 42791 1999 $AD_6$ | 14.8 | $X$ | 117.48726 | 287.27682 | 132.70826 | 8.17007 | 0.2174946 | 0.23914639 | 2.5705546 | 20 | 3 27.5 | 18.6 |
| 42792 1999 $AM_{13}$ | 16.0 | $X$ | 254.30708 | 341.31517 | 302.73746 | 6.54277 | 0.1130306 | 0.28279032 | 2.2987568 | 20 | 2 7.3 | 19.3 |
| 42793 1999 $BN_5$ | 14.4 | $X$ | 6.76742 | 210.74198 | 140.75405 | 5.95824 | 0.3361877 | 0.22597315 | 2.6695096 | 20 | 12 12.3 | 17.3 |
| 42794 1999 $BL_{18}$ | 13.9 | $X$ | 107.09701 | 208.59593 | 359.73342 | 10.18132 | 0.1277616 | 0.25544923 | 2.4599880 | 20 | 9 15.6 | 17.5 |
| 42795 1999 $CO_{12}$ | 15.4 | $X$ | 134.34200 | 286.55784 | 173.34410 | 8.18196 | 0.1143148 | 0.29001884 | 2.2603997 | 20 | 5 23.1 | 18.6 |
| 42796 1999 $CP_{53}$ | 15.4 | $X$ | 144.75972 | 359.25520 | 82.53176 | 2.97554 | 0.1702424 | 0.28939518 | 2.2636460 | 20 | 5 13.2 | 18.6 |
| 42797 1999 $CL_{76}$ | 13.1 | $X$ | 120.17997 | 61.97412 | 325.36318 | 14.26227 | 0.1329921 | 0.23275566 | 2.6173947 | 20 | 2 6.4 | 16.7 |
| 42798 1999 $DH_2$ | 14.8 | $X$ | 68.01625 | 333.03715 | 107.00779 | 6.23643 | 0.1443716 | 0.27803724 | 2.3248810 | 20 | 1 24.0 | 16.7 |
| 42799 1999 $DV_5$ | 13.6 | $X$ | 186.19363 | 10.75221 | 256.60584 | 15.75317 | 0.1952815 | 0.22082572 | 2.7108341 | 20 | — | — |
| 42800 1999 $FB_{28}$ | 13.9 | $X$ | 8.60613 | 94.53667 | 5.49312 | 21.81379 | 0.0528930 | 0.22241837 | 2.6978779 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42801 1999 $FK_{41}$ | 14.6 | X | 83.00368 | 100.79115 | 338.94513 | 15.07257 | 0.2927798 | 0.23589335 | 2.5941331 | 20 | 3 16.3 | 17.8 |
| 42802 1999 $GE_{15}$ | 14.6 | X | 214.36436 | 108.81339 | 102.93077 | 9.10119 | 0.1638759 | 0.26134704 | 2.4228377 | 20 | — | — |
| 42803 1999 $GG_{21}$ | 13.2 | X | 313.00255 | 329.67174 | 116.43949 | 10.29050 | 0.1387608 | 0.21401856 | 2.7680149 | 20 | 12 11.8 | 16.3 |
| 42804 1999 $GQ_{33}$ | 15.0 | X | 52.12762 | 201.59688 | 105.10761 | 6.51120 | 0.1246766 | 0.29790115 | 2.2203491 | 20 | 11 29.0 | 17.8 |
| 42805 1999 $JU_{1}$ | 15.4 | X | 162.19855 | 215.01919 | 97.26391 | 6.24842 | 0.2512210 | 0.31116333 | 2.1568028 | 20 | — | — |
| 42806 1999 $JR_{3}$ | 14.8 | X | 81.80643 | 229.98176 | 217.27930 | 21.70461 | 0.0407896 | 0.36835042 | 1.9273560 | 20 | 1 18.5 | 17.3 |
| 42807 1999 $JM_{12}$ | 15.3 | X | 201.22163 | 158.77970 | 184.17041 | 13.04314 | 0.2437944 | 0.27223833 | 2.3577796 | 20 | 2 28.3 | 19.5 |
| 42808 1999 $JZ_{13}$ | 14.7 | X | 212.42352 | 160.30767 | 214.80447 | 24.55106 | 0.1901789 | 0.27898232 | 2.3196275 | 20 | 4 19.1 | 18.5 |
| 42809 1999 $JJ_{20}$ | 12.8 | X | 124.03194 | 220.59663 | 33.79091 | 11.82146 | 0.0444609 | 0.16080988 | 3.3490957 | 20 | 11 7.9 | 17.7 |
| 42810 1999 $JP_{72}$ | 14.6 | X | 278.46369 | 182.33974 | 65.62993 | 10.33463 | 0.1407408 | 0.27256614 | 2.3558888 | 20 | 1 19.3 | 18.1 |
| 42811 1999 $JN_{81}$ | 14.3 | X | 15.30177 | 128.78263 | 209.40442 | 24.08825 | 0.1425396 | 0.39369905 | 1.8437122 | 20 | 12 18.6 | 16.7 |
| 42812 1999 $JC_{94}$ | 14.1 | X | 245.40814 | 11.23231 | 129.83594 | 9.15063 | 0.1609976 | 0.21007525 | 2.8025463 | 20 | 11 6.7 | 18.1 |
| 42813 1999 $JU_{121}$ | 14.4 | X | 74.12684 | 302.83192 | 252.85869 | 9.54238 | 0.0258924 | 0.28460745 | 2.2889618 | 20 | 7 3.2 | 17.1 |
| 42814 1999 $LR_{13}$ | 15.4 | X | 173.54992 | 130.42939 | 185.66483 | 5.78105 | 0.2042187 | 0.26228270 | 2.4170722 | 20 | 1 5.7 | 19.3 |
| 42815 1999 $LH_{32}$ | 15.5 | X | 161.51821 | 118.10367 | 287.89735 | 1.46835 | 0.1984385 | 0.26896712 | 2.3768581 | 20 | 4 13.6 | 19.2 |
| 42816 1999 $NZ_{1}$ | 14.1 | X | 121.59757 | 210.63205 | 186.12967 | 15.83084 | 0.2713002 | 0.21555186 | 2.7548727 | 20 | 3 5.8 | 18.5 |
| 42817 1999 $NB_{4}$ | 15.5 | X | 25.25303 | 69.35812 | 260.21878 | 4.99660 | 0.2096323 | 0.28880350 | 2.2667367 | 20 | 12 5.2 | 18.2 |
| 42818 1999 $NU_{4}$ | 15.4 | X | 346.19820 | 223.42531 | 161.47753 | 2.87779 | 0.1613809 | 0.29013012 | 2.2598217 | 20 | 12 15.4 | 17.5 |
| 42819 1999 $NF_{5}$ | 14.4 | X | 194.73129 | 141.94678 | 269.73399 | 1.65396 | 0.2071074 | 0.27239553 | 2.3568724 | 20 | 5 20.3 | 18.4 |
| 42820 1999 $NA_{7}$ | 14.4 | X | 146.41719 | 342.70102 | 152.91967 | 2.94019 | 0.1240213 | 0.28021795 | 2.3128036 | 20 | 7 23.3 | 17.7 |
| 42821 1999 $NV_{11}$ | 15.5 | X | 335.46179 | 53.02057 | 302.38505 | 4.49652 | 0.2641514 | 0.28340932 | 2.2954084 | 20 | 10 8.7 | 16.5 |
| 42822 1999 $NT_{13}$ | 16.0 | X | 170.24082 | 45.27513 | 278.97203 | 3.91050 | 0.2097914 | 0.30842026 | 2.1695723 | 20 | 1 7.7 | 19.2 |
| 42823 1999 $NO_{15}$ | 16.2 | X | 141.76791 | 200.36461 | 122.59386 | 1.96759 | 0.1652658 | 0.30476530 | 2.1868838 | 20 | — | — |
| 42824 1999 $NF_{16}$ | 15.0 | X | 348.29881 | 170.81611 | 126.60306 | 6.55039 | 0.1244184 | 0.28215814 | 2.3021891 | 20 | 7 25.1 | 16.8 |
| 42825 1999 $NK_{26}$ | 15.6 | X | 82.56099 | 235.05341 | 109.25310 | 5.39297 | 0.0369943 | 0.29992586 | 2.2103452 | 20 | — | — |
| 42826 1999 $NX_{26}$ | 15.7 | X | 164.68630 | 172.67519 | 123.74878 | 6.94978 | 0.1059776 | 0.30488186 | 2.1863264 | 20 | — | — |
| 42827 1999 $NC_{36}$ | 15.6 | X | 100.46441 | 197.09894 | 129.45215 | 4.34337 | 0.1034331 | 0.29909051 | 2.2144589 | 20 | — | — |
| 42828 1999 $NH_{39}$ | 15.6 | X | 124.56063 | 223.92376 | 44.12666 | 1.22478 | 0.1784278 | 0.29632478 | 2.2282166 | 20 | 12 23.9 | 19.1 |
| 42829 1999 $NN_{39}$ | 14.5 | X | 127.95294 | 89.13208 | 338.84804 | 4.90365 | 0.1406412 | 0.26687592 | 2.3892584 | 20 | 4 2.4 | 17.8 |
| 42830 1999 $NE_{40}$ | 15.6 | X | 14.22865 | 256.73124 | 93.86450 | 3.97607 | 0.1647892 | 0.28950141 | 2.2630922 | 20 | 12 12.0 | 18.0 |
| 42831 1999 $NF_{43}$ | 14.5 | X | 37.68148 | 244.22530 | 137.43570 | 10.05747 | 0.2783613 | 0.25200359 | 2.4823607 | 20 | — | — |
| 42832 1999 $NL_{44}$ | 15.0 | X | 273.27820 | 208.18416 | 118.05258 | 14.08397 | 0.1623517 | 0.27692827 | 2.3310836 | 20 | 4 27.6 | 18.4 |
| 42833 1999 $NH_{48}$ | 14.4 | X | 268.11217 | 122.95065 | 253.24548 | 10.60169 | 0.2049126 | 0.23145086 | 2.6272224 | 20 | 6 15.8 | 18.0 |
| 42834 1999 $NU_{48}$ | 15.6 | X | 54.19214 | 183.13750 | 153.26163 | 6.15175 | 0.1926100 | 0.29363268 | 2.2418151 | 20 | — | — |
| 42835 1999 $NS_{56}$ | 13.8 | X | 311.42096 | 118.01618 | 242.84494 | 13.76510 | 0.1311271 | 0.23307779 | 2.6149825 | 20 | 8 6.4 | 17.1 |
| 42836 1999 $OO_{3}$ | 15.0 | X | 54.11010 | 128.98635 | 232.62079 | 11.95510 | 0.2174709 | 0.24505291 | 2.5290814 | 20 | — | — |
| 42837 1999 $PR_{1}$ | 14.6 | X | 140.09561 | 353.63498 | 10.85052 | 2.16937 | 0.0746044 | 0.25881677 | 2.4386030 | 20 | 1 19.7 | 17.8 |
| 42838 1999 $PP_{3}$ | 14.5 | X | 310.29438 | 229.45820 | 203.89152 | 5.02662 | 0.1993228 | 0.24210935 | 2.5495391 | 20 | 11 26.4 | 16.7 |
| 42839 1999 $PP_{6}$ | 16.3 | X | 133.93165 | 150.29650 | 125.04880 | 4.58286 | 0.1851592 | 0.29742192 | 2.2227335 | 20 | — | — |
| 42840 1999 $RU$ | 15.7 | X | 292.63447 | 210.18743 | 153.52859 | 4.84290 | 0.1866453 | 0.27818699 | 2.3240466 | 20 | 7 8.8 | 18.2 |
| 42841 1999 $RO_{3}$ | 15.6 | X | 188.69018 | 55.91493 | 220.06487 | 4.27727 | 0.1842063 | 0.30511189 | 2.1852274 | 20 | — | — |
| 42842 1999 $RK_{9}$ | 15.4 | X | 109.87471 | 33.20127 | 352.14510 | 2.66646 | 0.1633285 | 0.30345960 | 2.1931523 | 20 | 1 12.9 | 17.5 |
| 42843 1999 $RV_{11}$ | 14.5 | X | 251.01828 | 72.81960 | 334.66684 | 22.49646 | 0.2623783 | 0.27641698 | 2.3339573 | 20 | 7 8.1 | 18.4 |
| 42844 1999 $RC_{12}$ | 15.5 | X | 85.95245 | 95.35263 | 174.10278 | 7.54103 | 0.1240017 | 0.28896081 | 2.2659140 | 20 | 11 17.2 | 18.7 |
| 42845 1999 $RV_{16}$ | 15.3 | X | 181.08353 | 155.31217 | 220.00804 | 1.84767 | 0.1850108 | 0.26442464 | 2.4040017 | 20 | 3 23.3 | 19.0 |
| 42846 1999 $RJ_{26}$ | 15.5 | X | 340.22717 | 170.06705 | 134.70231 | 4.52675 | 0.1744006 | 0.27749225 | 2.3279240 | 20 | 7 17.4 | 17.2 |
| 42847 1999 $RC_{43}$ | 14.0 | X | 62.95502 | 262.71823 | 6.20388 | 22.65492 | 0.2592607 | 0.28816515 | 2.2700830 | 20 | 10 26.7 | 17.7 |
| 42848 1999 $RT_{43}$ | 14.4 | X | 251.62799 | 305.25577 | 133.32751 | 2.49102 | 0.1581544 | 0.18005368 | 3.1059995 | 20 | 8 20.3 | 18.7 |
| 42849 Podjavorinska | 14.7 | X | 97.11188 | 252.33308 | 191.90891 | 5.49480 | 0.2225852 | 0.21214869 | 2.7842558 | 20 | 4 4.2 | 18.5 |
| 42850 1999 $RS_{50}$ | 15.1 | X | 213.34932 | 302.71319 | 89.26794 | 3.21969 | 0.2097695 | 0.27174433 | 2.3606362 | 20 | 5 12.1 | 18.8 |
| 42851 1999 $RA_{51}$ | 14.3 | X | 52.85617 | 109.57259 | 336.45812 | 5.91593 | 0.0943990 | 0.25907287 | 2.4369574 | 20 | 1 6.1 | 16.9 |
| 42852 1999 $RX_{52}$ | 13.6 | X | 265.22740 | 27.33301 | 334.71950 | 14.43404 | 0.2123801 | 0.22796940 | 2.6539028 | 20 | 5 19.2 | 17.9 |
| 42853 1999 $RP_{69}$ | 15.5 | X | 337.96132 | 83.46070 | 135.54301 | 3.19391 | 0.1169670 | 0.26750834 | 2.3854913 | 20 | 3 3.7 | 17.8 |
| 42854 1999 $RV_{70}$ | 15.2 | X | 331.77974 | 183.35893 | 257.97440 | 1.27606 | 0.0096739 | 0.19901297 | 2.9054616 | 20 | 12 26.7 | 19.3 |
| 42855 1999 $RF_{72}$ | 15.3 | X | 219.87438 | 239.03815 | 134.58917 | 5.78006 | 0.1799576 | 0.26952765 | 2.3735616 | 20 | 4 27.7 | 19.1 |
| 42856 1999 $RO_{73}$ | 14.6 | X | 317.20628 | 250.46058 | 188.23682 | 12.34931 | 0.1514990 | 0.24190142 | 2.5509999 | 20 | 12 18.7 | 17.4 |
| 42857 1999 $RS_{84}$ | 15.7 | X | 28.57753 | 90.45996 | 199.09608 | 5.25804 | 0.1840347 | 0.28297549 | 2.2977539 | 20 | 10 8.9 | 17.9 |
| 42858 1999 $RL_{88}$ | 16.0 | X | 309.69165 | 101.40172 | 191.08100 | 5.85830 | 0.1417559 | 0.27226659 | 2.3576164 | 20 | 4 29.4 | 18.6 |
| 42859 1999 $RB_{89}$ | 13.2 | X | 11.38484 | 261.89201 | 182.52453 | 13.58761 | 0.1425268 | 0.20111954 | 2.8851377 | 20 | — | — |
| 42860 1999 $RC_{90}$ | 14.6 | X | 196.07542 | 353.64335 | 94.18661 | 3.33446 | 0.1770014 | 0.22519850 | 2.6756279 | 20 | 7 7.3 | 19.0 |
| 42861 1999 $RQ_{90}$ | 14.9 | X | 13.50411 | 159.63535 | 138.67706 | 5.99452 | 0.1714242 | 0.28154283 | 2.3055422 | 20 | 9 26.1 | 17.0 |
| 42862 1999 $RH_{97}$ | 14.9 | X | 209.63191 | 321.21501 | 195.40814 | 3.88433 | 0.0965132 | 0.23856580 | 2.5747235 | 20 | 10 25.6 | 18.6 |
| 42863 1999 $RD_{99}$ | 15.1 | X | 318.25962 | 237.01396 | 169.37696 | 11.66046 | 0.1677093 | 0.23588213 | 2.5942153 | 20 | 11 4.4 | 17.7 |
| 42864 1999 $RY_{101}$ | 15.2 | X | 249.01820 | 81.78874 | 228.47085 | 5.86954 | 0.1069189 | 0.26797930 | 2.3826955 | 20 | 3 6.7 | 18.7 |
| 42865 1999 $RR_{103}$ | 15.4 | X | 210.20148 | 58.81697 | 261.57468 | 5.54670 | 0.1187076 | 0.26282649 | 2.4137371 | 20 | 2 8.9 | 19.2 |
| 42866 1999 $RJ_{104}$ | 14.8 | X | 276.53441 | 35.75313 | 300.20342 | 6.24337 | 0.1448190 | 0.27289196 | 2.3540132 | 20 | 5 8.9 | 18.0 |
| 42867 1999 $RO_{113}$ | 13.7 | X | 92.08443 | 226.14290 | 209.32724 | 14.12543 | 0.2334840 | 0.21446909 | 2.7641371 | 20 | 3 16.2 | 17.6 |
| 42868 1999 $RT_{115}$ | 15.2 | X | 248.35083 | 283.81006 | 332.57635 | 10.80284 | 0.1680171 | 0.26295708 | 2.4129379 | 20 | — | — |
| 42869 1999 $RD_{117}$ | 14.7 | X | 260.22601 | 285.32804 | 265.07660 | 3.39723 | 0.0957058 | 0.30237980 | 2.1983704 | 20 | — | — |
| 42870 1999 $RM_{120}$ | 14.7 | X | 227.82228 | 24.04655 | 302.94041 | 4.22366 | 0.0519875 | 0.21988703 | 2.7185436 | 20 | 3 13.6 | 18.6 |
| 42871 1999 $RA_{123}$ | 15.8 | X | 316.31359 | 21.57941 | 286.03627 | 5.14080 | 0.1154712 | 0.27535182 | 2.3399724 | 20 | 6 6.1 | 18.2 |
| 42872 1999 $RB_{124}$ | 14.8 | X | 134.37753 | 50.25091 | 220.34806 | 7.94437 | 0.1964268 | 0.29515518 | 2.2340991 | 20 | — | — |
| 42873 1999 $RV_{127}$ | 15.6 | X | 152.82832 | 214.30451 | 177.40647 | 6.13573 | 0.1258248 | 0.26424649 | 2.4050821 | 20 | 3 13.7 | 18.9 |
| 42874 1999 $RM_{128}$ | 14.5 | X | 118.90398 | 284.57634 | 184.50432 | 6.40428 | 0.0678470 | 0.27058700 | 2.3673625 | 20 | 5 11.0 | 17.5 |
| 42875 1999 $RO_{128}$ | 14.7 | X | 111.71349 | 122.84009 | 286.79673 | 5.65183 | 0.0612542 | 0.26165218 | 2.4209537 | 20 | 2 7.1 | 17.8 |
| 42876 1999 $RS_{132}$ | 15.4 | X | 44.80272 | 351.67687 | 289.45012 | 5.95136 | 0.1108479 | 0.28498217 | 2.2869549 | 20 | 10 5.5 | 18.3 |
| 42877 1999 $RW_{133}$ | 15.3 | X | 335.01688 | 92.86075 | 223.07151 | 5.42875 | 0.1398546 | 0.27952662 | 2.3166153 | 20 | 7 24.3 | 17.3 |
| 42878 1999 $RT_{135}$ | 15.3 | X | 82.19168 | 174.09906 | 107.10037 | 2.53817 | 0.2096937 | 0.29109367 | 2.2548321 | 20 | 12 3.7 | 18.8 |
| 42879 1999 $RD_{136}$ | 16.5 | X | 306.29016 | 286.35406 | 71.09549 | 1.53306 | 0.2167967 | 0.27964875 | 2.3159408 | 20 | 7 21.5 | 18.1 |
| 42880 1999 $RX_{138}$ | 15.5 | X | 15.46832 | 120.04163 | 215.69631 | 5.05649 | 0.1969091 | 0.28731763 | 2.2745450 | 20 | 11 28.1 | 17.8 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42881 1999 $RD_{145}$ | 15.3 | X | 132.72503 | 51.16610 | 223.52151 | 5.24287 | 0.2320276 | 0.29695428 | 2.2250665 | 20 | — | — |
| 42882 1999 $RZ_{145}$ | 15.5 | X | 9.56265 | 92.13289 | 190.36871 | 5.60007 | 0.1071805 | 0.28023993 | 2.3126826 | 20 | 8 9.9 | 17.7 |
| 42883 1999 $RJ_{146}$ | 15.3 | X | 295.74290 | 260.45347 | 278.90945 | 3.79267 | 0.0400978 | 0.30319029 | 2.1944509 | 20 | — | — |
| 42884 1999 $RF_{148}$ | 15.6 | X | 86.58421 | 93.13796 | 219.73960 | 2.66985 | 0.1715232 | 0.29406574 | 2.2396136 | 20 | — | — |
| 42885 1999 $RZ_{148}$ | 15.2 | X | 128.72923 | 242.56096 | 161.36396 | 6.07288 | 0.1091284 | 0.26198491 | 2.4189034 | 20 | 2 29.7 | 18.5 |
| 42886 1999 $RL_{150}$ | 15.6 | X | 19.52713 | 321.83739 | 342.58363 | 4.01435 | 0.1829306 | 0.28446101 | 2.2897473 | 20 | 10 14.8 | 17.9 |
| 42887 1999 $RV_{155}$ | 15.3 | X | 225.48405 | 55.97452 | 282.38002 | 2.86347 | 0.2416262 | 0.31462195 | 2.1409673 | 20 | 3 10.1 | 18.9 |
| 42888 1999 $RH_{163}$ | 14.2 | X | 21.49118 | 50.67853 | 326.89460 | 8.79965 | 0.0338708 | 0.24449474 | 2.5329291 | 20 | 12 26.1 | 17.6 |
| 42889 1999 $RW_{164}$ | 15.0 | X | 276.17321 | 323.65752 | 318.09137 | 6.16891 | 0.1069976 | 0.26693128 | 2.3889280 | 20 | 3 1.9 | 18.4 |
| 42890 1999 $RG_{167}$ | 14.2 | X | 254.68233 | 50.30371 | 67.78416 | 5.83297 | 0.1342811 | 0.23991677 | 2.5650489 | 20 | 10 28.3 | 17.3 |
| 42891 1999 $RH_{169}$ | 15.2 | X | 41.57750 | 107.72666 | 190.71286 | 5.20457 | 0.1365368 | 0.28570948 | 2.2830720 | 20 | 11 3.2 | 17.9 |
| 42892 1999 $RF_{180}$ | 13.9 | X | 203.65261 | 85.00189 | 25.76676 | 13.31232 | 0.1125954 | 0.23165671 | 2.6256659 | 20 | 8 24.3 | 18.0 |
| 42893 1999 $RQ_{180}$ | 15.5 | X | 322.24117 | 139.34322 | 104.01254 | 4.61630 | 0.1950152 | 0.26931423 | 2.3748153 | 20 | 3 1.3 | 18.2 |
| 42894 1999 $RM_{181}$ | 15.5 | X | 161.45713 | 124.18269 | 136.27304 | 1.70996 | 0.1611591 | 0.29702478 | 2.2247143 | 20 | — | — |
| 42895 1999 $RK_{182}$ | 15.5 | X | 77.13812 | 130.35602 | 169.76826 | 3.98708 | 0.1821640 | 0.29071549 | 2.2567872 | 20 | 12 20.5 | 18.9 |
| 42896 1999 $RX_{182}$ | 14.9 | X | 321.63294 | 234.09888 | 187.28815 | 2.82826 | 0.1569322 | 0.23976904 | 2.5661024 | 20 | 12 2.1 | 17.3 |
| 42897 1999 $RZ_{187}$ | 15.9 | X | 2.69890 | 38.39843 | 350.22616 | 2.38761 | 0.0660754 | 0.29009282 | 2.2600154 | 20 | — | — |
| 42898 1999 $RC_{190}$ | 15.6 | X | 0.95873 | 132.51642 | 111.17442 | 2.96339 | 0.1870914 | 0.27395928 | 2.3478952 | 20 | 5 23.5 | 17.1 |
| 42899 1999 $RV_{193}$ | 14.0 | X | 249.91713 | 188.56259 | 221.24383 | 5.30160 | 0.1667827 | 0.22847114 | 2.6500159 | 20 | 7 13.1 | 17.8 |
| 42900 1999 $RB_{195}$ | 15.5 | X | 311.89045 | 114.50309 | 236.73701 | 5.65924 | 0.2172856 | 0.27926312 | 2.3180724 | 20 | 7 21.4 | 17.3 |
| 42901 1999 $RN_{196}$ | 15.4 | X | 225.97457 | 44.69595 | 246.80310 | 4.15338 | 0.1921093 | 0.30965733 | 2.1637901 | 20 | 1 14.2 | 18.7 |
| 42902 1999 $RM_{197}$ | 12.7 | X | 88.22134 | 100.16799 | 262.50629 | 7.99615 | 0.1421112 | 0.15521689 | 3.4290731 | 20 | — | — |
| 42903 1999 $RL_{200}$ | 14.7 | X | 317.07487 | 143.74756 | 246.36785 | 12.95164 | 0.1217722 | 0.23586243 | 2.5943598 | 20 | 10 1.7 | 17.8 |
| 42904 1999 $RV_{202}$ | 14.8 | X | 80.24065 | 280.55246 | 294.94111 | 9.85963 | 0.0615271 | 0.22990172 | 2.6390112 | 20 | 8 9.8 | 18.3 |
| 42905 1999 $RC_{203}$ | 14.1 | X | 201.65329 | 276.36957 | 235.51433 | 13.94363 | 0.1326522 | 0.23732284 | 2.5837056 | 20 | 10 2.1 | 18.2 |
| 42906 1999 $RK_{212}$ | 14.7 | X | 141.45352 | 337.11717 | 224.75557 | 13.89730 | 0.0309500 | 0.23525657 | 2.5988121 | 20 | 10 4.3 | 18.5 |
| 42907 1999 $RN_{212}$ | 14.8 | X | 330.88539 | 105.65538 | 238.53698 | 10.11163 | 0.0379988 | 0.23107706 | 2.6300550 | 20 | 8 22.9 | 18.3 |
| 42908 1999 $RL_{214}$ | 15.7 | X | 349.21267 | 168.88214 | 158.73845 | 7.11983 | 0.2010551 | 0.28047682 | 2.3113803 | 20 | 9 24.5 | 17.2 |
| 42909 1999 $RH_{218}$ | 15.7 | X | 50.97839 | 129.39608 | 146.16561 | 1.00910 | 0.0898198 | 0.28543745 | 2.2845224 | 20 | 10 7.1 | 18.5 |
| 42910 1999 $RB_{221}$ | 15.1 | X | 210.37555 | 216.52574 | 141.83481 | 10.02548 | 0.2314414 | 0.26585811 | 2.3953526 | 20 | 3 30.5 | 19.3 |
| 42911 1999 $RJ_{221}$ | 15.3 | X | 213.16772 | 176.56429 | 103.86928 | 4.78724 | 0.1431965 | 0.30554868 | 2.1831443 | 20 | — | — |
| 42912 1999 $RQ_{221}$ | 15.6 | X | 86.14470 | 0.70530 | 292.73731 | 7.15130 | 0.1341096 | 0.28835963 | 2.2690623 | 20 | 12 17.1 | 18.8 |
| 42913 1999 $RW_{223}$ | 14.6 | X | 201.26503 | 225.98134 | 230.39658 | 11.63896 | 0.1025249 | 0.22868090 | 2.6483952 | 20 | 7 23.9 | 18.8 |
| 42914 1999 $RA_{232}$ | 15.1 | X | 143.94601 | 251.83478 | 83.12065 | 6.38831 | 0.1339445 | 0.30391761 | 2.1909483 | 20 | — | — |
| 42915 1999 $RD_{232}$ | 15.2 | X | 358.54763 | 301.11711 | 37.93252 | 6.89921 | 0.1314828 | 0.28514550 | 2.2860814 | 20 | 10 23.9 | 17.3 |
| 42916 1999 $RH_{238}$ | 15.5 | X | 254.46022 | 194.44790 | 101.76191 | 6.90502 | 0.1223114 | 0.26403997 | 2.4063360 | 20 | 2 27.9 | 19.0 |
| 42917 1999 $SU_{1}$ | 13.2 | X | 219.03731 | 29.95137 | 352.58954 | 12.54175 | 0.1386872 | 0.21957174 | 2.7211454 | 20 | 5 4.6 | 17.7 |
| 42918 1999 $SK_{4}$ | 14.9 | X | 245.90369 | 154.97072 | 187.89371 | 6.69169 | 0.1156876 | 0.26843548 | 2.3799953 | 20 | 4 17.9 | 18.2 |
| 42919 1999 $SS_{4}$ | 15.8 | X | 303.78943 | 287.82869 | 43.88012 | 0.68311 | 0.2242208 | 0.27497625 | 2.3421026 | 20 | 6 1.9 | 17.9 |
| 42920 1999 $SA_{8}$ | 14.3 | X | 178.80668 | 108.64802 | 75.66417 | 6.50923 | 0.0723902 | 0.28882606 | 2.2666187 | 20 | 11 7.4 | 17.2 |
| 42921 1999 $SH_{8}$ | 14.3 | X | 92.18881 | 167.37671 | 91.08385 | 8.60212 | 0.0880249 | 0.28782259 | 2.2718839 | 20 | 11 7.6 | 17.4 |
| 42922 1999 $SP_{8}$ | 13.2 | X | 77.19686 | 345.95330 | 81.93669 | 10.30721 | 0.1435972 | 0.20970531 | 2.8058413 | 20 | 2 7.9 | 16.8 |
| 42923 1999 $SR_{18}$ | 13.9 | X | 136.36130 | 168.55329 | 117.62392 | 6.81157 | 0.1852126 | 0.29658093 | 2.2269334 | 20 | — | — |
| 42924 Betlem | 16.2 | X | 281.66136 | 140.03178 | 196.75201 | 2.87372 | 0.2209391 | 0.27266155 | 2.3553391 | 20 | 5 7.9 | 19.2 |
| 42925 1999 $TC_{6}$ | 15.6 | X | 255.99607 | 161.32344 | 133.40793 | 7.28020 | 0.1174669 | 0.26353480 | 2.4094102 | 20 | 2 26.7 | 19.0 |
| 42926 1999 $TJ_{7}$ | 16.0 | X | 285.91906 | 99.32702 | 204.19323 | 2.65795 | 0.1795083 | 0.26867279 | 2.3785937 | 20 | 4 3.1 | 18.9 |
| 42927 1999 $TP_{7}$ | 15.1 | X | 267.15220 | 46.65681 | 264.12083 | 12.06307 | 0.2423520 | 0.26781224 | 2.3836863 | 20 | 3 9.2 | 19.2 |
| 42928 1999 $TX_{7}$ | 15.4 | X | 32.92482 | 141.50052 | 173.74701 | 22.72875 | 0.2134476 | 0.28426874 | 2.2907796 | 20 | 11 28.4 | 18.9 |
| 42929 Francini | 15.6 | X | 229.26054 | 24.87204 | 329.97490 | 1.88521 | 0.2128140 | 0.26664965 | 2.3906098 | 20 | 4 7.5 | 19.5 |
| 42930 1999 $TM_{11}$ | 14.1 | X | 84.45368 | 136.46125 | 109.05639 | 24.47629 | 0.2177840 | 0.28404575 | 2.2919784 | 20 | 11 2.4 | 18.3 |
| 42931 1999 $TG_{17}$ | 14.1 | X | 1.64873 | 300.36159 | 68.26399 | 9.29018 | 0.1813123 | 0.23455338 | 2.6040036 | 20 | 12 3.1 | 16.9 |
| 42932 1999 $TF_{19}$ | 15.1 | X | 264.59691 | 294.44437 | 56.55094 | 13.32741 | 0.1729852 | 0.22371787 | 2.6874203 | 20 | 5 14.1 | 18.9 |
| 42933 1999 $TR_{19}$ | 14.2 | X | 240.62600 | 296.79596 | 101.08202 | 27.15255 | 0.1895753 | 0.22554629 | 2.6728767 | 20 | 6 17.9 | 18.5 |
| 42934 1999 $TL_{25}$ | 16.2 | X | 209.28092 | 305.19711 | 8.24182 | 3.30202 | 0.1859365 | 0.25962756 | 2.4335233 | 20 | 2 3.0 | 20.1 |
| 42935 1999 $TS_{26}$ | 16.0 | X | 242.31964 | 51.97539 | 258.00279 | 1.39605 | 0.2082811 | 0.26364578 | 2.4087340 | 20 | 2 23.9 | 19.8 |
| 42936 1999 $TL_{27}$ | 14.6 | X | 14.73703 | 106.23669 | 322.55160 | 1.12161 | 0.0758122 | 0.19678882 | 2.9273126 | 20 | — | — |
| 42937 1999 $TU_{28}$ | 15.1 | X | 85.44658 | 137.46937 | 354.53893 | 1.66861 | 0.0744602 | 0.21790489 | 2.7350046 | 20 | 4 28.6 | 18.8 |
| 42938 1999 $TY_{30}$ | 14.3 | X | 203.59822 | 113.86622 | 312.50692 | 1.98897 | 0.0387144 | 0.22406851 | 2.6846159 | 20 | 6 24.9 | 18.0 |
| 42939 1999 $TJ_{31}$ | 14.5 | X | 91.03840 | 214.32555 | 339.43997 | 1.23979 | 0.0226016 | 0.22633369 | 2.6666739 | 20 | 7 21.8 | 17.9 |
| 42940 1999 $TP_{38}$ | 14.2 | X | 219.81321 | 301.20520 | 183.30401 | 9.06673 | 0.2338776 | 0.18461489 | 3.0546273 | 20 | 9 4.2 | 19.3 |
| 42941 1999 $TX_{74}$ | 15.0 | X | 63.54828 | 3.65676 | 141.09246 | 2.83391 | 0.1150410 | 0.26299402 | 2.4127119 | 20 | 4 19.7 | 17.7 |
