

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | H | G | M | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | V | | |
|--------|------|-------------------|------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 204001 | 2003 | TV ₃₈ | 16.2 | X | 163.88069 | 290.93855 | 238.02869 | 7.97159 | 0.1525616 | 0.22809340 | 2.6529409 | 20 | 9 14.9 | 20.7 |
| 204002 | 2003 | TT ₅₁ | 16.5 | X | 264.51559 | 176.31018 | 175.68823 | 6.19758 | 0.0345275 | 0.21687929 | 2.7436202 | 20 | 6 4.7 | 20.3 |
| 204003 | 2003 | UQ ₇ | 15.3 | X | 5.50195 | 63.68996 | 262.11567 | 13.75896 | 0.2070827 | 0.23123513 | 2.6288563 | 20 | 10 6.5 | 18.3 |
| 204004 | 2003 | UG ₉ | 14.9 | X | 138.57930 | 240.59199 | 172.15082 | 27.47927 | 0.1526707 | 0.20226834 | 2.8742030 | 20 | 4 3.5 | 19.5 |
| 204005 | 2003 | UH ₁₃ | 16.9 | X | 204.93135 | 53.88212 | 222.68367 | 19.74410 | 0.0345912 | 0.37162629 | 1.9160129 | 20 | — | — |
| 204006 | 2003 | UK ₁₄ | 16.6 | X | 221.06484 | 263.68290 | 214.59573 | 2.42632 | 0.1015256 | 0.22801855 | 2.6535214 | 20 | 9 15.9 | 20.5 |
| 204007 | 2003 | UQ ₁₄ | 16.3 | X | 250.68338 | 223.24748 | 206.78037 | 1.59514 | 0.0721836 | 0.22393452 | 2.6856867 | 20 | 8 24.0 | 19.9 |
| 204008 | 2003 | UR ₂₁ | 15.7 | X | 206.64398 | 81.16065 | 330.61327 | 4.04075 | 0.0380526 | 0.21534072 | 2.7566731 | 20 | 6 8.6 | 19.7 |
| 204009 | 2003 | UD ₂₇ | 16.2 | X | 333.58805 | 239.80900 | 124.88905 | 5.09124 | 0.2339258 | 0.23053623 | 2.6341667 | 20 | 10 3.9 | 18.2 |
| 204010 | 2003 | US ₂₇ | 16.2 | X | 150.83384 | 347.30254 | 101.38702 | 3.43633 | 0.2028262 | 0.21064147 | 2.7975217 | 20 | 5 30.2 | 20.9 |
| 204011 | 2003 | UX ₂₉ | 16.0 | X | 21.97028 | 244.23063 | 95.84145 | 5.87990 | 0.1972514 | 0.23557960 | 2.5964359 | 20 | 11 30.1 | 19.1 |
| 204012 | 2003 | UW ₃₅ | 15.7 | X | 302.43594 | 273.04947 | 94.44785 | 14.37605 | 0.1311966 | 0.22489260 | 2.6780536 | 20 | 8 8.6 | 19.0 |
| 204013 | 2003 | UU ₃₈ | 16.1 | X | 317.16594 | 65.44921 | 251.01777 | 3.88529 | 0.0325980 | 0.21771196 | 2.7366202 | 20 | 6 29.1 | 19.7 |
| 204014 | 2003 | UA ₃₉ | 15.3 | X | 273.57625 | 21.55571 | 208.24863 | 14.23293 | 0.2203980 | 0.20092099 | 2.8870381 | 20 | — | — |
| 204015 | 2003 | UK ₃₉ | 15.6 | X | 305.88256 | 247.03682 | 49.01380 | 6.68078 | 0.0251431 | 0.21168409 | 2.7883283 | 20 | 5 16.9 | 19.3 |
| 204016 | 2003 | UW ₄₁ | 16.6 | X | 340.44882 | 207.96206 | 186.88485 | 2.90061 | 0.0414134 | 0.23694840 | 2.5864268 | 20 | 11 20.9 | 19.7 |
| 204017 | 2003 | UJ ₄₃ | 16.4 | X | 184.54397 | 42.28257 | 164.45487 | 2.87745 | 0.0889334 | 0.23966840 | 2.5668207 | 20 | 11 30.7 | 20.0 |
| 204018 | 2003 | UE ₅₁ | 15.4 | X | 235.08854 | 169.55940 | 289.20754 | 12.76808 | 0.0933864 | 0.22799579 | 2.6536980 | 20 | 9 2.6 | 19.4 |
| 204019 | 2003 | UB ₆₁ | 15.4 | X | 257.46915 | 295.44510 | 60.89149 | 9.05532 | 0.2138846 | 0.21813436 | 2.7330862 | 20 | 5 9.0 | 19.6 |
| 204020 | 2003 | UJ ₆₁ | 15.5 | X | 171.03484 | 69.54437 | 27.53637 | 17.19989 | 0.1452892 | 0.21676915 | 2.7445495 | 20 | 6 25.4 | 20.2 |
| 204021 | 2003 | UB ₆₄ | 15.6 | X | 289.85476 | 238.42881 | 98.00656 | 10.61703 | 0.2045451 | 0.21979610 | 2.7192933 | 20 | 5 23.9 | 19.2 |
| 204022 | 2003 | UE ₆₅ | 16.2 | X | 303.00473 | 290.22668 | 134.83508 | 9.60924 | 0.1760820 | 0.23271524 | 2.6176977 | 20 | 10 30.8 | 18.9 |
| 204023 | 2003 | UJ ₇₄ | 16.0 | X | 317.02646 | 150.73188 | 304.42893 | 7.07016 | 0.1556331 | 0.24016093 | 2.5633101 | 20 | — | — |
| 204024 | 2003 | UU ₇₇ | 15.2 | X | 279.78436 | 227.01387 | 242.32490 | 10.37639 | 0.1866777 | 0.17529276 | 3.1619869 | 20 | 10 27.7 | 19.4 |
| 204025 | 2003 | UA ₇₉ | 16.0 | X | 57.63368 | 225.75690 | 233.67185 | 9.10857 | 0.0410163 | 0.19916348 | 2.9039976 | 20 | 2 3.2 | 20.0 |
| 204026 | 2003 | UN ₈₅ | 16.3 | X | 36.12287 | 231.40286 | 73.08200 | 3.09349 | 0.0720609 | 0.22966277 | 2.6408414 | 20 | 10 13.9 | 19.6 |
| 204027 | 2003 | UJ ₈₈ | 15.9 | X | 303.66843 | 229.93218 | 124.84555 | 9.16425 | 0.1958873 | 0.22250048 | 2.6972140 | 20 | 7 9.8 | 19.0 |
| 204028 | 2003 | US ₈₈ | 15.5 | X | 315.09557 | 249.37096 | 95.16552 | 14.99595 | 0.1447288 | 0.22200155 | 2.7012537 | 20 | 7 24.8 | 18.5 |
| 204029 | 2003 | UK ₉₂ | 15.7 | X | 244.29564 | 110.09302 | 248.40663 | 11.61615 | 0.1433031 | 0.21424804 | 2.7660380 | 20 | 5 3.4 | 19.9 |
| 204030 | 2003 | UJ ₉₂ | 16.3 | X | 16.66043 | 87.76118 | 268.94276 | 2.88647 | 0.1586549 | 0.23541543 | 2.5976428 | 20 | 12 7.5 | 19.2 |
| 204031 | 2003 | UP ₁₀₀ | 15.6 | X | 273.87639 | 305.10416 | 86.94804 | 6.47723 | 0.0780378 | 0.22224457 | 2.6992842 | 20 | 8 5.4 | 19.1 |
| 204032 | 2003 | UF ₁₁₅ | 15.4 | X | 174.66744 | 210.61277 | 238.94261 | 8.56632 | 0.0723272 | 0.21448846 | 2.7639706 | 20 | 6 19.4 | 19.6 |
| 204033 | 2003 | UJ ₁₁₈ | 15.5 | X | 18.08288 | 174.81824 | 227.63175 | 10.12686 | 0.0991723 | 0.18409176 | 3.0604114 | 20 | — | — |
| 204034 | 2003 | UG ₁₃₁ | 15.5 | X | 226.06212 | 206.20415 | 251.47436 | 11.37905 | 0.1313075 | 0.22321786 | 2.6914321 | 20 | 8 17.3 | 19.8 |
| 204035 | 2003 | UP ₁₃₃ | 15.8 | X | 303.23156 | 246.37630 | 111.87435 | 6.93429 | 0.0306506 | 0.22197310 | 2.7014845 | 20 | 8 7.2 | 19.3 |
| 204036 | 2003 | UX ₁₄₀ | 15.6 | X | 42.31256 | 84.92436 | 132.08725 | 9.78549 | 0.0679101 | 0.21704810 | 2.7421974 | 20 | 6 21.7 | 19.1 |
| 204037 | 2003 | UE ₁₅₂ | 15.6 | X | 291.50070 | 82.65000 | 246.68571 | 8.13979 | 0.1350249 | 0.21790215 | 2.7350275 | 20 | 5 25.4 | 19.1 |
| 204038 | 2003 | UP ₁₅₂ | 15.8 | X | 131.22402 | 107.15379 | 57.76624 | 9.29521 | 0.0476862 | 0.22055386 | 2.7130613 | 20 | 8 9.8 | 19.8 |
| 204039 | 2003 | UJ ₁₅₅ | 16.3 | X | 267.78155 | 232.14575 | 131.69925 | 3.23792 | 0.1034937 | 0.21941895 | 2.7224085 | 20 | 6 13.9 | 19.9 |
| 204040 | 2003 | UW ₁₅₈ | 16.3 | X | 1.04960 | 302.75873 | 51.30789 | 2.68074 | 0.0482985 | 0.22998782 | 2.6383525 | 20 | 10 26.1 | 19.6 |
| 204041 | 2003 | UE ₁₆₅ | 15.4 | X | 333.84064 | 285.92023 | 50.18326 | 14.98941 | 0.0673326 | 0.22430981 | 2.6826903 | 20 | 8 28.6 | 19.0 |
| 204042 | 2003 | UY ₁₇₀ | 16.2 | X | 40.45099 | 53.14152 | 264.94526 | 1.90582 | 0.1490011 | 0.23442715 | 2.6049383 | 20 | 11 17.6 | 19.4 |
| 204043 | 2003 | UJ ₁₇₇ | 15.6 | X | 211.15247 | 94.11123 | 24.59927 | 12.91138 | 0.1752460 | 0.22493308 | 2.6777323 | 20 | 9 4.6 | 19.9 |
| 204044 | 2003 | UZ ₁₈₅ | 15.6 | X | 230.41236 | 126.29476 | 263.24926 | 8.37294 | 0.1658326 | 0.21604361 | 2.7506907 | 20 | 5 27.4 | 19.9 |
| 204045 | 2003 | UN ₁₉₄ | 16.5 | X | 346.70945 | 281.55888 | 99.64572 | 6.65277 | 0.1538182 | 0.23444300 | 2.6048209 | 20 | 11 22.1 | 19.2 |
| 204046 | 2003 | UG ₂₀₉ | 15.7 | X | 258.53892 | 299.21144 | 58.45569 | 4.21815 | 0.1939457 | 0.21606675 | 2.7504943 | 20 | 5 13.4 | 19.7 |
| 204047 | 2003 | UY ₂₁₂ | 15.8 | X | 79.73331 | 124.39376 | 248.81138 | 8.97070 | 0.1140827 | 0.18608414 | 3.0385273 | 20 | — | — |
| 204048 | 2003 | UY ₂₂₀ | 16.6 | X | 293.79971 | 68.68410 | 262.88383 | 3.96963 | 0.1170302 | 0.22025154 | 2.7155434 | 20 | 6 3.7 | 19.9 |
| 204049 | 2003 | UJ ₂₂₃ | 15.6 | X | 219.67118 | 25.97295 | 27.61748 | 7.92634 | 0.0910619 | 0.21416362 | 2.7667649 | 20 | 6 22.4 | 19.8 |
| 204050 | 2003 | UQ ₂₃₀ | 16.4 | X | 280.25362 | 84.96045 | 296.79367 | 2.41467 | 0.0838206 | 0.22088198 | 2.7103738 | 20 | 7 28.6 | 19.9 |
| 204051 | 2003 | UW ₂₃₀ | 15.8 | X | 103.83761 | 264.27159 | 227.21984 | 10.12617 | 0.1813447 | 0.20928119 | 2.8096307 | 20 | 6 5.8 | 20.0 |
| 204052 | 2003 | UQ ₂₃₂ | 16.2 | X | 300.09983 | 24.85730 | 350.53543 | 2.31124 | 0.0943640 | 0.22531581 | 2.6746992 | 20 | 8 18.7 | 19.5 |
| 204053 | 2003 | UJ ₂₃₆ | 16.2 | X | 218.52741 | 50.15721 | 47.02409 | 13.88933 | 0.2340964 | 0.22208120 | 2.7006078 | 20 | 8 10.1 | 20.9 |
| 204054 | 2003 | UG ₂₃₇ | 16.7 | X | 296.68683 | 157.55889 | 231.97519 | 2.65920 | 0.0988818 | 0.22687148 | 2.6624581 | 20 | 8 30.8 | 19.8 |
| 204055 | 2003 | UM ₂₃₇ | 15.8 | X | 190.88864 | 98.29313 | 19.00665 | 12.33876 | 0.0931767 | 0.22115401 | 2.7081508 | 20 | 8 18.3 | 20.1 |
| 204056 | 2003 | US ₂₄₅ | 15.7 | X | 188.20404 | 34.87563 | 58.27411 | 14.58576 | 0.1122156 | 0.21502340 | 2.7593846 | 20 | 7 8.9 | 20.2 |
| 204057 | 2003 | UK ₂₅₆ | 15.9 | X | 245.70340 | 314.51120 | 66.59629 | 7.88193 | 0.0746480 | 0.21552436 | 2.7551070 | 20 | 6 12.3 | 19.7 |
| 204058 | 2003 | UJ ₂₅₇ | 16.2 | X | 280.34376 | 127.88762 | 285.00362 | 2.55939 | 0.0513813 | 0.22651137 | 2.6652792 | 20 | 9 13.8 | 19.6 |
| 204059 | 2003 | UV ₂₆₁ | 16.0 | X | 89.30792 | 337.18542 | 211.78888 | 4.88895 | 0.0374588 | 0.21780747 | 2.7358201 | 20 | 7 13.4 | 19.7 |
| 204060 | 2003 | UA ₂₆₃ | 16.2 | X | 326.28523 | 95.14137 | 300.39618 | 3.02969 | 0.0593024 | 0.23348243 | 2.6119603 | 20 | 10 29.7 | 19.3 |
| 204061 | 2003 | UQ ₂₇₀ | 16.1 | X | 223.36475 | 322.44546 | 99.15329 | 3.17751 | 0.0372737 | 0.21987722 | 2.7186245 | 20 | 7 13.5 | 19.8 |
| 204062 | 2003 | UX ₂₇₁ | 16.7 | X | 245.57912 | 25.61246 | 76.74186 | 2.49391 | 0.0924936 | 0.22873087 | 2.6480094 | 20 | 9 29.0 | 20.1 |
| 204063 | 2003 | US ₂₇₈ | 16.1 | X | 269.78971 | 309.80347 | 74.41200 | 6.54855 | 0.1692244 | 0.21928889 | 2.7234848 | 20 | 7 3.9 | 19.8 |
| 204064 | 2003 | UU ₂₉₀ | 16.4 | X | 151.51419 | 70.49462 | 58.28443 | 5.57866 | 0.1051718 | 0.21451493 | 2.7637433 | 20 | 7 16.8 | 20.7 |
| 204065 | 2003 | UQ ₂₉₅ | 16.8 | X | 304.03699 | 55.40638 | 332.13090 | 1.23280 | 0.0953926 | 0.22851623 | 2.6496673 | 20 | 9 11.0 | 19.7 |
| 204066 | 2003 | UY ₂₉₆ | 15.1 | X | 244.40061 | 342.48991 | 216.24006 | 9.70649 | 0.0817396 | 0.18471001 | 3.0535785 | 20 | — | — |
| 204067 | 2003 | UB ₃₀₀ | 16.1 | X | 27.54222 | 191.89146 | 139.10760 | 8.76873 | 0.1004723 | 0.23387160 | 2.6090620 | 20 | 11 13.0 | 19.5 |
| 204068 | 2003 | UY ₃₀₇ | 16.8 | X | 201.25062 | 275.96298 | 146.71167 | 2.56435 | 0.0669959 | 0.21645994 | 2.7471625 | 20 | 6 15.3 | 20.8 |
| 204069 | 2003 | UR ₃₁₆ | 16.0 | X | 306.24561 | 80.15526 | 291.45467 | 7.92305 | 0.1291727 | 0.22414459 | 2.6840085 | 20 | 8 15.9 | 19.1 |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | |
|--------|----------|--------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|------------|------|
| 204081 | 2003 | <i>WX</i> ₂₇ | 16.5 ^m | X | 213.89161 | 68.30916 | 5.68947 | 4.91575 | 0.0726880 | 0.21678756 | 2.7443941 | 20 7 15.6 | 20.5 |
| 204082 | 2003 | <i>WK</i> ₃₂ | 15.9 | X | 209.35671 | 134.11659 | 285.99604 | 2.98962 | 0.0527548 | 0.21379717 | 2.7699255 | 20 6 22.3 | 19.7 |
| 204083 | 2003 | <i>WE</i> ₃₄ | 16.0 | X | 299.68452 | 52.99762 | 258.05980 | 7.52881 | 0.1240172 | 0.21279537 | 2.7786122 | 20 5 13.4 | 19.5 |
| 204084 | 2003 | <i>WG</i> ₃₉ | 15.8 | X | 137.46682 | 288.23799 | 255.02361 | 11.46577 | 0.1030352 | 0.22224305 | 2.6992965 | 20 9 3.3 | 20.2 |
| 204085 | 2003 | <i>WY</i> ₄₇ | 16.0 | X | 324.65478 | 247.03099 | 89.56063 | 8.37499 | 0.0951317 | 0.22107373 | 2.7088063 | 20 8 5.1 | 19.2 |
| 204086 | 2003 | <i>WT</i> ₅₃ | 16.0 | X | 230.26263 | 49.04711 | 312.60858 | 4.36914 | 0.0703654 | 0.21144322 | 2.7904455 | 20 4 28.5 | 20.2 |
| 204087 | 2003 | <i>WU</i> ₅₄ | 16.1 | X | 124.70434 | 121.87905 | 356.82786 | 3.62124 | 0.0983442 | 0.20923652 | 2.8100307 | 20 6 2.3 | 20.2 |
| 204088 | 2003 | <i>WV</i> ₅₇ | 15.7 | X | 160.11872 | 13.22896 | 53.46012 | 8.60914 | 0.0707159 | 0.20689028 | 2.8312355 | 20 5 5.5 | 19.8 |
| 204089 | 2003 | <i>WW</i> ₅₉ | 15.7 | X | 196.37049 | 267.42301 | 107.85294 | 3.18874 | 0.0735489 | 0.20556925 | 2.8433519 | 20 4 11.7 | 19.9 |
| 204090 | 2003 | <i>WV</i> ₆₃ | 16.3 | X | 179.19359 | 125.47663 | 258.19770 | 1.04770 | 0.0816461 | 0.20318095 | 2.8655900 | 20 4 1.9 | 20.5 |
| 204091 | 2003 | <i>WX</i> ₆₉ | 15.7 | X | 294.01977 | 286.62105 | 78.80718 | 7.32322 | 0.0420328 | 0.21805027 | 2.7337888 | 20 8 3.0 | 19.3 |
| 204092 | 2003 | <i>WZ</i> ₆₉ | 16.6 | X | 277.88736 | 254.55442 | 140.32698 | 1.75639 | 0.0929367 | 0.22168082 | 2.7038585 | 20 8 11.0 | 19.9 |
| 204093 | 2003 | <i>WX</i> ₇₀ | 15.4 | X | 290.98182 | 52.16473 | 284.63293 | 11.24336 | 0.1654928 | 0.21942442 | 2.7223633 | 20 5 29.2 | 19.1 |
| 204094 | 2003 | <i>WVW</i> ₇₇ | 15.5 | X | 263.33231 | 241.27444 | 93.66395 | 15.74908 | 0.1596411 | 0.21418497 | 2.7665810 | 20 4 30.6 | 19.9 |
| 204095 | 2003 | <i>WL</i> ₇₉ | 15.7 | X | 355.20372 | 17.34887 | 302.10532 | 3.94863 | 0.1292254 | 0.22374131 | 2.6872326 | 20 9 1.7 | 18.5 |
| 204096 | 2003 | <i>WP</i> ₇₉ | 15.4 | X | 260.33466 | 333.77689 | 47.89552 | 10.67076 | 0.0992243 | 0.21674745 | 2.7447327 | 20 6 28.4 | 19.4 |
| 204097 | 2003 | <i>WU</i> ₈₀ | 16.3 | X | 280.08727 | 143.27880 | 4.06042 | 4.22557 | 0.1435290 | 0.23654152 | 2.5893920 | 20 — | — |
| 204098 | 2003 | <i>WM</i> ₈₆ | 15.8 | X | 252.51383 | 335.96265 | 49.86163 | 5.55728 | 0.0728682 | 0.21430544 | 2.7655441 | 20 6 27.9 | 19.7 |
| 204099 | 2003 | <i>WC</i> ₉₉ | 15.8 | X | 245.79412 | 259.66317 | 267.18741 | 10.42020 | 0.2009610 | 0.23386203 | 2.6091332 | 20 12 5.6 | 19.2 |
| 204100 | 2003 | <i>WO</i> ₉₉ | 16.6 | X | 295.29886 | 57.90401 | 329.61431 | 1.43123 | 0.0842479 | 0.22432416 | 2.6825759 | 20 8 28.7 | 20.0 |
| 204101 | 2003 | <i>WV</i> ₁₀₀ | 15.5 | X | 53.14275 | 12.02726 | 298.21061 | 14.83710 | 0.1753633 | 0.23513677 | 2.5996947 | 20 11 25.2 | 19.5 |
| 204102 | 2003 | <i>WG</i> ₁₀₆ | 15.9 | X | 120.96249 | 331.71864 | 56.86935 | 3.03650 | 0.0913065 | 0.19361916 | 2.9591739 | 20 2 8.4 | 20.1 |
| 204103 | 2003 | <i>WD</i> ₁₀₈ | 16.7 | X | 298.65805 | 52.15888 | 291.48874 | 2.13014 | 0.1815647 | 0.22125804 | 2.7073018 | 20 6 17.7 | 20.0 |
| 204104 | 2003 | <i>WN</i> ₁₁₄ | 16.5 | X | 202.55903 | 325.01930 | 19.15771 | 2.42558 | 0.2490657 | 0.20531239 | 2.8457230 | 20 3 8.5 | 21.5 |
| 204105 | 2003 | <i>WR</i> ₁₁₄ | 16.4 | X | 317.66857 | 70.36438 | 279.84729 | 3.57757 | 0.1278044 | 0.22366761 | 2.6878229 | 20 7 22.9 | 18.7 |
| 204106 | 2003 | <i>WB</i> ₁₂₆ | 15.1 | X | 66.23289 | 187.28348 | 281.29880 | 12.35025 | 0.2053382 | 0.19201063 | 2.9756775 | 20 3 16.6 | 19.0 |
| 204107 | 2003 | <i>WN</i> ₁₂₉ | 16.0 | X | 265.23589 | 147.44175 | 255.77015 | 3.97829 | 0.0414513 | 0.22076910 | 2.7112976 | 20 8 10.9 | 19.6 |
| 204108 | 2003 | <i>WJ</i> ₁₃₅ | 16.4 | X | 52.27808 | 209.02942 | 189.40686 | 1.31891 | 0.0884947 | 0.24329879 | 2.5412228 | 20 — | — |
| 204109 | 2003 | <i>WV</i> ₁₄₀ | 15.0 | X | 43.50094 | 38.95053 | 80.97525 | 15.35749 | 0.0456068 | 0.19238430 | 2.9718232 | 20 2 20.4 | 19.2 |
| 204110 | 2003 | <i>WH</i> ₁₄₂ | 15.8 | X | 159.95837 | 160.70722 | 273.94613 | 7.41935 | 0.1906023 | 0.20477310 | 2.8507170 | 20 5 19.0 | 20.7 |
| 204111 | 2003 | <i>WL</i> ₁₄₈ | 15.9 | X | 200.89424 | 290.12661 | 124.45481 | 5.23835 | 0.1015333 | 0.21183540 | 2.7870003 | 20 6 3.4 | 20.1 |
| 204112 | 2003 | <i>WT</i> ₁₄₈ | 16.2 | X | 259.60210 | 263.60253 | 116.84143 | 4.03636 | 0.0963332 | 0.21597805 | 2.7512474 | 20 6 26.3 | 20.0 |
| 204113 | 2003 | <i>WF</i> ₁₅₄ | 16.1 | X | 27.50765 | 356.62068 | 302.92183 | 1.30027 | 0.0671155 | 0.22586146 | 2.6703896 | 20 9 21.5 | 19.4 |
| 204114 | 2003 | <i>WV</i> ₁₅₄ | 16.2 | X | 266.84885 | 260.86962 | 137.65818 | 5.69092 | 0.1196004 | 0.21975263 | 2.7196520 | 20 7 26.7 | 19.8 |
| 204115 | 2003 | <i>WA</i> ₁₅₅ | 15.4 | X | 94.66273 | 44.07682 | 87.06689 | 15.96418 | 0.0928837 | 0.20474501 | 2.8509777 | 20 5 17.4 | 19.5 |
| 204116 | 2003 | <i>WQ</i> ₁₅₆ | 15.4 | X | 268.48439 | 326.29422 | 86.82196 | 28.74448 | 0.1200976 | 0.22243628 | 2.6977330 | 20 8 28.2 | 19.5 |
| 204117 | 2003 | <i>WJ</i> ₁₅₇ | 15.6 | X | 144.20642 | 198.66004 | 312.90799 | 7.61198 | 0.0806172 | 0.21564575 | 2.7540730 | 20 8 5.4 | 19.7 |
| 204118 | 2003 | <i>WV</i> ₁₆₁ | 15.4 | X | 122.62219 | 181.33362 | 86.10378 | 18.86755 | 0.1841435 | 0.23459546 | 2.6036922 | 20 12 11.6 | 19.7 |
| 204119 | 2003 | <i>WY</i> ₁₆₃ | 16.4 | X | 307.97309 | 286.38069 | 70.33375 | 3.14614 | 0.1401810 | 0.22069493 | 2.7119051 | 20 7 29.9 | 19.6 |
| 204120 | 2003 | <i>WB</i> ₁₆₆ | 16.8 | X | 178.11797 | 107.40016 | 264.12624 | 19.48765 | 0.0963852 | 0.37846004 | 1.8928783 | 20 2 18.8 | 19.6 |
| 204121 | 2003 | <i>WB</i> ₁₉₂ | 15.3 | X | 185.04309 | 114.75023 | 278.28715 | 11.72981 | 0.1086059 | 0.20633359 | 2.8363256 | 20 4 15.4 | 20.0 |
| 204122 | 2003 | <i>XB</i> ₇ | 15.0 | X | 179.29506 | 214.59633 | 133.16007 | 3.20041 | 0.3719424 | 0.19959195 | 2.8998400 | 20 2 28.1 | 20.6 |
| 204123 | 2003 | <i>XU</i> ₇ | 15.3 | X | 107.98646 | 66.57491 | 312.81554 | 9.33195 | 0.1013386 | 0.19006969 | 2.9959011 | 20 1 14.7 | 19.4 |
| 204124 | 2003 | <i>XU</i> ₁₀ | 15.4 | X | 223.83158 | 210.78211 | 182.49029 | 9.93872 | 0.1927451 | 0.21585191 | 2.7523191 | 20 5 25.6 | 20.0 |
| 204125 | 2003 | <i>XN</i> ₁₂ | 15.2 | X | 185.74262 | 143.44588 | 351.17833 | 10.20366 | 0.2887242 | 0.21447134 | 2.7641178 | 20 8 23.2 | 20.2 |
| 204126 | 2003 | <i>XF</i> ₁₉ | 15.6 | X | 302.31313 | 296.88222 | 76.44989 | 14.72573 | 0.1214257 | 0.22170407 | 2.7036695 | 20 8 21.2 | 19.1 |
| 204127 | 2003 | <i>XM</i> ₂₅ | 15.7 | X | 275.81139 | 233.19965 | 118.47577 | 6.03086 | 0.1707979 | 0.21537054 | 2.7564186 | 20 5 29.8 | 19.6 |
| 204128 | 2003 | <i>XU</i> ₂₈ | 16.6 | X | 138.55588 | 36.13223 | 18.80906 | 1.71862 | 0.0569920 | 0.20078377 | 2.8883533 | 20 3 26.0 | 20.7 |
| 204129 | 2003 | <i>XG</i> ₃₇ | 15.2 | X | 322.98956 | 144.06856 | 35.68412 | 11.54454 | 0.0735325 | 0.18568037 | 3.0429306 | 20 1 11.2 | 19.5 |
| 204130 | 2003 | <i>XH</i> ₄₀ | 15.4 | X | 211.81241 | 286.36878 | 129.93737 | 8.78963 | 0.2950470 | 0.21300033 | 2.7768294 | 20 6 7.2 | 20.5 |
| 204131 | 2003 | <i>YL</i> | 19.8 | X | 202.78993 | 29.40540 | 291.96274 | 5.65847 | 0.6324697 | 0.80285616 | 1.1465092 | 20 1 12.8 | 19.5 |
| 204132 | 2003 | <i>YO</i> ₉ | 16.1 | X | 165.39013 | 74.51989 | 20.23968 | 11.85474 | 0.1797240 | 0.21032029 | 2.8003690 | 20 6 17.2 | 21.0 |
| 204133 | 2003 | <i>YS</i> ₁₉ | 15.7 | X | 212.76692 | 92.01221 | 296.32773 | 13.67738 | 0.1616094 | 0.20510548 | 2.8476364 | 20 5 5.7 | 20.6 |
| 204134 | 2003 | <i>YM</i> ₂₆ | 14.9 | X | 27.80225 | 160.82038 | 291.14318 | 11.68806 | 0.1225030 | 0.18135896 | 3.0910785 | 20 — | — |
| 204135 | 2003 | <i>YW</i> ₂₉ | 15.5 | X | 81.63671 | 113.73009 | 56.20636 | 5.65583 | 0.2845865 | 0.19731991 | 2.9220576 | 20 7 14.1 | 19.9 |
| 204136 | 2003 | <i>YA</i> ₃₅ | 14.3 | X | 331.78865 | 68.40829 | 130.26721 | 18.11978 | 0.1519668 | 0.18164005 | 3.0878887 | 20 2 4.2 | 18.1 |
| 204137 | 2003 | <i>YV</i> ₄₀ | 16.2 | X | 77.34004 | 187.75919 | 310.90648 | 2.40464 | 0.0433606 | 0.19718983 | 2.9233426 | 20 4 22.2 | 20.1 |
| 204138 | 2003 | <i>YU</i> ₄₆ | 15.1 | X | 7.21137 | 256.98076 | 253.99752 | 9.39357 | 0.0553775 | 0.19209431 | 2.9748133 | 20 1 31.2 | 19.2 |
| 204139 | 2003 | <i>YD</i> ₄₈ | 15.4 | X | 18.21322 | 110.72145 | 78.83621 | 7.21644 | 0.0384784 | 0.19984583 | 2.8973835 | 20 4 10.9 | 19.3 |
| 204140 | 2003 | <i>YE</i> ₅₆ | 15.5 | X | 88.41799 | 10.73875 | 116.24318 | 2.94586 | 0.0259648 | 0.20156770 | 2.8808596 | 20 4 21.4 | 19.4 |
| 204141 | 2003 | <i>YZ</i> ₆₃ | 15.2 | X | 345.29971 | 41.73078 | 98.49113 | 7.05996 | 0.0605829 | 0.18312660 | 3.0711552 | 20 — | — |
| 204142 | 2003 | <i>YJ</i> ₆₄ | 15.3 | X | 337.43995 | 53.60626 | 98.42885 | 7.73264 | 0.0440875 | 0.18295368 | 3.0730901 | 20 — | — |
| 204143 | 2003 | <i>YO</i> ₆₈ | 17.4 | X | 196.17342 | 95.82638 | 283.00824 | 16.34936 | 0.1103505 | 0.37980252 | 1.8884152 | 20 3 24.2 | 20.2 |
| 204144 | 2003 | <i>YH</i> ₉₄ | 14.3 | X | 288.24155 | 235.20110 | 300.48621 | 17.35709 | 0.1212924 | 0.17116222 | 3.2126552 | 20 — | — |
| 204145 | 2003 | <i>YD</i> ₁₀₄ | 15.9 | X | 204.55671 | 237.11479 | 113.04880 | 3.12387 | 0.2668036 | 0.20340098 | 2.8635231 | 20 3 17.4 | 21.0 |
| 204146 | 2003 | <i>YH</i> ₁₀₄ | 15.4 | X | 100.25224 | 287.93475 | 122.48310 | 6.09887 | 0.1853857 | 0.19145139 | 2.9814695 | 20 2 23.8 | 19.5 |
| 204147 | 2003 | <i>YB</i> ₁₁₀ | 15.5 | X | 2.58640 | 347.45932 | 40.11621 | 9.55096 | 0.0746475 | 0.17368050 | 3.1815250 | 20 11 27.7 | 19.6 |
| 204148 | 2003 | <i>YF</i> ₁₁₁ | 16.1 | X | 312.32772 | 222.10715 | 111.78477 | 6.23172 | 0.0127015 | 0.21438185 | 2.7648869 | 20 7 18.2 | 19.8 |
| 204149 | 2003 | <i>YG</i> ₁₁₃ | 15.3 | X | 203.74976 | 132.88832 | 84.68200 | 14.41502 | 0.2074096 | 0.22821239 | 2.6520186 | 20 12 19.0 | 19.2 |
| 204150 | 2 | | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|----------|
| 204161 2004 <i>BJ</i> ₉ | 14.8 | X | 98.95537 | 73.11453 | 267.64810 | 9.64378 | 0.0655080 | 0.17398674 | 3.1777906 | 20 | — | — |
| 204162 2004 <i>BX</i> ₁₅ | 15.5 | X | 64.22743 | 168.57475 | 341.48864 | 5.08412 | 0.1436291 | 0.19319588 | 2.9634946 | 20 | 5 2.9 | 19.3 |
| 204163 2004 <i>BH</i> ₁₇ | 15.0 | X | 303.04083 | 81.53514 | 65.70862 | 16.80340 | 0.0598473 | 0.17324276 | 3.1868820 | 20 | — | — |
| 204164 2004 <i>BW</i> ₁₉ | 15.7 | X | 335.89110 | 30.89779 | 98.24062 | 10.57711 | 0.0512903 | 0.17821612 | 3.1273133 | 20 | — | — |
| 204165 2004 <i>BW</i> ₂₅ | 15.7 | X | 172.68303 | 135.45396 | 308.42782 | 4.71229 | 0.0468185 | 0.20511149 | 2.8475808 | 20 | 6 9.4 | 19.9 |
| 204166 2004 <i>BT</i> ₂₉ | 15.6 | X | 186.44956 | 96.96591 | 321.27726 | 11.58856 | 0.1138530 | 0.20136485 | 2.8827940 | 20 | 5 20.1 | 20.4 |
| 204167 2004 <i>BP</i> ₃₁ | 15.5 | X | 28.30607 | 19.93550 | 78.89505 | 4.66515 | 0.0911536 | 0.18268521 | 3.0761000 | 20 | 1 1.0 | 19.4 |
| 204168 2004 <i>BW</i> ₃₁ | 15.9 | X | 51.85066 | 121.10485 | 328.54718 | 4.26504 | 0.1426216 | 0.18554390 | 3.0444225 | 20 | 1 29.3 | 19.5 |
| 204169 2004 <i>BV</i> ₃₂ | 15.8 | X | 1.30527 | 49.12456 | 73.88166 | 1.73750 | 0.1313319 | 0.18074824 | 3.0980374 | 20 | — | — |
| 204170 2004 <i>BC</i> ₃₃ | 16.2 | X | 322.80728 | 47.66708 | 78.14153 | 2.14705 | 0.1406934 | 0.17461302 | 3.1701876 | 20 | — | — |
| 204171 2004 <i>BW</i> ₃₃ | 16.0 | X | 213.78231 | 270.37288 | 81.17755 | 3.07189 | 0.0358227 | 0.19461090 | 2.9491121 | 20 | 4 3.4 | 20.2 |
| 204172 2004 <i>BD</i> ₃₅ | 16.1 | X | 156.67454 | 28.15277 | 21.86199 | 1.96384 | 0.0950777 | 0.19601502 | 2.9350115 | 20 | 4 12.2 | 20.4 |
| 204173 2004 <i>BL</i> ₃₅ | 16.0 | X | 44.43954 | 58.11537 | 77.39923 | 3.05942 | 0.0900962 | 0.18935170 | 3.0034696 | 20 | 3 12.1 | 19.7 |
| 204174 2004 <i>BH</i> ₃₇ | 15.5 | X | 302.67876 | 129.13427 | 45.99831 | 1.80024 | 0.1132090 | 0.17719772 | 3.1392841 | 20 | — | — |
| 204175 2004 <i>BP</i> ₄₀ | 15.9 | X | 343.68692 | 9.44666 | 120.98461 | 1.93408 | 0.1494439 | 0.17785409 | 3.1315558 | 20 | — | — |
| 204176 2004 <i>BP</i> ₄₁ | 15.5 | X | 346.57405 | 337.71516 | 155.78788 | 17.86606 | 0.1793015 | 0.17927322 | 3.1150075 | 20 | — | — |
| 204177 2004 <i>BF</i> ₄₄ | 15.4 | X | 13.58753 | 335.66516 | 124.71158 | 5.86407 | 0.1710066 | 0.17736796 | 3.1372751 | 20 | — | — |
| 204178 2004 <i>BO</i> ₄₉ | 15.3 | X | 289.88316 | 121.74023 | 120.89052 | 13.33437 | 0.0987388 | 0.18740914 | 3.0241886 | 20 | 2 11.3 | 19.6 |
| 204179 2004 <i>BZ</i> ₄₉ | 15.5 | X | 71.94194 | 268.22592 | 128.10275 | 4.55929 | 0.0787340 | 0.17977056 | 3.1092597 | 20 | — | — |
| 204180 2004 <i>BL</i> ₅₁ | 15.3 | X | 123.96124 | 115.74687 | 303.87658 | 8.55066 | 0.0752588 | 0.19093125 | 2.9868818 | 20 | 3 13.7 | 19.7 |
| 204181 2004 <i>BL</i> ₅₂ | 15.9 | X | 182.33678 | 304.77006 | 101.28569 | 3.05811 | 0.0490911 | 0.20090013 | 2.8872379 | 20 | 5 4.5 | 20.0 |
| 204182 2004 <i>BZ</i> ₅₂ | 15.6 | X | 93.12219 | 13.03129 | 54.37173 | 3.02946 | 0.1232553 | 0.19037010 | 2.9927485 | 20 | 2 27.4 | 19.7 |
| 204183 2004 <i>BL</i> ₅₃ | 16.5 | X | 164.09886 | 261.77104 | 159.27453 | 2.16548 | 0.2003121 | 0.20168607 | 2.8797323 | 20 | 5 7.9 | 21.4 |
| 204184 2004 <i>BG</i> ₅₄ | 15.5 | X | 66.20837 | 331.02997 | 321.73869 | 10.93418 | 0.1416553 | 0.21920747 | 2.7241592 | 20 | 11 8.4 | 19.6 |
| 204185 2004 <i>BX</i> ₅₅ | 15.8 | X | 99.94492 | 356.80481 | 122.31816 | 3.41910 | 0.0830823 | 0.19584497 | 2.9367103 | 20 | 5 4.6 | 19.9 |
| 204186 2004 <i>BC</i> ₅₆ | 15.1 | X | 332.42927 | 311.46158 | 144.05815 | 10.99969 | 0.0858433 | 0.16969925 | 3.2310928 | 20 | — | — |
| 204187 2004 <i>BN</i> ₅₈ | 16.0 | X | 194.00368 | 337.47650 | 151.44883 | 8.81614 | 0.1703012 | 0.21329626 | 2.7742604 | 20 | 8 25.7 | 20.5 |
| 204188 2004 <i>BB</i> ₆₅ | 16.3 | X | 269.47331 | 255.29362 | 45.91138 | 2.75550 | 0.0118375 | 0.19577465 | 2.9374134 | 20 | 4 9.5 | 20.4 |
| 204189 2004 <i>BL</i> ₇₆ | 15.9 | X | 132.74909 | 264.01033 | 154.98423 | 2.11336 | 0.0873117 | 0.19272570 | 2.9683125 | 20 | 3 28.6 | 20.3 |
| 204190 2004 <i>BO</i> ₇₇ | 15.6 | X | 14.32293 | 154.63156 | 351.43855 | 2.11985 | 0.0681508 | 0.18616451 | 3.0376527 | 20 | 2 8.4 | 19.5 |
| 204191 2004 <i>BW</i> ₇₉ | 15.6 | X | 66.73605 | 69.45179 | 312.40330 | 4.05934 | 0.1478564 | 0.17796852 | 3.1302132 | 20 | — | — |
| 204192 2004 <i>BX</i> ₈₈ | 15.3 | X | 147.44917 | 114.56465 | 280.20590 | 10.74495 | 0.1424192 | 0.19182102 | 2.9776381 | 20 | 3 13.5 | 20.1 |
| 204193 2004 <i>BB</i> ₉₀ | 15.3 | X | 67.72483 | 203.48115 | 303.60441 | 11.47208 | 0.0904571 | 0.19219851 | 2.9737381 | 20 | 4 22.8 | 19.5 |
| 204194 2004 <i>BE</i> ₉₅ | 15.2 | X | 10.81593 | 112.36277 | 318.27265 | 25.93260 | 0.2718096 | 0.17395825 | 3.1781376 | 20 | — | — |
| 204195 2004 <i>BX</i> ₁₀₃ | 16.5 | X | 294.23291 | 322.04148 | 329.60765 | 19.28825 | 0.0671145 | 0.37538218 | 1.9032110 | 20 | 3 26.7 | 18.7 |
| 204196 2004 <i>BU</i> ₁₀₇ | 15.2 | X | 30.81107 | 354.93959 | 103.31197 | 12.38025 | 0.0469567 | 0.18018703 | 3.1044669 | 20 | 1 4.0 | 19.2 |
| 204197 2004 <i>BE</i> ₁₂₁ | 16.3 | X | 47.65291 | 67.87033 | 63.72370 | 2.20310 | 0.1883617 | 0.18833709 | 3.0142468 | 20 | 3 22.4 | 19.6 |
| 204198 2004 <i>BG</i> ₁₃₇ | 16.1 | X | 142.00371 | 310.40048 | 77.10946 | 2.87195 | 0.1210667 | 0.19075945 | 2.9886749 | 20 | 3 4.8 | 20.6 |
| 204199 2004 <i>BW</i> ₁₄₃ | 16.0 | X | 197.07234 | 242.99522 | 104.23909 | 3.11255 | 0.1889722 | 0.19329557 | 2.9624756 | 20 | 3 9.6 | 21.0 |
| 204200 2004 <i>BY</i> ₁₄₇ | 15.8 | X | 124.32095 | 306.56199 | 114.39913 | 9.77439 | 0.0786733 | 0.19220615 | 2.9736592 | 20 | 3 24.4 | 20.2 |
| 204201 2004 <i>BS</i> ₁₅₀ | 14.9 | X | 325.60786 | 345.07557 | 137.82895 | 16.32262 | 0.0542372 | 0.17498629 | 3.1656777 | 20 | — | — |
| 204202 2004 <i>CA</i> | 17.2 | X | 170.68293 | 338.31531 | 87.39210 | 24.23892 | 0.0935792 | 0.38154535 | 1.8826602 | 20 | 5 20.7 | 19.7 |
| 204203 2004 <i>CT</i> ₅ | 15.6 | X | 82.80522 | 23.12636 | 102.46938 | 2.09825 | 0.1184698 | 0.19337381 | 2.9616764 | 20 | 4 27.2 | 19.6 |
| 204204 2004 <i>CP</i> ₈ | 15.7 | X | 234.58172 | 213.65760 | 122.13030 | 9.91636 | 0.0681532 | 0.19454285 | 2.9497997 | 20 | 4 8.3 | 20.2 |
| 204205 2004 <i>CX</i> ₉ | 15.2 | X | 48.90377 | 182.35736 | 295.27626 | 9.39847 | 0.0699669 | 0.18766171 | 3.0214745 | 20 | 2 18.7 | 19.3 |
| 204206 2004 <i>CC</i> ₁₄ | 15.5 | X | 79.06013 | 119.09300 | 339.88012 | 10.52614 | 0.1097751 | 0.18797742 | 3.0180906 | 20 | 3 14.4 | 19.5 |
| 204207 2004 <i>CG</i> ₁₇ | 15.4 | X | 108.41992 | 89.69475 | 337.63494 | 7.85036 | 0.0826668 | 0.18755121 | 3.0226612 | 20 | 3 9.2 | 19.7 |
| 204208 2004 <i>CL</i> ₂₂ | 15.8 | X | 78.34674 | 8.09321 | 124.77795 | 14.61867 | 0.1093776 | 0.19198413 | 2.9759514 | 20 | 5 3.4 | 20.1 |
| 204209 2004 <i>CO</i> ₂₉ | 15.8 | X | 130.27419 | 40.52120 | 312.17185 | 3.70415 | 0.1641848 | 0.18290645 | 3.0736190 | 20 | 1 16.3 | 20.4 |
| 204210 2004 <i>CU</i> ₄₂ | 15.5 | X | 325.95757 | 131.28188 | 357.58928 | 4.63674 | 0.1563564 | 0.17232836 | 3.1981454 | 20 | — | — |
| 204211 2004 <i>CX</i> ₄₂ | 15.2 | X | 319.60003 | 64.31865 | 119.94420 | 4.37270 | 0.1263866 | 0.17808359 | 3.1288647 | 20 | 1 4.7 | 19.3 |
| 204212 2004 <i>CL</i> ₄₄ | 16.2 | X | 321.72281 | 79.51367 | 83.51886 | 3.54471 | 0.1318792 | 0.17977829 | 3.1091706 | 20 | — | — |
| 204213 2004 <i>CH</i> ₅₄ | 15.7 | X | 36.63235 | 348.77903 | 113.25645 | 2.37322 | 0.0572770 | 0.17946405 | 3.1127989 | 20 | 1 16.9 | 19.7 |
| 204214 2004 <i>CV</i> ₅₈ | 14.8 | X | 328.42429 | 137.24738 | 120.03718 | 15.86139 | 0.2192850 | 0.19213481 | 2.9743953 | 20 | 4 11.4 | 18.6 |
| 204215 2004 <i>CA</i> ₆₇ | 15.5 | X | 218.97111 | 199.66462 | 89.90967 | 9.73496 | 0.0292622 | 0.18252686 | 3.0778789 | 20 | 1 26.6 | 20.0 |
| 204216 2004 <i>CM</i> ₆₈ | 15.5 | X | 157.85033 | 130.54977 | 296.16227 | 9.33229 | 0.0944631 | 0.19852076 | 2.9102620 | 20 | 4 30.6 | 20.2 |
| 204217 2004 <i>CB</i> ₈₀ | 15.1 | X | 359.39090 | 2.19584 | 131.66388 | 6.43810 | 0.0987307 | 0.17786752 | 3.1313981 | 20 | 1 1.9 | 19.2 |
| 204218 2004 <i>CQ</i> ₈₀ | 15.3 | X | 16.82320 | 6.58049 | 139.94324 | 10.73506 | 0.0378760 | 0.18229682 | 3.0804676 | 20 | 2 13.2 | 19.3 |
| 204219 2004 <i>CY</i> ₈₂ | 15.2 | X | 316.43455 | 294.10001 | 263.13799 | 6.07432 | 0.0962614 | 0.17960735 | 3.1111430 | 20 | 1 19.3 | 19.5 |
| 204220 2004 <i>CJ</i> ₈₅ | 15.5 | X | 90.80586 | 69.36008 | 23.39418 | 3.09976 | 0.1044026 | 0.18868426 | 3.0105484 | 20 | 3 23.5 | 19.5 |
| 204221 2004 <i>CO</i> ₈₅ | 15.9 | X | 1.27254 | 56.08734 | 105.95626 | 2.25234 | 0.1259670 | 0.18303586 | 3.0721701 | 20 | 2 6.7 | 19.5 |
| 204222 2004 <i>CF</i> ₈₈ | 15.3 | X | 200.94293 | 256.98429 | 103.40089 | 11.67007 | 0.1611272 | 0.19511282 | 2.9440522 | 20 | 4 1.7 | 20.3 |
| 204223 2004 <i>CS</i> ₉₀ | 15.4 | X | 270.29353 | 319.94510 | 266.00045 | 4.32222 | 0.1085675 | 0.17689549 | 3.1428589 | 20 | — | — |
| 204224 2004 <i>CZ</i> ₉₂ | 16.1 | X | 286.22701 | 85.95605 | 356.29087 | 5.97922 | 0.0048150 | 0.22086495 | 2.7105132 | 20 | 11 3.3 | 19.8 |
| 204225 2004 <i>CX</i> ₉₈ | 14.9 | X | 310.80849 | 214.81463 | 342.56069 | 9.34667 | 0.0794972 | 0.17822057 | 3.1272613 | 20 | 1 18.1 | 19.3 |
| 204226 2004 <i>CK</i> ₁₀₂ | 15.5 | X | 103.06899 | 159.66470 | 271.89160 | 8.04492 | 0.1249991 | 0.18855801 | 3.0118919 | 20 | 3 10.4 | 20.0 |
| 204227 2004 <i>CA</i> ₁₁₃ | 15.4 | X | 353.44739 | 327.66465 | 106.80574 | 11.32769 | 0.1104659 | 0.17218522 | 3.1999176 | 20 | — | — |
| 204228 2004 <i>CB</i> ₁₁₄ | 15.1 | X | 327.16731 | 291.57861 | 190.04512 | 12.15527 | 0.0876104 | 0.17280686 | 3.1922389 | 20 | — | — |
| 204229 2004 <i>CD</i> ₁₁₆ | 15.5 | X | 116.69195 | 67.25543 | 320.66752 | 14.77163 | 0.1122209 | 0.18538581 | 3.0461531 | 20 | 2 6.0 | 19.8 |
| 204230 2004 <i>CV</i> ₁₂₈ | 15.8 | X | 81.87432 | 344.52850 | 102.69689 | 3.30462 | 0.0984274 | 0.18614235 | 3.0378938 | 20 | 3 5.3 | 19.8 |
| 204231 2004 <i>CC</i> ₁₂₉ | 16.2 | X | 222.16072 | 206.12713 | 60.47307 | 1.76171 | 0.0954608 | 0.17540167 | 3.1606779 | 20 | — | — |
| 204232 2004 <i>DG</i> ₂ | 18.3 | X | 132.34477 | 343.35795 | 329.25960 | 17.33788 | 0.563457 | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 204241 2004 <i>DU</i> ₄₈ | 15.4 | X | 282.57589 | 258.62778 | 301.19396 | 0.22595 | 0.1269572 | 0.17282911 | 3.1919651 | 20 | — | — |
| 204242 2004 <i>DV</i> ₄₈ | 16.0 | X | 108.11516 | 175.65672 | 339.98667 | 2.67118 | 0.1371419 | 0.19824137 | 2.9129958 | 20 | 7 6.2 | 20.4 |
| 204243 2004 <i>DH</i> ₅₀ | 15.0 | X | 274.03664 | 276.18321 | 317.88376 | 10.58384 | 0.0291412 | 0.18039302 | 3.1021032 | 20 | 1 23.6 | 19.3 |
| 204244 2004 <i>DN</i> ₅₄ | 16.0 | X | 78.47581 | 289.16265 | 142.21130 | 3.71020 | 0.1524127 | 0.18452915 | 3.0555735 | 20 | 2 16.6 | 19.9 |
| 204245 2004 <i>DT</i> ₅₄ | 16.0 | X | 236.64176 | 172.72313 | 137.52385 | 0.41855 | 0.0117342 | 0.18779841 | 3.0200081 | 20 | 3 11.4 | 20.3 |
| 204246 2004 <i>DQ</i> ₅₆ | 15.6 | X | 355.31320 | 296.40752 | 179.57741 | 4.52549 | 0.1589262 | 0.17644503 | 3.1482057 | 20 | — | — |
| 204247 2004 <i>DC</i> ₅₈ | 15.8 | X | 310.49084 | 137.96147 | 72.90579 | 2.30189 | 0.1162016 | 0.18148222 | 3.0896788 | 20 | 1 26.7 | 20.0 |
| 204248 2004 <i>EG</i> ₁ | 16.8 | X | 254.73574 | 231.14598 | 43.55572 | 21.43182 | 0.0632976 | 0.36234874 | 1.9485799 | 20 | 1 25.6 | 19.7 |
| 204249 2004 <i>EU</i> ₄ | 15.5 | X | 287.55885 | 127.52806 | 110.70655 | 2.26269 | 0.1133552 | 0.17910485 | 3.1169594 | 20 | 2 1.6 | 19.8 |