| 42942 1999 $TK_{77}$ | 15.9 | X | 276.54898 | 285.28378 | 17.90327 | 2.50805 | 0.2067450 | 0.26661514 | 2.3908161 | 20 | 3 19.9 | 19.4 |
| 42943 1999 $TH_{92}$ | 16.1 | X | 62.19717 | 185.45919 | 104.98405 | 3.80103 | 0.2289377 | 0.28735416 | 2.2743522 | 20 | 11 28.2 | 19.4 |
| 42944 1999 $TQ_{93}$ | 15.1 | X | 223.54304 | 238.98604 | 125.61961 | 3.22268 | 0.2278276 | 0.26780004 | 2.3837587 | 20 | 4 16.3 | 19.0 |
| 42945 1999 $TW_{94}$ | 14.5 | X | 143.06916 | 145.88511 | 75.34069 | 7.89882 | 0.0352513 | 0.23802194 | 2.5786440 | 20 | 11 5.9 | 18.1 |
| 42946 1999 $TU_{95}$ | 13.8 | X | 186.74016 | 61.59614 | 133.10075 | 4.69081 | 0.0719734 | 0.23961148 | 2.5672272 | 20 | 11 20.4 | 17.4 |
| 42947 1999 $TB_{98}$ | 14.9 | X | 237.48282 | 236.63214 | 78.80155 | 7.10940 | 0.1211069 | 0.26370034 | 2.4084017 | 20 | 3 6.7 | 18.5 |
| 42948 1999 $TR_{98}$ | 15.0 | X | 51.69745 | 183.97817 | 104.80781 | 6.36044 | 0.0737131 | 0.28264046 | 2.2995692 | 20 | 10 26.3 | 17.9 |
| 42949 1999 $TV_{100}$ | 15.2 | X | 186.70040 | 142.92980 | 134.46808 | 9.82929 | 0.1861071 | 0.25362039 | 2.4717997 | 20 | — | — |
| 42950 1999 $TF_{101}$ | 14.9 | X | 261.29130 | 191.84717 | 112.19032 | 7.53258 | 0.1404087 | 0.26500220 | 2.4005075 | 20 | 3 15.1 | 18.4 |
| 42951 1999 $TU_{101}$ | 15.4 | X | 79.72132 | 207.34782 | 93.68821 | 7.89788 | 0.1518915 | 0.28833315 | 2.2692012 | 20 | 12 21.5 | 18.7 |
| 42952 1999 $TV_{102}$ | 15.0 | X | 28.83908 | 231.73211 | 139.31218 | 16.34335 | 0.2013374 | 0.24043147 | 2.5613869 | 20 | — | — |
| 42953 1999 $TK_{109}$ | 14.8 | X | 158.61449 | 218.51040 | 294.31368 | 5.74210 | 0.0706700 | 0.27923712 | 2.3182163 | 20 | 8 27.1 | 18.1 |
| 42954 1999 $TK_{118}$ | 15.4 | X | 294.00029 | 96.99271 | 221.18326 | 4.84469 | 0.1274821 | 0.27181790 | 2.3602102 | 20 | 5 13.9 | 18.0 |
| 42955 1999 $TK_{121}$ | 16.0 | X | 288.62064 | 183.01116 | 145.45829 | 2.52433 | 0.2288778 | 0.27307052 | 2.3529869 | 20 | 5 4.7 | 18.8 |
| 42956 1999 $TH_{122}$ | 16.0 | X | 55.77366 | 130.80435 | 174.52950 | 5.04946 | 0.2473718 | 0.28769643 | 2.2725480 | 20 | 12 12.5 | 19.4 |
| 42957 1999 $TK_{122}$ | 15.0 | X | 6.15017 | 168.04145 | 181.64872 | 12.57872 | 0.1084357 | 0.23666233 | 2.5885106 | 20 | 11 7.5 | 18.2 |
| 42958 1999 $TB_{127}$ | 16.6 | X | 18.72859 | 161.55655 | 153.30123 | 3.98867 | 0.2502881 | 0.28380292 | 2.2932856 | 20 | 11 12.5 | 19.0 |
| 42959 1999 $TC_{136}$ | 15.6 | X | 342.50054 | 67.41439 | 279.95311 | 1.67572 | 0.0428894 | 0.23239355 | 2.6201129 | 20 | 9 18.3 | 18.7 |
| 42960 1999 $TJ_{139}$ | 16.2 | X | 232.49390 | 305.94159 | 7.77636 | 1.82962 | 0.1604852 | 0.26226537 | 2.4171787 | 20 | 2 23.4 | 19.8 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 42961 1999 $TD_{140}$ | 15.4 | X | 128.92350 | 62.46260 | 215.00102 | 14.41330 | 0.1094166 | 0.24254937 | 2.5464546 | 20 | 12 27.7 | 19.5 |
| 42962 1999 $TQ_{140}$ | 16.2 | X | 206.49314 | 320.61829 | 1.67876 | 2.42943 | 0.1833187 | 0.25959792 | 2.4337086 | 20 | 2 10.9 | 20.3 |
| 42963 1999 $TH_{144}$ | 13.7 | X | 92.64071 | 140.93385 | 18.35850 | 13.53149 | 0.1120240 | 0.22315712 | 2.6919204 | 20 | 6 18.9 | 17.7 |
| 42964 1999 $TD_{147}$ | 15.5 | X | 124.08938 | 171.51864 | 145.23528 | 4.24661 | 0.0262570 | 0.24776465 | 2.5105940 | 20 | — | — |
| 42965 1999 $TH_{151}$ | 14.4 | X | 166.52727 | 337.08654 | 116.02666 | 4.51215 | 0.0458670 | 0.22169004 | 2.7037836 | 20 | 6 14.9 | 18.2 |
| 42966 1999 $TR_{151}$ | 14.7 | X | 78.16976 | 190.17630 | 281.20084 | 2.78624 | 0.0438388 | 0.21250256 | 2.7811640 | 20 | 3 17.5 | 18.4 |
| 42967 1999 $TR_{164}$ | 16.0 | X | 316.55988 | 316.66609 | 318.08994 | 5.46634 | 0.2178364 | 0.27068488 | 2.3667917 | 20 | 3 28.3 | 18.7 |
| 42968 1999 $TT_{165}$ | 15.4 | X | 272.51554 | 209.64468 | 217.54529 | 12.56781 | 0.0636910 | 0.23362973 | 2.6108623 | 20 | 9 19.0 | 18.8 |
| 42969 1999 $TD_{173}$ | 14.6 | X | 86.94176 | 194.96883 | 85.87965 | 5.59056 | 0.0789905 | 0.23635636 | 2.5907441 | 20 | 11 17.9 | 18.2 |
| 42970 1999 $TD_{174}$ | 14.9 | X | 34.66156 | 161.47786 | 135.16554 | 3.62011 | 0.1067644 | 0.23171074 | 2.6252577 | 20 | 10 7.2 | 18.2 |
| 42971 1999 $TW_{180}$ | 15.1 | X | 86.60369 | 229.73293 | 130.50387 | 3.60208 | 0.1669610 | 0.24632066 | 2.5203962 | 20 | — | — |
| 42972 1999 $TA_{181}$ | 14.6 | X | 55.66179 | 105.80199 | 220.76152 | 14.06185 | 0.1337463 | 0.23731508 | 2.5837619 | 20 | 12 14.9 | 18.4 |
| 42973 1999 $TU_{184}$ | 13.7 | X | 197.46068 | 289.48705 | 262.77313 | 16.65464 | 0.1858239 | 0.23979378 | 2.5659259 | 20 | 11 15.4 | 17.9 |
| 42974 1999 $TX_{186}$ | 14.4 | X | 152.47923 | 316.75636 | 240.68945 | 13.55467 | 0.0275305 | 0.23422755 | 2.6064180 | 20 | 10 11.3 | 18.2 |
| 42975 1999 $TW_{196}$ | 14.3 | X | 185.15511 | 43.65924 | 337.61789 | 5.55191 | 0.0775112 | 0.21387448 | 2.7692579 | 20 | 4 3.1 | 18.4 |
| 42976 1999 $TL_{211}$ | 15.1 | X | 162.35750 | 185.55532 | 311.17904 | 3.97314 | 0.0543195 | 0.22947852 | 2.6422547 | 20 | 8 7.2 | 18.9 |
| 42977 1999 $TH_{216}$ | 15.9 | X | 195.86054 | 173.32736 | 157.88588 | 2.77629 | 0.2253691 | 0.26003501 | 2.4309807 | 20 | 2 12.5 | 19.9 |
| 42978 1999 $TL_{219}$ | 14.9 | X | 172.54414 | 198.60837 | 227.23813 | 8.56804 | 0.0665738 | 0.21976835 | 2.7195223 | 20 | 5 17.7 | 18.9 |
| 42979 1999 $TR_{220}$ | 15.3 | X | 245.60469 | 85.62451 | 232.62919 | 6.03932 | 0.1448599 | 0.26519955 | 2.3993164 | 20 | 3 10.4 | 19.1 |
| 42980 1999 $TM_{224}$ | 14.8 | X | 118.33431 | 64.44848 | 47.20092 | 3.93791 | 0.1295732 | 0.21791706 | 2.7349028 | 20 | 5 20.7 | 18.9 |
| 42981 Jenniskens | 15.6 | X | 174.99573 | 28.43505 | 204.16191 | 5.94541 | 0.1431649 | 0.24396219 | 2.5366139 | 20 | 12 18.4 | 19.5 |
| 42982 1999 $TC_{227}$ | 15.6 | X | 134.15139 | 246.36575 | 90.76860 | 8.76474 | 0.1434062 | 0.25296062 | 2.4760958 | 20 | — | — |
| 42983 1999 $TJ_{228}$ | 15.9 | X | 215.43215 | 209.75749 | 121.85790 | 2.00887 | 0.1250292 | 0.26365859 | 2.4086559 | 20 | 3 1.6 | 19.6 |
| 42984 1999 $TU_{228}$ | 15.3 | X | 80.80529 | 241.42009 | 118.75002 | 4.09445 | 0.1875548 | 0.24651730 | 2.5190558 | 20 | — | — |
| 42985 1999 $TR_{230}$ | 13.9 | X | 229.45444 | 240.31060 | 191.54296 | 9.73418 | 0.1932324 | 0.17487317 | 3.1670427 | 20 | 7 13.6 | 19.1 |
| 42986 1999 $TP_{231}$ | 14.3 | X | 8.33443 | 76.11777 | 144.35500 | 11.87208 | 0.1542311 | 0.22113327 | 2.7083201 | 20 | 5 8.9 | 17.3 |
| 42987 1999 $TB_{242}$ | 14.0 | X | 185.85439 | 76.52916 | 89.87827 | 13.95651 | 0.1262543 | 0.23163814 | 2.6258062 | 20 | 10 15.4 | 18.3 |
| 42988 1999 $TK_{242}$ | 14.0 | X | 241.52905 | 301.64039 | 126.22819 | 6.83398 | 0.0162230 | 0.22699533 | 2.6614895 | 20 | 8 19.3 | 17.4 |
| 42989 1999 $TO_{245}$ | 14.9 | X | 255.51247 | 196.79878 | 159.86039 | 10.85400 | 0.0936276 | 0.22130927 | 2.7068840 | 20 | 5 23.6 | 18.9 |
| 42990 1999 $TM_{251}$ | 14.5 | X | 150.41412 | 344.44455 | 187.26317 | 15.28011 | 0.1004483 | 0.23097859 | 2.6308024 | 20 | 9 7.0 | 18.7 |
| 42991 1999 $TY_{251}$ | 15.6 | X | 276.81747 | 187.12718 | 107.24074 | 7.45977 | 0.1354079 | 0.26681744 | 2.3896075 | 20 | 3 21.1 | 18.9 |
| 42992 1999 $TH_{260}$ | 15.7 | X | 109.81967 | 100.82673 | 196.70779 | 1.79293 | 0.1246197 | 0.24318322 | 2.5420279 | 20 | — | — |
| 42993 1999 $TP_{270}$ | 14.3 | X | 279.54468 | 10.46180 | 246.63624 | 8.74237 | 0.1529794 | 0.21366712 | 2.7710493 | 20 | 2 2.5 | 18.5 |
| 42994 1999 $TY_{273}$ | 13.9 | X | 11.48896 | 6.84415 | 12.27267 | 8.10831 | 0.2465119 | 0.23794995 | 2.5791641 | 20 | — | — |
| 42995 1999 $TR_{284}$ | 14.3 | X | 89.61616 | 170.23466 | 96.24492 | 10.82602 | 0.1064969 | 0.23440687 | 2.6050885 | 20 | 11 8.2 | 18.2 |
| 42996 1999 $TB_{291}$ | 14.0 | X | 124.19679 | 89.70205 | 193.83894 | 12.53159 | 0.1683452 | 0.24008445 | 2.5638544 | 20 | 12 30.9 | 18.4 |
| 42997 1999 $UM_1$ | 15.3 | X | 353.68255 | 179.75150 | 70.28990 | 5.60400 | 0.1555104 | 0.27243922 | 2.3566204 | 20 | 5 17.3 | 17.1 |
| 42998 Malinafrank | 13.5 | X | 201.70270 | 316.89209 | 248.20473 | 6.78078 | 0.1435296 | 0.23965549 | 2.5669129 | 20 | 12 11.0 | 17.2 |
| 42999 1999 $UQ_2$ | 14.6 | X | 241.25114 | 340.09344 | 152.33274 | 4.78012 | 0.1928258 | 0.18810160 | 3.0167620 | 20 | 10 12.1 | 19.0 |
| 43000 1999 $UL_8$ | 14.7 | X | 22.37610 | 154.54365 | 227.29538 | 12.38088 | 0.2089837 | 0.24060934 | 2.5601243 | 20 | — | — |
| 43001 1999 $UE_9$ | 13.7 | X | 14.41102 | 219.18409 | 212.31509 | 1.37724 | 0.0939890 | 0.19650697 | 2.9301111 | 20 | — | — |
| 43002 1999 $US_{12}$ | 15.9 | X | 186.17381 | 137.50046 | 203.93411 | 6.52248 | 0.1264118 | 0.26045246 | 2.4283824 | 20 | 2 11.7 | 19.6 |
| 43003 1999 $UC_{14}$ | 15.9 | X | 39.81892 | 183.32684 | 142.84893 | 3.24981 | 0.2574374 | 0.28694413 | 2.2765184 | 20 | 12 23.7 | 19.1 |
| 43004 1999 $UR_{16}$ | 14.8 | X | 147.45049 | 148.81606 | 256.95417 | 2.24623 | 0.0923550 | 0.21226555 | 2.7832339 | 20 | 3 25.9 | 18.9 |
| 43005 1999 $UA_{17}$ | 15.3 | X | 0.78012 | 38.76719 | 246.07801 | 3.62283 | 0.1822297 | 0.27741324 | 2.3283661 | 20 | 8 2.9 | 17.0 |
| 43006 1999 $UG_{26}$ | 14.3 | X | 266.76961 | 205.68130 | 274.66722 | 5.24595 | 0.1763133 | 0.18958672 | 3.0009869 | 20 | 10 27.4 | 18.4 |
| 43007 1999 $UK_{27}$ | 15.9 | X | 275.75592 | 246.27685 | 334.61901 | 1.97283 | 0.1303566 | 0.25776508 | 2.4452316 | 20 | — | — |
| 43008 1999 $UD_{31}$ | 15.7 | X | 298.11624 | 204.02779 | 126.23387 | 1.96801 | 0.1894231 | 0.27392153 | 2.3481109 | 20 | 5 27.8 | 18.2 |
| 43009 1999 $UB_{39}$ | 14.2 | X | 190.48260 | 108.70503 | 342.01795 | 4.71708 | 0.0703431 | 0.22432001 | 2.6826090 | 20 | 7 10.5 | 18.1 |
| 43010 1999 $UE_{41}$ | 14.0 | X | 351.68204 | 168.97432 | 78.38475 | 13.21782 | 0.0879153 | 0.21777481 | 2.7360936 | 20 | 5 16.2 | 17.3 |
| 43011 1999 $UD_{42}$ | 15.2 | X | 154.59971 | 54.74189 | 266.00451 | 3.89925 | 0.1853822 | 0.30161444 | 2.2020878 | 20 | — | — |
| 43012 1999 $US_{49}$ | 15.6 | X | 11.50997 | 238.59503 | 131.02484 | 4.01525 | 0.1002417 | 0.23795251 | 2.5791456 | 20 | 12 9.5 | 18.7 |
| 43013 1999 $UX_{50}$ | 16.0 | X | 277.02252 | 153.92012 | 150.20540 | 2.55557 | 0.2235975 | 0.26686719 | 2.3893105 | 20 | 3 19.8 | 19.5 |
| 43014 1999 $UQ_{51}$ | 13.1 | X | 99.37280 | 191.49589 | 96.23885 | 11.29799 | 0.0767811 | 0.18997157 | 2.9969326 | 20 | 12 1.3 | 17.6 |
| 43015 1999 $UD_{52}$ | 15.6 | X | 0.03455 | 220.98009 | 114.32753 | 7.50944 | 0.1404396 | 0.28023475 | 2.3127111 | 20 | 10 24.6 | 17.9 |
| 43016 1999 $VM$ | 15.2 | X | 278.04972 | 187.57681 | 172.87894 | 2.12451 | 0.0822583 | 0.22432765 | 2.6825481 | 20 | 6 26.5 | 18.7 |
| 43017 1999 $VA_2$ | 15.6 | X | 35.29457 | 122.83133 | 232.71383 | 23.89833 | 0.2893955 | 0.28806642 | 2.2706017 | 20 | — | — |
| 43018 1999 $VY_2$ | 13.9 | X | 147.06029 | 122.11004 | 271.81042 | 7.85062 | 0.1698282 | 0.20907880 | 2.8114437 | 20 | 3 14.6 | 18.5 |
| 43019 1999 $VG_3$ | 13.9 | X | 195.42377 | 309.53852 | 147.20253 | 1.91260 | 0.1255379 | 0.17355209 | 3.1830941 | 20 | 7 17.6 | 19.0 |
| 43020 1999 $VO_4$ | 14.9 | X | 286.49127 | 343.80395 | 41.98309 | 14.97001 | 0.1287899 | 0.22939329 | 2.6429092 | 20 | 8 14.1 | 18.5 |
| 43021 1999 $VT_5$ | 14.8 | X | 237.49707 | 4.92086 | 1.24517 | 4.95435 | 0.1650631 | 0.21801575 | 2.7340774 | 20 | 5 3.8 | 19.1 |
| 43022 1999 $VR_7$ | 13.2 | X | 15.73989 | 188.36135 | 58.57884 | 15.13406 | 0.0478882 | 0.17144243 | 3.2091536 | 20 | 6 17.5 | 17.6 |
| 43023 1999 $VS_{12}$ | 14.6 | X | 224.77834 | 292.43056 | 64.81097 | 9.21757 | 0.2814913 | 0.26535658 | 2.3983698 | 20 | 4 8.4 | 18.9 |
| 43024 1999 $VU_{12}$ | 13.7 | X | 222.61283 | 329.05716 | 65.62946 | 9.63011 | 0.1171454 | 0.21890913 | 2.7266337 | 20 | 5 30.0 | 17.9 |
| 43025 Valusha | 15.5 | X | 298.28702 | 61.52212 | 324.22963 | 2.47457 | 0.1623829 | 0.27686912 | 2.3314156 | 20 | 8 28.6 | 17.7 |
| 43026 1999 $VJ_{20}$ | 13.8 | X | 283.31670 | 31.57330 | 331.76358 | 12.41446 | 0.1709567 | 0.22664274 | 2.6642492 | 20 | 6 25.1 | 17.4 |
| 43027 1999 $VA_{23}$ | 14.1 | X | 53.81356 | 349.19748 | 229.24266 | 14.38669 | 0.0465730 | 0.22295973 | 2.6935090 | 20 | 7 4.6 | 17.8 |
| 43028 1999 $VE_{23}$ | 13.3 | X | 340.86671 | 331.36184 | 64.66058 | 9.83967 | 0.1991092 | 0.23679602 | 2.5875363 | 20 | 12 5.8 | 15.7 |
| 43029 1999 $VT_{24}$ | 14.8 | X | 190.44963 | 268.42293 | 126.24521 | 2.77431 | 0.1886486 | 0.26241901 | 2.4162351 | 20 | 4 26.7 | 18.7 |
| 43030 1999 $VK_{25}$ | 14.7 | X | 55.32825 | 72.00633 | 272.25605 | 5.69531 | 0.2159382 | 0.23861543 | 2.5743664 | 20 | — | — |
| 43031 1999 $VY_{25}$ | 15.0 | X | 265.23150 | 289.59120 | 92.34520 | 10.37852 | 0.2840932 | 0.22260556 | 2.6963652 | 20 | 6 9.9 | 19.2 |
| 43032 1999 $VR_{26}$ | 14.5 | X | 176.24193 | 265.20545 | 56.14434 | 2.84930 | 0.0583322 | 0.20303499 | 2.8669632 | 20 | 1 14.3 | 18.6 |
| 43033 1999 $VT_{29}$ | 13.5 | X | 19.96944 | 352.33012 | 240.80082 | 16.37463 | 0.0852415 | 0.17016539 | 3.2251894 | 20 | 6 9.0 | 17.7 |
| 43034 1999 $VO_{34}$ | 13.9 | X | 274.48239 | 137.10716 | 247.68838 | 11.12792 | 0.1597998 | 0.22434025 | 2.6824476 | 20 | 7 10.5 | 17.5 |
| 43035 1999 $VO_{35}$ | 13.9 | X | 333.23364 | 64.97449 | 68.43764 | 10.40546 | 0.1186876 | 0.19604536 | 2.9347088 | 20 | — | — |
| 43036 1999 $VF_{37}$ | 14.7 | X | 192.77031 | 81.24060 | 247.17266 | 12.32880 | 0.2514028 | 0.25616732 | 2.4553886 | 20 | 2 3.3 | 19.2 |
| 43037 1999 $VH_{37}$ | 14.0 | X | 195.35638 | 274.07475 | 253.93244 | 7.56718 | 0.1493490 | 0.18128394 | 3.0919313 | 20 | 10 8.3 | 19.0 |
| 43038 1999 $VV_{44}$ | 15.2 | X | 269.24938 | 322.91258 | 345.52833 | 7.35986 | 0.2263136 | 0.26790639 | 2.3831278 | 20 | 3 15.5 | 18.7 |
| 43039 1999 $VD_{45}$ | 14.9 | X | 40.97889 | 110.88993 | 248.34277 | 5.10476 | 0.1415401 | 0.24165485 | 2.5527349 | 20 | — | — |
| 43040 1999 $VT_{45}$ | 15.0 | X | 192.56044 | 4.31954 | 305.58375 | 5.62934 | 0.1385267 | 0.25608727 | 2.4559003 | 20 | 1 13.6 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43041 1999 $VC_{47}$ | 14.2 | X | 317.50597 | 336.74855 | 46.65652 | 14.20904 | 0.1850062 | 0.23203850 | 2.6227850 | 20 | 10 1.0 | 16.8 |
| 43042 1999 $VF_{47}$ | 14.4 | X | 61.95217 | 320.42586 | 56.20403 | 14.85136 | 0.2017486 | 0.24504452 | 2.5291391 | 20 | — | — |
| 43043 1999 $VN_{49}$ | 15.0 | X | 281.55350 | 52.70022 | 247.76081 | 5.79510 | 0.0519796 | 0.21617421 | 2.7495828 | 20 | 4 14.4 | 18.7 |
| 43044 1999 $VR_{49}$ | 14.6 | X | 243.44533 | 99.38261 | 273.16730 | 5.23721 | 0.0480002 | 0.21966589 | 2.7203678 | 20 | 6 1.7 | 18.3 |
| 43045 1999 $VV_{49}$ | 14.6 | X | 238.03420 | 52.93843 | 44.40486 | 12.30440 | 0.1067531 | 0.18104089 | 3.0946979 | 20 | 9 10.2 | 19.3 |
| 43046 1999 $VF_{50}$ | 15.4 | X | 33.81187 | 73.00079 | 277.74219 | 3.04909 | 0.1762557 | 0.28636455 | 2.2795889 | 20 | — | — |
| 43047 1999 $VT_{56}$ | 15.4 | X | 77.25226 | 215.34926 | 146.42205 | 1.01474 | 0.1797069 | 0.24625297 | 2.5208581 | 20 | — | — |
| 43048 1999 $VR_{59}$ | 15.2 | X | 335.38016 | 123.19650 | 245.02116 | 0.80072 | 0.0974760 | 0.23284073 | 2.6167571 | 20 | 10 7.9 | 18.2 |
| 43049 1999 $VD_{61}$ | 15.0 | X | 27.79206 | 208.17063 | 58.51798 | 2.85782 | 0.0572153 | 0.22573743 | 2.6713677 | 20 | 8 8.0 | 18.4 |
| 43050 1999 $VL_{66}$ | 13.7 | X | 97.45671 | 144.31654 | 56.46491 | 12.93980 | 0.1997149 | 0.22299137 | 2.6932542 | 20 | 9 5.6 | 18.1 |
| 43051 1999 $VF_{71}$ | 14.7 | X | 207.63430 | 48.55301 | 189.92236 | 1.67242 | 0.0498453 | 0.19572525 | 2.9379077 | 20 | — | — |
| 43052 1999 $VJ_{71}$ | 16.1 | X | 1.69309 | 265.02197 | 54.82277 | 2.81161 | 0.1645081 | 0.27827351 | 2.3235649 | 20 | 10 3.8 | 18.1 |
| 43053 1999 $VD_{72}$ | 14.4 | X | 59.56618 | 289.34350 | 107.18615 | 13.18511 | 0.1820802 | 0.24158287 | 2.5532419 | 20 | — | — |
| 43054 1999 $VU_{78}$ | 15.3 | X | 314.50892 | 278.82485 | 28.23211 | 2.42527 | 0.2259306 | 0.27282424 | 2.3544027 | 20 | 5 13.6 | 17.4 |
| 43055 1999 $VR_{81}$ | 14.7 | X | 205.69346 | 20.61025 | 27.76554 | 15.60282 | 0.0378391 | 0.22190788 | 2.7020138 | 20 | 5 30.7 | 18.8 |
| 43056 1999 $VW_{88}$ | 15.1 | X | 92.35504 | 27.20059 | 26.38298 | 1.98586 | 0.0570368 | 0.20530750 | 2.8457681 | 20 | 1 27.9 | 18.9 |
| 43057 1999 $VN_{92}$ | 14.8 | X | 281.89829 | 212.88213 | 199.21496 | 4.20562 | 0.1174106 | 0.23218334 | 2.6216941 | 20 | 9 6.4 | 18.1 |
| 43058 1999 $VT_{92}$ | 15.1 | X | 347.45444 | 194.11959 | 15.24617 | 2.17300 | 0.1478918 | 0.26321895 | 2.4113372 | 20 | 3 2.6 | 17.2 |
| 43059 1999 $VF_{93}$ | 15.8 | X | 119.89185 | 46.70008 | 230.14671 | 1.15350 | 0.0788771 | 0.24225922 | 2.5484875 | 20 | 12 19.0 | 19.4 |
| 43060 1999 $VS_{93}$ | 15.6 | X | 270.01750 | 237.61148 | 35.50287 | 1.73402 | 0.1609804 | 0.26260797 | 2.4150759 | 20 | 2 9.5 | 19.2 |
| 43061 1999 $VU_{93}$ | 15.8 | X | 181.34681 | 296.85157 | 30.68008 | 5.70461 | 0.1518109 | 0.25738628 | 2.4476301 | 20 | 1 26.5 | 19.6 |
| 43062 1999 $VC_{103}$ | 15.2 | X | 124.41741 | 225.22014 | 53.72211 | 5.42614 | 0.2095322 | 0.24183291 | 2.5514816 | 20 | 12 27.4 | 19.5 |
| 43063 1999 $VC_{104}$ | 16.2 | X | 340.88492 | 219.77127 | 72.59589 | 2.99978 | 0.2322000 | 0.27246186 | 2.3564898 | 20 | 6 22.2 | 17.3 |
| 43064 1999 $VK_{114}$ | 14.1 | X | 336.64281 | 302.34523 | 310.08118 | 7.63397 | 0.0888151 | 0.26688497 | 2.3892044 | 20 | 4 18.1 | 16.9 |
| 43065 1999 $VZ_{124}$ | 14.5 | X | 178.16473 | 301.88665 | 2.15319 | 11.17145 | 0.2415943 | 0.25970777 | 2.4330223 | 20 | — | — |
| 43066 1999 $VJ_{135}$ | 15.3 | X | 25.26302 | 203.56556 | 115.38341 | 5.10231 | 0.1747382 | 0.28276111 | 2.2989151 | 20 | 11 15.3 | 18.0 |
| 43067 1999 $VA_{140}$ | 16.4 | X | 202.17133 | 287.15875 | 357.34821 | 2.08941 | 0.1756512 | 0.25418609 | 2.4681309 | 20 | — | — |
| 43068 1999 $VK_{159}$ | 15.1 | X | 187.10323 | 99.52305 | 265.59858 | 3.63518 | 0.0909997 | 0.21309681 | 2.7759912 | 20 | 3 16.4 | 19.4 |
| 43069 1999 $VO_{160}$ | 15.3 | X | 134.51511 | 29.79105 | 246.59133 | 4.02734 | 0.2036692 | 0.24253810 | 2.5465335 | 20 | — | — |
| 43070 1999 $VD_{161}$ | 14.0 | X | 213.18281 | 269.39130 | 278.77020 | 1.47684 | 0.0399179 | 0.18994727 | 2.9971882 | 20 | 12 4.7 | 18.3 |
| 43071 1999 $VA_{173}$ | 14.6 | X | 193.20722 | 342.62476 | 67.58670 | 6.48578 | 0.0641218 | 0.21807875 | 2.7335508 | 20 | 5 21.0 | 18.4 |
| 43072 1999 $VS_{177}$ | 15.2 | X | 61.30619 | 195.99424 | 91.39741 | 7.03549 | 0.1580153 | 0.28340446 | 2.2954346 | 20 | 11 15.9 | 18.4 |
| 43073 1999 $VP_{184}$ | 15.5 | X | 231.92281 | 249.90573 | 59.39200 | 7.37287 | 0.1785510 | 0.26123737 | 2.4235157 | 20 | 2 19.7 | 19.5 |
| 43074 1999 $VT_{188}$ | 14.7 | X | 339.21727 | 291.35927 | 203.13093 | 5.65616 | 0.0448813 | 0.19874688 | 2.9080543 | 20 | — | — |
| 43075 1999 $VJ_{189}$ | 14.3 | X | 252.48472 | 301.41505 | 223.68117 | 8.48415 | 0.0195563 | 0.19114818 | 2.9846215 | 20 | 12 26.6 | 18.6 |
| 43076 1999 $VW_{189}$ | 15.4 | X | 281.36929 | 183.33656 | 147.19392 | 2.90488 | 0.1392452 | 0.21899577 | 2.7259145 | 20 | 5 13.4 | 19.0 |
| 43077 1999 $VY_{191}$ | 15.2 | X | 158.48372 | 83.45608 | 202.96818 | 4.30800 | 0.0625696 | 0.24409003 | 2.5357282 | 20 | — | — |
| 43078 1999 $VX_{192}$ | 15.2 | X | 256.81045 | 74.19051 | 251.81944 | 5.22259 | 0.1394586 | 0.26737702 | 2.3862723 | 20 | 4 2.1 | 18.6 |
| 43079 1999 $VS_{194}$ | 14.8 | X | 31.87742 | 288.49107 | 132.94039 | 10.04357 | 0.0665677 | 0.19666532 | 2.9285380 | 20 | — | — |
| 43080 1999 $VA_{198}$ | 15.1 | X | 340.90650 | 169.99843 | 188.81097 | 15.15736 | 0.0541868 | 0.23227429 | 2.6210097 | 20 | 10 3.0 | 18.2 |
| 43081 1999 $VA_{199}$ | 15.1 | X | 163.36258 | 239.73310 | 75.73848 | 5.77755 | 0.1942984 | 0.30307387 | 2.1950128 | 20 | — | — |
| 43082 1999 $VH_{216}$ | 14.9 | X | 191.99026 | 320.14396 | 270.75757 | 7.14161 | 0.1003061 | 0.24311423 | 2.5425088 | 20 | — | — |
| 43083 Frankconrad | 14.4 | X | 251.68938 | 15.86565 | 221.46393 | 4.45495 | 0.1575585 | 0.25206911 | 2.4819306 | 20 | — | — |
| 43084 1999 $WQ_{1}$ | 13.4 | X | 246.15336 | 315.50476 | 109.12037 | 18.59173 | 0.2761031 | 0.22666030 | 2.6641116 | 20 | 7 16.2 | 17.6 |
| 43085 1999 $WE_{2}$ | 14.6 | X | 69.29405 | 283.64654 | 234.32719 | 10.38556 | 0.0358300 | 0.21612148 | 2.7500300 | 20 | 5 5.5 | 18.2 |
| 43086 1999 $WB_{7}$ | 14.6 | X | 50.64109 | 294.22539 | 118.85805 | 2.74685 | 0.1470486 | 0.19786310 | 2.9167072 | 20 | — | — |
| 43087 1999 $WW_{8}$ | 13.1 | X | 187.22017 | 20.42213 | 82.03170 | 15.92439 | 0.2160066 | 0.17078886 | 3.2173355 | 20 | 7 14.9 | 18.7 |
| 43088 1999 $WO_{9}$ | 15.1 | X | 176.56609 | 208.17565 | 133.03510 | 7.86137 | 0.1839418 | 0.25646216 | 2.4535063 | 20 | 2 7.9 | 19.0 |
| 43089 1999 $WP_{12}$ | 13.8 | X | 342.77690 | 57.57067 | 205.76158 | 19.19490 | 0.0844590 | 0.17486361 | 3.1671582 | 20 | 5 22.9 | 18.0 |
| 43090 1999 $WF_{20}$ | 14.5 | X | 348.91466 | 40.89498 | 237.03376 | 12.05640 | 0.1737962 | 0.22449103 | 2.6812463 | 20 | 6 18.6 | 17.2 |
| 43091 1999 $XL_{1}$ | 13.7 | X | 270.09791 | 247.73044 | 263.72477 | 12.99039 | 0.1630550 | 0.18642756 | 3.0347946 | 20 | 12 13.2 | 17.5 |
| 43092 1999 $XT_{5}$ | 15.1 | X | 147.62480 | 100.31097 | 241.54409 | 1.11385 | 0.0810320 | 0.20247490 | 2.8722479 | 20 | 1 9.3 | 19.3 |
| 43093 1999 $XA_{7}$ | 13.9 | X | 300.40625 | 169.46270 | 255.72056 | 9.79241 | 0.0452188 | 0.18474019 | 3.0532459 | 20 | 10 19.6 | 18.1 |
| 43094 1999 $XK_{7}$ | 13.6 | X | 14.52279 | 158.62530 | 226.12664 | 13.26940 | 0.1876670 | 0.23869025 | 2.5738284 | 20 | — | — |
| 43095 1999 $XF_{8}$ | 13.5 | X | 172.42885 | 36.36340 | 100.13102 | 10.51299 | 0.0309593 | 0.17374328 | 3.1807586 | 20 | 8 16.8 | 18.2 |
| 43096 1999 $XL_{11}$ | 15.2 | X | 347.96819 | 21.63116 | 274.08622 | 7.52322 | 0.2494733 | 0.27437193 | 2.3455405 | 20 | 7 20.7 | 16.2 |
| 43097 1999 $XM_{13}$ | 15.1 | X | 243.47107 | 180.98526 | 174.21807 | 7.14119 | 0.0486376 | 0.21675222 | 2.7446924 | 20 | 5 11.8 | 19.0 |
| 43098 1999 $XD_{14}$ | 15.5 | X | 213.36253 | 129.64133 | 208.07016 | 10.66542 | 0.2384693 | 0.26026851 | 2.4295265 | 20 | 3 1.8 | 20.0 |
| 43099 1999 $XO_{15}$ | 14.0 | X | 288.70273 | 323.04650 | 151.74343 | 3.55505 | 0.0089746 | 0.18843903 | 3.0131596 | 20 | 12 11.8 | 18.2 |
| 43100 1999 $XV_{15}$ | 13.9 | X | 194.59962 | 317.60686 | 96.90598 | 9.03821 | 0.3845534 | 0.21656807 | 2.7462481 | 20 | 5 23.1 | 19.3 |
| 43101 1999 $XX_{18}$ | 15.1 | X | 296.21292 | 227.80860 | 203.18923 | 6.62362 | 0.2260246 | 0.28377701 | 2.2934252 | 20 | 11 2.3 | 16.4 |
| 43102 1999 $XU_{19}$ | 14.4 | X | 327.71893 | 346.56322 | 33.39727 | 11.27467 | 0.1495766 | 0.23442293 | 2.6049696 | 20 | 10 13.9 | 16.9 |
| 43103 1999 $XC_{21}$ | 15.5 | X | 112.04360 | 159.78340 | 217.99193 | 6.00742 | 0.2062916 | 0.25350418 | 2.4725550 | 20 | 1 19.6 | 18.8 |
| 43104 1999 $XP_{21}$ | 14.1 | X | 287.62621 | 160.27929 | 113.24942 | 9.15569 | 0.0699962 | 0.21171419 | 2.7880640 | 20 | 3 22.1 | 18.0 |
| 43105 1999 $XM_{22}$ | 14.5 | X | 341.25439 | 300.88762 | 63.74443 | 10.54976 | 0.1339446 | 0.23305068 | 2.6151853 | 20 | 10 19.8 | 17.3 |
| 43106 1999 $XB_{26}$ | 14.7 | X | 335.34965 | 240.35589 | 215.12863 | 8.85541 | 0.0315628 | 0.19331241 | 2.9623035 | 20 | — | — |
| 43107 1999 $XG_{26}$ | 13.8 | X | 271.61174 | 266.59854 | 238.72716 | 9.09449 | 0.1130964 | 0.24038601 | 2.5617098 | 20 | 12 30.2 | 16.7 |
| 43108 1999 $XQ_{26}$ | 14.9 | X | 30.69642 | 166.31704 | 278.59259 | 0.84572 | 0.0447587 | 0.20065651 | 2.8895744 | 20 | — | — |
| 43109 1999 $XP_{28}$ | 14.8 | X | 261.91682 | 224.28557 | 139.53523 | 2.52824 | 0.1030422 | 0.22063468 | 2.7123988 | 20 | 6 6.5 | 18.6 |
| 43110 1999 $XH_{29}$ | 13.0 | X | 102.91770 | 85.70810 | 91.01823 | 10.88830 | 0.1445697 | 0.17100056 | 3.2146797 | 20 | 7 27.4 | 17.9 |
| 43111 1999 $XD_{30}$ | 14.3 | X | 129.44218 | 344.72200 | 186.59677 | 5.39104 | 0.0973038 | 0.17356582 | 3.1829263 | 20 | 8 10.8 | 19.1 |
| 43112 1999 $XK_{31}$ | 13.5 | X | 13.73808 | 298.84497 | 133.26435 | 10.62115 | 0.0693149 | 0.19185268 | 2.9773105 | 20 | — | — |
| 43113 1999 $XN_{31}$ | 13.4 | X | 65.62920 | 88.93018 | 260.32866 | 8.62116 | 0.1114756 | 0.18728456 | 3.0255295 | 20 | — | — |
| 43114 1999 $XR_{36}$ | 13.1 | X | 258.18048 | 207.32917 | 358.01492 | 12.52608 | 0.0287162 | 0.19975832 | 2.8982297 | 20 | — | — |
| 43115 1999 $XG_{39}$ | 14.9 | X | 309.12969 | 160.79362 | 226.36723 | 11.39730 | 0.1917146 | 0.22948468 | 2.6422075 | 20 | 9 3.6 | 17.8 |
| 43116 1999 $XN_{39}$ | 14.6 | X | 207.08781 | 179.01337 | 206.48308 | 6.85520 | 0.2006416 | 0.21557930 | 2.7546389 | 20 | 4 30.0 | 19.3 |
| 43117 1999 $XT_{42}$ | 15.0 | X | 61.10118 | 67.74082 | 247.82187 | 4.97969 | 0.1555236 | 0.23748566 | 2.5825245 | 20 | 12 10.5 | 18.6 |
| 43118 1999 $XD_{43}$ | 14.1 | X | 1.62693 | 161.58222 | 250.09631 | 8.38184 | 0.0634676 | 0.19208448 | 2.9749148 | 20 | 12 30.5 | 18.0 |
| 43119 1999 $XV_{44}$ | 14.1 | X | 200.81759 | 204.15042 | 249.69387 | 4.12903 | 0.1076112 | 0.17411729 | 3.1762020 | 20 | 7 19.7 | 19.1 |
| 43120 1999 $XB_{49}$ | 14.7 | X | 250.45054 | 52.55075 | 249.09446 | 7.23838 | 0.1232508 | 0.25928812 | 2.4356468 | 20 | 2 24.6 | 18.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43121 1999 $XM_{49}$ | 14.3 | $X$ | 74.46647 | 46.03736 | 338.73865 | 1.32879 | 0.0529910 | 0.19751132 | 2.9201695 | 20 | — | — |
| 43122 1999 $XL_{50}$ | 15.1 | $X$ | 176.82129 | 205.38231 | 74.75542 | 6.25433 | 0.0769380 | 0.24553720 | 2.5257548 | 20 | — | — |
| 43123 1999 $XT_{50}$ | 14.0 | $X$ | 150.29264 | 177.63325 | 80.08334 | 8.86502 | 0.1761123 | 0.23909655 | 2.5709118 | 20 | 12 23.3 | 18.2 |
| 43124 1999 $XJ_{53}$ | 15.0 | $X$ | 220.71276 | 245.23934 | 101.21048 | 1.80115 | 0.0821353 | 0.21267010 | 2.7797032 | 20 | 3 31.6 | 19.2 |
| 43125 1999 $XQ_{61}$ | 14.4 | $X$ | 291.57153 | 252.92016 | 90.38195 | 7.72003 | 0.1100792 | 0.22124245 | 2.7074290 | 20 | 6 17.9 | 17.9 |
| 43126 1999 $XL_{64}$ | 13.9 | $X$ | 170.15466 | 304.94236 | 163.74067 | 0.44393 | 0.1400473 | 0.16986498 | 3.2289909 | 20 | 7 8.0 | 19.1 |
| 43127 1999 $XD_{68}$ | 14.5 | $X$ | 221.93665 | 171.83053 | 213.99799 | 4.58592 | 0.0337775 | 0.16779092 | 3.2555453 | 20 | 5 25.8 | 19.2 |
| 43128 1999 $XM_{68}$ | 15.2 | $X$ | 88.66830 | 241.81603 | 97.80522 | 4.63541 | 0.2689539 | 0.24368343 | 2.5385480 | 20 | — | — |
| 43129 1999 $XY_{68}$ | 14.6 | $X$ | 234.22336 | 78.03425 | 245.88282 | 5.03153 | 0.0774010 | 0.20995957 | 2.8035756 | 20 | 3 15.4 | 18.8 |
| 43130 1999 $XZ_{68}$ | 14.5 | $X$ | 68.68040 | 111.52346 | 84.77928 | 7.00959 | 0.0376787 | 0.21695059 | 2.7430190 | 20 | 6 26.3 | 18.1 |
| 43131 1999 $XK_{72}$ | 15.0 | $X$ | 10.36421 | 143.53258 | 207.59906 | 0.98831 | 0.1685610 | 0.23286221 | 2.6165962 | 20 | 11 21.4 | 17.9 |
| 43132 1999 $XO_{73}$ | 14.0 | $X$ | 70.71519 | 274.99314 | 85.44444 | 14.71326 | 0.0741703 | 0.24054936 | 2.5605499 | 20 | — | — |
| 43133 1999 $XK_{76}$ | 14.3 | $X$ | 99.92420 | 236.83974 | 94.44433 | 12.74246 | 0.2023432 | 0.24183599 | 2.5514600 | 20 | — | — |
| 43134 1999 $XU_{77}$ | 14.0 | $X$ | 163.70869 | 312.77878 | 92.55839 | 8.18827 | 0.2171799 | 0.21123775 | 2.7922547 | 20 | 4 21.9 | 18.8 |
| 43135 1999 $XT_{82}$ | 14.0 | $X$ | 32.99589 | 125.26573 | 258.38991 | 6.72804 | 0.1556330 | 0.19012775 | 2.9952912 | 20 | — | — |
| 43136 1999 $XE_{85}$ | 13.8 | $X$ | 265.96797 | 76.11286 | 110.20760 | 11.47358 | 0.0812821 | 0.19014537 | 2.9951061 | 20 | — | — |
| 43137 1999 $XU_{85}$ | 13.3 | $X$ | 351.05826 | 63.55953 | 281.73915 | 10.45821 | 0.0962557 | 0.17699338 | 3.1417000 | 20 | 9 15.6 | 17.5 |
| 43138 1999 $XJ_{86}$ | 14.1 | $X$ | 351.56904 | 200.44599 | 97.05719 | 12.57878 | 0.0651353 | 0.21762769 | 2.7373265 | 20 | 7 24.9 | 17.4 |
| 43139 1999 $XM_{90}$ | 12.9 | $X$ | 258.93992 | 121.68750 | 283.90392 | 14.86704 | 0.0745152 | 0.17199876 | 3.2022299 | 20 | 7 26.6 | 17.5 |
| 43140 1999 $XT_{90}$ | 14.3 | $X$ | 34.29781 | 85.01921 | 268.78389 | 13.31267 | 0.1344766 | 0.23310296 | 2.6147943 | 20 | 12 23.2 | 17.7 |
| 43141 1999 $XR_{91}$ | 13.8 | $X$ | 209.88206 | 193.00069 | 106.10928 | 11.39736 | 0.1048783 | 0.24683189 | 2.5169149 | 20 | 1 17.6 | 17.6 |
| 43142 1999 $XQ_{93}$ | 13.7 | $X$ | 6.43084 | 307.96965 | 100.52951 | 14.45777 | 0.1908583 | 0.23641989 | 2.5902800 | 20 | — | — |
| 43143 1999 $XA_{97}$ | 13.8 | $X$ | 171.53560 | 273.57544 | 265.11047 | 14.19075 | 0.0458377 | 0.18062004 | 3.0995033 | 20 | 9 28.2 | 18.6 |
| 43144 1999 $XD_{98}$ | 14.3 | $X$ | 39.41054 | 103.98708 | 261.48737 | 12.10668 | 0.2209705 | 0.23905973 | 2.5711758 | 20 | — | — |
| 43145 1999 $XT_{98}$ | 13.1 | $X$ | 287.38836 | 18.59440 | 80.03362 | 12.05347 | 0.0307211 | 0.18490286 | 3.0514550 | 20 | 11 19.3 | 17.3 |
| 43146 1999 $XN_{102}$ | 13.3 | $X$ | 138.81515 | 227.38686 | 91.16165 | 9.77806 | 0.0751402 | 0.19338202 | 2.9615926 | 20 | — | — |
| 43147 1999 $XO_{105}$ | 14.4 | $X$ | 13.47576 | 335.58515 | 33.50812 | 4.58911 | 0.2700673 | 0.23688194 | 2.5869106 | 20 | — | — |
| 43148 1999 $XB_{106}$ | 14.2 | $X$ | 210.58252 | 278.02715 | 115.78131 | 13.64916 | 0.3737668 | 0.21706828 | 2.7420275 | 20 | 5 11.5 | 19.6 |
| 43149 1999 $XU_{107}$ | 14.4 | $X$ | 324.91484 | 37.79219 | 240.53798 | 10.23523 | 0.1138921 | 0.21967688 | 2.7202771 | 20 | 5 9.1 | 17.7 |
| 43150 1999 $XF_{109}$ | 15.6 | $X$ | 274.36240 | 124.68386 | 208.07162 | 4.97994 | 0.2458525 | 0.26953353 | 2.3735271 | 20 | 4 19.9 | 19.1 |
| 43151 1999 $XU_{114}$ | 13.8 | $X$ | 338.87312 | 176.19040 | 290.34854 | 14.27028 | 0.1014086 | 0.24320738 | 2.5418596 | 20 | — | — |
| 43152 1999 $XM_{115}$ | 13.1 | $X$ | 118.85654 | 292.40219 | 266.60295 | 8.45258 | 0.1837534 | 0.17686719 | 3.1431941 | 20 | 9 6.5 | 18.4 |
| 43153 1999 $XC_{118}$ | 14.5 | $X$ | 296.04908 | 40.13399 | 280.82141 | 3.98915 | 0.0469480 | 0.21967848 | 2.7202639 | 20 | 6 2.9 | 18.0 |
| 43154 1999 $XH_{118}$ | 14.7 | $X$ | 146.56076 | 2.65692 | 42.60893 | 6.64315 | 0.0681995 | 0.21060691 | 2.7978278 | 20 | 3 25.8 | 18.7 |
| 43155 1999 $XE_{120}$ | 13.6 | $X$ | 231.31985 | 286.29254 | 259.04612 | 9.13875 | 0.0677123 | 0.19139029 | 2.9821040 | 20 | 12 19.3 | 17.7 |
| 43156 1999 $XF_{120}$ | 14.0 | $X$ | 227.18739 | 116.99285 | 269.54235 | 5.59031 | 0.0783908 | 0.21889829 | 2.7267237 | 20 | 5 27.8 | 18.0 |
| 43157 1999 $XT_{120}$ | 14.1 | $X$ | 4.73605 | 276.90300 | 260.03642 | 12.58645 | 0.0154957 | 0.25627511 | 2.4547000 | 20 | 2 19.5 | 17.6 |
| 43158 1999 $XK_{121}$ | 15.0 | $X$ | 228.50518 | 9.67797 | 28.73748 | 2.65072 | 0.2029909 | 0.26859225 | 2.3790691 | 20 | 6 2.8 | 18.6 |
| 43159 1999 $XP_{121}$ | 14.9 | $X$ | 38.34121 | 72.55603 | 2.69614 | 2.01533 | 0.0208736 | 0.19882558 | 2.9072868 | 20 | — | — |
| 43160 1999 $XY_{122}$ | 13.4 | $X$ | 201.73455 | 249.55994 | 304.03429 | 9.04367 | 0.0426904 | 0.18980720 | 2.9986625 | 20 | 11 26.4 | 17.9 |
| 43161 1999 $XW_{123}$ | 14.0 | $X$ | 129.78361 | 260.31855 | 271.19004 | 11.36626 | 0.1091425 | 0.22326518 | 2.6910518 | 20 | 8 13.0 | 18.3 |
| 43162 1999 $XE_{126}$ | 14.5 | $X$ | 267.54032 | 28.29739 | 281.01971 | 7.61657 | 0.0650714 | 0.21385494 | 2.7694266 | 20 | 4 4.1 | 18.5 |
| 43163 1999 $XB_{127}$ | 13.4 | $X$ | 62.21754 | 46.25457 | 269.48001 | 11.86432 | 0.0352183 | 0.18654922 | 3.0334750 | 20 | 11 14.0 | 17.8 |
| 43164 1999 $XJ_{154}$ | 14.5 | $X$ | 16.52096 | 169.71218 | 235.39298 | 9.23231 | 0.0931921 | 0.19163502 | 2.9795646 | 20 | — | — |
| 43165 1999 $XA_{156}$ | 14.7 | $X$ | 110.28115 | 184.41734 | 107.39979 | 8.02280 | 0.1914610 | 0.23750593 | 2.5823776 | 20 | 12 30.1 | 18.9 |
| 43166 1999 $XO_{156}$ | 14.4 | $X$ | 264.48174 | 211.24464 | 135.58528 | 4.64442 | 0.1258327 | 0.21735855 | 2.7395858 | 20 | 5 16.1 | 18.3 |
| 43167 1999 $XY_{157}$ | 14.3 | $X$ | 124.69265 | 149.85662 | 239.47780 | 8.48889 | 0.1772227 | 0.20390576 | 2.8587952 | 20 | 2 17.8 | 18.8 |
| 43168 1999 $XO_{161}$ | 14.1 | $X$ | 349.07666 | 32.48197 | 264.63853 | 11.63877 | 0.1560420 | 0.22275448 | 2.6951633 | 20 | 7 17.4 | 16.9 |
| 43169 1999 $XE_{167}$ | 13.8 | $X$ | 254.96823 | 112.74320 | 273.38388 | 11.50898 | 0.1859087 | 0.22264940 | 2.6960113 | 20 | 6 16.2 | 17.8 |
| 43170 1999 $XH_{171}$ | 14.7 | $X$ | 192.01844 | 88.78839 | 65.21533 | 4.78220 | 0.1451919 | 0.22423322 | 2.6833011 | 20 | 9 28.8 | 18.9 |
| 43171 1999 $XF_{172}$ | 13.4 | $X$ | 198.34647 | 88.36747 | 77.95085 | 8.94443 | 0.1718692 | 0.17814387 | 3.1281588 | 20 | 10 14.1 | 18.5 |
| 43172 1999 $XV_{172}$ | 13.5 | $X$ | 288.65257 | 336.66432 | 87.60721 | 14.11240 | 0.1020481 | 0.17925933 | 3.1151684 | 20 | 10 5.7 | 17.8 |
| 43173 1999 $XK_{177}$ | 12.5 | $X$ | 38.36139 | 204.81744 | 86.40876 | 16.84826 | 0.0625122 | 0.17543624 | 3.1602626 | 20 | 9 27.4 | 17.1 |
| 43174 1999 $XF_{180}$ | 13.4 | $X$ | 222.45772 | 87.56830 | 78.35731 | 15.99529 | 0.0636526 | 0.22805996 | 2.6532002 | 20 | 11 25.5 | 17.1 |
| 43175 1999 $XY_{189}$ | 14.2 | $X$ | 130.82649 | 279.31495 | 355.80945 | 7.18221 | 0.2006449 | 0.28457248 | 2.2891493 | 20 | — | — |
| 43176 1999 $XM_{196}$ | 14.1 | $X$ | 331.19846 | 317.62597 | 43.70493 | 11.19776 | 0.0975840 | 0.17745712 | 3.1362241 | 20 | 9 16.9 | 18.1 |
| 43177 1999 $XQ_{198}$ | 13.8 | $X$ | 111.70092 | 111.62406 | 57.71779 | 14.45640 | 0.0418725 | 0.17032263 | 3.2232042 | 20 | 7 16.7 | 18.6 |
| 43178 1999 $XH_{201}$ | 14.4 | $X$ | 46.17259 | 297.35994 | 12.13216 | 6.32210 | 0.1019007 | 0.18050885 | 3.1007759 | 20 | 10 26.2 | 18.7 |
| 43179 1999 $XL_{204}$ | 13.3 | $X$ | 36.67091 | 234.96573 | 74.26867 | 17.09687 | 0.0772539 | 0.17713339 | 3.1400442 | 20 | 10 19.0 | 17.8 |
| 43180 1999 $XT_{206}$ | 13.8 | $X$ | 195.04672 | 115.21340 | 77.00499 | 17.38019 | 0.1243991 | 0.17946155 | 3.1128278 | 20 | 11 13.7 | 18.8 |
| 43181 1999 $XY_{206}$ | 13.5 | $X$ | 299.14797 | 327.25621 | 63.52304 | 14.19696 | 0.2071794 | 0.17517075 | 3.1634549 | 20 | 8 21.9 | 17.6 |
| 43182 1999 $XG_{212}$ | 14.8 | $X$ | 45.77777 | 252.34707 | 104.29987 | 6.81064 | 0.1932619 | 0.28932153 | 2.2640302 | 20 | — | — |
| 43183 1999 $XK_{213}$ | 14.2 | $X$ | 6.60140 | 165.26567 | 198.25085 | 10.70809 | 0.0191685 | 0.18389332 | 3.0626127 | 20 | 11 3.4 | 18.4 |
| 43184 1999 $XD_{214}$ | 14.1 | $X$ | 182.26546 | 13.67042 | 154.30783 | 10.16068 | 0.0468898 | 0.18061121 | 3.0996042 | 20 | 10 6.5 | 18.7 |
| 43185 1999 $XK_{222}$ | 14.3 | $X$ | 121.47442 | 27.98145 | 287.45612 | 8.66678 | 0.1214757 | 0.24216766 | 2.5491298 | 20 | — | — |
| 43186 1999 $XQ_{230}$ | 14.9 | $X$ | 63.08490 | 78.51017 | 253.63370 | 8.52601 | 0.2134716 | 0.24119553 | 2.5559747 | 20 | — | — |
| 43187 1999 $XF_{233}$ | 14.3 | $X$ | 19.09715 | 219.56982 | 131.04784 | 8.50825 | 0.1300951 | 0.23434088 | 2.6055776 | 20 | 11 30.3 | 17.6 |
| 43188 1999 $XP_{234}$ | 14.5 | $X$ | 240.01898 | 242.28849 | 124.52866 | 6.40023 | 0.0916192 | 0.21741990 | 2.7390703 | 20 | 5 18.0 | 18.6 |
| 43189 1999 $XR_{240}$ | 14.7 | $X$ | 240.46577 | 140.32063 | 204.84672 | 3.47215 | 0.0974469 | 0.21539885 | 2.7561771 | 20 | 4 18.3 | 18.8 |
| 43190 1999 $XR_{241}$ | 14.7 | $X$ | 39.19692 | 88.60505 | 223.10478 | 8.06735 | 0.1611826 | 0.23285999 | 2.6166128 | 20 | 11 9.7 | 17.9 |
| 43191 1999 $YM_{5}$ | 13.7 | $X$ | 14.84787 | 267.89722 | 82.54608 | 15.32329 | 0.1637044 | 0.18292785 | 3.0733793 | 20 | 11 16.9 | 17.6 |
| 43192 1999 $YG_{13}$ | 14.2 | $X$ | 283.29387 | 286.04538 | 80.85133 | 16.45131 | 0.1239854 | 0.22361824 | 2.6882185 | 20 | 7 6.1 | 17.7 |
| 43193 Secinaro | 14.7 | $X$ | 296.10311 | 9.16205 | 98.07259 | 2.56771 | 0.1404587 | 0.18446791 | 3.0562496 | 20 | 11 29.9 | 18.2 |
| 43194 2000 $AJ_{6}$ | 14.2 | $X$ | 63.81801 | 103.94808 | 183.89717 | 1.33668 | 0.1604226 | 0.17795980 | 3.1303155 | 20 | 10 30.3 | 18.6 |
| 43195 2000 $AP_{13}$ | 13.9 | $X$ | 335.52303 | 26.95319 | 276.62349 | 7.09610 | 0.0693644 | 0.17131605 | 3.2107317 | 20 | 7 3.8 | 18.0 |
| 43196 2000 $AH_{32}$ | 14.9 | $X$ | 68.19424 | 357.99628 | 335.85598 | 5.70530 | 0.1739335 | 0.28198168 | 2.3031495 | 20 | — | — |
| 43197 2000 $AU_{44}$ | 15.9 | $X$ | 348.84268 | 244.49511 | 67.36761 | 2.20540 | 0.1903160 | 0.26748537 | 2.3856279 | 20 | 8 22.1 | 17.5 |
| 43198 2000 $AD_{62}$ | 13.8 | $X$ | 12.07622 | 144.92339 | 309.79771 | 8.55185 | 0.0428609 | 0.19076710 | 2.9885950 | 20 | — | — |
| 43199 2000 $AJ_{68}$ | 12.9 | $X$ | 17.73777 | 216.89284 | 85.85977 | 9.13537 | 0.0522768 | 0.17960826 | 3.1111325 | 20 | 9 8.3 | 17.2 |
| 43200 2000 $AO_{68}$ | 15.6 | $X$ | 15.44733 | 253.10857 | 83.51455 | 8.67325 | 0.1884281 | 0.28152204 | 2.3056557 | 20 | 11 26.8 | 18.2 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43201 2000 $AT_{69}$ | 14.6 | X | 355.33887 | 230.47455 | 99.64504 | 12.83866 | 0.1840147 | 0.22869183 | 2.6483108 | 20 | 10 3.4 | 17.5 |
| 43202 2000 $AQ_{70}$ | 12.4 | X | 168.47947 | 49.13385 | 95.24422 | 23.76992 | 0.1144487 | 0.17497501 | 3.1658138 | 20 | 8 25.1 | 17.7 |
| 43203 2000 $AV_{70}$ | 14.9 | X | 283.71653 | 221.41981 | 146.19466 | 4.95685 | 0.2282621 | 0.22390682 | 2.6859082 | 20 | 6 21.0 | 18.3 |
| 43204 2000 $AA_{71}$ | 13.6 | X | 186.50518 | 11.73212 | 107.57555 | 9.72044 | 0.0802860 | 0.17405136 | 3.1770041 | 20 | 8 8.7 | 18.5 |
| 43205 2000 $AV_{72}$ | 13.7 | X | 155.54690 | 115.12690 | 84.92270 | 15.43307 | 0.0582923 | 0.18180141 | 3.0860613 | 20 | 10 20.9 | 18.6 |
| 43206 2000 $AJ_{78}$ | 14.2 | X | 68.96297 | 252.01953 | 103.80179 | 9.71674 | 0.0959587 | 0.19044896 | 2.9919223 | 20 | — | — |
| 43207 2000 $AJ_{79}$ | 14.9 | X | 347.75484 | 340.12072 | 115.29072 | 9.17354 | 0.1341556 | 0.23918823 | 2.5702548 | 20 | — | — |
| 43208 2000 $AW_{98}$ | 12.8 | X | 343.50526 | 240.71359 | 61.08262 | 17.58147 | 0.2215864 | 0.18004171 | 3.1061372 | 20 | 7 8.8 | 16.2 |
| 43209 2000 $AP_{101}$ | 15.5 | X | 324.88944 | 88.59187 | 233.03082 | 8.08203 | 0.2276672 | 0.27570119 | 2.3379952 | 20 | 6 30.4 | 17.1 |
| 43210 2000 $AS_{101}$ | 14.9 | X | 32.48813 | 209.16983 | 99.33634 | 6.02351 | 0.1793067 | 0.28164937 | 2.3049607 | 20 | 11 11.7 | 17.6 |
| 43211 2000 $AR_{105}$ | 14.5 | X | 84.36163 | 24.89079 | 240.66218 | 11.70363 | 0.1291943 | 0.22781120 | 2.6551313 | 20 | 10 28.1 | 18.4 |
| 43212 2000 $AL_{113}$ | 12.2 | X | 239.29769 | 259.14434 | 223.22066 | 6.47704 | 0.0577520 | 0.08115181 | 5.2836890 | 20 | 9 26.7 | 19.4 |
| 43213 2000 $AC_{132}$ | 14.0 | X | 314.00676 | 85.34240 | 287.43214 | 6.16554 | 0.0503349 | 0.17565992 | 3.1575793 | 20 | 8 31.0 | 18.2 |
| 43214 2000 $AQ_{135}$ | 13.8 | X | 19.74036 | 281.72512 | 14.86351 | 5.00581 | 0.1384473 | 0.17314921 | 3.1880298 | 20 | 9 8.4 | 17.6 |
| 43215 2000 $AN_{138}$ | 14.5 | X | 335.24042 | 202.74987 | 93.90029 | 7.98547 | 0.1179563 | 0.27330623 | 2.3516338 | 20 | 6 25.4 | 16.6 |
| 43216 2000 $AB_{139}$ | 15.0 | X | 50.29804 | 187.35917 | 106.99144 | 7.71361 | 0.1199293 | 0.28240111 | 2.3008684 | 20 | 11 8.0 | 18.0 |
| 43217 2000 $AE_{139}$ | 14.8 | X | 42.90493 | 219.05135 | 124.94612 | 7.54982 | 0.1474373 | 0.28787429 | 2.2716119 | 20 | — | — |
| 43218 2000 $AE_{143}$ | 13.2 | X | 48.04160 | 145.42991 | 275.36632 | 9.22303 | 0.0899442 | 0.19020794 | 2.9944493 | 20 | — | — |
| 43219 2000 $AC_{150}$ | 14.2 | X | 316.86725 | 289.28692 | 202.06347 | 9.68576 | 0.0475511 | 0.19125251 | 2.9835361 | 20 | — | — |
| 43220 2000 $AR_{150}$ | 14.0 | X | 148.85806 | 296.81559 | 216.42819 | 12.00524 | 0.0608144 | 0.16959206 | 3.2324541 | 20 | 8 4.3 | 19.1 |
| 43221 2000 $AJ_{151}$ | 14.8 | X | 296.28190 | 1.47180 | 55.65964 | 7.01863 | 0.1083031 | 0.28298442 | 2.2977055 | 20 | 10 23.9 | 16.9 |
| 43222 2000 $AG_{155}$ | 14.8 | X | 246.15251 | 294.55556 | 21.99112 | 1.49190 | 0.1789757 | 0.25973187 | 2.4328718 | 20 | 3 9.7 | 18.6 |
| 43223 2000 $AE_{162}$ | 15.0 | X | 5.31272 | 55.71229 | 338.64668 | 3.32448 | 0.0997904 | 0.28062659 | 2.3105578 | 20 | — | — |
| 43224 Tonypensa | 14.3 | X | 277.70800 | 195.09520 | 199.85958 | 12.73986 | 0.1633670 | 0.22511217 | 2.6763119 | 20 | 7 27.2 | 18.1 |
| 43225 2000 $AW_{165}$ | 14.1 | X | 257.07817 | 275.44678 | 150.56832 | 13.20361 | 0.2426004 | 0.17563336 | 3.1578976 | 20 | 7 29.2 | 19.0 |
| 43226 2000 $AM_{166}$ | 13.3 | X | 216.08661 | 23.57024 | 241.06693 | 13.01066 | 0.1217169 | 0.19268877 | 2.9686918 | 20 | — | — |
| 43227 2000 $AR_{166}$ | 13.3 | X | 53.73741 | 141.89480 | 156.57753 | 16.51172 | 0.0120952 | 0.17736397 | 3.1373222 | 20 | 10 14.1 | 17.9 |
| 43228 2000 $AH_{169}$ | 14.0 | X | 356.39447 | 254.83740 | 181.01845 | 10.11062 | 0.0895246 | 0.19254317 | 2.9701882 | 20 | — | — |
| 43229 2000 $AD_{174}$ | 13.6 | X | 122.42643 | 50.42577 | 132.44480 | 11.69599 | 0.0847055 | 0.17281521 | 3.1921362 | 20 | 8 18.8 | 18.5 |
| 43230 2000 $AX_{175}$ | 13.9 | X | 276.04434 | 194.95394 | 227.91564 | 11.37641 | 0.1793731 | 0.17860570 | 3.1227640 | 20 | 8 22.5 | 18.3 |
| 43231 2000 $AU_{177}$ | 12.4 | X | 110.03516 | 10.45240 | 227.75461 | 13.36754 | 0.1739436 | 0.17612393 | 3.1520310 | 20 | 10 16.6 | 17.6 |
| 43232 2000 $AH_{178}$ | 14.4 | X | 260.06643 | 148.21427 | 220.69650 | 7.02635 | 0.3433230 | 0.22070291 | 2.7118397 | 20 | 5 13.1 | 18.8 |
| 43233 2000 $AQ_{179}$ | 14.2 | X | 94.34180 | 111.25309 | 244.56936 | 9.58435 | 0.1193083 | 0.19220633 | 2.9736574 | 20 | — | — |
| 43234 2000 $AN_{186}$ | 15.0 | X | 326.30989 | 270.15946 | 106.59564 | 14.33000 | 0.1365461 | 0.23249279 | 2.6193672 | 20 | 10 12.6 | 18.1 |
| 43235 2000 $AX_{197}$ | 13.8 | X | 236.86341 | 80.30150 | 266.47257 | 12.12565 | 0.0828625 | 0.20665873 | 2.8333499 | 20 | 4 13.5 | 18.2 |
| 43236 2000 $AB_{199}$ | 13.7 | X | 111.33719 | 307.79276 | 264.27465 | 11.17827 | 0.0622459 | 0.17023488 | 3.2243117 | 20 | 9 2.5 | 18.7 |
| 43237 2000 $AB_{204}$ | 14.7 | X | 81.44274 | 218.36965 | 174.71086 | 10.52252 | 0.1181795 | 0.19245150 | 2.9711314 | 20 | — | — |
| 43238 2000 $AT_{233}$ | 15.2 | X | 79.59200 | 171.99909 | 183.44537 | 5.03387 | 0.2263827 | 0.24601706 | 2.5224694 | 20 | — | — |
| 43239 2000 $AK_{238}$ | 14.8 | X | 140.43213 | 21.92584 | 238.89740 | 0.97477 | 0.2239185 | 0.18649808 | 3.0340295 | 20 | 12 10.5 | 20.0 |
| 43240 2000 $AP_{240}$ | 13.7 | X | 92.22994 | 36.88663 | 227.64154 | 13.96407 | 0.1371919 | 0.18096905 | 3.0955169 | 20 | 10 29.3 | 18.4 |
| 43241 2000 $AB_{244}$ | 14.6 | X | 163.68736 | 345.89921 | 79.30931 | 5.84733 | 0.1609358 | 0.21723984 | 2.7405837 | 20 | 5 11.5 | 18.9 |