| 204250 2004 <i>EH</i> ₂₆ | 15.6 | X | 230.60244 | 79.18652 | 198.48019 | 1.54552 | 0.1158465 | 0.17624221 | 3.1506205 | 20 | 1 20.2 | 20.6 |
| 204251 2004 <i>EQ</i> ₂₈ | 16.7 | X | 0.15075 | 342.50941 | 151.56760 | 1.51693 | 0.0602317 | 0.17631315 | 3.1497753 | 20 | 1 6.4 | 20.8 |
| 204252 2004 <i>EA</i> ₃₈ | 15.3 | X | 16.70076 | 257.96771 | 335.93761 | 12.32713 | 0.1029419 | 0.19185230 | 2.9773145 | 20 | 6 4.9 | 19.2 |
| 204253 2004 <i>EB</i> ₃₉ | 15.0 | X | 14.36799 | 107.62989 | 24.42567 | 16.44587 | 0.2142089 | 0.17740977 | 3.1367822 | 20 | 1 23.9 | 18.6 |
| 204254 2004 <i>ET</i> ₅₄ | 15.1 | X | 345.76718 | 293.88771 | 213.22468 | 15.81069 | 0.1896247 | 0.17751654 | 3.1355243 | 20 | — | — |
| 204255 2004 <i>EB</i> ₅₇ | 14.9 | X | 337.67574 | 276.82554 | 234.03190 | 19.67877 | 0.1695126 | 0.17630628 | 3.1498571 | 20 | — | — |
| 204256 2004 <i>EW</i> ₆₈ | 15.0 | X | 55.63898 | 60.55326 | 350.99811 | 15.68654 | 0.2540765 | 0.17705204 | 3.1410059 | 20 | 1 3.4 | 18.6 |
| 204257 2004 <i>EL</i> ₇₄ | 15.5 | X | 323.09903 | 107.93977 | 87.96478 | 2.58676 | 0.1004637 | 0.17700625 | 3.1415476 | 20 | 1 26.9 | 19.7 |
| 204258 2004 <i>EL</i> ₈₄ | 15.6 | X | 60.20527 | 337.75680 | 94.24514 | 3.79654 | 0.0729552 | 0.17861430 | 3.1226638 | 20 | 1 13.9 | 19.6 |
| 204259 2004 <i>EZ</i> ₈₄ | 15.1 | X | 290.34037 | 60.53395 | 124.36931 | 5.71900 | 0.0901508 | 0.17142239 | 3.2094037 | 20 | — | — |
| 204260 2004 <i>FA</i> ₁ | 16.2 | X | 4.50562 | 275.75327 | 53.53959 | 7.11449 | 0.1452958 | 0.22486774 | 2.6782510 | 20 | 10 9.5 | 19.1 |
| 204261 2004 <i>FH</i> ₁₆ | 14.8 | X | 333.99983 | 263.33481 | 241.83452 | 23.55952 | 0.2982684 | 0.17499832 | 3.1655327 | 20 | — | — |
| 204262 2004 <i>FZ</i> ₂₁ | 15.3 | X | 81.45851 | 351.64790 | 166.04249 | 2.68233 | 0.1504215 | 0.19173906 | 2.9784866 | 20 | 6 9.0 | 19.5 |
| 204263 2004 <i>FG</i> ₃₀ | 14.7 | X | 48.81371 | 11.26699 | 111.88725 | 20.10098 | 0.1943176 | 0.18197485 | 3.0841001 | 20 | 3 22.4 | 18.7 |
| 204264 2004 <i>FL</i> ₃₁ | 16.5 | X | 290.15745 | 207.22512 | 57.74449 | 24.34186 | 0.0668165 | 0.36685092 | 1.9326045 | 20 | 3 9.8 | 19.3 |
| 204265 2004 <i>FG</i> ₃₂ | 15.0 | X | 299.55364 | 72.34017 | 81.50830 | 24.01575 | 0.3029766 | 0.16790250 | 3.2541029 | 20 | — | — |
| 204266 2004 <i>FC</i> ₃₃ | 15.1 | X | 291.57168 | 275.74271 | 325.56884 | 6.98743 | 0.2126610 | 0.17734268 | 3.1375732 | 20 | 1 28.9 | 19.8 |
| 204267 2004 <i>FZ</i> ₃₈ | 15.3 | X | 169.38998 | 176.96605 | 137.43718 | 4.25564 | 0.0181935 | 0.17156732 | 3.2075961 | 20 | — | — |
| 204268 2004 <i>FD</i> ₄₈ | 15.4 | X | 264.75560 | 253.09764 | 327.60328 | 6.69657 | 0.0828006 | 0.17255143 | 3.1953885 | 20 | — | — |
| 204269 2004 <i>FQ</i> ₈₃ | 15.3 | X | 4.19646 | 75.89412 | 44.67608 | 12.02212 | 0.0989519 | 0.17708645 | 3.1405990 | 20 | — | — |
| 204270 2004 <i>FJ</i> ₉₂ | 15.4 | X | 285.40284 | 69.75041 | 155.80135 | 1.67409 | 0.1221727 | 0.17527255 | 3.1622299 | 20 | 1 14.2 | 19.9 |
| 204271 2004 <i>FP</i> ₁₀₂ | 15.0 | X | 242.15745 | 195.47865 | 24.75467 | 11.08604 | 0.0303016 | 0.16973717 | 3.2306116 | 20 | — | — |
| 204272 2004 <i>FV</i> ₁₁₉ | 16.1 | X | 1.89716 | 83.61744 | 52.08703 | 1.48197 | 0.1304148 | 0.17587765 | 3.1549728 | 20 | 1 6.2 | 19.8 |
| 204273 2004 <i>FP</i> ₁₃₀ | 15.6 | X | 68.05739 | 17.53847 | 121.42579 | 9.46090 | 0.2768175 | 0.18864366 | 3.0109803 | 20 | 5 19.9 | 19.7 |
| 204274 2004 <i>FL</i> ₁₄₂ | 14.5 | X | 154.29185 | 77.11608 | 196.20201 | 14.74617 | 0.0885527 | 0.15805414 | 3.3879121 | 20 | 12 30.4 | 20.0 |
| 204275 2004 <i>FD</i> ₁₄₄ | 15.1 | X | 358.10018 | 177.67065 | 306.27060 | 11.84867 | 0.1535752 | 0.17547258 | 3.1598263 | 20 | — | — |
| 204276 2004 <i>FU</i> ₁₄₅ | 15.8 | X | 334.13074 | 199.14517 | 320.31585 | 3.22486 | 0.0197740 | 0.17564819 | 3.1577198 | 20 | 1 7.9 | 20.2 |
| 204277 2004 <i>GJ</i> ₁₉ | 16.7 | X | 140.93823 | 306.05347 | 67.94663 | 24.28439 | 0.0853355 | 0.35914452 | 1.9601526 | 20 | 1 18.9 | 19.2 |
| 204278 2004 <i>HG</i> ₁ | 17.0 | X | 40.31128 | 246.24324 | 260.06048 | 18.10585 | 0.0618938 | 0.36771822 | 1.9295644 | 20 | 2 7.9 | 19.1 |
| 204279 2004 <i>HV</i> ₅ | 15.8 | X | 154.50665 | 126.53080 | 57.84632 | 4.82685 | 0.1503049 | 0.20676921 | 2.8323405 | 20 | 9 28.7 | 20.4 |
| 204280 2004 <i>HJ</i> ₃₄ | 16.8 | X | 282.66688 | 201.94448 | 112.96885 | 5.88730 | 0.1885394 | 0.30435790 | 2.1888349 | 20 | 4 14.6 | 19.5 |
| 204281 2004 <i>HL</i> ₅₀ | 14.5 | X | 359.62940 | 340.76200 | 136.81659 | 18.90142 | 0.1257767 | 0.17124434 | 3.2116280 | 20 | — | — |
| 204282 2004 <i>KR</i> ₁₆ | 17.1 | X | 37.64960 | 128.02432 | 114.39423 | 4.99296 | 0.1271673 | 0.30622356 | 2.1799355 | 20 | 8 7.1 | 19.2 |
| 204283 2004 <i>LY</i> ₈ | 16.4 | X | 211.36306 | 40.46851 | 299.71511 | 3.82141 | 0.2470680 | 0.28667665 | 2.2779342 | 20 | 3 3.1 | 20.2 |
| 204284 2004 <i>LX</i> ₁₄ | 17.6 | X | 316.15148 | 141.17188 | 160.84389 | 3.10357 | 0.1833826 | 0.30730067 | 2.1748386 | 20 | 5 17.2 | 19.4 |
| 204285 2004 <i>LM</i> ₂₃ | 17.1 | X | 150.24948 | 249.94749 | 86.42273 | 7.02241 | 0.2654280 | 0.27707470 | 2.3302623 | 20 | 1 14.1 | 20.6 |
| 204286 2004 <i>ME</i> ₁ | 17.0 | X | 315.10165 | 21.82507 | 263.89940 | 8.03184 | 0.2396907 | 0.30083335 | 2.2058978 | 20 | 4 2.7 | 19.4 |
| 204287 2004 <i>NK</i> ₁₃ | 17.1 | X | 231.68780 | 52.06571 | 279.04590 | 6.13415 | 0.1618109 | 0.29292960 | 2.2454008 | 20 | 3 9.1 | 20.7 |
| 204288 2004 <i>OH</i> ₅ | 17.2 | X | 179.05163 | 43.64246 | 304.62796 | 4.83692 | 0.1668472 | 0.28494399 | 2.2871591 | 20 | 2 14.1 | 20.6 |
| 204289 2004 <i>PP</i> ₃ | 16.9 | X | 196.60305 | 257.22993 | 110.93652 | 4.55129 | 0.1588795 | 0.29029650 | 2.2589581 | 20 | 3 29.4 | 20.4 |
| 204290 2004 <i>PV</i> ₂₁ | 17.0 | X | 22.70506 | 120.51264 | 137.24007 | 6.35940 | 0.1031401 | 0.30702624 | 2.1761344 | 20 | 7 30.3 | 18.7 |
| 204291 2004 <i>PH</i> ₂₇ | 17.3 | X | 77.43920 | 259.55403 | 101.60250 | 5.70820 | 0.2400163 | 0.26779830 | 2.3837690 | 20 | — | — |
| 204292 2004 <i>PR</i> ₃₃ | 17.4 | X | 162.83308 | 184.80619 | 156.14155 | 5.78082 | 0.1835082 | 0.27913463 | 2.3187837 | 20 | 1 22.6 | 20.8 |
| 204293 2004 <i>PD</i> ₃₄ | 16.6 | X | 126.72018 | 70.08985 | 322.19224 | 4.83908 | 0.1374637 | 0.28034687 | 2.3120945 | 20 | 2 13.5 | 19.4 |
| 204294 2004 <i>PA</i> ₃₉ | 16.8 | X | 136.53726 | 192.14371 | 140.89033 | 7.46286 | 0.2339421 | 0.27256524 | 2.3558939 | 20 | — | — |
| 204295 2004 <i>PO</i> ₄₅ | 17.4 | X | 121.64893 | 256.43790 | 92.35992 | 3.33828 | 0.2172870 | 0.27220176 | 2.3579907 | 20 | — | — |
| 204296 2004 <i>PT</i> ₆₁ | 16.9 | X | 267.74157 | 201.92820 | 137.88438 | 9.98356 | 0.2221713 | 0.29493891 | 2.2351912 | 20 | 4 28.2 | 20.2 |
| 204297 2004 <i>PV</i> ₆₁ | 16.3 | X | 173.15733 | 212.32658 | 123.49840 | 7.25279 | 0.1605197 | 0.27804497 | 2.3248380 | 20 | 1 25.2 | 19.7 |
| 204298 2004 <i>PR</i> ₆₃ | 16.9 | X | 39.59364 | 88.01212 | 277.31890 | 1.77640 | 0.1895262 | 0.26114076 | 2.4241135 | 20 | — | — |
| 204299 2004 <i>PM</i> ₇₂ | 16.8 | X | 187.15261 | 248.64632 | 122.57401 | 7.75296 | 0.2322387 | 0.28822155 | 2.2697869 | 20 | 3 26.9 | 20.7 |
| 204300 2004 <i>PT</i> ₇₉ | 17.0 | X | 174.70727 | 114.08852 | 243.59882 | 3.30783 | 0.1674244 | 0.28321429 | 2.2964620 | 20 | 2 21.3 | 20.4 |
| 204301 2004 <i>PU</i> ₈₄ | 16.9 | X | 113.26096 | 266.10637 | 101.22241 | 2.34105 | 0.1959490 | 0.27063792 | 2.3670656 | 20 | 1 4.4 | 19.5 |
| 204302 2004 <i>PG</i> ₈₅ | 16.8 | X | 263.52752 | 294.39773 | 65.82437 | 4.16504 | 0.1816575 | 0.29565683 | 2.2315713 | 20 | 5 22.9 | 19.5 |
| 204303 2004 <i>PK</i> ₈₈ | 16.6 | X | 121.75252 | 187.62350 | 201.81108 | 4.62618 | 0.2347683 | 0.27371016 | 2.3493196 | 20 | 2 16.4 | 19.9 |
| 204304 2004 <i>PW</i> ₉₀ | 16.8 | X | 98.79457 | 191.28644 | 193.24359 | 2.14178 | 0.2289120 | 0.26981231 | 2.3718918 | 20 | 1 11.9 | 19.4 |
| 204305 2004 <i>PM</i> ₉₁ | 17.0 | X | 185.05813 | 4.82593 | 324.41195 | 1.91157 | 0.2303158 | 0.27871355 | 2.3211186 | 20 | 1 31.6 | 20.9 |
| 204306 2004 <i>PE</i> ₉₈ | 17.2 | X | 184.31323 | 263.59602 | 81.40036 | 7.91393 | 0.1743301 | 0. | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|----------|
| 204321 2004 RC ₈₁ | 17.6 | X | 113.36287 | 99.52903 | 231.41386 | 1.10009 | 0.1899166 | 0.26806829 | 2.3821682 | 20 | — | — |
| 204322 2004 RP ₈₁ | 17.2 | X | 107.95678 | 19.99940 | 346.89712 | 7.64017 | 0.1292951 | 0.27150930 | 2.3619983 | 20 | — | — |
| 204323 2004 RL ₈₂ | 17.0 | X | 348.26405 | 119.02446 | 180.46447 | 6.49972 | 0.1743514 | 0.24199515 | 2.5503411 | 20 | 7 22.5 | 19.3 |
| 204324 2004 RU ₈₈ | 17.0 | X | 228.67316 | 59.93306 | 248.50030 | 5.76219 | 0.2250923 | 0.28801471 | 2.2708735 | 20 | 2 6.5 | 20.9 |
| 204325 2004 RE ₁₀₁ | 17.2 | X | 208.76035 | 44.57612 | 252.08681 | 2.50908 | 0.1839614 | 0.28039939 | 2.3118057 | 20 | 1 9.7 | 21.0 |
| 204326 2004 RY ₁₀₅ | 16.4 | X | 159.17736 | 90.03229 | 243.27367 | 5.89204 | 0.1339336 | 0.27497356 | 2.3421179 | 20 | 1 5.1 | 19.7 |
| 204327 2004 RN ₁₀₆ | 16.3 | X | 54.58559 | 48.04855 | 358.60633 | 9.80180 | 0.2202738 | 0.26477072 | 2.4019064 | 20 | — | — |
| 204328 2004 RF ₁₃₂ | 17.3 | X | 85.84858 | 1.43369 | 154.35711 | 3.89019 | 0.1086483 | 0.29471520 | 2.2363221 | 20 | 6 7.1 | 19.9 |
| 204329 2004 RJ ₁₇₅ | 16.9 | X | 145.54820 | 123.34791 | 229.87310 | 7.85013 | 0.1770746 | 0.27705189 | 2.3303902 | 20 | 1 18.8 | 20.3 |
| 204330 2004 RC ₁₈₃ | 16.8 | X | 90.59959 | 197.60577 | 214.31131 | 4.39620 | 0.1142921 | 0.27445775 | 2.3450515 | 20 | 1 16.9 | 19.4 |
| 204331 2004 RU ₁₈₆ | 16.7 | X | 144.35160 | 131.69861 | 237.24948 | 4.82958 | 0.1634054 | 0.27748766 | 2.3279497 | 20 | 2 5.2 | 20.0 |
| 204332 2004 RJ ₂₁₁ | 17.2 | X | 311.13171 | 8.97256 | 303.65812 | 8.49363 | 0.2174880 | 0.30026621 | 2.2086746 | 20 | 5 14.3 | 19.4 |
| 204333 2004 RD ₂₂₈ | 16.8 | X | 267.01507 | 127.94764 | 301.17869 | 1.60834 | 0.1246487 | 0.24253915 | 2.5465262 | 20 | 9 8.6 | 19.7 |
| 204334 2004 RW ₂₃₃ | 17.0 | X | 132.07144 | 20.74017 | 78.98650 | 1.11186 | 0.0797402 | 0.28766261 | 2.2727261 | 20 | 5 14.7 | 19.8 |
| 204335 2004 RM ₂₃₄ | 17.3 | X | 148.11679 | 99.39035 | 309.79596 | 4.61009 | 0.1535849 | 0.28630909 | 2.2798833 | 20 | 3 30.1 | 20.7 |
| 204336 2004 RD ₂₃₆ | 16.9 | X | 141.85787 | 137.87423 | 206.69729 | 4.63660 | 0.0996821 | 0.27262680 | 2.3555393 | 20 | — | — |
| 204337 2004 RJ ₂₅₁ | 17.4 | X | 88.69754 | 136.09838 | 223.02924 | 2.25859 | 0.1863119 | 0.26572102 | 2.3961764 | 20 | — | — |
| 204338 2004 RF ₂₅₃ | 17.2 | X | 155.99483 | 289.44689 | 105.09049 | 8.75465 | 0.1980572 | 0.28140358 | 2.3063027 | 20 | 3 29.7 | 20.9 |
| 204339 2004 RX ₂₅₄ | 16.5 | X | 76.27231 | 250.27382 | 104.75345 | 7.38334 | 0.1544985 | 0.26420821 | 2.4053144 | 20 | — | — |
| 204340 2004 RX ₂₈₇ | 16.8 | X | 129.04504 | 355.32995 | 28.49339 | 3.84481 | 0.1820363 | 0.27458707 | 2.3443151 | 20 | 2 13.6 | 19.9 |
| 204341 2004 RH ₃₁₅ | 17.0 | X | 124.50400 | 287.46629 | 47.03297 | 1.99554 | 0.2038373 | 0.26834150 | 2.3805510 | 20 | — | — |
| 204342 2004 RB ₃₁₆ | 17.4 | X | 128.43628 | 9.00080 | 23.07689 | 1.58446 | 0.2134245 | 0.27621256 | 2.3351087 | 20 | 2 26.3 | 20.6 |
| 204343 2004 RU ₃₁₉ | 16.4 | X | 108.56903 | 35.84510 | 340.45453 | 7.49523 | 0.1332342 | 0.27238644 | 2.3569248 | 20 | — | — |
| 204344 2004 RF ₃₂₄ | 16.0 | X | 238.93593 | 323.09048 | 0.90960 | 9.47480 | 0.0695764 | 0.28602164 | 2.2814106 | 20 | 3 17.9 | 19.0 |
| 204345 2004 RD ₃₂₅ | 16.5 | X | 91.37275 | 143.48985 | 278.29046 | 6.37030 | 0.1308007 | 0.27418630 | 2.3465990 | 20 | 2 3.1 | 19.0 |
| 204346 2004 RR ₃₃₉ | 17.3 | X | 165.74451 | 348.62480 | 25.83695 | 3.54042 | 0.1729918 | 0.28179425 | 2.3041706 | 20 | 3 8.3 | 20.8 |
| 204347 2004 RG ₃₄₁ | 16.3 | X | 75.03270 | 135.01716 | 230.68776 | 10.95798 | 0.2850486 | 0.26514848 | 2.3996245 | 20 | — | — |
| 204348 2004 RJ ₃₄₅ | 16.6 | X | 56.85167 | 298.88235 | 81.17124 | 13.79164 | 0.2078778 | 0.26165120 | 2.4209597 | 20 | — | — |
| 204349 2004 SF ₂₃ | 17.3 | X | 88.68603 | 115.38028 | 15.76539 | 2.87011 | 0.1039445 | 0.28462989 | 2.2888415 | 20 | 5 3.8 | 19.8 |
| 204350 2004 SR ₂₉ | 17.1 | X | 125.59179 | 257.63470 | 191.47684 | 2.74570 | 0.1286763 | 0.28534645 | 2.2850081 | 20 | 4 28.1 | 20.1 |
| 204351 2004 SG ₃₉ | 16.5 | X | 105.11156 | 172.40134 | 180.73182 | 9.22609 | 0.1164383 | 0.26675568 | 2.3899763 | 20 | — | — |
| 204352 2004 SV ₃₉ | 17.4 | X | 89.50668 | 39.40916 | 336.62869 | 0.55153 | 0.2004548 | 0.26757767 | 2.3850792 | 20 | — | — |
| 204353 2004 SB ₄₇ | 16.8 | X | 254.03477 | 57.73628 | 243.67703 | 8.33761 | 0.2371878 | 0.28710683 | 2.2756582 | 20 | 2 16.5 | 20.7 |
| 204354 2004 SR ₅₃ | 17.1 | X | 94.36489 | 193.55204 | 206.30834 | 0.58784 | 0.2669664 | 0.27110067 | 2.3643712 | 20 | 2 1.9 | 19.4 |
| 204355 2004 TH ₆ | 16.8 | X | 77.37082 | 245.88958 | 105.14637 | 7.75975 | 0.2475163 | 0.26402833 | 2.4064067 | 20 | — | — |
| 204356 2004 TP ₆ | 16.7 | X | 14.39522 | 345.92483 | 70.66523 | 5.67404 | 0.1998372 | 0.26107095 | 2.4245456 | 20 | — | — |
| 204357 2004 TS ₆ | 16.7 | X | 100.40363 | 312.12993 | 86.15004 | 6.09583 | 0.2464329 | 0.27275655 | 2.3547922 | 20 | 2 6.9 | 19.4 |
| 204358 2004 TC ₉ | 16.9 | X | 322.20535 | 34.07645 | 272.27992 | 6.55014 | 0.2164618 | 0.29966734 | 2.2116162 | 20 | 5 30.4 | 18.6 |
| 204359 2004 TM ₉ | 17.0 | X | 76.79216 | 215.02464 | 200.26369 | 2.15952 | 0.1882037 | 0.26943514 | 2.3741048 | 20 | 1 11.2 | 19.2 |
| 204360 2004 TX ₁₄ | 16.8 | X | 38.99701 | 12.96168 | 64.51466 | 5.48460 | 0.1729343 | 0.26642567 | 2.3919495 | 20 | — | — |
| 204361 2004 TB ₃₀ | 16.2 | X | 146.11319 | 150.79173 | 21.36810 | 8.81816 | 0.1029874 | 0.24187557 | 2.5511816 | 20 | 9 9.6 | 20.0 |
| 204362 2004 TW ₃₃ | 17.1 | X | 103.24184 | 348.60170 | 78.90868 | 3.91108 | 0.2079692 | 0.27562055 | 2.3384512 | 20 | 3 15.6 | 20.0 |
| 204363 2004 TS ₃₄ | 17.2 | X | 37.13531 | 311.91151 | 98.13341 | 1.69446 | 0.1915196 | 0.26246645 | 2.4159439 | 20 | — | — |
| 204364 2004 TE ₃₆ | 17.3 | X | 237.01398 | 43.55303 | 313.62608 | 1.60019 | 0.0524975 | 0.29051967 | 2.2578012 | 20 | 4 30.8 | 20.3 |
| 204365 2004 TP ₃₇ | 16.8 | X | 53.92858 | 29.54679 | 23.05876 | 7.41012 | 0.1016478 | 0.26594529 | 2.3948290 | 20 | — | — |
| 204366 2004 TK ₄₄ | 16.3 | X | 6.91930 | 54.73946 | 217.71826 | 12.65554 | 0.1500505 | 0.23516618 | 2.5994780 | 20 | 7 16.6 | 19.2 |
| 204367 2004 TA ₅₇ | 17.4 | X | 70.40045 | 129.07448 | 275.15672 | 0.75739 | 0.1764773 | 0.26816248 | 2.3816103 | 20 | — | — |
| 204368 2004 TD ₆₈ | 16.4 | X | 93.54786 | 28.16219 | 66.97893 | 7.22792 | 0.0549706 | 0.28070236 | 2.3101420 | 20 | 3 17.4 | 19.2 |
| 204369 2004 TD ₆₉ | 16.7 | X | 212.85361 | 230.39715 | 68.02125 | 4.91356 | 0.1463439 | 0.27854280 | 2.3220670 | 20 | 1 16.2 | 20.2 |
| 204370 Ferdinandvaněk | 16.8 | X | 116.30272 | 253.82130 | 108.11452 | 5.33453 | 0.1756549 | 0.26922050 | 2.3753665 | 20 | — | — |
| 204371 2004 TE ₇₅ | 17.4 | X | 22.39743 | 45.44251 | 36.46537 | 1.76306 | 0.1540723 | 0.26258754 | 2.4152011 | 20 | — | — |
| 204372 2004 TG ₇₉ | 17.0 | X | 217.45820 | 348.52321 | 355.20273 | 3.03939 | 0.1909991 | 0.28511978 | 2.2862190 | 20 | 3 14.9 | 20.5 |
| 204373 2004 TP ₉₃ | 17.3 | X | 280.14955 | 312.10861 | 221.80527 | 1.82280 | 0.1242932 | 0.26279633 | 2.4139218 | 20 | — | — |
| 204374 2004 TJ ₉₄ | 17.3 | X | 221.76158 | 278.89029 | 2.44842 | 0.76463 | 0.1934476 | 0.27672268 | 2.3322380 | 20 | 1 2.9 | 20.9 |
| 204375 2004 TY ₉₄ | 16.3 | X | 7.02453 | 180.20687 | 20.34642 | 4.01366 | 0.0650916 | 0.28400813 | 2.2921808 | 20 | 3 29.1 | 18.6 |
| 204376 2004 TV ₁₀₃ | 17.0 | X | 308.47822 | 177.36595 | 218.12652 | 3.70009 | 0.1813551 | 0.24526208 | 2.5276432 | 20 | 9 24.3 | 19.3 |
| 204377 2004 TG ₁₀₈ | 17.1 | X | 203.75397 | 251.68425 | 108.96071 | 5.83297 | 0.1846303 | 0.28576125 | 2.2827963 | 20 | 3 27.2 | 20.8 |
| 204378 2004 TL ₁₁₅ | 16.9 | X | 144.71830 | 57.72865 | 316.91956 | 2.78287 | 0.1871817 | 0.27536482 | 2.3398988 | 20 | 2 17.3 | 20.3 |
| 204379 2004 TB ₁₂₁ | 16.8 | X | 175.54866 | 280.65758 | 79.60651 | 3.61492 | 0.1939683 | 0.27916810 | 2.3185984 | 20 | 3 1.4 | 20.5 |
| 204380 2004 TR ₁₂₁ | 17.0 | X | 50.65809 | 176.17819 | 237.51025 | 2.51164 | 0.1171361 | 0.26588322 | 2.3952017 | 20 | — | — |
| 204381 2004 TO ₁₂₂ | 17.4 | X | 101.07692 | 48.33185 | 9.50874 | 3.31712 | 0.1685514 | 0.27515836 | 2.3410692 | 20 | 2 21.0 | 20.0 |
| 204382 2004 TU ₁₂₅ | 16.5 | X | 200.10703 | 172.51670 | 130.86235 | 7.36992 | 0.1304449 | 0.27726609 | 2.3291898 | 20 | 1 9.1 | 20.0 |
| 204383 2004 TG ₁₂₆ | 17.1 | X | 65.53275 | 308.35681 | 113.59100 | 3.09664 | 0.2037746 | 0.26928616 | 2.3749804 | 20 | — | — |
| 204384 2004 TW ₁₂₇ | 17.0 | X | 233.82381 | 127.88507 | 163.86788 | 2.57215 | 0.1454009 | 0.28092808 | 2.3089044 | 20 | 1 26.2 | 20.5 |
| 204385 2004 TL ₁₃₁ | 15.8 | X | 306.40139 | 292.63418 | 90.76942 | 4.06172 | 0.1420540 | 0.24084162 | 2.5584780 | 20 | 9 8.8 | 18.4 |
| 204386 2004 TK ₁₄₃ | 17.2 | X | 55.54030 | 141.71850 | 282.04530 | 0.88481 | 0.2153736 | 0.26599071 | 2.3945564 | 20 | — | — |
| 204387 2004 TR ₁₄₃ | 16.7 | X | 178.08894 | 105.86721 | 218.20750 | 2.94876 | 0.1731456 | 0.27509359 | 2.3414366 | 20 | 1 15.9 | 20.3 |
| 204388 2004 TV ₁₄₃ | 16.7 | X | 293.35738 | 196.71304 | 29.40341 | 2.83210 | 0.1725816 | 0.27607452 | 2.3358870 | 20 | | |

ELEMENTS AND OPPOSITION DATES IN 2020

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| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V |
|-------------------------------|------|---|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 204481 2005 AS ₆₁ | 16.2 | X | 170.00895 | 94.40889 | 24.80696 | 5.27023 | 0.1139217 | 0.22045793 | 2.7138483 | 20 | 7 24.9 | 20.4 |
| 204482 2005 AM ₆₇ | 16.4 | X | 179.74642 | 87.52042 | 103.29140 | 3.21782 | 0.0860511 | 0.23448846 | 2.6044842 | 20 | 11 5.5 | 20.3 |
| 204483 2005 AZ ₆₇ | 15.5 | X | 20.70268 | 147.90677 | 93.12038 | 9.69992 | 0.2191930 | 0.21162614 | 2.7888373 | 20 | 7 7.1 | 18.2 |
| 204484 2005 AB ₇₆ | 16.1 | X | 247.64134 | 172.00700 | 254.93184 | 11.89864 | 0.2856837 | 0.22830471 | 2.6513036 | 20 | 7 16.9 | 20.4 |
| 204485 2005 AU ₇₇ | 16.5 | X | 262.73450 | 28.75645 | 67.16885 | 3.01262 | 0.1001960 | 0.23410639 | 2.6073172 | 20 | 10 13.6 | 19.7 |
| 204486 2005 AE ₇₈ | 16.4 | X | 254.01529 | 40.56864 | 37.47855 | 2.59114 | 0.0544794 | 0.22915319 | 2.6447550 | 20 | 9 13.5 | 19.8 |
| 204487 2005 BJ ₄ | 16.5 | X | 350.09018 | 259.15177 | 142.22489 | 5.25246 | 0.1689980 | 0.24382045 | 2.5375968 | 20 | 12 30.0 | 19.1 |
| 204488 2005 BB ₁₀ | 16.4 | X | 56.31717 | 333.63385 | 53.21119 | 3.64157 | 0.1863316 | 0.25370315 | 2.4712621 | 20 | — | — |
| 204489 2005 BL ₁₃ | 16.1 | X | 223.17724 | 282.66852 | 134.51219 | 12.18606 | 0.1944811 | 0.22257866 | 2.6965824 | 20 | 6 23.1 | 20.5 |
| 204490 2005 BO ₂₂ | 16.6 | X | 295.50441 | 43.10271 | 353.01281 | 1.96554 | 0.2240513 | 0.23289278 | 2.6163672 | 20 | 8 22.2 | 19.1 |
| 204491 2005 BR ₂₈ | 16.2 | X | 239.99838 | 327.08714 | 214.15912 | 3.94042 | 0.1307755 | 0.24399658 | 2.5363755 | 20 | 12 29.8 | 19.3 |
| 204492 2005 BG ₂₉ | 16.0 | X | 87.70338 | 325.72277 | 221.85173 | 5.02764 | 0.2407005 | 0.21290752 | 2.7776363 | 20 | 8 4.7 | 20.3 |
| 204493 2005 CJ ₁ | 16.6 | X | 257.32377 | 117.36724 | 13.96197 | 1.63551 | 0.1036472 | 0.23947381 | 2.5682110 | 20 | 11 21.3 | 19.7 |
| 204494 2005 CN ₂ | 16.7 | X | 293.23454 | 211.18125 | 345.29056 | 2.54321 | 0.1321065 | 0.25384319 | 2.4703531 | 20 | — | — |
| 204495 2005 CC ₃ | 16.2 | X | 204.23004 | 176.96522 | 325.84073 | 3.17931 | 0.1457850 | 0.23080740 | 2.6321031 | 20 | 9 24.3 | 20.2 |
| 204496 2005 CH ₄ | 16.1 | X | 333.51186 | 265.81177 | 329.61716 | 13.25683 | 0.1924836 | 0.26527461 | 2.3988638 | 20 | 3 4.7 | 18.5 |
| 204497 2005 CP ₁₆ | 16.1 | X | 331.15242 | 100.11620 | 302.87030 | 6.86085 | 0.2053739 | 0.23985463 | 2.5654919 | 20 | 11 25.7 | 18.4 |
| 204498 2005 CM ₁₉ | 16.9 | X | 208.87546 | 311.36556 | 188.26145 | 1.60234 | 0.1574961 | 0.23099175 | 2.6307025 | 20 | 9 25.0 | 20.9 |
| 204499 2005 CB ₂₇ | 16.2 | X | 240.40679 | 297.13244 | 131.76868 | 5.20321 | 0.1862490 | 0.22425917 | 2.6830942 | 20 | 7 25.7 | 20.2 |
| 204500 2005 CK ₂₇ | 16.3 | X | 131.97249 | 278.16289 | 291.52530 | 3.44763 | 0.1448749 | 0.22698261 | 2.6615890 | 20 | 10 7.2 | 20.7 |
| 204501 2005 CK ₃₁ | 16.4 | X | 79.21470 | 269.70637 | 357.24092 | 3.50067 | 0.0270012 | 0.22875194 | 2.6478468 | 20 | 10 12.3 | 19.9 |
| 204502 2005 CE ₃₆ | 16.2 | X | 195.83787 | 335.26542 | 109.72770 | 5.72402 | 0.0820940 | 0.21981260 | 2.7191573 | 20 | 7 7.5 | 20.3 |
| 204503 2005 CE ₃₇ | 16.0 | X | 310.62608 | 275.05444 | 104.75889 | 15.20160 | 0.2040212 | 0.23237746 | 2.6202338 | 20 | 9 6.9 | 18.8 |
| 204504 2005 CR ₄₅ | 17.0 | X | 143.80111 | 54.98334 | 69.32145 | 2.60920 | 0.1860263 | 0.21540256 | 2.7561455 | 20 | 7 6.3 | 21.5 |
| 204505 2005 CE ₄₈ | 16.7 | X | 244.11469 | 213.45514 | 300.45229 | 2.22825 | 0.1105098 | 0.23809283 | 2.5781321 | 20 | 12 1.2 | 19.9 |
| 204506 2005 CR ₅₆ | 16.0 | X | 235.27526 | 300.24449 | 153.90135 | 13.08700 | 0.1677910 | 0.23032567 | 2.6357719 | 20 | 8 24.7 | 19.8 |
| 204507 2005 CE ₆₅ | 16.1 | X | 99.78337 | 106.89229 | 91.13869 | 4.43614 | 0.0277954 | 0.21963514 | 2.7206217 | 20 | 8 9.5 | 19.7 |
| 204508 2005 CW ₇₀ | 16.3 | X | 330.15865 | 251.99528 | 129.31235 | 12.69172 | 0.1902878 | 0.23378706 | 2.6096909 | 20 | 10 26.0 | 18.9 |
| 204509 2005 CN ₇₁ | 16.4 | X | 215.13971 | 309.57447 | 108.87191 | 6.14498 | 0.1040613 | 0.21796010 | 2.7345428 | 20 | 6 22.9 | 20.4 |
| 204510 2005 CS ₇₆ | 15.6 | X | 94.73089 | 250.42502 | 98.32675 | 4.30316 | 0.0672041 | 0.18430586 | 3.0580409 | 20 | — | — |
| 204511 2005 CP ₇₉ | 15.3 | X | 68.56467 | 173.40229 | 99.43951 | 9.92289 | 0.2021798 | 0.22673025 | 2.6635636 | 20 | 11 3.0 | 19.4 |
| 204512 2005 EF ₁ | 15.9 | X | 299.25013 | 87.18052 | 155.47115 | 5.75068 | 0.0617793 | 0.19713318 | 2.9239026 | 20 | 2 25.5 | 19.9 |
| 204513 2005 EN ₇ | 16.2 | X | 201.88196 | 62.61274 | 9.04770 | 3.71260 | 0.0518912 | 0.21195423 | 2.7859586 | 20 | 6 28.7 | 20.3 |
| 204514 2005 EF ₁₇ | 16.4 | X | 179.42830 | 142.92214 | 9.49471 | 1.67010 | 0.0375825 | 0.22311177 | 2.6922852 | 20 | 9 17.5 | 20.3 |
| 204515 2005 EF ₁₉ | 16.1 | X | 251.59651 | 180.54549 | 160.23843 | 2.33212 | 0.0839401 | 0.20394506 | 2.8584280 | 20 | 4 28.1 | 20.2 |
| 204516 2005 EH ₂₁ | 16.6 | X | 205.06868 | 70.04203 | 29.02379 | 3.91058 | 0.1831112 | 0.22196038 | 2.7015877 | 20 | 7 30.6 | 20.9 |
| 204517 2005 EL ₂₁ | 15.7 | X | 300.40392 | 285.65890 | 132.15177 | 7.09329 | 0.3684547 | 0.23640041 | 2.5904223 | 20 | 9 10.5 | 17.6 |
| 204518 2005 EM ₂₅ | 15.5 | X | 96.70097 | 1.74288 | 96.46831 | 3.23458 | 0.0264539 | 0.19920551 | 2.9035891 | 20 | 3 26.8 | 19.5 |
| 204519 2005 EE ₂₈ | 15.3 | X | 191.15560 | 17.28108 | 15.03533 | 15.44035 | 0.1417668 | 0.20515860 | 2.8471448 | 20 | 4 22.1 | 19.9 |
| 204520 2005 ER ₃₃ | 16.0 | X | 26.26940 | 344.86775 | 274.22911 | 3.19531 | 0.0486808 | 0.21466996 | 2.7624125 | 20 | 7 22.5 | 19.4 |
| 204521 2005 EQ ₅₀ | 15.9 | X | 184.19853 | 177.73641 | 347.11602 | 4.77518 | 0.1567979 | 0.22640058 | 2.6661487 | 20 | 9 30.9 | 20.1 |
| 204522 2005 EQ ₅₃ | 16.8 | X | 266.54410 | 22.33326 | 155.89336 | 3.08838 | 0.0790901 | 0.24362577 | 2.5389486 | 20 | — | — |
| 204523 2005 EG ₆₆ | 16.1 | X | 174.06009 | 96.38347 | 93.59220 | 13.51942 | 0.2102907 | 0.22716663 | 2.6601514 | 20 | 10 27.1 | 20.8 |
| 204524 2005 EN ₇₄ | 16.2 | X | 158.62024 | 213.49519 | 254.63155 | 1.28418 | 0.0828987 | 0.21508467 | 2.7588605 | 20 | 6 26.1 | 20.3 |
| 204525 2005 EW ₇₉ | 15.3 | X | 132.88126 | 90.85082 | 58.52708 | 6.66127 | 0.0279372 | 0.21269847 | 2.7794560 | 20 | 7 17.5 | 19.2 |
| 204526 2005 EC ₈₆ | 16.2 | X | 179.41129 | 117.14573 | 46.33044 | 4.84769 | 0.1647807 | 0.22548943 | 2.6733260 | 20 | 9 27.2 | 20.6 |
| 204527 2005 EH ₈₆ | 15.5 | X | 47.89812 | 132.89276 | 81.86352 | 4.99476 | 0.0384276 | 0.20917239 | 2.8106050 | 20 | 6 22.1 | 19.0 |
| 204528 2005 EF ₈₇ | 16.1 | X | 212.86457 | 330.06674 | 7.10790 | 1.82336 | 0.1004439 | 0.19535476 | 2.9416210 | 20 | 3 11.9 | 20.7 |
| 204529 2005 EF ₉₀ | 16.1 | X | 10.33639 | 0.60239 | 266.42784 | 2.20397 | 0.0669106 | 0.21162491 | 2.7888480 | 20 | 7 10.6 | 19.3 |
| 204530 2005 EE ₁₀₂ | 14.8 | X | 232.29092 | 101.08476 | 95.13474 | 6.07873 | 0.1165054 | 0.17217743 | 3.2000141 | 20 | 12 22.4 | 19.4 |
| 204531 2005 EC ₁₀₄ | 16.2 | X | 222.93812 | 252.84491 | 157.22409 | 3.96665 | 0.0911480 | 0.21404197 | 2.7678131 | 20 | 6 21.8 | 20.2 |
| 204532 2005 EY ₁₁₀ | 15.3 | X | 64.56764 | 131.66998 | 74.00161 | 8.67711 | 0.1540343 | 0.20985842 | 2.8044763 | 20 | 7 22.6 | 19.1 |
| 204533 2005 EQ ₁₁₅ | 15.2 | X | 311.73365 | 66.61586 | 97.47541 | 6.14269 | 0.1142902 | 0.18187068 | 3.0852777 | 20 | — | — |
| 204534 2005 EP ₁₁₈ | 16.1 | X | 229.82010 | 251.28942 | 276.79875 | 6.33133 | 0.1565570 | 0.23529921 | 2.5984981 | 20 | 11 23.2 | 19.7 |
| 204535 2005 EC ₁₃₆ | 16.4 | X | 218.78700 | 61.02172 | 31.63413 | 3.36425 | 0.2638604 | 0.22301591 | 2.6930566 | 20 | 7 28.9 | 21.0 |
| 204536 2005 ET ₁₃₉ | 15.5 | X | 293.27117 | 161.67641 | 70.67139 | 3.30137 | 0.0788883 | 0.18761418 | 3.0219848 | 20 | 2 5.4 | 19.7 |
| 204537 2005 EM ₁₄₁ | 16.8 | X | 254.74824 | 282.23405 | 121.44041 | 2.37396 | 0.1032200 | 0.22351869 | 2.6890167 | 20 | 7 20.7 | 20.2 |
| 204538 2005 EE ₁₄₅ | 15.6 | X | 99.78345 | 242.28030 | 154.69515 | 3.36217 | 0.1005779 | 0.18780189 | 3.0199708 | 20 | 1 24.8 | 19.7 |
| 204539 2005 EW ₁₄₆ | 16.4 | X | 257.18257 | 219.81761 | 146.51067 | 2.23179 | 0.0086225 | 0.20808638 | 2.8203756 | 20 | 6 17.2 | 20.3 |
| 204540 2005 EW ₁₅₇ | 16.7 | X | 89.65055 | 214.04184 | 202.41048 | 0.76769 | 0.0834946 | 0.19024775 | 2.9940314 | 20 | 2 2.1 | 20.6 |
| 204541 2005 EF ₁₇₀ | 15.7 | X | 327.67568 | 195.80661 | 96.46167 | 4.70995 | 0.1335993 | 0.20542091 | 2.8447206 | 20 | 6 1.5 | 18.8 |
| 204542 2005 EP ₁₇₀ | 15.6 | X | 219.92951 | 241.20011 | 295.98398 | 15.27744 | 0.0961136 | 0.23600928 | 2.5932835 | 20 | 12 1.2 | 19.4 |
| 204543 2005 EU ₁₈₂ | 16.1 | X | 186.55581 | 24.07910 | 86.94381 | 4.94138 | 0.0557388 | 0.21696568 | 2.7428919 | 20 | 8 2.1 | 20.0 |
| 204544 2005 EZ ₁₈₃ | 15.5 | X | 107.38442 | 245.48072 | 182.88374 | 9.07132 | 0.1228417 | 0.19558175 | 2.9393446 | 20 | 3 14.3 | 19.6 |
| 204545 2005 ER ₁₈₆ | 16.1 | X | 50.23758 | 217.42664 | 37.91311 | 2.97199 | 0.0446433 | 0.21551330 | 2.7552013 | 20 | 8 22.4 | 19.7 |
| 204546 2005 EW ₁₈₇ | 16.3 | X | 154.06882 | 189.87481 | 3.56753 | 0.95995 | 0.2096020 | 0.22246360 | 2.6975121 | 20 | 10 8.6 | 20.7 |
| 204547 2005 EV ₁₈₈ | 16.2 | X | 222.17130 | 322.34131 | 193.61294 | 5.03390 | 0.2283098 | 0.23017742 | 2.6369035 | 20 | 10 21.9 | 20.1 |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 204561 | 2005 | <i>EY</i> ₂₇₆ | 15.7 | X | 139.09311 | 300.91498 | 55.15513 | 0.74422 | 0.0931159 | 0.18274898 | 3.0753844 | 20 | 1 21.5 | 20.3 |
| 204562 | 2005 | <i>EQ</i> ₂₇₇ | 15.6 | X | 97.01153 | 174.68477 | 67.43292 | 9.83262 | 0.1035968 | 0.22357949 | 2.6885291 | 20 | 10 15.1 | 19.6 |
| 204563 | 2005 | <i>EO</i> ₂₈₁ | 15.6 | X | 202.09518 | 306.59814 | 100.41465 | 7.04522 | 0.0691214 | 0.20897509 | 2.8123737 | 20 | 5 27.8 | 19.8 |
| 204564 | 2005 | <i>EQ</i> ₂₈₁ | 15.4 | X | 262.43318 | 188.36417 | 115.15290 | 11.60259 | 0.0720299 | 0.19703394 | 2.9248843 | 20 | 3 31.4 | 19.8 |
| 204565 | 2005 | <i>EF</i> ₂₉₀ | 16.0 | X | 5.55437 | 120.46159 | 141.80903 | 2.72663 | 0.0134718 | 0.20668097 | 2.8331467 | 20 | 6 24.5 | 19.7 |
| 204566 | 2005 | <i>EL</i> ₂₉₉ | 16.5 | X | 143.49009 | 208.09897 | 144.32002 | 3.60941 | 0.1581610 | 0.19139490 | 2.9820561 | 20 | 1 26.7 | 21.1 |
| 204567 | 2005 | <i>ER</i> ₃₀₄ | 15.8 | X | 327.44727 | 154.69188 | 127.83992 | 2.74997 | 0.0841031 | 0.20449303 | 2.8533193 | 20 | 5 24.2 | 19.2 |
| 204568 | 2005 | <i>EK</i> ₃₀₉ | 16.2 | X | 165.78037 | 41.24183 | 296.43022 | 1.40000 | 0.0614195 | 0.19000041 | 2.9966293 | 20 | 1 24.1 | 20.5 |
| 204569 | 2005 | <i>EV</i> ₃₁₁ | 15.7 | X | 188.12233 | 192.65969 | 102.47897 | 1.70446 | 0.1032611 | 0.18566218 | 3.0431294 | 20 | — | — |
| 204570 | 2005 | <i>EA</i> ₃₁₇ | 15.9 | X | 185.85327 | 314.47283 | 129.69555 | 3.92060 | 0.0704451 | 0.21567669 | 2.7538096 | 20 | 6 25.4 | 20.0 |
| 204571 | 2005 | <i>EX</i> ₃₁₇ | 16.5 | X | 260.29187 | 327.90646 | 175.85568 | 13.83809 | 0.2007558 | 0.23623668 | 2.5916190 | 20 | 11 29.1 | 19.8 |
| 204572 | 2005 | <i>EM</i> ₃₂₃ | 15.9 | X | 64.04055 | 125.45851 | 355.72936 | 2.88876 | 0.0762739 | 0.19633841 | 2.9317878 | 20 | 3 18.2 | 19.7 |
| 204573 | 2005 | <i>EF</i> ₃₂₇ | 15.8 | X | 32.42364 | 292.42568 | 184.21461 | 1.96812 | 0.0303362 | 0.18765045 | 3.0215954 | 20 | 1 26.4 | 19.8 |
| 204574 | 2005 | <i>FC</i> ₄ | 15.3 | X | 351.42779 | 122.22197 | 62.04512 | 12.99739 | 0.1038472 | 0.19183795 | 2.9774629 | 20 | 2 26.1 | 19.2 |
| 204575 | 2005 | <i>FS</i> ₇ | 15.9 | X | 74.99729 | 72.97265 | 126.26226 | 9.49394 | 0.1334808 | 0.20989426 | 2.8041571 | 20 | 7 23.2 | 19.6 |
| 204576 | 2005 | <i>GN</i> ₉ | 15.8 | X | 356.81337 | 216.00452 | 91.76560 | 5.44910 | 0.0452720 | 0.21603886 | 2.7507311 | 20 | 8 16.7 | 19.3 |
| 204577 | 2005 | <i>GC</i> ₁₁ | 15.6 | X | 302.35825 | 114.99908 | 111.50788 | 8.19287 | 0.0506813 | 0.18980195 | 2.9987179 | 20 | 2 13.5 | 19.7 |
| 204578 | 2005 | <i>GX</i> ₁₂ | 15.7 | X | 94.83792 | 119.91095 | 91.94432 | 6.25106 | 0.1164301 | 0.21370686 | 2.7707058 | 20 | 9 2.8 | 19.8 |
| 204579 | 2005 | <i>GV</i> ₂₃ | 15.8 | X | 3.72139 | 50.18940 | 115.29323 | 5.71390 | 0.2773131 | 0.19117530 | 2.9843393 | 20 | 2 1.2 | 18.2 |
| 204580 | 2005 | <i>GV</i> ₂₇ | 16.2 | X | 62.50761 | 289.10240 | 309.23599 | 4.02225 | 0.1233330 | 0.21197946 | 2.8753735 | 20 | 8 25.8 | 20.0 |
| 204581 | 2005 | <i>GE</i> ₃₅ | 16.1 | X | 316.15082 | 3.02720 | 87.75716 | 5.36370 | 0.2235126 | 0.24250391 | 2.5467729 | 20 | — | — |
| 204582 | 2005 | <i>GC</i> ₄₃ | 15.2 | X | 292.08157 | 310.81927 | 260.68136 | 9.55849 | 0.0581542 | 0.18524987 | 3.0476431 | 20 | 1 10.9 | 19.6 |
| 204583 | 2005 | <i>GD</i> ₄₄ | 15.5 | X | 276.07804 | 253.39991 | 308.08874 | 4.19148 | 0.0832064 | 0.18017132 | 3.1046474 | 20 | — | — |
| 204584 | 2005 | <i>GE</i> ₄₆ | 16.3 | X | 227.84632 | 98.82556 | 274.77830 | 0.93205 | 0.0892960 | 0.20492366 | 2.8493305 | 20 | 5 11.2 | 20.3 |
| 204585 | 2005 | <i>GF</i> ₅₇ | 16.4 | X | 297.75389 | 321.49301 | 169.73011 | 3.14248 | 0.1408982 | 0.23863800 | 2.5742041 | 20 | — | — |
| 204586 | 2005 | <i>GQ</i> ₅₈ | 15.5 | X | 320.93751 | 336.23024 | 171.88587 | 9.96305 | 0.0716847 | 0.17865692 | 3.1221671 | 20 | — | — |
| 204587 | 2005 | <i>GQ</i> ₆₇ | 16.0 | X | 232.08080 | 354.67201 | 23.52121 | 2.28906 | 0.0087242 | 0.20361916 | 2.8614772 | 20 | 5 30.3 | 20.0 |
| 204588 | 2005 | <i>GE</i> ₇₀ | 15.9 | X | 206.42347 | 328.86511 | 4.21227 | 2.06355 | 0.0843089 | 0.19048949 | 2.9914979 | 20 | 3 1.6 | 20.6 |
| 204589 | 2005 | <i>GF</i> ₇₄ | 15.0 | X | 206.57990 | 161.11013 | 103.71298 | 16.26067 | 0.2237848 | 0.17253839 | 3.1955496 | 20 | — | — |
| 204590 | 2005 | <i>GB</i> ₉₀ | 15.5 | X | 158.68785 | 58.46524 | 94.80108 | 15.32760 | 0.1880740 | 0.21719380 | 2.7409710 | 20 | 8 29.5 | 20.3 |
| 204591 | 2005 | <i>GB</i> ₁₀₄ | 15.4 | X | 111.41002 | 266.33244 | 312.86593 | 12.54097 | 0.1442272 | 0.21777204 | 2.7361168 | 20 | 9 23.6 | 19.9 |
| 204592 | 2005 | <i>GC</i> ₁₀₇ | 16.6 | X | 57.81631 | 169.30568 | 17.25730 | 2.05245 | 0.0021807 | 0.20352657 | 2.8623449 | 20 | 5 23.8 | 20.4 |
| 204593 | 2005 | <i>GH</i> ₁₁₃ | 15.4 | X | 108.42832 | 349.31657 | 104.28472 | 11.18188 | 0.0699069 | 0.19718158 | 2.9234241 | 20 | 4 15.1 | 19.7 |
| 204594 | 2005 | <i>GJ</i> ₁₁₃ | 15.5 | X | 93.53234 | 88.64045 | 112.56669 | 12.49800 | 0.1279075 | 0.21155250 | 2.7894845 | 20 | 8 19.2 | 19.6 |
| 204595 | 2005 | <i>GA</i> ₁₂₂ | 17.0 | X | 198.92844 | 190.05838 | 254.00130 | 1.05731 | 0.0757492 | 0.21509293 | 2.7587899 | 20 | 7 9.8 | 21.2 |