| 43242 2000 $AK_{244}$ | 14.3 | X | 315.12959 | 166.36346 | 220.35875 | 21.27198 | 0.0722462 | 0.22939624 | 2.6428866 | 20 | 9 25.6 | 17.9 |
| 43243 2000 $AB_{253}$ | 14.6 | X | 13.55331 | 210.38079 | 126.41002 | 2.26193 | 0.1614023 | 0.17824558 | 3.1269687 | 20 | 10 24.3 | 18.3 |
| 43244 2000 $AR_{253}$ | 14.3 | X | 39.38373 | 196.73516 | 117.00865 | 2.49417 | 0.1866134 | 0.17752353 | 3.1354420 | 20 | 11 5.5 | 18.5 |
| 43245 2000 $BB_{15}$ | 14.0 | X | 142.06960 | 164.35189 | 40.47311 | 9.01465 | 0.2405975 | 0.21843941 | 2.7305411 | 20 | 10 14.4 | 18.8 |
| 43246 2000 $BB_{18}$ | 14.8 | X | 55.30673 | 314.41025 | 80.73783 | 6.33387 | 0.2210733 | 0.24147995 | 2.5539673 | 20 | — | — |
| 43247 2000 $BV_{25}$ | 14.4 | X | 260.91129 | 6.72358 | 97.52041 | 3.45983 | 0.0658487 | 0.17851135 | 3.1238643 | 20 | 10 17.1 | 18.8 |
| 43248 2000 $BD_{26}$ | 14.1 | X | 336.04392 | 167.96357 | 132.28152 | 10.35946 | 0.1509092 | 0.21216795 | 2.7840873 | 20 | 6 27.2 | 17.2 |
| 43249 2000 $BQ_{29}$ | 13.7 | X | 22.95922 | 300.61579 | 54.95128 | 11.14932 | 0.1758941 | 0.18446915 | 3.0562360 | 20 | 12 2.9 | 17.6 |
| 43250 2000 $CG_{3}$ | 14.6 | X | 50.24990 | 308.39415 | 110.98971 | 12.91831 | 0.1273006 | 0.24555188 | 2.5256541 | 20 | — | — |
| 43251 2000 $CX_{4}$ | 13.5 | X | 306.05718 | 244.24359 | 133.62065 | 11.37876 | 0.1034376 | 0.17512428 | 3.1640145 | 20 | 8 24.6 | 17.5 |
| 43252 2000 $CB_{10}$ | 14.1 | X | 340.48670 | 198.75536 | 134.36710 | 2.01225 | 0.1629948 | 0.17256102 | 3.1952701 | 20 | 8 17.6 | 17.7 |
| 43253 2000 $CY_{18}$ | 15.2 | X | 306.40599 | 320.44504 | 143.48081 | 2.55297 | 0.0054012 | 0.23162772 | 2.6258850 | 20 | 12 31.4 | 18.6 |
| 43254 2000 $CE_{35}$ | 15.1 | X | 88.52045 | 111.87282 | 205.48284 | 2.71499 | 0.0462241 | 0.23096783 | 2.6308841 | 20 | 12 29.8 | 18.7 |
| 43255 2000 $CT_{62}$ | 14.6 | X | 97.03155 | 115.02975 | 199.96199 | 6.45205 | 0.1684925 | 0.27536536 | 2.3398958 | 20 | — | — |
| 43256 2000 $CF_{82}$ | 14.4 | X | 49.96104 | 99.61617 | 14.82232 | 1.85300 | 0.0433565 | 0.19691062 | 2.9261053 | 20 | 2 16.4 | 18.2 |
| 43257 2000 $CO_{87}$ | 15.3 | X | 166.98270 | 260.71855 | 322.49595 | 6.50866 | 0.0703900 | 0.27494468 | 2.3422819 | 20 | 12 9.9 | 18.5 |
| 43258 2000 $CH_{91}$ | 14.3 | X | 257.64847 | 269.34863 | 156.28748 | 5.68519 | 0.0467689 | 0.21704662 | 2.7422099 | 20 | 8 31.3 | 17.8 |
| 43259 Wangzhenyi | 13.3 | X | 246.29116 | 150.28512 | 132.71709 | 10.74831 | 0.1695780 | 0.23759171 | 2.5817560 | 20 | 1 31.1 | 17.5 |
| 43260 2000 $CV_{116}$ | 13.4 | X | 25.92841 | 232.93557 | 109.71059 | 10.48292 | 0.0781265 | 0.17490854 | 3.1666157 | 20 | 11 10.2 | 17.8 |
| 43261 2000 $DF_{3}$ | 14.8 | X | 187.42695 | 133.78452 | 112.31437 | 10.10469 | 0.1834445 | 0.27611257 | 2.3356724 | 20 | — | — |
| 43262 2000 $DL_{4}$ | 13.5 | X | 230.35382 | 114.40562 | 12.47893 | 6.36095 | 0.1087286 | 0.17537953 | 3.1609439 | 20 | 9 30.7 | 18.0 |
| 43263 2000 $DM_{19}$ | 14.8 | X | 197.99929 | 69.34277 | 313.54110 | 1.04758 | 0.0825187 | 0.20625081 | 2.8370845 | 20 | 4 20.6 | 19.2 |
| 43264 2000 $DZ_{52}$ | 15.5 | X | 137.21197 | 183.55265 | 180.96800 | 4.19285 | 0.2570759 | 0.24291598 | 2.5438920 | 20 | 2 7.2 | 19.5 |
| 43265 2000 $DX_{54}$ | 16.8 | X | 277.43008 | 173.68899 | 153.27607 | 2.65704 | 0.0938786 | 0.30303848 | 2.1951837 | 20 | 5 7.8 | 19.3 |
| 43266 2000 $DZ_{83}$ | 14.3 | X | 53.64457 | 251.82075 | 115.57267 | 2.95063 | 0.0818204 | 0.18295536 | 3.0730712 | 20 | — | — |
| 43267 2000 $DL_{84}$ | 14.0 | X | 55.75727 | 207.99406 | 109.42962 | 6.60158 | 0.1599880 | 0.17578597 | 3.1560696 | 20 | 11 26.0 | 18.6 |
| 43268 2000 $DP_{93}$ | 15.5 | X | 212.14851 | 176.39396 | 348.28132 | 5.83547 | 0.0465786 | 0.27397733 | 2.3477921 | 20 | 11 19.8 | 18.5 |
| 43269 2000 $DO_{98}$ | 13.7 | X | 108.31602 | 253.40937 | 122.81267 | 11.56682 | 0.1130363 | 0.19163470 | 2.9795679 | 20 | 1 11.5 | 17.9 |
| 43270 2000 $ED_{9}$ | 14.9 | X | 125.48856 | 142.15849 | 149.69636 | 12.40968 | 0.2547354 | 0.22670062 | 2.6637957 | 20 | — | — |
| 43271 2000 $EQ_{13}$ | 14.2 | X | 323.13477 | 219.75688 | 132.81814 | 6.46932 | 0.0866628 | 0.21631613 | 2.7483800 | 20 | 8 24.3 | 17.4 |
| 43272 2000 $ED_{34}$ | 14.9 | X | 93.95010 | 194.25026 | 94.95820 | 10.84899 | 0.1138920 | 0.27068439 | 2.3667946 | 20 | 12 15.2 | 18.4 |
| 43273 2000 $EL_{41}$ | 15.7 | X | 286.66107 | 102.29013 | 163.20221 | 5.02055 | 0.0617391 | 0.29255279 | 2.2473285 | 20 | 2 27.1 | 18.4 |
| 43274 2000 $ER_{56}$ | 15.0 | X | 96.54303 | 69.23951 | 143.59928 | 2.47126 | 0.1305898 | 0.26066196 | 2.4270811 | 20 | 9 10.4 | 18.3 |
| 43275 2000 $ED_{95}$ | 13.5 | X | 211.72961 | 325.92913 | 336.50781 | 11.84933 | 0.1685623 | 0.23720334 | 2.5845733 | 20 | 1 26.9 | 17.8 |
| 43276 2000 $EE_{95}$ | 14.6 | X | 65.51074 | 106.45193 | 299.06232 | 6.98284 | 0.1406455 | 0.28429919 | 2.2906161 | 20 | — | — |
| 43277 2000 $EZ_{96}$ | 13.4 | X | 169.00769 | 244.55948 | 8.68057 | 13.97736 | 0.1119849 | 0.17464121 | 3.1698465 | 20 | 12 25.7 | 18.6 |
| 43278 2000 $ES_{109}$ | 13.8 | X | 142.90159 | 352.09227 | 325.56714 | 20.28441 | 0.2478350 | 0.23101348 | 2.6305375 | 20 | — | — |
| 43279 2000 $EY_{112}$ | 14.3 | X | 259.00755 | 286.58507 | 36.94511 | 2.93883 | 0.0147335 | 0.19878205 | 2.9077112 | 20 | 4 23.6 | 18.2 |
| 43280 2000 $EY_{131}$ | 16.0 | X | 318.00420 | 312.24179 | 145.13388 | 4.87378 | 0.0693116 | 0.27728054 | 2.3291088 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43281 2000 $EL_{137}$ | 15.1 | X | 227.29066 | 152.33818 | 114.47694 | 8.28268 | 0.1075531 | 0.28373575 | 2.2936475 | 20 | — | — |
| 43282 Dougbock | 15.5 | X | 308.63060 | 61.00247 | 191.81341 | 5.56697 | 0.1236650 | 0.29419708 | 2.2389470 | 20 | 2 28.4 | 18.2 |
| 43283 2000 $EC_{143}$ | 14.3 | X | 310.96969 | 179.02937 | 211.03113 | 13.55241 | 0.2658057 | 0.22299766 | 2.6932035 | 20 | 8 31.7 | 16.9 |
| 43284 2000 $ED_{151}$ | 14.9 | X | 287.97663 | 27.28697 | 162.35865 | 9.06462 | 0.1346234 | 0.28308175 | 2.2971788 | 20 | — | — |
| 43285 2000 $ED_{156}$ | 15.4 | X | 153.53917 | 261.74071 | 259.85214 | 5.56791 | 0.1000606 | 0.26267589 | 2.4146595 | 20 | 8 30.6 | 19.0 |
| 43286 2000 $EA_{158}$ | 13.9 | X | 153.88299 | 76.69118 | 245.14906 | 6.46372 | 0.1542842 | 0.23255360 | 2.6189106 | 20 | — | — |
| 43287 2000 $FJ_{3}$ | 14.0 | X | 245.01600 | 158.55891 | 107.96651 | 14.61913 | 0.1368807 | 0.23855379 | 2.5748099 | 20 | 1 12.1 | 17.8 |
| 43288 2000 $FB_{16}$ | 14.7 | X | 250.27594 | 166.97911 | 92.27071 | 6.24236 | 0.1391946 | 0.28707997 | 2.2758002 | 20 | 1 1.3 | 18.2 |
| 43289 2000 $FE_{44}$ | 14.6 | X | 155.75294 | 133.19439 | 170.37828 | 15.06784 | 0.1922119 | 0.22887678 | 2.6468839 | 20 | — | — |
| 43290 2000 $FV_{48}$ | 13.7 | X | 162.36183 | 264.17755 | 326.28810 | 10.02558 | 0.1518981 | 0.17144088 | 3.2091729 | 20 | 11 19.2 | 19.1 |
| 43291 2000 $FY_{48}$ | 13.6 | X | 170.75275 | 46.52902 | 245.52001 | 8.05341 | 0.0682803 | 0.18054367 | 3.1003772 | 20 | — | — |
| 43292 2000 $FP_{49}$ | 13.8 | X | 86.66503 | 34.15665 | 256.44123 | 7.42910 | 0.1333891 | 0.21710380 | 2.7417284 | 20 | 11 30.1 | 17.9 |
| 43293 Banting | 13.5 | X | 105.77991 | 88.87711 | 235.20258 | 5.98491 | 0.0631146 | 0.17482945 | 3.1675707 | 20 | — | — |
| 43294 2000 $GY_{4}$ | 14.4 | X | 334.02718 | 107.74533 | 103.86589 | 15.97205 | 0.1928227 | 0.24312302 | 2.5424475 | 20 | 2 10.1 | 17.4 |
| 43295 2000 $GZ_{35}$ | 15.6 | X | 231.29342 | 319.73809 | 11.64481 | 6.94624 | 0.1940471 | 0.29142164 | 2.2531400 | 20 | 3 12.5 | 19.0 |
| 43296 2000 $GM_{53}$ | 15.3 | X | 293.03692 | 177.94645 | 209.23882 | 7.00438 | 0.2074257 | 0.26021913 | 2.4298338 | 20 | 8 7.3 | 18.0 |
| 43297 2000 $GB_{64}$ | 16.0 | X | 47.07734 | 200.84465 | 208.90424 | 5.20217 | 0.0913943 | 0.28012563 | 2.3133117 | 20 | — | — |
| 43298 2000 $GL_{67}$ | 14.6 | X | 22.15812 | 100.62980 | 200.41211 | 8.39992 | 0.1430501 | 0.20927256 | 2.8097080 | 20 | 9 22.2 | 17.9 |
| 43299 2000 $GD_{73}$ | 16.0 | X | 308.13087 | 91.64364 | 202.94125 | 1.01509 | 0.1719202 | 0.24630722 | 2.5204879 | 20 | 4 25.1 | 18.8 |
| 43300 2000 $GZ_{87}$ | 15.1 | X | 272.41550 | 54.38504 | 82.89280 | 7.29156 | 0.0599225 | 0.27387489 | 2.3483775 | 20 | — | — |
| 43301 2000 $GL_{108}$ | 15.3 | X | 249.35620 | 339.36731 | 163.20870 | 7.04322 | 0.1385466 | 0.27155355 | 2.3617417 | 20 | 11 29.7 | 18.0 |
| 43302 2000 $GE_{114}$ | 14.7 | X | 21.18897 | 125.77125 | 217.29251 | 5.21318 | 0.1180149 | 0.26561750 | 2.3967989 | 20 | 11 27.9 | 17.4 |
| 43303 2000 $GO_{133}$ | 14.5 | X | 253.36087 | 167.26862 | 192.09933 | 12.01695 | 0.0375344 | 0.20061829 | 2.8899414 | 20 | 5 30.8 | 18.7 |
| 43304 2000 $GZ_{133}$ | 14.3 | X | 199.83712 | 190.44947 | 170.18853 | 13.15416 | 0.1659189 | 0.24050141 | 2.5608903 | 20 | 3 24.7 | 18.4 |
| 43305 2000 $GH_{142}$ | 14.0 | X | 245.13379 | 269.08695 | 81.15517 | 14.21223 | 0.2412965 | 0.24553782 | 2.5257505 | 20 | 4 21.7 | 18.3 |
| 43306 2000 $GW_{157}$ | 14.0 | X | 46.23227 | 49.62295 | 292.27428 | 5.14244 | 0.1448778 | 0.27180648 | 2.3602763 | 20 | — | — |
| 43307 2000 $HU_{21}$ | 15.1 | X | 37.57751 | 119.98933 | 236.02049 | 1.71417 | 0.1876606 | 0.26649009 | 2.3915640 | 20 | — | — |
| 43308 2000 $HY_{26}$ | 15.6 | X | 62.51455 | 311.54762 | 101.49306 | 6.87073 | 0.0836040 | 0.28198038 | 2.3031565 | 20 | — | — |
| 43309 2000 $HH_{34}$ | 16.2 | X | 220.01740 | 115.38408 | 330.67665 | 2.43961 | 0.0461463 | 0.30728488 | 2.1749132 | 20 | 8 18.8 | 18.8 |
| 43310 2000 $HN_{37}$ | 15.4 | X | 192.59683 | 55.79273 | 130.31499 | 12.53448 | 0.1308430 | 0.26696356 | 2.3887355 | 20 | 11 18.2 | 19.1 |
| 43311 2000 $HH_{55}$ | 15.2 | X | 144.09094 | 109.51080 | 220.47119 | 5.83941 | 0.1277102 | 0.27621128 | 2.3351159 | 20 | — | — |
| 43312 2000 $HB_{68}$ | 16.0 | X | 50.59745 | 99.21437 | 149.52849 | 4.85335 | 0.0438642 | 0.30533406 | 2.1841672 | 20 | 8 22.8 | 18.2 |
| 43313 2000 $JW$ | 15.3 | X | 2.86121 | 321.76609 | 70.02180 | 9.89123 | 0.2201630 | 0.26833705 | 2.3805773 | 20 | — | — |
| 43314 2000 $JC_{12}$ | 14.6 | X | 172.47147 | 317.44853 | 48.38094 | 10.40949 | 0.1849799 | 0.23922290 | 2.5700065 | 20 | 3 11.7 | 18.9 |
| 43315 2000 $JB_{18}$ | 15.2 | X | 218.30033 | 11.68882 | 123.10547 | 3.11163 | 0.1420470 | 0.26510472 | 2.3998886 | 20 | 10 7.0 | 18.6 |
| 43316 2000 $JV_{19}$ | 14.9 | X | 207.33261 | 267.92355 | 290.64782 | 5.73502 | 0.0969576 | 0.27227584 | 2.3575630 | 20 | 12 22.9 | 17.9 |
| 43317 2000 $JY_{21}$ | 15.4 | X | 217.47556 | 195.25836 | 318.73293 | 1.98164 | 0.1080897 | 0.26733624 | 2.3865150 | 20 | 11 2.9 | 18.6 |
| 43318 2000 $JO_{37}$ | 14.6 | X | 284.67200 | 36.28029 | 241.88780 | 6.06147 | 0.0997428 | 0.23965020 | 2.5669506 | 20 | 3 10.1 | 18.3 |
| 43319 2000 $JA_{38}$ | 14.7 | X | 131.17811 | 162.45950 | 61.14563 | 15.36728 | 0.1261390 | 0.26145931 | 2.4221441 | 20 | 11 2.3 | 18.4 |
| 43320 2000 $JG_{44}$ | 15.6 | X | 228.06592 | 356.77580 | 60.74051 | 2.14526 | 0.1101109 | 0.25319750 | 2.4745512 | 20 | 7 7.2 | 19.1 |
| 43321 2000 $JR_{52}$ | 14.5 | X | 281.94540 | 354.08615 | 320.58961 | 5.46617 | 0.3117315 | 0.24122489 | 2.5557673 | 20 | 3 26.6 | 18.5 |
| 43322 2000 $JQ_{69}$ | 14.3 | X | 322.06230 | 104.58405 | 91.14549 | 14.98627 | 0.1520085 | 0.24223858 | 2.5486322 | 20 | 1 6.2 | 17.5 |
| 43323 2000 $JY_{72}$ | 15.4 | X | 344.17490 | 41.27274 | 104.96692 | 7.51793 | 0.1087443 | 0.28233140 | 2.3012471 | 20 | — | — |
| 43324 2000 $KQ_{15}$ | 14.0 | X | 348.22236 | 184.75877 | 234.32376 | 13.13501 | 0.1954795 | 0.22008334 | 2.7169268 | 20 | — | — |
| 43325 2000 $KY_{50}$ | 13.9 | X | 196.54626 | 141.11281 | 71.74352 | 9.44126 | 0.2004230 | 0.22041697 | 2.7141845 | 20 | 12 5.9 | 18.3 |
| 43326 2000 $KH_{73}$ | 15.2 | X | 106.35716 | 355.17607 | 269.73494 | 3.17517 | 0.1098258 | 0.30844665 | 2.1694485 | 20 | 12 3.9 | 18.2 |
| 43327 2000 $LH_{3}$ | 14.1 | X | 52.12630 | 161.24082 | 183.31190 | 9.04449 | 0.1576806 | 0.21454530 | 2.7634825 | 20 | 12 30.7 | 18.2 |
| 43328 2000 $OU_{15}$ | 15.3 | X | 107.18878 | 252.07218 | 150.41274 | 6.52197 | 0.2390805 | 0.27249160 | 2.3563184 | 20 | 2 18.6 | 18.3 |
| 43329 2000 $OU_{25}$ | 15.6 | X | 249.51508 | 1.58201 | 355.50466 | 2.95429 | 0.1583680 | 0.28812140 | 2.2703128 | 20 | 5 3.9 | 18.7 |
| 43330 2000 $OQ_{30}$ | 15.2 | X | 285.03491 | 44.10097 | 187.74400 | 6.76899 | 0.1445778 | 0.27907736 | 2.3191009 | 20 | 1 2.2 | 18.5 |
| 43331 2000 $PS_{6}$ | 15.3 | X | 30.78496 | 341.76386 | 155.69308 | 24.53028 | 0.0759749 | 0.37097260 | 1.9182630 | 20 | 1 14.9 | 17.3 |
| 43332 2000 $QG_{6}$ | 14.8 | X | 81.17690 | 347.80299 | 328.95934 | 12.80719 | 0.2092864 | 0.25861816 | 2.4398514 | 20 | — | — |
| 43333 2000 $QY_{64}$ | 14.6 | X | 279.36036 | 242.86901 | 72.13645 | 6.89279 | 0.2292073 | 0.28551296 | 2.2841195 | 20 | 4 6.5 | 17.8 |
| 43334 2000 $QM_{117}$ | 15.5 | X | 127.31365 | 265.53447 | 145.81560 | 17.82190 | 0.0723339 | 0.37168600 | 1.9158077 | 20 | 2 18.5 | 17.2 |
| 43335 2000 $QX_{127}$ | 14.8 | X | 105.05353 | 268.56549 | 66.49481 | 2.30807 | 0.2008537 | 0.26072106 | 2.4267142 | 20 | — | — |
| 43336 2000 $QT_{148}$ | 14.7 | X | 234.43534 | 225.25034 | 234.77999 | 10.62036 | 0.1363382 | 0.23720574 | 2.5845559 | 20 | 8 31.3 | 18.6 |
| 43337 2000 $RG_{9}$ | 14.9 | X | 236.48018 | 35.92128 | 68.21499 | 8.54960 | 0.1576499 | 0.28880990 | 2.2667032 | 20 | 9 22.5 | 17.9 |
| 43338 2000 $RA_{10}$ | 14.5 | X | 204.67426 | 345.14990 | 156.69891 | 4.24843 | 0.2025824 | 0.23758695 | 2.5817904 | 20 | 9 21.4 | 18.5 |
| 43339 2000 $RM_{10}$ | 15.0 | X | 357.06153 | 202.69338 | 226.96798 | 4.25410 | 0.1421438 | 0.30160999 | 2.2021094 | 20 | — | — |
| 43340 2000 $RX_{46}$ | 14.3 | X | 176.71148 | 19.78136 | 256.88079 | 5.46043 | 0.1064363 | 0.21249317 | 2.7812460 | 20 | — | — |
| 43341 2000 $RK_{62}$ | 13.2 | X | 48.16252 | 220.42906 | 68.85069 | 15.94870 | 0.0983078 | 0.23956861 | 2.5675334 | 20 | 10 21.9 | 16.8 |
| 43342 2000 $RO_{67}$ | 12.7 | X | 165.94078 | 43.23211 | 55.23679 | 22.42471 | 0.0448761 | 0.17830057 | 3.1263258 | 20 | 6 16.9 | 17.5 |
| 43343 2000 $RY_{81}$ | 13.3 | X | 186.38926 | 105.94338 | 299.01494 | 15.10536 | 0.2395466 | 0.18043897 | 3.1015764 | 20 | 5 1.6 | 19.0 |
| 43344 2000 $RR_{85}$ | 15.3 | X | 295.42616 | 213.14275 | 314.03303 | 5.72840 | 0.0732183 | 0.26626632 | 2.3929037 | 20 | — | — |
| 43345 2000 $RB_{88}$ | 14.4 | X | 244.45595 | 49.29843 | 265.15587 | 13.68821 | 0.1708481 | 0.23069937 | 2.6329247 | 20 | 2 29.8 | 19.0 |
| 43346 2000 $RT_{103}$ | 14.3 | X | 197.27534 | 351.28048 | 277.08269 | 8.51144 | 0.1908344 | 0.26647888 | 2.3916311 | 20 | — | — |
| 43347 2000 $SM_{52}$ | 14.1 | X | 301.31815 | 24.67561 | 306.13591 | 11.00911 | 0.2003666 | 0.23698758 | 2.5861418 | 20 | 5 30.3 | 17.4 |
| 43348 2000 $SK_{108}$ | 15.9 | X | 210.35797 | 70.35039 | 195.93154 | 1.80984 | 0.1863509 | 0.26778333 | 2.3838578 | 20 | — | — |
| 43349 2000 $SK_{160}$ | 15.1 | X | 242.95989 | 47.92362 | 305.78999 | 5.98656 | 0.2567349 | 0.27719971 | 2.3295616 | 20 | 4 12.3 | 19.0 |
| 43350 2000 $SG_{161}$ | 15.3 | X | 256.91093 | 338.62152 | 75.12831 | 6.12533 | 0.1718663 | 0.28375294 | 2.2935549 | 20 | 8 2.4 | 18.1 |
| 43351 2000 $SX_{169}$ | 15.4 | X | 324.65142 | 101.87208 | 7.60748 | 4.99415 | 0.0926157 | 0.30605919 | 2.1807159 | 20 | — | — |
| 43352 2000 $SH_{265}$ | 15.8 | X | 359.70871 | 20.62325 | 76.75526 | 3.53428 | 0.1453583 | 0.25992519 | 2.4316654 | 20 | — | — |
| 43353 2000 $SJ_{275}$ | 14.5 | X | 284.10534 | 116.67904 | 54.81951 | 13.64214 | 0.1418616 | 0.25725410 | 2.4484685 | 20 | — | — |
| 43354 2000 $SZ_{278}$ | 12.2 | X | 244.59227 | 287.00412 | 59.47735 | 22.60733 | 0.0998173 | 0.17654214 | 3.1470511 | 20 | 5 1.2 | 17.0 |
| 43355 2000 $SY_{293}$ | 14.7 | X | 126.97498 | 300.61010 | 231.77699 | 24.12574 | 0.1808986 | 0.28442141 | 2.2899598 | 20 | 8 14.6 | 18.9 |
| 43356 2000 $TJ_{29}$ | 14.2 | X | 191.47867 | 256.43589 | 240.91748 | 22.35699 | 0.3070752 | 0.23650501 | 2.5896584 | 20 | 8 19.1 | 19.4 |
| 43357 2000 $UM_{19}$ | 15.6 | X | 275.90401 | 38.55697 | 212.00435 | 20.67176 | 0.0540098 | 0.36935840 | 1.9238479 | 20 | 1 6.7 | 18.3 |
| 43358 2000 $UQ_{32}$ | 14.8 | X | 54.24396 | 221.35359 | 93.18108 | 3.30378 | 0.0662486 | 0.19658392 | 2.9293464 | 20 | 11 11.7 | 18.8 |
| 43359 2000 $UF_{41}$ | 15.3 | X | 320.65915 | 152.41731 | 340.18449 | 1.84858 | 0.0863251 | 0.30730128 | 2.1748358 | 20 | — | — |
| 43360 2000 $UU_{49}$ | 14.9 | X | 93.01329 | 28.55647 | 215.10417 | 5.34520 | 0.1266745 | 0.29152754 | 2.2525944 | 20 | 10 20.5 | 17.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43361 2000 $UA_{50}$ | 15.3 | X | 156.47359 | 321.34314 | 223.12494 | 3.98263 | 0.1027976 | 0.29039788 | 2.2584323 | 20 | 10 8.7 | 18.3 |
| 43362 2000 $VK_{2}$ | 14.9 | X | 66.76839 | 342.19245 | 67.08687 | 3.80177 | 0.1620593 | 0.30683480 | 2.1770395 | 20 | — | — |
| 43363 2000 $VG_{35}$ | 14.8 | X | 87.97239 | 44.89272 | 78.21192 | 10.17327 | 0.1409243 | 0.26976206 | 2.3721863 | 20 | 5 2.2 | 17.7 |
| 43364 2000 $VZ_{35}$ | 15.6 | X | 336.59465 | 227.99490 | 186.92711 | 4.49377 | 0.1694825 | 0.29668931 | 2.2263910 | 20 | — | — |
| 43365 2000 $VA_{36}$ | 15.3 | X | 304.50718 | 318.16258 | 119.02589 | 6.70326 | 0.1166123 | 0.29425870 | 2.2386344 | 20 | 12 11.9 | 17.2 |
| 43366 2000 $VZ_{37}$ | 15.2 | X | 24.18491 | 34.81430 | 75.35114 | 4.18324 | 0.1349778 | 0.25813111 | 2.4429195 | 20 | — | — |
| 43367 2000 $VL_{47}$ | 14.2 | X | 31.27608 | 248.98950 | 46.55324 | 15.57427 | 0.1147659 | 0.23981976 | 2.5657406 | 20 | 10 8.5 | 17.5 |
| 43368 2000 $VZ_{62}$ | 14.5 | X | 239.54846 | 347.64831 | 3.20368 | 26.18309 | 0.1920369 | 0.28501714 | 2.2867678 | 20 | 4 6.3 | 18.2 |
| 43369 2000 $WP_{3}$ | 15.3 | X | 155.22403 | 245.64135 | 141.46842 | 27.76901 | 0.1490960 | 0.36999865 | 1.9216279 | 20 | 3 5.5 | 17.8 |
| 43370 2000 $WD_{5}$ | 15.0 | X | 173.94665 | 227.05346 | 307.83690 | 7.01981 | 0.1239957 | 0.24094346 | 2.5577571 | 20 | 10 4.3 | 19.1 |
| 43371 2000 $WJ_{8}$ | 15.6 | X | 64.04510 | 14.58698 | 10.47062 | 4.30497 | 0.1810590 | 0.30708028 | 2.1758791 | 20 | — | — |
| 43372 2000 $WO_{15}$ | 14.0 | X | 321.28352 | 192.53538 | 92.84545 | 24.59486 | 0.1932101 | 0.27304691 | 2.3531225 | 20 | 5 11.6 | 16.8 |
| 43373 2000 $WC_{17}$ | 15.0 | X | 122.80799 | 53.79350 | 254.32404 | 4.11842 | 0.1086760 | 0.25439787 | 2.4667610 | 20 | — | — |
| 43374 2000 $WT_{33}$ | 15.5 | X | 280.12605 | 292.14571 | 136.13917 | 5.96844 | 0.0746100 | 0.29179908 | 2.2511967 | 20 | 10 19.1 | 17.8 |
| 43375 2000 $WE_{36}$ | 15.1 | X | 298.96768 | 328.49256 | 101.30249 | 8.99989 | 0.1579807 | 0.29425266 | 2.2386651 | 20 | 11 19.6 | 16.8 |
| 43376 2000 $WV_{36}$ | 15.2 | X | 349.09125 | 350.75954 | 168.24419 | 5.17496 | 0.1352084 | 0.26016137 | 2.4301934 | 20 | — | — |
| 43377 2000 $WF_{41}$ | 15.3 | X | 71.72913 | 206.10457 | 224.37821 | 8.68925 | 0.1396024 | 0.26088302 | 2.4257098 | 20 | 1 17.2 | 18.0 |
| 43378 2000 $WM_{43}$ | 15.2 | X | 131.90528 | 5.51969 | 211.39378 | 5.84240 | 0.1396038 | 0.29135606 | 2.2534781 | 20 | 10 26.6 | 18.6 |
| 43379 2000 $WN_{43}$ | 15.3 | X | 97.08924 | 2.48798 | 154.79401 | 4.30143 | 0.1356671 | 0.27694706 | 2.3309782 | 20 | 6 27.7 | 18.4 |
| 43380 2000 $WJ_{44}$ | 15.8 | X | 90.41136 | 330.94322 | 159.70838 | 3.84265 | 0.0341687 | 0.27287493 | 2.3541111 | 20 | 4 26.7 | 18.6 |
| 43381 2000 $WQ_{47}$ | 15.8 | X | 116.84529 | 43.34604 | 151.68459 | 3.71992 | 0.1138996 | 0.28491067 | 2.2873374 | 20 | 9 10.5 | 18.9 |
| 43382 2000 $WJ_{49}$ | 13.3 | X | 145.33273 | 96.71608 | 119.65631 | 10.73772 | 0.2403367 | 0.18249437 | 3.0782442 | 20 | 10 29.0 | 18.8 |
| 43383 2000 $WQ_{52}$ | 15.5 | X | 211.54122 | 281.02719 | 242.58598 | 5.57171 | 0.1840899 | 0.24291681 | 2.5438862 | 20 | 10 25.8 | 19.4 |
| 43384 2000 $WP_{54}$ | 14.8 | X | 283.00219 | 109.15851 | 296.33849 | 6.39174 | 0.1195221 | 0.28579572 | 2.2826127 | 20 | 9 5.0 | 17.3 |
| 43385 2000 $WQ_{54}$ | 15.2 | X | 224.82138 | 330.53272 | 88.95183 | 7.36584 | 0.0855245 | 0.27868916 | 2.3212540 | 20 | 7 10.1 | 18.1 |
| 43386 2000 $WJ_{57}$ | 15.6 | X | 73.46038 | 305.50620 | 162.61496 | 2.46382 | 0.1716728 | 0.26673783 | 2.3900829 | 20 | 3 21.6 | 18.1 |
| 43387 2000 $WF_{58}$ | 15.3 | X | 192.84403 | 219.91857 | 245.68347 | 4.16662 | 0.1555305 | 0.28245590 | 2.3005709 | 20 | 7 29.7 | 18.9 |
| 43388 2000 $WA_{61}$ | 15.2 | X | 100.98100 | 87.48026 | 105.08352 | 7.26783 | 0.0480400 | 0.28141509 | 2.3062398 | 20 | 8 12.4 | 18.0 |
| 43389 2000 $WP_{61}$ | 15.3 | X | 222.71504 | 332.15361 | 92.92602 | 7.96072 | 0.1025811 | 0.27989683 | 2.3145722 | 20 | 7 13.5 | 18.3 |
| 43390 2000 $WF_{62}$ | 12.6 | X | 229.26143 | 152.16851 | 101.89167 | 20.32269 | 0.0820466 | 0.15851962 | 3.3812766 | 20 | — | — |
| 43391 2000 $WT_{62}$ | 14.1 | X | 6.47094 | 314.69614 | 117.92098 | 14.93130 | 0.1787070 | 0.25554766 | 2.4593562 | 20 | — | — |
| 43392 2000 $WF_{86}$ | 15.5 | X | 97.24235 | 24.43898 | 32.70437 | 2.06591 | 0.1357413 | 0.26358810 | 2.4090853 | 20 | 2 10.8 | 18.4 |
| 43393 2000 $WL_{86}$ | 15.5 | X | 13.16618 | 41.94465 | 296.08062 | 3.87915 | 0.0487978 | 0.29047489 | 2.2580332 | 20 | 11 2.2 | 18.1 |
| 43394 2000 $WM_{87}$ | 14.6 | X | 142.68709 | 28.47640 | 79.33699 | 12.10871 | 0.1450824 | 0.22315406 | 2.6919450 | 20 | 6 12.1 | 18.7 |
| 43395 2000 $WE_{88}$ | 14.6 | X | 226.09211 | 319.39559 | 90.01193 | 16.19427 | 0.1168490 | 0.22704547 | 2.6610977 | 20 | 6 22.2 | 18.4 |
| 43396 2000 $WN_{89}$ | 16.0 | X | 109.22950 | 91.71193 | 38.34306 | 0.56747 | 0.1160923 | 0.27524110 | 2.3405999 | 20 | 6 1.9 | 18.9 |
| 43397 2000 $WQ_{91}$ | 15.6 | X | 307.26288 | 321.22196 | 204.02950 | 0.33683 | 0.1619061 | 0.25582552 | 2.4575752 | 20 | — | — |
| 43398 2000 $WS_{93}$ | 14.9 | X | 335.85836 | 50.52443 | 60.91356 | 8.18221 | 0.1581344 | 0.25329239 | 2.4739331 | 20 | — | — |
| 43399 2000 $WO_{95}$ | 14.9 | X | 267.05622 | 203.19639 | 278.42421 | 4.13341 | 0.2012934 | 0.24424867 | 2.5346300 | 20 | 11 8.1 | 17.6 |
| 43400 2000 $WE_{97}$ | 15.5 | X | 202.27584 | 7.47341 | 84.80957 | 4.95240 | 0.0618530 | 0.28243096 | 2.3007063 | 20 | 7 31.5 | 18.4 |
| 43401 2000 $WE_{116}$ | 15.5 | X | 4.67910 | 105.57440 | 25.79102 | 2.70853 | 0.0780606 | 0.25960483 | 2.4336654 | 20 | — | — |
| 43402 2000 $WO_{117}$ | 15.3 | X | 54.38578 | 189.84356 | 292.31502 | 5.66431 | 0.0638944 | 0.26484718 | 2.4014441 | 20 | 2 21.9 | 17.9 |
| 43403 2000 $WY_{122}$ | 15.1 | X | 66.26875 | 359.06484 | 72.45088 | 9.11758 | 0.2017019 | 0.26083846 | 2.4259860 | 20 | 1 20.9 | 17.3 |
| 43404 2000 $WT_{126}$ | 15.4 | X | 295.42356 | 267.81176 | 246.90274 | 6.21385 | 0.1268511 | 0.25276033 | 2.4774036 | 20 | — | — |
| 43405 2000 $WX_{129}$ | 15.3 | X | 301.70416 | 201.94165 | 31.81772 | 12.95400 | 0.0627084 | 0.26383917 | 2.4075568 | 20 | 2 14.6 | 18.6 |
| 43406 2000 $WR_{135}$ | 14.0 | X | 309.69719 | 45.58801 | 49.65269 | 12.81270 | 0.1351463 | 0.24554691 | 2.5256882 | 20 | 12 28.9 | 16.7 |
| 43407 2000 $WX_{135}$ | 15.3 | X | 76.37181 | 21.23175 | 153.93954 | 6.06113 | 0.1033751 | 0.27884714 | 2.3203772 | 20 | 6 20.4 | 18.1 |
| 43408 2000 $WW_{137}$ | 15.4 | X | 123.19741 | 98.76069 | 331.99683 | 2.41425 | 0.1273538 | 0.26703161 | 2.3883296 | 20 | 3 30.7 | 18.7 |
| 43409 2000 $WY_{147}$ | 14.9 | X | 245.07549 | 173.80628 | 92.45556 | 7.67492 | 0.0901580 | 0.26135773 | 2.4227717 | 20 | 1 11.4 | 18.5 |
| 43410 2000 $WB_{148}$ | 15.5 | X | 231.15328 | 80.08787 | 93.81045 | 2.71217 | 0.0749268 | 0.24525326 | 2.5277039 | 20 | 12 17.5 | 18.5 |
| 43411 2000 $WN_{153}$ | 14.6 | X | 342.94819 | 327.70927 | 84.49168 | 16.04155 | 0.0850122 | 0.24343859 | 2.5402498 | 20 | 12 22.4 | 17.5 |
| 43412 2000 $WH_{158}$ | 15.5 | X | 135.43117 | 27.81124 | 33.77944 | 7.24328 | 0.0904159 | 0.26802948 | 2.3823981 | 20 | 3 31.3 | 18.8 |
| 43413 2000 $WJ_{158}$ | 15.9 | X | 177.41968 | 340.27298 | 17.74472 | 6.13163 | 0.1466122 | 0.31715131 | 2.1295690 | 20 | 2 23.9 | 18.9 |
| 43414 2000 $WS_{168}$ | 15.4 | X | 319.92912 | 234.79135 | 155.74526 | 4.09028 | 0.1659536 | 0.28993372 | 2.2608421 | 20 | 10 31.1 | 16.9 |
| 43415 2000 $WW_{168}$ | 15.0 | X | 150.80102 | 269.65665 | 278.88071 | 4.93651 | 0.0729772 | 0.28345713 | 2.2951503 | 20 | 10 5.6 | 18.3 |
| 43416 2000 $WA_{169}$ | 14.2 | X | 168.06059 | 95.62523 | 129.62463 | 13.96087 | 0.1179588 | 0.23869570 | 2.5737892 | 20 | 12 6.0 | 18.4 |
| 43417 2000 $WE_{169}$ | 15.3 | X | 238.19617 | 146.89783 | 246.56091 | 6.04224 | 0.1784898 | 0.27814252 | 2.3242944 | 20 | 6 8.9 | 18.7 |
| 43418 2000 $XP_{7}$ | 15.0 | X | 100.97877 | 118.27673 | 325.76260 | 8.31460 | 0.0500330 | 0.26724742 | 2.3870437 | 20 | 3 6.8 | 17.9 |
| 43419 2000 $XK_{11}$ | 14.2 | X | 182.55232 | 60.11661 | 72.81760 | 22.70011 | 0.0782742 | 0.23043956 | 2.6349034 | 20 | 9 6.3 | 18.6 |
| 43420 2000 $XR_{22}$ | 15.2 | X | 166.26398 | 146.45428 | 12.25502 | 6.93897 | 0.0861622 | 0.23624132 | 2.5915851 | 20 | 9 11.8 | 19.0 |
| 43421 2000 $XN_{27}$ | 14.1 | X | 121.47745 | 260.32591 | 288.89444 | 22.64859 | 0.2518521 | 0.28064582 | 2.3104523 | 20 | 8 31.9 | 18.5 |
| 43422 2000 $XA_{30}$ | 15.6 | X | 182.52949 | 30.87910 | 40.54922 | 7.57122 | 0.0777869 | 0.27591711 | 2.3367753 | 20 | 6 4.3 | 18.9 |
| 43423 2000 $XQ_{41}$ | 14.2 | X | 109.84024 | 96.05192 | 0.75554 | 21.62793 | 0.0628737 | 0.22035674 | 2.7146790 | 20 | 4 6.9 | 18.1 |
| 43424 2000 $YF_{5}$ | 15.3 | X | 74.94346 | 109.82289 | 91.26790 | 23.45109 | 0.1743701 | 0.27610267 | 2.3357282 | 20 | 8 10.1 | 18.8 |
| 43425 2000 $YC_{6}$ | 15.6 | X | 132.26620 | 336.38027 | 218.58515 | 6.47261 | 0.0568988 | 0.28716135 | 2.2753701 | 20 | 9 23.2 | 18.7 |
| 43426 2000 $YD_{6}$ | 14.6 | X | 234.20732 | 139.99297 | 298.47228 | 7.15995 | 0.1179275 | 0.28557466 | 2.2837905 | 20 | 8 12.7 | 17.5 |
| 43427 2000 $YS_{12}$ | 13.8 | X | 50.72556 | 275.54693 | 273.13074 | 11.26342 | 0.2738235 | 0.21769682 | 2.7367471 | 20 | 6 27.4 | 17.0 |
| 43428 2000 $YT_{17}$ | 14.8 | X | 12.75539 | 41.14198 | 264.28579 | 3.91299 | 0.1353946 | 0.28577101 | 2.2827443 | 20 | 9 25.7 | 17.1 |
| 43429 2000 $YU_{19}$ | 14.0 | X | 116.58245 | 47.75682 | 120.71219 | 26.93151 | 0.2130905 | 0.22851039 | 2.6497125 | 20 | 8 9.1 | 18.4 |
| 43430 2000 $YA_{23}$ | 14.5 | X | 322.63248 | 122.54099 | 105.36589 | 14.89043 | 0.0833832 | 0.21399209 | 2.7682432 | 20 | 3 9.7 | 18.3 |
| 43431 2000 $YZ_{32}$ | 15.1 | X | 63.26167 | 48.59752 | 309.01923 | 7.39500 | 0.2000326 | 0.29953227 | 2.2122811 | 20 | — | — |
| 43432 2000 $YL_{35}$ | 15.4 | X | 251.86565 | 41.11445 | 74.89623 | 5.37084 | 0.0511904 | 0.29237284 | 2.2482505 | 20 | 11 14.5 | 17.9 |
| 43433 2000 $YW_{35}$ | 15.3 | X | 188.38785 | 320.22394 | 191.49079 | 2.81796 | 0.1271082 | 0.23560941 | 2.5962168 | 20 | 9 22.2 | 19.2 |
| 43434 2000 $YX_{35}$ | 15.1 | X | 77.73991 | 348.84108 | 115.65528 | 2.79351 | 0.1082810 | 0.26607053 | 2.3940775 | 20 | 3 14.0 | 17.6 |
| 43435 2000 $YV_{36}$ | 14.8 | X | 342.33830 | 183.98951 | 224.47860 | 2.32524 | 0.1629255 | 0.24606142 | 2.5221662 | 20 | 12 26.2 | 17.4 |
| 43436 2000 $YD_{42}$ | 12.1 | X | 84.91823 | 131.00100 | 124.91402 | 8.35807 | 0.0041719 | 0.08419544 | 5.1555736 | 20 | 9 15.3 | 19.0 |
| 43437 2000 $YL_{47}$ | 15.0 | X | 193.06215 | 47.65441 | 132.50727 | 5.99954 | 0.0756541 | 0.23921011 | 2.5700981 | 20 | 11 9.7 | 18.7 |
| 43438 2000 $YP_{49}$ | 14.7 | X | 216.21008 | 331.10044 | 105.81088 | 11.82262 | 0.0689439 | 0.22988758 | 2.6391194 | 20 | 7 22.6 | 18.3 |
| 43439 2000 $YX_{54}$ | 15.1 | X | 254.20267 | 4.87943 | 101.77237 | 3.07191 | 0.1107000 | 0.23862485 | 2.5742987 | 20 | 10 15.6 | 18.4 |
| 43440 2000 $YT_{60}$ | 15.6 | X | 277.73607 | 182.68889 | 120.35945 | 3.75808 | 0.0898253 | 0.26937126 | 2.3744802 | 20 | 4 7.4 | 18.6 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43441 2000 $YS_{61}$ | 15.0 | X | 115.36552 | 323.98834 | 124.55579 | 5.82869 | 0.1068188 | 0.21666177 | 2.7454562 | 20 | 4 17.9 | 19.0 |
| 43442 2000 $YX_{62}$ | 15.5 | X | 222.56380 | 79.44888 | 124.73506 | 5.04850 | 0.1845005 | 0.24377720 | 2.5378970 | 20 | 12 28.9 | 18.8 |
| 43443 2000 $YY_{62}$ | 15.4 | X | 349.11561 | 275.98175 | 114.46854 | 6.53283 | 0.0840264 | 0.29252291 | 2.2474815 | 20 | 12 18.0 | 17.6 |
| 43444 2000 $YC_{72}$ | 15.5 | X | 83.16024 | 47.17558 | 227.12419 | 5.11186 | 0.0887009 | 0.29212857 | 2.2495036 | 20 | 11 16.1 | 18.5 |
| 43445 2000 $YM_{74}$ | 15.4 | X | 338.35284 | 140.57021 | 82.66729 | 8.56534 | 0.0653454 | 0.26933245 | 2.3747083 | 20 | 3 21.7 | 18.3 |
| 43446 2000 $YB_{75}$ | 15.2 | X | 116.94601 | 217.38288 | 256.55280 | 6.03297 | 0.0566610 | 0.27368781 | 2.3494475 | 20 | 5 11.3 | 18.1 |
| 43447 2000 $YF_{76}$ | 15.0 | X | 145.42042 | 280.15080 | 234.95717 | 4.91128 | 0.0624425 | 0.28212431 | 2.3023732 | 20 | 8 14.2 | 18.2 |
| 43448 2000 $YM_{79}$ | 15.5 | X | 62.79072 | 187.28021 | 293.48990 | 1.47186 | 0.1318825 | 0.26570706 | 2.3962603 | 20 | 3 14.2 | 17.8 |
| 43449 2000 $YC_{83}$ | 15.6 | X | 347.45617 | 110.49411 | 109.28222 | 2.66450 | 0.1488792 | 0.26832412 | 2.3806538 | 20 | 3 18.1 | 17.8 |
| 43450 2000 $YX_{91}$ | 15.7 | X | 291.70794 | 195.41367 | 70.80122 | 1.81459 | 0.0680594 | 0.26614146 | 2.3936521 | 20 | 3 9.3 | 18.7 |
| 43451 2000 $YH_{96}$ | 16.0 | X | 227.18009 | 126.62142 | 260.97661 | 3.77844 | 0.0614283 | 0.27470777 | 2.3436284 | 20 | 5 31.1 | 18.8 |
| 43452 2000 $YE_{99}$ | 15.4 | X | 122.31968 | 333.10356 | 269.33639 | 3.72115 | 0.0727120 | 0.23718764 | 2.5846873 | 20 | 11 6.8 | 19.3 |
| 43453 2000 $YT_{100}$ | 14.4 | X | 98.46260 | 327.89294 | 198.15345 | 17.02672 | 0.1115575 | 0.17107520 | 3.2137445 | 20 | 7 1.9 | 19.4 |
| 43454 2000 $YD_{102}$ | 15.3 | X | 258.69276 | 130.60378 | 225.16341 | 6.44351 | 0.1359168 | 0.27564099 | 2.3383356 | 20 | 5 17.4 | 18.4 |
| 43455 2000 $YG_{103}$ | 15.1 | X | 188.01744 | 191.78677 | 223.52822 | 6.30180 | 0.0973255 | 0.27256518 | 2.3558943 | 20 | 5 20.8 | 18.6 |
| 43456 2000 $YG_{117}$ | 15.2 | X | 257.16485 | 303.81797 | 96.87340 | 6.93773 | 0.1669364 | 0.28025778 | 2.3125844 | 20 | 7 13.8 | 18.0 |
| 43457 2000 $YF_{118}$ | 15.2 | X | 301.10637 | 234.44622 | 108.86669 | 7.72129 | 0.1510046 | 0.27760910 | 2.3272708 | 20 | 6 28.9 | 17.6 |
| 43458 2000 $YF_{119}$ | 15.4 | X | 241.87740 | 85.33955 | 329.29707 | 3.83660 | 0.0639974 | 0.28330433 | 2.2959754 | 20 | 7 29.8 | 18.3 |
| 43459 2000 $YB_{122}$ | 15.0 | X | 350.09423 | 296.57865 | 21.92811 | 2.21096 | 0.0249420 | 0.18424815 | 3.0586794 | 20 | 8 16.5 | 19.1 |
| 43460 2000 $YM_{123}$ | 13.2 | X | 53.60914 | 163.37039 | 107.91767 | 10.52502 | 0.0609649 | 0.17510974 | 3.1641897 | 20 | 9 17.2 | 17.7 |
| 43461 2000 $YL_{128}$ | 14.7 | X | 48.19540 | 1.01886 | 84.03065 | 7.06135 | 0.0222267 | 0.20514097 | 2.8473080 | 20 | 1 5.2 | 18.4 |
| 43462 2001 $AV$ | 15.4 | X | 320.00599 | 223.23884 | 322.52463 | 7.63703 | 0.1315644 | 0.25518232 | 2.4617031 | 20 | — | — |
| 43463 2001 $AN_{5}$ | 15.4 | X | 81.98011 | 303.45453 | 278.58787 | 6.01404 | 0.0717771 | 0.27892861 | 2.3199253 | 20 | 8 27.3 | 18.5 |
| 43464 2001 $AA_{9}$ | 15.3 | X | 325.16025 | 89.85915 | 249.54580 | 5.83147 | 0.1420030 | 0.28292075 | 2.2980502 | 20 | 8 10.4 | 17.2 |
| 43465 2001 $AV_{10}$ | 15.3 | X | 172.71925 | 331.03597 | 179.46528 | 3.33000 | 0.0391959 | 0.23216484 | 2.6218334 | 20 | 9 7.2 | 19.0 |
| 43466 2001 $AV_{14}$ | 15.1 | X | 243.49919 | 261.03554 | 180.54126 | 3.50331 | 0.1689738 | 0.23382696 | 2.6093940 | 20 | 8 17.1 | 18.9 |
| 43467 2001 $AD_{15}$ | 15.5 | X | 10.97016 | 223.56140 | 160.45973 | 4.19208 | 0.1656331 | 0.29538457 | 2.2329424 | 20 | — | — |
| 43468 2001 $AU_{28}$ | 15.1 | X | 160.39652 | 322.03947 | 49.29598 | 7.17021 | 0.1025119 | 0.26781716 | 2.3836571 | 20 | 2 26.3 | 18.5 |
| 43469 2001 $AP_{29}$ | 13.5 | X | 332.28578 | 255.49990 | 70.86837 | 13.74761 | 0.2150025 | 0.23491971 | 2.6012958 | 20 | 7 30.2 | 15.9 |
| 43470 2001 $AN_{31}$ | 15.5 | X | 331.08693 | 153.34897 | 72.05246 | 7.47792 | 0.0519519 | 0.26694685 | 2.3888351 | 20 | 3 14.9 | 18.4 |
| 43471 2001 $AH_{32}$ | 14.9 | X | 357.92860 | 243.69698 | 313.67960 | 7.97626 | 0.0936407 | 0.21476846 | 2.7615678 | 20 | 3 12.1 | 18.2 |
| 43472 2001 $AH_{33}$ | 13.6 | X | 82.04346 | 238.63914 | 321.58301 | 7.73605 | 0.2091855 | 0.17456311 | 3.1707918 | 20 | 8 10.2 | 18.2 |
| 43473 2001 $AY_{33}$ | 15.5 | X | 294.96056 | 232.30572 | 69.33184 | 7.41197 | 0.1156125 | 0.27192902 | 2.3595671 | 20 | 4 25.6 | 18.3 |
| 43474 2001 $AE_{40}$ | 15.8 | X | 49.06685 | 239.66828 | 77.58027 | 6.36927 | 0.1523422 | 0.29036970 | 2.2585785 | 20 | 12 10.1 | 18.6 |
| 43475 2001 $AY_{40}$ | 15.0 | X | 72.81549 | 239.43281 | 236.60894 | 6.01892 | 0.1784372 | 0.21406351 | 2.7676274 | 20 | 4 4.5 | 18.4 |
| 43476 2001 $AD_{42}$ | 15.9 | X | 158.89869 | 175.40781 | 108.76268 | 8.36272 | 0.1690070 | 0.29791548 | 2.2202779 | 20 | — | — |
| 43477 2001 $BX_{7}$ | 14.8 | X | 19.66042 | 215.97005 | 101.96464 | 15.97940 | 0.1314573 | 0.23499723 | 2.6007237 | 20 | 10 25.2 | 18.3 |
| 43478 2001 $BH_{9}$ | 14.9 | X | 38.63204 | 85.78645 | 70.21433 | 2.28945 | 0.1243408 | 0.26272408 | 2.4143643 | 20 | 3 24.1 | 17.1 |
| 43479 2001 $BG_{15}$ | 15.7 | X | 281.87288 | 249.02578 | 138.86317 | 7.79853 | 0.1927653 | 0.28142811 | 2.3061687 | 20 | 7 26.7 | 18.2 |
| 43480 2001 $BO_{15}$ | 14.4 | X | 85.95644 | 41.60585 | 136.94679 | 1.94297 | 0.1044576 | 0.16928425 | 3.2363713 | 20 | 7 3.7 | 18.9 |
| 43481 2001 $BC_{17}$ | 14.3 | X | 299.04938 | 222.99667 | 82.47943 | 8.61717 | 0.2121003 | 0.21713658 | 2.7414525 | 20 | 4 25.1 | 17.9 |
| 43482 2001 $BW_{32}$ | 15.1 | X | 223.52239 | 244.32028 | 157.31283 | 5.51612 | 0.2372534 | 0.27608195 | 2.3358451 | 20 | 6 1.3 | 18.9 |
| 43483 2001 $BO_{38}$ | 14.4 | X | 73.15962 | 189.87784 | 136.33284 | 11.26228 | 0.1230351 | 0.19066116 | 2.9897020 | 20 | 12 23.0 | 19.0 |
| 43484 2001 $BF_{43}$ | 15.1 | X | 63.51262 | 240.72369 | 270.56737 | 9.36780 | 0.1002421 | 0.26529100 | 2.3987650 | 20 | 4 21.6 | 17.9 |
| 43485 2001 $BN_{43}$ | 14.5 | X | 99.28795 | 74.85157 | 154.83447 | 21.76213 | 0.2217632 | 0.17692044 | 3.1425634 | 20 | 10 6.6 | 19.8 |
| 43486 2001 $BW_{56}$ | 15.6 | X | 292.25977 | 341.66048 | 331.20224 | 1.67368 | 0.0708441 | 0.22004390 | 2.7172514 | 20 | 5 13.5 | 19.1 |
| 43487 2001 $BJ_{60}$ | 14.5 | X | 224.61357 | 3.98606 | 93.51406 | 6.43671 | 0.1438306 | 0.23137137 | 2.6278241 | 20 | 8 22.6 | 18.4 |
| 43488 2001 $BC_{62}$ | 13.3 | X | 34.43647 | 9.11594 | 256.24336 | 19.25836 | 0.1623893 | 0.17291435 | 3.1909159 | 20 | 8 13.5 | 17.7 |
| 43489 2001 $BB_{75}$ | 13.9 | X | 279.85304 | 262.30914 | 137.03110 | 16.52147 | 0.1012754 | 0.17622210 | 3.1508602 | 20 | 8 14.1 | 18.1 |
| 43490 2001 $CL$ | 13.6 | X | 230.38107 | 116.19340 | 358.35302 | 9.27460 | 0.0180684 | 0.18120003 | 3.0928857 | 20 | 9 26.9 | 18.0 |
| 43491 2001 $CP$ | 14.2 | X | 124.42467 | 336.26793 | 257.26390 | 14.46869 | 0.0702227 | 0.23846263 | 2.5754661 | 20 | 10 26.7 | 18.2 |
| 43492 2001 $CV$ | 15.7 | X | 34.45714 | 163.42714 | 123.80164 | 7.83266 | 0.1110403 | 0.28020148 | 2.3128942 | 20 | 10 5.9 | 18.4 |
| 43493 2001 $CV_{1}$ | 14.9 | X | 180.46461 | 274.57963 | 109.76390 | 6.16720 | 0.0557115 | 0.21343806 | 2.7730316 | 20 | 4 6.5 | 19.0 |
| 43494 2001 $CJ_{4}$ | 14.8 | X | 193.50829 | 138.18504 | 103.06218 | 6.42953 | 0.2597408 | 0.24085591 | 2.5583768 | 20 | — | — |
| 43495 2001 $CJ_{7}$ | 15.4 | X | 230.82942 | 275.26375 | 97.69420 | 3.38248 | 0.2249512 | 0.27224921 | 2.3577168 | 20 | 5 2.8 | 19.1 |
| 43496 2001 $CF_{16}$ | 15.8 | X | 350.84152 | 248.74106 | 107.22034 | 7.21067 | 0.1387510 | 0.28626975 | 2.2800922 | 20 | 11 8.4 | 18.0 |
| 43497 2001 $CY_{17}$ | 13.6 | X | 351.01476 | 149.84748 | 133.80261 | 18.74041 | 0.1323271 | 0.17343221 | 3.1845608 | 20 | 7 1.3 | 17.5 |
| 43498 2001 $CT_{19}$ | 13.5 | X | 241.29079 | 23.92753 | 42.07002 | 13.79668 | 0.1553873 | 0.17455967 | 3.1708335 | 20 | 7 27.7 | 18.5 |
| 43499 2001 $CY_{19}$ | 15.7 | X | 180.52838 | 350.17209 | 22.96299 | 2.16612 | 0.1978937 | 0.26546079 | 2.3977420 | 20 | 3 21.5 | 19.7 |
| 43500 2001 $CP_{22}$ | 14.9 | X | 137.73870 | 121.41950 | 86.72220 | 2.89530 | 0.1041463 | 0.18211392 | 3.0825298 | 20 | 10 7.1 | 19.7 |
| 43501 2001 $CW_{22}$ | 15.3 | X | 257.63642 | 149.26818 | 96.53625 | 3.67386 | 0.1464601 | 0.25435953 | 2.4670089 | 20 | — | — |
| 43502 2001 $CY_{28}$ | 15.3 | X | 271.39233 | 331.79351 | 51.65917 | 6.25221 | 0.1798095 | 0.27934428 | 2.3176233 | 20 | 7 6.7 | 18.1 |
| 43503 2001 $CK_{29}$ | 12.9 | X | 327.08166 | 105.23008 | 124.24578 | 19.59859 | 0.1173363 | 0.15948495 | 3.3676187 | 20 | 3 20.0 | 17.6 |
| 43504 2001 $CF_{33}$ | 14.9 | X | 230.37848 | 14.64834 | 74.88866 | 15.29505 | 0.0672429 | 0.23087484 | 2.6315905 | 20 | 9 2.9 | 18.9 |
| 43505 2001 $CK_{33}$ | 14.3 | X | 76.13330 | 52.78249 | 29.50107 | 12.25207 | 0.2470300 | 0.21056401 | 2.7982077 | 20 | 3 14.2 | 17.8 |
| 43506 2001 $CE_{36}$ | 13.6 | X | 118.10999 | 174.61102 | 92.51110 | 9.30423 | 0.1511382 | 0.18382438 | 3.0633784 | 20 | 11 28.8 | 18.5 |
| 43507 2001 $CN_{39}$ | 15.2 | X | 178.91021 | 307.09195 | 74.59584 | 7.35402 | 0.1257977 | 0.26835898 | 2.3804476 | 20 | 3 31.7 | 18.9 |
| 43508 2001 $CV_{40}$ | 14.4 | X | 52.72849 | 167.93146 | 90.17543 | 17.34452 | 0.0448029 | 0.17577773 | 3.1561682 | 20 | 8 29.9 | 19.1 |
| 43509 2001 $CY_{44}$ | 14.8 | X | 348.39888 | 324.76694 | 81.77046 | 14.47661 | 0.1502223 | 0.24091198 | 2.5579798 | 20 | 12 30.4 | 17.5 |
| 43510 2001 $CG_{46}$ | 14.0 | X | 254.91625 | 351.53554 | 110.56676 | 15.65442 | 0.1687512 | 0.23480551 | 2.6021392 | 20 | 10 7.2 | 17.7 |
| 43511 Cima Ekar | 15.0 | X | 144.25360 | 348.59758 | 160.73747 | 1.62734 | 0.0920505 | 0.17593444 | 3.1542938 | 20 | 7 31.2 | 19.7 |
| 43512 2001 $CL_{49}$ | 14.8 | X | 46.71909 | 183.90307 | 97.79027 | 15.25435 | 0.1126290 | 0.22976310 | 2.6400726 | 20 | 10 11.8 | 18.6 |
| 43513 2001 $DG_{4}$ | 15.3 | X | 240.59239 | 311.41731 | 75.39771 | 7.21339 | 0.1113585 | 0.27684042 | 2.3315767 | 20 | 6 10.2 | 18.2 |
| 43514 2001 $DO_{5}$ | 14.2 | X | 278.33285 | 345.64557 | 20.09648 | 9.75738 | 0.0242643 | 0.17221889 | 3.1995006 | 20 | 7 12.3 | 18.8 |
| 43515 2001 $DS_{11}$ | 14.6 | X | 42.42448 | 252.71758 | 130.72394 | 11.46447 | 0.1054785 | 0.19293043 | 2.9662123 | 20 | — | — |
| 43516 2001 $DH_{12}$ | 14.5 | X | 28.85320 | 13.95663 | 4.56774 | 5.46134 | 0.0976373 | 0.18944758 | 3.0024562 | 20 | 12 30.7 | 18.6 |
| 43517 2001 $DO_{13}$ | 13.7 | X | 233.32412 | 270.91355 | 133.47414 | 10.94649 | 0.0501809 | 0.16859672 | 3.2451639 | 20 | 6 29.7 | 18.6 |
| 43518 2001 $DQ_{15}$ | 14.9 | X | 97.65662 | 96.04544 | 98.93646 | 7.97857 | 0.0860351 | 0.17251984 | 3.1957786 | 20 | 8 6.7 | 19.6 |
| 43519 2001 $DP_{16}$ | 14.2 | X | 174.62531 | 157.42294 | 20.31649 | 9.50061 | 0.0207462 | 0.18145770 | 3.0899571 | 20 | 10 8.9 | 18.4 |
| 43520 2001 $DM_{17}$ | 14.5 | X | 98.20987 | 191.94266 | 124.69545 | 11.99598 | 0.0418205 | 0.18942108 | 3.0027362 | 20 | 12 29.9 | 18.9 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43521 2001 $DU_{19}$ | 14.4 | X | 238.02964 | 14.69974 | 103.88843 | 10.46156 | 0.0928218 | 0.18228455 | 3.0806059 | 20 | 10 7.4 | 19.0 |
| 43522 2001 $DX_{20}$ | 14.2 | X | 120.45209 | 155.00920 | 145.80274 | 23.10030 | 0.0451281 | 0.18875746 | 3.0097699 | 20 | — | — |
| 43523 2001 $DJ_{22}$ | 13.5 | X | 318.87286 | 266.39653 | 62.66587 | 13.44996 | 0.0608235 | 0.16983679 | 3.2293481 | 20 | 7 14.6 | 17.9 |
| 43524 2001 $DQ_{30}$ | 15.1 | X | 228.45191 | 181.82533 | 128.19518 | 5.89464 | 0.0902705 | 0.25786688 | 2.4445880 | 20 | 2 18.7 | 18.7 |
| 43525 2001 $DR_{32}$ | 14.5 | X | 23.54681 | 207.23399 | 131.61273 | 11.95766 | 0.0619116 | 0.18317875 | 3.0705723 | 20 | 11 2.9 | 18.8 |
| 43526 2001 $DD_{37}$ | 15.2 | X | 358.51143 | 172.79143 | 152.38937 | 4.30545 | 0.0966400 | 0.23005022 | 2.6378754 | 20 | 9 17.1 | 18.2 |
| 43527 2001 $DS_{51}$ | 14.2 | X | 140.00822 | 120.13129 | 40.16692 | 11.37860 | 0.0702293 | 0.17490951 | 3.1666041 | 20 | 8 13.2 | 19.1 |
| 43528 2001 $DZ_{59}$ | 15.1 | X | 88.73666 | 85.88631 | 89.25972 | 1.72011 | 0.0094610 | 0.22249708 | 2.6972416 | 20 | 6 20.8 | 18.5 |
| 43529 2001 $DF_{65}$ | 15.1 | X | 263.79627 | 136.36641 | 145.97643 | 3.25042 | 0.0214057 | 0.20926501 | 2.8097756 | 20 | 3 6.9 | 18.9 |
| 43530 2001 $DN_{69}$ | 13.7 | X | 85.60379 | 98.84757 | 158.27410 | 6.97605 | 0.1157992 | 0.17745267 | 3.1362766 | 20 | 10 13.4 | 18.3 |
| 43531 2001 $DC_{71}$ | 14.1 | X | 107.71673 | 93.23110 | 168.06520 | 13.24439 | 0.1608752 | 0.23135135 | 2.6279758 | 20 | 11 22.2 | 18.5 |
| 43532 2001 $DX_{72}$ | 14.4 | X | 212.26725 | 139.13042 | 278.75265 | 1.59409 | 0.0300894 | 0.16944385 | 3.2343388 | 20 | 6 23.4 | 19.0 |
| 43533 2001 $DE_{74}$ | 14.6 | X | 114.85647 | 271.46549 | 44.76980 | 5.14788 | 0.1649360 | 0.28488990 | 2.2874486 | 20 | — | — |
| 43534 2001 $DZ_{78}$ | 13.6 | X | 18.13252 | 1.60119 | 131.52459 | 21.72135 | 0.1387496 | 0.20430914 | 2.8550311 | 20 | 1 22.8 | 16.7 |
| 43535 2001 $DE_{97}$ | 13.9 | X | 68.67099 | 317.61888 | 67.21846 | 3.39571 | 0.0786263 | 0.14603852 | 3.5712844 | 20 | — | — |
| 43536 2001 $DS_{107}$ | 14.6 | X | 76.33061 | 147.15868 | 162.53505 | 1.86006 | 0.0840097 | 0.18408273 | 3.0605116 | 20 | 11 30.9 | 19.0 |
| 43537 2001 $EF_{2}$ | 14.0 | X | 43.45977 | 200.54900 | 119.34068 | 18.35224 | 0.2018517 | 0.23194285 | 2.6235059 | 20 | 12 4.9 | 17.9 |
| 43538 2001 $EJ_{6}$ | 13.7 | X | 311.14792 | 204.48396 | 144.94189 | 12.40492 | 0.0356265 | 0.17107034 | 3.2138054 | 20 | 7 30.8 | 18.0 |
| 43539 2001 $EF_{12}$ | 14.3 | X | 81.09846 | 314.15236 | 21.47779 | 14.38406 | 0.0858047 | 0.23642607 | 2.5902348 | 20 | — | — |
| 43540 2001 $EY_{13}$ | 14.2 | X | 131.59585 | 225.06231 | 87.14171 | 11.55188 | 0.0908574 | 0.19195619 | 2.9762401 | 20 | — | — |
| 43541 2001 $EC_{23}$ | 15.2 | X | 113.02614 | 32.82669 | 295.66924 | 0.34907 | 0.1497257 | 0.24195468 | 2.5506255 | 20 | — | — |
| 43542 2001 $EC_{27}$ | 14.8 | X | 260.14107 | 180.12756 | 168.03366 | 6.30141 | 0.2147279 | 0.21761187 | 2.7374592 | 20 | 5 2.2 | 19.0 |
| 43543 2001 $FB_{3}$ | 13.8 | X | 46.13008 | 96.84580 | 179.57309 | 9.04783 | 0.0851478 | 0.17472642 | 3.1688158 | 20 | 9 11.9 | 18.0 |