| 204596 | 2005 | <i>GA</i> ₁₃₇ | 15.2 | X | 184.56307 | 139.51040 | 117.72234 | 6.18959 | 0.1036141 | 0.16930830 | 3.2360648 | 20 | — | — |
| 204597 | 2005 | <i>GO</i> ₁₄₆ | 16.3 | X | 89.82662 | 189.91670 | 287.50467 | 1.54648 | 0.0682454 | 0.19682855 | 2.9269187 | 20 | 4 15.2 | 20.3 |
| 204598 | 2005 | <i>GP</i> ₁₅₇ | 16.0 | X | 234.34773 | 37.49304 | 113.27395 | 11.30218 | 0.1193334 | 0.23076104 | 2.6324556 | 20 | 11 15.7 | 19.8 |
| 204599 | 2005 | <i>GA</i> ₁₅₈ | 15.7 | X | 97.74150 | 21.50476 | 85.47316 | 3.26581 | 0.0652033 | 0.19718679 | 2.9233726 | 20 | 4 13.8 | 19.7 |
| 204600 | 2005 | <i>GJ</i> ₁₇₁ | 15.9 | X | 142.81528 | 177.61330 | 230.14996 | 2.94132 | 0.0083982 | 0.19241385 | 2.9715189 | 20 | 3 23.7 | 20.2 |
| 204601 | 2005 | <i>GJ</i> ₁₇₉ | 15.9 | X | 160.08034 | 67.71696 | 85.84096 | 22.25376 | 0.2241867 | 0.21598539 | 2.7511850 | 20 | 9 3.7 | 21.1 |
| 204602 | 2005 | <i>GC</i> ₂₀₅ | 16.3 | X | 175.30173 | 250.41396 | 183.84316 | 1.78619 | 0.0417566 | 0.20298375 | 2.8674457 | 20 | 5 31.5 | 20.3 |
| 204603 | 2005 | <i>JW</i> ₃ | 15.2 | X | 165.28780 | 34.80259 | 30.41936 | 13.01323 | 0.1660669 | 0.20516782 | 2.8470596 | 20 | 5 10.1 | 20.0 |
| 204604 | 2005 | <i>JZ</i> ₄ | 15.6 | X | 262.84037 | 127.47281 | 121.10786 | 7.17590 | 0.0862366 | 0.18128908 | 3.0918728 | 20 | 1 20.4 | 20.3 |
| 204605 | 2005 | <i>JG</i> ₁₄ | 16.1 | X | 87.58430 | 11.57357 | 220.62905 | 1.83214 | 0.1249580 | 0.21466996 | 2.7624125 | 20 | 9 18.2 | 20.0 |
| 204606 | 2005 | <i>JB</i> ₁₉ | 16.1 | X | 316.72435 | 57.85313 | 76.47309 | 0.93843 | 0.1201695 | 0.17402423 | 3.1773342 | 20 | — | — |
| 204607 | 2005 | <i>JA</i> ₂₉ | 15.2 | X | 66.86142 | 284.86440 | 134.33429 | 9.01531 | 0.0402189 | 0.17601419 | 3.1533410 | 20 | 1 4.2 | 19.5 |
| 204608 | 2005 | <i>JB</i> ₄₃ | 16.5 | X | 105.18962 | 288.15861 | 134.97540 | 0.91061 | 0.0602876 | 0.18498980 | 3.0504988 | 20 | 2 27.5 | 20.8 |
| 204609 | 2005 | <i>JO</i> ₄₆ | 16.4 | X | 320.63292 | 140.41646 | 80.67350 | 2.18249 | 0.0800204 | 0.18870286 | 3.0103505 | 20 | 2 25.9 | 20.4 |
| 204610 | 2005 | <i>JQ</i> ₇₃ | 15.3 | X | 45.54720 | 54.31413 | 62.30481 | 12.29771 | 0.0781519 | 0.18569912 | 3.0427258 | 20 | 2 22.6 | 19.4 |
| 204611 | 2005 | <i>JN</i> ₁₀₉ | 15.5 | X | 339.47747 | 70.07093 | 128.27024 | 8.76906 | 0.1022151 | 0.18683495 | 3.0303815 | 20 | 3 2.2 | 19.7 |
| 204612 | 2005 | <i>JE</i> ₁₂₄ | 15.3 | X | 244.60679 | 145.71179 | 121.60601 | 10.11902 | 0.0874146 | 0.18132717 | 3.0914398 | 20 | 1 23.4 | 19.8 |
| 204613 | 2005 | <i>JU</i> ₁₃₇ | 15.2 | X | 92.60165 | 319.53662 | 51.77973 | 13.09855 | 0.0844069 | 0.17400062 | 3.1776216 | 20 | — | — |
| 204614 | 2005 | <i>JC</i> ₁₄₆ | 15.7 | X | 302.15031 | 173.10858 | 54.20000 | 4.87361 | 0.0417798 | 0.18485495 | 3.0519822 | 20 | 2 16.8 | 20.0 |
| 204615 | 2005 | <i>JM</i> ₁₅₆ | 15.8 | X | 333.43560 | 149.33899 | 56.75602 | 3.48739 | 0.0565671 | 0.18662210 | 3.0326853 | 20 | 2 28.3 | 19.9 |
| 204616 | 2005 | <i>KB</i> ₁₂ | 15.0 | X | 219.80368 | 165.66311 | 127.41357 | 18.16002 | 0.1732798 | 0.17717437 | 3.1398790 | 20 | 1 26.4 | 20.2 |
| 204617 | 2005 | <i>LB</i> ₅ | 15.4 | X | 40.73633 | 359.91956 | 92.93561 | 10.56662 | 0.0858272 | 0.17995404 | 3.1071459 | 20 | 1 12.8 | 19.3 |
| 204618 | 2005 | <i>LL</i> ₁₀ | 15.5 | X | 209.52043 | 217.13354 | 125.20001 | 11.29016 | 0.0304223 | 0.18714870 | 3.0269936 | 20 | 3 21.5 | 20.0 |
| 204619 | 2005 | <i>LB</i> ₃₇ | 12.8 | X | 354.30614 | 139.73157 | 236.37411 | 25.60981 | 0.1033005 | 0.08332806 | 5.1912891 | 20 | 10 13.1 | 19.4 |
| 204620 | 2005 | <i>LD</i> ₃₈ | 15.2 | X | 93.25121 | 353.76409 | 101.18086 | 12.70143 | 0.0490957 | 0.18704969 | 3.0280617 | 20 | 3 27.5 | 19.6 |
| 204621 | 2005 | <i>LU</i> ₄₉ | 14.9 | X | 254.39341 | 153.13146 | 85.40689 | 23.54253 | 0.0298365 | 0.17567547 | 3.1573929 | 20 | 1 5.1 | 19.5 |
| 204622 | 2005 | <i>MD</i> ₈ | 14.7 | X | 300.59105 | 53.32183 | 265.18191 | 4.34286 | 0.1489663 | 0.12342218 | 3.9952189 | 20 | 5 22.6 | 19.9 |
| 204623 | 2005 | <i>ML</i> ₂₃ | 15.1 | X | 125.48257 | 213.97702 | 125.20946 | 16.62774 | 0.0798409 | 0.16920529 | 3.2373781 | 20 | — | — |
| 204624 | 2005 | <i>PF</i> ₂₁ | 16.9 | X | 119.41558 | 238.25772 | 132.65566 | 25.25819 | 0.0695092 | 0.36018163 | 1.9563881 | 20 | — | — |
| 204625 | 2005 | <i>RH</i> ₃₄ | 17.3 | X | 140.75475 | 289.69614 | 107.80902 | 15.19985 | 0.2013711 | 0.36510290 | 1.9387681 | 20 | 3 14.4 | 20.1 |
| 204626 | 2005 | <i>SF</i> ₁₀ | 17.1 | X | 160.59030 | 323.86289 | 48.32328 | 22.46323 | 0.0896221 | 0.36633148 | 1.9344309 | 20 | 2 24.6 | 20.0 |
| 204627 | 2005 | <i>WK</i> ₅₄ | 17.0 | X | 289.76813 | 45.87614 | 271.22734 | 3.23680 | 0.2991803 | 0.31095361 | 2.1577725 | 20 | 4 4.8 | 19.8 |
| 204628 | 2005 | <i>WK</i> ₁₀₂ | 17.8 | X | 338.05619 | 233.73062 | 74.38501 | 2.36362 | 0.0895254 | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 204641 2006 AX ₈₆ | 16.6 | X | 137.39963 | 224.71490 | 293.08786 | 6.37391 | 0.1448732 | 0.30283639 | 2.1961602 | 20 | 8 14.2 | 19.8 |
| 204642 2006 AA ₉₄ | 17.1 | X | 197.06576 | 194.87795 | 85.87662 | 2.35229 | 0.1717778 | 0.27406761 | 2.3472765 | 20 | — | — |
| 204643 2006 BZ ₁₈ | 17.1 | X | 235.39305 | 95.28011 | 332.31110 | 3.63424 | 0.0783833 | 0.30865331 | 2.1684800 | 20 | 8 8.7 | 19.7 |
| 204644 2006 BK ₃₂ | 16.4 | X | 286.97645 | 96.47133 | 120.59965 | 4.77659 | 0.1046009 | 0.27227597 | 2.3575623 | 20 | — | — |
| 204645 2006 BE ₃₈ | 16.9 | X | 145.67026 | 280.46922 | 119.74256 | 6.18147 | 0.0979356 | 0.28450995 | 2.2894847 | 20 | 3 15.1 | 19.9 |
| 204646 2006 BK ₅₄ | 17.7 | X | 41.32045 | 79.58483 | 344.92919 | 0.89217 | 0.1669928 | 0.27011136 | 2.3701408 | 20 | — | — |
| 204647 2006 BY ₅₇ | 16.7 | X | 147.14798 | 116.12689 | 149.53635 | 3.66185 | 0.1881170 | 0.25765854 | 2.4459056 | 20 | — | — |
| 204648 2006 BB ₆₅ | 17.4 | X | 12.62511 | 203.10462 | 290.06374 | 1.34437 | 0.1264539 | 0.27728861 | 2.3290637 | 20 | — | — |
| 204649 2006 BT ₇₉ | 16.8 | X | 69.10845 | 333.32097 | 113.82719 | 6.63884 | 0.0939085 | 0.27765892 | 2.3269924 | 20 | 1 30.5 | 19.2 |
| 204650 2006 BN ₉₉ | 16.8 | X | 126.07954 | 211.28127 | 277.28966 | 3.48813 | 0.1134307 | 0.29578433 | 2.2309300 | 20 | 6 20.7 | 19.5 |
| 204651 2006 BW ₁₂₃ | 17.7 | X | 34.22504 | 253.72944 | 342.89574 | 2.89529 | 0.1203977 | 0.29585223 | 2.2305886 | 20 | 7 20.2 | 19.7 |
| 204652 2006 BO ₁₂₅ | 16.6 | X | 347.42334 | 153.44018 | 144.27480 | 5.40261 | 0.2491476 | 0.22757040 | 2.6570040 | 20 | 7 16.1 | 18.5 |
| 204653 2006 BF ₁₅₈ | 15.9 | X | 342.27846 | 210.77597 | 140.99359 | 5.42395 | 0.2615894 | 0.24162781 | 2.5529253 | 20 | 10 12.4 | 17.6 |
| 204654 2006 BJ ₁₆₁ | 17.1 | X | 3.35553 | 298.46799 | 299.18571 | 4.69679 | 0.1239342 | 0.29080918 | 2.2563024 | 20 | 5 16.1 | 19.0 |
| 204655 2006 BJ ₁₉₃ | 17.5 | X | 35.47890 | 345.66814 | 258.74599 | 1.76628 | 0.1441533 | 0.29859210 | 2.2169225 | 20 | 8 7.1 | 19.6 |
| 204656 2006 BU ₂₄₈ | 16.8 | X | 273.61865 | 119.72527 | 99.90251 | 2.42869 | 0.1320570 | 0.27006990 | 2.3703834 | 20 | — | — |
| 204657 2006 BO ₂₆₂ | 16.9 | X | 158.13592 | 290.05898 | 25.29940 | 1.78688 | 0.1693149 | 0.26605009 | 2.3942001 | 20 | — | — |
| 204658 2006 BK ₂₆₅ | 17.6 | X | 319.33420 | 310.04534 | 4.32787 | 1.89953 | 0.0535770 | 0.29790526 | 2.2203287 | 20 | 7 1.5 | 19.7 |
| 204659 2006 CB ₁₈ | 17.0 | X | 117.69363 | 136.44558 | 346.24778 | 5.63976 | 0.1204497 | 0.29470145 | 2.2363917 | 20 | 6 1.7 | 20.0 |
| 204660 2006 CV ₁₈ | 16.9 | X | 80.34340 | 116.17060 | 348.14930 | 5.86571 | 0.1139232 | 0.28447213 | 2.2896876 | 20 | 3 14.7 | 19.2 |
| 204661 2006 CU ₂₁ | 17.2 | X | 120.32250 | 13.81682 | 96.61266 | 5.98858 | 0.1279194 | 0.29255019 | 2.2473418 | 20 | 5 21.9 | 20.1 |
| 204662 2006 CA ₂₂ | 17.2 | X | 194.12546 | 73.43666 | 42.89122 | 2.73782 | 0.1020800 | 0.30732491 | 2.1747243 | 20 | 8 22.7 | 20.0 |
| 204663 2006 CM ₆₂ | 16.4 | X | 23.37959 | 135.51171 | 41.53630 | 9.97286 | 0.1990513 | 0.28137515 | 2.3064580 | 20 | 3 29.2 | 18.0 |
| 204664 2006 DA ₄ | 17.1 | X | 4.23668 | 8.51068 | 177.06893 | 3.95693 | 0.1984540 | 0.28014036 | 2.3132306 | 20 | 2 17.5 | 18.8 |
| 204665 2006 DB ₄ | 17.4 | X | 40.81946 | 16.01591 | 136.46400 | 1.95441 | 0.1647160 | 0.28282444 | 2.2985719 | 20 | 3 23.4 | 19.0 |
| 204666 2006 DB ₆ | 16.9 | X | 114.00299 | 108.68480 | 108.68547 | 5.38121 | 0.0592761 | 0.30917207 | 2.1660537 | 20 | 10 10.3 | 19.6 |
| 204667 2006 DP ₉ | 15.9 | X | 319.09530 | 231.01183 | 70.61998 | 6.42009 | 0.0610116 | 0.22588195 | 2.6702281 | 20 | 6 8.5 | 19.2 |
| 204668 2006 DP ₁₅ | 16.3 | X | 290.09471 | 210.91331 | 96.84654 | 3.51677 | 0.1750817 | 0.22219423 | 2.6996918 | 20 | 4 19.7 | 20.0 |
| 204669 2006 DP ₂₀ | 17.0 | X | 296.04444 | 75.51977 | 160.57672 | 2.19032 | 0.1626357 | 0.27820009 | 2.3239737 | 20 | 1 18.3 | 20.2 |
| 204670 2006 DC ₂₄ | 17.0 | X | 141.71134 | 275.27806 | 81.23489 | 2.19419 | 0.1634615 | 0.27255157 | 2.3559727 | 20 | 1 20.3 | 20.3 |
| 204671 2006 DG ₃₁ | 17.3 | X | 266.07392 | 100.54580 | 182.00822 | 2.75945 | 0.1580587 | 0.27798748 | 2.3251585 | 20 | 2 14.5 | 20.6 |
| 204672 2006 DJ ₃₂ | 17.3 | X | 240.32762 | 62.39626 | 164.88374 | 1.36686 | 0.1389738 | 0.26240855 | 2.4162993 | 20 | — | — |
| 204673 2006 DO ₃₃ | 17.3 | X | 131.93685 | 115.57396 | 359.67500 | 4.14239 | 0.0904478 | 0.29244759 | 2.2478674 | 20 | 6 5.9 | 20.3 |
| 204674 2006 DQ ₅₇ | 16.2 | X | 202.21210 | 16.51775 | 282.98532 | 0.91314 | 0.0488282 | 0.20044917 | 2.8915666 | 20 | 1 15.8 | 20.4 |
| 204675 2006 DE ₇₂ | 17.0 | X | 53.29093 | 60.45027 | 101.58789 | 6.17640 | 0.0906233 | 0.28861027 | 2.2677484 | 20 | 4 24.7 | 19.3 |
| 204676 2006 DL ₇₆ | 16.5 | X | 239.73753 | 341.50089 | 22.66401 | 3.85155 | 0.1245886 | 0.22410846 | 2.6842969 | 20 | 5 8.0 | 20.5 |
| 204677 2006 DG ₇₆ | 15.7 | X | 350.32258 | 208.48299 | 141.21385 | 7.25747 | 0.3026615 | 0.24200713 | 2.5502570 | 20 | 11 7.5 | 17.7 |
| 204678 2006 DH ₈₁ | 16.7 | X | 181.71103 | 320.33461 | 338.59888 | 3.24540 | 0.1974873 | 0.26376765 | 2.4079919 | 20 | — | — |
| 204679 2006 DU ₈₄ | 16.6 | X | 199.08247 | 337.05787 | 327.01401 | 4.55232 | 0.2008785 | 0.26835045 | 2.3804981 | 20 | 1 13.2 | 20.4 |
| 204680 2006 DF ₉₆ | 16.7 | X | 219.74382 | 245.09280 | 174.84283 | 2.72623 | 0.0755641 | 0.22693053 | 2.6619962 | 20 | 7 2.7 | 20.4 |
| 204681 2006 DF ₁₁₀ | 15.3 | X | 5.54101 | 165.14879 | 199.35556 | 4.49926 | 0.1961323 | 0.24385619 | 2.5373489 | 20 | 12 9.7 | 18.0 |
| 204682 2006 DF ₁₁₅ | 17.0 | X | 110.80520 | 170.28544 | 155.07615 | 2.96858 | 0.2063833 | 0.25471462 | 2.4647155 | 20 | — | — |
| 204683 2006 DJ ₁₅₂ | 17.3 | X | 179.92301 | 149.07973 | 207.21168 | 1.95956 | 0.1400383 | 0.27590590 | 2.3368386 | 20 | 2 24.7 | 20.8 |
| 204684 2006 DF ₁₆₄ | 17.1 | X | 264.26345 | 74.86870 | 215.97134 | 1.95065 | 0.1736806 | 0.27883638 | 2.3204369 | 20 | 2 21.5 | 20.4 |
| 204685 2006 DF ₁₆₆ | 16.9 | X | 144.67931 | 229.18740 | 108.19271 | 3.55283 | 0.2162953 | 0.26576363 | 2.3959202 | 20 | 1 6.1 | 20.3 |
| 204686 2006 DT ₁₈₃ | 16.4 | X | 162.28480 | 167.62394 | 87.86675 | 3.50626 | 0.0578396 | 0.25265215 | 2.4781108 | 20 | — | — |
| 204687 2006 DD ₁₉₀ | 17.3 | X | 15.14983 | 153.26906 | 27.14582 | 3.04646 | 0.0945387 | 0.28014489 | 2.3132057 | 20 | 3 13.2 | 19.3 |
| 204688 2006 DM ₁₉₉ | 16.5 | X | 309.63628 | 155.89713 | 114.21132 | 8.32955 | 0.1261827 | 0.28377836 | 2.2934179 | 20 | 4 1.7 | 19.2 |
| 204689 2006 DO ₂₀₆ | 15.7 | X | 180.61903 | 225.57375 | 193.92134 | 5.03707 | 0.0454781 | 0.22109359 | 2.7086441 | 20 | 5 19.1 | 19.6 |
| 204690 2006 DC ₂₁₀ | 16.7 | X | 234.90240 | 305.39321 | 5.86970 | 3.39567 | 0.2175065 | 0.27505573 | 2.3416514 | 20 | 2 19.5 | 20.6 |
| 204691 2006 DC ₂₁₅ | 17.0 | X | 301.65228 | 331.49991 | 290.88542 | 1.56931 | 0.1475294 | 0.28094136 | 2.3088316 | 20 | 3 1.6 | 20.0 |
| 204692 2006 ET | 16.1 | X | 3.57993 | 153.47537 | 97.17338 | 7.98277 | 0.1521258 | 0.28922612 | 2.2645281 | 20 | 6 11.0 | 17.6 |
| 204693 2006 EM ₁ | 15.8 | X | 271.31435 | 198.27994 | 124.58993 | 3.66719 | 0.0677275 | 0.21998650 | 2.7177241 | 20 | 5 1.4 | 19.5 |
| 204694 2006 EL ₂ | 16.3 | X | 77.77237 | 198.87553 | 145.51184 | 5.31505 | 0.1985771 | 0.25374826 | 2.4709692 | 20 | — | — |
| 204695 2006 ER ₇ | 17.0 | X | 201.24310 | 24.13988 | 272.08880 | 1.83748 | 0.1736533 | 0.26736979 | 2.3863153 | 20 | 1 4.3 | 20.7 |
| 204696 2006 EW ₁₁ | 16.6 | X | 137.81969 | 294.55677 | 36.23592 | 1.91867 | 0.2014305 | 0.26207239 | 2.4183651 | 20 | — | — |
| 204697 2006 EX ₁₆ | 16.4 | X | 358.83541 | 294.06089 | 74.28279 | 1.80249 | 0.1443291 | 0.24373262 | 2.5382065 | 20 | 11 25.6 | 19.2 |
| 204698 2006 EB ₁₈ | 17.5 | X | 359.56687 | 85.39825 | 141.15578 | 2.28086 | 0.1348232 | 0.27379907 | 2.3488110 | 20 | 1 10.4 | 19.9 |
| 204699 2006 EO ₄₅ | 17.0 | X | 276.93127 | 139.81819 | 733.95688 | 3.06738 | 0.1571831 | 0.27529400 | 2.3403001 | 20 | 2 16.2 | 20.2 |
| 204700 2006 EB ₅₅ | 16.7 | X | 10.86018 | 83.46211 | 206.43125 | 3.18423 | 0.1651493 | 0.23039305 | 2.6352580 | 20 | 8 23.9 | 19.4 |
| 204701 2006 EM ₆₅ | 16.6 | X | 236.71842 | 122.34233 | 213.79020 | 3.03541 | 0.1061771 | 0.21188666 | 2.7865509 | 20 | 4 1.7 | 20.6 |
| 204702 2006 Péquignat | 15.7 | X | 350.69164 | 150.52227 | 47.44944 | 8.78754 | 0.1520624 | 0.20971776 | 2.8057302 | 20 | 3 4.8 | 18.9 |
| 204703 2006 FD ₂₄ | 17.0 | X | 325.85916 | 81.59737 | 152.33045 | 2.97265 | 0.0561593 | 0.27760823 | 2.3272756 | 20 | 3 13.2 | 19.4 |
| 204704 2006 FD ₃₆ | 17.2 | X | 18.88792 | 61.56401 | 102.95617 | 3.52835 | 0.2239183 | 0.27915838 | 2.3186522 | 20 | 2 19.8 | 18.6 |
| 204705 2006 FY ₃₇ | 15.1 | X | 113.03380 | 255.04710 | 47.11960 | 13.42302 | 0.1074473 | 0.17843321 | 3.1247762 | 20 | 12 29.9 | 20.1 |
| 204706 2006 FC ₄₇ | 16.7 | X | 31.35411 | 157.90506 | 130.68184 | 5.74172 | 0.0580342 | 0.30197213 | 2.2003485 | 20 | 9 26.9 | 19.1 |
| 204707 2006 FB ₅₂ | 16.0 | X | 115.18945 | 261.87002 | 52.12531 | 6.81929 | 0.1372194 | 0.25213293 | 2.4815117 | 20 | — | — |
| 204708 2006 FG ₅₂ | 15.5 | X | 118.35662 | 3.94321 | | | | | | | | |

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 |
|-------------------------------|------|---|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 204721 2006 GN ₄₃ | 17.0 | X | 341.84563 | 55.94942 | 76.67103 | 3.37126 | 0.1366739 | 0.26416772 | 2.4055601 | 20 | — | — |
| 204722 2006 HK ₂ | 16.8 | X | 1.35691 | 129.10446 | 60.57763 | 7.15563 | 0.0670209 | 0.27694100 | 2.3310122 | 20 | 3 8.2 | 19.4 |
| 204723 2006 HO ₂ | 17.0 | X | 337.42268 | 171.34263 | 93.49716 | 2.61674 | 0.0724548 | 0.28741467 | 2.2740330 | 20 | 5 14.5 | 19.2 |
| 204724 2006 HU ₇ | 16.2 | X | 238.92720 | 153.33125 | 111.33148 | 15.09801 | 0.2060815 | 0.26168298 | 2.4207637 | 20 | — | — |
| 204725 2006 HK ₁₁ | 16.1 | X | 139.39013 | 114.35101 | 91.96147 | 6.83837 | 0.1011995 | 0.23570252 | 2.5955331 | 20 | 10 15.5 | 20.1 |
| 204726 2006 HF ₂₅ | 16.5 | X | 344.38155 | 332.30329 | 133.43899 | 3.35182 | 0.1523208 | 0.25592833 | 2.4569170 | 20 | — | — |
| 204727 2006 HT ₂₆ | 15.6 | X | 72.60174 | 124.31459 | 87.92930 | 13.66711 | 0.0078831 | 0.22045555 | 2.7138678 | 20 | 7 19.9 | 19.4 |
| 204728 2006 HP ₃₅ | 17.0 | X | 344.67010 | 105.12534 | 110.28319 | 2.99869 | 0.1824708 | 0.27648123 | 2.3335957 | 20 | 2 28.5 | 19.1 |
| 204729 2006 HR ₃₉ | 15.3 | X | 9.54280 | 219.62490 | 84.53848 | 14.37420 | 0.1888789 | 0.22460580 | 2.6803329 | 20 | 9 24.6 | 18.4 |
| 204730 2006 HZ ₃₉ | 16.6 | X | 104.77490 | 84.15407 | 54.87212 | 23.87426 | 0.2365878 | 0.28823881 | 2.2696963 | 20 | 6 20.9 | 20.2 |
| 204731 2006 HK ₄₃ | 17.2 | X | 138.06473 | 226.42692 | 39.01971 | 2.86955 | 0.1120521 | 0.24313525 | 2.5423623 | 20 | 12 23.8 | 21.1 |
| 204732 2006 HH ₄₉ | 16.6 | X | 124.39121 | 142.27918 | 126.84016 | 3.15925 | 0.1551792 | 0.24425346 | 2.5345969 | 20 | 12 15.9 | 20.7 |
| 204733 2006 HP ₆₃ | 16.2 | X | 131.70797 | 152.71097 | 74.07169 | 4.55222 | 0.0636388 | 0.23636045 | 2.5907142 | 20 | 10 30.2 | 19.8 |
| 204734 2006 HY ₆₆ | 16.7 | X | 227.47455 | 193.78011 | 60.69738 | 3.22473 | 0.0933148 | 0.25913820 | 2.4365861 | 20 | — | — |
| 204735 2006 HX ₆₇ | 16.2 | X | 188.63944 | 352.61776 | 13.82610 | 1.98829 | 0.0844137 | 0.20288562 | 2.8683702 | 20 | 3 22.4 | 20.3 |
| 204736 2006 HF ₇₂ | 16.0 | X | 206.51937 | 242.19601 | 144.55712 | 5.87088 | 0.0906524 | 0.21006017 | 2.8026804 | 20 | 5 6.8 | 20.3 |
| 204737 2006 HH ₇₄ | 17.1 | X | 121.94580 | 347.00886 | 145.63751 | 4.05366 | 0.1817623 | 0.28925253 | 2.2643902 | 20 | 6 27.9 | 20.5 |
| 204738 2006 HW ₈₃ | 16.7 | X | 288.35594 | 129.82575 | 105.60007 | 5.03813 | 0.0484946 | 0.26696568 | 2.3887228 | 20 | 1 26.0 | 19.7 |
| 204739 2006 HA ₈₅ | 15.1 | X | 140.05018 | 237.93501 | 67.45902 | 11.76541 | 0.0897811 | 0.17944449 | 3.1130252 | 20 | — | — |
| 204740 2006 HB ₈₇ | 16.2 | X | 316.81578 | 276.45486 | 250.61753 | 9.55324 | 0.0749565 | 0.26493778 | 2.6008966 | 20 | — | — |
| 204741 2006 HQ ₈₈ | 16.7 | X | 280.55591 | 109.04858 | 89.06303 | 8.74708 | 0.0871978 | 0.25947501 | 2.4344771 | 20 | — | — |
| 204742 2006 HD ₁₀₀ | 16.6 | X | 262.40282 | 355.46406 | 226.26283 | 6.56904 | 0.0780767 | 0.26010913 | 2.4305188 | 20 | — | — |
| 204743 2006 HK ₁₀₂ | 15.0 | X | 56.97146 | 299.65633 | 63.26642 | 26.20473 | 0.1253440 | 0.17386420 | 3.1792836 | 20 | — | — |
| 204744 2006 HG ₁₀₃ | 15.9 | X | 21.77241 | 195.97066 | 104.61671 | 16.05590 | 0.0945954 | 0.22596217 | 2.6695926 | 20 | 9 27.2 | 19.5 |
| 204745 2006 HJ ₁₁₄ | 17.0 | X | 192.62058 | 45.42391 | 245.01265 | 1.77270 | 0.1599607 | 0.26214756 | 2.4179028 | 20 | — | — |
| 204746 2006 HM ₁₅₂ | 16.5 | X | 29.69130 | 153.32319 | 87.95873 | 2.95920 | 0.0186190 | 0.21803913 | 2.7338819 | 20 | 6 30.6 | 19.9 |
| 204747 2006 JF ₂ | 15.8 | X | 79.45250 | 270.94965 | 227.03798 | 8.33228 | 0.1295166 | 0.21185445 | 2.7868333 | 20 | 5 7.7 | 19.5 |
| 204748 2006 JL ₃ | 16.8 | X | 273.37192 | 27.37340 | 45.29531 | 3.31737 | 0.1385278 | 0.23631212 | 2.5910675 | 20 | 9 22.1 | 19.8 |
| 204749 2006 JZ ₁₃ | 15.9 | X | 324.88543 | 13.28909 | 197.35460 | 3.75113 | 0.0429313 | 0.20963709 | 2.8064500 | 20 | 2 18.3 | 19.7 |
| 204750 2006 JM ₁₄ | 15.9 | X | 347.65982 | 331.30064 | 351.54378 | 14.37244 | 0.1143675 | 0.22449273 | 2.6812329 | 20 | 8 28.0 | 18.9 |
| 204751 2006 JN ₁₈ | 15.8 | X | 276.13134 | 260.26430 | 77.90585 | 6.90199 | 0.0504424 | 0.21372282 | 2.7705678 | 20 | 5 29.7 | 19.6 |
| 204752 2006 JG ₂₁ | 16.6 | X | 197.63751 | 264.69487 | 160.98162 | 7.76669 | 0.0430050 | 0.21625069 | 2.7489344 | 20 | 6 16.6 | 20.6 |
| 204753 2006 KJ ₂₄ | 16.4 | X | 157.05308 | 333.14014 | 220.49541 | 4.65261 | 0.0781829 | 0.23601583 | 2.5932355 | 20 | 10 14.1 | 20.2 |
| 204754 2006 JK ₃₀ | 15.7 | X | 147.63545 | 199.83601 | 109.24166 | 3.06688 | 0.1798081 | 0.18116777 | 3.0932529 | 20 | — | — |
| 204755 2006 KJ ₃₅ | 16.4 | X | 233.87877 | 122.31022 | 189.95260 | 6.14045 | 0.0571361 | 0.19963315 | 2.8994410 | 20 | 3 3.2 | 20.6 |
| 204756 2006 JF ₃₆ | 16.8 | X | 339.99322 | 195.96175 | 138.66204 | 3.34290 | 0.0863143 | 0.22431648 | 2.6826371 | 20 | 8 29.5 | 19.7 |
| 204757 2006 JL ₃₇ | 16.5 | X | 342.30083 | 214.68916 | 67.59898 | 6.05514 | 0.0870411 | 0.21829231 | 2.7317676 | 20 | 6 16.2 | 19.7 |
| 204758 2006 JS ₃₉ | 16.2 | X | 176.46472 | 340.08533 | 99.47739 | 5.86275 | 0.0647404 | 0.21408137 | 2.7674734 | 20 | 6 9.0 | 20.2 |
| 204759 2006 JF ₄₅ | 17.3 | X | 326.12801 | 41.93548 | 135.85808 | 3.00018 | 0.1290812 | 0.26472043 | 2.4022106 | 20 | — | — |
| 204760 2006 JN ₅₀ | 15.9 | X | 118.42037 | 108.12715 | 238.31565 | 0.58136 | 0.0894948 | 0.18559736 | 3.0438379 | 20 | — | — |
| 204761 2006 JU ₅₃ | 17.1 | X | 151.35627 | 341.14265 | 165.07425 | 3.86188 | 0.0664895 | 0.29580133 | 2.2308445 | 20 | 8 12.1 | 19.9 |
| 204762 2006 JC ₅₄ | 16.8 | X | 136.20772 | 56.79209 | 236.73740 | 2.83711 | 0.1233399 | 0.24579613 | 2.5239807 | 20 | — | — |
| 204763 2006 JP ₅₆ | 16.0 | X | 342.35769 | 185.03004 | 92.10110 | 9.30789 | 0.0544336 | 0.21647206 | 2.7470601 | 20 | 6 11.2 | 19.3 |
| 204764 2006 JW ₅₉ | 17.6 | X | 60.04301 | 300.50925 | 209.16628 | 2.35076 | 0.1341390 | 0.28039121 | 2.3118507 | 20 | 4 21.5 | 19.6 |
| 204765 2006 KH | 16.0 | X | 46.18931 | 261.58641 | 45.35143 | 15.21618 | 0.0812218 | 0.23366248 | 2.6106184 | 20 | 11 1.7 | 19.4 |
| 204766 2006 KW ₃ | 17.3 | X | 29.01192 | 72.34463 | 82.38146 | 1.10026 | 0.0232986 | 0.27557753 | 2.3386946 | 20 | 2 28.2 | 20.0 |
| 204767 2006 KD ₄ | 15.6 | X | 352.17351 | 229.08663 | 82.14200 | 14.15170 | 0.1518019 | 0.22210824 | 2.7003886 | 20 | 8 23.3 | 18.7 |
| 204768 2006 KX ₄ | 17.2 | X | 128.11408 | 94.09504 | 74.98678 | 2.31688 | 0.1457108 | 0.29546557 | 2.2325343 | 20 | 8 22.0 | 20.3 |
| 204769 2006 KG ₈ | 15.3 | X | 53.02210 | 339.75624 | 61.38203 | 18.12295 | 0.1964675 | 0.18122408 | 3.0926121 | 20 | — | — |
| 204770 2006 KB ₁₀ | 15.4 | X | 103.97569 | 229.29445 | 70.60962 | 6.87276 | 0.1456358 | 0.17022609 | 3.2244227 | 20 | 12 19.6 | 20.4 |
| 204771 2006 KB ₂₀ | 17.0 | X | 342.63063 | 283.60700 | 311.51412 | 8.17861 | 0.1631817 | 0.27802323 | 2.3249591 | 20 | 3 22.5 | 19.2 |
| 204772 2006 KR ₂₉ | 16.7 | X | 256.49059 | 190.85987 | 240.29385 | 1.91248 | 0.1163211 | 0.22922230 | 2.6442234 | 20 | 8 26.8 | 20.3 |
| 204773 2006 KD ₃₈ | 16.6 | X | 131.51295 | 206.90352 | 77.76559 | 3.71567 | 0.1959182 | 0.24232711 | 2.5480115 | 20 | — | — |
| 204774 2006 KH ₃₉ | 15.1 | X | 218.98345 | 16.01645 | 259.44643 | 25.01632 | 0.2634337 | 0.18892590 | 3.0079807 | 20 | — | — |
| 204775 2006 KA ₄₁ | 15.9 | X | 226.88153 | 245.11176 | 234.42042 | 13.95128 | 0.0879742 | 0.23384575 | 2.6092542 | 20 | 9 22.9 | 19.8 |
| 204776 2006 KF ₄₃ | 16.4 | X | 343.06223 | 168.84091 | 95.39743 | 2.58711 | 0.0192193 | 0.21255146 | 2.7807375 | 20 | 5 27.2 | 20.0 |
| 204777 2006 KV ₄₃ | 16.5 | X | 41.93737 | 203.37805 | 81.55414 | 3.90894 | 0.1630206 | 0.22552386 | 2.6730540 | 20 | 10 9.9 | 19.9 |
| 204778 2006 KS ₄₆ | 16.4 | X | 17.30983 | 215.65776 | 108.76650 | 3.20612 | 0.1093943 | 0.22866244 | 2.6485377 | 20 | 10 18.8 | 19.5 |
| 204779 2006 KX ₄₆ | 16.3 | X | 358.54827 | 247.60552 | 210.28219 | 5.51225 | 0.1134767 | 0.25492636 | 2.4633505 | 20 | — | — |
| 204780 2006 KA ₅₂ | 16.2 | X | 160.98005 | 321.03108 | 222.32682 | 11.32587 | 0.1074559 | 0.23326366 | 2.6135932 | 20 | 10 2.5 | 20.3 |
| 204781 2006 KX ₆₄ | 15.8 | X | 174.79635 | 289.53033 | 254.37049 | 6.09560 | 0.1391762 | 0.23605189 | 2.5929714 | 20 | 10 16.6 | 20.0 |
| 204782 2006 KU ₇₅ | 15.8 | X | 211.41586 | 78.56168 | 252.17942 | 6.15437 | 0.1160980 | 0.19798825 | 2.9154781 | 20 | 2 28.0 | 20.5 |
| 204783 2006 KW ₈₉ | 15.7 | X | 97.15557 | 113.57273 | 73.05067 | 16.38860 | 0.0537387 | 0.21942774 | 2.7223358 | 20 | 7 26.5 | 19.7 |
| 204784 2006 KL ₉₃ | 15.9 | X | 84.20635 | 251.07007 | 111.11798 | 2.14888 | 0.1528779 | 0.17898540 | 3.1183461 | 20 | — | — |
| 204785 2006 KT ₁₀₂ | 15.8 | X | 161.07140 | 334.62706 | 209.04023 | 11.91538 | 0.1071686 | 0.23238289 | 2.6201930 | 20 | 10 3.9 | 19.9 |
| 204786 Wehlau | 17.2 | X | 11.64633 | 85.66864 | 287.28896 | 0.38829 | 0.0495741 | 0.23706495 | 2.5855791 | 20 | 12 6.3 | 20.5 |
| 204787 2006 NB ₁ | 14.5 | X | 127.44348 | 359.26991 | 335.16944 | 14.55010 | 0.2410783 | 0.17171659 | 3.2057370 | 20 | 1 4.4 | 19.7 |
| 204788 2006 PG ₁₁ | 15.5 | X | 150.17674 | 232.26826 | 70.93805 | 2.66756 | 0.1701112 | 0.16913695 | 3.2382501 | 20 | — | — |
| 204789 2006 PE ₃₇ | 14.8 | X | 153.49709 | 221.85121 | 99.83762 | 14.11909 | 0.0745321 | 0.17383974 | 3.1795818 | 20 | — | — |
| 204790 2006 QN ₁₀ | 15.2 | X | 11.88778 | 14.46952 | 118.16437 | 11.13313 | 0.0249347 | 0.17772971 | 3.1330166 | 20 | 1 21.7 | 19.6 |
| 204791 2006 QK ₅₈ | 14.9 | X | 268.64381 | 336.11508 | 291.51986 | 8.04200 | 0.1262624 | 0.18206033 | 3.0831346 | 20 | 2 11.5 | 19.5 |
| 204792 2006 QS ₅₉ | 15.3 | X | 239.62435 | 333.66524 | 313.99344 | 8.59018 | 0.0828955 | 0.18290310 | 3.0736566 | 20 | 2 10.6 | 20.0 |
| 204793 2006 QD ₇₉ | 15.6 | X | 122.35014 | 316.63911 | 148.46967 | 4.42400 | 0.0409833 | 0.19188603 | 2.9769656 | 20 | 5 8.9 | 19.9 |
| 204794 2006 QD ₈₁ | 16.2 | X | 179.02072 | 303.00700 | 323.23929 | 7.95658 | 0.1391520 | 0.2 | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 204801 2006 RS ₅₉ | 16.5 | X | 15.04829 | 253.88456 | 176.33867 | 2.51971 | 0.0391610 | 0.22955493 | 2.6416684 | 20 | — | — |
| 204802 2006 SS ₂₂ | 15.3 | X | 241.40907 | 185.69595 | 138.52109 | 11.01918 | 0.0840911 | 0.18638609 | 3.0352448 | 20 | 3 30.9 | 19.9 |
| 204803 2006 SQ ₉₈ | 14.8 | X | 353.10752 | 70.34372 | 212.55303 | 3.27549 | 0.1060294 | 0.12442585 | 3.9737051 | 20 | 6 30.4 | 19.8 |
| 204804 2006 SU ₃₇₃ | 15.5 | X | 248.53667 | 143.15247 | 99.40163 | 4.48598 | 0.1734962 | 0.17135315 | 3.2102683 | 20 | — | — |
| 204805 2006 TS ₉ | 15.5 | X | 161.09103 | 119.11541 | 299.57716 | 7.18099 | 0.1031988 | 0.18493322 | 3.0511210 | 20 | 4 25.3 | 20.3 |
| 204806 2007 GX ₁₀ | 17.3 | X | 301.63984 | 201.76508 | 120.08726 | 4.49219 | 0.2059502 | 0.31187526 | 2.1535193 | 20 | 5 18.2 | 19.4 |
| 204807 2007 GQ ₂₃ | 16.0 | X | 266.63617 | 284.80992 | 47.12475 | 14.23202 | 0.1745830 | 0.22469509 | 2.6796228 | 20 | 4 23.5 | 19.9 |
| 204808 2007 GH ₂₇ | 16.7 | X | 21.91900 | 139.78800 | 181.79910 | 4.25907 | 0.1926331 | 0.24542250 | 2.5265416 | 20 | 11 7.2 | 19.5 |
| 204809 2007 HJ ₂₇ | 16.7 | X | 280.06716 | 45.28412 | 271.99419 | 0.93631 | 0.2093109 | 0.22351321 | 2.6890606 | 20 | 4 12.7 | 20.4 |
| 204810 2007 JQ ₃₀ | 16.7 | X | 20.84972 | 249.16945 | 74.26276 | 17.49170 | 0.2170742 | 0.24321296 | 2.5418207 | 20 | 11 14.5 | 19.8 |
| 204811 2007 LO ₃₃ | 15.1 | X | 41.86536 | 230.96546 | 84.00409 | 16.09250 | 0.2096827 | 0.24159103 | 2.5531844 | 20 | 11 28.1 | 18.6 |
| 204812 2007 ME ₃ | 16.0 | X | 69.67208 | 225.98630 | 116.78973 | 8.61960 | 0.1419632 | 0.25174303 | 2.4840733 | 20 | — | — |
| 204813 2007 MM ₆ | 15.4 | X | 35.64497 | 219.94534 | 92.31882 | 13.16046 | 0.1645923 | 0.23959575 | 2.5673396 | 20 | 11 11.9 | 18.8 |
| 204814 2007 MD ₁₀ | 15.7 | X | 337.34504 | 217.32923 | 108.34220 | 15.59782 | 0.1262057 | 0.22917938 | 2.6445535 | 20 | 8 12.2 | 18.6 |
| 204815 2007 NP ₁ | 15.3 | X | 333.50999 | 279.12903 | 85.09811 | 28.51737 | 0.1657083 | 0.23509573 | 2.5999972 | 20 | 10 21.2 | 18.7 |
| 204816 Andreaeamilleri | 16.5 | X | 163.25313 | 214.01313 | 216.88796 | 8.53914 | 0.1431862 | 0.21033310 | 2.8002553 | 20 | 5 17.2 | 21.0 |
| 204817 2007 OE ₁ | 16.9 | X | 189.21171 | 6.17369 | 323.87545 | 6.61785 | 0.2041902 | 0.27037365 | 2.3686077 | 20 | 2 4.6 | 20.7 |
| 204818 2007 OE ₄ | 16.8 | X | 113.54153 | 311.81378 | 30.15790 | 1.76716 | 0.1957097 | 0.25815857 | 2.4427462 | 20 | — | — |
| 204819 2007 PU ₁ | 16.9 | X | 135.93238 | 24.87124 | 315.71831 | 0.94142 | 0.1971417 | 0.26336169 | 2.4104659 | 20 | — | — |
| 204820 2007 PY ₂ | 16.9 | X | 168.08485 | 347.03827 | 337.80736 | 5.10246 | 0.2336544 | 0.26771552 | 2.3842604 | 20 | 1 14.5 | 20.7 |
| 204821 2007 PJ ₁₀ | 17.2 | X | 319.63570 | 335.03528 | 314.27554 | 1.97945 | 0.1663453 | 0.29401063 | 2.2398935 | 20 | 5 4.6 | 19.1 |
| 204822 2007 PZ ₁₀ | 16.7 | X | 174.29823 | 216.86565 | 115.76669 | 3.31251 | 0.1754553 | 0.26785612 | 2.3834260 | 20 | 1 24.7 | 20.3 |
| 204823 2007 PX ₁₃ | 16.9 | X | 249.63950 | 247.95450 | 112.55819 | 2.95103 | 0.1224552 | 0.29125282 | 2.2539827 | 20 | 5 14.9 | 19.8 |
| 204824 2007 PP ₁₇ | 16.5 | X | 13.33561 | 54.07203 | 327.84379 | 3.99883 | 0.1413545 | 0.24489553 | 2.5301648 | 20 | — | — |
| 204825 2007 PS ₁₈ | 16.7 | X | 44.26923 | 349.68639 | 16.96039 | 1.34713 | 0.1728668 | 0.24709445 | 2.5151317 | 20 | — | — |
| 204826 2007 PL ₂₀ | 16.3 | X | 309.21114 | 157.45573 | 180.89528 | 3.10246 | 0.2343052 | 0.22110597 | 2.7085430 | 20 | 6 19.4 | 19.3 |
| 204827 2007 PR ₂₀ | 15.9 | X | 290.39093 | 126.60076 | 163.24816 | 7.94877 | 0.2021349 | 0.21011757 | 2.8021699 | 20 | 3 24.5 | 19.7 |
| 204828 2007 PF ₂₂ | 15.8 | X | 155.62663 | 23.44720 | 302.87408 | 4.33700 | 0.2063140 | 0.26371314 | 2.4083238 | 20 | 1 2.7 | 19.3 |
| 204829 2007 PJ ₂₄ | 16.7 | X | 287.04871 | 14.76470 | 277.97617 | 5.31821 | 0.1743759 | 0.28660422 | 2.2783180 | 20 | 3 17.2 | 19.8 |
| 204830 2007 PR ₂₅ | 16.1 | X | 68.50469 | 27.03972 | 274.34295 | 7.25118 | 0.0717824 | 0.24280814 | 2.5446451 | 20 | 11 21.0 | 19.6 |
| 204831 Levski | 16.0 | X | 233.00232 | 240.60736 | 124.67398 | 7.49763 | 0.0808106 | 0.21180959 | 2.7872268 | 20 | 5 9.9 | 20.2 |
| 204832 2007 PH ₃₁ | 16.3 | X | 151.20178 | 3.89890 | 300.99974 | 10.17334 | 0.2536922 | 0.26159492 | 2.4213069 | 20 | — | — |
| 204833 2007 PY ₃₄ | 17.1 | X | 262.76129 | 306.21011 | 18.82337 | 0.60050 | 0.2249623 | 0.28669303 | 2.2778474 | 20 | 3 30.2 | 20.6 |
| 204834 2007 PN ₃₅ | 15.7 | X | 156.00577 | 143.33068 | 164.58212 | 5.74978 | 0.1751084 | 0.18354408 | 3.0664965 | 20 | — | — |
| 204835 2007 PC ₄₅ | 15.6 | X | 106.23898 | 154.77313 | 182.97335 | 1.05504 | 0.0664386 | 0.17740654 | 3.1368202 | 20 | — | — |
| 204836 Xiexiaosi | 15.0 | X | 174.68115 | 132.36465 | 146.80217 | 17.11163 | 0.0610834 | 0.17957942 | 3.1114657 | 20 | — | — |
| 204837 2007 QM ₂ | 15.5 | X | 130.37939 | 244.90424 | 92.02032 | 10.61132 | 0.0620085 | 0.18160560 | 3.0882793 | 20 | — | — |
| 204838 2007 QQ ₆ | 15.9 | X | 135.31166 | 338.04583 | 340.86416 | 1.44629 | 0.1783527 | 0.18108857 | 3.0941547 | 20 | — | — |
| 204839 Suzhouyuanlin | 16.6 | X | 283.50998 | 146.57001 | 121.48602 | 6.86255 | 0.0691462 | 0.27884281 | 2.3204012 | 20 | 2 29.3 | 19.6 |
| 204840 2007 RD ₃ | 16.8 | X | 122.41891 | 104.50311 | 250.34697 | 0.83141 | 0.1633271 | 0.26133080 | 2.4229381 | 20 | — | — |
| 204841 2007 RJ ₁₃ | 17.1 | X | 139.35465 | 227.70233 | 104.60841 | 3.45104 | 0.1872815 | 0.25887895 | 2.4382125 | 20 | — | — |
| 204842 Fengchia | 15.6 | X | 143.92045 | 161.57006 | 128.36898 | 2.25607 | 0.1495491 | 0.17548360 | 3.1596940 | 20 | — | — |
| 204843 2007 RF ₂₁ | 16.0 | X | 159.19748 | 67.95561 | 220.46427 | 0.31633 | 0.1600988 | 0.18046615 | 3.1012650 | 20 | — | — |
| 204844 2007 RT ₂₃ | 16.1 | X | 331.96920 | 43.89149 | 235.66015 | 2.19026 | 0.1964313 | 0.21587150 | 2.7521526 | 20 | 5 13.5 | 18.7 |
| 204845 2007 RG ₃₈ | 16.2 | X | 345.76714 | 261.89135 | 56.83338 | 3.87503 | 0.1785157 | 0.22327915 | 2.6909395 | 20 | 8 17.7 | 18.7 |
| 204846 2007 RD ₄₈ | 16.2 | X | 148.71558 | 277.63747 | 168.65010 | 2.12950 | 0.0309848 | 0.20301862 | 2.8671174 | 20 | 5 14.8 | 20.2 |
| 204847 2007 RN ₆₃ | 13.5 | X | 292.03371 | 316.68289 | 129.18512 | 1.95490 | 0.0735446 | 0.08257028 | 5.2230024 | 20 | 10 15.8 | 20.3 |
| 204848 2007 RK ₇₀ | 16.5 | X | 222.51702 | 293.04257 | 96.56005 | 3.08871 | 0.0824759 | 0.21005217 | 2.8027515 | 20 | 5 26.8 | 20.6 |
| 204849 2007 RF ₁₀₅ | 16.1 | X | 191.77770 | 294.75548 | 64.75373 | 2.74823 | 0.1309675 | 0.19537048 | 2.9414632 | 20 | 3 19.2 | 20.8 |
| 204850 2007 RD ₁₂₁ | 15.7 | X | 39.65076 | 210.77517 | 176.22413 | 5.62899 | 0.1119358 | 0.17226124 | 3.1989762 | 20 | — | — |
| 204851 2007 RW ₁₃₀ | 15.1 | X | 211.38769 | 223.30300 | 172.56072 | 2.89095 | 0.2718803 | 0.12551776 | 3.9506261 | 20 | 5 14.8 | 21.7 |
| 204852 Frankfurt | 15.9 | X | 80.70478 | 357.07523 | 192.59903 | 16.38810 | 0.0520393 | 0.21761345 | 2.7374460 | 20 | 7 3.9 | 20.0 |
| 204853 2007 RB ₁₃₆ | 16.5 | X | 228.87483 | 321.14330 | 65.44136 | 1.40578 | 0.0811559 | 0.21091130 | 2.7951352 | 20 | 5 29.9 | 20.7 |
| 204854 2007 RF ₁₄₀ | 16.3 | X | 274.87425 | 291.01975 | 72.94356 | 0.96418 | 0.1088084 | 0.21613037 | 2.7499546 | 20 | 6 22.5 | 19.8 |
| 204855 2007 RT ₁₄₀ | 16.6 | X | 211.29086 | 102.49888 | 206.69932 | 0.66951 | 0.1914389 | 0.27130286 | 2.3631963 | 20 | 1 28.2 | 20.5 |
| 204856 2007 RS ₁₅₅ | 15.2 | X | 174.87744 | 123.74903 | 295.44263 | 1.69839 | 0.2157833 | 0.12595119 | 3.9415575 | 20 | 5 14.7 | 21.6 |
| 204857 2007 RM ₁₅₆ | 17.4 | X | 298.79469 | 320.05526 | 304.49296 | 1.28409 | 0.1532939 | 0.28270407 | 2.2992243 | 20 | 2 28.9 | 20.3 |
| 204858 2007 RN ₁₇₆ | 16.0 | X | 277.58540 | 110.06554 | 298.16560 | 13.27020 | 0.0701821 | 0.22429964 | 2.6827714 | 20 | 8 27.2 | 19.7 |
| 204859 2007 RF ₁₈₀ | 16.1 | X | 245.86776 | 225.84858 | 192.51419 | 2.34158 | 0.0628666 | 0.21679114 | 2.7443639 | 20 | 8 2.6 | 19.8 |
| 204860 2007 RX ₁₉₃ | 16.2 | X | 252.77142 | 236.81882 | 21.12043 | 3.46782 | 0.1009172 | 0.18891268 | 3.0081210 | 20 | 1 19.4 | 20.8 |
| 204861 2007 RP ₂₀₄ | 16.5 | X | 194.18346 | 64.73887 | 217.06173 | 6.36993 | 0.1301475 | 0.25938536 | 2.4350380 | 20 | — | — |
| 204862 2007 RC ₂₀₆ | 16.4 | X | 334.11699 | 60.07357 | 6.69590 | 1.15773 | 0.0382024 | 0.24296264 | 2.5435662 | 20 | 12 24.9 | 19.6 |
| 204863 2007 RF ₂₁₁ | 16.9 | X | 336.86963 | 108.19222 | 313.01423 | 2.84406 | 0.1115839 | 0.24161041 | 2.5530478 | 20 | 12 27.4 | 19.5 |
| 204864 2007 RK ₂₁₁ | 15.2 | X | 125.48027 | 131.23932 | 170.19747 | 10.96313 | 0.0455177 | 0.17221735 | 3.1995196 | 20 | — | — |
| 204865 2007 RU ₂₃₃ | 15.6 | X | 94.12640 | 223.97949 | 89.38870 | 2.24857 | 0.1194225 | 0.17011138 | 3.2258720 | 20 | 12 23.9 | 20.6 |
| 204866 2007 RE ₂₃₅ | 15.9 | X | 182.86466 | 138.91014 | 260.67498 | 0.97042 | 0.0734500 | 0.20322883 | 2.8651399 | 20 | 4 25.6 | 20.2 |
| 204867 2007 RQ ₂₄₂ | 15.6 | X | 70.87070 | 335.87976 | 58.46439 | 2.12028 | 0.1815317 | 0.17685260 | 3.1433670 | 20 | — | — |
| 204868 2007 RE ₂₆₇ | 16.4 | X | 112.11743 | 139.27212 | 41.68189 | 4.65374 | 0.0248597 | 0.21676677 | 2.7445696 | 20 | 8 2.5 | 20.2 |
| 204869 2007 RL ₂₇₅ | 15.8 | X | 51.98167 | 194.42448 | 82.72431 | 19.50554 | 0.1869387 | 0.23270201 | 2.6177970 | 20 | 10 25.7 | 19.7 |
| 204870 2007 RJ ₂₇₈ | 15.3 | X | 184.46861 | 266.25418 | 25.38901 | 11.92726 | 0.1463432 | 0.19276883 | 2.9678698 | 20 | 3 7.9 | 20.3 |
| 204871 2007 RB ₂₈₅ | 16.2 | X | 45.95920 | 311.47761 | 165.41486 | 1.75432 | 0.0470202 | 0.18507152 | 3.0496008 | 20 | 2 15.1 | 20.2 |
| 204872 2007 RE ₂₉₅ | 16.6 | X | 132.19406 | 357.04762 | 301.59108 | 0.82640 | 0.0521252 | 0.24757991 | 2.5118427 | 20 | — | — |
| 204873 FAIR | 16.8 | X | 107.93338 | 218.56157 | 89.65294 | 2.96549 | 0.1206923 | 0.24534065 | 2.5271036 | 20 | — | — |
| 204874 2007 SR ₄ | 16.3 | X | 344.08142 | 53.20286 | 250.08410 | 4.80996 | 0.0477387 | 0.21860011 | 2.7292027 | 20 | 7 19.3 | 19.8 |
| 2 | | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | H | G | M | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | V | | |
|--------|------|-------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 204881 | 2007 | TR ₉₅ | 15.6 ^m | X | 351.60697 | 196.26241 | 113.91432 | 5.80020 | 0.1083595 | 0.21592069 | 2.7517346 | 20 | 8 12.9 | 18.6 |
| 204882 | 2007 | TJ ₁₂₇ | 15.6 | X | 163.63034 | 185.72349 | 122.13297 | 2.04890 | 0.1477544 | 0.17608381 | 3.1525097 | 20 | — | — |
| 204883 | 2007 | TR ₁₂₈ | 15.9 | X | 247.48042 | 215.92614 | 37.02321 | 0.85077 | 0.1228206 | 0.17892590 | 3.1190374 | 20 | 1 7.4 | 20.7 |
| 204884 | 2007 | TB ₁₃₆ | 15.2 | X | 111.59311 | 226.54964 | 248.67015 | 15.73137 | 0.1721458 | 0.19942214 | 2.9014859 | 20 | 5 23.1 | 19.5 |
| 204885 | 2007 | TD ₁₄₄ | 15.9 | X | 177.75405 | 197.22050 | 205.95529 | 1.33561 | 0.0142802 | 0.20006097 | 2.8953060 | 20 | 4 23.8 | 19.8 |
| 204886 | 2007 | TC ₁₄₅ | 16.6 | X | 85.87658 | 189.39358 | 117.07620 | 0.47916 | 0.0970637 | 0.23844069 | 2.5756240 | 20 | 12 19.8 | 20.2 |
| 204887 | 2007 | TX ₁₄₈ | 15.9 | X | 149.58973 | 31.00781 | 342.19964 | 1.59650 | 0.1148265 | 0.18760851 | 3.0220457 | 20 | 2 22.9 | 20.4 |
| 204888 | 2007 | TH ₁₈₇ | 15.2 | X | 87.48914 | 347.14887 | 61.51085 | 11.22596 | 0.0714994 | 0.17891411 | 3.1191744 | 20 | 1 23.4 | 19.6 |
| 204889 | 2007 | TR ₂₆₉ | 16.1 | X | 213.72523 | 222.01573 | 139.15261 | 1.57601 | 0.1153624 | 0.19798944 | 2.9154663 | 20 | 4 10.4 | 20.7 |
| 204890 | 2007 | TR ₃₀₅ | 16.8 | X | 224.16976 | 24.33108 | 250.75417 | 2.15168 | 0.1555698 | 0.26544911 | 2.3978124 | 20 | — | — |
| 204891 | 2007 | TY ₃₂₃ | 15.5 | X | 41.51909 | 192.07540 | 253.47906 | 8.14501 | 0.0730861 | 0.17516141 | 3.1635675 | 20 | 1 4.2 | 19.6 |
| 204892 | 2007 | TQ ₃₃₁ | 14.9 | X | 238.41149 | 97.80906 | 263.33813 | 3.89256 | 0.2353859 | 0.12440142 | 3.9742254 | 20 | 4 26.0 | 21.3 |
| 204893 | 2007 | TD ₃₅₅ | 15.2 | X | 128.01156 | 315.04475 | 95.50408 | 10.61093 | 0.1250925 | 0.18888349 | 3.0084310 | 20 | 3 22.5 | 19.9 |
| 204894 | 2007 | TF ₃₇₂ | 16.2 | X | 106.83380 | 7.04719 | 67.03313 | 3.44841 | 0.0871270 | 0.19035154 | 2.9929430 | 20 | 3 18.7 | 20.4 |
| 204895 | 2007 | TS ₃₇₅ | 15.4 | X | 323.28741 | 276.51968 | 258.26152 | 4.62203 | 0.1144168 | 0.18259309 | 3.0771346 | 20 | — | — |
| 204896 | 2007 | Giorgiobocca | 15.5 | X | 172.67987 | 61.14973 | 230.50006 | 3.84061 | 0.0310203 | 0.17845642 | 3.1245053 | 20 | — | — |
| 204897 | 2007 | UL ₁₉ | 16.4 | X | 201.13562 | 199.41744 | 202.92653 | 1.45041 | 0.0698624 | 0.20340908 | 2.8634471 | 20 | 5 19.8 | 20.7 |
| 204898 | 2007 | UA ₃₀ | 15.8 | X | 347.66828 | 205.51874 | 101.98447 | 6.96190 | 0.0591502 | 0.21512405 | 2.7585238 | 20 | 8 1.6 | 19.1 |
| 204899 | 2007 | UE ₅₆ | 16.0 | X | 194.00475 | 134.43916 | 193.59226 | 2.19929 | 0.0505751 | 0.18772836 | 3.0207593 | 20 | 2 11.0 | 20.3 |
| 204900 | 2007 | UR ₉₀ | 16.2 | X | 315.51934 | 13.39323 | 248.50406 | 1.01529 | 0.0586433 | 0.19564524 | 2.9387087 | 20 | 4 11.5 | 19.9 |
| 204901 | 2007 | US ₉₃ | 15.7 | X | 244.00063 | 339.20932 | 349.35800 | 1.38777 | 0.1032104 | 0.19631755 | 2.9319955 | 20 | 4 1.6 | 19.9 |
| 204902 | 2007 | UB ₁₂₆ | 15.4 | X | 155.37814 | 241.71833 | 117.61142 | 16.45847 | 0.0537776 | 0.18180464 | 3.0860248 | 20 | 2 9.3 | 20.0 |
| 204903 | 2007 | UO ₁₃₃ | 15.4 | X | 107.63153 | 272.03751 | 149.84518 | 12.19082 | 0.1717643 | 0.18243983 | 3.0788576 | 20 | 3 16.9 | 19.9 |
| 204904 | 2007 | VS ₈₀ | 16.4 | X | 213.88674 | 337.18893 | 52.14902 | 2.55189 | 0.0765324 | 0.20393048 | 2.8585642 | 20 | 5 16.8 | 20.6 |
| 204905 | 2007 | VR ₈₄ | 14.8 | X | 84.52882 | 307.69200 | 63.35031 | 24.06095 | 0.1174078 | 0.17318779 | 3.1875564 | 20 | — | — |
| 204906 | 2007 | VM ₂₇₀ | 15.4 | X | 90.60383 | 144.48075 | 297.98349 | 7.42903 | 0.0427208 | 0.18189847 | 3.0849634 | 20 | 2 28.1 | 19.8 |
| 204907 | 2007 | VP ₂₉₁ | 15.7 | X | 54.08053 | 317.18861 | 138.74964 | 2.23649 | 0.0523593 | 0.17413449 | 3.1759929 | 20 | 2 2.5 | 19.8 |
| 204908 | 2007 | WS ₁₀ | 15.4 | X | 213.23745 | 238.34251 | 95.12256 | 10.92473 | 0.0885159 | 0.18826402 | 3.0150267 | 20 | 3 13.8 | 20.2 |
| 204909 | 2008 | DP ₄₃ | 16.3 | X | 2.12369 | 111.60678 | 149.08091 | 6.10552 | 0.1137602 | 0.26061385 | 2.4273797 | 20 | 6 21.9 | 18.7 |
| 204910 | 2008 | HU ₁₂ | 15.8 | X | 84.29935 | 113.43671 | 131.48932 | 9.69790 | 0.0663247 | 0.18518760 | 3.0483262 | 20 | 9 23.2 | 20.2 |
| 204911 | 2008 | QE ₅ | 12.8 | X | 13.62940 | 167.54785 | 183.71700 | 14.83544 | 0.0314535 | 0.08373997 | 5.1742513 | 20 | 10 11.8 | 19.5 |
| 204912 | 2008 | RH ₉₄ | 17.3 | X | 242.91407 | 209.86432 | 103.18096 | 0.06574 | 0.1953157 | 0.30096229 | 2.2052678 | 20 | 2 26.5 | 20.7 |
| 204913 | 2008 | RG ₁₀₈ | 16.5 | X | 269.46928 | 105.52842 | 223.51133 | 1.84150 | 0.0830473 | 0.22255175 | 2.6967998 | 20 | 5 3.3 | 20.0 |
| 204914 | 2008 | SQ ₃₅ | 16.0 | X | 55.32751 | 312.86216 | 12.75289 | 13.26199 | 0.3217770 | 0.26061310 | 2.4273844 | 20 | — | — |
| 204915 | 2008 | ST ₅₂ | 16.3 | X | 311.73565 | 67.23820 | 16.64451 | 1.82221 | 0.0510069 | 0.17322401 | 3.1871120 | 20 | 11 26.7 | 20.6 |
| 204916 | 2008 | SU ₅₄ | 16.2 | X | 115.37508 | 91.29817 | 14.98106 | 5.06715 | 0.1302432 | 0.21404025 | 2.7678279 | 20 | 5 9.7 | 20.3 |
| 204917 | 2008 | SY ₈₂ | 15.4 | X | 67.14939 | 226.45358 | 139.42080 | 5.98547 | 0.3867062 | 0.18500469 | 3.0503351 | 20 | — | — |
| 204918 | 2008 | SW ₁₄₂ | 16.2 | X | 187.15018 | 177.26842 | 155.81441 | 2.37975 | 0.0694213 | 0.20028726 | 2.8931248 | 20 | 2 9.1 | 20.6 |
| 204919 | 2008 | SH ₁₄₇ | 15.3 | X | 66.08291 | 143.60421 | 199.04303 | 8.97212 | 0.2692043 | 0.17886426 | 3.1197539 | 20 | — | — |
| 204920 | 2008 | SR ₁₆₃ | 15.5 | X | 144.45482 | 286.31562 | 178.97193 | 13.71442 | 0.2896363 | 0.21673329 | 2.7448522 | 20 | 6 18.1 | 20.7 |
| 204921 | 2008 | SE ₁₇₃ | 16.7 | X | 151.53418 | 260.84434 | 261.53079 | 2.25506 | 0.1860502 | 0.23310842 | 2.6147534 | 20 | 8 29.5 | 20.9 |
| 204922 | 2008 | SY ₂₀₆ | 15.8 | X | 48.83573 | 129.43277 | 77.56948 | 7.01037 | 0.0192299 | 0.22067474 | 2.7120704 | 20 | 6 10.6 | 19.1 |
| 204923 | 2008 | SZ ₂₆₀ | 15.9 | X | 93.78878 | 259.54024 | 126.78521 | 2.58901 | 0.0886018 | 0.19073230 | 2.9889585 | 20 | 1 2.4 | 19.7 |
| 204924 | 2008 | SN ₂₆₆ | 15.9 | X | 97.81273 | 322.62278 | 44.34987 | 25.05320 | 0.2936330 | 0.27163573 | 2.3612653 | 20 | — | — |
| 204925 | 2008 | TG ₅ | 17.3 | X | 300.04665 | 182.70603 | 210.60584 | 1.62960 | 0.1353951 | 0.24301909 | 2.5431723 | 20 | 9 9.9 | 19.8 |
| 204926 | 2008 | TX ₈ | 15.3 | X | 200.40101 | 288.75164 | 73.67242 | 6.66285 | 0.0687103 | 0.21181352 | 2.7871923 | 20 | 4 1.5 | 19.5 |
| 204927 | 2008 | TM ₅₂ | 13.4 | X | 26.32869 | 173.86626 | 165.38802 | 4.28172 | 0.0389566 | 0.08192676 | 5.2503170 | 20 | 10 13.6 | 20.2 |
| 204928 | 2008 | TZ ₆₈ | 16.4 | X | 133.90341 | 324.98433 | 86.75622 | 3.08451 | 0.1488694 | 0.20506620 | 2.8480000 | 20 | 3 27.5 | 20.7 |
| 204929 | 2008 | TR ₈₂ | 16.7 | X | 270.79115 | 10.94448 | 134.15309 | 6.81548 | 0.0699215 | 0.26937424 | 2.3744627 | 20 | — | — |
| 204930 | 2008 | TD ₁₀₅ | 16.5 | X | 344.87522 | 281.95918 | 6.41443 | 4.18045 | 0.0106911 | 0.22734436 | 2.6587648 | 20 | 7 2.6 | 19.9 |
| 204931 | 2008 | UJ ₃₄ | 15.9 | X | 249.67740 | 278.72489 | 159.87185 | 3.32227 | 0.1468183 | 0.23527467 | 2.5986788 | 20 | 8 24.7 | 19.4 |
| 204932 | 2008 | UV ₃₅ | 16.9 | X | 277.98676 | 237.22767 | 173.47970 | 1.05876 | 0.0671433 | 0.24000238 | 2.5644389 | 20 | 9 8.4 | 19.8 |
| 204933 | 2008 | UE ₄₂ | 16.2 | X | 14.78163 | 97.94799 | 20.67435 | 0.19545 | 0.1575123 | 0.18586806 | 3.0408818 | 20 | 1 1.7 | 19.7 |
| 204934 | 2008 | UO ₉₉ | 16.0 | X | 305.18668 | 247.73490 | 69.76797 | 13.40483 | 0.2879025 | 0.23054785 | 2.6340782 | 20 | 5 6.9 | 19.2 |
| 204935 | 2008 | UZ ₁₀₈ | 16.5 | X | 168.12017 | 188.34128 | 235.01888 | 13.08018 | 0.1810603 | 0.21069640 | 2.7970355 | 20 | 5 12.7 | 21.0 |
| 204936 | 2008 | UG ₁₄₂ | 17.4 | X | 253.51238 | 40.30714 | 220.07525 | 1.86147 | 0.1342178 | 0.28198452 | 2.3031340 | 20 | 1 6.6 | 20.8 |
| 204937 | 2008 | UF ₁₅₆ | 16.9 | X | 192.86306 | 18.22174 | 59.34065 | 6.22444 | 0.0320105 | 0.22064116 | 2.7123456 | 20 | 6 26.6 | 20.7 |
| 204938 | 2008 | UW ₁₅₉ | 16.5 | X | 216.29493 | 128.65451 | 272.39389 | 4.03548 | 0.0688693 | 0.21681465 | 2.7441655 | 20 | 6 4.1 | 20.4 |
| 204939 | 2008 | UV ₁₇₂ | 16.0 | X | 20.81159 | 300.60462 | 256.01480 | 2.47197 | 0.0310787 | 0.20971222 | 2.8057797 | 20 | 4 18.5 | 19.7 |
| 204940 | 2008 | UR ₁₉₃ | 15.0 | X | 12.34966 | 209.16523 | 227.00095 | 14.35707 | 0.0097210 | 0.17645391 | 3.1481000 | 20 | — | — |
| 204941 | 2008 | UD ₁₉₈ | 17.2 | X | 163.58685 | 264.16520 | 54.81238 | 6.98849 | 0.1532836 | 0.28102345 | 2.3083820 | 20 | — | — |
| 204942 | 2008 | UT ₂₅₆ | 17.9 | X | 350.53598 | 274.76478 | 180.03242 | 1.81677 | 0.1873837 | 0.26102097 | 2.4248550 | 20 | — | — |
| 204943 | 2008 | UA ₂₆₃ | 16.3 | X | 205.51721 | 244.28125 | 248.87259 | 11.25938 | 0.2465831 | 0.23019387 | 2.6367779 | 20 | 9 1.0 | 21.0 |
| 204944 | 2008 | UM ₂₇₉ | 16.2 | X | 125.23721 | 223.54325 | 192.05259 | 1.60730 | 0.0611057 | 0.20345853 | 2.8629831 | 20 | 3 10.9 | 20.3 |
| 204945 | 2008 | UB ₂₈₇ | 16.2 | X | 271.14282 | 241.36917 | 171.22748 | 6.95395 | 0.0253237 | 0.21431254 | 2.7654830 | 20 | 4 24.9 | 19.9 |
| 204946 | 2008 | UN ₃₀₂ | 16.7 | X | 335.50297 | 16.62870 | 287.58272 | 3.11501 | 0.1091644 | 0.22519023 | 2.6756934 | 20 | 7 5.5 | 19.6 |
| 204947 | 2008 | UE ₃₁₅ | 17.3 | X | 294.34445 | 238.59702 | 58.69470 | 6.09029 | 0.0946207 | 0.29874447 | 2.2161686 | 20 | 4 19.7 | 19.8 |
| 204948 | 2008 | UG ₃₂₅ | 16.6 | X | 319.60327 | 280.13400 | 244.58538 | 11.93839 | 0.1428959 | 0.26697719 | 2.3886542 | 20 | — | — |
| 204949 | 2008 | VT | 14.7 | X | 57.96505 | 238.64251 | 127.03364 | 17.96966 | 0.2447627 | 0.17757071 | 3.1348865 | 20 | — | — |
| 204950 | 2008 | VU ₄₆ | 15.1 | X | 248.40560 | 350.83911 | 235.74173 | 7.6580 | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

Table with 13 columns: Planet, H, G, M, omega, Omega, i, e, mu, a, TE, Oppos., V. It lists various celestial objects (asteroids, comets, and planets) with their respective orbital elements and opposition dates for the year 2020.

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | <i>ω</i> | <i>Ω</i> | <i>i</i> | <i>e</i> | <i>μ</i> | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 205041 1998 SD ₈₈ | 15.6 | X | 301.24070 | 56.78189 | 341.54043 | 14.04599 | 0.1494610 | 0.22355660 | 2.6887126 | 20 | 9 12.7 | 18.5 |
| 205042 1998 SQ ₉₆ | 16.2 | X | 133.44857 | 260.45852 | 35.73671 | 4.60108 | 0.2206342 | 0.23830519 | 2.5766003 | 20 | — | — |
| 205043 1998 SS ₁₂₅ | 15.9 | X | 80.34521 | 175.64840 | 160.91970 | 8.08680 | 0.2054468 | 0.23449559 | 2.6044314 | 20 | — | — |
| 205044 1998 TM ₄ | 16.6 | X | 352.83131 | 338.01738 | 359.42770 | 4.00206 | 0.2074360 | 0.22435499 | 2.6823301 | 20 | 10 1.6 | 18.9 |
| 205045 1998 TD ₂₁ | 15.6 | X | 264.18526 | 336.47587 | 26.84495 | 11.99854 | 0.0441987 | 0.21246126 | 2.7815244 | 20 | 6 15.8 | 19.6 |
| 205046 1998 UE ₁₀ | 15.6 | X | 102.29330 | 157.64000 | 230.84481 | 5.08902 | 0.1302042 | 0.19507356 | 2.9444473 | 20 | 1 19.7 | 19.7 |
| 205047 1998 UE ₅₀ | 15.9 | X | 286.42484 | 249.67772 | 127.45134 | 9.20817 | 0.1458275 | 0.21818170 | 2.7326909 | 20 | 7 21.2 | 19.1 |
| 205048 1998 WN ₂₅ | 16.0 | X | 144.65068 | 296.74634 | 221.22622 | 3.22453 | 0.1468669 | 0.21379706 | 2.7699264 | 20 | 8 15.2 | 20.5 |
| 205049 1998 WE ₄₀ | 17.4 | X | 21.82434 | 278.13159 | 67.31874 | 4.61166 | 0.0739407 | 0.31538771 | 2.1375004 | 20 | 12 7.7 | 19.5 |
| 205050 1999 AO ₃₃ | 15.5 | X | 293.05754 | 5.85785 | 151.14449 | 2.29701 | 0.1125468 | 0.17863382 | 3.1224363 | 20 | — | — |
| 205051 1999 CO ₅₈ | 16.2 | X | 56.47974 | 51.02500 | 106.30773 | 8.59933 | 0.1203315 | 0.28512898 | 2.2861697 | 20 | 4 28.9 | 18.6 |
| 205052 1999 CP ₁₄₂ | 15.9 | X | 281.98553 | 359.41491 | 346.66659 | 1.32248 | 0.0010176 | 0.20133667 | 2.8830630 | 20 | 6 24.2 | 19.8 |
| 205053 1999 CW ₁₄₈ | 15.5 | X | 215.70182 | 243.25867 | 139.77060 | 14.75172 | 0.2116176 | 0.20093817 | 2.8868735 | 20 | 5 8.6 | 20.6 |
| 205054 1999 FV ₂ | 16.7 | X | 39.09444 | 255.20419 | 1.69719 | 6.84058 | 0.0875848 | 0.29317990 | 2.2441227 | 20 | 8 25.3 | 19.1 |
| 205055 1999 GV ₄₆ | 15.0 | X | 359.39428 | 91.57099 | 91.03488 | 7.03730 | 0.1645993 | 0.18541803 | 3.0458002 | 20 | 3 1.0 | 18.5 |
| 205056 1999 JR ₇ | 14.9 | X | 305.84561 | 124.65520 | 74.50641 | 17.48808 | 0.1601109 | 0.17771508 | 3.1331886 | 20 | — | — |
| 205057 1999 JW ₄₄ | 16.9 | X | 299.39831 | 223.24455 | 12.65979 | 0.63212 | 0.1690375 | 0.27358424 | 2.3500404 | 20 | 1 22.3 | 19.8 |
| 205058 1999 JD ₆₉ | 16.5 | X | 254.95723 | 130.94977 | 77.00769 | 6.71820 | 0.1800878 | 0.26584730 | 2.3954175 | 20 | — | — |
| 205059 1999 JA ₁₂₈ | 16.6 | X | 91.10562 | 292.80905 | 226.74472 | 6.00565 | 0.1495196 | 0.28583862 | 2.2823843 | 20 | 6 25.3 | 19.5 |
| 205060 1999 LB ₉ | 15.6 | X | 316.13532 | 147.52008 | 93.15966 | 14.79812 | 0.2725375 | 0.18096110 | 3.0956075 | 20 | 2 20.7 | 19.9 |
| 205061 1999 RC ₁₅ | 16.7 | X | 14.00768 | 216.70712 | 163.02953 | 5.07727 | 0.2888525 | 0.24195084 | 2.5506525 | 20 | — | — |
| 205062 1999 RH ₂₉ | 15.1 | X | 258.93014 | 137.35364 | 151.78340 | 28.67993 | 0.3759800 | 0.17635560 | 3.1492699 | 20 | 2 8.8 | 20.9 |
| 205063 1999 RD ₃₉ | 16.1 | X | 333.59628 | 231.66752 | 153.98196 | 12.15378 | 0.1921107 | 0.23668975 | 2.5883108 | 20 | 11 8.6 | 18.7 |
| 205064 1999 RL ₄₄ | 15.7 | X | 332.11610 | 25.06617 | 347.54641 | 13.81681 | 0.2995309 | 0.23502316 | 2.6005324 | 20 | 10 6.7 | 17.3 |
| 205065 1999 RV ₆₃ | 16.3 | X | 286.28464 | 314.21363 | 337.71879 | 7.61521 | 0.2703881 | 0.27177357 | 2.3604668 | 20 | 3 6.4 | 19.7 |
| 205066 1999 RF ₇₈ | 16.3 | X | 104.93070 | 54.30857 | 311.52750 | 6.69128 | 0.1465594 | 0.25368691 | 2.4713676 | 20 | — | — |
| 205067 1999 RF ₈₇ | 15.9 | X | 342.80538 | 30.71554 | 352.37929 | 12.61559 | 0.2227293 | 0.23794625 | 2.5791908 | 20 | 11 19.5 | 18.4 |
| 205068 1999 RN ₉₄ | 16.4 | X | 323.31375 | 237.41852 | 145.35928 | 4.71919 | 0.2462110 | 0.23473540 | 2.6026573 | 20 | 10 5.8 | 18.2 |
| 205069 1999 RF ₁₀₁ | 15.4 | X | 276.65119 | 113.87900 | 282.80727 | 11.84779 | 0.1511683 | 0.23242772 | 2.6198561 | 20 | 7 31.6 | 18.7 |
| 205070 1999 RP ₁₀₄ | 14.2 | X | 201.47540 | 160.71842 | 241.78792 | 7.11332 | 0.3514682 | 0.12535545 | 3.9540356 | 20 | 5 12.7 | 21.1 |
| 205071 1999 RX ₁₀₅ | 15.8 | X | 291.34384 | 68.06608 | 304.21759 | 13.71749 | 0.1934936 | 0.23000364 | 2.6382316 | 20 | 7 16.4 | 18.9 |
| 205072 1999 RE ₁₂₉ | 16.3 | X | 252.87554 | 171.81043 | 171.49095 | 2.50235 | 0.1901263 | 0.27184237 | 2.3600685 | 20 | 4 17.9 | 19.8 |
| 205073 1999 RO ₁₅₇ | 16.1 | X | 291.96444 | 267.18976 | 128.52796 | 6.23712 | 0.3397882 | 0.23192827 | 2.6236159 | 20 | 7 25.1 | 19.0 |
| 205074 1999 RL ₂₁₃ | 17.2 | X | 324.33103 | 65.13169 | 180.53427 | 1.87634 | 0.0855184 | 0.26762355 | 2.3848066 | 20 | 3 23.8 | 19.7 |
| 205075 1999 RU ₂₁₈ | 16.4 | X | 356.12254 | 33.67174 | 332.08303 | 3.80041 | 0.1848557 | 0.23942001 | 2.5685957 | 20 | 11 20.2 | 19.0 |
| 205076 1999 RL ₂₃₈ | 16.1 | X | 44.66362 | 218.06249 | 153.88864 | 13.26982 | 0.1966824 | 0.24430385 | 2.5342484 | 20 | — | — |
| 205077 1999 RO ₂₄₆ | 16.2 | X | 23.49539 | 229.72240 | 140.00962 | 12.66397 | 0.2639606 | 0.24263613 | 2.5458476 | 20 | — | — |
| 205078 1999 SM ₂ | 17.4 | X | 326.81712 | 200.18403 | 203.76411 | 1.38071 | 0.2309054 | 0.23777133 | 2.5804556 | 20 | 11 18.9 | 19.1 |
| 205079 1999 SV ₁₅ | 16.1 | X | 323.56239 | 210.26226 | 237.74158 | 9.13662 | 0.1976623 | 0.24139504 | 2.5545662 | 20 | — | — |
| 205080 1999 SA ₁₉ | 15.9 | X | 6.28707 | 331.60485 | 47.28661 | 13.09807 | 0.2431471 | 0.24013582 | 2.5634888 | 20 | — | — |
| 205081 1999 TX ₁₄ | 16.1 | X | 277.37739 | 340.39007 | 39.17245 | 9.31771 | 0.3160156 | 0.22733516 | 2.6588366 | 20 | 6 14.6 | 20.0 |
| 205082 1999 TM ₁₅ | 17.6 | X | 337.71564 | 349.07402 | 29.92167 | 1.74637 | 0.1849278 | 0.23588663 | 2.5941823 | 20 | 11 2.2 | 19.8 |
| 205083 1999 TU ₂₂ | 17.0 | X | 61.79950 | 205.04013 | 153.20656 | 2.98758 | 0.1736707 | 0.24548069 | 2.5261424 | 20 | — | — |
| 205084 1999 TD ₂₃ | 17.1 | X | 44.95495 | 318.86016 | 45.10840 | 3.26677 | 0.2509309 | 0.24380478 | 2.5377056 | 20 | — | — |
| 205085 1999 TQ ₃₂ | 16.3 | X | 256.87130 | 201.14709 | 206.94427 | 3.71044 | 0.2079586 | 0.22788230 | 2.6545790 | 20 | 7 13.7 | 20.1 |
| 205086 1999 TT ₃₃ | 15.9 | X | 11.55990 | 37.04442 | 11.05751 | 9.46754 | 0.1256070 | 0.24320015 | 2.5419099 | 20 | — | — |
| 205087 1999 TW ₆₇ | 16.6 | X | 242.77617 | 118.43793 | 163.84552 | 1.74101 | 0.1744570 | 0.25732837 | 2.4479973 | 20 | 1 24.4 | 20.4 |
| 205088 1999 TC ₈₂ | 16.1 | X | 305.83180 | 29.91157 | 24.71358 | 4.25853 | 0.1642811 | 0.23567997 | 2.5956986 | 20 | 10 18.4 | 18.3 |
| 205089 1999 TZ ₁₂₈ | 17.4 | X | 22.44086 | 15.57913 | 345.38906 | 2.88994 | 0.2303625 | 0.24124382 | 2.5556336 | 20 | — | — |
| 205090 1999 TJ ₁₃₁ | 15.9 | X | 317.03949 | 50.85144 | 2.55344 | 14.14042 | 0.1178814 | 0.23784894 | 2.5798942 | 20 | 11 4.7 | 18.9 |
| 205091 1999 TS ₁₃₅ | 16.9 | X | 352.67042 | 36.90920 | 344.60873 | 1.14377 | 0.2445097 | 0.23792596 | 2.5793375 | 20 | 12 16.1 | 19.4 |
| 205092 1999 TJ ₁₄₆ | 16.5 | X | 336.32545 | 190.25816 | 213.67143 | 4.71018 | 0.1487450 | 0.23857041 | 2.5746903 | 20 | 12 4.7 | 19.1 |
| 205093 1999 TY ₁₅₈ | 15.7 | X | 294.88944 | 61.78434 | 355.78424 | 16.28428 | 0.1248809 | 0.23579573 | 2.5948490 | 20 | 10 2.8 | 18.7 |
| 205094 1999 TD ₁₆₂ | 16.6 | X | 301.75096 | 305.74481 | 85.42707 | 4.31631 | 0.1823686 | 0.23142695 | 2.6274034 | 20 | 9 2.9 | 19.3 |
| 205095 1999 TH ₁₆₇ | 16.9 | X | 316.69747 | 85.79926 | 306.03540 | 2.30767 | 0.2474747 | 0.23368472 | 2.6104528 | 20 | 9 28.2 | 18.7 |
| 205096 1999 TX ₁₇₂ | 16.9 | X | 298.39639 | 229.80452 | 172.53598 | 4.33526 | 0.3039921 | 0.23117284 | 2.6293284 | 20 | 8 21.1 | 19.3 |
| 205097 1999 TW ₁₇₆ | 16.4 | X | 255.76740 | 70.76449 | 17.32147 | 4.25935 | 0.2099285 | 0.23135045 | 2.6279826 | 20 | 9 6.0 | 20.0 |
| 205098 1999 TU ₁₇₉ | 17.2 | X | 292.44954 | 169.61687 | 271.97852 | 2.33785 | 0.2286281 | 0.23581395 | 2.5947153 | 20 | 10 21.8 | 19.5 |
| 205099 1999 TX ₂₀₉ | 16.0 | X | 244.17342 | 57.27360 | 0.66355 | 8.04862 | 0.2413295 | 0.22414676 | 2.6839911 | 20 | 7 10.9 | 20.2 |
| 205100 1999 TE ₂₁₄ | 17.0 | X | 3.26233 | 297.44650 | 84.01400 | 1.60516 | 0.2355416 | 0.23926611 | 2.5696970 | 20 | — | — |
| 205101 1999 TE ₂₁₈ | 16.0 | X | 341.23161 | 140.63059 | 212.02099 | 9.02166 | 0.1391636 | 0.23349850 | 2.6118405 | 20 | 9 25.6 | 18.8 |
| 205102 1999 TC ₂₂₃ | 16.0 | X | 245.06003 | 188.58214 | 214.46529 | 11.07785 | 0.1666064 | 0.22680734 | 2.6629600 | 20 | 6 28.4 | 20.2 |
| 205103 1999 TH ₂₂₆ | 16.7 | X | 221.51757 | 310.32520 | 321.00159 | 2.54899 | 0.1077695 | 0.25788770 | 2.4444564 | 20 | — | — |
| 205104 1999 TZ ₂₂₇ | 15.5 | X | 231.79278 | 162.69730 | 213.84139 | 1.11590 | 0.2396457 | 0.12465477 | 3.9688387 | 20 | 5 9.0 | 21.9 |
| 205105 1999 TC ₂₃₄ | 16.7 | X | 303.92087 | 271.24317 | 137.36611 | 3.02003 | 0.2019214 | 0.23438131 | 2.6052779 | 20 | 10 2.3 | 19.0 |
| 205106 1999 TQ ₂₆₀ | 16.9 | X | 327.02491 | 267.74773 | 359.34917 | 6.31461 | 0.2049101 | 0.26973105 | 2.3723682 | 20 | 4 8.1 | 19.2 |
| 205107 1999 TP ₂₆₇ | 16.0 | X | 16.34365 | 52.50332 | 264.75393 | 12.08276 | 0.2082902 | 0.23610596 | 2.5925755 | 20 | 10 17.6 | 19.2 |
| 205108 1999 TK ₂₇₉ | 16.0 | X | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 205121 1999 VL ₈₃ | 15.6 | X | 187.91781 | 222.47126 | 12.32131 | 7.21221 | 0.1942973 | 0.24501161 | 2.5293656 | 20 | 12 29.9 | 19.6 |
| 205122 1999 VE ₉₂ | 15.6 | X | 303.74364 | 205.45735 | 201.31020 | 11.89331 | 0.2010150 | 0.23416885 | 2.6068535 | 20 | 9 25.9 | 18.2 |
| 205123 1999 VR ₉₂ | 16.3 | X | 270.96308 | 63.72074 | 26.79566 | 24.07463 | 0.2783700 | 0.23319029 | 2.6141414 | 20 | 9 27.8 | 19.7 |
| 205124 1999 VC ₉₄ | 16.4 | X | 18.98848 | 344.23935 | 39.37708 | 6.31650 | 0.2053051 | 0.24149283 | 2.5538765 | 20 | — | — |
| 205125 1999 VD ₁₀₂ | 16.3 | X | 238.65662 | 124.16835 | 255.96170 | 1.69699 | 0.0908510 | 0.21994618 | 2.7180562 | 20 | 5 31.9 | 20.0 |
| 205126 1999 VH ₁₂₉ | 17.0 | X | 322.89433 | 141.66834 | 296.96165 | 2.59591 | 0.1977646 | 0.23894434 | 2.5720035 | 20 | 12 31.7 | 19.1 |
| 205127 1999 VF ₁₄₇ | 17.4 | X | 299.28331 | 282.78688 | 144.26760 | 1.39905 | 0.1960634 | 0.23289600 | 2.6163431 | 20 | 10 19.9 | 19.7 |
| 205128 1999 VV ₁₅₂ | 16.6 | X | 114.29519 | 86.28400 | 72.09641 | 7.70076 | 0.2399050 | 0.21653775 | 2.7465044 | 20 | 7 27.6 | 21.2 |
| 205129 1999 VO ₁₅₇ | 15.8 | X | 156.58283 | 350.27459 | 16.38242 | 8.35420 | 0.1173896 | 0.25827246 | 2.4420280 | 20 | 2 18.2 | 19.4 |
| 205130 1999 VO ₁₅₉ | 16.8 | X | 50.97193 | 349.80279 | 6.30180 | 3.14657 | 0.2468008 | 0.24295469 | 2.5436217 | 20 | — | — |
| 205131 1999 VL ₁₆₆ | 16.7 | X | 294.54317 | 50.09303 | 20.25617 | 3.38593 | 0.2109979 | 0.23282860 | 2.6168480 | 20 | 10 12.3 | 19.1 |
| 205132 1999 VJ ₁₆₈ | 16.6 | X | 285.24411 | 160.69449 | 295.76586 | 2.08749 | 0.1851847 | 0.23350224 | 2.6118126 | 20 | 11 4.3 | 19.4 |
| 205133 1999 VK ₁₇₁ | 15.9 | X | 328.24111 | 0.26894 | 53.66062 | 15.87821 | 0.0538189 | 0.23526051 | 2.5987830 | 20 | 11 26.7 | 19.2 |
| 205134 1999 VQ ₁₇₁ | 15.5 | X | 240.27795 | 179.53718 | 198.73371 | 2.39924 | 0.2678729 | 0.12556431 | 3.9496496 | 20 | 5 15.9 | 21.8 |
| 205135 1999 VM ₁₈₃ | 15.9 | X | 276.11358 | 45.46106 | 46.27057 | 12.57656 | 0.1604885 | 0.23392130 | 2.6086924 | 20 | 10 20.6 | 18.9 |
| 205136 1999 VM ₁₉₃ | 16.6 | X | 277.37011 | 191.48383 | 240.76451 | 2.80302 | 0.1843020 | 0.23224030 | 2.6212654 | 20 | 9 16.6 | 19.8 |
| 205137 1999 VG ₁₉₈ | 15.8 | X | 289.60086 | 351.15205 | 83.07920 | 10.11012 | 0.2201315 | 0.23346367 | 2.6121003 | 20 | 10 12.9 | 18.6 |
| 205138 1999 VP ₂₀₁ | 16.1 | X | 292.96473 | 51.69434 | 354.77945 | 4.59963 | 0.1937768 | 0.23095736 | 2.6309636 | 20 | 9 6.7 | 19.0 |
| 205139 1999 VV ₂₂₁ | 16.6 | X | 332.17696 | 73.23481 | 347.54864 | 2.78856 | 0.1916636 | 0.24036163 | 2.5618830 | 20 | 12 25.4 | 19.0 |
| 205140 1999 WC ₁₁ | 15.8 | X | 314.62219 | 11.50356 | 68.05187 | 12.94995 | 0.0788187 | 0.23651648 | 2.5895747 | 20 | 12 11.7 | 18.7 |
| 205141 1999 WR ₁₄ | 17.1 | X | 208.33391 | 262.62254 | 115.82607 | 0.37479 | 0.0871390 | 0.21583317 | 2.7524784 | 20 | 4 26.2 | 21.2 |
| 205142 1999 WQ ₁₅ | 17.4 | X | 326.95475 | 215.05220 | 212.29348 | 1.56439 | 0.0811534 | 0.23783398 | 2.5800024 | 20 | 12 16.0 | 20.4 |
| 205143 1999 WD ₁₈ | 16.6 | X | 319.84400 | 175.38114 | 225.26948 | 5.69997 | 0.0578282 | 0.23364241 | 2.6107679 | 20 | 10 26.9 | 19.5 |
| 205144 1999 XX ₉ | 16.5 | X | 329.04115 | 355.46192 | 43.91019 | 4.30684 | 0.1029993 | 0.23686393 | 2.5870417 | 20 | 11 11.3 | 19.2 |
| 205145 1999 XK ₃₆ | 16.1 | X | 284.68339 | 304.35021 | 83.22240 | 8.53218 | 0.2958897 | 0.22685853 | 2.6625594 | 20 | 7 9.1 | 19.6 |
| 205146 1999 XC ₄₃ | 15.4 | X | 217.30075 | 222.50784 | 245.51925 | 13.39006 | 0.0745551 | 0.22725148 | 2.6594892 | 20 | 8 26.2 | 19.6 |
| 205147 1999 XR ₅₃ | 16.5 | X | 305.42497 | 309.97431 | 80.43166 | 6.01263 | 0.2588963 | 0.23011485 | 2.6373814 | 20 | 8 30.6 | 18.9 |
| 205148 1999 XR ₈₉ | 15.6 | X | 292.91539 | 128.63794 | 275.53140 | 12.38674 | 0.1614707 | 0.22652445 | 2.6651766 | 20 | 8 30.6 | 18.9 |
| 205149 1999 XS ₁₁₀ | 16.0 | X | 270.84421 | 197.36832 | 271.00657 | 4.91023 | 0.2558404 | 0.23326066 | 2.6136156 | 20 | 10 13.7 | 19.1 |
| 205150 1999 XD ₁₂₄ | 17.0 | X | 319.65180 | 42.98045 | 344.87420 | 4.59738 | 0.3067556 | 0.23252315 | 2.6191392 | 20 | 9 24.1 | 18.5 |
| 205151 1999 XE ₁₄₇ | 17.1 | X | 8.50686 | 310.68475 | 64.32530 | 4.51742 | 0.1913893 | 0.23732192 | 2.5837123 | 20 | 12 25.4 | 20.1 |
| 205152 1999 XK ₁₅₆ | 16.0 | X | 196.37498 | 56.69168 | 91.09927 | 14.96883 | 0.1285544 | 0.22630932 | 2.6668654 | 20 | 10 2.8 | 20.4 |
| 205153 1999 XV ₁₈₆ | 16.3 | X | 280.53604 | 127.72779 | 292.34698 | 10.96525 | 0.2831578 | 0.22902466 | 2.6457444 | 20 | 8 15.9 | 19.7 |
| 205154 1999 XP ₁₈₇ | 15.6 | X | 284.49218 | 157.89868 | 290.55894 | 12.68457 | 0.2088182 | 0.23189057 | 2.6239003 | 20 | 10 11.8 | 18.8 |
| 205155 1999 XE ₁₉₇ | 16.4 | X | 235.99087 | 149.54942 | 315.92715 | 7.49819 | 0.2476368 | 0.22548367 | 2.6733715 | 20 | 8 28.8 | 20.7 |
| 205156 1999 XM ₁₉₉ | 16.0 | X | 127.43952 | 79.55193 | 38.23559 | 8.56012 | 0.1866105 | 0.21276626 | 2.6778656 | 20 | 6 11.9 | 20.5 |
| 205157 1999 XL ₂₂₃ | 16.4 | X | 208.88680 | 324.01283 | 102.66114 | 12.00909 | 0.1538728 | 0.21689356 | 2.7434998 | 20 | 6 23.7 | 20.7 |
| 205158 1999 XR ₂₃₄ | 16.2 | X | 336.01297 | 264.47294 | 156.56393 | 5.23838 | 0.2253508 | 0.23685193 | 2.5871291 | 20 | — | — |
| 205159 1999 XE ₂₃₆ | 15.7 | X | 23.61161 | 284.81650 | 68.11315 | 12.14320 | 0.0579380 | 0.23563349 | 2.5960400 | 20 | 11 27.6 | 18.8 |
| 205160 1999 XT ₂₃₈ | 16.1 | X | 27.52868 | 101.29971 | 296.06782 | 4.23961 | 0.0923855 | 0.24205021 | 2.5499544 | 20 | — | — |
| 205161 1999 XU ₂₅₄ | 17.0 | X | 197.43389 | 122.21331 | 290.12622 | 2.97055 | 0.2074196 | 0.21483173 | 2.7610256 | 20 | 5 23.6 | 21.6 |
| 205162 2000 AV ₄₄ | 16.0 | X | 312.92043 | 255.81028 | 100.41786 | 7.40357 | 0.0576861 | 0.22009063 | 2.7168668 | 20 | 8 17.1 | 19.4 |
| 205163 2000 AK ₁₃₃ | 15.0 | X | 259.08391 | 89.13450 | 11.02495 | 26.40850 | 0.2906159 | 0.22480332 | 2.6787627 | 20 | 9 19.5 | 18.8 |
| 205164 2000 AK ₁₃₄ | 16.0 | X | 278.03795 | 122.45396 | 58.22792 | 5.56571 | 0.2539582 | 0.23761410 | 2.5815938 | 20 | — | — |
| 205165 2000 AS ₁₄₉ | 15.3 | X | 242.38098 | 143.44576 | 236.64347 | 8.43435 | 0.2235076 | 0.21779425 | 2.7363077 | 20 | 5 22.4 | 19.5 |
| 205166 2000 AL ₁₆₈ | 16.3 | X | 223.28645 | 321.65697 | 135.16501 | 10.02753 | 0.1651403 | 0.22163143 | 2.7042603 | 20 | 8 15.3 | 20.4 |
| 205167 2000 AR ₁₉₆ | 15.9 | X | 216.69022 | 346.75003 | 145.79420 | 14.36057 | 0.2609035 | 0.22333376 | 2.6905008 | 20 | 9 16.0 | 20.4 |
| 205168 2000 AC ₂₁₄ | 15.1 | X | 100.18047 | 283.60706 | 297.83370 | 24.92952 | 0.1615279 | 0.21864321 | 2.7288440 | 20 | 9 8.1 | 19.8 |
| 205169 2000 AV ₂₁₅ | 16.2 | X | 283.16159 | 103.36244 | 354.99157 | 6.32281 | 0.2065200 | 0.22979088 | 2.6398597 | 20 | 10 28.4 | 18.9 |
| 205170 2000 AH ₂₁₈ | 16.3 | X | 126.38956 | 159.72773 | 96.97927 | 2.94050 | 0.0486630 | 0.22932295 | 2.6434496 | 20 | 11 28.1 | 19.9 |
| 205171 2000 AB ₂₃₂ | 16.1 | X | 81.56949 | 58.75508 | 296.09038 | 2.25168 | 0.2277905 | 0.24139634 | 2.5545570 | 20 | — | — |
| 205172 2000 AY ₂₃₂ | 15.9 | X | 252.78650 | 14.85027 | 59.64436 | 4.39384 | 0.2805300 | 0.22343048 | 2.6897244 | 20 | 8 5.3 | 20.0 |
| 205173 2000 AS ₂₃₈ | 16.5 | X | 180.04154 | 160.13711 | 305.91206 | 4.83441 | 0.1291062 | 0.21611766 | 2.7500624 | 20 | 7 16.5 | 20.8 |
| 205174 2000 BO | 15.8 | X | 274.09995 | 304.81194 | 129.09908 | 14.39171 | 0.2577174 | 0.22583305 | 2.6706135 | 20 | 9 5.1 | 19.2 |
| 205175 2000 BL ₅ | 16.0 | X | 307.77343 | 89.72427 | 338.19364 | 14.29458 | 0.1552610 | 0.23072346 | 2.6327415 | 20 | 11 2.7 | 19.1 |
| 205176 2000 BV ₂₁ | 16.4 | X | 193.17306 | 153.42329 | 115.76835 | 7.63080 | 0.1563105 | 0.21711411 | 2.7416416 | 20 | 8 1.5 | 20.7 |
| 205177 2000 CU ₃ | 16.0 | X | 190.82774 | 324.23109 | 320.59145 | 10.47818 | 0.2298947 | 0.21690196 | 2.7434290 | 20 | 6 27.3 | 20.8 |
| 205178 2000 CC ₁₂ | 16.1 | X | 237.35442 | 334.52852 | 133.45762 | 9.15933 | 0.2104594 | 0.22443542 | 2.6816892 | 20 | 9 10.4 | 20.1 |
| 205179 2000 CG ₁₇ | 15.5 | X | 150.95051 | 131.80955 | 57.62362 | 13.76458 | 0.1089853 | 0.21992233 | 2.7182527 | 20 | 10 7.2 | 19.9 |
| 205180 2000 CG ₇₄ | 16.3 | X | 93.68541 | 103.17237 | 133.91172 | 5.85455 | 0.1016780 | 0.21858864 | 2.7292982 | 20 | 10 2.2 | 20.3 |
| 205181 2000 CS ₈₂ | 16.0 | X | 150.80872 | 253.22473 | 328.34847 | 2.70171 | 0.1598010 | 0.22235427 | 2.6983963 | 20 | 11 7.8 | 20.3 |
| 205182 2000 CR ₁₁₀ | 15.9 | X | 205.58123 | 108.44237 | 319.01789 | 9.00789 | 0.1641384 | 0.21394921 | 2.7686131 | 20 | 6 21.1 | 20.4 |
| 205183 2000 CM ₁₁₃ | 15.8 | X | 217.80532 | 352.08116 | 136.31666 | 14.64301 | 0.0631767 | 0.22254946 | 2.6968183 | 20 | 10 5.2 | 19.8 |
| 205184 2000 DC ₄ | 15.5 | X | 115.81418 | 72.72966 | 132.67602 | 15.75987 | 0.1001045 | 0.21667767 | 2.7453219 | 20 | 9 17.7 | 19.8 |
| 205185 2000 DO ₆ | 15.6 | X | 259.21101 | 125.87686 | 357.11781 | 9.79710 | 0.1599998 | 0.22741100 | 2.6582454 | 20 | 10 29.2 | 19.0 |
| 205186 2000 DZ ₁₀ | 16.7 | X | 222.38408 | 69.08826 | 335.58920 | 3.63509 | 0.0676310 | 0.21141984 | 2.7906512 | 20 | 6 16.1 | 20.8 |
| 205187 2000 DT ₁₈ | 15.5 | X | 311.43016 | 98.10382 | 319.96984 | 21.45481 | 0.0480297 | 0.22581721 | 2.6707384 | 20 | 10 25.8 | 19.5 |
| 205188 2000 DR ₄₂ | 16.1 | X | 146.95315 | 227.50804 | 347.55996 | 6.19343 | 0.1698275 | 0.22050896 | 2.7134296 | 20 | 10 26.2 | 20.7 |
| 205189 2000 DH ₄₆ | 16.3 | X | 103.89612 | 8.74051 | 187.29507 | 3.23102 | 0.1049483 | 0.21260385 | 2.7802806 | 20 | 8 18.5 | 20.5 |
| 205190 2000 DH ₄₇ | 16.4 | X | 174.17368 | 138.09355 | 386.79051 | 7.04785 | 0.1113042 | 0.21296851 | 2.7771060 | 20 | 7 23.1 | 20.7 |
| 205191 2000 DK ₄₇ | 16.1 | X | 31.27803 | 297.35472 | 325.33530 | 2.71450 | 0.0519300 | 0.21193428 | 2.7861334 | 20 | 8 4.7 | 19.6 |
| 205192 2000 DS ₆₂ | 16.8 | X | 224.40553 | 306.55623 | 176.05356 | 2.37881 | 0.1538787 | 0.22109301 | 2.7086488 | 20 | 9 19.1 | 20.6 |
| 205193 2000 DO ₆₈ | 15.9 | X | 230.03477 | 103.02161 | 306.0 | | | | | | | |

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 |