| 43544 2001 $FM_{3}$ | 14.3 | X | 187.75886 | 16.21866 | 161.37692 | 5.67361 | 0.1049059 | 0.18003141 | 3.1062556 | 20 | 10 19.5 | 19.1 |
| 43545 2001 $FL_{5}$ | 14.4 | X | 135.85689 | 2.53668 | 232.69821 | 3.45255 | 0.0249314 | 0.18327667 | 3.0694785 | 20 | 11 2.3 | 18.8 |
| 43546 2001 $FJ_{8}$ | 13.6 | X | 129.28741 | 180.18246 | 20.34310 | 22.76455 | 0.0950930 | 0.17224118 | 3.1992245 | 20 | 9 23.6 | 18.6 |
| 43547 2001 $FU_{10}$ | 13.7 | X | 340.56915 | 160.93231 | 183.03948 | 22.77585 | 0.0918221 | 0.17366772 | 3.1816811 | 20 | 8 31.1 | 17.8 |
| 43548 2001 $FP_{11}$ | 15.3 | X | 20.26799 | 185.08466 | 119.70586 | 3.02120 | 0.1329691 | 0.22308916 | 2.6924671 | 20 | 9 28.5 | 18.4 |
| 43549 2001 $FN_{16}$ | 14.7 | X | 303.98252 | 80.41912 | 144.43626 | 2.55812 | 0.0079935 | 0.20250916 | 2.8719240 | 20 | 2 16.3 | 18.6 |
| 43550 2001 $FS_{24}$ | 13.9 | X | 244.79508 | 256.52279 | 205.11666 | 15.86521 | 0.0142095 | 0.17840582 | 3.1250960 | 20 | 9 27.5 | 18.5 |
| 43551 2001 $FY_{28}$ | 13.4 | X | 33.13898 | 238.23546 | 33.18921 | 11.21365 | 0.0653382 | 0.16978056 | 3.2300611 | 20 | 8 21.6 | 17.9 |
| 43552 2001 $FT_{34}$ | 14.7 | X | 262.35021 | 153.11337 | 169.37515 | 21.75281 | 0.2222133 | 0.21120167 | 2.7925727 | 20 | 4 2.7 | 19.2 |
| 43553 2001 $FT_{39}$ | 14.2 | X | 277.14295 | 191.03179 | 185.63234 | 12.66852 | 0.2052413 | 0.22277486 | 2.6949989 | 20 | 6 27.2 | 18.1 |
| 43554 2001 $FW_{44}$ | 14.3 | X | 276.02616 | 86.33528 | 17.42749 | 9.10967 | 0.0808356 | 0.18266130 | 3.0763685 | 20 | 10 31.6 | 18.4 |
| 43555 2001 $FJ_{60}$ | 14.2 | X | 144.71982 | 161.42937 | 148.56958 | 10.95488 | 0.0922073 | 0.19225666 | 2.9731383 | 20 | — | — |
| 43556 2001 $FK_{60}$ | 13.9 | X | 78.36336 | 181.31651 | 144.01040 | 8.64680 | 0.0650269 | 0.18582392 | 3.0413633 | 20 | 12 19.9 | 18.4 |
| 43557 2001 $FA_{61}$ | 15.6 | X | 35.04459 | 125.85624 | 121.74372 | 3.06331 | 0.1693552 | 0.26905472 | 2.3763422 | 20 | 8 13.3 | 17.9 |
| 43558 2001 $FW_{62}$ | 14.1 | X | 343.85400 | 241.46494 | 141.89629 | 10.72457 | 0.1072510 | 0.18200765 | 3.0837296 | 20 | 11 4.3 | 18.0 |
| 43559 2001 $FU_{64}$ | 14.4 | X | 119.42231 | 184.20893 | 154.32971 | 9.28898 | 0.1252194 | 0.19213546 | 2.9743885 | 20 | — | — |
| 43560 2001 $FX_{64}$ | 13.9 | X | 238.40146 | 164.25974 | 161.54642 | 13.75748 | 0.2278637 | 0.25725033 | 2.4484924 | 20 | 3 11.7 | 18.0 |
| 43561 2001 $FD_{80}$ | 13.6 | X | 148.44453 | 17.95174 | 246.36234 | 9.29398 | 0.0552811 | 0.18394935 | 3.0619908 | 20 | 12 21.1 | 18.2 |
| 43562 2001 $FE_{97}$ | 13.9 | X | 206.58045 | 121.11697 | 55.00362 | 13.17278 | 0.0980876 | 0.18216427 | 3.0819618 | 20 | 11 6.5 | 18.6 |
| 43563 2001 $FB_{102}$ | 13.8 | X | 307.76771 | 11.97253 | 265.57051 | 8.02664 | 0.1372344 | 0.21053592 | 2.7984566 | 20 | 4 5.2 | 17.6 |
| 43564 2001 $FG_{108}$ | 13.8 | X | 132.90338 | 114.59454 | 170.52741 | 10.70965 | 0.1397279 | 0.18537232 | 3.0463008 | 20 | 12 30.5 | 18.9 |
| 43565 2001 $FC_{110}$ | 15.0 | X | 104.13513 | 199.07898 | 77.87338 | 3.16135 | 0.0968696 | 0.23034077 | 2.6356567 | 20 | 12 1.2 | 18.9 |
| 43566 2001 $FQ_{116}$ | 14.4 | X | 316.21663 | 214.44178 | 149.37012 | 12.56347 | 0.2065268 | 0.22533856 | 2.6745191 | 20 | 8 16.4 | 17.0 |
| 43567 2001 $FL_{120}$ | 13.9 | X | 68.73094 | 13.40454 | 281.09116 | 8.23985 | 0.0513781 | 0.18236288 | 3.0797237 | 20 | 10 26.9 | 18.5 |
| 43568 2001 $FV_{134}$ | 13.1 | X | 138.68456 | 10.03460 | 247.67538 | 12.23851 | 0.1275584 | 0.18468890 | 3.0538113 | 20 | 12 4.5 | 18.0 |
| 43569 2001 $FY_{142}$ | 14.2 | X | 298.89893 | 205.38668 | 123.21025 | 14.94014 | 0.1881915 | 0.21764584 | 2.7371744 | 20 | 5 30.7 | 17.9 |
| 43570 2001 $FQ_{150}$ | 14.2 | X | 0.23885 | 152.20096 | 207.98061 | 24.42461 | 0.2348727 | 0.27916251 | 2.3186293 | 20 | 12 10.9 | 17.0 |
| 43571 2001 $FD_{165}$ | 14.5 | X | 212.96074 | 311.38993 | 278.85848 | 16.47261 | 0.1414011 | 0.24342954 | 2.5403128 | 20 | — | — |
| 43572 2001 $FH_{167}$ | 15.6 | X | 332.91460 | 143.81840 | 145.72570 | 7.82463 | 0.2119480 | 0.26191398 | 2.4193402 | 20 | 5 30.6 | 17.8 |
| 43573 2001 $FC_{169}$ | 13.4 | X | 68.93010 | 204.97674 | 93.01036 | 12.20485 | 0.1156106 | 0.17489210 | 3.1668143 | 20 | 11 14.0 | 18.1 |
| 43574 2001 $FU_{192}$ | 14.7 | X | 31.81207 | 322.48313 | 44.57696 | 5.13231 | 0.2108489 | 0.23363752 | 2.6108043 | 20 | — | — |
| 43575 2001 $GQ_{6}$ | 14.2 | X | 63.51490 | 37.14320 | 29.90659 | 10.34748 | 0.0161470 | 0.19378785 | 2.9574565 | 20 | 1 5.2 | 18.4 |
| 43576 2001 $HO_{28}$ | 14.8 | X | 189.44776 | 33.58599 | 224.21280 | 2.21353 | 0.1741529 | 0.23651627 | 2.5895762 | 20 | — | — |
| 43577 2001 $HH_{36}$ | 14.5 | X | 144.32721 | 9.60575 | 254.09770 | 7.99773 | 0.1530812 | 0.23115280 | 2.6294805 | 20 | 12 24.2 | 18.8 |
| 43578 2001 $KD_{15}$ | 14.7 | X | 136.82692 | 259.92140 | 85.25741 | 9.31101 | 0.1889278 | 0.23950411 | 2.5679943 | 20 | 1 8.7 | 18.5 |
| 43579 2001 $KW_{26}$ | 16.2 | X | 34.64146 | 124.38467 | 200.95559 | 2.34803 | 0.2495521 | 0.27190038 | 2.3597329 | 20 | 12 13.0 | 19.3 |
| 43580 2001 $KQ_{37}$ | 14.7 | X | 118.18411 | 63.27240 | 194.77149 | 8.59183 | 0.0693755 | 0.22704921 | 2.6610685 | 20 | 11 21.8 | 18.6 |
| 43581 2001 $KS_{52}$ | 14.6 | X | 72.58327 | 55.70555 | 245.20334 | 8.29937 | 0.0611289 | 0.22821224 | 2.6520198 | 20 | 11 21.7 | 18.2 |
| 43582 2001 $KO_{59}$ | 13.9 | X | 353.49302 | 139.47152 | 245.05379 | 12.25209 | 0.1451748 | 0.21827461 | 2.7319153 | 20 | 12 1.1 | 16.8 |
| 43583 2001 $KR_{59}$ | 15.3 | X | 142.77374 | 75.53114 | 220.39061 | 7.32951 | 0.2597432 | 0.28139291 | 2.3063610 | 20 | — | — |
| 43584 2001 $KW_{66}$ | 14.8 | X | 170.41005 | 79.84356 | 191.56284 | 21.60358 | 0.2399667 | 0.28169492 | 2.3047122 | 20 | — | — |
| 43585 2001 $LZ_{18}$ | 14.4 | X | 7.48365 | 199.98159 | 179.76007 | 9.70084 | 0.1363727 | 0.21752531 | 2.7381854 | 20 | 12 16.1 | 17.9 |
| 43586 2001 $OD_{26}$ | 15.2 | X | 44.55788 | 120.83299 | 180.99150 | 6.24016 | 0.1310394 | 0.26738769 | 2.3862088 | 20 | 11 7.7 | 18.2 |
| 43587 2001 $PA_{10}$ | 15.7 | X | 202.14427 | 159.43156 | 107.36657 | 4.28330 | 0.1490359 | 0.28599397 | 2.2815577 | 20 | — | — |
| 43588 2001 $PL_{14}$ | 15.7 | X | 1.85621 | 35.23949 | 359.08040 | 2.27389 | 0.2069238 | 0.26920281 | 2.3754706 | 20 | — | — |
| 43589 2001 $QW$ | 15.5 | X | 263.27542 | 146.60444 | 270.33114 | 1.74906 | 0.1789403 | 0.25803511 | 2.4435254 | 20 | 8 9.9 | 18.4 |
| 43590 2001 $QD_{2}$ | 15.4 | X | 250.73451 | 232.49847 | 144.33762 | 3.16861 | 0.1759425 | 0.29880508 | 2.2158689 | 20 | 6 1.2 | 18.3 |
| 43591 2001 $QX_{55}$ | 15.3 | X | 265.65199 | 317.40881 | 109.83075 | 6.13110 | 0.2821223 | 0.25866286 | 2.4395703 | 20 | 8 12.9 | 18.3 |
| 43592 2001 $QC_{72}$ | 12.9 | X | 166.67548 | 241.57610 | 36.59555 | 5.62739 | 0.1687882 | 0.17206287 | 3.2014344 | 20 | — | — |
| 43593 2001 $QR_{73}$ | 15.5 | X | 104.40134 | 175.32940 | 210.83980 | 4.76075 | 0.1672445 | 0.27982156 | 2.3149872 | 20 | 1 9.9 | 18.1 |
| 43594 2001 $QP_{101}$ | 15.2 | X | 128.11424 | 148.87854 | 341.39222 | 4.46404 | 0.1031407 | 0.29973990 | 2.2112593 | 20 | 6 24.9 | 18.1 |
| 43595 2001 $QT_{101}$ | 13.4 | X | 183.36593 | 311.02264 | 11.06193 | 14.08902 | 0.1713157 | 0.23205483 | 2.6226619 | 20 | 1 28.7 | 17.9 |
| 43596 2001 $QK_{126}$ | 14.5 | X | 171.65124 | 134.23784 | 183.47252 | 10.39520 | 0.0879269 | 0.18288124 | 3.0739014 | 20 | 1 8.4 | 19.4 |
| 43597 Changshaopo | 15.9 | X | 167.89817 | 80.94190 | 346.92925 | 7.21612 | 0.1028506 | 0.29368475 | 2.2415501 | 20 | 5 11.9 | 19.1 |
| 43598 2001 $QY_{195}$ | 14.5 | X | 130.09052 | 119.66911 | 271.49011 | 12.39723 | 0.1736454 | 0.23281418 | 2.6169561 | 20 | 2 20.1 | 18.7 |
| 43599 2001 $QS_{256}$ | 14.3 | X | 279.31298 | 56.53818 | 125.38071 | 4.56627 | 0.1304852 | 0.22554938 | 2.6728523 | 20 | — | — |
| 43600 2001 $RG_{22}$ | 15.8 | X | 294.72014 | 327.60416 | 161.54902 | 6.82404 | 0.1867945 | 0.27337809 | 2.3512217 | 20 | — | — |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43601 2001 $SU_{148}$ | 14.1 | $X$ | 210.50919 | 329.32522 | 240.37152 | 5.37234 | 0.2341155 | 0.22092547 | 2.7100181 | 20 | 12 12.1 | 18.3 |
| 43602 2001 $SA_{316}$ | 13.7 | $X$ | 188.43623 | 76.38747 | 326.08445 | 12.44675 | 0.2081442 | 0.18582129 | 3.0413921 | 20 | 4 30.0 | 19.2 |
| 43603 2001 $UQ_{13}$ | 14.6 | $X$ | 202.20412 | 276.18423 | 55.48356 | 3.68607 | 0.0713565 | 0.23098342 | 2.6307658 | 20 | 2 21.9 | 18.4 |
| 43604 2001 $VN_{12}$ | 14.1 | $X$ | 195.29199 | 97.05358 | 282.58650 | 13.16462 | 0.1614637 | 0.23725139 | 2.5842243 | 20 | 4 5.5 | 18.6 |
| 43605 Gakuho | 14.6 | $X$ | 184.45996 | 42.99860 | 73.50788 | 13.23655 | 0.1380078 | 0.24249489 | 2.5468361 | 20 | 8 8.0 | 18.8 |
| 43606 2001 $XQ_{2}$ | 16.2 | $X$ | 206.10949 | 242.85914 | 310.79294 | 17.86970 | 0.0652946 | 0.36592139 | 1.9358759 | 20 | — | — |
| 43607 2001 $XO_{48}$ | 13.5 | $X$ | 237.51715 | 15.88481 | 271.24933 | 12.05985 | 0.1601958 | 0.23391723 | 2.6087227 | 20 | 1 26.3 | 17.8 |
| 43608 2001 $XM_{60}$ | 14.8 | $X$ | 229.12494 | 284.93821 | 94.69540 | 6.65254 | 0.1801267 | 0.29349084 | 2.2425373 | 20 | 5 13.3 | 18.1 |
| 43609 2001 $XA_{69}$ | 15.4 | $X$ | 293.46054 | 100.58968 | 86.97537 | 7.13217 | 0.0779047 | 0.27579393 | 2.3374711 | 20 | — | — |
| 43610 2001 $XT_{186}$ | 14.7 | $X$ | 12.26502 | 43.72141 | 208.58719 | 1.28952 | 0.1469689 | 0.18364764 | 3.0653435 | 20 | 6 26.9 | 18.2 |
| 43611 2002 $AV_{128}$ | 14.5 | $X$ | 101.04484 | 185.03432 | 45.53065 | 10.18197 | 0.1609688 | 0.18311172 | 3.0713216 | 20 | 10 4.5 | 19.3 |
| 43612 2002 $AQ_{160}$ | 14.3 | $X$ | 90.91154 | 11.93856 | 158.60699 | 5.37164 | 0.1220020 | 0.17871865 | 3.1214482 | 20 | 7 2.2 | 18.8 |
| 43613 2002 $AH_{177}$ | 14.0 | $X$ | 301.28637 | 198.18530 | 124.83986 | 11.92582 | 0.0839603 | 0.18092558 | 3.0960127 | 20 | 6 9.5 | 18.3 |
| 43614 2002 $AT_{187}$ | 14.9 | $X$ | 35.22480 | 113.40134 | 134.63016 | 14.84118 | 0.0372241 | 0.23231070 | 2.6207358 | 20 | 7 20.4 | 18.2 |
| 43615 2002 $AQ_{193}$ | 14.7 | $X$ | 58.07171 | 71.49259 | 219.61570 | 9.44459 | 0.0404833 | 0.19182633 | 2.9775832 | 20 | 10 11.5 | 18.8 |
| 43616 2002 $CH_{30}$ | 15.3 | $X$ | 308.91355 | 136.17823 | 26.61265 | 4.44232 | 0.1422928 | 0.21106888 | 2.7937438 | 20 | — | — |
| 43617 2002 $CL_{43}$ | 13.5 | $X$ | 69.87925 | 88.22473 | 115.40170 | 23.60815 | 0.0207541 | 0.17706417 | 3.1408625 | 20 | 7 4.3 | 17.9 |
| 43618 2002 $CZ_{55}$ | 14.3 | $X$ | 104.64527 | 117.31995 | 82.81546 | 0.04855 | 0.0989244 | 0.18299774 | 3.0725967 | 20 | 8 22.1 | 18.8 |
| 43619 2002 $CR_{66}$ | 15.7 | $X$ | 17.15838 | 12.87305 | 319.15799 | 4.48832 | 0.2132466 | 0.30378239 | 2.1915984 | 20 | 12 1.1 | 18.1 |
| 43620 2002 $CG_{79}$ | 14.9 | $X$ | 61.58635 | 293.65202 | 0.43757 | 3.89843 | 0.2361804 | 0.24442535 | 2.5334085 | 20 | 11 23.9 | 18.8 |
| 43621 2002 $CK_{117}$ | 14.2 | $X$ | 215.78854 | 222.54793 | 69.27356 | 15.09509 | 0.0614846 | 0.21129035 | 2.7917912 | 20 | 1 21.6 | 18.5 |
| 43622 2002 $CW_{128}$ | 14.6 | $X$ | 226.27722 | 202.72120 | 165.68933 | 9.07428 | 0.0712471 | 0.17609478 | 3.1523788 | 20 | 5 7.9 | 19.4 |
| 43623 2002 $CM_{138}$ | 16.5 | $X$ | 281.19962 | 23.67940 | 192.89037 | 4.17191 | 0.1058432 | 0.26748724 | 2.3856167 | 20 | — | — |
| 43624 2002 $CY_{146}$ | 15.8 | $X$ | 271.62256 | 298.89994 | 203.84841 | 3.95159 | 0.1459083 | 0.25384899 | 2.4703155 | 20 | 12 28.2 | 18.3 |
| 43625 2002 $CE_{168}$ | 14.2 | $X$ | 3.21080 | 269.81505 | 3.15185 | 9.41552 | 0.2072347 | 0.17697129 | 3.1419614 | 20 | 7 13.9 | 17.6 |
| 43626 2002 $CV_{168}$ | 15.2 | $X$ | 143.80924 | 332.13372 | 14.00724 | 6.02408 | 0.0117588 | 0.21183650 | 2.7869907 | 20 | — | — |
| 43627 2002 $CL_{224}$ | 13.0 | $X$ | 289.34936 | 97.39726 | 328.25344 | 1.29869 | 0.1138747 | 0.08546943 | 5.1042138 | 20 | 9 14.3 | 19.6 |
| 43628 2002 $CA_{234}$ | 13.6 | $X$ | 77.45107 | 254.54655 | 298.82408 | 8.33108 | 0.1717794 | 0.17585914 | 3.1551942 | 20 | 7 22.1 | 18.0 |
| 43629 2002 $CG_{234}$ | 15.4 | $X$ | 10.99548 | 278.93104 | 26.50534 | 7.37636 | 0.1362666 | 0.28493997 | 2.2871807 | 20 | 9 27.2 | 17.6 |
| 43630 2002 $CZ_{235}$ | 15.1 | $X$ | 320.09473 | 221.67650 | 53.78891 | 4.01735 | 0.1227726 | 0.22701486 | 2.6613369 | 20 | 4 26.8 | 18.2 |
| 43631 2002 $CS_{236}$ | 14.1 | $X$ | 140.79205 | 75.99070 | 147.13769 | 10.44499 | 0.0610614 | 0.18763132 | 3.0218008 | 20 | 10 29.9 | 18.8 |
| 43632 2002 $CQ_{244}$ | 15.7 | $X$ | 347.26343 | 278.90220 | 339.42919 | 4.31262 | 0.1302155 | 0.27854587 | 2.3220500 | 20 | 5 15.8 | 17.8 |
| 43633 2002 $CX_{247}$ | 15.4 | $X$ | 317.29276 | 106.36363 | 121.89487 | 2.97718 | 0.1682833 | 0.26976290 | 2.3721814 | 20 | 2 4.7 | 18.1 |
| 43634 2002 $EA_{10}$ | 15.4 | $X$ | 181.96294 | 63.71430 | 224.53932 | 21.16201 | 0.0513063 | 0.37088488 | 1.9185655 | 20 | — | — |
| 43635 2002 $EP_{19}$ | 15.5 | $X$ | 303.64149 | 15.17187 | 278.80535 | 5.49532 | 0.1047850 | 0.27667280 | 2.3325184 | 20 | 4 24.3 | 18.2 |
| 43636 2002 $EC_{22}$ | 15.9 | $X$ | 335.55473 | 268.01460 | 40.59998 | 4.53839 | 0.1775246 | 0.28522143 | 2.2856757 | 20 | 7 14.5 | 17.5 |
| 43637 2002 $EW_{28}$ | 14.0 | $X$ | 54.11982 | 19.83388 | 189.64098 | 10.50206 | 0.1572829 | 0.17521390 | 3.1629355 | 20 | 7 8.3 | 18.4 |
| 43638 2002 $EU_{30}$ | 15.4 | $X$ | 342.87322 | 290.78308 | 18.16788 | 11.91608 | 0.0805607 | 0.23133252 | 2.6281184 | 20 | 8 1.4 | 18.7 |
| 43639 2002 $EZ_{30}$ | 14.2 | $X$ | 38.31264 | 65.98892 | 169.20792 | 9.10719 | 0.1318145 | 0.17406593 | 3.1768268 | 20 | 7 14.9 | 18.3 |
| 43640 2002 $EF_{33}$ | 13.8 | $X$ | 33.19123 | 156.74095 | 124.40716 | 14.99923 | 0.1800680 | 0.18316534 | 3.0707221 | 20 | 9 20.6 | 17.9 |
| 43641 2002 $EG_{40}$ | 14.8 | $X$ | 225.98834 | 191.77646 | 342.69457 | 4.35953 | 0.2005330 | 0.19602616 | 2.9349004 | 20 | 11 13.1 | 19.3 |
| 43642 2002 $EA_{41}$ | 14.3 | $X$ | 345.93522 | 235.21108 | 15.67407 | 21.85833 | 0.0053042 | 0.16894753 | 3.2406701 | 20 | 5 7.0 | 19.1 |
| 43643 2002 $EO_{51}$ | 15.6 | $X$ | 322.17465 | 309.95641 | 10.58922 | 2.33993 | 0.1315339 | 0.23262103 | 2.6184044 | 20 | 7 3.9 | 18.3 |
| 43644 2002 $EU_{65}$ | 15.8 | $X$ | 177.77038 | 314.10244 | 232.67979 | 3.13004 | 0.0542301 | 0.24473513 | 2.5312702 | 20 | 10 31.8 | 19.2 |
| 43645 2002 $EM_{73}$ | 14.4 | $X$ | 241.32201 | 200.32532 | 196.12812 | 11.94178 | 0.2853518 | 0.23271929 | 2.6176674 | 20 | 6 6.0 | 18.9 |
| 43646 2002 $ER_{73}$ | 14.8 | $X$ | 40.66176 | 259.21479 | 202.87513 | 7.73123 | 0.0240967 | 0.21013458 | 2.8020187 | 20 | 1 14.0 | 18.6 |
| 43647 2002 $EU_{74}$ | 14.2 | $X$ | 105.45790 | 124.91907 | 2.22216 | 5.69917 | 0.0940612 | 0.16950115 | 3.2336099 | 20 | 5 20.6 | 19.0 |
| 43648 2002 $EY_{76}$ | 15.1 | $X$ | 31.11576 | 109.26586 | 272.48533 | 0.86193 | 0.0772589 | 0.19998800 | 2.8960103 | 20 | — | — |
| 43649 2002 $EE_{87}$ | 15.4 | $X$ | 9.42569 | 34.14676 | 184.79156 | 7.19617 | 0.0656605 | 0.27567861 | 2.3381229 | 20 | 5 1.9 | 17.8 |
| 43650 2002 $EF_{87}$ | 15.3 | $X$ | 265.25631 | 248.93025 | 32.86761 | 7.57412 | 0.1099671 | 0.26747255 | 2.3857041 | 20 | 2 23.1 | 18.7 |
| 43651 2002 $EU_{87}$ | 14.8 | $X$ | 108.45414 | 113.57113 | 151.13860 | 3.38337 | 0.1971363 | 0.18766600 | 3.0214284 | 20 | 11 20.5 | 19.8 |
| 43652 2002 $EQ_{88}$ | 14.8 | $X$ | 330.13474 | 262.03999 | 180.71070 | 13.23005 | 0.1211331 | 0.19794984 | 2.9158551 | 20 | 12 29.3 | 18.5 |
| 43653 2002 $EJ_{92}$ | 15.2 | $X$ | 252.72227 | 348.84599 | 232.66501 | 4.85879 | 0.1651312 | 0.25812836 | 2.4429368 | 20 | — | — |
| 43654 2002 $EE_{98}$ | 14.1 | $X$ | 248.96530 | 139.70282 | 161.08791 | 12.88558 | 0.1162462 | 0.21399202 | 2.7682438 | 20 | 3 1.6 | 18.4 |
| 43655 2002 $EC_{99}$ | 15.4 | $X$ | 26.72935 | 293.24157 | 293.66237 | 2.22655 | 0.0436459 | 0.22653473 | 2.6650960 | 20 | 6 8.7 | 18.8 |
| 43656 2002 $ER_{104}$ | 15.1 | $X$ | 210.43382 | 258.67313 | 30.17378 | 9.38873 | 0.1200498 | 0.26150381 | 2.4218693 | 20 | 1 4.2 | 18.9 |
| 43657 Bobmiller | 14.5 | $X$ | 95.70683 | 105.29769 | 95.92103 | 6.27877 | 0.0989109 | 0.17962160 | 3.1109785 | 20 | 8 14.7 | 19.1 |
| 43658 2002 $FV$ | 15.6 | $X$ | 254.25791 | 306.85957 | 4.25922 | 4.85393 | 0.1738815 | 0.27116677 | 2.3639869 | 20 | 3 10.5 | 19.2 |
| 43659 2002 $FJ_{1}$ | 14.5 | $X$ | 65.92070 | 25.89406 | 103.33061 | 24.56328 | 0.2588045 | 0.27208746 | 2.3586511 | 20 | 5 7.3 | 17.7 |
| 43660 2002 $FQ_{2}$ | 15.9 | $X$ | 242.66338 | 211.51088 | 27.61829 | 2.69098 | 0.1533021 | 0.25864049 | 2.4397110 | 20 | — | — |
| 43661 2002 $FY_{2}$ | 15.5 | $X$ | 93.65542 | 266.33390 | 4.30164 | 8.97175 | 0.1021119 | 0.24164066 | 2.5528347 | 20 | 11 11.9 | 19.3 |
| 43662 2002 $FP_{8}$ | 15.5 | $X$ | 257.85610 | 35.46886 | 214.12369 | 5.91877 | 0.1440002 | 0.26408460 | 2.4060649 | 20 | — | — |
| 43663 2002 $FS_{10}$ | 15.2 | $X$ | 60.86069 | 171.94571 | 130.85388 | 5.16095 | 0.1841177 | 0.29295877 | 2.2452518 | 20 | 12 9.1 | 18.4 |
| 43664 2002 $FR_{13}$ | 13.8 | $X$ | 312.77378 | 260.53902 | 41.83887 | 22.32784 | 0.1542366 | 0.17249870 | 3.1960397 | 20 | 5 15.3 | 17.9 |
| 43665 2002 $FM_{22}$ | 14.4 | $X$ | 31.71743 | 71.68346 | 99.77238 | 12.59514 | 0.0597899 | 0.21977252 | 2.7194878 | 20 | 4 9.4 | 18.0 |
| 43666 2002 $FX_{33}$ | 14.5 | $X$ | 42.88812 | 182.23274 | 35.35488 | 11.31123 | 0.0330362 | 0.17172362 | 3.2056494 | 20 | 6 16.1 | 19.0 |
| 43667 Dumlupınar | 15.1 | $X$ | 238.54735 | 22.69962 | 194.88869 | 13.50228 | 0.1114916 | 0.25807829 | 2.4432528 | 20 | — | — |
| 43668 2002 $GH_{7}$ | 14.3 | $X$ | 268.19045 | 110.40918 | 168.95474 | 9.41268 | 0.1282301 | 0.21322656 | 2.7748649 | 20 | 2 22.6 | 18.3 |
| 43669 Winterthur | 15.1 | $X$ | 80.66068 | 93.27848 | 144.06235 | 12.97033 | 0.1389187 | 0.23255800 | 2.6188776 | 20 | 9 24.9 | 18.9 |
| 43670 2002 $GA_{13}$ | 15.7 | $X$ | 170.44744 | 250.52065 | 186.75551 | 2.48223 | 0.0613933 | 0.22554340 | 2.6728995 | 20 | 5 30.2 | 19.6 |
| 43671 2002 $GN_{16}$ | 16.5 | $X$ | 177.25209 | 169.64678 | 98.47309 | 1.95368 | 0.1402466 | 0.30686369 | 2.1769029 | 20 | — | — |
| 43672 2002 $GC_{17}$ | 15.0 | $X$ | 95.60490 | 217.89656 | 40.80043 | 10.39011 | 0.0648583 | 0.23907568 | 2.5710614 | 20 | 10 29.4 | 18.4 |
| 43673 2002 $GO_{17}$ | 15.9 | $X$ | 327.08790 | 179.86475 | 129.11731 | 3.29089 | 0.1550857 | 0.27823114 | 2.3238008 | 20 | 6 25.0 | 17.8 |
| 43674 2002 $GP_{19}$ | 15.3 | $X$ | 172.04886 | 167.21340 | 205.87427 | 3.43024 | 0.0985117 | 0.26784270 | 2.3835056 | 20 | 3 7.2 | 18.7 |
| 43675 2002 $GM_{20}$ | 16.5 | $X$ | 282.82000 | 163.61986 | 9.30613 | 2.44590 | 0.1382230 | 0.25548025 | 2.4597888 | 20 | — | — |
| 43676 2002 $GP_{22}$ | 15.4 | $X$ | 329.58425 | 32.82905 | 259.11541 | 4.18645 | 0.1148693 | 0.27788148 | 2.3257497 | 20 | 6 6.8 | 17.6 |
| 43677 2002 $HN$ | 15.2 | $X$ | 11.18481 | 203.52704 | 42.57978 | 4.74770 | 0.1754136 | 0.27816625 | 2.3241622 | 20 | 6 22.2 | 16.9 |
| 43678 2002 $HP$ | 15.6 | $X$ | 248.57414 | 177.56025 | 99.76192 | 4.49410 | 0.2124646 | 0.26202052 | 2.4186843 | 20 | 1 21.7 | 19.7 |
| 43679 2002 $HJ_{4}$ | 15.8 | $X$ | 116.55236 | 37.52416 | 68.29756 | 7.02231 | 0.2007599 | 0.27699363 | 2.3307169 | 20 | 5 19.1 | 19.2 |
| 43680 2002 $HE_{7}$ | 15.8 | $X$ | 56.82296 | 132.05772 | 120.36893 | 5.02047 | 0.2237067 | 0.22987980 | 2.6391790 | 20 | 9 26.7 | 19.4 |

| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43681 2002 $JG_2$ | 15.3 | X | 309.81896 | 312.74111 | 32.94515 | 5.81376 | 0.2124547 | 0.28056156 | 2.3109148 | 20 | 7 11.1 | 17.2 |
| 43682 2002 $JB_7$ | 16.1 | X | 60.17666 | 327.80450 | 163.89798 | 5.44017 | 0.1645793 | 0.27123393 | 2.3635967 | 20 | 4 1.4 | 18.2 |
| 43683 2002 $JF_{12}$ | 14.7 | X | 165.25908 | 64.22464 | 286.08989 | 1.28315 | 0.2391628 | 0.20501277 | 2.8484949 | 20 | 2 16.2 | 19.6 |
| 43684 2002 $JZ_{24}$ | 14.9 | X | 253.92952 | 150.99891 | 194.44925 | 7.41254 | 0.3422210 | 0.21500340 | 2.7595557 | 20 | 4 10.3 | 19.8 |
| 43685 2002 $JK_{26}$ | 14.4 | X | 289.69112 | 81.91161 | 192.22885 | 13.26371 | 0.1640506 | 0.21355337 | 2.7720332 | 20 | 3 5.4 | 18.4 |
| 43686 2002 $JS_{41}$ | 14.8 | X | 44.66643 | 76.26893 | 229.73679 | 11.34982 | 0.0636562 | 0.24023836 | 2.5627593 | 20 | 10 25.9 | 18.2 |
| 43687 2002 $JF_{59}$ | 15.3 | X | 119.05711 | 113.17640 | 243.55847 | 3.90061 | 0.2116419 | 0.30514351 | 2.1850764 | 20 | — | — |
| 43688 2002 $JN_{70}$ | 15.7 | X | 343.59440 | 314.96137 | 235.28971 | 5.26897 | 0.0784616 | 0.26784760 | 2.3834765 | 20 | 2 3.2 | 18.4 |
| 43689 2002 $JY_{71}$ | 14.6 | X | 92.41342 | 2.21534 | 167.76446 | 9.47609 | 0.1348693 | 0.22518226 | 2.6757566 | 20 | 7 6.5 | 18.5 |
| 43690 2002 $JQ_{72}$ | 15.9 | X | 327.07941 | 167.58622 | 111.62371 | 7.39731 | 0.1724385 | 0.27257380 | 2.3558446 | 20 | 5 7.7 | 18.2 |
| 43691 2002 $JA_{76}$ | 15.6 | X | 115.04376 | 242.80632 | 229.58904 | 1.03731 | 0.0213901 | 0.22229319 | 2.6988905 | 20 | 5 3.9 | 19.1 |
| 43692 2160 *P–L* | 15.5 | X | 311.29703 | 121.44871 | 221.76931 | 4.64950 | 0.1755681 | 0.27756971 | 2.3274910 | 20 | 7 13.8 | 17.5 |
| 43693 2731 *P–L* | 14.4 | X | 333.71032 | 208.85677 | 183.26006 | 10.84755 | 0.1324398 | 0.18096402 | 3.0955743 | 20 | 10 27.9 | 18.1 |