|-------------------------------|------|-----|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 205201 2000 EG ₁₃₈ | 15.8 | X | 98.03423 | 128.05907 | 163.81526 | 14.07160 | 0.1176533 | 0.22426106 | 2.6830790 | 20 | 12 14.4 | 20.2 |
| 205202 2000 ES ₁₆₄ | 16.4 | X | 129.44178 | 327.11818 | 231.12517 | 0.72645 | 0.1396205 | 0.21514312 | 2.7583608 | 20 | 9 20.6 | 20.7 |
| 205203 2000 EQ ₁₇₄ | 15.9 | X | 170.41837 | 32.62533 | 170.68936 | 12.00233 | 0.0511983 | 0.22155126 | 2.7049126 | 20 | 11 12.3 | 19.9 |
| 205204 2000 EO ₁₇₈ | 17.0 | X | 117.75041 | 88.49099 | 96.74157 | 3.37423 | 0.1590003 | 0.21296911 | 2.7771008 | 20 | 8 26.7 | 21.4 |
| 205205 2000 FA ₁ | 15.5 | X | 259.90879 | 156.48475 | 168.55122 | 2.16365 | 0.0686003 | 0.19980292 | 2.8977984 | 20 | 4 19.9 | 19.7 |
| 205206 2000 GU ₃₀ | 15.9 | X | 141.99303 | 202.16973 | 18.54610 | 4.48963 | 0.0967997 | 0.21781944 | 2.7357198 | 20 | 10 29.2 | 20.0 |
| 205207 2000 GB ₄₀ | 16.1 | X | 125.03156 | 154.58330 | 20.08864 | 6.51536 | 0.1229731 | 0.20977267 | 2.8052405 | 20 | 8 19.2 | 20.4 |
| 205208 2000 GG ₄₃ | 15.4 | X | 72.44377 | 168.16828 | 21.43299 | 12.83947 | 0.0473092 | 0.20380165 | 2.8597688 | 20 | 6 23.1 | 19.5 |
| 205209 2000 GA ₆₁ | 16.2 | X | 339.99538 | 273.11311 | 32.96470 | 6.63419 | 0.0581118 | 0.20636790 | 2.8360113 | 20 | 7 18.5 | 19.9 |
| 205210 2000 GK ₈₆ | 15.4 | X | 169.23932 | 145.54413 | 58.21147 | 17.14736 | 0.2013346 | 0.22017675 | 2.7161583 | 20 | 11 4.8 | 20.0 |
| 205211 2000 GJ ₁₃₃ | 15.8 | X | 145.42791 | 46.47969 | 171.28038 | 8.04435 | 0.1582624 | 0.21704515 | 2.7422223 | 20 | 10 31.8 | 20.3 |
| 205212 2000 HW ₈ | 17.0 | X | 183.48805 | 91.58754 | 197.53272 | 4.89963 | 0.2435372 | 0.27655343 | 2.3331895 | 20 | — | — |
| 205213 2000 HC ₃₂ | 17.9 | X | 121.05831 | 349.58845 | 231.15180 | 2.54743 | 0.1203213 | 0.31102954 | 2.1574213 | 20 | 10 22.6 | 20.9 |
| 205214 2000 JG ₆₇ | 16.3 | X | 198.05314 | 300.42956 | 36.22344 | 1.94850 | 0.1556396 | 0.18837932 | 3.0137964 | 20 | 2 27.0 | 21.2 |
| 205215 2000 JH ₉₄ | 16.2 | X | 124.16412 | 87.85622 | 178.32157 | 5.76826 | 0.1637658 | 0.22071524 | 2.7117387 | 20 | 12 8.7 | 20.6 |
| 205216 2000 MU ₂ | 15.9 | X | 28.46082 | 78.05388 | 132.13852 | 5.30102 | 0.1981088 | 0.19712863 | 2.9239476 | 20 | 6 4.7 | 19.0 |
| 205217 2000 ON ₄₀ | 14.7 | X | 190.09109 | 345.79363 | 306.84099 | 26.23666 | 0.1406503 | 0.17193420 | 3.2030314 | 20 | 1 5.9 | 20.0 |
| 205218 2000 OB ₄₆ | 15.5 | X | 91.06859 | 225.14962 | 164.70755 | 23.50817 | 0.2667434 | 0.26542842 | 2.3979370 | 20 | 1 13.9 | 18.5 |
| 205219 2000 OA ₅₆ | 16.3 | X | 155.07259 | 52.52175 | 308.31274 | 6.24615 | 0.2146764 | 0.27452053 | 3.4446940 | 20 | 2 12.1 | 19.8 |
| 205220 2000 PP ₂₇ | 15.1 | X | 172.68286 | 171.45981 | 151.38986 | 5.51389 | 0.1376534 | 0.17310312 | 3.1885956 | 20 | 1 19.9 | 20.3 |
| 205221 2000 QS ₃₁ | 16.2 | X | 130.24493 | 31.35853 | 27.75473 | 6.10790 | 0.2131167 | 0.27600947 | 2.3362540 | 20 | 4 3.4 | 19.5 |
| 205222 2000 QV ₄₃ | 16.3 | X | 113.29300 | 239.51803 | 158.55240 | 8.17149 | 0.1188325 | 0.27255646 | 2.3559445 | 20 | 2 1.3 | 19.1 |
| 205223 2000 QQ ₅₂ | 15.1 | X | 264.40289 | 145.90690 | 147.61055 | 13.26775 | 0.1125211 | 0.18194357 | 3.0844535 | 20 | 3 14.5 | 19.7 |
| 205224 2000 QT ₅₄ | 16.3 | X | 106.26157 | 113.19643 | 298.48192 | 4.84465 | 0.2483511 | 0.27095716 | 2.3652059 | 20 | 2 29.4 | 19.4 |
| 205225 2000 QK ₆₀ | 16.7 | X | 201.53410 | 51.91594 | 342.89530 | 6.40089 | 0.1902746 | 0.28374222 | 2.2936127 | 20 | 5 4.5 | 20.1 |
| 205226 2000 QS ₇₁ | 17.2 | X | 284.16356 | 351.90022 | 307.10440 | 2.20258 | 0.1662138 | 0.28527879 | 2.2853693 | 20 | 3 25.5 | 20.1 |
| 205227 2000 QV ₇₅ | 15.1 | X | 180.87558 | 2.35909 | 334.81776 | 7.98214 | 0.0774109 | 0.17457327 | 3.1706689 | 20 | 2 11.8 | 19.8 |
| 205228 2000 QH ₁₀₀ | 16.4 | X | 120.55943 | 333.98534 | 41.24172 | 4.48781 | 0.2238353 | 0.26834000 | 2.3805598 | 20 | 1 30.1 | 19.6 |
| 205229 2000 QK ₁₀₃ | 16.0 | X | 133.25659 | 311.67186 | 71.35980 | 6.91062 | 0.1938383 | 0.27071913 | 2.3665921 | 20 | 2 20.7 | 19.5 |
| 205230 2000 QW ₁₀₃ | 16.8 | X | 149.17583 | 304.85391 | 79.20926 | 3.62159 | 0.1686635 | 0.27355315 | 2.3502185 | 20 | 3 6.9 | 20.3 |
| 205231 2000 QY ₁₁₀ | 17.5 | X | 286.85629 | 146.43498 | 164.96148 | 5.30435 | 0.1753111 | 0.28660285 | 2.2783252 | 20 | 4 16.6 | 20.3 |
| 205232 2000 QF ₁₁₅ | 16.9 | X | 20.69948 | 2.73424 | 281.97523 | 3.24300 | 0.1764578 | 0.29717376 | 2.2239708 | 20 | 9 17.7 | 19.1 |
| 205233 2000 QO ₁₁₈ | 16.4 | X | 259.40077 | 34.84491 | 291.66766 | 4.47018 | 0.1965990 | 0.28365442 | 2.2940859 | 20 | 3 29.2 | 19.9 |
| 205234 2000 QZ ₁₂₀ | 16.8 | X | 161.16216 | 64.98061 | 306.60802 | 6.08878 | 0.1938026 | 0.27369022 | 2.3494337 | 20 | 2 28.4 | 20.5 |
| 205235 2000 QH ₁₂₉ | 17.1 | X | 102.50579 | 136.30354 | 234.49704 | 1.79942 | 0.2013426 | 0.26599843 | 2.3945100 | 20 | — | — |
| 205236 2000 QB ₁₃₁ | 16.9 | X | 278.02588 | 336.62719 | 311.07979 | 5.84136 | 0.1816394 | 0.28433641 | 2.2904162 | 20 | 2 29.6 | 20.2 |
| 205237 2000 QO ₁₆₀ | 16.7 | X | 312.05906 | 48.96001 | 248.47099 | 5.91044 | 0.1181972 | 0.28812484 | 2.2702948 | 20 | 5 12.6 | 18.8 |
| 205238 2000 QU ₁₆₁ | 16.7 | X | 296.54251 | 0.45352 | 296.24905 | 11.12706 | 0.1688503 | 0.28740178 | 2.2741014 | 20 | 4 1.4 | 19.7 |
| 205239 2000 QV ₁₇₃ | 16.6 | X | 217.09025 | 131.68271 | 202.21733 | 6.67088 | 0.1435227 | 0.27969584 | 2.3156809 | 20 | 3 1.7 | 20.3 |
| 205240 2000 QT ₁₇₅ | 17.4 | X | 99.25981 | 102.30567 | 276.72446 | 3.85230 | 0.2497887 | 0.26621398 | 2.3932174 | 20 | 1 9.6 | 20.0 |
| 205241 2000 QO ₁₇₇ | 16.9 | X | 202.81445 | 52.70652 | 288.22849 | 1.78503 | 0.1973987 | 0.27692684 | 2.3310916 | 20 | 2 27.7 | 20.7 |
| 205242 2000 QQ ₁₈₅ | 15.9 | X | 119.21778 | 313.28712 | 51.31092 | 4.89998 | 0.2492977 | 0.26869381 | 2.3784696 | 20 | 1 17.7 | 19.0 |
| 205243 2000 QT ₁₈₅ | 16.2 | X | 150.83203 | 330.92660 | 23.93685 | 4.14964 | 0.1717887 | 0.27251097 | 2.3562067 | 20 | 1 29.9 | 19.7 |
| 205244 2000 QA ₁₈₉ | 15.9 | X | 154.37760 | 321.24607 | 24.17985 | 6.82951 | 0.1626696 | 0.27177187 | 2.3604767 | 20 | 1 21.4 | 19.4 |
| 205245 2000 QR ₁₉₂ | 16.9 | X | 237.99536 | 228.26124 | 88.81373 | 4.76091 | 0.2393867 | 0.28063727 | 2.3104992 | 20 | 2 28.8 | 20.8 |
| 205246 2000 QA ₂₀₁ | 16.8 | X | 165.32559 | 288.79278 | 43.77636 | 2.85743 | 0.2211360 | 0.27177996 | 2.3604298 | 20 | 1 19.9 | 20.6 |
| 205247 2000 QD ₂₀₃ | 16.9 | X | 193.50463 | 307.01622 | 43.02286 | 3.47845 | 0.1902946 | 0.27712873 | 2.3299594 | 20 | 3 4.2 | 20.6 |
| 205248 2000 QT ₂₀₃ | 14.9 | X | 198.84437 | 184.81902 | 137.32256 | 8.33199 | 0.2048444 | 0.17624381 | 3.1506015 | 20 | 2 11.6 | 20.1 |
| 205249 2000 QY ₂₀₄ | 17.2 | X | 166.59747 | 27.21629 | 340.02581 | 3.09847 | 0.1886252 | 0.27463887 | 2.3440204 | 20 | 2 29.4 | 20.9 |
| 205250 2000 QV ₂₀₆ | 17.2 | X | 176.17265 | 215.49505 | 118.29704 | 2.21791 | 0.2072770 | 0.27242343 | 2.3567115 | 20 | 1 29.2 | 21.0 |
| 205251 2000 QT ₂₁₁ | 17.1 | X | 88.26818 | 69.19297 | 337.06015 | 4.87290 | 0.2582214 | 0.26767051 | 2.3845277 | 20 | 2 1.6 | 19.4 |
| 205252 2000 QH ₂₂₁ | 16.6 | X | 243.80796 | 192.54887 | 125.88524 | 9.23850 | 0.1549038 | 0.28214142 | 2.3022801 | 20 | 3 12.4 | 20.1 |
| 205253 2000 RH ₂₂ | 16.2 | X | 253.02438 | 32.48364 | 281.18506 | 7.32729 | 0.1244424 | 0.27927558 | 2.3180034 | 20 | 3 11.5 | 19.8 |
| 205254 2000 RP ₄₃ | 16.0 | X | 137.32791 | 47.02417 | 341.48061 | 11.93202 | 0.2038869 | 0.27091193 | 2.3654692 | 20 | 2 29.9 | 19.5 |
| 205255 2000 RY ₄₆ | 16.1 | X | 118.65364 | 44.35925 | 331.18505 | 3.51369 | 0.2247955 | 0.26681823 | 2.3896028 | 20 | 1 27.6 | 19.2 |
| 205256 2000 RS ₇₈ | 16.7 | X | 199.28898 | 18.17544 | 340.28123 | 6.63250 | 0.1132654 | 0.27836113 | 2.3230773 | 20 | 3 16.6 | 20.1 |
| 205257 2000 RT ₇₈ | 16.9 | X | 113.39022 | 95.63555 | 307.57424 | 6.32382 | 0.1992379 | 0.27004073 | 2.3705541 | 20 | 2 20.3 | 20.1 |
| 205258 2000 RO ₈₃ | 17.0 | X | 188.96516 | 16.77076 | 314.39121 | 7.39933 | 0.2013605 | 0.27339824 | 2.3511062 | 20 | 2 5.2 | 20.8 |
| 205259 2000 RA ₈₉ | 16.8 | X | 96.57597 | 56.42946 | 321.03154 | 4.43161 | 0.2517778 | 0.26546236 | 2.3977326 | 20 | 1 4.5 | 19.2 |
| 205260 2000 RO ₉₃ | 17.4 | X | 263.25251 | 295.06002 | 32.55448 | 2.60491 | 0.2229314 | 0.28396747 | 2.2923996 | 20 | 4 3.8 | 20.6 |
| 205261 2000 RR ₁₀₀ | 16.3 | X | 49.67800 | 177.62575 | 255.69555 | 13.04502 | 0.2414513 | 0.26308571 | 2.4121513 | 20 | — | — |
| 205262 2000 SJ ₁₆ | 16.6 | X | 155.95326 | 46.54310 | 324.20963 | 6.66125 | 0.1254095 | 0.27313224 | 2.3526324 | 20 | 2 18.2 | 20.0 |
| 205263 2000 ST ₃₀ | 16.7 | X | 144.94824 | 356.97262 | 24.77813 | 5.56954 | 0.1418770 | 0.27285736 | 2.3542122 | 20 | 2 24.7 | 20.0 |
| 205264 2000 SV ₃₃ | 16.9 | X | 287.56488 | 175.62045 | 147.12714 | 4.36645 | 0.1081865 | 0.28596625 | 2.2817052 | 20 | 5 15.2 | 19.5 |
| 205265 2000 SB ₃₈ | 16.5 | X | 198.01580 | 189.77032 | 155.98845 | 5.35648 | 0.1404673 | 0.27576193 | 2.3376519 | 20 | 2 29.9 | 20.1 |
| 205266 2000 SM ₅₁ | 17.3 | X | 275.59514 | 27.38217 | 291.58410 | 3.15538 | 0.1332653 | 0.28503848 | 2.2866536 | 20 | 4 15.5 | 20.2 |
| 205267 2000 SE ₅₅ | 16.7 | X | 26.72887 | 272.15960 | 358.71078 | 5.62035 | 0.197 | | | | | |

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 | | |
|--------|------|-------------------|------|---|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 205281 | 2000 | SH ₁₃₈ | 16.1 | X | 121.19098 | 185.74549 | 210.95216 | 10.25928 | 0.1453988 | 0.27008379 | 2.3703021 | 20 | 2 11.3 | 19.4 |
| 205282 | 2000 | SU ₁₄₀ | 16.2 | X | 95.53581 | 68.65906 | 350.12814 | 6.56557 | 0.1054096 | 0.26888600 | 2.3773361 | 20 | 2 5.8 | 18.9 |
| 205283 | 2000 | ST ₁₄₈ | 17.3 | X | 118.52774 | 95.54896 | 258.38669 | 1.21197 | 0.2230278 | 0.26480076 | 2.4017247 | 20 | — | — |
| 205284 | 2000 | SQ ₁₅₄ | 16.9 | X | 218.35704 | 240.80829 | 58.99036 | 3.13819 | 0.3268294 | 0.27418111 | 2.3466286 | 20 | 1 22.8 | 21.2 |
| 205285 | 2000 | SD ₁₅₆ | 17.2 | X | 179.69861 | 341.29378 | 17.71105 | 3.12015 | 0.1765132 | 0.27382492 | 2.3486631 | 20 | 3 2.4 | 20.8 |
| 205286 | 2000 | SL ₁₆₇ | 16.6 | X | 109.81501 | 84.70880 | 317.76266 | 6.81903 | 0.1264225 | 0.26870339 | 2.3784131 | 20 | 2 5.5 | 19.4 |
| 205287 | 2000 | SY ₁₇₃ | 14.6 | X | 39.35792 | 67.63290 | 326.81315 | 15.51332 | 0.1970237 | 0.15823904 | 3.3852724 | 20 | — | — |
| 205288 | 2000 | SX ₂₀₃ | 16.6 | X | 285.80837 | 221.55266 | 55.43870 | 2.66398 | 0.1966511 | 0.28033034 | 2.3121853 | 20 | 2 25.9 | 19.7 |
| 205289 | 2000 | SZ ₂₀₈ | 16.1 | X | 132.72782 | 313.11475 | 43.66608 | 8.80674 | 0.2130734 | 0.26802758 | 2.3824094 | 20 | 1 19.2 | 19.6 |
| 205290 | 2000 | SH ₂₁₀ | 17.0 | X | 179.11811 | 222.10905 | 120.05297 | 5.72159 | 0.2159460 | 0.27267564 | 2.3552580 | 20 | 2 11.9 | 20.7 |
| 205291 | 2000 | SV ₂₁₀ | 16.7 | X | 112.12842 | 272.89649 | 121.19241 | 6.50329 | 0.2586835 | 0.26800513 | 2.3825425 | 20 | 2 18.2 | 19.8 |
| 205292 | 2000 | SQ ₂₂₉ | 16.6 | X | 98.10922 | 203.06086 | 204.61623 | 3.13789 | 0.1801244 | 0.26682544 | 2.3895597 | 20 | 2 3.6 | 19.3 |
| 205293 | 2000 | SH ₂₄₉ | 16.8 | X | 244.98256 | 196.43097 | 163.15878 | 9.39689 | 0.1462122 | 0.28402707 | 2.2920789 | 20 | 5 7.5 | 20.2 |
| 205294 | 2000 | ST ₂₅₃ | 16.7 | X | 184.09132 | 289.12963 | 152.55510 | 7.16773 | 0.0603299 | 0.28534666 | 2.2850069 | 20 | 6 22.4 | 19.8 |
| 205295 | 2000 | SF ₂₅₉ | 16.6 | X | 114.71192 | 243.59773 | 179.80878 | 6.21431 | 0.0892718 | 0.27149083 | 2.3621054 | 20 | 3 4.3 | 19.4 |
| 205296 | 2000 | SY ₂₆₀ | 16.1 | X | 11.45607 | 237.56327 | 163.41931 | 5.31512 | 0.1771913 | 0.25322980 | 2.4743408 | 20 | — | — |
| 205297 | 2000 | SL ₂₆₃ | 16.9 | X | 42.09586 | 80.63295 | 349.35417 | 6.17204 | 0.1677041 | 0.26339079 | 2.4102883 | 20 | — | — |
| 205298 | 2000 | SS ₂₆₅ | 16.8 | X | 42.80418 | 265.00265 | 155.08601 | 6.66845 | 0.1870631 | 0.26084496 | 2.4259457 | 20 | — | — |
| 205299 | 2000 | SN ₂₆₆ | 17.1 | X | 124.93631 | 280.59386 | 89.51406 | 2.37756 | 0.1926663 | 0.26752912 | 2.3853678 | 20 | 1 23.2 | 20.1 |
| 205300 | 2000 | SW ₂₆₇ | 16.8 | X | 73.47169 | 249.40916 | 208.72757 | 4.30847 | 0.1547809 | 0.27115100 | 2.3640786 | 20 | 3 1.4 | 19.3 |
| 205301 | 2000 | SG ₂₇₁ | 16.4 | X | 116.61995 | 251.19631 | 153.38196 | 6.59370 | 0.1115335 | 0.26907313 | 2.3762337 | 20 | 2 14.5 | 19.3 |
| 205302 | 2000 | SM ₂₇₁ | 16.4 | X | 105.78254 | 343.36931 | 60.91825 | 7.57041 | 0.1227781 | 0.26726336 | 2.3869488 | 20 | 2 4.7 | 19.4 |
| 205303 | 2000 | ST ₂₉₁ | 16.4 | X | 163.32146 | 23.05295 | 263.14769 | 2.28514 | 0.2204380 | 0.26480380 | 2.4017063 | 20 | — | — |
| 205304 | 2000 | SF ₂₉₃ | 15.9 | X | 223.99809 | 48.72699 | 283.17699 | 6.99188 | 0.1770040 | 0.27607808 | 2.3358669 | 20 | 3 3.5 | 19.7 |
| 205305 | 2000 | SS ₃₀₃ | 15.8 | X | 325.13758 | 69.00147 | 326.53701 | 8.41765 | 0.1667085 | 0.24696094 | 2.5160381 | 20 | 10 29.4 | 18.2 |
| 205306 | 2000 | SH ₃₀₄ | 16.6 | X | 121.94587 | 89.02929 | 296.43746 | 5.47434 | 0.1551338 | 0.26863296 | 2.3788288 | 20 | 2 2.1 | 19.5 |
| 205307 | 2000 | SD ₃₄₅ | 16.3 | X | 8.53883 | 258.71999 | 262.91267 | 9.25907 | 0.0624642 | 0.27290940 | 2.3539129 | 20 | 2 1.7 | 19.0 |
| 205308 | 2000 | SW ₃₆₈ | 16.9 | X | 202.05561 | 180.31731 | 152.06586 | 3.12940 | 0.1928148 | 0.27422838 | 2.3463590 | 20 | 2 17.4 | 20.7 |
| 205309 | 2000 | SQ ₃₇₆ | 17.1 | X | 301.14352 | 152.39423 | 161.34330 | 5.37309 | 0.0915112 | 0.28696427 | 2.2764118 | 20 | 5 25.8 | 19.6 |
| 205310 | 2000 | TH ₁₁ | 17.1 | X | 94.91065 | 273.50361 | 141.70050 | 1.61262 | 0.1751850 | 0.26782169 | 2.3836302 | 20 | 2 9.5 | 19.8 |
| 205311 | 2000 | TS ₁₂ | 15.6 | X | 64.91547 | 95.04544 | 42.64400 | 22.92938 | 0.2789643 | 0.27159793 | 2.3614844 | 20 | 5 7.0 | 18.0 |
| 205312 | 2000 | TS ₁₆ | 17.2 | X | 182.77833 | 71.05802 | 252.48940 | 1.48476 | 0.2321163 | 0.27070895 | 2.3666515 | 20 | 1 23.3 | 21.0 |
| 205313 | 2000 | TM ₁₈ | 17.2 | X | 77.25789 | 194.86645 | 214.31992 | 2.97375 | 0.2095441 | 0.26379392 | 2.4078321 | 20 | 1 7.8 | 19.3 |
| 205314 | 2000 | TN ₁₉ | 17.2 | X | 57.44641 | 236.73552 | 167.65410 | 2.00790 | 0.1711396 | 0.26201090 | 2.4187435 | 20 | — | — |
| 205315 | 2000 | TG ₄₁ | 15.2 | X | 208.26328 | 283.27190 | 13.40417 | 6.51423 | 0.1432984 | 0.17305764 | 3.1891543 | 20 | 1 23.7 | 20.4 |
| 205316 | 2000 | TW ₄₈ | 16.5 | X | 334.52583 | 127.11723 | 139.79553 | 7.23431 | 0.1989423 | 0.28673989 | 2.2775992 | 20 | 4 28.4 | 18.4 |
| 205317 | 2000 | TJ ₆₁ | 16.9 | X | 56.27950 | 271.65809 | 75.39080 | 10.01049 | 0.2795051 | 0.25635840 | 2.4541683 | 20 | — | — |
| 205318 | 2000 | UA ₂₂ | 16.4 | X | 64.10200 | 275.36928 | 106.17699 | 3.54918 | 0.2004125 | 0.25900228 | 2.4374384 | 20 | — | — |
| 205319 | 2000 | UY ₂₄ | 16.9 | X | 184.58888 | 278.33729 | 88.47577 | 3.32351 | 0.1935641 | 0.27441461 | 2.3452973 | 20 | 3 17.8 | 20.7 |
| 205320 | 2000 | UZ ₂₅ | 16.7 | X | 106.70524 | 210.10342 | 160.03178 | 5.88304 | 0.2128741 | 0.26341265 | 2.4101427 | 20 | 1 2.8 | 19.5 |
| 205321 | 2000 | UF ₂₈ | 16.9 | X | 91.75784 | 294.66638 | 111.11088 | 2.13176 | 0.1855485 | 0.26526290 | 2.3989344 | 20 | 1 24.8 | 19.3 |
| 205322 | 2000 | UW ₂₉ | 15.4 | X | 77.40102 | 131.13193 | 18.99378 | 26.06529 | 0.2208861 | 0.27561990 | 2.3384549 | 20 | 5 25.5 | 18.8 |
| 205323 | 2000 | UJ ₃₄ | 17.0 | X | 45.59492 | 245.08523 | 216.79707 | 1.72299 | 0.1857353 | 0.26477472 | 2.4018822 | 20 | 1 17.1 | 18.8 |
| 205324 | 2000 | UI ₃₈ | 16.8 | X | 97.80413 | 300.70115 | 55.31289 | 2.05936 | 0.2026770 | 0.26105206 | 2.4246625 | 20 | — | — |
| 205325 | 2000 | UY ₃₈ | 16.3 | X | 56.82954 | 234.30606 | 208.89164 | 4.78064 | 0.1078311 | 0.26443473 | 2.4039406 | 20 | 1 6.6 | 18.8 |
| 205326 | 2000 | UG ₄₁ | 16.1 | X | 112.78705 | 159.13276 | 234.17383 | 5.81724 | 0.1553741 | 0.26632534 | 2.3925502 | 20 | 1 30.7 | 19.2 |
| 205327 | 2000 | UY ₄₈ | 16.5 | X | 77.46532 | 322.49714 | 55.27731 | 5.82678 | 0.1936675 | 0.25939851 | 2.4349557 | 20 | — | — |
| 205328 | 2000 | UF ₆₅ | 16.6 | X | 14.73430 | 183.20947 | 247.87350 | 5.51004 | 0.2013372 | 0.25744663 | 2.4472476 | 20 | — | — |
| 205329 | 2000 | UM ₆₆ | 16.7 | X | 57.51602 | 52.02225 | 10.10685 | 4.78650 | 0.1388170 | 0.26259444 | 2.4151589 | 20 | — | — |
| 205330 | 2000 | UA ₈₄ | 17.4 | X | 64.44435 | 277.33862 | 141.23655 | 2.64080 | 0.2003256 | 0.26303505 | 2.4124610 | 20 | — | — |
| 205331 | 2000 | UG ₉₀ | 16.6 | X | 23.20301 | 105.15063 | 347.84136 | 2.49203 | 0.1669853 | 0.25965833 | 2.4333311 | 20 | — | — |
| 205332 | 2000 | UZ ₉₂ | 16.7 | X | 135.52410 | 2.75283 | 5.69898 | 6.78952 | 0.1064432 | 0.26717828 | 2.3874555 | 20 | 1 23.7 | 19.9 |
| 205333 | 2000 | UG ₉₃ | 16.3 | X | 44.26971 | 111.54567 | 340.87702 | 6.00132 | 0.1324608 | 0.26367748 | 2.4085409 | 20 | — | — |
| 205334 | 2000 | UF ₉₄ | 16.6 | X | 118.58935 | 358.65135 | 359.60663 | 3.57872 | 0.1113184 | 0.26340177 | 2.4102213 | 20 | — | — |
| 205335 | 2000 | UB ₉₈ | 16.4 | X | 172.14918 | 57.35765 | 319.89434 | 3.46540 | 0.1567220 | 0.27284076 | 2.3543077 | 20 | 3 15.3 | 20.0 |
| 205336 | 2000 | UJ ₁₀₁ | 16.2 | X | 76.91736 | 153.53182 | 270.55320 | 6.07535 | 0.0894961 | 0.26362093 | 2.4088853 | 20 | 1 11.9 | 19.0 |
| 205337 | 2000 | VN ₇ | 16.4 | X | 89.98299 | 213.27094 | 222.57644 | 5.86107 | 0.1193768 | 0.26830787 | 2.3807499 | 20 | 2 18.8 | 19.3 |
| 205338 | 2000 | VH ₁₂ | 16.6 | X | 86.26453 | 333.31823 | 109.89321 | 2.61946 | 0.1451592 | 0.26795590 | 2.3828343 | 20 | 3 2.6 | 19.1 |
| 205339 | 2000 | VQ ₅₃ | 16.1 | X | 192.61767 | 298.39774 | 29.81172 | 6.75595 | 0.1679848 | 0.26990849 | 2.3713283 | 20 | 2 6.8 | 19.9 |
| 205340 | 2000 | VK ₅₅ | 16.1 | X | 149.74214 | 62.96007 | 269.23281 | 7.81373 | 0.2391379 | 0.26504498 | 2.4002491 | 20 | 1 6.6 | 19.7 |
| 205341 | 2000 | VN ₅₇ | 15.8 | X | 62.66110 | 305.57504 | 44.84047 | 7.95908 | 0.2792793 | 0.25449936 | 2.4661051 | 20 | — | — |
| 205342 | 2000 | WW ₅ | 16.6 | X | 112.68501 | 347.21023 | 19.63520 | 8.83769 | 0.1438233 | 0.26263081 | 2.4149358 | 20 | — | — |
| 205343 | 2000 | WP ₇ | 16.5 | X | 177.58099 | 240.84055 | 106.95369 | 7.72242 | 0.1451228 | 0.26979559 | 2.3719898 | 20 | 2 15.1 | 20.1 |
| 205344 | 2000 | WF ₁₈ | 16.9 | X | 169.36690 | 336.98942 | 23.77795 | 1.58647 | 0.1927657 | 0.26973051 | 2.3723713 | 20 | 2 | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 205361 2000 XQ ₅₀ | 15.3 | X | 282.56746 | 143.14201 | 296.40627 | 25.93363 | 0.2714992 | 0.24166882 | 2.5526364 | 20 | 9 5.8 | 18.9 |
| 205362 2000 XF ₅₄ | 17.1 | X | 242.64694 | 359.82471 | 107.65539 | 2.56333 | 0.1586925 | 0.24028314 | 2.5624409 | 20 | 9 23.9 | 20.5 |
| 205363 2000 YW ₁₆ | 17.1 | X | 203.46584 | 118.62585 | 281.25210 | 18.57276 | 0.1104316 | 0.37649164 | 1.8994702 | 20 | 5 10.8 | 19.9 |
| 205364 2000 YE ₂₈ | 17.1 | X | 86.70238 | 243.13150 | 243.02601 | 21.37350 | 0.1306392 | 0.37222898 | 1.9139441 | 20 | 4 19.9 | 19.1 |
| 205365 2000 YE ₃₇ | 17.3 | X | 115.45238 | 179.97103 | 272.45938 | 19.13429 | 0.0686679 | 0.37059634 | 1.9195612 | 20 | 3 22.2 | 19.8 |
| 205366 2000 YO ₄₄ | 15.6 | X | 294.06270 | 136.35974 | 272.66616 | 2.76302 | 0.1239986 | 0.23804916 | 2.5784474 | 20 | 9 21.7 | 18.4 |
| 205367 2000 YH ₅₄ | 16.3 | X | 289.33650 | 76.70489 | 321.58883 | 1.78225 | 0.2110868 | 0.23666016 | 2.5885265 | 20 | 8 16.4 | 19.2 |
| 205368 2000 YS ₈₃ | 16.4 | X | 59.35223 | 145.75243 | 260.31793 | 6.54332 | 0.1624196 | 0.25720654 | 2.4487703 | 20 | — | — |
| 205369 2000 YO ₁₀₆ | 17.2 | X | 257.62985 | 270.68967 | 89.08763 | 24.46868 | 0.0539796 | 0.38011373 | 1.8873843 | 20 | 6 6.3 | 19.0 |
| 205370 2000 YM ₁₂₄ | 16.2 | X | 147.66561 | 266.04528 | 90.18275 | 8.79177 | 0.2511265 | 0.26678523 | 2.3897998 | 20 | 2 6.5 | 20.0 |
| 205371 2001 AX | 16.6 | X | 57.54132 | 5.85742 | 83.16539 | 3.16501 | 0.1871985 | 0.25917342 | 2.4363653 | 20 | 1 26.8 | 18.6 |
| 205372 2001 AL ₁₀ | 17.2 | X | 21.55971 | 353.16768 | 102.36909 | 2.45530 | 0.1573968 | 0.25591917 | 2.4569756 | 20 | — | — |
| 205373 2001 AH ₂₁ | 16.3 | X | 303.21164 | 264.28367 | 297.41554 | 9.18830 | 0.2151677 | 0.25572283 | 2.4582330 | 20 | — | — |
| 205374 2001 AJ ₂₈ | 16.5 | X | 278.35077 | 308.06909 | 328.61204 | 17.68398 | 0.0697970 | 0.36669432 | 1.9331546 | 20 | 2 20.4 | 18.6 |
| 205375 2001 AQ ₄₈ | 17.6 | X | 305.05339 | 320.51754 | 305.04368 | 18.95709 | 0.0482656 | 0.36898207 | 1.9251558 | 20 | 3 6.2 | 19.9 |
| 205376 2001 BU ₅ | 16.1 | X | 244.35839 | 110.06872 | 70.43901 | 6.17886 | 0.1514408 | 0.24372723 | 2.5382439 | 20 | — | — |
| 205377 2001 BR ₉ | 16.4 | X | 316.81566 | 288.55369 | 126.31299 | 17.14868 | 0.2700603 | 0.24075814 | 2.5590694 | 20 | 11 18.9 | 19.0 |
| 205378 2001 BJ ₁₆ | 18.7 | X | 188.23360 | 210.01499 | 134.58417 | 19.35900 | 0.1413476 | 0.61924064 | 1.3632110 | 20 | — | — |
| 205379 2001 BX ₂₃ | 16.6 | X | 245.54946 | 349.41698 | 119.23959 | 5.94742 | 0.1497216 | 0.23740210 | 2.5831305 | 20 | 10 1.7 | 20.1 |
| 205380 2001 BT ₃₁ | 12.3 | X | 263.74909 | 147.91695 | 317.76754 | 27.96486 | 0.1078734 | 0.08348924 | 5.1846055 | 20 | 9 15.9 | 19.5 |
| 205381 2001 BM ₃₈ | 17.2 | X | 124.91262 | 13.20406 | 119.17388 | 23.70888 | 0.0805041 | 0.37600892 | 1.9010956 | 20 | 6 26.2 | 19.5 |
| 205382 2001 BJ ₄₄ | 15.8 | X | 319.17669 | 259.27994 | 219.14810 | 6.30842 | 0.1012474 | 0.24635148 | 2.5201860 | 20 | — | — |
| 205383 2001 BV ₄₇ | 16.9 | X | 37.36054 | 221.43802 | 318.80216 | 18.12455 | 0.0526358 | 0.36640488 | 1.9341726 | 20 | 3 28.3 | 19.0 |
| 205384 2001 BP ₆₉ | 16.2 | X | 217.69149 | 139.32529 | 347.57301 | 11.12898 | 0.2416455 | 0.23279002 | 2.6171371 | 20 | 9 10.1 | 20.3 |
| 205385 2001 CW ₃₆ | 16.3 | X | 257.63906 | 51.08566 | 148.46055 | 9.09270 | 0.1695192 | 0.24584607 | 2.5236388 | 20 | — | — |
| 205386 2001 CX ₄₄ | 16.0 | X | 252.64027 | 86.96933 | 47.19477 | 11.89070 | 0.1313409 | 0.23830960 | 2.5765685 | 20 | 11 13.7 | 19.2 |
| 205387 2001 DJ ₃ | 16.9 | X | 149.09030 | 46.69825 | 355.15840 | 19.02439 | 0.0863996 | 0.36339791 | 1.9448275 | 20 | 3 11.2 | 19.0 |
| 205388 2001 DV ₈ | 20.6 | X | 335.00431 | 212.70469 | 325.40061 | 12.36705 | 0.1708596 | 0.61229043 | 1.3735076 | 20 | — | — |
| 205389 2001 DU ₁₀ | 16.3 | X | 297.44887 | 97.81689 | 333.28318 | 3.04922 | 0.2092185 | 0.23877436 | 2.5732311 | 20 | 10 19.9 | 18.5 |
| 205390 2001 DS ₁₃ | 15.3 | X | 165.23180 | 61.98529 | 148.52015 | 18.30494 | 0.1359578 | 0.23248304 | 2.6194405 | 20 | 11 15.9 | 19.8 |
| 205391 2001 DA ₂₀ | 16.5 | X | 238.04563 | 64.29099 | 123.61536 | 13.80505 | 0.1177344 | 0.24208897 | 2.5496822 | 20 | — | — |
| 205392 2001 DX ₃₅ | 16.0 | X | 292.13693 | 316.37649 | 148.71534 | 13.49254 | 0.1294562 | 0.24190705 | 2.5509603 | 20 | 12 11.5 | 19.0 |
| 205393 2001 DQ ₅₀ | 16.0 | X | 175.21078 | 147.88279 | 81.47927 | 12.32919 | 0.1284234 | 0.23852568 | 2.5750122 | 20 | 12 14.7 | 20.0 |
| 205394 2001 DY ₅₄ | 17.3 | X | 312.95720 | 236.91460 | 339.86283 | 2.51019 | 0.1360570 | 0.25692266 | 2.4505737 | 20 | 1 21.9 | 20.5 |
| 205395 2001 DV ₇₇ | 17.0 | X | 85.44211 | 1.34100 | 327.01033 | 6.25972 | 0.0478413 | 0.24308241 | 2.5427307 | 20 | — | — |
| 205396 2001 DP ₉₂ | 17.0 | X | 72.32660 | 151.04133 | 340.22051 | 19.13813 | 0.0761448 | 0.36605906 | 1.9353905 | 20 | 3 19.8 | 18.7 |
| 205397 2001 DA ₉₉ | 16.5 | X | 252.74039 | 234.63418 | 318.41154 | 12.54736 | 0.2322018 | 0.24347366 | 2.5400059 | 20 | — | — |
| 205398 2001 EO ₃ | 17.2 | X | 71.38184 | 169.43491 | 36.51297 | 2.01383 | 0.1318596 | 0.27099311 | 2.3649968 | 20 | 8 2.1 | 20.0 |
| 205399 2001 EX ₃ | 16.3 | X | 254.84299 | 295.33072 | 152.39862 | 9.12579 | 0.1843275 | 0.23317483 | 2.6142569 | 20 | 9 7.9 | 19.9 |
| 205400 2001 EO ₁₀ | 16.5 | X | 206.94497 | 188.61064 | 31.04514 | 4.22690 | 0.2728585 | 0.23831149 | 2.5765549 | 20 | 12 19.7 | 20.5 |
| 205401 2001 ED ₁₁ | 16.0 | X | 234.51038 | 121.57327 | 11.66159 | 12.90653 | 0.1494462 | 0.23383640 | 2.6093238 | 20 | 10 14.9 | 19.7 |
| 205402 2001 EY ₁₆ | 17.2 | X | 84.68941 | 83.27814 | 1.49139 | 18.93322 | 0.1006858 | 0.35937749 | 1.9593054 | 20 | 2 16.8 | 19.1 |
| 205403 2001 EO ₂₁ | 16.0 | X | 152.26076 | 248.64749 | 287.91564 | 7.22587 | 0.1193253 | 0.22825612 | 2.6516799 | 20 | 9 13.2 | 20.3 |
| 205404 2001 FO ₇ | 16.3 | X | 145.93052 | 19.26100 | 75.11893 | 4.78743 | 0.0571945 | 0.21453551 | 2.7635666 | 20 | 5 23.5 | 20.1 |
| 205405 2001 FL ₉ | 16.6 | X | 238.09516 | 106.28111 | 21.62596 | 11.76947 | 0.1377201 | 0.23308330 | 2.6149413 | 20 | 10 15.6 | 20.2 |
| 205406 2001 FG ₁₄ | 16.7 | X | 277.62240 | 345.21630 | 166.88849 | 5.92204 | 0.1972393 | 0.24198328 | 2.5504245 | 20 | — | — |
| 205407 2001 FJ ₁₄ | 16.1 | X | 128.58950 | 93.59705 | 163.37424 | 4.42538 | 0.2319381 | 0.23115881 | 2.6294349 | 20 | 12 4.3 | 20.7 |
| 205408 2001 FV ₂₀ | 15.8 | X | 33.98721 | 30.64705 | 215.23579 | 7.78023 | 0.1233595 | 0.21722866 | 2.7406777 | 20 | 7 23.7 | 19.2 |
| 205409 2001 FB ₄₄ | 16.2 | X | 261.69948 | 208.74754 | 322.36814 | 4.00839 | 0.1739099 | 0.24179620 | 2.5517399 | 20 | — | — |
| 205410 2001 FU ₅₆ | 16.0 | X | 271.61681 | 63.89443 | 87.96807 | 6.15911 | 0.1744728 | 0.23971971 | 2.5664544 | 20 | — | — |
| 205411 2001 FP ₆₈ | 16.3 | X | 271.53020 | 38.53617 | 132.42253 | 5.13657 | 0.2001101 | 0.24261103 | 2.5460232 | 20 | — | — |
| 205412 2001 FP ₈₅ | 16.5 | X | 304.93902 | 291.95336 | 29.22770 | 4.63400 | 0.1144591 | 0.21465787 | 2.7625163 | 20 | 6 5.9 | 19.9 |
| 205413 2001 FX ₈₅ | 16.4 | X | 321.25775 | 147.96021 | 197.88397 | 2.95007 | 0.1416920 | 0.21863253 | 2.7289330 | 20 | 8 5.1 | 19.4 |
| 205414 2001 FF ₉₃ | 15.9 | X | 300.44990 | 46.19039 | 42.96411 | 10.31473 | 0.1260999 | 0.23897888 | 2.5717556 | 20 | 11 29.5 | 18.6 |
| 205415 2001 FP ₉₅ | 15.7 | X | 20.12169 | 258.77532 | 43.09746 | 10.84118 | 0.0326370 | 0.22459402 | 2.6804266 | 20 | 9 15.9 | 19.3 |
| 205416 2001 FB ₁₁₇ | 16.1 | X | 321.52370 | 166.14155 | 301.88969 | 11.93317 | 0.0927070 | 0.24410177 | 2.5356468 | 20 | — | — |
| 205417 2001 FC ₁₂₉ | 16.7 | X | 239.94927 | 72.90039 | 81.82671 | 4.11700 | 0.1320439 | 0.23676779 | 2.5877420 | 20 | 11 23.9 | 20.1 |
| 205418 2001 FT ₁₃₅ | 16.1 | X | 125.06888 | 306.74320 | 296.97261 | 8.03090 | 0.0926154 | 0.23219129 | 2.6216342 | 20 | 11 9.6 | 20.1 |
| 205419 2001 FS ₁₅₄ | 16.2 | X | 189.91764 | 6.90267 | 182.47410 | 13.11345 | 0.1044489 | 0.23237347 | 2.6202638 | 20 | 11 13.9 | 20.2 |
| 205420 2001 FN ₁₇₆ | 16.2 | X | 275.21179 | 100.63793 | 96.38638 | 8.20931 | 0.1663390 | 0.24597991 | 2.5227233 | 20 | — | — |
| 205421 2001 FX ₁₇₆ | 15.3 | X | 192.65204 | 29.39165 | 100.24313 | 12.52265 | 0.1263203 | 0.22656631 | 2.6648484 | 20 | 9 2.5 | 19.6 |
| 205422 2001 FP ₁₉₀ | 17.3 | X | 290.07973 | 129.36200 | 12.38180 | 2.91247 | 0.1455903 | 0.24366032 | 2.5387085 | 20 | — | — |
| 205423 2001 FM ₁₉₆ | 15.7 | X | 77.43955 | 185.05721 | 74.18613 | 12.94201 | 0.1981519 | 0.22380528 | 2.6867206 | 20 | 10 26.4 | 19.9 |
| 205424 Bibracte | 15.9 | X | 80.42668 | 225.36929 | 35.46199 | 5.05265 | 0.1009627 | 0.22399416 | 2.6852100 | 20 | 10 16.1 | 19.7 |
| 205425 2001 GD ₉ | 15.9 | X | 130.35957 | 175.15992 | 83.83418 | 11.42039 | 0.1273733 | 0.23076877 | 2.6323968 | 20 | 12 6.8 | 20.1 |
| 205426 2001 HT ₁₆ | 16.0 | X | 130.26978 | 206.75405 | 75.60503 | 15.15128 | 0.2399975 | 0.22994602 | 2.6386723 | 20 | — | — |
| 205427 2001 HM ₁₇ | 17.0 | X | 239.70938 | 330.92316 | 204.52643 | 2.05330 | 0.0866736 | 0.23610165 | 2.5926070 | 20 | 12 26.5 | 20.4 |
| 205428 2001 HD ₆₆ | 16.2 | X | 148.39710 | 108.06240 | 109.67558 | 14.04678 | 0.1844140 | 0.22732477 | 2.6589176 | 20 | 11 8.1 | 20.9 |
| 205429 2001 HR ₆₆ | 15.7 | X | 199.67608 | 47.06395 | 100.46780 | 12.13360 | 0.1488750 | 0.22904940 | 2.6455538 | 20 | 10 2.7 | 20.0 |
| 205430 2001 JC ₃ | 16.0 | X | 180.65910 | 45.54721 | 147.83360 | 7.69016 | 0.2116022 | 0.22926868 | 2.6438667 | 20 | 11 2.4 | 20.5 |
| 205431 2001 JD ₈ | 16.0 | X | 11.07331 | 81.15641 | 182.49808 | 1.84741 | 0.1420505 | 0.21222619 | 2.7835780 | 20 | 7 12.3 | 18.9 |
| 205432 2001 JN ₈ | 15.9 | X | 195.61645 | 291.74146 | 271.47385 | 3.61114 | 0.1775503 | 0.23249102 | 2.6193805 | 20 | 11 27.5 | 19.8 |
| 205433 2001 KE | 16.6 | X | 64.20630 | 53.18247 | 90.05924 | 24.97902 | 0.0726109 | 0.36277791 | 1.9470428 | 20 | 4 20.5 | 19.1 |
| 205434 2001 KV ₂₇ | 15.8 | X | 2 | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 205441 2001 <i>NF</i> ₂₁ | 15.1 | X | 184.07949 | 352.60190 | 324.68352 | 22.80703 | 0.1495785 | 0.18190934 | 3.0848406 | 20 | 1 27.8 | 20.2 |
| 205442 2001 <i>OY</i> ₃ | 15.6 | X | 309.37385 | 255.30942 | 15.01836 | 5.51165 | 0.0757923 | 0.19699433 | 2.9252763 | 20 | 4 11.5 | 19.3 |
| 205443 2001 <i>OP</i> ₇ | 15.1 | X | 170.10851 | 67.90644 | 261.79669 | 6.53989 | 0.1960226 | 0.18247373 | 3.0784763 | 20 | 1 26.4 | 20.3 |
| 205444 2001 <i>OK</i> ₂₉ | 15.9 | X | 20.14936 | 309.92881 | 348.25452 | 7.30510 | 0.2126057 | 0.21134962 | 2.7912693 | 20 | 9 25.9 | 19.0 |
| 205445 2001 <i>OJ</i> ₄₄ | 14.6 | X | 109.47820 | 115.70524 | 242.38345 | 7.02999 | 0.1909808 | 0.17428563 | 3.1741564 | 20 | 1 4.1 | 19.1 |
| 205446 2001 <i>OE</i> ₆₉ | 17.2 | X | 295.55755 | 210.65871 | 112.79547 | 7.65109 | 0.1800923 | 0.30487701 | 2.1863495 | 20 | 5 16.7 | 19.6 |
| 205447 2001 <i>PW</i> ₆ | 17.1 | X | 234.42426 | 73.488206 | 296.64466 | 2.93872 | 0.1807710 | 0.30012510 | 2.2093669 | 20 | 5 2.6 | 20.3 |
| 205448 2001 <i>PW</i> ₁₉ | 15.3 | X | 113.54743 | 86.90118 | 345.17988 | 10.37982 | 0.0699357 | 0.18956121 | 3.0012562 | 20 | 3 18.6 | 19.6 |
| 205449 2001 <i>PU</i> ₃₁ | 15.5 | X | 160.09432 | 242.50665 | 93.66777 | 11.46681 | 0.0709833 | 0.18200440 | 3.0837663 | 20 | 1 18.8 | 20.1 |
| 205450 2001 <i>PQ</i> ₃₂ | 15.5 | X | 194.05711 | 266.97106 | 80.66492 | 11.59405 | 0.0935049 | 0.18849304 | 3.0125840 | 20 | 3 12.2 | 20.4 |
| 205451 2001 <i>PC</i> ₃₉ | 15.3 | X | 194.49946 | 319.61056 | 43.51559 | 15.94043 | 0.0826332 | 0.19025241 | 2.9939826 | 20 | 3 31.5 | 20.0 |
| 205452 2001 <i>PH</i> ₅₀ | 15.3 | X | 127.85712 | 47.48623 | 334.80044 | 15.89295 | 0.1571089 | 0.18302126 | 3.0723335 | 20 | 2 17.6 | 20.0 |
| 205453 2001 <i>PU</i> ₅₅ | 15.5 | X | 153.41968 | 79.01195 | 316.14783 | 9.69401 | 0.1037383 | 0.18916187 | 3.0054787 | 20 | 3 18.7 | 20.3 |
| 205454 2001 <i>PX</i> ₆₆ | 15.0 | X | 98.82303 | 34.75944 | 328.09408 | 25.44720 | 0.1457657 | 0.17355251 | 3.1830890 | 20 | — | — |
| 205455 2001 <i>QR</i> ₁ | 15.7 | X | 132.01549 | 54.73567 | 299.82708 | 4.15203 | 0.1477830 | 0.18011884 | 3.1052504 | 20 | 1 18.6 | 20.4 |
| 205456 2001 <i>QV</i> ₁₀ | 15.5 | X | 113.93972 | 240.90420 | 146.08707 | 1.65425 | 0.1976261 | 0.18000676 | 3.1065392 | 20 | 2 12.6 | 20.0 |
| 205457 2001 <i>QJ</i> ₁₂ | 16.8 | X | 302.62751 | 26.54819 | 225.22071 | 5.23269 | 0.2395745 | 0.30785650 | 2.1722201 | 20 | 7 1.7 | 18.4 |
| 205458 2001 <i>QA</i> ₁₃ | 17.6 | X | 1.28145 | 155.29024 | 169.22564 | 2.06595 | 0.1802709 | 0.31393445 | 2.1440919 | 20 | 10 22.2 | 19.1 |
| 205459 2001 <i>QQ</i> ₃₄ | 16.0 | X | 75.94166 | 139.09350 | 132.12985 | 10.10412 | 0.1685696 | 0.21726915 | 2.7403372 | 20 | 11 3.4 | 20.3 |
| 205460 2001 <i>QA</i> ₃₇ | 15.3 | X | 173.92377 | 206.61496 | 140.48087 | 5.55562 | 0.2237697 | 0.18632514 | 3.0359067 | 20 | 2 20.6 | 20.6 |
| 205461 2001 <i>QX</i> ₄₀ | 15.7 | X | 162.51042 | 20.52472 | 322.15916 | 5.55476 | 0.1857317 | 0.18440431 | 3.0569524 | 20 | 2 4.9 | 20.6 |
| 205462 2001 <i>QB</i> ₄₆ | 17.1 | X | 302.18877 | 40.96361 | 305.79416 | 3.41169 | 0.1933042 | 0.30851924 | 2.1691082 | 20 | 7 1.0 | 18.6 |
| 205463 2001 <i>QP</i> ₆₅ | 15.0 | X | 92.94325 | 76.86865 | 130.26310 | 9.14885 | 0.2517836 | 0.17588379 | 3.1548993 | 20 | 1 28.3 | 19.3 |
| 205464 2001 <i>QH</i> ₇₃ | 15.0 | X | 121.98849 | 233.19353 | 126.71897 | 25.21892 | 0.3248556 | 0.17651436 | 3.1473813 | 20 | 2 3.1 | 20.1 |
| 205465 2001 <i>QK</i> ₈₆ | 14.8 | X | 111.19501 | 51.34875 | 294.34578 | 18.27315 | 0.0829185 | 0.17333760 | 3.1857195 | 20 | — | — |
| 205466 2001 <i>QB</i> ₁₀₀ | 15.2 | X | 151.02010 | 241.79317 | 103.02633 | 12.63319 | 0.2732063 | 0.18323657 | 3.0699263 | 20 | 2 4.9 | 20.5 |
| 205467 2001 <i>QF</i> ₁₁₂ | 15.4 | X | 243.01083 | 245.26585 | 194.54727 | 12.12463 | 0.1050728 | 0.20640381 | 2.8356823 | 20 | 8 17.9 | 19.7 |
| 205468 2001 <i>QJ</i> ₁₁₂ | 15.2 | X | 293.66387 | 347.64041 | 273.34002 | 8.45669 | 0.0299235 | 0.19010072 | 2.9955750 | 20 | 3 12.9 | 19.5 |
| 205469 2001 <i>QY</i> ₁₁₃ | 15.6 | X | 329.92220 | 341.18211 | 262.49027 | 8.96798 | 0.0511961 | 0.19296399 | 2.9658683 | 20 | 4 5.3 | 19.7 |
| 205470 2001 <i>QV</i> ₁₁₇ | 16.7 | X | 205.74159 | 81.00132 | 303.34578 | 5.52320 | 0.2167948 | 0.29511923 | 2.2342806 | 20 | 4 21.6 | 20.4 |
| 205471 2001 <i>QY</i> ₁₂₃ | 15.6 | X | 277.49601 | 317.77775 | 14.67558 | 6.32890 | 0.0980038 | 0.19836007 | 2.9118336 | 20 | 5 14.9 | 19.7 |
| 205472 2001 <i>QS</i> ₁₅₂ | 15.1 | X | 112.16922 | 46.09113 | 345.45643 | 15.98951 | 0.1345547 | 0.17855255 | 3.1233837 | 20 | 2 12.2 | 19.7 |
| 205473 2001 <i>QE</i> ₁₅₅ | 15.1 | X | 47.06404 | 98.55982 | 322.67262 | 24.45020 | 0.2577753 | 0.17292171 | 3.1908254 | 20 | 1 3.1 | 18.7 |
| 205474 2001 <i>QE</i> ₁₅₈ | 15.6 | X | 71.95103 | 78.71177 | 325.56337 | 6.89634 | 0.2411274 | 0.17511058 | 3.1641796 | 20 | 1 19.9 | 19.4 |
| 205475 2001 <i>QM</i> ₁₆₂ | 15.1 | X | 138.68688 | 169.81147 | 146.06933 | 11.18427 | 0.0592043 | 0.17595846 | 3.1540067 | 20 | — | — |
| 205476 2001 <i>QT</i> ₁₈₆ | 17.7 | X | 40.63658 | 173.60730 | 165.47740 | 5.32000 | 0.1725551 | 0.32099833 | 2.1125202 | 20 | — | — |
| 205477 2001 <i>QM</i> ₁₈₇ | 17.7 | X | 222.54502 | 318.83284 | 14.32886 | 3.26020 | 0.2026985 | 0.29591603 | 2.2302680 | 20 | 3 5.9 | 21.2 |
| 205478 2001 <i>QP</i> ₁₉₀ | 14.5 | X | 121.84593 | 43.48823 | 310.90422 | 26.24183 | 0.0984045 | 0.17601660 | 3.1533121 | 20 | 1 6.9 | 19.3 |
| 205479 2001 <i>QB</i> ₂₀₃ | 15.4 | X | 190.26604 | 1.70255 | 358.52428 | 8.67492 | 0.1034959 | 0.19050546 | 2.9913307 | 20 | 3 17.6 | 20.0 |
| 205480 2001 <i>QQ</i> ₂₀₅ | 15.4 | X | 134.87538 | 213.64023 | 171.23413 | 7.45017 | 0.1929518 | 0.18258503 | 3.0772251 | 20 | 2 29.2 | 20.3 |
| 205481 2001 <i>QZ</i> ₂₀₈ | 15.6 | X | 119.02499 | 240.02814 | 135.03096 | 9.62739 | 0.1861912 | 0.18023635 | 3.1039005 | 20 | 2 2.4 | 20.1 |
| 205482 2001 <i>QJ</i> ₂₁₄ | 17.2 | X | 262.40950 | 5.90050 | 331.48945 | 2.90979 | 0.1762469 | 0.30070500 | 2.2065255 | 20 | 4 18.6 | 20.3 |
| 205483 2001 <i>QU</i> ₂₂₃ | 15.9 | X | 157.51487 | 113.55317 | 230.58661 | 0.70006 | 0.2221224 | 0.18337892 | 3.0683374 | 20 | 2 4.2 | 21.0 |
| 205484 2001 <i>QY</i> ₂₃₆ | 15.4 | X | 185.63094 | 352.00589 | 347.23464 | 11.10574 | 0.1214722 | 0.18352707 | 3.0666858 | 20 | 2 20.2 | 20.3 |
| 205485 2001 <i>QP</i> ₂₃₈ | 15.2 | X | 234.78438 | 338.55596 | 354.76121 | 10.31292 | 0.0875454 | 0.18916982 | 3.0053945 | 20 | 3 29.0 | 19.8 |
| 205486 2001 <i>QG</i> ₂₄₀ | 15.3 | X | 125.21619 | 70.08923 | 345.83834 | 10.06184 | 0.1437365 | 0.18419574 | 3.0592596 | 20 | 3 21.2 | 20.0 |
| 205487 2001 <i>QP</i> ₂₄₂ | 14.9 | X | 348.78346 | 89.98611 | 0.78856 | 18.98472 | 0.2889356 | 0.16479396 | 3.2948971 | 20 | — | — |
| 205488 2001 <i>QL</i> ₂₄₈ | 17.2 | X | 264.62644 | 1.74406 | 12.70096 | 6.50822 | 0.1861308 | 0.30207197 | 2.1998636 | 20 | 6 12.4 | 20.0 |
| 205489 2001 <i>QT</i> ₂₄₈ | 16.9 | X | 240.26577 | 354.74810 | 23.28084 | 7.80623 | 0.1744596 | 0.29896689 | 2.2150693 | 20 | 5 19.6 | 20.2 |
| 205490 2001 <i>QR</i> ₂₅₅ | 15.1 | X | 92.69895 | 223.13405 | 182.75044 | 11.71070 | 0.1384171 | 0.17971674 | 3.1098805 | 20 | 1 31.3 | 19.6 |
| 205491 2001 <i>QI</i> ₂₆₆ | 16.6 | X | 151.45976 | 121.92185 | 239.01478 | 9.71845 | 0.2266989 | 0.28827807 | 2.2694902 | 20 | 2 5.4 | 20.2 |
| 205492 2001 <i>QM</i> ₂₆₇ | 14.7 | X | 125.04560 | 62.76872 | 291.04045 | 25.08428 | 0.1756452 | 0.17524417 | 3.1625713 | 20 | 1 13.9 | 19.3 |
| 205493 2001 <i>QP</i> ₂₆₈ | 14.6 | X | 97.58824 | 128.30178 | 269.79450 | 20.36766 | 0.0845399 | 0.17639054 | 3.1488540 | 20 | 1 18.9 | 19.2 |
| 205494 2001 <i>QH</i> ₂₉₄ | 16.2 | X | 246.48401 | 94.61622 | 210.65849 | 2.88428 | 0.2168470 | 0.19256951 | 2.9699173 | 20 | 2 26.6 | 21.2 |
| 205495 2001 <i>QF</i> ₂₉₅ | 16.5 | X | 252.35949 | 168.08650 | 191.07788 | 6.66165 | 0.1421161 | 0.29898545 | 2.2149776 | 20 | 5 14.1 | 19.4 |
| 205496 2001 <i>QN</i> ₃₂₇ | 15.1 | X | 55.67677 | 244.28231 | 148.81696 | 26.66216 | 0.2416945 | 0.17416091 | 3.1756717 | 20 | — | — |
| 205497 2001 <i>QQ</i> ₃₂₇ | 15.0 | X | 76.57468 | 134.16226 | 251.33967 | 8.83572 | 0.1804913 | 0.17341370 | 3.1847874 | 20 | — | — |
| 205498 2001 <i>RX</i> ₈ | 17.5 | X | 13.96615 | 252.97582 | 67.40577 | 6.39434 | 0.3455119 | 0.31619906 | 2.1338424 | 20 | 12 5.6 | 19.9 |
| 205499 2001 <i>RD</i> ₁₇ | 14.7 | X | 68.61669 | 51.36545 | 7.10013 | 26.61998 | 0.2304710 | 0.17352995 | 3.1833648 | 20 | 2 12.8 | 19.1 |
| 205500 2001 <i>RE</i> ₂₁ | 15.5 | X | 212.97769 | 183.04455 | 154.21525 | 10.40789 | 0.0797853 | 0.18911897 | 3.0059332 | 20 | 3 14.5 | 20.0 |
| 205501 2001 <i>RJ</i> ₂₄ | 15.2 | X | 138.93021 | 209.39556 | 157.24320 | 10.36195 | 0.0485824 | 0.18149974 | 3.0894799 | 20 | 1 27.7 | 19.7 |
| 205502 2001 <i>RX</i> ₂₆ | 17.5 | X | 284.99626 | 27.27075 | 352.85736 | 5.10638 | 0.1587850 | 0.30827473 | 2.1702550 | 20 | 7 31.5 | 19.4 |
| 205503 2001 <i>RU</i> ₃₇ | 15.8 | X | 186.30665 | 45.87041 | 301.40673 | 5.43824 | 0.1144868 | 0.18691527 | 3.0295133 | 20 | 2 26.1 | 20.6 |
| 205504 2001 <i>RS</i> ₄₁ | 16.0 | X | 270.73660 | 49.91950 | 307.92864 | 0.82584 | 0.0853982 | 0.19978699 | 2.8979524 | 20 | 6 11.9 | 19.8 |
| 205505 2001 <i>RV</i> ₅₉ | 15.8 | X | 173.64514 | 207.34522 | 142.30813 | 7.68316 | 0.1045922 | 0.18300243 | 3.0725443 | 20 | 2 18.9 | 20.6 |
| 205506 2001 <i>RE</i> ₆₂ | 15.2 | X | 106.36243 | 10.55706 | 25.43616 | 9.83507 | 0.0760178 | 0.17906745 | 3.1173935 | 20 | 2 2.6 | 19.7 |
| 205507 2001 <i>RL</i> ₉₀ | 15.7 | X | 187.04458 | 203.81353 | 129.61511 | 8.52555 | 0.2112488 | 0.18400698 | 3.0613514 | 20 | 2 15.3 | 20.9 |
| 205508 2001 <i>RV</i> ₁₁₁ | 16.1 | X | 207.21860 | 337.32310 | 10.59599 | 1.41122 | 0.1611992 | 0.18885610 | 3.0087219 | 20 | 3 18.2 | 21.0 |
| 205509 2001 <i>RB</i> ₁₁₆ | 15.1 | X | 114.30768 | 164.97284 | 142.94916 | 5.82378 | 0.1214144 | 0.16964266 | 3.2318114 | 20 | — | — |
| 205510 2001 <i>RQ</i> ₁₃₈ | 15.8 | X | 163.34101 | 251.29993 | 63.73711 | 2.35141 | 0.1355915 | 0.17804572 | 3.1293083 | 20 | 1 2.5 | 20.6 |
| 205511 2001 <i>RW</i> ₁₄₀ | 16.1 | X | 223.64964 | 208.42401 | 116.42783 | 2.83176 | 0. | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

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| Planet | H | G | M | ω | Ω | i | e | μ | a | TE | Oppos. | V | | |
|--------|------|-------------------|------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 205521 | 2001 | SE ₉₀ | 16.4 | X | 265.94424 | 38.98179 | 290.58749 | 0.83670 | 0.1085374 | 0.19484546 | 2.9467448 | 20 | 4 26.8 | 20.6 |
| 205522 | 2001 | SF ₉₄ | 16.2 | X | 232.23302 | 341.63536 | 327.13652 | 2.93130 | 0.2199168 | 0.18830715 | 3.0145663 | 20 | 2 20.3 | 21.4 |
| 205523 | 2001 | SU ₉₄ | 15.6 | X | 43.26999 | 197.64993 | 203.14180 | 4.77190 | 0.1545198 | 0.16996588 | 3.2277129 | 20 | — | — |
| 205524 | 2001 | SJ ₁₀₁ | 16.2 | X | 134.66420 | 175.35131 | 216.89035 | 0.76568 | 0.1815111 | 0.18157185 | 3.0886618 | 20 | 3 7.9 | 21.1 |
| 205525 | 2001 | SA ₁₁₄ | 17.6 | X | 341.68716 | 342.87412 | 352.16816 | 5.38138 | 0.1204132 | 0.30996647 | 2.1623512 | 20 | 9 17.7 | 19.3 |
| 205526 | 2001 | SE ₁₁₄ | 14.9 | X | 202.14628 | 331.20919 | 358.94536 | 15.55550 | 0.0180150 | 0.18224808 | 3.0810168 | 20 | 2 27.9 | 19.4 |
| 205527 | 2001 | SD ₁₁₇ | 15.5 | X | 197.71661 | 49.66538 | 296.09591 | 7.17471 | 0.0869111 | 0.18688570 | 3.0298328 | 20 | 3 4.8 | 20.2 |
| 205528 | 2001 | SU ₁₁₈ | 17.4 | X | 230.69102 | 142.99234 | 276.41643 | 3.44832 | 0.1319635 | 0.30466217 | 2.1873773 | 20 | 7 12.6 | 20.1 |
| 205529 | 2001 | SJ ₁₁₉ | 15.3 | X | 159.03489 | 34.79606 | 321.52515 | 9.95530 | 0.0908678 | 0.18166103 | 3.0876510 | 20 | 2 11.2 | 19.8 |
| 205530 | 2001 | SH ₁₂₅ | 15.4 | X | 204.47368 | 54.43222 | 334.35502 | 8.81020 | 0.0690490 | 0.19288752 | 2.9666521 | 20 | 5 2.8 | 20.0 |
| 205531 | 2001 | SO ₁₂₆ | 15.8 | X | 155.28838 | 49.20349 | 291.93378 | 4.17589 | 0.1311816 | 0.17951247 | 3.1122392 | 20 | 1 24.0 | 20.5 |
| 205532 | 2001 | SV ₁₂₆ | 16.0 | X | 225.46668 | 338.89546 | 334.33436 | 7.38994 | 0.0711010 | 0.18586372 | 3.0409291 | 20 | 2 26.9 | 20.6 |
| 205533 | 2001 | SL ₁₃₄ | 15.6 | X | 122.18042 | 15.87856 | 332.98869 | 3.76267 | 0.1631724 | 0.17515630 | 3.1636289 | 20 | 1 4.7 | 20.2 |
| 205534 | 2001 | SJ ₁₅₁ | 17.5 | X | 265.23228 | 20.50296 | 354.79693 | 1.96715 | 0.1511255 | 0.30312859 | 2.1947486 | 20 | 6 20.9 | 19.9 |
| 205535 | 2001 | SW ₁₆₆ | 15.3 | X | 23.62129 | 28.66156 | 178.34752 | 10.02465 | 0.0316916 | 0.19189688 | 2.9768533 | 20 | 5 10.1 | 19.4 |
| 205536 | 2001 | SY ₁₆₆ | 15.5 | X | 13.17153 | 117.48001 | 20.81250 | 2.99340 | 0.0216881 | 0.17989156 | 3.1078653 | 20 | 1 30.8 | 19.8 |
| 205537 | 2001 | SB ₁₆₈ | 16.6 | X | 155.56891 | 277.84992 | 354.17152 | 6.61537 | 0.0976489 | 0.27452049 | 2.3446942 | 20 | — | — |
| 205538 | 2001 | SO ₁₆₉ | 15.5 | X | 101.54189 | 263.03206 | 138.51877 | 8.69700 | 0.2331118 | 0.17699842 | 3.1416403 | 20 | 2 22.1 | 19.9 |
| 205539 | 2001 | ST ₁₇₂ | 15.3 | X | 194.84947 | 243.74056 | 183.65084 | 11.89648 | 0.0193323 | 0.19461265 | 2.9490944 | 20 | 6 15.9 | 19.7 |
| 205540 | 2001 | SV ₁₇₂ | 15.7 | X | 112.50964 | 329.81259 | 59.30823 | 1.82152 | 0.1595057 | 0.17722586 | 3.1389518 | 20 | 2 9.9 | 20.3 |
| 205541 | 2001 | SD ₁₇₃ | 17.6 | X | 255.42219 | 349.84455 | 34.72763 | 4.98943 | 0.1330908 | 0.30272384 | 2.1967045 | 20 | 6 23.9 | 20.3 |
| 205542 | 2001 | SM ₁₇₃ | 15.8 | X | 58.30254 | 305.22091 | 116.29508 | 1.80420 | 0.1605420 | 0.17180716 | 3.2046102 | 20 | 1 8.3 | 19.6 |
| 205543 | 2001 | SD ₁₇₅ | 15.9 | X | 96.67296 | 237.12889 | 169.00600 | 12.00417 | 0.2321800 | 0.17627161 | 3.1502701 | 20 | 2 20.2 | 20.5 |
| 205544 | 2001 | SY ₁₉₆ | 15.9 | X | 137.24384 | 195.83722 | 145.11205 | 1.71358 | 0.1464240 | 0.17700001 | 3.1416214 | 20 | 1 8.2 | 20.7 |
| 205545 | 2001 | SI ₁₉₇ | 15.7 | X | 341.34109 | 333.75798 | 4.88827 | 9.19667 | 0.1383464 | 0.20617636 | 2.8377675 | 20 | 9 4.5 | 18.8 |
| 205546 | 2001 | SC ₂₀₀ | 16.4 | X | 175.09609 | 317.32086 | 23.71370 | 1.64509 | 0.1164288 | 0.18235095 | 3.0798580 | 20 | 2 11.1 | 21.1 |
| 205547 | 2001 | SV ₂₀₀ | 15.9 | X | 346.76770 | 70.26639 | 156.86953 | 2.29117 | 0.0504943 | 0.19053602 | 2.9910108 | 20 | 4 12.7 | 19.7 |
| 205548 | 2001 | SE ₂₀₂ | 15.5 | X | 317.65905 | 314.21685 | 344.81197 | 1.39477 | 0.0676992 | 0.19691995 | 2.9260129 | 20 | 6 1.6 | 19.1 |
| 205549 | 2001 | SN ₂₀₅ | 15.4 | X | 90.38982 | 38.33253 | 71.85390 | 1.83534 | 0.0745772 | 0.18640841 | 3.0350025 | 20 | 4 9.9 | 19.6 |
| 205550 | 2001 | SD ₂₁₄ | 17.2 | X | 314.42347 | 265.47564 | 122.40718 | 4.34047 | 0.1540930 | 0.31239533 | 2.1511285 | 20 | 10 21.9 | 18.5 |
| 205551 | 2001 | SB ₂₁₈ | 16.0 | X | 162.16003 | 315.51657 | 39.31662 | 1.86225 | 0.0808669 | 0.18147910 | 3.0897141 | 20 | 2 12.7 | 20.5 |
| 205552 | 2001 | SR ₂₂₁ | 15.8 | X | 109.96068 | 313.62987 | 64.64461 | 2.35552 | 0.1786214 | 0.17614301 | 3.1518033 | 20 | 1 27.8 | 20.3 |
| 205553 | 2001 | SN ₂₂₉ | 15.6 | X | 245.84926 | 236.44387 | 102.18829 | 2.70278 | 0.1474835 | 0.19089639 | 2.9872454 | 20 | 4 13.5 | 20.1 |
| 205554 | 2001 | SH ₂₄₃ | 15.4 | X | 131.77693 | 194.35560 | 193.56206 | 11.32740 | 0.1296631 | 0.17866657 | 3.1220547 | 20 | 2 21.9 | 20.2 |
| 205555 | 2001 | SV ₂₅₀ | 16.8 | X | 306.84030 | 301.38048 | 49.47105 | 4.94123 | 0.2128503 | 0.30620088 | 2.1800432 | 20 | 7 15.7 | 18.3 |
| 205556 | 2001 | SH ₂₅₆ | 17.5 | X | 198.34154 | 53.47225 | 24.54089 | 6.67664 | 0.1269507 | 0.29948646 | 2.2125067 | 20 | 7 2.1 | 20.7 |
| 205557 | 2001 | SU ₂₇₂ | 15.5 | X | 98.82513 | 120.06537 | 307.46419 | 3.91048 | 0.1334481 | 0.17829826 | 3.1263527 | 20 | 3 5.5 | 19.9 |
| 205558 | 2001 | SF ₂₇₃ | 16.0 | X | 210.15611 | 23.63984 | 321.32250 | 2.66453 | 0.0813882 | 0.18606356 | 3.0387514 | 20 | 3 18.8 | 20.7 |
| 205559 | 2001 | SK ₂₇₄ | 15.8 | X | 42.80660 | 273.68819 | 169.79311 | 2.98674 | 0.1288390 | 0.17269261 | 3.1936467 | 20 | 1 7.5 | 19.7 |
| 205560 | 2001 | SC ₂₈₂ | 16.0 | X | 102.92856 | 292.93322 | 146.85840 | 20.31377 | 0.2885424 | 0.28355701 | 2.2946113 | 20 | 4 15.9 | 19.6 |
| 205561 | 2001 | SW ₂₈₈ | 15.1 | X | 22.23678 | 157.03273 | 334.28871 | 9.34486 | 0.0516008 | 0.17762091 | 3.1342959 | 20 | 2 3.8 | 19.2 |
| 205562 | 2001 | SH ₂₉₁ | 15.1 | X | 169.42426 | 42.94109 | 285.51287 | 16.53568 | 0.2094158 | 0.18054130 | 3.1004043 | 20 | 1 24.4 | 20.3 |
| 205563 | 2001 | SI ₂₉₅ | 15.8 | X | 278.77673 | 62.97592 | 267.83159 | 0.99951 | 0.1097533 | 0.19690857 | 2.9261257 | 20 | 5 14.2 | 19.7 |
| 205564 | 2001 | SS ₂₉₉ | 15.7 | X | 357.04094 | 244.57728 | 265.53529 | 3.26084 | 0.0835456 | 0.17924262 | 3.1153621 | 20 | 1 19.1 | 19.7 |
| 205565 | 2001 | SR ₃₀₃ | 15.7 | X | 27.73814 | 161.02727 | 3.01618 | 9.00136 | 0.0254058 | 0.18511495 | 3.0491237 | 20 | 3 19.9 | 19.9 |
| 205566 | 2001 | SE ₃₀₇ | 18.6 | X | 219.23430 | 222.32140 | 185.37580 | 1.31373 | 0.2128479 | 0.30044988 | 2.2077744 | 20 | 6 6.2 | 22.0 |
| 205567 | 2001 | SP ₃₀₉ | 17.0 | X | 147.93136 | 153.79416 | 249.00149 | 3.35689 | 0.1139109 | 0.28951468 | 2.2630231 | 20 | 3 18.0 | 20.1 |
| 205568 | 2001 | SL ₃₂₂ | 15.0 | X | 277.49392 | 26.36990 | 286.24088 | 9.55188 | 0.0648185 | 0.19178403 | 2.9780210 | 20 | 4 22.1 | 19.3 |
| 205569 | 2001 | SI ₃₂₃ | 17.4 | X | 262.58862 | 54.12676 | 291.82338 | 7.54467 | 0.2094726 | 0.29938894 | 2.2129871 | 20 | 4 24.5 | 20.6 |
| 205570 | 2001 | SU ₃₂₄ | 17.7 | X | 265.06880 | 25.73882 | 302.86270 | 3.66111 | 0.1738769 | 0.30022513 | 2.2088761 | 20 | 4 9.2 | 20.8 |
| 205571 | 2001 | SS ₃₃₆ | 16.1 | X | 335.21512 | 357.71532 | 323.75390 | 1.02959 | 0.0687198 | 0.18987926 | 2.9979039 | 20 | 3 28.8 | 20.0 |
| 205572 | 2001 | SC ₃₃₈ | 18.1 | X | 316.96507 | 64.97044 | 327.41444 | 0.64773 | 0.0579871 | 0.31386621 | 2.1444027 | 20 | 10 31.1 | 19.9 |
| 205573 | 2001 | TM ₅ | 15.6 | X | 124.59482 | 248.76598 | 133.06153 | 9.94660 | 0.2382342 | 0.17949876 | 3.1123977 | 20 | 2 22.6 | 20.5 |
| 205574 | 2001 | TF ₁₂ | 15.4 | X | 195.23931 | 116.65048 | 207.55366 | 11.02850 | 0.0984114 | 0.17951164 | 3.1222488 | 20 | 2 6.6 | 20.5 |
| 205575 | 2001 | TC ₃₆ | 17.4 | X | 181.01113 | 79.45349 | 336.23040 | 4.59425 | 0.2501577 | 0.29212830 | 2.2495050 | 20 | 5 12.2 | 21.2 |
| 205576 | 2001 | TL ₄₆ | 14.6 | X | 113.52496 | 240.59888 | 143.33394 | 26.76797 | 0.1526311 | 0.17485427 | 3.1672710 | 20 | 2 3.3 | 19.2 |
| 205577 | 2001 | TO ₄₇ | 15.2 | X | 208.59130 | 130.92980 | 148.21238 | 9.93066 | 0.0181966 | 0.17366092 | 3.1817642 | 20 | 1 2.8 | 19.8 |
| 205578 | 2001 | TE ₅₅ | 15.6 | X | 197.80124 | 25.95328 | 282.58323 | 3.78057 | 0.1170974 | 0.17910561 | 3.1169506 | 20 | 1 25.0 | 20.5 |
| 205579 | 2001 | TX ₅₅ | 15.7 | X | 170.04202 | 190.56962 | 169.92059 | 4.98636 | 0.1567046 | 0.18246914 | 3.0785279 | 20 | 2 29.8 | 20.8 |
| 205580 | 2001 | TS ₇₂ | 15.3 | X | 179.64498 | 149.94146 | 196.96654 | 5.15255 | 0.1648692 | 0.18067883 | 3.0988308 | 20 | 2 21.8 | 20.4 |
| 205581 | 2001 | TN ₈₄ | 16.1 | X | 279.09127 | 99.57907 | 208.00229 | 0.65435 | 0.1940234 | 0.19233323 | 2.9723492 | 20 | 4 3.6 | 20.3 |
| 205582 | 2001 | TT ₉₅ | 17.5 | X | 230.10371 | 60.06617 | 335.84603 | 3.84485 | 0.1473309 | 0.29938464 | 2.2130083 | 20 | 6 6.1 | 20.6 |
| 205583 | 2001 | TD ₁₃₆ | 17.3 | X | 260.99015 | 52.85604 | 315.26273 | 6.57167 | 0.1740015 | 0.30171341 | 2.2016062 | 20 | 5 30.9 | 20.3 |
| 205584 | 2001 | TU ₁₃₉ | 15.7 | X | 217.81196 | 207.62924 | 152.71662 | 12.10805 | 0.1218780 | 0.19107224 | 2.9854123 | 20 | 4 16.5 | 20.5 |
| 205585 | 2001 | TY ₁₄₄ | 17.7 | X | 268.16910 | 266.92328 | 85.00319 | 4.18316 | 0.1660973 | 0.30109864 | 2.2046020 | 20 | 5 19.7 | 20.5 |
| 205586 | 2001 | TQ ₁₄₅ | 16.0 | X | 250.35779 | 230.87094 | 98.76246 | 3.81366 | 0.1846953 | 0.19086136 | 2.9876110 | 20 | 4 4.2 | 20.7 |
| 205587 | 2001 | TE ₁₅₀ | 17.0 | X | 155.64706 | 11.08937 | 85.82863 | 6.34657 | 0.1059459 | 0.29610921 | 2.2292979 | 20 | 6 10.3 | 19.8 |
| 205588 | 2001 | TW ₁₅₀ | 17.5 | X | 255.81487 | 224.45629 | 142.41239 | 5.25199 | 0.1949634 | 0.30033800 | 2.2083226 | 20 | 5 22.6 | 20.5 |
| 205589 | 2001 | TW ₁₇₃ | 15.4 | X | 151.67759 | 37.08719 | 343.84690 | 9.81122 | 0.0682416 | 0.18165848 | 3.0876798 | 20 | 3 2. | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | |
|--------|------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|--------|----------|------|
| 205601 | 2001 TY ₂₅₆ | 15.3 | X | 52.69702 | 294.10365 | 103.05419 | 9.21619 | 0.0313578 | 0.16791973 | 3.2538802 | 20 | — | — |
| 205602 | 2001 UT ₂₅ | 16.7 | X | 236.31478 | 83.08793 | 328.64230 | 6.98096 | 0.1327986 | 0.30200886 | 2.2001701 | 20 | 7 9.7 | 19.7 |
| 205603 | 2001 UM ₃₁ | 16.6 | X | 224.68257 | 219.56414 | 122.80750 | 6.52906 | 0.2129576 | 0.29347571 | 2.2426144 | 20 | 3 20.9 | 20.3 |
| 205604 | 2001 UD ₅₉ | 14.8 | X | 294.81192 | 165.82863 | 27.24002 | 14.67946 | 0.1162244 | 0.17242616 | 3.1969361 | 20 | — | — |
| 205605 | 2001 UL ₉₀ | 15.9 | X | 122.28036 | 288.27748 | 87.90665 | 2.50053 | 0.1662163 | 0.17502728 | 3.1651834 | 20 | 2 6.1 | 20.6 |
| 205606 | 2001 UK ₁₀₃ | 17.8 | X | 155.55969 | 224.00345 | 204.49939 | 4.90420 | 0.1125101 | 0.29279610 | 2.2460833 | 20 | 5 2.6 | 20.7 |
| 205607 | 2001 UU ₁₀₄ | 15.1 | X | 287.17379 | 163.78928 | 46.39027 | 9.79413 | 0.0286475 | 0.17436640 | 3.1731761 | 20 | 1 11.7 | 19.8 |
| 205608 | 2001 UK ₁₂₈ | 15.2 | X | 135.42853 | 40.82702 | 310.60783 | 8.49024 | 0.0803687 | 0.17402547 | 3.1773191 | 20 | 1 12.5 | 19.8 |
| 205609 | 2001 UV ₁₅₂ | 17.2 | X | 294.37113 | 179.21082 | 207.25185 | 1.02579 | 0.1610599 | 0.30580787 | 2.1819106 | 20 | 8 26.9 | 19.0 |
| 205610 | 2001 UP ₁₅₆ | 17.1 | X | 150.52470 | 260.32470 | 192.62452 | 4.60523 | 0.1113423 | 0.29276354 | 2.2462498 | 20 | 5 30.8 | 20.3 |
| 205611 | 2001 UZ ₁₅₆ | 17.8 | X | 259.61972 | 265.38833 | 83.51893 | 3.08996 | 0.2096623 | 0.29764804 | 2.2216077 | 20 | 4 29.8 | 21.0 |
| 205612 | 2001 UN ₁₆₆ | 17.7 | X | 126.77957 | 95.42421 | 314.78953 | 2.39452 | 0.1796283 | 0.28521866 | 2.2856905 | 20 | 3 12.7 | 20.6 |
| 205613 | 2001 UF ₁₆₈ | 16.1 | X | 130.00463 | 64.54139 | 339.32057 | 9.56893 | 0.1827646 | 0.28280940 | 2.2986534 | 20 | 3 8.4 | 19.3 |
| 205614 | 2001 UJ ₁₇₂ | 15.7 | X | 48.04428 | 39.36965 | 42.99579 | 1.98375 | 0.1129247 | 0.17156277 | 3.2076527 | 20 | 1 14.2 | 19.6 |
| 205615 | 2001 UJ ₁₇₉ | 14.7 | X | 324.26630 | 273.44634 | 337.08033 | 13.06772 | 0.1979747 | 0.18951682 | 3.0017249 | 20 | 3 18.3 | 18.5 |
| 205616 | 2001 UG ₁₉₁ | 17.5 | X | 283.43676 | 46.15315 | 272.37691 | 2.77571 | 0.1453048 | 0.29966232 | 2.2116410 | 20 | 4 23.3 | 20.0 |
| 205617 | 2001 UO ₁₉₇ | 15.7 | X | 48.78297 | 105.98701 | 314.73760 | 3.85258 | 0.1956239 | 0.17143712 | 3.2092199 | 20 | — | — |
| 205618 | 2001 UB ₂₀₅ | 17.7 | X | 295.57352 | 24.96233 | 6.57486 | 2.73939 | 0.1454751 | 0.30780402 | 2.1724670 | 20 | 9 11.3 | 19.2 |
| 205619 | 2001 UA ₂₀₆ | 15.7 | X | 116.92139 | 56.69047 | 8.64852 | 4.95662 | 0.1367618 | 0.17844225 | 3.1246707 | 20 | 3 25.3 | 20.2 |
| 205620 | 2001 UQ ₂₁₇ | 15.2 | X | 240.20468 | 243.24621 | 49.18027 | 10.61394 | 0.0546822 | 0.18145189 | 3.0900230 | 20 | 2 24.9 | 19.9 |
| 205621 | 2001 UP ₂₂₀ | 17.1 | X | 109.94763 | 163.06454 | 311.69183 | 2.00830 | 0.1041114 | 0.29003325 | 2.2603249 | 20 | 5 9.6 | 20.0 |
| 205622 | 2001 VO ₂ | 16.1 | X | 185.76739 | 249.24606 | 123.32323 | 23.19126 | 0.2521288 | 0.28968526 | 2.2621346 | 20 | 4 2.2 | 20.5 |
| 205623 | 2001 VC ₁₆ | 16.9 | X | 253.70310 | 324.20458 | 56.68563 | 5.96091 | 0.1690690 | 0.30251411 | 2.1977196 | 20 | 6 10.5 | 19.6 |
| 205624 | 2001 VN ₁₇ | 16.4 | X | 205.16042 | 155.27129 | 265.00862 | 4.87833 | 0.1333974 | 0.29384289 | 2.2407458 | 20 | 6 13.9 | 19.5 |
| 205625 | 2001 VZ ₂₀ | 15.2 | X | 144.09236 | 355.00992 | 19.46066 | 2.01676 | 0.1325300 | 0.17658479 | 3.1465443 | 20 | 2 22.2 | 19.9 |
| 205626 | 2001 VK ₃₅ | 16.9 | X | 236.91907 | 332.16279 | 37.37410 | 4.23711 | 0.1848907 | 0.29485800 | 2.2356000 | 20 | 5 5.1 | 20.1 |
| 205627 | 2001 VP ₅₀ | 16.6 | X | 170.28655 | 146.64162 | 312.85864 | 6.25273 | 0.1744542 | 0.29626260 | 2.2285283 | 20 | 7 1.2 | 20.0 |
| 205628 | 2001 VP ₆₆ | 17.2 | X | 272.28252 | 94.93582 | 278.81392 | 4.15127 | 0.2284479 | 0.30169457 | 2.2016979 | 20 | 6 15.7 | 19.8 |
| 205629 | 2001 VW ₆₉ | 16.9 | X | 23.38588 | 3.15423 | 315.46783 | 5.09048 | 0.1848956 | 0.31099189 | 2.1575954 | 20 | 11 17.2 | 19.2 |
| 205630 | 2001 VU ₈₀ | 17.4 | X | 275.82910 | 118.43627 | 250.11761 | 3.66556 | 0.1760339 | 0.30191612 | 2.2006206 | 20 | 6 23.4 | 19.7 |
| 205631 | 2001 VB ₈₉ | 15.6 | X | 178.05363 | 53.73520 | 295.37174 | 8.27273 | 0.1278032 | 0.18014240 | 3.1049796 | 20 | 2 20.7 | 20.7 |
| 205632 | 2001 WK ₁₃ | 17.4 | X | 178.65542 | 270.29396 | 92.20943 | 7.01802 | 0.1999642 | 0.28669059 | 2.2778603 | 20 | 3 8.2 | 21.1 |
| 205633 | 2001 WS ₂₃ | 16.1 | X | 298.39754 | 207.27775 | 28.18265 | 0.65834 | 0.1055087 | 0.17628638 | 3.1500942 | 20 | 2 12.4 | 20.3 |
| 205634 | 2001 WA ₂₇ | 16.9 | X | 213.57960 | 323.71397 | 86.84944 | 6.20562 | 0.1624881 | 0.29668697 | 2.2264028 | 20 | 6 7.9 | 20.2 |
| 205635 | 2001 WA ₅₃ | 18.1 | X | 212.42031 | 85.09183 | 330.78246 | 0.96838 | 0.2040074 | 0.29779766 | 2.2208635 | 20 | 6 11.0 | 21.3 |
| 205636 | 2001 WX ₆₉ | 15.9 | X | 185.71256 | 108.46271 | 228.12740 | 1.51035 | 0.1985903 | 0.17987825 | 3.1080187 | 20 | 2 16.6 | 21.2 |
| 205637 | 2001 WC ₇₄ | 15.6 | X | 180.18794 | 148.82259 | 171.02541 | 3.33032 | 0.1949316 | 0.17719463 | 3.1393207 | 20 | 1 24.7 | 20.8 |
| 205638 | 2001 WW ₈₈ | 16.7 | X | 179.23424 | 28.49571 | 33.30956 | 5.21458 | 0.1197089 | 0.29214370 | 2.2494259 | 20 | 5 18.5 | 20.0 |
| 205639 | 2001 WO ₉₃ | 15.2 | X | 81.38313 | 311.16473 | 68.42677 | 8.51760 | 0.0807425 | 0.16855503 | 3.2456990 | 20 | — | — |
| 205640 | 2001 XQ ₄ | 16.1 | X | 261.53177 | 282.90440 | 56.38757 | 8.85087 | 0.3362525 | 0.29418747 | 2.2389957 | 20 | 4 8.9 | 19.9 |
| 205641 | 2001 XY ₁₃ | 16.5 | X | 222.86366 | 33.06884 | 19.97907 | 5.78094 | 0.1468083 | 0.29630516 | 2.2283149 | 20 | 6 22.4 | 19.6 |
| 205642 | 2001 XU ₂₃ | 16.3 | X | 219.75157 | 333.06696 | 37.72173 | 7.03746 | 0.1585799 | 0.28826596 | 2.2695538 | 20 | 4 22.2 | 19.5 |
| 205643 | 2001 XP ₄₁ | 17.5 | X | 175.15468 | 78.00073 | 353.39135 | 6.83225 | 0.2397404 | 0.29137401 | 2.2533856 | 20 | 5 27.6 | 21.4 |
| 205644 | 2001 XN ₅₅ | 16.8 | X | 224.79684 | 335.32255 | 91.12905 | 4.98355 | 0.0852015 | 0.29859276 | 2.2169192 | 20 | 7 21.6 | 19.4 |
| 205645 | 2001 XZ ₆₄ | 16.6 | X | 150.57446 | 54.26585 | 123.29128 | 4.42641 | 0.1760498 | 0.29889618 | 2.2154187 | 20 | 9 26.2 | 20.1 |
| 205646 | 2001 XQ ₉₀ | 16.9 | X | 163.90131 | 24.91242 | 54.78070 | 8.70476 | 0.0458167 | 0.29302596 | 2.2449085 | 20 | 5 23.6 | 19.6 |
| 205647 | 2001 XQ ₉₁ | 17.6 | X | 237.70714 | 93.89025 | 261.13372 | 2.50434 | 0.2051650 | 0.29458984 | 2.2369565 | 20 | 4 14.3 | 21.0 |
| 205648 | 2001 XD ₉₈ | 16.2 | X | 188.79651 | 351.49331 | 72.75780 | 6.04949 | 0.1619521 | 0.29226333 | 2.2488121 | 20 | 6 1.3 | 19.4 |
| 205649 | 2001 XN ₉₉ | 16.9 | X | 84.61098 | 30.51679 | 77.23695 | 7.53082 | 0.1781823 | 0.28116363 | 3.2076147 | 20 | 4 11.3 | 19.6 |
| 205650 | 2001 XS ₁₀₁ | 16.8 | X | 209.46741 | 356.30881 | 76.21225 | 6.06882 | 0.1088586 | 0.29509007 | 2.2344278 | 20 | 7 8.1 | 19.9 |
| 205651 | 2001 XB ₁₀₃ | 16.6 | X | 219.95298 | 154.18610 | 245.51779 | 5.88432 | 0.0862651 | 0.29402379 | 2.2398266 | 20 | 6 5.9 | 19.5 |
| 205652 | 2001 XR ₁₀₈ | 16.8 | X | 170.72382 | 123.87719 | 314.20495 | 5.00511 | 0.1766374 | 0.29019448 | 2.2594875 | 20 | 6 1.6 | 20.3 |
| 205653 | 2001 XU ₁₀₈ | 16.2 | X | 185.08874 | 42.15822 | 322.98650 | 7.86111 | 0.2430952 | 0.28420122 | 2.2911424 | 20 | 3 12.5 | 20.1 |
| 205654 | 2001 XT ₁₂₂ | 17.3 | X | 59.04413 | 281.00997 | 223.56494 | 4.43327 | 0.1790986 | 0.28426909 | 2.2907778 | 20 | 4 18.4 | 19.4 |
| 205655 | 2001 XT ₁₄₂ | 16.9 | X | 249.86855 | 231.01343 | 100.43397 | 5.44594 | 0.1975248 | 0.29167619 | 2.2518290 | 20 | 3 31.1 | 20.4 |
| 205656 | 2001 XT ₁₄₃ | 15.5 | X | 131.43178 | 215.98776 | 149.06001 | 1.99104 | 0.1484263 | 0.17159214 | 3.2072868 | 20 | 1 31.0 | 20.4 |
| 205657 | 2001 XL ₁₄₆ | 17.1 | X | 261.86727 | 274.56856 | 93.91651 | 5.29244 | 0.1552712 | 0.29731242 | 2.2232792 | 20 | 6 5.8 | 19.8 |
| 205658 | 2001 XY ₁₄₇ | 17.2 | X | 190.55551 | 178.15328 | 238.21475 | 5.04779 | 0.0731472 | 0.29193353 | 2.2505054 | 20 | 5 25.1 | 20.1 |
| 205659 | 2001 XO ₁₅₀ | 17.5 | X | 226.50272 | 270.49992 | 83.03045 | 3.87115 | 0.2125376 | 0.29082687 | 2.2562109 | 20 | 4 4.9 | 21.1 |
| 205660 | 2001 XK ₁₅₃ | 16.9 | X | 127.11457 | 280.38520 | 92.35791 | 5.95044 | 0.0935689 | 0.27664226 | 2.3326900 | 20 | 1 13.5 | 19.6 |
| 205661 | 2001 XT ₁₅₈ | 16.3 | X | 9.28314 | 80.59499 | 97.43564 | 7.19295 | 0.1239315 | 0.27937245 | 2.3174675 | 20 | 2 28.4 | 18.5 |
| 205662 | 2001 XH ₁₆₆ | 16.6 | X | 95.82640 | 100.91969 | 105.58006 | 5.94743 | 0.0947952 | 0.29751606 | 2.2222646 | 20 | 9 3.2 | 19.4 |
| 205663 | 2001 XD ₁₆₉ | 17.0 | X | 206.90171 | 263.31801 | 144.59516 | 1.44702 | 0.1655988 | 0.29332612 | 2.2433768 | 20 | 5 28.4 | 20.4 |
| 205664 | 2001 XZ ₁₇₃ | 16.8 | X | 105.92200 | 194.43483 | 247.30900 | 4.38414 | 0.1438895 | 0.28135378 | 2.3065748 | 20 | 3 23.7 | 19.6 |
| 205665 | 2001 XU ₁₇₄ | 17.1 | X | 241.83164 | 115.77346 | 277.87758 | 0.99598 | 0.1329290 | 0.29554400 | 2.2321392 | 20 | 6 18.9 | 20.1 |
| 205666 | 2001 XS ₁₇₈ | 16.3 | X | 6.73694 | 77.62884 | 109.65711 | 10.36419 | 0.1977378 | 0.27766951 | 2.3269332 | 20 | 3 3.9 | 18.1 |
| 205667 | 2001 XY ₁₇₈ | 17.5 | X | 202.20206 | 287.62986 | 105.85638 | 1.39165 | 0.1359353 | 0.28942991 | 2.2634650 | 20 | 5 5.6 | 20.8 |
| 205668 | 2001 XB ₁₈₇ | 16.6 | X | 8.75049 | 233.52217 | 247.21597 | 4.80855 | 0.1566263 | 0.27075645 | 2.3663746 | 20 | — | — |
| 205669 | 2001 XQ ₁₉₁ | 16.7 | X | 149.20825 | 173.62388 | 272.32738 | 5.69084 | 0.0771116 | 0.28662440 | 2.2782110 | 20 | 5 15.3 | 19.7 |
| 205670 | 2001 XD ₁₉₂ | 16.8 | X | 101.32882 | 273.63845 | 124.10053 | 6.77932 | 0.1370628 | 0.27394970 | 2.3479499 | 20 | 1 18.4 | 19.4 |
| 205671 | 2001 XZ ₁₉₉ | 16.8 | X | 127.48478 | 189.80656 | 264.61193 | 6.68771 | 0.0902082 | 0.28476978 | 2.2880918 | 20 | 4 30.7 | 20.0 |
| 205672 | | | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|----------|
| 205681 2001 YN ₃ | 17.6 | X | 244.44600 | 345.47733 | 7.13116 | 3.70051 | 0.1819834 | 0.28901740 | 2.2656182 | 20 | 4 20.1 | 21.1 |
| 205682 2001 YR ₁₉ | 16.7 | X | 242.62458 | 80.92718 | 284.46450 | 5.87849 | 0.1186506 | 0.28925852 | 2.2643590 | 20 | 5 11.2 | 19.7 |
| 205683 2001 YG ₃₈ | 17.2 | X | 172.37183 | 157.89008 | 296.22317 | 4.90150 | 0.0743193 | 0.29411077 | 2.2393850 | 20 | 6 25.5 | 20.1 |
| 205684 2001 YO ₆₆ | 16.8 | X | 293.95845 | 41.35751 | 332.34832 | 3.35431 | 0.0934431 | 0.30007174 | 2.2096288 | 20 | 8 15.5 | 18.9 |
| 205685 2001 YW ₇₇ | 16.5 | X | 52.02025 | 90.27279 | 92.71427 | 5.80061 | 0.0708408 | 0.28572710 | 2.2829782 | 20 | 5 20.1 | 19.0 |
| 205686 2001 YK ₉₁ | 16.3 | X | 78.45992 | 358.82463 | 104.04354 | 12.90988 | 0.0326638 | 0.27790781 | 2.3256029 | 20 | 3 4.3 | 19.3 |
| 205687 2001 YY ₁₀₀ | 16.9 | X | 110.92959 | 77.77737 | 118.49977 | 4.58688 | 0.0626692 | 0.29844734 | 2.2176393 | 20 | 9 3.7 | 19.6 |
| 205688 2001 YV ₁₁₀ | 16.4 | X | 88.86954 | 181.27635 | 323.47778 | 10.27690 | 0.1547785 | 0.28560859 | 2.2836097 | 20 | 5 31.3 | 19.4 |
| 205689 2001 YM ₁₁₃ | 15.8 | X | 316.18342 | 243.49377 | 300.78599 | 20.91596 | 0.2552088 | 0.26552543 | 2.3973529 | 20 | — | — |
| 205690 2001 YM ₁₁₅ | 16.2 | X | 143.81071 | 90.17780 | 340.42735 | 5.15510 | 0.1333122 | 0.28426422 | 2.2908039 | 20 | 4 21.6 | 19.4 |
| 205691 2001 YR ₁₂₃ | 17.1 | X | 233.71375 | 331.98374 | 48.07909 | 7.15524 | 0.1155765 | 0.29424657 | 2.2386959 | 20 | 5 22.2 | 20.0 |
| 205692 2001 YT ₁₂₅ | 16.4 | X | 237.81923 | 301.83478 | 38.09416 | 8.04985 | 0.1605514 | 0.28935360 | 2.2638629 | 20 | 4 1.6 | 19.7 |
| 205693 2001 YT ₁₂₆ | 16.6 | X | 204.86699 | 77.17687 | 306.39865 | 7.01091 | 0.1255871 | 0.28958009 | 2.2626823 | 20 | 4 21.4 | 20.0 |
| 205694 2001 YG ₁₂₇ | 16.6 | X | 96.32342 | 82.86871 | 342.80441 | 4.21111 | 0.1084645 | 0.27829845 | 2.3234261 | 20 | 2 14.3 | 19.1 |
| 205695 2001 YR ₁₃₂ | 16.3 | X | 202.92918 | 68.60655 | 337.91850 | 5.87489 | 0.1203480 | 0.29315093 | 2.2442705 | 20 | 5 22.4 | 19.5 |
| 205696 2001 YB ₁₃₉ | 17.7 | X | 24.85719 | 284.48997 | 209.15285 | 1.89025 | 0.1338027 | 0.27394052 | 2.3480024 | 20 | 1 18.9 | 19.8 |
| 205697 2001 YM ₁₅₁ | 17.2 | X | 252.56765 | 32.10857 | 351.76396 | 5.63961 | 0.1267405 | 0.29673186 | 2.2621782 | 20 | 6 14.1 | 20.2 |
| 205698 Troiani | 16.2 | X | 346.12853 | 255.03731 | 303.35831 | 20.94254 | 0.2933793 | 0.27313325 | 2.3526266 | 20 | 1 17.9 | 18.4 |
| 205699 2002 AJ ₆ | 16.9 | X | 172.68707 | 65.57626 | 14.89434 | 6.38506 | 0.0823354 | 0.28889263 | 2.2662705 | 20 | 6 5.2 | 20.1 |
| 205700 2002 AY ₁₂ | 16.7 | X | 96.51539 | 170.72084 | 270.90548 | 1.85830 | 0.1219946 | 0.27684666 | 2.3315417 | 20 | 3 8.5 | 19.4 |
| 205701 2002 AC ₁₃ | 16.8 | X | 8.53726 | 70.66343 | 138.07166 | 5.86847 | 0.0847551 | 0.27971816 | 2.3155577 | 20 | 4 15.5 | 19.1 |
| 205702 2002 AQ ₁₆ | 16.3 | X | 119.28468 | 73.64211 | 338.80488 | 6.72966 | 0.0824740 | 0.27667090 | 2.3325290 | 20 | 2 23.9 | 19.0 |
| 205703 2002 AQ ₂₃ | 16.7 | X | 192.43008 | 271.16532 | 141.87276 | 5.36152 | 0.1243231 | 0.28942912 | 2.2634691 | 20 | 5 23.1 | 20.0 |
| 205704 2002 AE ₃₀ | 17.0 | X | 221.23664 | 258.02520 | 122.14216 | 4.55777 | 0.1640849 | 0.29065035 | 2.2571243 | 20 | 5 7.2 | 20.4 |
| 205705 2002 AH ₃₃ | 17.0 | X | 282.43998 | 212.22897 | 122.43957 | 5.81085 | 0.1516795 | 0.29146554 | 2.2529138 | 20 | 5 18.0 | 19.7 |
| 205706 2002 AE ₃₅ | 17.1 | X | 171.78217 | 148.57589 | 295.92485 | 1.15496 | 0.1132480 | 0.29209456 | 2.2496782 | 20 | 6 11.3 | 20.1 |
| 205707 2002 AR ₃₅ | 16.8 | X | 102.54703 | 38.48360 | 107.52581 | 4.23994 | 0.1785806 | 0.28715062 | 2.2754268 | 20 | 6 24.6 | 19.8 |
| 205708 2002 AA ₄₈ | 16.9 | X | 334.79916 | 342.88523 | 130.22358 | 2.06625 | 0.0324602 | 0.26393768 | 2.4069577 | 20 | — | — |
| 205709 2002 AE ₅₀ | 16.8 | X | 135.24244 | 281.71256 | 130.11517 | 6.82069 | 0.1194083 | 0.28015409 | 2.3131550 | 20 | 3 21.2 | 20.0 |
| 205710 2002 AY ₅₃ | 17.2 | X | 142.36365 | 313.09298 | 132.16293 | 4.19313 | 0.0949572 | 0.28635360 | 2.2796471 | 20 | 5 10.2 | 20.3 |
| 205711 2002 AV ₆₀ | 16.1 | X | 46.90412 | 179.79426 | 306.27688 | 11.23173 | 0.1975490 | 0.27437588 | 2.3455180 | 20 | 2 22.8 | 17.9 |
| 205712 2002 AB ₆₆ | 17.7 | X | 86.44223 | 30.75758 | 130.84280 | 2.43996 | 0.1537512 | 0.28622811 | 2.2803133 | 20 | 6 23.1 | 20.4 |
| 205713 2002 AP ₇₁ | 16.7 | X | 120.42066 | 234.40211 | 298.00931 | 2.39735 | 0.0758609 | 0.29507607 | 2.2344984 | 20 | 8 11.4 | 19.4 |
| 205714 2002 AR ₇₄ | 17.0 | X | 38.91792 | 226.49670 | 335.46036 | 3.92416 | 0.1269791 | 0.28590145 | 2.2820499 | 20 | 6 1.6 | 19.1 |
| 205715 2002 AE ₇₈ | 17.3 | X | 158.17085 | 71.63448 | 6.71346 | 2.71504 | 0.0802987 | 0.28754656 | 2.2733376 | 20 | 5 16.1 | 20.3 |
| 205716 2002 AQ ₇₈ | 17.2 | X | 60.40759 | 226.41865 | 307.18792 | 5.56860 | 0.0928780 | 0.28589801 | 2.2820682 | 20 | 5 20.3 | 19.8 |
| 205717 2002 AW ₈₄ | 16.1 | X | 179.24245 | 126.72808 | 236.43341 | 5.65772 | 0.1661556 | 0.28134892 | 2.3066014 | 20 | 3 2.5 | 19.7 |