| 43694 2846 *P–L* | 15.7 | X | 101.76189 | 329.54538 | 171.61757 | 3.20270 | 0.0791007 | 0.27464861 | 2.3439650 | 20 | 6 3.2 | 18.6 |
| 43695 4079 *P–L* | 16.1 | X | 255.22709 | 106.47504 | 347.57993 | 2.75363 | 0.0806027 | 0.31268626 | 2.1497940 | 20 | 10 16.7 | 18.4 |
| 43696 4159 *P–L* | 15.3 | X | 305.19560 | 199.06018 | 344.83532 | 6.60834 | 0.0922062 | 0.28644493 | 2.2791625 | 20 | — | — |
| 43697 4620 *P–L* | 15.9 | X | 149.95642 | 271.07583 | 20.47051 | 4.35708 | 0.1509890 | 0.30153594 | 2.2024700 | 20 | — | — |
| 43698 4878 *P–L* | 15.7 | X | 226.42711 | 190.16352 | 164.04251 | 6.30428 | 0.0747442 | 0.22478537 | 2.6789052 | 20 | 4 17.4 | 19.6 |
| 43699 6586 *P–L* | 14.9 | X | 37.30984 | 154.18450 | 171.94851 | 11.82987 | 0.1892556 | 0.23193224 | 2.6235860 | 20 | 12 1.5 | 18.6 |
| 43700 6820 *P–L* | 15.7 | X | 238.60742 | 183.14193 | 158.41896 | 4.40597 | 0.1024015 | 0.22506703 | 2.6766698 | 20 | 4 12.0 | 19.6 |
| 43701 1115 *T–1* | 15.3 | X | 292.92808 | 73.20743 | 207.15573 | 4.48278 | 0.0687224 | 0.22174041 | 2.7033741 | 20 | 4 1.3 | 18.7 |
| 43702 1142 *T–1* | 15.5 | X | 256.02291 | 179.08592 | 260.62748 | 2.46767 | 0.0900576 | 0.28955653 | 2.2628050 | 20 | 9 19.7 | 17.9 |
| 43703 1276 *T–1* | 15.8 | X | 80.83480 | 38.25544 | 220.86759 | 2.98068 | 0.1527684 | 0.28836200 | 2.2690498 | 20 | 10 29.8 | 18.8 |
| 43704 3225 *T–1* | 14.9 | X | 201.57452 | 294.41380 | 283.08287 | 0.83360 | 0.1538112 | 0.19305446 | 2.9649417 | 20 | 12 15.4 | 19.6 |
| 43705 1131 *T–2* | 15.9 | X | 339.89143 | 307.06311 | 310.80078 | 1.92633 | 0.1771939 | 0.26847786 | 2.3797449 | 20 | 4 25.1 | 17.9 |
| 43706 Iphiklos | 12.3 | X | 344.90327 | 213.15041 | 185.90702 | 13.46489 | 0.0875975 | 0.08390538 | 5.1674489 | 20 | 10 31.3 | 18.7 |
| 43707 2050 *T–2* | 15.6 | X | 202.33916 | 118.78345 | 176.39509 | 1.99535 | 0.2104997 | 0.26255942 | 2.4153736 | 20 | 1 5.3 | 19.6 |
| 43708 2126 *T–2* | 15.6 | X | 321.45623 | 184.21209 | 202.60004 | 6.20806 | 0.0620225 | 0.29444981 | 2.2376656 | 20 | 10 26.2 | 17.8 |
| 43709 2284 *T–2* | 15.9 | X | 186.43147 | 78.82152 | 186.21169 | 3.01339 | 0.1528568 | 0.30146559 | 2.2028126 | 20 | — | — |
| 43710 2907 *T–2* | 15.5 | X | 350.03658 | 211.29598 | 194.17313 | 3.87844 | 0.1840701 | 0.29660978 | 2.2267890 | 20 | — | — |
| 43711 3005 *T–2* | 15.7 | X | 251.55123 | 53.41216 | 66.23267 | 2.27474 | 0.0974750 | 0.29576058 | 2.2310494 | 20 | 11 12.3 | 18.0 |
| 43712 5054 *T–2* | 14.8 | X | 241.83994 | 92.93551 | 267.86078 | 7.33552 | 0.0666459 | 0.24624844 | 2.5208890 | 20 | 5 11.2 | 18.2 |
| 43713 5104 *T–2* | 14.8 | X | 347.03758 | 199.26356 | 252.43637 | 7.68321 | 0.0142348 | 0.19420354 | 2.9532346 | 20 | — | — |
| 43714 1048 *T–3* | 15.2 | X | 176.73830 | 348.43063 | 310.25045 | 6.66567 | 0.1509475 | 0.28464144 | 2.2887795 | 20 | — | — |
| 43715 1084 *T–3* | 14.0 | X | 94.22994 | 130.24282 | 248.16610 | 8.39773 | 0.0963173 | 0.19095828 | 2.9866000 | 20 | — | — |
| 43716 1096 *T–3* | 14.5 | X | 80.37098 | 49.12117 | 227.65960 | 10.99787 | 0.1642969 | 0.23133512 | 2.6280987 | 20 | 11 12.6 | 18.4 |
| 43717 2023 *T–3* | 16.4 | X | 289.32678 | 111.24124 | 213.74211 | 6.10676 | 0.2355260 | 0.27071455 | 2.3666188 | 20 | 4 28.9 | 19.4 |
| 43718 2208 *T–3* | 14.5 | X | 84.19022 | 282.22748 | 8.75964 | 9.98434 | 0.0483288 | 0.18522433 | 3.0479233 | 20 | 11 10.2 | 19.0 |
| 43719 2666 *T–3* | 15.9 | X | 147.24368 | 344.69421 | 351.73888 | 2.11823 | 0.0650282 | 0.28446661 | 2.2897172 | 20 | — | — |
| 43720 4301 *T–3* | 15.7 | X | 102.96616 | 270.55010 | 153.38749 | 4.46507 | 0.0632394 | 0.21721995 | 2.7407510 | 20 | 2 22.1 | 19.2 |
| 43721 4433 *T–3* | 14.1 | X | 118.31710 | 345.73106 | 156.60510 | 10.39901 | 0.1552966 | 0.17426271 | 3.1744347 | 20 | 6 30.7 | 19.1 |
| 43722 Carloseduardo | 12.7 | X | 11.10467 | 107.07616 | 276.77806 | 14.75010 | 0.1760898 | 0.17420389 | 3.1751493 | 20 | 12 19.1 | 16.5 |
| 43723 1975 $SZ_1$ | 15.9 | X | 338.47179 | 248.68754 | 173.24759 | 2.94144 | 0.1715725 | 0.28768861 | 2.2725892 | 20 | — | — |
| 43724 Pechstein | 14.7 | X | 182.52038 | 179.44472 | 178.89212 | 7.98866 | 0.2307847 | 0.25343839 | 2.4729829 | 20 | 3 5.6 | 18.9 |
| 43725 1978 $RK_9$ | 14.5 | X | 320.17057 | 122.31903 | 347.23244 | 4.80529 | 0.1600658 | 0.28835434 | 2.2690900 | 20 | — | — |
| 43726 1978 $UJ_5$ | 15.5 | X | 314.98015 | 103.82622 | 303.51741 | 1.68945 | 0.1239537 | 0.28263204 | 2.2996150 | 20 | 11 10.7 | 17.4 |
| 43727 1979 $MQ_2$ | 15.1 | X | 293.93182 | 75.55282 | 162.19542 | 5.05225 | 0.1599367 | 0.25810660 | 2.4430741 | 20 | 1 20.9 | 18.6 |
| 43728 1979 $MA_3$ | 15.3 | X | 120.15174 | 171.30742 | 268.65530 | 3.24776 | 0.0766935 | 0.28267619 | 2.2993755 | 20 | 3 30.2 | 18.3 |
| 43729 1979 $MS_3$ | 14.7 | X | 61.39292 | 21.30821 | 250.06385 | 3.70799 | 0.1337829 | 0.17151900 | 3.2081984 | 20 | 9 30.8 | 19.2 |
| 43730 1979 $MK_4$ | 15.9 | X | 322.57240 | 155.83361 | 135.89874 | 4.14363 | 0.1364776 | 0.28663812 | 2.2781383 | 20 | 5 22.0 | 17.9 |
| 43731 1979 $ML_5$ | 15.5 | X | 263.33227 | 211.00733 | 171.36682 | 5.17058 | 0.1322274 | 0.21496695 | 2.7598677 | 20 | 6 28.1 | 19.4 |
| 43732 1979 $MO_7$ | 14.2 | X | 308.24483 | 177.98378 | 230.86898 | 5.99719 | 0.1275679 | 0.17156248 | 3.2076564 | 20 | 10 1.1 | 18.2 |
| 43733 1979 $MV_7$ | 14.9 | X | 86.53380 | 42.65503 | 217.65408 | 4.39589 | 0.1318339 | 0.17262782 | 3.1944458 | 20 | 10 16.9 | 19.8 |
| 43734 1979 $MY_7$ | 15.0 | X | 346.61595 | 344.14656 | 284.31450 | 7.96873 | 0.1155149 | 0.21453167 | 2.7635995 | 20 | 6 2.1 | 18.1 |
| 43735 1981 $DQ_1$ | 14.0 | X | 223.25026 | 165.21660 | 291.48478 | 8.41494 | 0.1627682 | 0.21178360 | 2.7874548 | 20 | 8 12.0 | 18.3 |
| 43736 1981 $DL_2$ | 15.8 | X | 123.99049 | 293.68279 | 321.59542 | 8.32344 | 0.1180098 | 0.28942546 | 2.2634882 | 20 | 12 5.3 | 19.3 |
| 43737 1981 $EU_3$ | 15.3 | X | 307.40489 | 311.89428 | 228.21466 | 9.39392 | 0.1163070 | 0.24784162 | 2.5100742 | 20 | — | — |
| 43738 1981 $ED_6$ | 16.1 | X | 146.38132 | 65.16919 | 219.30389 | 11.60083 | 0.2951537 | 0.24180920 | 2.5516484 | 20 | — | — |
| 43739 1981 $EP_7$ | 15.1 | X | 123.41212 | 68.57158 | 249.94815 | 6.32614 | 0.1418435 | 0.26914428 | 2.3758150 | 20 | — | — |
| 43740 1981 $EM_9$ | 15.5 | X | 86.69757 | 11.61564 | 272.52262 | 4.72126 | 0.1685549 | 0.28871975 | 2.2671751 | 20 | 12 8.0 | 18.7 |
| 43741 1981 $ES_{10}$ | 15.6 | X | 345.51057 | 170.54079 | 274.13144 | 3.61519 | 0.1216547 | 0.27004610 | 2.3705227 | 20 | — | — |
| 43742 1981 $EX_{12}$ | 14.7 | X | 126.12126 | 55.79395 | 207.46437 | 11.42016 | 0.1097234 | 0.21504531 | 2.7591972 | 20 | 12 4.8 | 19.1 |
| 43743 1981 $EK_{16}$ | 15.8 | X | 272.46306 | 256.99763 | 339.88449 | 6.59268 | 0.0629327 | 0.27379800 | 2.3488171 | 20 | 1 5.8 | 18.9 |
| 43744 1981 $EX_{17}$ | 16.2 | X | 312.61150 | 216.98256 | 352.74967 | 2.63891 | 0.1414504 | 0.27503338 | 2.3417783 | 20 | 1 8.1 | 19.2 |
| 43745 1981 $EN_{22}$ | 15.4 | X | 300.71012 | 195.66601 | 340.97620 | 4.39667 | 0.0602141 | 0.24717753 | 2.5145680 | 20 | — | — |
| 43746 1981 $EH_{31}$ | 15.3 | X | 127.63475 | 251.64622 | 169.70222 | 8.62078 | 0.2068326 | 0.25372156 | 2.4711426 | 20 | 4 4.9 | 19.0 |
| 43747 1981 $EX_{31}$ | 13.7 | X | 262.28820 | 205.76529 | 176.65361 | 5.54563 | 0.1306083 | 0.20844885 | 2.8171050 | 20 | 6 26.9 | 17.8 |
| 43748 1981 $ET_{37}$ | 16.0 | X | 115.80852 | 60.85483 | 219.01632 | 3.59559 | 0.2442700 | 0.28973434 | 2.2618792 | 20 | 12 29.6 | 19.8 |
| 43749 1981 $EG_{46}$ | 15.8 | X | 204.84677 | 245.06547 | 341.44300 | 4.89765 | 0.1917882 | 0.24334766 | 2.5408826 | 20 | — | — |
| 43750 1981 $QG_3$ | 14.2 | X | 150.91061 | 114.16755 | 151.66897 | 16.97930 | 0.2826492 | 0.23701644 | 2.5859318 | 20 | 12 30.3 | 19.1 |
| 43751 Asam | 14.8 | X | 102.58440 | 3.47690 | 4.70621 | 1.97443 | 0.2337147 | 0.24317326 | 2.5420973 | 20 | 1 2.6 | 17.7 |
| 43752 Maryosipova | 15.2 | X | 329.59884 | 120.87220 | 286.68887 | 2.65685 | 0.1965440 | 0.26067647 | 2.4269910 | 20 | 12 8.7 | 16.9 |
| 43753 1982 $VN_3$ | 15.2 | X | 8.09784 | 328.50057 | 88.10234 | 3.71292 | 0.2325466 | 0.23729028 | 2.5839419 | 20 | — | — |
| 43754 1983 *AA* | 14.2 | X | 251.72717 | 203.20166 | 295.44399 | 24.18807 | 0.2434695 | 0.28338524 | 2.2955384 | 20 | 11 3.2 | 17.5 |
| 43755 1983 $RJ_1$ | 14.7 | X | 238.65540 | 93.68700 | 226.45229 | 1.45052 | 0.2160650 | 0.25834444 | 2.4415745 | 20 | 3 4.1 | 18.6 |
| 43756 1984 *CE* | 14.1 | X | 13.65740 | 294.39765 | 106.79446 | 13.35242 | 0.2436206 | 0.23991447 | 2.5650653 | 20 | — | — |
| 43757 1984 $DB_1$ | 13.5 | X | 254.69986 | 352.85734 | 168.48641 | 26.25518 | 0.2093603 | 0.18267336 | 3.0762331 | 20 | 11 30.5 | 18.3 |
| 43758 1985 $QY_2$ | 14.5 | X | 354.48946 | 156.41491 | 258.36613 | 6.35559 | 0.1550997 | 0.28849512 | 2.2683518 | 20 | — | — |
| 43759 1986 $QW_2$ | 15.4 | X | 152.85402 | 198.97891 | 134.81996 | 5.65863 | 0.1414002 | 0.30436902 | 2.1887815 | 20 | — | — |
| 43760 1986 $QD_3$ | 15.0 | X | 285.79633 | 292.08948 | 5.81821 | 6.76269 | 0.1326860 | 0.28358950 | 2.2944360 | 20 | 3 31.9 | 18.0 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43761 1986 $QQ_3$ | 14.4 | X | 17.46175 | 325.16357 | 45.78305 | 3.59086 | 0.1438697 | 0.23691660 | 2.5866583 | 20 | 12 25.6 | 17.7 |
| 43762 1986 $WC_1$ | 13.8 | X | 331.98967 | 345.90423 | 57.25051 | 2.58831 | 0.1605663 | 0.17332265 | 3.1859026 | 20 | 11 4.7 | 17.4 |
| 43763 Russert | 15.1 | X | 318.59593 | 103.25898 | 166.95504 | 11.44618 | 0.2972007 | 0.26637488 | 2.3922535 | 20 | 3 15.0 | 17.6 |
| 43764 1988 $BL_5$ | 14.2 | X | 101.15432 | 145.71196 | 282.61121 | 11.82233 | 0.1203559 | 0.24618709 | 2.5213078 | 20 | 2 24.4 | 17.6 |
| 43765 1988 $CF_4$ | 13.8 | X | 139.63451 | 155.75620 | 225.17952 | 9.46473 | 0.1159290 | 0.18504950 | 3.0498427 | 20 | 2 18.5 | 18.6 |
| 43766 1988 $CR_4$ | 14.5 | X | 154.08915 | 4.10525 | 173.65499 | 13.19203 | 0.2067331 | 0.22819584 | 2.6521468 | 20 | 9 20.7 | 18.9 |
| 43767 Permeke | 14.0 | X | 176.48094 | 184.11575 | 238.76884 | 7.22952 | 0.1540416 | 0.19211242 | 2.9746263 | 20 | 5 19.4 | 18.9 |
| 43768 Lynevans | 13.4 | X | 127.22615 | 54.04038 | 304.48322 | 11.71055 | 0.1161717 | 0.18133355 | 3.0913672 | 20 | 1 15.0 | 17.9 |
| 43769 1988 $EK$ | 14.0 | X | 223.58982 | 330.20398 | 173.39842 | 15.33173 | 0.2755608 | 0.23193117 | 2.6235940 | 20 | 10 4.4 | 18.2 |
| 43770 1988 $EX_1$ | 14.0 | X | 293.02387 | 175.70015 | 34.55308 | 5.47288 | 0.0987892 | 0.17974270 | 3.1095810 | 20 | 1 7.9 | 18.5 |
| 43771 1988 $TJ$ | 14.9 | X | 320.56341 | 40.90118 | 354.27184 | 5.69270 | 0.1411272 | 0.27811524 | 2.3244463 | 20 | 10 31.1 | 16.9 |
| 43772 1988 $TV_1$ | 15.7 | X | 272.22624 | 167.98965 | 231.52829 | 2.43304 | 0.2411941 | 0.27363785 | 2.3497335 | 20 | 7 19.5 | 18.7 |
| 43773 1989 $AJ$ | 14.0 | X | 279.74690 | 159.34325 | 289.97293 | 6.21685 | 0.1976914 | 0.21204145 | 2.7851946 | 20 | 10 5.8 | 17.5 |
| 43774 1989 $CO_2$ | 13.2 | X | 247.33784 | 288.20922 | 268.91792 | 10.57607 | 0.0724752 | 0.18363339 | 3.0655021 | 20 | — | — |
| 43775 Tiepolo | 13.5 | X | 153.81380 | 232.73557 | 321.28856 | 16.18758 | 0.1138868 | 0.17533729 | 3.1614515 | 20 | 9 26.1 | 18.8 |
| 43776 1989 $GP_2$ | 14.0 | X | 310.29412 | 9.58922 | 220.07783 | 9.62723 | 0.0615048 | 0.18719371 | 3.0265084 | 20 | 2 20.9 | 18.4 |
| 43777 1989 $RK_1$ | 14.0 | X | 54.74439 | 48.92947 | 334.59593 | 12.22827 | 0.1826820 | 0.23184218 | 2.6242654 | 20 | — | — |
| 43778 1989 $SY_3$ | 15.1 | X | 158.77165 | 200.64461 | 106.70102 | 3.36575 | 0.2018860 | 0.26700678 | 2.3884777 | 20 | — | — |
| 43779 1989 $SQ_5$ | 16.2 | X | 75.40474 | 190.15855 | 174.26547 | 5.57360 | 0.1871879 | 0.29523858 | 2.2336784 | 20 | — | — |
| 43780 1989 $SL_8$ | 15.3 | X | 336.45201 | 359.32556 | 5.10569 | 4.10180 | 0.1887280 | 0.28765020 | 2.2727915 | 20 | 10 24.2 | 16.8 |
| 43781 1989 $TB_3$ | 16.9 | X | 110.60084 | 176.68776 | 175.72111 | 5.79506 | 0.2236546 | 0.29789873 | 2.2203611 | 20 | — | — |
| 43782 1989 $US_2$ | 14.1 | X | 349.22827 | 161.12333 | 220.27008 | 11.30647 | 0.2830648 | 0.22392645 | 2.6857513 | 20 | 12 9.6 | 16.5 |
| 43783 Svyatitelpyotr | 14.2 | X | 333.52890 | 156.91264 | 228.53301 | 13.92499 | 0.2887796 | 0.22318583 | 2.6916896 | 20 | 11 3.1 | 15.9 |
| 43784 1989 $XR_1$ | 14.7 | X | 283.65155 | 267.44279 | 112.71368 | 8.12904 | 0.2137520 | 0.21728812 | 2.7401777 | 20 | 7 10.1 | 17.9 |
| 43785 1989 $YC_6$ | 15.2 | X | 3.20603 | 223.60445 | 160.13835 | 5.65827 | 0.1701093 | 0.28627732 | 2.2800520 | 20 | — | — |
| 43786 1990 $QA_8$ | 15.7 | X | 117.15422 | 217.61970 | 148.28830 | 3.19867 | 0.2517928 | 0.24422674 | 2.5347818 | 20 | 1 19.7 | 19.2 |
| 43787 1990 $QR_8$ | 15.4 | X | 117.52956 | 218.93043 | 132.87905 | 4.79756 | 0.1788687 | 0.24351102 | 2.5397461 | 20 | — | — |
| 43788 1990 $RB_3$ | 14.8 | X | 19.26251 | 190.73736 | 179.86783 | 18.37663 | 0.2014710 | 0.23490092 | 2.6014345 | 20 | — | — |
| 43789 1990 $SN_9$ | 15.4 | X | 358.82533 | 45.58347 | 30.38248 | 5.40832 | 0.1152240 | 0.30468489 | 2.1872685 | 20 | — | — |
| 43790 Ferdinandbraun | 15.5 | X | 259.21326 | 341.39094 | 17.74737 | 6.06734 | 0.1276752 | 0.28806156 | 2.2706273 | 20 | 5 22.0 | 18.4 |
| 43791 1990 $UK_5$ | 14.8 | X | 12.81539 | 302.73459 | 112.27023 | 6.02778 | 0.2321414 | 0.23545909 | 2.5973217 | 20 | — | — |
| 43792 1990 $VY_1$ | 14.2 | X | 302.65521 | 180.68740 | 209.61091 | 11.36942 | 0.2482601 | 0.22647308 | 2.6655796 | 20 | 8 17.2 | 17.2 |
| 43793 Mackey | 14.7 | X | 129.53724 | 80.69127 | 270.84415 | 5.24175 | 0.2163978 | 0.24226574 | 2.5484418 | 20 | 1 11.1 | 18.4 |
| 43794 Yabetakemoto | 14.3 | X | 157.81426 | 175.82130 | 302.74792 | 13.34663 | 0.2651176 | 0.21502573 | 2.7593647 | 20 | 7 13.9 | 19.2 |
| 43795 1991 $AK_1$ | 14.9 | X | 203.72683 | 192.03301 | 268.81654 | 3.41233 | 0.2809425 | 0.21899769 | 2.7258986 | 20 | 7 24.3 | 19.7 |
| 43796 1991 $AS_1$ | 13.8 | X | 27.95315 | 122.16100 | 317.66262 | 30.63142 | 0.2250631 | 0.23448300 | 2.6045247 | 20 | — | — |
| 43797 1991 $AF_2$ | 14.5 | X | 339.72709 | 246.93339 | 184.75765 | 12.22300 | 0.1618903 | 0.23227008 | 2.6210414 | 20 | — | — |
| 43798 1991 $GW_8$ | 16.5 | X | 46.86294 | 292.03769 | 307.24963 | 1.37541 | 0.2014044 | 0.27717339 | 2.3297091 | 20 | 8 26.3 | 19.1 |
| 43799 1991 $PZ_{10}$ | 14.9 | X | 285.75574 | 358.48017 | 321.76306 | 7.57915 | 0.2724938 | 0.26576083 | 2.3959371 | 20 | 4 8.7 | 18.5 |
| 43800 1991 $PP_{13}$ | 13.0 | X | 108.52200 | 46.26699 | 328.42801 | 10.78077 | 0.1147329 | 0.18476654 | 3.0529557 | 20 | 1 13.4 | 17.3 |
| 43801 1991 $PL_{15}$ | 14.3 | X | 92.89608 | 198.11631 | 127.96691 | 6.44131 | 0.1461465 | 0.17971100 | 3.1099467 | 20 | — | — |
| 43802 1991 $PY_{18}$ | 15.2 | X | 273.56125 | 27.13660 | 323.07781 | 3.57147 | 0.2092972 | 0.26712548 | 2.3877701 | 20 | 5 16.4 | 18.4 |
| 43803 1991 $RH_2$ | 13.6 | X | 124.17930 | 27.46658 | 354.63318 | 10.71209 | 0.0897172 | 0.18641464 | 3.0349348 | 20 | 2 7.1 | 18.1 |
| 43804 Peterting | 13.5 | X | 354.25773 | 29.41719 | 352.07219 | 7.40837 | 0.1491187 | 0.17153872 | 3.2079526 | 20 | 11 12.2 | 17.4 |
| 43805 1991 $RQ_5$ | 14.1 | X | 256.30208 | 231.73455 | 24.71955 | 6.48271 | 0.1036587 | 0.25584023 | 2.4574809 | 20 | 1 11.9 | 17.8 |
| 43806 Augustepiccard | 15.0 | X | 146.42804 | 149.67041 | 261.86904 | 3.74338 | 0.1808036 | 0.25659739 | 2.4526442 | 20 | 4 5.1 | 18.8 |
| 43807 1991 $RC_{11}$ | 13.0 | X | 59.09148 | 208.58405 | 202.39050 | 22.64251 | 0.1715231 | 0.18103258 | 3.0947926 | 20 | — | — |
| 43808 1991 $RF_{11}$ | 14.7 | X | 167.32227 | 75.13640 | 323.44618 | 4.60133 | 0.2181587 | 0.25859930 | 2.4399700 | 20 | 4 9.3 | 18.9 |
| 43809 1991 $RE_{14}$ | 14.2 | X | 304.36637 | 335.23234 | 343.33726 | 8.54187 | 0.1618991 | 0.26651358 | 2.3914235 | 20 | 5 22.3 | 17.0 |
| 43810 1991 $RJ_{20}$ | 15.5 | X | 237.96025 | 229.57558 | 131.71293 | 3.05413 | 0.2289485 | 0.26360278 | 2.4089959 | 20 | 4 24.5 | 19.3 |
| 43811 1991 $RA_{24}$ | 15.4 | X | 254.04404 | 13.48313 | 11.06257 | 2.26141 | 0.2229757 | 0.26676770 | 2.3899045 | 20 | 6 8.6 | 18.9 |
| 43812 1991 $RJ_{29}$ | 12.6 | X | 31.45786 | 97.62940 | 292.23176 | 12.54289 | 0.2072347 | 0.17595756 | 3.1540175 | 20 | — | — |
| 43813 Kühner | 15.3 | X | 181.39301 | 164.92132 | 270.29517 | 2.75796 | 0.2174725 | 0.26191640 | 2.4193253 | 20 | 6 8.1 | 19.4 |
| 43814 1991 $UE_1$ | 15.3 | X | 203.13107 | 59.78483 | 353.81265 | 1.53431 | 0.2317123 | 0.26179451 | 2.4200761 | 20 | 5 29.2 | 19.5 |
| 43815 1991 $VD_4$ | 12.0 | X | 4.61888 | 160.12731 | 256.69401 | 24.17441 | 0.2621312 | 0.17507442 | 3.1646152 | 20 | — | — |
| 43816 1992 $CN_2$ | 15.2 | X | 282.04648 | 221.93606 | 277.29891 | 10.73526 | 0.1268689 | 0.23715232 | 2.5849440 | 20 | — | — |
| 43817 1992 $EF_{22}$ | 14.8 | X | 28.60025 | 35.93829 | 34.65074 | 4.52272 | 0.1314873 | 0.23966454 | 2.5668482 | 20 | — | — |
| 43818 1992 $ET_{32}$ | 13.9 | X | 192.35643 | 299.47049 | 245.71578 | 2.43519 | 0.1286076 | 0.12405549 | 3.9816101 | 20 | 10 21.6 | 20.0 |
| 43819 1992 $LL$ | 15.1 | X | 204.39314 | 154.87662 | 86.25593 | 6.33085 | 0.1130113 | 0.30143292 | 2.2029717 | 20 | — | — |
| 43820 1992 $PP_1$ | 15.1 | X | 345.61979 | 163.30309 | 289.38997 | 3.61023 | 0.1469325 | 0.29396357 | 2.2401325 | 20 | — | — |
| 43821 1992 $RL_3$ | 16.5 | X | 138.69728 | 140.64658 | 169.25463 | 5.07985 | 0.2005485 | 0.29576498 | 2.2310273 | 20 | — | — |
| 43822 1992 $RP_5$ | 16.0 | X | 99.28419 | 271.04560 | 78.94327 | 2.81976 | 0.2294864 | 0.29414022 | 2.2392355 | 20 | — | — |
| 43823 1992 $SV_{24}$ | 14.2 | X | 8.26069 | 163.06163 | 222.49065 | 7.09492 | 0.2592755 | 0.21567979 | 2.7537832 | 20 | — | — |
| 43824 1992 $SY_{24}$ | 13.3 | X | 114.80588 | 14.87882 | 350.30799 | 10.29304 | 0.1072545 | 0.18965962 | 3.0002179 | 20 | 1 7.5 | 17.7 |
| 43825 1992 $UJ_5$ | 15.3 | X | 43.81918 | 190.97034 | 234.34865 | 0.52669 | 0.1997601 | 0.29176868 | 2.2513530 | 20 | — | — |
| 43826 1992 $UC_6$ | 14.8 | X | 358.47204 | 144.44468 | 240.50012 | 7.00134 | 0.1116165 | 0.28394888 | 2.2924997 | 20 | 12 25.5 | 17.3 |
| 43827 1993 $BV_5$ | 14.9 | X | 197.07464 | 9.65728 | 327.88674 | 6.29643 | 0.0261995 | 0.25646742 | 2.4534728 | 20 | 2 18.2 | 18.2 |
| 43828 1993 $FB_5$ | 14.7 | X | 336.87408 | 158.04413 | 17.53038 | 5.46125 | 0.0939933 | 0.21453813 | 2.7635441 | 20 | 1 16.2 | 18.2 |
| 43829 1993 $FB_{19}$ | 15.2 | X | 165.66946 | 273.40676 | 144.30534 | 6.58628 | 0.0842955 | 0.25795489 | 2.4440319 | 20 | 5 1.2 | 18.8 |
| 43830 1993 $FZ_{21}$ | 14.7 | X | 266.00103 | 143.72594 | 1.14302 | 3.05185 | 0.0981972 | 0.24038749 | 2.5616992 | 20 | 12 23.7 | 17.7 |
| 43831 1993 $FP_{29}$ | 13.4 | X | 185.74487 | 5.15878 | 202.34425 | 13.15892 | 0.1135633 | 0.23807668 | 2.5782487 | 20 | 11 30.7 | 17.4 |
| 43832 1993 $FA_{33}$ | 15.5 | X | 210.99390 | 83.07608 | 149.01728 | 4.29669 | 0.1040376 | 0.24239605 | 2.5475284 | 20 | — | — |
| 43833 1993 $FF_{34}$ | 15.6 | X | 240.47130 | 339.72320 | 47.32422 | 5.32417 | 0.1592070 | 0.29823448 | 2.2186944 | 20 | 6 4.3 | 18.6 |
| 43834 1993 $FC_{45}$ | 15.1 | X | 142.00090 | 173.14481 | 164.89085 | 3.04234 | 0.0950262 | 0.24671682 | 2.5176975 | 20 | — | — |
| 43835 1993 $FM_{45}$ | 15.2 | X | 72.28530 | 356.10130 | 30.03107 | 2.82658 | 0.0537650 | 0.24528033 | 2.5275179 | 20 | — | — |
| 43836 1993 $FX_{45}$ | 15.2 | X | 175.52279 | 313.32836 | 184.62556 | 11.43642 | 0.0580177 | 0.23073487 | 2.6326547 | 20 | 8 22.2 | 19.1 |
| 43837 1993 $FN_{49}$ | 15.4 | X | 190.98972 | 235.20244 | 5.76959 | 0.95342 | 0.0635864 | 0.24181963 | 2.5515751 | 20 | — | — |
| 43838 1993 $FW_{49}$ | 15.2 | X | 55.65858 | 337.61243 | 335.45482 | 1.71588 | 0.0829714 | 0.23552748 | 2.5968189 | 20 | 11 20.7 | 18.6 |
| 43839 1993 $FC_{60}$ | 15.5 | X | 60.37974 | 119.61408 | 188.99484 | 12.38874 | 0.2786553 | 0.23308358 | 2.6149392 | 20 | 12 13.9 | 19.9 |
| 43840 1993 $FE_{76}$ | 15.1 | X | 149.83280 | 114.63482 | 206.29094 | 3.74692 | 0.3097102 | 0.24196739 | 2.5505362 | 20 | 1 2.6 | 19.3 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43841 Marcustacitus | 15.3 | X | 160.69855 | 241.77771 | 200.00078 | 0.86925 | 0.1573484 | 0.26155851 | 2.4215316 | 20 | 5 28.2 | 19.1 |
| 43842 1993 $MR$ | 15.0 | X | 49.66790 | 77.00480 | 201.68141 | 6.07839 | 0.2597905 | 0.22612678 | 2.6683004 | 20 | 10 24.5 | 18.7 |
| 43843 Cleynaerts | 14.6 | X | 4.03048 | 321.48041 | 283.70959 | 7.49839 | 0.2297232 | 0.21712292 | 2.7415674 | 20 | 6 2.9 | 16.8 |
| 43844 Rowling | 15.4 | X | 290.08029 | 215.12167 | 144.63708 | 5.87006 | 0.1738228 | 0.21423262 | 2.7661708 | 20 | 6 27.9 | 19.0 |
| 43845 1993 $OS_9$ | 14.8 | X | 111.03456 | 102.50040 | 116.79363 | 8.29111 | 0.0729054 | 0.26122574 | 2.4235877 | 20 | 10 4.1 | 18.3 |
| 43846 1993 $PV_8$ | 14.5 | X | 303.69622 | 123.94091 | 165.83363 | 3.73866 | 0.0604449 | 0.21083126 | 2.7958425 | 20 | 5 2.2 | 18.1 |
| 43847 1993 $QQ_5$ | 14.8 | X | 308.96749 | 155.51440 | 192.01796 | 4.68855 | 0.1255287 | 0.21626566 | 2.7488075 | 20 | 7 17.9 | 18.1 |
| 43848 1993 $QP_9$ | 15.2 | X | 221.48663 | 256.20270 | 134.02670 | 5.21044 | 0.0797103 | 0.21086268 | 2.7955648 | 20 | 5 27.5 | 19.4 |