| 205718 2002 AL ₈₆ | 17.2 | X | 122.34336 | 268.66552 | 153.27068 | 5.55458 | 0.1451277 | 0.28034516 | 2.3121039 | 20 | 3 21.3 | 20.3 |
| 205719 2002 AY ₈₇ | 16.8 | X | 135.91127 | 349.78890 | 137.81398 | 6.78595 | 0.0239690 | 0.29096954 | 2.2554733 | 20 | 6 23.4 | 19.5 |
| 205720 2002 AX ₈₉ | 15.6 | X | 33.63239 | 293.14336 | 298.10064 | 19.48914 | 0.2105719 | 0.28420859 | 2.2911029 | 20 | 7 23.9 | 17.5 |
| 205721 2002 AD ₁₀₀ | 17.1 | X | 31.96003 | 206.30314 | 357.64545 | 2.69936 | 0.1205160 | 0.28344283 | 2.2952275 | 20 | 5 21.2 | 19.0 |
| 205722 2002 AU ₁₀₂ | 16.9 | X | 334.78138 | 135.95870 | 86.54262 | 5.73507 | 0.1804769 | 0.27702871 | 2.3305202 | 20 | 2 22.8 | 19.2 |
| 205723 2002 AL ₁₀₆ | 16.7 | X | 288.38937 | 77.98206 | 82.40867 | 2.41151 | 0.1295752 | 0.26221476 | 2.4174897 | 20 | — | — |
| 205724 2002 AC ₁₁₃ | 17.6 | X | 106.01884 | 145.50611 | 334.88442 | 1.17954 | 0.2427769 | 0.28363356 | 2.2941984 | 20 | 5 31.6 | 20.7 |
| 205725 2002 AT ₁₁₄ | 16.5 | X | 233.99909 | 75.90013 | 305.47336 | 4.06677 | 0.1433887 | 0.29037327 | 2.2585600 | 20 | 5 21.3 | 19.6 |
| 205726 2002 AP ₁₂₄ | 17.1 | X | 349.70950 | 119.85948 | 29.91490 | 2.78873 | 0.1434110 | 0.26896384 | 2.3768774 | 20 | — | — |
| 205727 2002 AN ₁₃₄ | 17.0 | X | 185.69975 | 250.11068 | 145.30411 | 3.73533 | 0.1171447 | 0.28794181 | 2.2712567 | 20 | 4 22.2 | 20.2 |
| 205728 2002 AQ ₁₄₂ | 16.5 | X | 346.27398 | 97.30541 | 135.25860 | 6.22450 | 0.1912432 | 0.28119478 | 2.3074442 | 20 | 3 29.7 | 18.4 |
| 205729 2002 AZ ₁₄₆ | 17.0 | X | 295.23500 | 90.27183 | 254.11151 | 2.73977 | 0.1710516 | 0.29594441 | 2.2301254 | 20 | 6 17.1 | 19.2 |
| 205730 2002 AH ₁₅₁ | 16.8 | X | 77.54162 | 157.02601 | 321.18524 | 6.23265 | 0.0832791 | 0.27820546 | 2.3239438 | 20 | 3 23.7 | 19.4 |
| 205731 2002 AU ₁₅₁ | 16.4 | X | 336.34384 | 108.24044 | 123.45697 | 8.87497 | 0.1663944 | 0.27657890 | 2.3330463 | 20 | 3 13.5 | 18.7 |
| 205732 2002 AZ ₁₅₁ | 17.0 | X | 30.35817 | 7.46316 | 107.08071 | 2.21776 | 0.1324806 | 0.27076928 | 2.3662999 | 20 | 1 2.4 | 18.8 |
| 205733 2002 AM ₁₆₀ | 17.1 | X | 359.26830 | 23.60113 | 170.46793 | 3.53890 | 0.1712040 | 0.27530074 | 2.3402619 | 20 | 2 25.1 | 19.0 |
| 205734 2002 AM ₁₆₃ | 17.1 | X | 69.68687 | 249.35933 | 300.37682 | 1.80016 | 0.1511869 | 0.28512039 | 2.2862157 | 20 | 7 11.0 | 19.5 |
| 205735 2002 AM ₁₆₄ | 17.1 | X | 84.67305 | 1.79770 | 138.71632 | 3.96086 | 0.1491651 | 0.28173552 | 2.3044908 | 20 | 5 21.3 | 19.8 |
| 205736 2002 AG ₁₇₁ | 17.3 | X | 59.76923 | 134.43697 | 311.08243 | 4.12661 | 0.1162818 | 0.27316808 | 2.3524266 | 20 | 1 14.9 | 19.4 |
| 205737 2002 AS ₁₇₁ | 17.6 | X | 57.57274 | 183.63834 | 354.14221 | 2.43714 | 0.1516430 | 0.28344647 | 2.2952078 | 20 | 6 2.2 | 19.8 |
| 205738 2002 AF ₁₇₇ | 16.8 | X | 144.56948 | 122.79178 | 323.18066 | 6.47290 | 0.0611969 | 0.28419031 | 2.2912011 | 20 | 5 6.4 | 19.9 |
| 205739 2002 AF ₁₉₆ | 17.5 | X | 106.72527 | 45.12725 | 22.78274 | 3.08181 | 0.2104833 | 0.27857280 | 2.3219004 | 20 | 3 19.1 | 20.4 |
| 205740 2002 AM ₁₉₇ | 16.6 | X | 95.19357 | 268.28196 | 245.79729 | 6.72802 | 0.1154805 | 0.28651797 | 2.2787752 | 20 | 6 17.9 | 19.5 |
| 205741 2002 AA ₂₀₃ | 17.1 | X | 123.46364 | 259.27264 | 195.60307 | 4.56315 | 0.1179103 | 0.28347490 | 2.2950543 | 20 | 5 2.5 | 20.0 |
| 205742 2002 BW ₁₃ | 17.1 | X | 101.88229 | 215.02773 | 259.33079 | 2.30232 | 0.1787744 | 0.28157887 | 2.3053454 | 20 | 5 10.0 | 20.2 |
| 205743 2002 BZ ₁₃ | 17.2 | X | 122.45076 | 281.45981 | 169.31874 | 2.23843 | 0.1277589 | 0.28152005 | 2.3056665 | 20 | 4 26.8 | 20.2 |
| 205744 2002 BK ₂₅ | 18.2 | X | 70.92374 | 103.92579 | 156.15754 | 11.93541 | 0.7478872 | 0.28297225 | 2.2977714 | 20 | 12 1.0 | 23.6 |
| 205745 2002 CK ₄ | 16.3 | X | 1.83727 | 304.95620 | 321.39722 | 10.32057 | 0.1832785 | 0.28662485 | 2.2782086 | 20 | 7 8.3 | 18.0 |
| 205746 2002 CY ₁₅ | 16.6 | X | 313.56998 | 119.99938 | 138.33784 | 8.45344 | 0.0903667 | 0.27905516 | 2.3192239 | 20 | 3 26.7 | 19.3 |
| 205747 2002 CG ₁₇ | 16.4 | X | 125.56960 | 53.41627 | 337.70409 | 6.07797 | 0.1046705 | 0.27562387 | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 205761 2002 CC ₃₅ | 16.1 | X | 162.13778 | 29.91148 | 345.70321 | 10.75236 | 0.2337803 | 0.27926890 | 2.3180404 | 20 | 3 8.9 | 19.9 |
| 205762 2002 CE ₃₅ | 16.6 | X | 10.71293 | 177.80134 | 9.69319 | 6.54316 | 0.1119784 | 0.27673842 | 2.3321497 | 20 | 3 15.6 | 18.6 |
| 205763 2002 CM ₃₅ | 15.9 | X | 208.98869 | 330.82674 | 58.17901 | 6.87694 | 0.2039772 | 0.28818168 | 2.2699962 | 20 | 5 4.4 | 19.4 |
| 205764 2002 CZ ₃₇ | 17.2 | X | 96.24875 | 229.22392 | 238.96548 | 2.21746 | 0.1022342 | 0.28015266 | 2.3131629 | 20 | 4 11.5 | 19.8 |
| 205765 2002 CB ₃₈ | 16.4 | X | 235.60207 | 356.09009 | 309.76239 | 6.16206 | 0.1304912 | 0.27558324 | 2.3386623 | 20 | 2 15.3 | 19.8 |
| 205766 2002 CU ₃₈ | 17.1 | X | 33.75144 | 204.61613 | 300.79490 | 3.28183 | 0.0781196 | 0.27442684 | 2.3452276 | 20 | 2 21.8 | 19.3 |
| 205767 2002 CO ₄₃ | 16.6 | X | 0.78860 | 168.88780 | 103.54458 | 6.93512 | 0.1189365 | 0.28890809 | 2.2661896 | 20 | 7 10.5 | 18.2 |
| 205768 2002 CB ₅₅ | 16.7 | X | 24.47277 | 75.94309 | 147.04781 | 2.99229 | 0.1607555 | 0.28155327 | 2.3054852 | 20 | 6 12.4 | 18.5 |
| 205769 2002 CC ₆₂ | 16.8 | X | 39.15795 | 95.26793 | 36.13434 | 6.41498 | 0.1571531 | 0.27399622 | 2.3476841 | 20 | 2 18.6 | 18.8 |
| 205770 2002 CD ₆₃ | 16.4 | X | 81.37877 | 280.15040 | 107.26126 | 13.33927 | 0.0418124 | 0.26478110 | 2.4018436 | 20 | — | — |
| 205771 2002 CV ₆₆ | 17.1 | X | 182.28064 | 354.55314 | 47.62347 | 3.14399 | 0.1558000 | 0.28614014 | 2.2807807 | 20 | 4 26.9 | 20.6 |
| 205772 2002 CX ₆₆ | 16.7 | X | 166.62774 | 12.41980 | 7.33870 | 2.83210 | 0.1021729 | 0.27927699 | 2.3179956 | 20 | 3 10.7 | 20.0 |
| 205773 2002 CY ₆₆ | 16.8 | X | 109.81174 | 136.25707 | 351.41238 | 2.46898 | 0.1726458 | 0.28500578 | 2.2868286 | 20 | 6 6.4 | 20.0 |
| 205774 2002 CH ₆₇ | 17.2 | X | 36.38811 | 191.92774 | 321.93628 | 5.96652 | 0.0646440 | 0.27760979 | 2.3272669 | 20 | 3 7.8 | 19.7 |
| 205775 2002 CV ₆₇ | 16.7 | X | 349.75791 | 294.42519 | 330.88661 | 7.26224 | 0.1100285 | 0.28676576 | 2.2774623 | 20 | 6 3.2 | 18.9 |
| 205776 2002 CK ₇₀ | 16.7 | X | 149.08679 | 41.54454 | 331.76438 | 6.59772 | 0.1231294 | 0.27500794 | 2.3419227 | 20 | 2 14.2 | 19.8 |
| 205777 2002 CE ₇₁ | 17.1 | X | 3.34756 | 229.35505 | 355.90971 | 2.36517 | 0.1132352 | 0.28088452 | 2.3091431 | 20 | 4 26.9 | 19.2 |
| 205778 2002 CC ₇₂ | 16.7 | X | 44.70663 | 49.93594 | 122.72939 | 7.43835 | 0.0440989 | 0.28055464 | 2.3109528 | 20 | 4 22.0 | 19.4 |
| 205779 2002 CR ₇₄ | 16.8 | X | 82.92615 | 279.01136 | 137.77776 | 4.98086 | 0.1310067 | 0.27128964 | 2.3632731 | 20 | 1 15.4 | 19.1 |
| 205780 2002 CZ ₇₅ | 16.4 | X | 132.15545 | 72.14236 | 345.06225 | 6.27268 | 0.1649121 | 0.27923893 | 2.3182062 | 20 | 3 26.1 | 19.6 |
| 205781 2002 CO ₇₇ | 16.3 | X | 352.29764 | 281.48161 | 325.65050 | 7.09847 | 0.0919788 | 0.28205550 | 2.3027476 | 20 | 5 8.6 | 18.8 |
| 205782 2002 CQ ₇₉ | 17.1 | X | 17.76436 | 155.19663 | 321.54945 | 0.78699 | 0.1381776 | 0.26858377 | 2.3791192 | 20 | — | — |
| 205783 2002 CD ₈₇ | 16.5 | X | 246.99740 | 168.17326 | 137.23780 | 6.05285 | 0.0932112 | 0.27663373 | 2.3327380 | 20 | 3 2.3 | 19.6 |
| 205784 2002 CV ₉₀ | 16.6 | X | 348.91087 | 208.55448 | 334.24022 | 3.98140 | 0.0820931 | 0.27184024 | 2.3600809 | 20 | 2 2.8 | 19.0 |
| 205785 2002 CP ₉₂ | 17.0 | X | 145.10496 | 266.01688 | 140.07058 | 5.87487 | 0.1269512 | 0.27980346 | 2.3150871 | 20 | 3 28.8 | 20.4 |
| 205786 2002 CR ₉₅ | 16.1 | X | 325.35650 | 343.70548 | 152.93097 | 7.02586 | 0.0515490 | 0.26172806 | 2.4204857 | 20 | — | — |
| 205787 2002 CN ₁₀₅ | 16.5 | X | 89.31395 | 337.76711 | 148.27846 | 4.03031 | 0.1454587 | 0.27873582 | 2.3209950 | 20 | 5 6.8 | 19.3 |
| 205788 2002 CX ₁₁₉ | 16.5 | X | 73.12594 | 273.04960 | 160.56129 | 5.12723 | 0.1215332 | 0.27321426 | 2.3521615 | 20 | 1 20.7 | 19.0 |
| 205789 2002 CO ₁₂₂ | 16.7 | X | 166.09661 | 233.79562 | 134.81931 | 5.80574 | 0.1582178 | 0.27779530 | 2.3262307 | 20 | 2 29.5 | 20.2 |
| 205790 2002 CT ₁₂₃ | 16.5 | X | 316.18592 | 77.48195 | 165.14335 | 4.87185 | 0.1956435 | 0.27439901 | 2.3453861 | 20 | 2 16.8 | 19.3 |
| 205791 2002 CL ₁₂₆ | 17.0 | X | 307.68282 | 279.30555 | 311.75359 | 1.73065 | 0.1828545 | 0.27086204 | 2.3657596 | 20 | 1 24.3 | 19.9 |
| 205792 2002 CT ₁₂₆ | 16.7 | X | 60.54322 | 145.86562 | 156.54909 | 4.75823 | 0.0348424 | 0.30081360 | 2.2059944 | 20 | 11 22.5 | 19.3 |
| 205793 2002 CX ₁₂₆ | 17.9 | X | 69.80004 | 274.23232 | 203.56860 | 1.76811 | 0.1610944 | 0.27793016 | 2.3254781 | 20 | 3 25.7 | 20.1 |
| 205794 2002 CA ₁₂₇ | 17.6 | X | 91.18423 | 297.50757 | 159.80489 | 2.60223 | 0.2050940 | 0.27930174 | 2.3178587 | 20 | 4 7.4 | 20.3 |
| 205795 2002 CX ₁₃₂ | 16.5 | X | 86.22175 | 103.78558 | 330.15862 | 6.46424 | 0.0820431 | 0.27129498 | 2.3632421 | 20 | 2 7.8 | 19.2 |
| 205796 2002 CK ₁₃₉ | 16.5 | X | 155.86463 | 180.96266 | 257.92672 | 4.80966 | 0.1236020 | 0.28507799 | 2.2864424 | 20 | 5 16.9 | 19.8 |
| 205797 2002 CE ₁₄₁ | 16.6 | X | 82.58260 | 224.29025 | 204.59643 | 4.96570 | 0.2113680 | 0.27357300 | 2.3501048 | 20 | 2 12.2 | 18.9 |
| 205798 2002 CH ₁₅₃ | 17.0 | X | 303.67530 | 137.10490 | 134.02346 | 5.95474 | 0.1107844 | 0.27796072 | 2.3253077 | 20 | 3 26.2 | 19.7 |
| 205799 2002 CW ₁₅₆ | 17.0 | X | 227.96648 | 251.39531 | 125.62276 | 4.47350 | 0.1781496 | 0.28853777 | 2.2681282 | 20 | 5 8.8 | 20.5 |
| 205800 2002 CR ₁₅₈ | 17.4 | X | 74.97636 | 105.69265 | 342.04886 | 1.18330 | 0.1485249 | 0.27351210 | 2.3504536 | 20 | 2 18.3 | 19.7 |
| 205801 2002 CM ₁₆₁ | 16.4 | X | 344.20454 | 245.55645 | 335.70237 | 9.69625 | 0.0700924 | 0.27838665 | 2.3229353 | 20 | 3 18.2 | 19.0 |
| 205802 2002 CP ₁₆₄ | 16.4 | X | 182.66977 | 340.73516 | 32.25748 | 5.04053 | 0.1395385 | 0.27988150 | 2.3146567 | 20 | 3 21.7 | 19.9 |
| 205803 2002 CT ₁₆₄ | 16.3 | X | 343.56443 | 197.04449 | 73.15650 | 6.11500 | 0.1491678 | 0.28424120 | 2.2909276 | 20 | 5 28.1 | 18.1 |
| 205804 2002 CV ₁₆₅ | 17.0 | X | 94.03942 | 74.58652 | 44.76229 | 2.92932 | 0.1609610 | 0.28060308 | 2.3106869 | 20 | 5 4.6 | 19.7 |
| 205805 2002 CK ₁₆₇ | 16.3 | X | 9.42603 | 133.51369 | 70.56192 | 4.74712 | 0.2082136 | 0.27652262 | 2.3333628 | 20 | 4 6.7 | 17.7 |
| 205806 2002 CO ₁₆₇ | 16.1 | X | 128.28339 | 47.58036 | 24.40575 | 6.15570 | 0.1093213 | 0.27886133 | 2.3202984 | 20 | 4 5.8 | 19.1 |
| 205807 2002 CA ₁₆₉ | 16.1 | X | 9.82247 | 202.47313 | 25.58665 | 4.83336 | 0.1350327 | 0.27997087 | 2.3141641 | 20 | 5 15.1 | 18.0 |
| 205808 2002 CJ ₁₇₀ | 16.1 | X | 339.17722 | 206.64094 | 14.12685 | 5.73457 | 0.1808353 | 0.27332856 | 2.3515057 | 20 | 2 28.1 | 18.4 |
| 205809 2002 CV ₁₉₅ | 17.0 | X | 305.51521 | 87.73497 | 126.36069 | 0.37373 | 0.1110423 | 0.26998823 | 2.3708614 | 20 | 1 9.8 | 20.1 |
| 205810 2002 CO ₁₉₈ | 16.8 | X | 287.18847 | 288.44912 | 335.37765 | 3.84537 | 0.1359340 | 0.27425297 | 2.3462187 | 20 | 2 17.7 | 19.9 |
| 205811 2002 CF ₂₀₁ | 16.6 | X | 299.83602 | 162.60805 | 137.67191 | 3.84551 | 0.1292536 | 0.28235664 | 2.3011100 | 20 | 4 27.5 | 19.2 |
| 205812 2002 CJ ₂₀₁ | 16.6 | X | 47.21552 | 176.98097 | 348.23257 | 6.40193 | 0.0486581 | 0.27913968 | 2.3187557 | 20 | 4 9.3 | 19.3 |
| 205813 2002 CR ₂₀₈ | 16.6 | X | 285.55411 | 108.52993 | 141.65576 | 6.49696 | 0.1402427 | 0.27065134 | 2.3669873 | 20 | 1 28.4 | 19.9 |
| 205814 2002 CF ₂₀₉ | 16.9 | X | 137.62122 | 29.84498 | 5.43068 | 3.00665 | 0.1752052 | 0.27548264 | 2.3392316 | 20 | 3 6.9 | 20.2 |
| 205815 2002 CU ₂₀₉ | 17.1 | X | 87.42827 | 45.17887 | 56.61098 | 1.45049 | 0.0885835 | 0.27619793 | 2.3351912 | 20 | 3 20.1 | 19.8 |
| 205816 2002 CW ₂₁₂ | 17.2 | X | 278.79234 | 97.06816 | 141.17078 | 2.63019 | 0.1782269 | 0.26773972 | 2.3841167 | 20 | 1 2.7 | 20.6 |
| 205817 2002 CS ₂₁₅ | 17.1 | X | 358.43890 | 201.03516 | 10.19165 | 2.13267 | 0.1112710 | 0.27614548 | 2.3354868 | 20 | 3 27.6 | 19.2 |
| 205818 2002 CN ₂₁₉ | 17.2 | X | 80.36263 | 111.21900 | 13.38915 | 4.32755 | 0.1497788 | 0.27745664 | 2.3281232 | 20 | 4 19.8 | 19.9 |
| 205819 2002 CX ₂₃₇ | 17.2 | X | 133.78601 | 49.62483 | 44.11365 | 3.20970 | 0.1255008 | 0.28435245 | 2.2903300 | 20 | 5 13.0 | 20.2 |
| 205820 2002 CO ₂₄₀ | 17.5 | X | 26.12241 | 192.55392 | 273.80377 | 1.15723 | 0.1913393 | 0.26758301 | 2.3850475 | 20 | — | — |
| 205821 2002 CD ₂₄₆ | 17.5 | X | 68.24124 | 8.14697 | 129.94554 | 1.86773 | 0.0428719 | 0.27778968 | 2.3262621 | 20 | 4 5.2 | 20.0 |
| 205822 2002 CT ₂₅₉ | 16.6 | X | 349.86873 | 171.46292 | 36.21343 | 5.30022 | 0.2063775 | 0.27445854 | 2.3450470 | 20 | 2 25.3 | 18.6 |
| 205823 2002 CP ₂₆₄ | 16.9 | X | 185.86277 | 6.83388 | 314.68691 | 6.24639 | 0.1283450 | 0.27084183 | 2.3658773 | 20 | 1 19.3 | 20.4 |
| 205824 2002 CG ₂₆₉ | 16.9 | X | 187.89043 | 329.36319 | 327.99213 | 4.56258 | 0.1744838 | 0.26486498 | 2.4013365 | 20 | — | — |
| 205825 2002 CC ₂₈₀ | 17.0 | X | 36.55085 | 264.53919 | 237.14600 | 4.49867 | 0.0965924 | 0.27451435 | 2.3447291 | 20 | 2 20.3 | 19.5 |
| 205826 2002 CU ₂₈₂ | 16.4 | X | 210.44692 | 308.15252 | 319.16314 | 3.97417 | 0.1609132 | 0.26237638 | 2.4164968 | 20 | — | — |
| 205827 2002 CA ₂₉₀ | 16.6 | X | 153.55425 | 25.02141 | 19.45300 | 9.76657 | 0.1561280 | 0.28154934 | 2.3055066 | 20 | 4 2.3 | 19.8 |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|----------|
| 205841 2002 EA ₂₈ | 17.0 | X | 345.89453 | 103.39122 | 103.56519 | 2.37717 | 0.1405269 | 0.27204988 | 2.3588683 | 20 | 2 24.9 | 19.2 |
| 205842 2002 EZ ₃₁ | 17.2 | X | 59.22229 | 346.32399 | 142.96551 | 3.17148 | 0.1178930 | 0.27472701 | 2.3435190 | 20 | 3 19.3 | 19.5 |
| 205843 2002 ED ₃₄ | 16.8 | X | 266.02012 | 129.65792 | 137.57319 | 6.31159 | 0.1109718 | 0.26957029 | 2.3733112 | 20 | 2 1.0 | 19.9 |
| 205844 2002 EF ₃₈ | 17.6 | X | 5.00179 | 231.98990 | 286.98817 | 0.41585 | 0.1171310 | 0.26952475 | 2.3735786 | 20 | 1 22.2 | 19.6 |
| 205845 2002 EL ₃₉ | 16.9 | X | 354.87684 | 237.96246 | 330.68309 | 1.76707 | 0.1269923 | 0.27470147 | 2.3436642 | 20 | 3 14.9 | 18.9 |
| 205846 2002 EB ₄₆ | 17.0 | X | 83.58757 | 153.57992 | 325.21592 | 5.18576 | 0.1540606 | 0.27695597 | 2.3309282 | 20 | 4 15.1 | 19.7 |
| 205847 2002 ED ₄₆ | 16.8 | X | 55.57703 | 248.10618 | 216.44465 | 4.31873 | 0.1922284 | 0.27152014 | 2.3619354 | 20 | 2 10.3 | 18.8 |
| 205848 2002 ER ₄₇ | 17.8 | X | 60.58146 | 276.93724 | 200.88299 | 1.76963 | 0.1704081 | 0.27364711 | 2.3496805 | 20 | 3 10.5 | 20.0 |
| 205849 2002 EL ₅₄ | 17.1 | X | 340.70630 | 232.95394 | 22.39902 | 1.98791 | 0.2016962 | 0.27826405 | 2.3236176 | 20 | 4 19.3 | 18.9 |
| 205850 2002 EX ₅₄ | 17.5 | X | 27.77780 | 191.11240 | 45.61724 | 0.25661 | 0.1791986 | 0.28151287 | 2.3057057 | 20 | 7 15.6 | 19.4 |
| 205851 2002 EH ₅₇ | 16.7 | X | 36.27082 | 302.24454 | 178.58467 | 6.55332 | 0.0617392 | 0.27032675 | 2.3688816 | 20 | 1 21.9 | 19.5 |
| 205852 2002 EY ₆₁ | 17.0 | X | 299.60246 | 251.42307 | 308.71540 | 1.63292 | 0.0864968 | 0.26533257 | 2.3985145 | 20 | — | — |
| 205853 2002 EB ₆₅ | 17.7 | X | 126.21153 | 165.34616 | 287.17754 | 0.49371 | 0.1855474 | 0.28050012 | 2.3112522 | 20 | 5 9.2 | 21.1 |
| 205854 2002 EJ ₆₈ | 17.1 | X | 315.40903 | 206.36541 | 1.02555 | 2.12879 | 0.1437556 | 0.26728712 | 2.3868073 | 20 | 1 9.6 | 20.1 |
| 205855 2002 EE ₇₀ | 16.9 | X | 233.78328 | 84.40128 | 181.00722 | 1.46620 | 0.1721459 | 0.26167409 | 2.4208185 | 20 | — | — |
| 205856 2002 EF ₇₈ | 16.1 | X | 302.03759 | 59.58736 | 191.44887 | 7.82357 | 0.1264787 | 0.26894163 | 2.3770083 | 20 | 2 19.0 | 19.3 |
| 205857 2002 EV ₇₈ | 17.1 | X | 343.87122 | 355.58314 | 211.66574 | 4.29381 | 0.1582108 | 0.27344094 | 2.3508614 | 20 | 2 15.1 | 19.5 |
| 205858 2002 EM ₇₉ | 16.3 | X | 33.74219 | 300.33136 | 249.69256 | 5.97553 | 0.1126556 | 0.27636192 | 2.3342673 | 20 | 5 1.3 | 18.4 |
| 205859 2002 EZ ₇₉ | 17.0 | X | 77.55229 | 69.85449 | 135.85142 | 1.21387 | 0.1253735 | 0.28568154 | 2.2832209 | 20 | 8 9.7 | 19.6 |
| 205860 2002 EQ ₈₀ | 16.9 | X | 313.32959 | 182.90584 | 28.51283 | 2.58036 | 0.1572471 | 0.26760144 | 2.3849380 | 20 | 1 10.3 | 20.0 |
| 205861 2002 EA ₈₆ | 16.9 | X | 50.57034 | 58.40832 | 175.71992 | 4.98811 | 0.1816060 | 0.28393773 | 2.2925597 | 20 | 8 20.9 | 19.4 |
| 205862 2002 EQ ₈₇ | 16.4 | X | 327.64734 | 174.82385 | 23.22063 | 6.61303 | 0.0600912 | 0.26816081 | 2.3816202 | 20 | 1 28.8 | 19.3 |
| 205863 2002 EO ₈₈ | 16.3 | X | 315.72826 | 114.71930 | 117.63552 | 3.19611 | 0.1433562 | 0.26925653 | 2.3751546 | 20 | 2 12.5 | 18.9 |
| 205864 2002 EF ₉₀ | 17.1 | X | 34.14502 | 104.12509 | 49.55011 | 2.73705 | 0.1355420 | 0.27363782 | 2.3497337 | 20 | 3 10.9 | 19.2 |
| 205865 2002 EL ₉₃ | 16.5 | X | 341.27466 | 261.86379 | 358.08456 | 4.87151 | 0.1707659 | 0.27953318 | 2.3165791 | 20 | 4 30.8 | 18.6 |
| 205866 2002 EB ₉₄ | 17.3 | X | 67.33458 | 97.88744 | 5.00102 | 1.31152 | 0.1479282 | 0.27329468 | 2.3517000 | 20 | 2 27.2 | 19.5 |
| 205867 2002 ES ₉₆ | 16.8 | X | 251.28218 | 90.96463 | 178.55472 | 4.11358 | 0.2000707 | 0.26473838 | 2.4021020 | 20 | 1 13.9 | 20.6 |
| 205868 2002 EC ₉₇ | 16.1 | X | 32.13826 | 269.47863 | 281.36958 | 6.20734 | 0.0771980 | 0.27779888 | 2.3262107 | 20 | 4 24.7 | 18.6 |
| 205869 2002 EQ ₁₀₃ | 16.6 | X | 223.98337 | 116.90116 | 95.72545 | 3.61481 | 0.1249741 | 0.25421456 | 2.4679467 | 20 | — | — |
| 205870 2002 EC ₁₀₄ | 16.3 | X | 270.28246 | 115.46136 | 133.47402 | 10.55986 | 0.2066037 | 0.26441199 | 2.4040784 | 20 | 1 5.8 | 20.1 |
| 205871 2002 EV ₁₀₄ | 16.9 | X | 42.56933 | 78.60013 | 97.67684 | 3.02890 | 0.0970695 | 0.27771238 | 2.3266937 | 20 | 4 27.3 | 19.2 |
| 205872 2002 ER ₁₀₅ | 17.1 | X | 110.93679 | 14.81272 | 85.58500 | 3.04335 | 0.1858576 | 0.27904609 | 2.3192742 | 20 | 5 4.1 | 20.1 |
| 205873 2002 ES ₁₀₅ | 17.0 | X | 277.69790 | 129.14919 | 50.50557 | 4.66154 | 0.1539327 | 0.25875247 | 2.4390070 | 20 | — | — |
| 205874 2002 EW ₁₀₈ | 16.7 | X | 340.26879 | 123.08524 | 91.89081 | 7.79060 | 0.0478592 | 0.27373510 | 2.3491769 | 20 | 3 13.6 | 19.5 |
| 205875 2002 EO ₁₁₀ | 16.4 | X | 42.45844 | 71.66773 | 59.54424 | 5.68046 | 0.1121120 | 0.27127988 | 2.3633298 | 20 | 2 22.7 | 18.7 |
| 205876 2002 EV ₁₁₀ | 16.2 | X | 323.35513 | 105.91720 | 73.20044 | 7.12853 | 0.0703558 | 0.26489109 | 2.4011787 | 20 | — | — |
| 205877 2002 ES ₁₁₆ | 16.9 | X | 59.52332 | 36.33271 | 15.36738 | 4.72658 | 0.1861505 | 0.26472807 | 2.4021643 | 20 | — | — |
| 205878 2002 EP ₁₂₇ | 17.4 | X | 316.88525 | 194.54643 | 34.03451 | 1.61528 | 0.1412020 | 0.27226350 | 2.3576343 | 20 | 2 8.9 | 20.2 |
| 205879 2002 ES ₁₂₈ | 17.0 | X | 287.60601 | 50.41440 | 160.90348 | 3.85613 | 0.0400608 | 0.26558386 | 2.3970013 | 20 | — | — |
| 205880 2002 EU ₁₄₂ | 16.9 | X | 279.11797 | 230.34939 | 87.31391 | 2.73275 | 0.0633276 | 0.27928609 | 2.3179453 | 20 | 4 23.9 | 19.6 |
| 205881 2002 EK ₁₄₄ | 17.4 | X | 310.21650 | 79.25617 | 147.65955 | 2.26673 | 0.1309401 | 0.26913817 | 2.3758509 | 20 | 1 29.8 | 20.4 |
| 205882 2002 EO ₁₄₆ | 16.8 | X | 96.76793 | 10.76867 | 120.80174 | 3.31661 | 0.1079882 | 0.27892721 | 2.3199331 | 20 | 5 18.5 | 19.7 |
| 205883 2002 EH ₁₅₅ | 17.0 | X | 23.26120 | 138.61852 | 24.92294 | 5.26994 | 0.0884018 | 0.27380965 | 2.3487505 | 20 | 3 4.8 | 19.3 |
| 205884 2002 FC ₂ | 16.0 | X | 320.82423 | 45.11764 | 180.18917 | 5.74485 | 0.1930395 | 0.26852612 | 2.3794597 | 20 | 1 31.2 | 19.0 |
| 205885 2002 FB ₁₀ | 16.7 | X | 56.04715 | 203.23371 | 314.01665 | 4.65799 | 0.1571116 | 0.27659685 | 2.3329453 | 20 | 4 27.5 | 19.1 |
| 205886 2002 FP ₁₅ | 17.2 | X | 307.99976 | 264.01308 | 296.72884 | 0.88797 | 0.1138319 | 0.26521834 | 2.3992031 | 20 | — | — |
| 205887 2002 FM ₃₉ | 17.1 | X | 301.58533 | 218.85518 | 31.90917 | 4.23294 | 0.2382794 | 0.27004228 | 2.3705450 | 20 | 2 5.8 | 20.3 |
| 205888 2002 GE ₈ | 16.6 | X | 252.99239 | 164.71926 | 100.88029 | 3.29665 | 0.0965681 | 0.26361446 | 2.4089247 | 20 | 1 18.3 | 20.0 |
| 205889 2002 GF ₁₀ | 16.8 | X | 328.03617 | 0.12354 | 182.89833 | 2.30503 | 0.1414115 | 0.26496400 | 2.4007382 | 20 | — | — |
| 205890 2002 GC ₁₂ | 16.9 | X | 41.92361 | 75.89233 | 163.72373 | 6.18187 | 0.1295198 | 0.28281859 | 2.2986036 | 20 | 8 5.9 | 19.4 |
| 205891 2002 GM ₁₂ | 17.1 | X | 355.94390 | 151.32946 | 29.37499 | 1.73112 | 0.1231942 | 0.26969071 | 2.3726047 | 20 | 2 6.8 | 19.4 |
| 205892 2002 GY ₄₂ | 16.4 | X | 284.32358 | 220.80501 | 6.46632 | 3.80259 | 0.0071188 | 0.26503399 | 2.4003155 | 20 | 1 16.6 | 19.4 |
| 205893 2002 GO ₄₆ | 16.3 | X | 304.20596 | 145.87162 | 104.36590 | 6.19438 | 0.1547647 | 0.26907649 | 2.3762140 | 20 | 2 20.7 | 19.4 |
| 205894 2002 GG ₅₀ | 16.4 | X | 32.64332 | 164.21407 | 311.87175 | 8.61134 | 0.1388508 | 0.26788694 | 2.3832431 | 20 | 1 11.0 | 18.6 |
| 205895 2002 GH ₅₁ | 16.9 | X | 348.10456 | 148.00731 | 19.90066 | 2.47110 | 0.1279227 | 0.26637635 | 2.3922447 | 20 | 1 6.0 | 19.4 |
| 205896 2002 GX ₅₂ | 16.6 | X | 355.97073 | 60.15373 | 127.15782 | 2.90504 | 0.1245980 | 0.26889733 | 2.3772693 | 20 | 2 16.2 | 18.9 |
| 205897 2002 GK ₅₉ | 16.6 | X | 350.07369 | 1.54005 | 204.99032 | 1.67007 | 0.1375414 | 0.27046164 | 2.3680940 | 20 | 3 1.9 | 19.0 |
| 205898 2002 GT ₆₁ | 17.0 | X | 25.16109 | 306.37258 | 191.72465 | 4.10425 | 0.2273214 | 0.26866164 | 2.3786594 | 20 | 1 22.5 | 18.4 |
| 205899 2002 GA ₆₆ | 16.7 | X | 232.25898 | 90.53885 | 192.00859 | 4.43163 | 0.1449136 | 0.26215608 | 2.4178504 | 20 | 1 15.2 | 20.5 |
| 205900 2002 GB ₆₉ | 17.2 | X | 301.14915 | 226.69237 | 37.94574 | 0.82339 | 0.1893300 | 0.27015120 | 2.3699078 | 20 | 2 29.0 | 20.3 |
| 205901 2002 GO ₇₂ | 16.9 | X | 275.11054 | 86.82931 | 137.87933 | 3.86075 | 0.1721160 | 0.26193106 | 2.4192350 | 20 | — | — |
| 205902 2002 GS ₇₃ | 16.6 | X | 260.95778 | 152.42888 | 69.56183 | 2.35449 | 0.1399025 | 0.25873013 | 2.4391474 | 20 | — | — |
| 205903 2002 GV ₇₄ | 17.0 | X | 21.10894 | 350.04721 | 205.89414 | 1.73715 | 0.1439176 | 0.27467547 | 2.3438121 | 20 | 4 18.6 | 18.9 |
| 205904 2002 GZ ₇₄ | 16.9 | X | 7.74649 | 98.06563 | 17.30182 | 3.26428 | 0.1574706 | 0.26287619 | 2.4134328 | 20 | — | — |
| 205905 2002 GJ ₇₈ | 16.5 | X | 20.41936 | 143.27571 | 350.08209 | 4.65295 | 0.1516558 | 0.26638614 | 2.3921861 | 20 | 1 12.2 | 18.6 |
| 205906 2002 GA ₈₀ | 16.6 | X | 330.52789 | 172.94548 | 62.33286 | 4.66371 | 0.1859769 | 0.27148872 | 2.3621177 | 20 | 3 5.2 | 19.0 |
| 205907 2002 GG ₈₄ | 16.6 | X | 260.40335 | 117.47490 | 110.90946 | 5.29842 | 0.1127984 | 0.25935935 | 2.4352008 | 20 | — | — |
| 205908 2002 GV ₉₅ | 16.6 | X | 341.71812 | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 205921 | 2002 | <i>GY</i> ₁₅₉ | 16.4 ^m | X | 215.36251 | 138.05792 | 133.35603 | 9.65614 | 0.1678760 | 0.25948011 | 2.4344452 | 20 | — | — |
| 205922 | 2002 | <i>GQ</i> ₁₇₀ | 16.6 | X | 221.64409 | 256.50673 | 356.64890 | 5.48124 | 0.0722938 | 0.25743976 | 2.4472911 | 20 | — | — |
| 205923 | 2002 | <i>GG</i> ₁₇₁ | 16.5 | X | 341.73800 | 10.49837 | 202.13396 | 6.28738 | 0.0521792 | 0.27184508 | 2.3600529 | 20 | 3 5.8 | 19.2 |
| 205924 | 2002 | <i>HZ</i> ₇ | 15.3 | X | 316.04563 | 85.71450 | 157.20579 | 21.41785 | 0.2617297 | 0.26894559 | 2.3769849 | 20 | 2 6.7 | 18.5 |
| 205925 | 2002 | <i>HH</i> ₉ | 16.4 | X | 317.19135 | 108.27949 | 106.03476 | 4.27070 | 0.1271566 | 0.26652971 | 2.3913270 | 20 | 1 23.9 | 19.1 |
| 205926 | 2002 | <i>HV</i> ₁₂ | 15.6 | X | 338.18199 | 24.95888 | 109.90730 | 25.45683 | 0.2237486 | 0.26178088 | 2.4201601 | 20 | — | — |
| 205927 | 2002 | <i>JF</i> ₁₀ | 17.2 | X | 233.48655 | 254.69480 | 60.05450 | 21.52451 | 0.0396917 | 0.37655999 | 1.8992404 | 20 | 3 3.4 | 19.9 |
| 205928 | 2002 | <i>JS</i> ₁₁ | 16.6 | X | 269.06077 | 209.05050 | 52.86900 | 2.49714 | 0.1784676 | 0.26284087 | 2.4136490 | 20 | 1 23.9 | 20.1 |
| 205929 | 2002 | <i>JO</i> ₁₇ | 17.1 | X | 259.23447 | 275.29224 | 319.83644 | 0.72825 | 0.1364539 | 0.25921257 | 2.4361200 | 20 | — | — |
| 205930 | 2002 | <i>JB</i> ₁₉ | 16.2 | X | 12.56346 | 344.93154 | 180.67270 | 6.47623 | 0.0671448 | 0.26655946 | 2.3911490 | 20 | 2 16.5 | 18.9 |
| 205931 | 2002 | <i>JD</i> ₂₀ | 16.1 | X | 168.31634 | 101.31449 | 119.53181 | 9.21685 | 0.0488236 | 0.24405327 | 2.5359828 | 20 | 12 5.3 | 19.8 |
| 205932 | 2002 | <i>JA</i> ₂₂ | 16.1 | X | 301.06511 | 73.07961 | 157.18087 | 5.67430 | 0.1576884 | 0.26556504 | 2.3971145 | 20 | 1 18.8 | 19.4 |
| 205933 | 2002 | <i>JD</i> ₂₆ | 15.9 | X | 355.59912 | 22.79698 | 144.97883 | 5.62508 | 0.1672757 | 0.26635633 | 2.3923646 | 20 | 1 11.8 | 18.4 |
| 205934 | 2002 | <i>JF</i> ₂₉ | 16.5 | X | 292.19214 | 102.95447 | 58.85243 | 7.29810 | 0.0779189 | 0.25367796 | 2.4714257 | 20 | — | — |
| 205935 | 2002 | <i>JW</i> ₃₃ | 15.9 | X | 314.13482 | 225.09835 | 65.11873 | 10.37578 | 0.2964254 | 0.21639249 | 2.7477334 | 20 | 4 13.9 | 19.2 |
| 205936 | 2002 | <i>JE</i> ₃₆ | 16.2 | X | 277.12450 | 79.61724 | 82.02818 | 7.14221 | 0.1229791 | 0.25126706 | 2.4872093 | 20 | — | — |
| 205937 | 2002 | <i>JF</i> ₃₉ | 15.8 | X | 208.93376 | 181.44502 | 123.03399 | 7.58591 | 0.1747569 | 0.25806535 | 2.4433345 | 20 | 1 22.0 | 19.5 |
| 205938 | 2002 | <i>JB</i> ₄₁ | 17.4 | X | 332.11291 | 338.58363 | 275.11307 | 1.96724 | 0.1833816 | 0.27286140 | 2.3541890 | 20 | 3 31.9 | 19.8 |
| 205939 | 2002 | <i>JG</i> ₄₂ | 16.5 | X | 326.75444 | 164.89058 | 32.52735 | 3.37826 | 0.1171957 | 0.26535088 | 2.3984041 | 20 | 1 16.7 | 19.3 |
| 205940 | 2002 | <i>JA</i> ₄₆ | 16.6 | X | 348.13352 | 231.51608 | 340.08073 | 4.40736 | 0.1778586 | 0.27099464 | 2.3649879 | 20 | 2 29.8 | 18.8 |
| 205941 | 2002 | <i>JW</i> ₅₀ | 17.1 | X | 357.65671 | 294.52193 | 253.26778 | 2.44266 | 0.2623190 | 0.26869138 | 2.3784839 | 20 | 1 29.9 | 19.0 |
| 205942 | 2002 | <i>JQ</i> ₅₃ | 16.8 | X | 59.06573 | 143.09680 | 44.46462 | 3.33157 | 0.1570865 | 0.27803009 | 2.3249209 | 20 | 6 21.2 | 19.2 |
| 205943 | 2002 | <i>JU</i> ₅₅ | 17.0 | X | 238.74707 | 230.36706 | 47.53978 | 0.97522 | 0.1926622 | 0.25972587 | 2.4329093 | 20 | 1 15.2 | 20.9 |
| 205944 | 2002 | <i>JV</i> ₆₂ | 16.8 | X | 34.05196 | 41.66513 | 169.37805 | 5.27454 | 0.1766593 | 0.27546892 | 2.3393093 | 20 | 6 15.5 | 18.9 |
| 205945 | 2002 | <i>JH</i> ₇₁ | 17.0 | X | 322.02901 | 110.42017 | 130.95247 | 5.62159 | 0.1793890 | 0.26909130 | 2.3761268 | 20 | 2 29.1 | 19.7 |
| 205946 | 2002 | <i>JH</i> ₇₇ | 16.5 | X | 347.41472 | 310.08845 | 224.64814 | 5.58886 | 0.0488026 | 0.26597279 | 2.3946640 | 20 | 1 23.1 | 19.3 |
| 205947 | 2002 | <i>JP</i> ₈₀ | 16.8 | X | 86.61036 | 240.85234 | 31.30367 | 2.48281 | 0.1549102 | 0.23799474 | 2.5788405 | 20 | 11 13.0 | 20.7 |
| 205948 | 2002 | <i>JO</i> ₈₆ | 16.5 | X | 270.32719 | 358.86281 | 222.57868 | 5.32449 | 0.1007335 | 0.25863604 | 2.4397389 | 20 | — | — |
| 205949 | 2002 | <i>JZ</i> ₈₉ | 16.8 | X | 15.63233 | 211.71742 | 329.14951 | 2.05539 | 0.1075342 | 0.26949617 | 2.3737464 | 20 | 3 14.2 | 18.9 |
| 205950 | 2002 | <i>JS</i> ₉₅ | 16.8 | X | 313.21778 | 220.21105 | 63.71153 | 3.26091 | 0.1662733 | 0.27110285 | 2.3643585 | 20 | 4 18.3 | 19.3 |
| 205951 | 2002 | <i>JK</i> ₁₀₄ | 16.9 | X | 337.59033 | 92.18948 | 107.83329 | 3.44674 | 0.1277692 | 0.26512495 | 2.3997665 | 20 | 2 3.7 | 19.4 |
| 205952 | 2002 | <i>JS</i> ₁₂₁ | 16.4 | X | 317.09335 | 7.82298 | 173.35871 | 13.10009 | 0.0993384 | 0.26045636 | 2.4283582 | 20 | — | — |
| 205953 | 2002 | <i>JH</i> ₁₂₂ | 16.7 | X | 162.15482 | 350.89955 | 241.12078 | 5.81319 | 0.1819177 | 0.24450047 | 2.5328896 | 20 | 12 3.9 | 20.8 |
| 205954 | 2002 | <i>JR</i> ₁₂₂ | 17.0 | X | 152.44091 | 333.45827 | 49.11015 | 23.39555 | 0.0678374 | 0.37601392 | 1.9010787 | 20 | 2 25.7 | 19.8 |
| 205955 | 2002 | <i>JC</i> ₁₃₃ | 16.3 | X | 309.39055 | 303.10666 | 268.70579 | 6.52303 | 0.1640457 | 0.26393974 | 2.4069452 | 20 | 1 4.8 | 19.4 |
| 205956 | 2002 | <i>JA</i> ₁₃₈ | 17.3 | X | 276.06575 | 20.92368 | 186.16765 | 0.42950 | 0.1257593 | 0.25769372 | 2.4456830 | 20 | — | — |
| 205957 | 2002 | <i>JZ</i> ₁₄₁ | 17.2 | X | 9.03281 | 185.60046 | 321.61108 | 1.38060 | 0.1158578 | 0.26467935 | 2.4024591 | 20 | 1 13.8 | 19.4 |
| 205958 | 2002 | <i>KN</i> ₅ | 16.3 | X | 238.80273 | 154.52988 | 88.94744 | 5.83400 | 0.1411366 | 0.25459927 | 2.4654599 | 20 | — | — |
| 205959 | 2002 | <i>KQ</i> ₁₀ | 16.8 | X | 300.54789 | 145.70872 | 74.43036 | 3.40184 | 0.1345571 | 0.26233730 | 2.4167368 | 20 | 1 9.9 | 20.1 |
| 205960 | 2002 | <i>KR</i> ₁₄ | 16.3 | X | 79.29203 | 174.32768 | 158.95795 | 16.23248 | 0.2365722 | 0.23949931 | 2.5680287 | 20 | — | — |
| 205961 | 2002 | <i>KE</i> ₁₅ | 16.7 | X | 142.60208 | 117.73214 | 168.71854 | 6.61716 | 0.0175310 | 0.24672816 | 2.5176203 | 20 | — | — |
| 205962 | 2002 | <i>LE</i> ₄ | 16.6 | X | 234.80072 | 124.96525 | 127.52559 | 3.13624 | 0.1498521 | 0.25504963 | 2.4625568 | 20 | — | — |
| 205963 | 2002 | <i>LD</i> ₁₄ | 16.9 | X | 308.57434 | 273.40923 | 22.21219 | 2.60987 | 0.1977300 | 0.27091141 | 2.3654722 | 20 | 4 21.1 | 19.2 |
| 205964 | 2002 | <i>LU</i> ₂₀ | 15.6 | X | 143.04706 | 195.25963 | 96.28111 | 8.29760 | 0.1303594 | 0.24300110 | 2.5432979 | 20 | — | — |
| 205965 | 2002 | <i>LH</i> ₂₉ | 15.1 | X | 138.02657 | 319.69918 | 294.43053 | 25.74383 | 0.2443452 | 0.23786427 | 2.5797834 | 20 | 12 9.9 | 19.9 |
| 205966 | 2002 | <i>LV</i> ₂₉ | 15.7 | X | 334.11732 | 231.20242 | 98.02302 | 13.09274 | 0.2997301 | 0.22295541 | 2.6935438 | 20 | 7 28.3 | 17.5 |
| 205967 | 2002 | <i>LX</i> ₃₉ | 16.1 | X | 68.48557 | 195.21743 | 104.15251 | 15.53704 | 0.1694697 | 0.23515220 | 2.5995810 | 20 | 12 2.2 | 20.1 |
| 205968 | 2002 | <i>LT</i> ₆₁ | 17.4 | X | 351.95671 | 67.44605 | 166.34274 | 2.27002 | 0.1239493 | 0.27139602 | 2.3626555 | 20 | 4 19.4 | 19.6 |
| 205969 | 2002 | <i>LO</i> ₆₂ | 15.5 | X | 156.31816 | 153.66103 | 138.66557 | 10.56046 | 0.0333871 | 0.19322323 | 2.9632150 | 20 | — | — |
| 205970 | 2002 | <i>NL</i> ₂ | 16.5 | X | 254.71657 | 281.28778 | 328.59443 | 6.81570 | 0.2014382 | 0.25489796 | 2.4635335 | 20 | — | — |
| 205971 | 2002 | <i>NO</i> ₃ | 16.2 | X | 355.61018 | 12.09912 | 309.74913 | 8.51182 | 0.1561670 | 0.22274963 | 2.6952024 | 20 | 9 5.8 | 19.1 |
| 205972 | 2002 | <i>NY</i> ₄ | 16.1 | X | 252.26927 | 358.10946 | 233.37960 | 1.56528 | 0.0483307 | 0.19460383 | 2.9491835 | 20 | — | — |
| 205973 | 2002 | <i>NO</i> ₆ | 16.6 | X | 203.29509 | 105.14920 | 130.22418 | 7.97297 | 0.1998396 | 0.24443707 | 2.5333275 | 20 | — | — |
| 205974 | 2002 | <i>NU</i> ₁₈ | 16.2 | X | 113.43361 | 11.52001 | 266.70493 | 5.26454 | 0.2426346 | 0.23613571 | 2.5923577 | 20 | 12 17.9 | 20.5 |
| 205975 | 2002 | <i>ND</i> ₂₀ | 16.2 | X | 59.93604 | 10.39056 | 299.09064 | 13.31630 | 0.2555985 | 0.23017960 | 2.6368868 | 20 | 12 11.5 | 20.4 |
| 205976 | 2002 | <i>NH</i> ₂₁ | 16.0 | X | 96.70444 | 127.61756 | 141.98423 | 7.82845 | 0.1792117 | 0.23232851 | 2.6206019 | 20 | 11 22.8 | 20.3 |
| 205977 | 2002 | <i>NA</i> ₂₃ | 16.0 | X | 26.24818 | 191.75090 | 143.98093 | 15.88004 | 0.2248610 | 0.22719838 | 2.6599036 | 20 | 12 5.1 | 19.7 |
| 205978 | 2002 | <i>NZ</i> ₃₉ | 15.6 | X | 43.37602 | 217.52521 | 86.86758 | 2.46129 | 0.1851085 | 0.17163004 | 3.2068146 | 20 | 10 28.7 | 19.8 |
| 205979 | 2002 | <i>NB</i> ₄₂ | 15.9 | X | 268.84378 | 33.60652 | 330.31229 | 7.56556 | 0.1162542 | 0.21365822 | 2.7711263 | 20 | 6 12.8 | 19.8 |
| 205980 | 2002 | <i>NC</i> ₄₂ | 15.4 | X | 279.87074 | 272.72921 | 115.12679 | 14.92256 | 0.1585392 | 0.21754586 | 2.7380129 | 20 | 7 24.6 | 18.8 |
| 205981 | 2002 | <i>NG</i> ₄₄ | 15.7 | X | 87.94111 | 15.18117 | 275.85548 | 13.75026 | 0.0144907 | 0.23392230 | 2.6086849 | 20 | 11 22.6 | 19.4 |
| 205982 | 2002 | <i>NN</i> ₄₅ | 15.2 | X | 162.26060 | 74.05694 | 113.99731 | 27.08201 | 0.0479024 | 0.23026233 | 2.6362552 | 20 | 10 26.9 | 19.6 |
| 205983 | 2002 | <i>NT</i> ₄₅ | 16.3 | X | 24.61621 | 171.66766 | 129.96242 | 5.28451 | 0.2806710 | 0.22530076 | 2.6748182 | 20 | 10 26.5 | 19.4 |
| 205984 | 2002 | <i>NN</i> ₄₈ | 16.4 | X | 324.04563 | 48.83984 | 285.53236 | 9.17347 | 0.1955539 | 0.21823165 | 2.7322739 | 20 | 7 18.9 | 19.2 |