| 43849 1993 $RB_{11}$ | 14.7 | X | 233.44647 | 227.33280 | 178.26831 | 8.92906 | 0.1558232 | 0.21220506 | 2.7837628 | 20 | 6 21.2 | 19.1 |
| 43850 1993 $SB_{14}$ | 15.2 | X | 277.11955 | 198.43401 | 179.68513 | 10.39441 | 0.2264718 | 0.21387996 | 2.7692106 | 20 | 6 25.9 | 19.2 |
| 43851 1993 $TL_1$ | 15.4 | X | 104.32364 | 233.28447 | 182.84764 | 5.36917 | 0.3396565 | 0.23449456 | 2.6044391 | 20 | 3 21.0 | 19.3 |
| 43852 1993 $TH_{28}$ | 14.5 | X | 316.75637 | 199.84521 | 186.29605 | 9.88670 | 0.1911140 | 0.21775760 | 2.7362378 | 20 | 9 20.8 | 17.0 |
| 43853 1993 $TM_{29}$ | 14.1 | X | 3.21764 | 63.90687 | 157.86249 | 7.24526 | 0.0539098 | 0.16903139 | 3.2395981 | 20 | 5 1.9 | 18.4 |
| 43854 1993 $TO_{31}$ | 14.4 | X | 163.56700 | 267.10493 | 47.76341 | 8.03437 | 0.2057821 | 0.27096580 | 2.3651557 | 20 | — | — |
| 43855 1993 $TX_{36}$ | 14.1 | X | 275.88516 | 145.25817 | 141.54012 | 4.11518 | 0.1746556 | 0.20511758 | 2.8475244 | 20 | 3 8.1 | 18.3 |
| 43856 1993 $UV_4$ | 14.3 | X | 298.55706 | 279.24784 | 172.90704 | 10.73251 | 0.0662843 | 0.18470249 | 3.0536615 | 20 | 11 23.1 | 18.4 |
| 43857 1993 $VP_2$ | 13.1 | X | 310.21514 | 120.59902 | 231.83215 | 22.64511 | 0.1827991 | 0.21255377 | 2.7807173 | 20 | 7 12.5 | 16.8 |
| 43858 1994 $AT$ | 15.8 | X | 87.56971 | 341.46510 | 91.23047 | 1.28037 | 0.1569583 | 0.30530841 | 2.1842895 | 20 | 2 13.7 | 17.6 |
| 43859 Naoyayano | 13.6 | X | 102.54930 | 74.22930 | 306.33278 | 7.98073 | 0.1775188 | 0.18938360 | 3.0031324 | 20 | 1 19.7 | 17.8 |
| 43860 1994 $CQ_9$ | 13.3 | X | 10.85916 | 246.01304 | 138.73916 | 13.24479 | 0.1086931 | 0.17611363 | 3.1521538 | 20 | 12 13.2 | 17.6 |
| 43861 1994 $CT_{13}$ | 15.5 | X | 323.59752 | 43.48882 | 22.19495 | 6.86024 | 0.0795555 | 0.28751059 | 2.2735272 | 20 | 12 24.6 | 17.9 |
| 43862 1994 $EK_1$ | 14.4 | X | 83.98807 | 187.94356 | 25.23949 | 7.43022 | 0.0619567 | 0.27474393 | 2.3434228 | 20 | 8 22.1 | 17.4 |
| 43863 1994 $EU_6$ | 13.8 | X | 18.34265 | 295.34762 | 137.12727 | 13.80667 | 0.2746577 | 0.18411641 | 3.0601383 | 20 | — | — |
| 43864 1994 $GM_3$ | 13.8 | X | 253.91716 | 239.58192 | 28.89848 | 1.48269 | 0.0507282 | 0.18382760 | 3.0633426 | 20 | 2 7.1 | 18.2 |
| 43865 1994 $PX_9$ | 15.7 | X | 134.89365 | 313.25064 | 17.20201 | 1.26777 | 0.1316817 | 0.24351319 | 2.5397310 | 20 | — | — |
| 43866 1994 $PG_{19}$ | 15.0 | X | 101.12602 | 55.27621 | 334.93619 | 4.58943 | 0.1490821 | 0.24447922 | 2.5330363 | 20 | 1 16.6 | 18.0 |
| 43867 1994 $PO_{28}$ | 15.6 | X | 132.04813 | 322.10549 | 35.48514 | 1.88593 | 0.1662738 | 0.24535649 | 2.5269948 | 20 | 1 15.4 | 19.0 |
| 43868 1994 $PL_{35}$ | 15.3 | X | 86.77886 | 197.95361 | 204.08717 | 2.85459 | 0.1287356 | 0.24496714 | 2.5296717 | 20 | 1 6.7 | 18.2 |
| 43869 1994 $RD_{11}$ | 15.7 | X | 171.34183 | 176.17185 | 153.41693 | 25.33515 | 0.0341898 | 0.36181294 | 1.9505032 | 20 | — | — |
| 43870 1994 $TX$ | 15.1 | X | 42.60554 | 345.08325 | 41.78326 | 3.25409 | 0.2354586 | 0.23587024 | 2.5943025 | 20 | — | — |
| 43871 1994 $TW_{15}$ | 15.1 | X | 99.19652 | 152.22460 | 220.70160 | 3.60532 | 0.2259297 | 0.24112110 | 2.5565007 | 20 | 1 2.6 | 18.0 |
| 43872 1994 $UL_9$ | 15.7 | X | 106.47392 | 20.96358 | 278.04135 | 3.11696 | 0.1840712 | 0.23476185 | 2.6024618 | 20 | — | — |
| 43873 1994 $VD$ | 14.8 | X | 345.20283 | 150.97209 | 226.91722 | 11.32269 | 0.1917558 | 0.22788143 | 2.6545858 | 20 | 11 14.8 | 17.3 |
| 43874 1994 $VZ_6$ | 15.5 | X | 46.26368 | 158.21379 | 235.33021 | 3.96518 | 0.2794700 | 0.23595114 | 2.5937095 | 20 | — | — |
| 43875 1994 $WT_3$ | 15.1 | X | 66.33598 | 157.47481 | 243.37821 | 6.44353 | 0.3459679 | 0.23823867 | 2.5770799 | 20 | 1 2.6 | 16.8 |
| 43876 1994 $XV_4$ | 13.8 | X | 298.58305 | 161.54332 | 274.82240 | 12.01698 | 0.1376823 | 0.22429884 | 2.6827778 | 20 | 10 31.5 | 17.0 |
| 43877 1995 $BP_{11}$ | 14.9 | X | 147.88250 | 173.95563 | 120.26472 | 2.75355 | 0.1379623 | 0.18596243 | 3.0398529 | 20 | — | — |
| 43878 1995 $BS_{11}$ | 14.3 | X | 107.82801 | 56.22266 | 13.01005 | 1.78955 | 0.0451832 | 0.19850551 | 2.9104111 | 20 | 3 5.9 | 18.2 |
| 43879 1995 $CN_6$ | 15.0 | X | 265.81128 | 145.41891 | 192.51138 | 1.71754 | 0.1201473 | 0.20674926 | 2.8325228 | 20 | 5 6.1 | 19.0 |
| 43880 1995 $CX_7$ | 15.8 | X | 267.29549 | 177.52880 | 112.36912 | 1.00960 | 0.1358690 | 0.31889292 | 2.1218082 | 20 | 2 24.3 | 18.4 |
| 43881 Cerreto | 15.2 | X | 269.82473 | 307.48442 | 157.61070 | 3.07776 | 0.1572493 | 0.25894849 | 2.4377760 | 20 | 11 2.8 | 17.8 |
| 43882 Maurivicoli | 15.6 | X | 229.70023 | 77.80129 | 96.88546 | 7.22213 | 0.0755765 | 0.26135086 | 2.4228141 | 20 | 12 20.9 | 18.5 |
| 43883 1995 $EK_2$ | 15.4 | X | 138.37150 | 162.34762 | 201.35232 | 1.16945 | 0.1116834 | 0.19582081 | 2.9369518 | 20 | 1 29.5 | 19.8 |
| 43884 1995 $FZ_7$ | 15.2 | X | 45.69527 | 99.04212 | 26.30214 | 14.35775 | 0.0390682 | 0.23374607 | 2.6099960 | 20 | 2 25.7 | 18.7 |
| 43885 1995 $FJ_9$ | 15.1 | X | 137.06757 | 193.65165 | 35.97225 | 7.97826 | 0.0860701 | 0.29271436 | 2.2465014 | 20 | 11 16.7 | 18.3 |
| 43886 1995 $GR_7$ | 16.2 | X | 196.78806 | 189.24394 | 111.36482 | 5.64744 | 0.1909261 | 0.30691640 | 2.1766536 | 20 | 1 1.2 | 19.6 |
| 43887 1995 $OS_4$ | 15.4 | X | 86.72636 | 251.33230 | 326.92919 | 11.77943 | 0.1247703 | 0.23716144 | 2.5848776 | 20 | 8 31.7 | 19.0 |
| 43888 1995 $OV_8$ | 15.8 | X | 105.68242 | 113.78641 | 173.70749 | 6.33399 | 0.1784976 | 0.28762516 | 2.2729234 | 20 | 12 29.4 | 19.4 |
| 43889 Osawatakaomi | 14.2 | X | 7.98048 | 138.34535 | 272.54017 | 4.36064 | 0.1568714 | 0.28566566 | 2.2833055 | 20 | — | — |
| 43890 Katiaottani | 16.2 | X | 59.90301 | 330.25710 | 327.14311 | 2.93835 | 0.2399901 | 0.28303183 | 2.2974489 | 20 | 12 4.0 | 19.7 |
| 43891 1995 $SQ_1$ | 14.1 | X | 226.37269 | 122.04963 | 313.61327 | 23.71120 | 0.2200650 | 0.27009266 | 2.3702502 | 20 | 7 22.6 | 17.8 |
| 43892 1995 $SG_{21}$ | 15.2 | X | 280.99256 | 32.90318 | 355.02500 | 2.09968 | 0.1313346 | 0.27408619 | 2.3471704 | 20 | 8 5.8 | 17.7 |
| 43893 1995 $ST_{32}$ | 15.8 | X | 24.50941 | 185.02470 | 172.76459 | 1.96878 | 0.1939792 | 0.24296526 | 2.5435480 | 20 | 12 27.2 | 18.9 |
| 43894 1995 $TP$ | 15.5 | X | 293.11418 | 158.40383 | 199.30972 | 6.27746 | 0.1436700 | 0.27080980 | 2.3660639 | 20 | 7 6.9 | 18.2 |
| 43895 1995 $UC_4$ | 15.5 | X | 209.16182 | 355.91640 | 35.18967 | 2.91807 | 0.1850257 | 0.26334984 | 2.4105381 | 20 | 5 7.5 | 19.4 |
| 43896 1995 $UL_4$ | 13.9 | X | 303.46682 | 305.14310 | 34.54982 | 7.32647 | 0.1474632 | 0.26825141 | 2.3810840 | 20 | 6 27.9 | 16.5 |
| 43897 1995 $VC$ | 15.3 | X | 132.57818 | 43.23909 | 38.12119 | 3.10216 | 0.1577688 | 0.25737566 | 2.4476974 | 20 | 4 29.2 | 18.9 |
| 43898 1995 $VN$ | 15.3 | X | 181.98729 | 198.44866 | 179.83845 | 2.16985 | 0.2129215 | 0.25882468 | 2.4385534 | 20 | 3 29.5 | 19.4 |
| 43899 1995 $VH_1$ | 15.2 | X | 0.10945 | 140.19325 | 240.16945 | 8.29820 | 0.2102741 | 0.27896321 | 2.3197335 | 20 | — | — |
| 43900 1995 $VH_2$ | 15.0 | X | 260.91395 | 220.51368 | 149.54185 | 2.89750 | 0.2191714 | 0.26679628 | 2.3897339 | 20 | 5 29.1 | 18.4 |
| 43901 1995 $VX_2$ | 16.3 | X | 283.02597 | 103.85476 | 201.63799 | 1.81647 | 0.1803773 | 0.26481999 | 2.4016085 | 20 | 4 2.4 | 19.3 |
| 43902 1995 $VX_4$ | 15.8 | X | 307.23775 | 140.85425 | 124.96372 | 3.84365 | 0.1658949 | 0.26219775 | 2.4175942 | 20 | 3 15.7 | 18.6 |
| 43903 1995 $WC$ | 14.9 | X | 344.03326 | 152.40697 | 227.21161 | 5.97439 | 0.2096922 | 0.27661340 | 2.3328523 | 20 | 12 5.7 | 16.8 |
| 43904 1995 $WO$ | 15.1 | X | 293.03098 | 139.63997 | 197.80571 | 8.23568 | 0.2773887 | 0.26824284 | 2.3811346 | 20 | 5 15.9 | 18.0 |
| 43905 1995 $WC_1$ | 15.4 | X | 289.05741 | 145.74859 | 234.96895 | 1.47868 | 0.2181647 | 0.27047094 | 2.3680397 | 20 | 7 22.5 | 17.7 |
| 43906 1995 $WK_4$ | 15.4 | X | 192.50083 | 292.23387 | 106.71008 | 3.29225 | 0.1765138 | 0.26069648 | 2.4268668 | 20 | 5 4.1 | 19.2 |
| 43907 1995 $WX_4$ | 15.2 | X | 202.32761 | 177.60265 | 225.27683 | 4.06142 | 0.1939629 | 0.26200893 | 2.4187556 | 20 | 5 16.5 | 19.1 |
| 43908 Hiraku | 14.7 | X | 181.31719 | 309.73171 | 51.24204 | 8.44480 | 0.0972661 | 0.25542237 | 2.4601604 | 20 | 3 8.3 | 18.4 |
| 43909 1995 $WB_9$ | 13.8 | X | 241.05847 | 244.48386 | 228.79643 | 26.31429 | 0.1366218 | 0.23152638 | 2.6266512 | 20 | 9 23.8 | 18.0 |
| 43910 1995 $WA_{20}$ | 15.5 | X | 177.17805 | 139.24303 | 100.65605 | 6.14011 | 0.1197240 | 0.24115763 | 2.5562424 | 20 | 12 30.8 | 19.2 |
| 43911 1995 $WF_{22}$ | 14.1 | X | 134.88261 | 355.70091 | 229.31689 | 26.19008 | 0.1472335 | 0.23397157 | 2.6083187 | 20 | 10 30.6 | 18.3 |
| 43912 1995 $WR_{34}$ | 15.1 | X | 191.61299 | 16.82198 | 125.70797 | 14.61030 | 0.0109943 | 0.22554912 | 2.6728544 | 20 | 9 27.6 | 18.9 |
| 43913 1995 $YT$ | 15.5 | X | 251.47891 | 205.95452 | 164.98851 | 2.08127 | 0.2594738 | 0.26473308 | 2.4021341 | 20 | 5 15.8 | 19.2 |
| 43914 1995 $YC_2$ | 15.1 | X | 155.65803 | 164.64430 | 216.42131 | 4.77812 | 0.1966463 | 0.25432872 | 2.4672081 | 20 | 3 7.9 | 19.1 |
| 43915 1995 $YT_7$ | 14.7 | X | 84.08880 | 126.32434 | 100.01612 | 6.89455 | 0.2184879 | 0.22731180 | 2.6590187 | 20 | 9 23.3 | 18.8 |
| 43916 1996 $AP_2$ | 14.0 | X | 10.84520 | 130.51907 | 309.76928 | 11.03788 | 0.1251384 | 0.23956251 | 2.5675770 | 20 | — | — |
| 43917 1996 $AM_{16}$ | 15.6 | X | 285.65068 | 232.40125 | 85.36564 | 7.26198 | 0.1572546 | 0.26369244 | 2.4084498 | 20 | 4 29.2 | 18.7 |
| 43918 1996 $AE_{18}$ | 15.3 | X | 95.47605 | 198.28311 | 147.01422 | 5.54497 | 0.2437596 | 0.23991061 | 2.5650928 | 20 | — | — |
| 43919 1996 $BG_3$ | 14.6 | X | 306.41210 | 343.77135 | 134.65835 | 15.36208 | 0.1383864 | 0.23558218 | 2.5964169 | 20 | — | — |
| 43920 1996 $CJ_2$ | 13.4 | X | 101.12468 | 79.81539 | 72.03589 | 10.28013 | 0.1003745 | 0.21498854 | 2.7596828 | 20 | 6 18.4 | 17.4 |

| Planet | $H$ | $G$ | $M$ | $\omega$ | $\Omega$ | $i$ | $e$ | $\mu$ | $a$ | TE | Oppos. | $V$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | m | | ° | ° | ° | ° | | ° | | | | |
| 43921 1996 $CW_3$ | 14.0 | $X$ | 299.96144 | 114.06480 | 316.71445 | 11.18621 | 0.0164415 | 0.22900755 | 2.6458761 | 20 | 11 4.7 | 17.8 |
| 43922 1996 $CE_5$ | 14.5 | $X$ | 24.37010 | 110.38024 | 314.30158 | 21.67143 | 0.1191483 | 0.23903284 | 2.5713686 | 20 | — | — |
| 43923 1996 $CX_8$ | 14.3 | $X$ | 53.49880 | 13.43385 | 10.18671 | 6.87339 | 0.0445938 | 0.23560873 | 2.5962218 | 20 | — | — |
| 43924 Martoni | 14.8 | $X$ | 103.05859 | 208.09068 | 317.06594 | 4.41928 | 0.0298419 | 0.21451460 | 2.7637461 | 20 | 6 29.6 | 18.7 |
| 43925 1996 $DB_3$ | 14.4 | $X$ | 272.51802 | 199.69599 | 320.55917 | 13.85863 | 0.0775533 | 0.23736070 | 2.5834309 | 20 | — | — |
| 43926 1996 $EL_1$ | 13.3 | $X$ | 357.46335 | 119.80618 | 340.69722 | 13.20151 | 0.1498365 | 0.23731265 | 2.5837796 | 20 | — | — |
| 43927 1996 $GN_4$ | 14.7 | $X$ | 342.42338 | 209.76942 | 177.31715 | 13.26366 | 0.2553462 | 0.22444659 | 2.6816003 | 20 | 11 30.4 | 17.3 |
| 43928 1996 $HE_{13}$ | 14.5 | $X$ | 137.13971 | 30.52783 | 230.65242 | 3.98926 | 0.1357242 | 0.18260517 | 3.0769989 | 20 | 12 6.9 | 19.5 |
| 43929 1996 $JO_9$ | 14.7 | $X$ | 57.60459 | 7.03695 | 85.74758 | 3.29187 | 0.0616555 | 0.19658259 | 2.9293596 | 20 | 2 1.4 | 18.4 |
| 43930 1996 $LR_3$ | 15.8 | $X$ | 267.12222 | 80.37840 | 127.40719 | 7.81487 | 0.0565390 | 0.27346211 | 2.3507400 | 20 | — | — |
| 43931 Yoshimi | 13.0 | $X$ | 313.05367 | 265.35991 | 165.75250 | 21.54045 | 0.0795137 | 0.17015015 | 3.2253820 | 20 | 11 15.4 | 17.6 |
| 43932 1996 $QH$ | 14.8 | $X$ | 308.89675 | 82.88454 | 322.60647 | 5.37462 | 0.1817435 | 0.29059006 | 2.2574365 | 20 | 10 24.1 | 16.4 |
| 43933 1996 $RX_9$ | 15.1 | $X$ | 116.91301 | 262.31384 | 147.80369 | 3.91998 | 0.0638422 | 0.22812266 | 2.6527140 | 20 | 2 21.0 | 18.4 |
| 43934 1996 $TC$ | 13.9 | $X$ | 86.78724 | 132.86445 | 338.02071 | 0.54875 | 0.0426268 | 0.18814207 | 3.0163294 | 20 | 3 31.5 | 18.1 |
| 43935 Danshechtman | 16.0 | $X$ | 246.20638 | 49.56442 | 272.19562 | 2.92068 | 0.1377368 | 0.31515216 | 2.1385653 | 20 | 3 13.0 | 18.9 |
| 43936 1996 $TM_{11}$ | 13.6 | $X$ | 47.37673 | 208.94794 | 204.43830 | 16.57916 | 0.0985086 | 0.17517534 | 3.1633997 | 20 | — | — |
| 43937 1996 $TS_{25}$ | 15.7 | $X$ | 176.27720 | 144.66330 | 38.91551 | 6.91789 | 0.1244000 | 0.28693819 | 2.2765497 | 20 | 10 28.4 | 18.7 |
| 43938 1996 $TH_{51}$ | 14.2 | $X$ | 89.48242 | 163.15728 | 181.43716 | 13.59564 | 0.1868165 | 0.21755162 | 2.7379647 | 20 | — | — |
| 43939 1996 $TT_{53}$ | 16.3 | $X$ | 284.33416 | 269.73550 | 25.68792 | 0.64812 | 0.2185223 | 0.27790819 | 2.3256007 | 20 | 3 15.7 | 19.4 |
| 43940 1996 $XY_5$ | 12.6 | $X$ | 44.34728 | 299.83105 | 86.47487 | 6.49165 | 0.2306341 | 0.12561737 | 3.9485374 | 20 | — | — |
| 43941 1996 $YP$ | 14.6 | $X$ | 251.84855 | 170.52250 | 296.02117 | 6.23620 | 0.0543413 | 0.28207830 | 2.3026235 | 20 | 10 25.0 | 17.5 |
| 43942 1996 $YX$ | 14.5 | $X$ | 279.06184 | 148.96561 | 275.88679 | 6.99165 | 0.0794036 | 0.28072540 | 2.3100156 | 20 | 10 1.7 | 17.2 |
| 43943 1997 $AV$ | 14.9 | $X$ | 325.40813 | 127.71047 | 319.01191 | 3.93482 | 0.1238658 | 0.28820667 | 2.2698650 | 20 | — | — |
| 43944 1997 $AW_1$ | 14.4 | $X$ | 286.26589 | 25.20265 | 55.94408 | 4.89594 | 0.1174614 | 0.28333079 | 2.2958325 | 20 | 11 8.5 | 16.3 |
| 43945 1997 $AS_2$ | 15.2 | $X$ | 44.07318 | 62.12022 | 305.06563 | 24.80304 | 0.2014025 | 0.28898527 | 2.2657861 | 20 | — | — |
| 43946 1997 $AR_6$ | 15.3 | $X$ | 46.75511 | 197.47653 | 270.88381 | 7.86124 | 0.1190862 | 0.30236035 | 2.1984647 | 20 | 1 15.6 | 17.0 |
| 43947 1997 $AE_7$ | 14.5 | $X$ | 56.81754 | 336.21614 | 169.23907 | 4.73504 | 0.0967110 | 0.26154863 | 2.4215926 | 20 | 4 6.7 | 17.1 |
| 43948 1997 $AU_{12}$ | 14.7 | $X$ | 268.36766 | 138.24916 | 322.99150 | 6.17738 | 0.0401300 | 0.28223715 | 2.3017594 | 20 | 11 13.9 | 17.5 |
| 43949 1997 $AU_{18}$ | 15.0 | $X$ | 23.22912 | 84.38669 | 97.76671 | 7.65569 | 0.0598128 | 0.26234935 | 2.4166628 | 20 | 4 4.5 | 17.8 |
| 43950 1997 $BG_1$ | 14.9 | $X$ | 127.94118 | 33.67570 | 143.43097 | 7.56452 | 0.2258038 | 0.22953388 | 2.6418299 | 20 | 8 30.5 | 19.2 |
| 43951 1997 $BC_5$ | 15.8 | $X$ | 289.46830 | 87.98195 | 221.05060 | 1.62034 | 0.2063937 | 0.26513494 | 2.3997062 | 20 | 4 11.3 | 18.6 |
| 43952 1997 $BG_7$ | 16.0 | $X$ | 132.34394 | 338.16353 | 129.49084 | 7.50637 | 0.0488922 | 0.26628286 | 2.3928046 | 20 | 5 24.9 | 19.2 |
| 43953 1997 $CB_1$ | 15.2 | $X$ | 84.78919 | 255.27309 | 164.81312 | 4.89115 | 0.1187890 | 0.29762569 | 2.2217189 | 20 | 1 15.1 | 17.3 |
| 43954 Chýnov | 14.3 | $X$ | 315.43787 | 132.50697 | 324.94346 | 6.95847 | 0.0558074 | 0.28771528 | 2.2724487 | 20 | — | — |
| 43955 Fixlmüller | 16.5 | $X$ | 287.09204 | 154.47137 | 198.21989 | 0.28127 | 0.0403843 | 0.27063216 | 2.3670991 | 20 | 7 7.7 | 19.3 |
| 43956 Elidoro | 15.4 | $X$ | 93.42301 | 159.50365 | 355.38305 | 2.61466 | 0.1113980 | 0.26609723 | 2.3939173 | 20 | 6 15.6 | 18.5 |
| 43957 Invernizzi | 14.4 | $X$ | 300.88040 | 322.28775 | 138.46278 | 8.50841 | 0.1494959 | 0.24142214 | 2.5543750 | 20 | 12 18.8 | 17.0 |
| 43958 1997 $CZ_{14}$ | 16.0 | $X$ | 26.46695 | 335.49250 | 36.13092 | 2.72299 | 0.2323863 | 0.28730797 | 2.2745960 | 20 | — | — |
| 43959 1997 $CB_{26}$ | 13.8 | $X$ | 229.58952 | 113.01352 | 320.84768 | 5.94447 | 0.0663907 | 0.27278311 | 2.3546393 | 20 | 8 7.9 | 16.9 |
| 43960 1997 $CE_{27}$ | 15.3 | $X$ | 24.14715 | 40.67185 | 291.16238 | 6.21471 | 0.2078874 | 0.28042067 | 2.3116888 | 20 | 12 3.9 | 18.1 |
| 43961 1997 $ER_5$ | 14.9 | $X$ | 110.47598 | 232.86135 | 164.96832 | 2.24979 | 0.1436959 | 0.25222106 | 2.4809336 | 20 | 2 4.8 | 18.0 |
| 43962 1997 $EX_{13}$ | 15.3 | $X$ | 220.94976 | 97.18517 | 308.16664 | 2.13829 | 0.1591323 | 0.26904219 | 2.3764159 | 20 | 6 8.2 | 18.9 |
| 43963 1997 $EW_{14}$ | 15.8 | $X$ | 66.32197 | 200.54090 | 169.72799 | 5.43945 | 0.1891709 | 0.29141087 | 2.2531955 | 20 | — | — |
| 43964 1997 $EF_{23}$ | 14.5 | $X$ | 29.79739 | 80.88518 | 331.70361 | 6.79033 | 0.0926191 | 0.29355767 | 2.2421970 | 20 | — | — |
| 43965 1997 $EO_{32}$ | 15.9 | $X$ | 93.24117 | 129.05503 | 161.48479 | 0.91279 | 0.1674192 | 0.23409742 | 2.6073838 | 20 | 12 12.2 | 20.0 |
| 43966 1997 $EM_{36}$ | 15.2 | $X$ | 280.62574 | 319.47806 | 148.34439 | 6.03311 | 0.1856507 | 0.28440520 | 2.2900468 | 20 | 12 2.1 | 17.1 |
| 43967 1997 $FM_2$ | 14.8 | $X$ | 117.04449 | 57.16305 | 24.83900 | 6.51483 | 0.1871792 | 0.25871477 | 2.4392440 | 20 | 4 16.3 | 18.2 |
| 43968 1997 $FA_5$ | 15.4 | $X$ | 88.78717 | 25.62571 | 187.44422 | 4.51691 | 0.1655231 | 0.22497796 | 2.6773762 | 20 | 8 31.6 | 19.3 |
| 43969 1997 $GL$ | 15.4 | $X$ | 119.37111 | 135.09882 | 172.02562 | 0.59602 | 0.1053489 | 0.23863551 | 2.5742220 | 20 | — | — |
| 43970 1997 $GH_1$ | 14.9 | $X$ | 35.34176 | 179.86094 | 181.13454 | 2.98430 | 0.1795675 | 0.23739530 | 2.5831798 | 20 | — | — |
| 43971 Gabzdyl | 15.8 | $X$ | 86.06195 | 79.92755 | 183.83783 | 2.33624 | 0.1782312 | 0.22909181 | 2.6452274 | 20 | 11 3.7 | 19.9 |
| 43972 1997 $GM_6$ | 14.9 | $X$ | 31.98153 | 89.51768 | 208.03412 | 10.56353 | 0.1835075 | 0.22442561 | 2.6817674 | 20 | 10 12.9 | 18.1 |
| 43973 1997 $GE_7$ | 14.6 | $X$ | 340.61888 | 138.05188 | 206.48563 | 12.19364 | 0.1404190 | 0.22429890 | 2.6827773 | 20 | 9 8.9 | 17.5 |
| 43974 1997 $GY_{12}$ | 14.9 | $X$ | 304.69251 | 196.38568 | 179.53517 | 2.59875 | 0.1212822 | 0.22755831 | 2.6570981 | 20 | 8 22.9 | 17.8 |
| 43975 1997 $GF_{14}$ | 15.2 | $X$ | 128.84726 | 162.63873 | 281.27455 | 1.98924 | 0.1467503 | 0.25931627 | 2.4354705 | 20 | 4 26.5 | 18.7 |
| 43976 1997 $GQ_{14}$ | 15.0 | $X$ | 276.46462 | 78.54774 | 332.99986 | 5.01260 | 0.2350288 | 0.27294036 | 2.3537349 | 20 | 8 15.2 | 17.5 |
| 43977 1997 $GD_{17}$ | 15.0 | $X$ | 171.18597 | 149.19852 | 275.71491 | 1.73935 | 0.1860256 | 0.26212742 | 2.4180267 | 20 | 5 16.5 | 18.9 |
| 43978 1997 $GG_{17}$ | 14.9 | $X$ | 57.46181 | 105.73605 | 215.54190 | 6.34251 | 0.1162653 | 0.23305571 | 2.6151477 | 20 | 12 7.9 | 18.5 |
| 43979 1997 $GM_{17}$ | 15.3 | $X$ | 178.02579 | 303.56768 | 225.62630 | 2.49890 | 0.2232832 | 0.23192515 | 2.6236395 | 20 | 9 28.6 | 19.6 |
| 43980 1997 $GR_{20}$ | 15.7 | $X$ | 170.94279 | 293.73395 | 28.85520 | 1.16111 | 0.1422305 | 0.24652840 | 2.5189801 | 20 | 1 9.7 | 19.6 |
| 43981 1997 $GM_{21}$ | 15.2 | $X$ | 343.49627 | 288.35723 | 355.35855 | 1.07954 | 0.2032691 | 0.21682285 | 2.7440963 | 20 | 6 13.8 | 17.6 |
| 43982 1997 $GA_{32}$ | 14.5 | $X$ | 10.11886 | 303.45632 | 148.33749 | 8.33538 | 0.2136441 | 0.24312286 | 2.5424486 | 20 | — | — |
| 43983 1997 $GR_{35}$ | 13.9 | $X$ | 314.83694 | 174.78776 | 218.89671 | 11.55678 | 0.2848287 | 0.22730856 | 2.6590440 | 20 | 9 16.3 | 16.2 |
| 43984 1997 $HR_7$ | 15.0 | $X$ | 7.69978 | 306.08071 | 350.88082 | 3.07042 | 0.0865663 | 0.22227341 | 2.6990507 | 20 | 8 21.0 | 18.0 |
| 43985 1997 $HQ_8$ | 15.7 | $X$ | 206.75296 | 112.58353 | 61.15037 | 3.56624 | 0.0336230 | 0.23302448 | 2.6153813 | 20 | 11 19.4 | 19.1 |
| 43986 1997 $HF_9$ | 15.5 | $X$ | 151.44607 | 358.79061 | 234.63141 | 6.82208 | 0.0790175 | 0.23290783 | 2.6162545 | 20 | 11 27.1 | 19.2 |
| 43987 1997 $JR_9$ | 14.7 | $X$ | 66.55275 | 77.12547 | 132.72542 | 13.22030 | 0.1249035 | 0.21880196 | 2.7275240 | 20 | 7 25.3 | 18.3 |
| 43988 1997 $KQ_3$ | 14.9 | $X$ | 257.48978 | 282.96069 | 113.58368 | 6.22075 | 0.0059827 | 0.22025744 | 2.7154949 | 20 | 7 29.8 | 18.6 |
| 43989 1997 $LG_4$ | 14.5 | $X$ | 167.83587 | 189.30290 | 151.52706 | 15.97839 | 0.1490860 | 0.20028519 | 2.8931447 | 20 | 2 2.5 | 19.1 |
| 43990 1997 $LN_4$ | 14.9 | $X$ | 145.29084 | 12.21086 | 175.22481 | 4.08335 | 0.1473691 | 0.22677427 | 2.6632189 | 20 | 9 24.2 | 19.1 |
| 43991 1997 $MF_{10}$ | 14.5 | $X$ | 1.97990 | 274.71144 | 121.13237 | 12.58137 | 0.2825206 | 0.23008725 | 2.6375924 | 20 | — | — |
| 43992 1997 $NP$ | 13.7 | $X$ | 129.85303 | 117.02021 | 295.25166 | 4.73941 | 0.1052867 | 0.19866933 | 2.9088110 | 20 | 3 15.8 | 18.0 |
| 43993 Mariola | 14.2 | $X$ | 13.27288 | 18.72825 | 304.60295 | 11.80009 | 0.2367630 | 0.21897531 | 2.7260843 | 20 | 10 19.3 | 17.4 |
| 43994 1997 $PF_3$ | 15.1 | $X$ | 133.27001 | 202.84588 | 82.68544 | 1.96418 | 0.2400897 | 0.18477420 | 3.0528713 | 20 | — | — |
| 43995 1997 $PY_5$ | 16.5 | $X$ | 282.46349 | 219.64426 | 254.09400 | 2.20055 | 0.0749890 | 0.30764513 | 2.1732150 | 20 | 12 31.8 | 18.4 |
| 43996 1997 $QH$ | 14.9 | $X$ | 237.45442 | 146.80210 | 205.08081 | 1.58452 | 0.0971508 | 0.20443172 | 2.8538898 | 20 | 4 23.9 | 19.0 |
| 43997 1997 $QX$ | 14.7 | $X$ | 11.83507 | 55.96957 | 335.28967 | 8.72963 | 0.0608865 | 0.18072167 | 3.0983411 | 20 | 12 16.2 | 19.0 |
| 43998 Nanyoshino | 13.4 | $X$ | 81.12360 | 89.20067 | 173.86622 | 16.44094 | 0.2014903 | 0.17553007 | 3.1591363 | 20 | 10 25.9 | 18.4 |
| 43999 Gramigna | 15.7 | $X$ | 122.86528 | 285.10960 | 15.96625 | 1.55292 | 0.0608035 | 0.31474518 | 2.1404085 | 20 | — | — |
| 44000 1997 $RB$ | 13.9 | $X$ | 169.70963 | 244.59286 | 344.87814 | 13.13799 | 0.0438519 | 0.18003117 | 3.1062584 | 20 | 11 30.1 | 18.7 |