| 205985 | 2002 | <i>NY</i> ₅₈ | 16.0 | X | 338.35218 | 122.89203 | 266.95170 | 2.48591 | 0.0836732 | 0.22944442 | 2.6425165 | 20 | 11 10.4 | 19.0 |
| 205986 | 2002 | <i>NX</i> ₆₂ | 16.6 | X | 213.55925 | 98.36411 | 313.07388 | 4.93294 | 0.1284457 | 0.21193270 | 2.7861473 | 20 | 6 10.0 | 20.9 |
| 205987 | 2002 | <i>NX</i> ₆₄ | 16.8 | X | 69.34483 | 261.96096 | 47.56676 | 2.34587 | 0.0805386 | 0.23362214 | 2.6109189 | 20 | 12 2.2 | 20.4 |
| 205988 | 2002 | <i>NR</i> ₆₇ | 16.4 | X | 61.00663 | 328.62686 | 325.85151 | 3.19595 | 0.2040023 | 0.22956443 | 2.6415955 | 20 | 11 17.5 | 20.2 |
| 205989 | 2002 | | | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|-------------|-----------|----------|---------|------|
| 206001 | 2002 | <i>PK</i> ₃₃ | 16.5 | X | 316.13492 | 241.54522 | 165.19672 | 4.33997 | 0.1186943 | 0.22638449 | 2.6662750 | 20 | 10 28.6 | 19.3 |
| 206002 | 2002 | <i>PJ</i> ₄₉ | 15.4 | X | 27.03704 | 341.56080 | 303.65731 | 13.92288 | 0.1751067 | 0.22037813 | 2.7145034 | 20 | 9 9.3 | 18.8 |
| 206003 | 2002 | <i>PW</i> ₇₉ | 15.1 | X | 82.84903 | 334.99990 | 295.90644 | 32.11475 | 0.1814711 | 0.22853704 | 2.6495064 | 20 | 10 29.5 | 19.9 |
| 206004 | 2002 | <i>PQ</i> ₈₉ | 15.1 | X | 216.12421 | 145.30277 | 246.42900 | 11.99185 | 0.1305248 | 0.20696665 | 2.8305390 | 20 | 5 18.6 | 19.6 |
| 206005 | 2002 | <i>PZ</i> ₉₅ | 15.9 | X | 55.66074 | 359.71085 | 326.62400 | 10.20542 | 0.2270589 | 0.23073059 | 2.6326872 | 20 | 12 25.4 | 20.0 |
| 206006 | 2002 | <i>PZ</i> ₉₈ | 15.7 | X | 314.71864 | 217.87176 | 114.00984 | 8.56726 | 0.1841361 | 0.21509711 | 2.7587541 | 20 | 6 28.3 | 18.8 |
| 206007 | 2002 | <i>PC</i> ₁₀₀ | 15.9 | X | 346.69371 | 205.41364 | 131.82954 | 13.01805 | 0.2005435 | 0.21965543 | 2.7204542 | 20 | 9 20.6 | 18.5 |
| 206008 | 2002 | <i>PK</i> ₁₀₉ | 15.6 | X | 129.22743 | 347.51850 | 349.74752 | 8.48288 | 0.0530029 | 0.18882425 | 3.0090602 | 20 | — | — |
| 206009 | 2002 | <i>PT</i> ₁₁₁ | 16.4 | X | 115.28021 | 155.06892 | 119.71102 | 6.80401 | 0.2948367 | 0.23561869 | 2.5961486 | 20 | 12 16.8 | 21.2 |
| 206010 | 2002 | <i>PS</i> ₁₁₉ | 15.4 | X | 223.09175 | 109.83825 | 161.10008 | 15.45754 | 0.0649762 | 0.19260096 | 2.9695940 | 20 | 1 4.7 | 20.1 |
| 206011 | 2002 | <i>PK</i> ₁₂₅ | 15.6 | X | 353.86264 | 171.87294 | 139.82341 | 14.16322 | 0.0527677 | 0.21911458 | 2.7249291 | 20 | 8 16.8 | 19.0 |
| 206012 | 2002 | <i>PA</i> ₁₃₃ | 16.1 | X | 303.29214 | 194.76671 | 148.21820 | 7.27212 | 0.1269834 | 0.21578149 | 2.7529179 | 20 | 7 2.6 | 19.4 |
| 206013 | 2002 | <i>PW</i> ₁₃₆ | 16.2 | X | 189.72727 | 305.21742 | 296.40026 | 13.35340 | 0.1954572 | 0.24341305 | 2.5404275 | 20 | — | — |
| 206014 | 2002 | <i>PK</i> ₁₄₂ | 16.1 | X | 303.45010 | 26.84327 | 116.60260 | 10.80687 | 0.3012741 | 0.21573559 | 2.7533083 | 20 | 6 3.2 | 19.5 |
| 206015 | 2002 | <i>PZ</i> ₁₄₆ | 16.8 | X | 310.32084 | 28.94519 | 308.90479 | 3.63920 | 0.0962969 | 0.215664089 | 2.7541144 | 20 | 7 11.6 | 20.0 |
| 206016 | 2002 | <i>PR</i> ₁₅₃ | 15.8 | X | 255.88275 | 227.13282 | 126.28594 | 9.15822 | 0.1744802 | 0.21017929 | 2.8016213 | 20 | 5 10.7 | 20.2 |
| 206017 | 2002 | <i>PY</i> ₁₅₆ | 16.0 | X | 14.16695 | 1.91310 | 323.50016 | 6.78182 | 0.0748846 | 0.22494590 | 2.6776306 | 20 | 10 5.0 | 19.4 |
| 206018 | 2002 | <i>PF</i> ₁₆₂ | 15.7 | X | 114.61913 | 202.98700 | 322.42950 | 12.00580 | 0.0231235 | 0.21501437 | 2.7594619 | 20 | 7 16.0 | 19.6 |
| 206019 | 2002 | <i>PM</i> ₁₆₂ | 16.8 | X | 100.31714 | 312.09731 | 336.98660 | 5.09315 | 0.1659025 | 0.23347399 | 2.6120233 | 20 | 12 16.4 | 21.1 |
| 206020 | 2002 | <i>PS</i> ₁₆₆ | 16.3 | X | 158.25574 | 90.35363 | 145.32873 | 15.13679 | 0.0565664 | 0.23259549 | 2.6185961 | 20 | 12 10.3 | 20.3 |
| 206021 | 2002 | <i>PW</i> ₁₆₇ | 16.6 | X | 309.34330 | 228.91248 | 118.09793 | 7.93920 | 0.1708336 | 0.21594520 | 2.7515263 | 20 | 7 12.4 | 19.5 |
| 206022 | 2002 | <i>PG</i> ₁₇₂ | 16.6 | X | 87.45437 | 349.59566 | 69.99715 | 2.76144 | 0.0389746 | 0.19405202 | 2.9547717 | 20 | 1 28.5 | 20.6 |
| 206023 | 2002 | <i>PO</i> ₁₇₃ | 16.4 | X | 224.41605 | 312.45409 | 26.73928 | 2.25656 | 0.0744187 | 0.20317769 | 2.8656207 | 20 | 3 27.2 | 20.6 |
| 206024 | 2002 | <i>PX</i> ₁₇₉ | 16.6 | X | 41.37460 | 335.67939 | 319.22012 | 4.82815 | 0.0333812 | 0.22372329 | 2.6873769 | 20 | 9 28.0 | 20.1 |
| 206025 | 2002 | <i>PS</i> ₁₈₂ | 16.3 | X | 278.68000 | 253.37978 | 125.98317 | 4.52413 | 0.1231557 | 0.21609481 | 2.7502562 | 20 | 7 16.4 | 19.9 |
| 206026 | 2002 | <i>PV</i> ₁₈₅ | 16.6 | X | 138.85965 | 164.01082 | 10.81533 | 2.83526 | 0.0333589 | 0.22104228 | 2.7090633 | 20 | 8 28.7 | 20.5 |
| 206027 | 2002 | <i>PA</i> ₁₈₆ | 17.2 | X | 284.87242 | 255.92227 | 9.15897 | 2.74530 | 0.1632356 | 0.25923190 | 2.4359989 | 20 | 2 15.6 | 20.5 |
| 206028 | 2002 | <i>QL</i> ₁ | 16.3 | X | 66.69118 | 328.22140 | 296.20257 | 3.36756 | 0.1053524 | 0.22443747 | 2.6816729 | 20 | 10 2.5 | 20.0 |
| 206029 | 2002 | <i>QT</i> ₁ | 16.2 | X | 170.72768 | 89.00523 | 161.02832 | 5.72418 | 0.2381460 | 0.24039755 | 2.5616278 | 20 | 12 28.4 | 20.5 |
| 206030 | 2002 | <i>QU</i> ₂ | 15.7 | X | 254.22995 | 55.15162 | 310.92711 | 8.46338 | 0.0925370 | 0.21025126 | 2.8009820 | 20 | 5 30.8 | 19.9 |
| 206031 | 2002 | <i>QQ</i> ₄ | 15.9 | X | 312.18358 | 174.12393 | 183.18124 | 5.23875 | 0.1292846 | 0.21716711 | 2.7411956 | 20 | 8 5.9 | 19.1 |
| 206032 | 2002 | <i>QS</i> ₄ | 16.1 | X | 67.42736 | 18.17402 | 290.40400 | 4.17297 | 0.1106561 | 0.22926074 | 2.6439278 | 20 | 12 1.3 | 19.8 |
| 206033 | 2002 | <i>QZ</i> ₄ | 16.3 | X | 124.23470 | 64.67240 | 204.06637 | 4.06809 | 0.2656573 | 0.23518047 | 2.5993726 | 20 | 12 15.1 | 21.0 |
| 206034 | 2002 | <i>QJ</i> ₅ | 16.0 | X | 248.24216 | 82.70101 | 318.41005 | 11.23180 | 0.1175695 | 0.21267711 | 2.7796421 | 20 | 7 8.2 | 20.1 |
| 206035 | 2002 | <i>QV</i> ₁₂ | 16.1 | X | 260.36108 | 131.02307 | 248.59098 | 4.63040 | 0.0904117 | 0.21280752 | 2.7785064 | 20 | 6 26.8 | 20.0 |
| 206036 | 2002 | <i>QT</i> ₁₇ | 16.4 | X | 274.46912 | 34.80643 | 338.22994 | 2.86798 | 0.1057366 | 0.21279760 | 2.7785928 | 20 | 7 4.9 | 20.1 |
| 206037 | 2002 | <i>QS</i> ₂₇ | 16.0 | X | 242.03107 | 298.95269 | 93.22309 | 4.57123 | 0.0368840 | 0.21263139 | 2.7800405 | 20 | 6 27.8 | 19.9 |
| 206038 | 2002 | <i>QL</i> ₂₉ | 16.0 | X | 2.16572 | 335.34936 | 8.81819 | 5.65872 | 0.0570800 | 0.22499557 | 2.6772365 | 20 | 10 13.1 | 19.3 |
| 206039 | 2002 | <i>QF</i> ₃₃ | 15.8 | X | 121.44463 | 227.42066 | 354.64306 | 11.36031 | 0.1433546 | 0.22428271 | 2.6829064 | 20 | 10 10.8 | 20.1 |
| 206040 | 2002 | <i>QF</i> ₄₄ | 15.4 | X | 3.12485 | 20.17035 | 352.34658 | 14.74390 | 0.1268733 | 0.22813981 | 2.6525811 | 20 | 11 26.9 | 18.9 |
| 206041 | 2002 | <i>QU</i> ₆₁ | 16.1 | X | 287.14476 | 174.97594 | 204.46589 | 2.49632 | 0.1088223 | 0.21622740 | 2.7491319 | 20 | 7 30.6 | 19.4 |
| 206042 | 2002 | <i>QC</i> ₆₆ | 16.7 | X | 181.59773 | 297.92804 | 309.31457 | 11.59231 | 0.1524255 | 0.24198872 | 2.5503863 | 20 | — | — |
| 206043 | 2002 | <i>QU</i> ₆₈ | 16.6 | X | 227.38664 | 13.88131 | 131.38707 | 4.43898 | 0.0370691 | 0.22792445 | 2.6542517 | 20 | 11 8.9 | 20.1 |
| 206044 | 2002 | <i>QJ</i> ₇₂ | 16.4 | X | 31.63709 | 196.97864 | 150.72026 | 3.27822 | 0.0771261 | 0.22914075 | 2.6448507 | 20 | 12 3.2 | 19.8 |
| 206045 | 2002 | <i>QX</i> ₇₂ | 16.1 | X | 170.82222 | 83.87176 | 349.91728 | 8.84355 | 0.1237772 | 0.20661361 | 2.8337624 | 20 | 5 24.7 | 20.7 |
| 206046 | 2002 | <i>QR</i> ₇₄ | 16.9 | X | 355.87647 | 300.99575 | 10.76730 | 1.63428 | 0.0636413 | 0.21845710 | 2.7303937 | 20 | 8 20.6 | 20.0 |
| 206047 | 2002 | <i>QD</i> ₇₇ | 16.7 | X | 253.54876 | 274.49360 | 151.01451 | 3.80922 | 0.1841579 | 0.21687108 | 2.7436894 | 20 | 8 4.8 | 20.6 |
| 206048 | 2002 | <i>QR</i> ₇₇ | 16.3 | X | 270.56016 | 269.43042 | 152.93424 | 6.38756 | 0.0495011 | 0.22001253 | 2.7175097 | 20 | 9 14.4 | 19.8 |
| 206049 | 2002 | <i>QB</i> ₈₂ | 16.4 | X | 266.08873 | 114.02093 | 300.32534 | 3.38794 | 0.0900828 | 0.21212893 | 2.7844288 | 20 | 6 14.1 | 20.1 |
| 206050 | 2002 | <i>QW</i> ₈₄ | 15.8 | X | 281.36781 | 149.74317 | 231.95819 | 5.26420 | 0.0457397 | 0.21663080 | 2.7457179 | 20 | 8 2.6 | 19.5 |
| 206051 | 2002 | <i>QQ</i> ₈₅ | 16.5 | X | 241.54050 | 114.30495 | 259.33248 | 5.53103 | 0.1415973 | 0.20935281 | 2.8089900 | 20 | 5 20.9 | 20.9 |
| 206052 | 2002 | <i>QU</i> ₈₅ | 16.4 | X | 112.94881 | 279.29238 | 317.39821 | 10.91986 | 0.0581052 | 0.22628443 | 2.6670609 | 20 | 10 12.5 | 20.5 |
| 206053 | 2002 | <i>QH</i> ₈₈ | 16.5 | X | 2.98085 | 17.47960 | 306.91328 | 0.76476 | 0.1157270 | 0.22125678 | 2.7073121 | 20 | 9 22.4 | 19.5 |
| 206054 | 2002 | <i>QF</i> ₉₀ | 15.7 | X | 190.68412 | 199.99449 | 261.21723 | 8.11214 | 0.1131515 | 0.21224365 | 2.7834253 | 20 | 7 19.5 | 20.1 |
| 206055 | 2002 | <i>QK</i> ₉₅ | 16.7 | X | 103.00254 | 137.82283 | 110.88289 | 6.18720 | 0.0325030 | 0.22573036 | 2.6714234 | 20 | 10 22.5 | 20.4 |
| 206056 | 2002 | <i>QC</i> ₉₇ | 16.6 | X | 295.16584 | 357.09054 | 0.42255 | 5.50612 | 0.0472911 | 0.21652805 | 2.7465864 | 20 | 7 23.7 | 20.2 |
| 206057 | 2002 | <i>QB</i> ₁₀₀ | 16.4 | X | 180.65715 | 135.02664 | 359.57230 | 5.99408 | 0.0310523 | 0.21870964 | 2.7282915 | 20 | 8 27.8 | 20.3 |
| 206058 | 2002 | <i>QJ</i> ₁₀₈ | 16.5 | X | 350.83556 | 67.79872 | 308.07061 | 0.92209 | 0.1016292 | 0.22730072 | 2.6591052 | 20 | 11 12.5 | 19.5 |
| 206059 | 2002 | <i>QQ</i> ₁₀₈ | 16.0 | X | 101.62517 | 190.31708 | 219.37461 | 3.78046 | 0.0846197 | 0.19264102 | 2.9691823 | 20 | 2 7.6 | 20.2 |
| 206060 | 2002 | <i>QP</i> ₁₀₉ | 16.6 | X | 286.69390 | 202.85697 | 142.82600 | 5.45817 | 0.1227140 | 0.21318596 | 2.7752172 | 20 | 6 12.4 | 20.2 |
| 206061 | 2002 | <i>QL</i> ₁₁₄ | 16.3 | X | 318.04929 | 98.28767 | 272.79410 | 5.17290 | 0.0438551 | 0.22083545 | 2.7107545 | 20 | 9 10.3 | 19.8 |
| 206062 | 2002 | <i>QB</i> ₁₁₅ | 16.9 | X | 211.91270 | 183.03712 | 257.12522 | 3.25657 | 0.0182912 | 0.21497599 | 2.7597902 | 20 | 7 24.5 | 20.7 |
| 206063 | 2002 | <i>QH</i> ₁₁₆ | 16.2 | X | 306.57753 | 276.80626 | 131.15919 | 6.09423 | 0.0336489 | 0.22473591 | 2.6792983 | 20 | 10 20.5 | 19.6 |
| 206064 | 2002 | <i>QD</i> ₁₁₉ | 16.2 | X | 290.04698 | 77.38605 | 329.69114 | 13.65258 | 0.1195560 | 0.22199964 | 2.7012692 | 20 | 9 8.4 | 19.4 |
| 206065 | 2002 | <i>QF</i> ₁₂₀ | 15.9 | X | 78.15598 | 195.54625 | 76.68013 | 3.22136 | 0.0469749 | 0.22454821 | 2.6807912 | 20 | 10 21.8 | 19.5 |
| 206066 | 2002 | <i>QK</i> ₁₂₁ | 16.4 | X | 262.89232 | 98.95519 | 291.89660 | 3.72482 | 0.0998789 | 0.21404123 | 2.7678195 | 20 | 7 14.0 | 20.1 |
| 206067 | 2002 | <i>QM</i> ₁₂₂ | 16.4 | X | 126.03905 | 294.46027 | 358.04563 | 4.50113 | 0.0943865 | 0.23814769 | 2.5777362 | 20 | — | — |
| 206068 | 2002 | <i>RM</i> ₃ | 16.4</ | | | | | | | | | | | |

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 206081 | 2002 | RQ ₇₂ | 15.9 | X | 143.69702 | 58.68508 | 159.27338 | 11.27078 | 0.1312534 | 0.22742631 | 2.6581261 | 20 | 11 2.1 | 20.2 |
| 206082 | 2002 | RJ ₇₅ | 15.9 | X | 308.49031 | 24.71583 | 323.53005 | 4.34662 | 0.0810338 | 0.21464821 | 2.7625992 | 20 | 7 25.4 | 19.3 |
| 206083 | 2002 | RK ₈₁ | 15.9 | X | 311.24728 | 171.42419 | 167.71717 | 4.37094 | 0.1102531 | 0.21279343 | 2.7786290 | 20 | 7 12.0 | 19.2 |
| 206084 | 2002 | RT ₈₁ | 15.6 | X | 86.80094 | 281.19880 | 4.86876 | 11.18868 | 0.2962507 | 0.22956271 | 2.6416087 | 20 | 12 7.4 | 20.4 |
| 206085 | 2002 | RG ₉₃ | 15.1 | X | 196.94211 | 123.60247 | 277.32883 | 6.89446 | 0.2207117 | 0.20234952 | 2.8734342 | 20 | 5 8.1 | 20.2 |
| 206086 | 2002 | RH ₁₂₄ | 15.2 | X | 162.83280 | 277.69865 | 89.59639 | 10.97739 | 0.1061994 | 0.19520679 | 2.9431074 | 20 | 3 3.4 | 19.9 |
| 206087 | 2002 | RN ₁₃₂ | 15.5 | X | 70.94040 | 322.84901 | 326.92909 | 12.51512 | 0.1941989 | 0.22604919 | 2.6689109 | 20 | 11 17.4 | 19.8 |
| 206088 | 2002 | RV ₁₃₃ | 15.4 | X | 320.66929 | 291.99543 | 55.62487 | 9.74953 | 0.1673019 | 0.21562957 | 2.7542107 | 20 | 8 8.9 | 18.5 |
| 206089 | 2002 | RI ₁₃₈ | 15.9 | X | 64.16508 | 170.12089 | 128.03205 | 14.45951 | 0.1586055 | 0.22653112 | 2.6651243 | 20 | 11 24.6 | 20.0 |
| 206090 | 2002 | RX ₁₃₈ | 15.8 | X | 341.85255 | 253.01535 | 63.85439 | 9.92464 | 0.1555626 | 0.21559597 | 2.7544969 | 20 | 8 6.8 | 18.8 |
| 206091 | 2002 | RY ₁₄₀ | 16.0 | X | 260.79309 | 266.89651 | 112.62559 | 9.77552 | 0.1677910 | 0.20971703 | 2.8057368 | 20 | 6 16.9 | 20.1 |
| 206092 | 2002 | RZ ₁₄₂ | 16.2 | X | 120.36810 | 20.12646 | 235.34633 | 4.29128 | 0.2300543 | 0.23040413 | 2.6351735 | 20 | 11 25.8 | 20.8 |
| 206093 | 2002 | RW ₁₅₀ | 16.0 | X | 213.01015 | 181.10260 | 233.69809 | 7.19801 | 0.1296323 | 0.20874097 | 2.8144763 | 20 | 6 13.9 | 20.4 |
| 206094 | 2002 | RF ₁₅₅ | 16.0 | X | 148.25391 | 313.85349 | 208.91514 | 4.22143 | 0.0625772 | 0.21611331 | 2.7500993 | 20 | 8 22.2 | 20.0 |
| 206095 | 2002 | RG ₁₅₅ | 16.1 | X | 284.08805 | 44.66466 | 303.61677 | 3.39368 | 0.0849491 | 0.21044524 | 2.7992605 | 20 | 6 17.6 | 19.8 |
| 206096 | 2002 | RD ₁₅₈ | 16.2 | X | 353.22108 | 347.78150 | 322.20385 | 4.73263 | 0.0612109 | 0.21509214 | 2.7587967 | 20 | 8 12.9 | 19.5 |
| 206097 | 2002 | RE ₁₆₂ | 16.4 | X | 87.05668 | 240.52947 | 37.64410 | 2.11746 | 0.1848320 | 0.22825003 | 2.6517271 | 20 | 11 21.8 | 20.5 |
| 206098 | 2002 | RU ₁₇₁ | 15.7 | X | 222.27203 | 80.57903 | 358.46310 | 7.26499 | 0.2063802 | 0.20926831 | 2.8097460 | 20 | 7 19.6 | 20.4 |
| 206099 | 2002 | RT ₁₇₇ | 15.9 | X | 43.43565 | 15.57579 | 278.04873 | 3.01192 | 0.1966245 | 0.22265384 | 2.6959754 | 20 | 10 24.6 | 19.5 |
| 206100 | 2002 | RI ₁₈₀ | 16.5 | X | 1.65491 | 138.48894 | 164.88810 | 1.36620 | 0.2206572 | 0.21692842 | 2.7432059 | 20 | 8 30.2 | 18.7 |
| 206101 | 2002 | RW ₁₈₀ | 15.8 | X | 243.72455 | 280.34381 | 151.64472 | 26.29512 | 0.0848565 | 0.21740808 | 2.7391696 | 20 | 8 15.1 | 19.7 |
| 206102 | 2002 | RF ₁₈₅ | 15.1 | X | 125.57238 | 99.65659 | 282.06748 | 8.53269 | 0.0982169 | 0.18974892 | 2.9992765 | 20 | 2 3.6 | 19.5 |
| 206103 | 2002 | RD ₁₉₀ | 16.4 | X | 306.16802 | 1.52853 | 346.36269 | 2.21907 | 0.0959369 | 0.21365661 | 2.7711402 | 20 | 7 19.2 | 19.9 |
| 206104 | 2002 | RG ₁₉₀ | 16.3 | X | 294.23209 | 149.85837 | 177.02905 | 6.18732 | 0.0540930 | 0.20897934 | 2.8123356 | 20 | 6 8.2 | 20.1 |
| 206105 | 2002 | RK ₁₉₁ | 16.4 | X | 279.77342 | 331.10427 | 2.05092 | 19.77548 | 0.0896387 | 0.37445346 | 1.9063566 | 20 | 5 8.3 | 18.8 |
| 206106 | 2002 | RN ₁₉₂ | 15.9 | X | 148.76122 | 236.94775 | 133.91724 | 2.99259 | 0.1010612 | 0.19317657 | 2.9636921 | 20 | 2 17.8 | 20.4 |
| 206107 | 2002 | RD ₂₀₈ | 16.8 | X | 65.66336 | 21.75276 | 242.97557 | 0.85678 | 0.0882430 | 0.22112989 | 2.7083476 | 20 | 9 30.1 | 20.4 |
| 206108 | 2002 | RC ₂₀₉ | 16.6 | X | 132.18455 | 214.74929 | 122.83292 | 0.23878 | 0.1757897 | 0.18516836 | 3.0485374 | 20 | 1 1.3 | 21.3 |
| 206109 | 2002 | RI ₂₁₄ | 15.8 | X | 150.60733 | 174.44360 | 126.80723 | 6.91114 | 0.2730187 | 0.24141739 | 2.5544085 | 20 | — | — |
| 206110 | 2002 | RX ₂₁₄ | 16.0 | X | 203.05433 | 276.73502 | 75.89475 | 4.67446 | 0.2343699 | 0.19956096 | 2.9001402 | 20 | 3 20.7 | 21.1 |
| 206111 | 2002 | RC ₂₂₁ | 16.2 | X | 257.35035 | 271.84289 | 125.14362 | 4.81331 | 0.1041206 | 0.21247173 | 2.7814331 | 20 | 7 14.1 | 20.0 |
| 206112 | 2002 | RK ₂₃₃ | 16.4 | X | 209.53522 | 108.70888 | 167.06727 | 12.83387 | 0.1210890 | 0.24630820 | 2.5204812 | 20 | — | — |
| 206113 | 2002 | RC ₂₃₅ | 16.3 | X | 204.15663 | 242.43329 | 175.76985 | 4.52897 | 0.0631249 | 0.20900701 | 2.8120874 | 20 | 6 13.1 | 20.4 |
| 206114 | 2002 | RJ ₂₃₇ | 16.8 | X | 319.67805 | 304.27953 | 17.41958 | 3.72594 | 0.0957811 | 0.21323354 | 2.7748043 | 20 | 7 4.2 | 20.1 |
| 206115 | 2002 | RA ₂₄₃ | 16.1 | X | 56.96035 | 326.49134 | 306.26827 | 3.74362 | 0.1322487 | 0.22275882 | 2.6951283 | 20 | 10 4.6 | 19.8 |
| 206116 | 2002 | RO ₂₄₆ | 16.0 | X | 319.59574 | 290.83654 | 152.60720 | 22.30623 | 0.0522246 | 0.23209681 | 2.6223456 | 20 | 12 25.3 | 19.8 |
| 206117 | 2002 | RS ₂₄₈ | 16.5 | X | 330.77506 | 201.49441 | 110.10223 | 0.56746 | 0.0602947 | 0.21327775 | 2.7744209 | 20 | 7 10.5 | 19.7 |
| 206118 | 2002 | RJ ₂₅₄ | 16.4 | X | 201.09003 | 146.93321 | 237.77759 | 1.13773 | 0.0808455 | 0.20318887 | 2.8655155 | 20 | 4 26.7 | 20.7 |
| 206119 | 2002 | RM ₂₅₅ | 15.7 | X | 32.59859 | 186.27799 | 226.63847 | 4.31176 | 0.1512422 | 0.18011802 | 3.1052598 | 20 | — | — |
| 206120 | 2002 | RR ₂₇₀ | 16.8 | X | 18.24156 | 194.29060 | 166.08181 | 5.56769 | 0.0436730 | 0.22844145 | 2.6502456 | 20 | 11 27.2 | 20.2 |
| 206121 | 2002 | RI ₂₇₄ | 16.9 | X | 100.56971 | 192.01701 | 96.57274 | 0.96035 | 0.0694909 | 0.23142974 | 2.6273823 | 20 | 12 9.9 | 20.6 |
| 206122 | 2002 | RV ₂₇₆ | 17.0 | X | 334.47598 | 100.30940 | 220.93592 | 1.90363 | 0.0694741 | 0.21459103 | 2.7630898 | 20 | 7 28.9 | 20.4 |
| 206123 | 2002 | RL ₂₇₉ | 16.6 | X | 324.77580 | 56.89197 | 228.96113 | 1.66842 | 0.1209462 | 0.21100395 | 2.7943169 | 20 | 6 16.9 | 19.8 |
| 206124 | 2002 | SH ₄ | 17.4 | X | 82.30020 | 166.30299 | 303.71177 | 17.87962 | 0.0717126 | 0.36290513 | 1.9465877 | 20 | 2 28.5 | 19.4 |
| 206125 | 2002 | SM ₈ | 16.0 | X | 149.23576 | 29.90184 | 7.73529 | 5.75165 | 0.1964252 | 0.19357933 | 2.9595798 | 20 | 3 27.9 | 20.8 |
| 206126 | 2002 | SK ₉ | 16.1 | X | 335.71475 | 315.47751 | 20.51818 | 3.67572 | 0.1019450 | 0.21465335 | 2.7625550 | 20 | 8 22.1 | 19.2 |
| 206127 | 2002 | SW ₁₀ | 16.0 | X | 283.57715 | 205.07580 | 183.20368 | 8.32948 | 0.0874910 | 0.21301545 | 2.7766980 | 20 | 8 8.1 | 19.8 |
| 206128 | 2002 | SO ₄₀ | 15.9 | X | 164.94873 | 257.05720 | 134.81445 | 6.76753 | 0.1842178 | 0.19610773 | 2.9340865 | 20 | 4 5.4 | 20.8 |
| 206129 | 2002 | SS ₄₅ | 15.9 | X | 102.81028 | 327.82336 | 39.91097 | 2.27691 | 0.1809916 | 0.18233644 | 3.0800214 | 20 | 1 6.1 | 20.1 |
| 206130 | 2002 | SJ ₅₂ | 15.0 | X | 106.67387 | 305.59338 | 122.24338 | 10.54219 | 0.0579713 | 0.19285441 | 2.9669917 | 20 | 3 7.9 | 19.2 |
| 206131 | 2002 | SU ₅₄ | 15.2 | X | 94.29426 | 236.05369 | 195.12622 | 12.95561 | 0.1671381 | 0.19124698 | 2.9835936 | 20 | 3 6.9 | 19.4 |
| 206132 | 2002 | SY ₆₀ | 15.8 | X | 288.29028 | 292.70801 | 67.66825 | 5.34336 | 0.0832043 | 0.21165953 | 2.7885439 | 20 | 7 10.9 | 19.3 |
| 206133 | 2002 | SC ₆₄ | 17.3 | X | 106.80537 | 203.23057 | 287.50928 | 17.50384 | 0.0633664 | 0.37026040 | 1.9207221 | 20 | 5 19.5 | 19.6 |
| 206134 | 2002 | SP ₇₀ | 16.3 | X | 290.31583 | 333.47637 | 12.78016 | 3.72950 | 0.1082323 | 0.20988070 | 2.8042779 | 20 | 6 19.9 | 20.1 |
| 206135 | 2002 | TA ₂ | 15.6 | X | 240.23585 | 77.16352 | 256.16876 | 1.30706 | 0.1768159 | 0.20029121 | 2.8930867 | 20 | 3 27.8 | 20.3 |
| 206136 | 2002 | TB ₁₀ | 15.0 | X | 81.20787 | 255.05717 | 159.55641 | 9.93580 | 0.1949877 | 0.18305873 | 3.0719143 | 20 | 2 4.8 | 19.0 |
| 206137 | 2002 | TS ₁₂ | 15.8 | X | 339.63933 | 182.04393 | 157.04995 | 6.52940 | 0.0314243 | 0.21597687 | 2.7512574 | 20 | 9 1.2 | 19.2 |
| 206138 | 2002 | TU ₁₇ | 16.0 | X | 12.03436 | 282.15111 | 3.49431 | 4.40271 | 0.1601308 | 0.21508138 | 2.7588887 | 20 | 8 19.8 | 18.8 |
| 206139 | 2002 | TW ₄₂ | 15.2 | X | 157.76416 | 316.09079 | 50.09840 | 11.30574 | 0.1340978 | 0.18871452 | 3.0102265 | 20 | 2 29.5 | 20.1 |
| 206140 | 2002 | TV ₄₈ | 15.2 | X | 71.33550 | 58.68892 | 32.60865 | 15.21088 | 0.1368420 | 0.18511981 | 3.0490704 | 20 | 3 7.7 | 19.3 |
| 206141 | 2002 | TA ₅₉ | 15.2 | X | 121.78091 | 166.66033 | 236.78492 | 8.60495 | 0.0921000 | 0.19023318 | 2.9941844 | 20 | 2 22.7 | 19.7 |
| 206142 | 2002 | TA ₆₆ | 16.4 | X | 129.40042 | 17.57014 | 24.29236 | 1.79213 | 0.2097391 | 0.18978326 | 2.9989147 | 20 | 3 17.0 | 21.1 |
| 206143 | 2002 | TJ ₈₄ | 15.2 | X | 63.22131 | 269.66667 | 149.21373 | 10.62495 | 0.1852237 | 0.18229171 | 3.0805252 | 20 | 1 12.9 | 18.9 |
| 206144 | 2002 | TG ₉₂ | 16.2 | X | 140.12356 | 36.11093 | 7.21201 | 2.79155 | 0.1663445 | 0.19315861 | 2.9638758 | 20 | 3 24.3 | 20.7 |
| 206145 | 2002 | TE ₉₄ | 16.2 | X | 250.76863 | 30.85595 | 4.76708 | 5.65191 | 0.0679171 | 0.21023150 | 2.8011575 | 20 | 7 10.2 | 20.1 |
| 206146 | 2002 | TL ₉₇ | 16.4 | X | 175.96335 | 60.81462 | 314.61215 | 1.24948 | 0.1268039 | 0.19535961 | 2.9415723 | 20 | 3 21.5 | 21.2 |
| 206147 | 2002 | TK ₉₈ | 15.9 | X | 201.86003 | 242.33782 | 180.03568 | 5.68508 | 0.0500730 | 0.20611148 | 2.8383629 | 20 | 6 16.5 | 20.1 |
| 206148 | 2002 | TZ ₁₀₂ | 15.3 | X | 46.08628 | 123.91793 | 234.89925 | 5.90553 | 0.1876321 | 0.17312742 | 3.1882973 | 20 | — | — |
| 206149 | 2002 | TF ₁₁₉ | 15.3 | X | 314.11891 | 22.63946 | 275.61593 | 7.57062 | 0.1493541 | 0.20629876 | 2.8366449 | 20 | 5 13.7 | 18.8 |

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 206161 | 2002 | <i>TF</i> ₁₉₂ | 14.8 ^m | X | 177.12958 | 100.96363 | 320.13100 | 12.41730 | 0.1712601 | 0.19848621 | 2.9105998 | 20 | 5 14.2 | 19.8 |
| 206162 | 2002 | <i>TV</i> ₂₁₄ | 15.5 | X | 128.75398 | 317.33885 | 60.49270 | 11.69982 | 0.2164319 | 0.18771261 | 3.0209283 | 20 | 2 22.9 | 20.4 |
| 206163 | 2002 | <i>TW</i> ₂₁₅ | 15.5 | X | 230.06068 | 215.28936 | 140.82868 | 14.16098 | 0.2955168 | 0.20182957 | 2.8783671 | 20 | 4 13.5 | 20.8 |
| 206164 | 2002 | <i>TH</i> ₂₂₂ | 15.9 | X | 85.21621 | 206.78373 | 215.36199 | 4.86012 | 0.1805867 | 0.18555377 | 3.0443145 | 20 | 2 16.2 | 20.0 |
| 206165 | 2002 | <i>TE</i> ₂₃₃ | 15.6 | X | 121.96801 | 57.18008 | 265.36772 | 10.61290 | 0.1391055 | 0.17976206 | 3.1093578 | 20 | — | — |
| 206166 | 2002 | <i>TA</i> ₂₄₂ | 15.2 | X | 5.15043 | 41.65085 | 67.69268 | 17.87782 | 0.2150841 | 0.17687484 | 3.1431034 | 20 | — | — |
| 206167 | 2002 | <i>TS</i> ₂₄₂ | 16.0 | X | 308.23590 | 18.47982 | 340.10391 | 2.71726 | 0.1638295 | 0.21241820 | 2.7819003 | 20 | 7 28.7 | 19.2 |
| 206168 | 2002 | <i>TC</i> ₂₅₀ | 16.1 | X | 247.82563 | 231.18926 | 33.66850 | 6.28561 | 0.1019511 | 0.24563466 | 2.5250866 | 20 | 1 15.2 | 19.9 |
| 206169 | 2002 | <i>TH</i> ₂₅₀ | 16.1 | X | 134.19599 | 255.87873 | 153.39768 | 2.33810 | 0.2203249 | 0.19143361 | 2.9816541 | 20 | 3 31.2 | 21.0 |
| 206170 | 2002 | <i>TP</i> ₂₅₂ | 15.3 | X | 127.15627 | 260.09639 | 111.81054 | 5.17349 | 0.1096680 | 0.18741410 | 3.0241353 | 20 | 1 28.7 | 19.7 |
| 206171 | 2002 | <i>TQ</i> ₂₅₈ | 15.9 | X | 99.58376 | 323.14494 | 56.90230 | 6.17336 | 0.3252801 | 0.18306292 | 3.0718674 | 20 | 2 7.2 | 20.4 |
| 206172 | 2002 | <i>TY</i> ₂₆₂ | 16.2 | X | 251.02329 | 130.53646 | 232.79242 | 1.12111 | 0.0826735 | 0.20374388 | 2.8603093 | 20 | 5 25.8 | 20.2 |
| 206173 | 2002 | <i>TT</i> ₂₇₂ | 15.6 | X | 261.46952 | 93.71765 | 349.41835 | 6.20706 | 0.0734596 | 0.21645146 | 2.7472343 | 20 | 9 23.6 | 19.2 |
| 206174 | 2002 | <i>TD</i> ₂₇₈ | 15.1 | X | 172.29915 | 39.37602 | 327.52539 | 9.37961 | 0.1136104 | 0.19253406 | 2.9702820 | 20 | 3 6.2 | 19.8 |
| 206175 | 2002 | <i>TN</i> ₂₉₃ | 14.4 | X | 90.78636 | 147.86873 | 268.61368 | 12.41980 | 0.1804249 | 0.18114215 | 3.0935445 | 20 | 2 13.6 | 18.8 |
| 206176 | 2002 | <i>TK</i> ₂₉₄ | 16.6 | X | 39.62332 | 246.35437 | 272.89304 | 18.35280 | 0.1052769 | 0.36112291 | 1.9529870 | 20 | 2 27.9 | 18.7 |
| 206177 | 2002 | <i>TS</i> ₂₉₅ | 15.3 | X | 74.57023 | 65.65315 | 3.00437 | 15.97753 | 0.2739136 | 0.18205457 | 3.0831997 | 20 | 3 1.7 | 19.3 |
| 206178 | 2002 | <i>TF</i> ₂₉₅ | 14.4 | X | 160.24934 | 40.89695 | 355.35646 | 14.27009 | 0.2256687 | 0.19255974 | 2.9700179 | 20 | 4 2.8 | 19.5 |
| 206179 | 2002 | <i>TZ</i> ₂₉₅ | 14.8 | X | 166.98883 | 52.82090 | 322.40636 | 11.52018 | 0.1660041 | 0.19068257 | 2.9894782 | 20 | 3 11.8 | 19.9 |
| 206180 | 2002 | <i>TY</i> ₃₀₄ | 15.9 | X | 35.83691 | 138.69464 | 147.19683 | 6.74379 | 0.0331424 | 0.21532359 | 2.7568193 | 20 | 9 10.5 | 19.4 |
| 206181 | 2002 | <i>TN</i> ₃₁₂ | 15.5 | X | 110.98148 | 276.41044 | 143.63118 | 9.58471 | 0.1061370 | 0.18934499 | 3.0035406 | 20 | 3 8.9 | 19.8 |
| 206182 | 2002 | <i>TM</i> ₃₁₅ | 15.4 | X | 65.96326 | 290.07722 | 102.40175 | 11.79366 | 0.1127562 | 0.17800275 | 3.1298120 | 20 | — | — |
| 206183 | 2002 | <i>TM</i> ₃₁₆ | 15.2 | X | 141.52620 | 213.53842 | 98.26763 | 14.40697 | 0.1907931 | 0.17942557 | 3.1132440 | 20 | — | — |
| 206184 | 2002 | <i>TW</i> ₃₁₇ | 15.7 | X | 177.43596 | 226.97541 | 334.72388 | 12.67583 | 0.2131886 | 0.22897138 | 2.6461548 | 20 | 11 1.5 | 20.4 |
| 206185 | Yip | | 16.5 | X | 271.32097 | 24.24089 | 4.19075 | 5.09974 | 0.0944783 | 0.21233988 | 2.7825843 | 20 | 7 24.4 | 20.2 |
| 206186 | 2002 | <i>TS</i> ₃₂₉ | 16.7 | X | 8.34850 | 129.05251 | 166.89693 | 4.35318 | 0.0834713 | 0.21456158 | 2.7633427 | 20 | 8 18.0 | 20.1 |
| 206187 | 2002 | <i>TB</i> ₃₆₁ | 16.5 | X | 155.48565 | 2.17706 | 50.46478 | 2.76584 | 0.0968447 | 0.19733726 | 2.9218863 | 20 | 4 14.9 | 20.9 |
| 206188 | 2002 | <i>TO</i> ₃₇₅ | 15.9 | X | 180.78305 | 52.02215 | 20.44237 | 5.86470 | 0.0527384 | 0.20240741 | 2.8728864 | 20 | 6 3.5 | 20.1 |
| 206189 | 2002 | <i>TB</i> ₃₇₆ | 15.6 | X | 235.71994 | 28.26980 | 327.86916 | 10.41525 | 0.1330319 | 0.19842697 | 2.9111790 | 20 | 4 19.5 | 20.4 |
| 206190 | 2002 | <i>TH</i> ₃₇₆ | 16.0 | X | 303.10741 | 273.13665 | 76.90867 | 5.16064 | 0.1178119 | 0.21002408 | 2.8030014 | 20 | 7 14.0 | 19.4 |
| 206191 | 2002 | <i>TE</i> ₃₇₈ | 15.6 | X | 127.00067 | 139.69921 | 268.52616 | 2.99503 | 0.0960901 | 0.18932566 | 3.0037450 | 20 | 3 8.3 | 20.1 |
| 206192 | 2002 | <i>UR</i> ₂ | 15.2 | X | 62.13599 | 76.68445 | 353.89849 | 25.09618 | 0.2652847 | 0.17998559 | 3.1067828 | 20 | 2 17.7 | 19.0 |
| 206193 | 2002 | <i>UH</i> ₇ | 15.5 | X | 296.74164 | 215.99501 | 154.96814 | 13.30809 | 0.1000103 | 0.21122588 | 2.7923593 | 20 | 8 2.9 | 19.0 |
| 206194 | 2002 | <i>UN</i> ₇ | 15.5 | X | 227.39426 | 206.85966 | 149.89498 | 9.17708 | 0.2234830 | 0.20030902 | 2.8929152 | 20 | 4 14.2 | 20.4 |
| 206195 | 2002 | <i>UW</i> ₈ | 15.1 | X | 85.96528 | 234.06355 | 170.04368 | 14.63233 | 0.2376509 | 0.18187510 | 3.0852277 | 20 | 2 3.9 | 19.3 |
| 206196 | 2002 | <i>UW</i> ₁₁ | 15.3 | X | 62.86021 | 65.52738 | 347.22929 | 22.28162 | 0.2376398 | 0.17744178 | 3.1364049 | 20 | 1 21.4 | 19.3 |
| 206197 | 2002 | <i>UE</i> ₁₈ | 15.9 | X | 48.89621 | 196.96896 | 147.36692 | 1.02662 | 0.2107432 | 0.17020864 | 3.2264631 | 20 | 12 24.1 | 20.6 |
| 206198 | 2002 | <i>UQ</i> ₂₀ | 15.3 | X | 41.15648 | 109.39967 | 316.32885 | 4.04727 | 0.1411448 | 0.17826398 | 3.1267535 | 20 | — | — |
| 206199 | 2002 | <i>UB</i> ₂₂ | 15.0 | X | 21.92165 | 53.20613 | 52.34367 | 16.91929 | 0.2115146 | 0.17726606 | 3.1384772 | 20 | — | — |
| 206200 | 2002 | <i>UK</i> ₂₃ | 14.4 | X | 94.86670 | 66.12317 | 275.18398 | 25.63184 | 0.1554779 | 0.17871531 | 3.1214871 | 20 | — | — |
| 206201 | 2002 | <i>UN</i> ₂₅ | 16.0 | X | 156.52945 | 311.55284 | 329.51424 | 4.78524 | 0.3092178 | 0.23685566 | 2.5871019 | 20 | — | — |
| 206202 | 2002 | <i>UU</i> ₃₄ | 15.8 | X | 128.53071 | 174.54146 | 198.87732 | 2.30403 | 0.1674488 | 0.18559222 | 3.0438941 | 20 | 2 6.7 | 20.4 |
| 206203 | 2002 | <i>UR</i> ₃₆ | 15.9 | X | 62.05829 | 249.12128 | 190.83341 | 1.06149 | 0.1601407 | 0.18240120 | 3.0792923 | 20 | 2 4.0 | 19.5 |
| 206204 | 2002 | <i>UN</i> ₃₇ | 15.4 | X | 62.84838 | 238.26194 | 222.96091 | 12.66288 | 0.1911242 | 0.18515908 | 3.0486393 | 20 | 3 2.8 | 19.3 |
| 206205 | 2002 | <i>UF</i> ₄₀ | 15.2 | X | 57.67852 | 334.77239 | 99.81460 | 10.27747 | 0.0734067 | 0.18126292 | 3.0921703 | 20 | 1 13.2 | 19.1 |
| 206206 | 2002 | <i>US</i> ₄₀ | 15.7 | X | 69.89069 | 267.63885 | 147.93421 | 8.51354 | 0.1712537 | 0.18055936 | 3.1001976 | 20 | 1 17.9 | 19.6 |
| 206207 | 2002 | <i>UY</i> ₇₂ | 15.9 | X | 61.57743 | 88.58299 | 328.07195 | 13.08438 | 0.2465786 | 0.17914620 | 3.1164797 | 20 | 1 19.8 | 19.4 |
| 206208 | 2002 | <i>UV</i> ₇₅ | 16.4 | X | 151.17407 | 32.35339 | 3.76106 | 3.74238 | 0.0842684 | 0.19148694 | 2.9811004 | 20 | 3 20.1 | 20.9 |
| 206209 | 2002 | <i>VW</i> ₉ | 15.5 | X | 115.28133 | 34.00176 | 32.57770 | 12.54700 | 0.0510617 | 0.18970558 | 2.9997333 | 20 | 3 18.0 | 19.8 |
| 206210 | 2002 | <i>VX</i> ₁₅ | 15.1 | X | 69.90540 | 17.89315 | 78.30053 | 13.95036 | 0.2069170 | 0.18221052 | 3.0814402 | 20 | 3 22.9 | 19.3 |
| 206211 | 2002 | <i>VG</i> ₂₇ | 15.3 | X | 88.18936 | 5.54117 | 52.01732 | 11.66096 | 0.1322400 | 0.18240799 | 3.0792159 | 20 | 2 14.9 | 19.7 |
| 206212 | 2002 | <i>VS</i> ₃₄ | 16.6 | X | 134.02261 | 322.63013 | 65.21995 | 22.97017 | 0.0879642 | 0.35267952 | 1.9840345 | 20 | 2 5.9 | 19.3 |
| 206213 | 2002 | <i>VX</i> ₃₄ | 15.1 | X | 38.01815 | 234.97780 | 236.52450 | 8.89481 | 0.1940945 | 0.17796102 | 3.1303011 | 20 | 2 4.1 | 18.6 |
| 206214 | 2002 | <i>VN</i> ₃₈ | 15.0 | X | 120.15673 | 100.44369 | 252.62513 | 9.08322 | 0.0866504 | 0.18050579 | 3.1008110 | 20 | — | — |
| 206215 | 2002 | <i>VB</i> ₃₉ | 14.7 | X | 168.53054 | 286.15507 | 81.69473 | 16.65426 | 0.1037182 | 0.18886046 | 3.0086756 | 20 | 3 13.9 | 19.7 |
| 206216 | 2002 | <i>VD</i> ₄₀ | 15.2 | X | 93.62711 | 102.47410 | 354.08493 | 8.56486 | 0.2329814 | 0.18761762 | 3.0219478 | 20 | 4 15.6 | 19.6 |
| 206217 | 2002 | <i>VD</i> ₄₂ | 15.2 | X | 147.57602 | 129.96015 | 270.98133 | 7.59506 | 0.1276048 | 0.19044225 | 2.9919926 | 20 | 3 21.7 | 20.1 |
| 206218 | 2002 | <i>VF</i> ₄₄ | 15.0 | X | 71.72194 | 7.98169 | 67.08398 | 19.84563 | 0.1674113 | 0.18231237 | 3.0802925 | 20 | 2 22.9 | 19.4 |
| 206219 | 2002 | <i>VD</i> ₅₁ | 15.5 | X | 80.66349 | 8.01033 | 71.91349 | 9.36749 | 0.2286935 | 0.18484773 | 3.0520617 | 20 | 3 17.6 | 19.7 |
| 206220 | 2002 | <i>VS</i> ₅₆ | 16.1 | X | 114.01880 | 258.69701 | 144.20144 | 5.06414 | 0.2646668 | 0.18479047 | 3.0526921 | 20 | 3 10.5 | 20.9 |
| 206221 | 2002 | <i>VH</i> ₆₂ | 15.9 | X | 187.48151 | 6.73633 | 347.05313 | 2.00482 | 0.2637360 | 0.19277225 | 2.9678347 | 20 | 3 9.0 | 21.2 |
| 206222 | 2002 | <i>VF</i> ₆₆ | 16.1 | X | 0.19144 | 134.11662 | 57.11327 | 22.19894 | 0.0441692 | 0.35832931 | 1.9631244 | 20 | 3 10.9 | 18.6 |
| 206223 | 2002 | <i>VX</i> ₇₁ | 15.1 | X | 34.16093 | 341.12100 | 72.53771 | 12.22815 | 0.0746398 | 0.17498258 | 3.1657224 | 20 | — | — |
| 206224 | 2002 | <i>VP</i> ₇₄ | 15.4 | X | 127.97861 | 332.77086 | 61.58345 | 12.51423 | 0.1423749 | 0.18752265 | 3.0229681 | 20 | 3 6.2 | 20.2 |
| 206225 | 2002 | <i>VJ</i> ₈₈ | 15.3 | X | 123.82463 | 149.20593 | 255.50137 | 8.15482 | 0.1024517 | 0.18881541 | 3.0091541 | 20 | 2 27.8 | 19.9 |
| 206226 | 2002 | <i>VN</i> ₉₉ | 15.0 | X | 73.42457 | 53.89220 | 358.27746 | 26.54008 | 0.2410222 | 0.17877133 | 3.1208350 | 20 | 2 11.6 | 19.3 |
| 206227 | 2002 | <i>VY</i> ₁₀₃ | 14.9 | X | 72.93311 | 179.81198 | 256.44655 | 11.48742 | 0.2586296 | 0.18189828 | 3.0849656 | 20 | 2 25.0 | 19.0 |
| 206228 | 2002 | <i>VD</i> ₁₀₈ | 15.4 | X | 55.92949 | 52.46286 | 36.93031 | 10.51290 | 0.1842962 | 0.18076367 | 3.0978612 | 20 | 2 1 | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 206241 Dubois | 15.9 ^m | X | 55.42368 | 304.02940 | 135.73344 | 5.52074 | 0.1619462 | 0.17897772 | 3.1184353 | 20 | 1 25.0 | 19.5 |
| 206242 2002 XD ₁ | 15.3 | X | 85.54970 | 359.88582 | 138.42915 | 7.88435 | 0.2783457 | 0.18984305 | 2.9982850 | 20 | 6 7.7 | 19.8 |
| 206243 2002 XO ₁₆ | 15.4 | X | 173.12308 | 46.95408 | 328.73139 | 8.68404 | 0.0798281 | 0.19022781 | 2.9942407 | 20 | 3 15.7 | 20.0 |
| 206244 2002 XL ₁₇ | 15.4 | X | 75.04291 | 131.76783 | 330.05865 | 8.58787 | 0.1607019 | 0.18527663 | 3.0473497 | 20 | 3 19.2 | 19.5 |
| 206245 2002 XU ₁₇ | 15.5 | X | 96.52340 | 10.77628 | 73.15049 | 2.40190 | 0.1506251 | 0.18543885 | 3.0455722 | 20 | 3 27.1 | 19.7 |
| 206246 2002 XV ₂₀ | 15.3 | X | 87.67487 | 29.40759 | 36.79650 | 10.21945 | 0.1282975 | 0.18316417 | 3.0707352 | 20 | 2 24.0 | 19.6 |
| 206247 2002 XJ ₂₆ | 14.9 | X | 102.69111 | 169.85839 | 295.10910 | 14.04698 | 0.1847849 | 0.19114162 | 2.9846899 | 20 | 4 27.1 | 19.6 |
| 206248 2002 XU ₃₅ | 16.1 | X | 76.91481 | 10.47554 | 61.83245 | 2.80875 | 0.1262786 | 0.18142788 | 3.0902957 | 20 | 2 13.4 | 20.1 |
| 206249 2002 XP ₄₂ | 15.2 | X | 46.15404 | 82.40749 | 29.38087 | 5.63202 | 0.1302706 | 0.18096807 | 3.0955281 | 20 | 2 19.0 | 19.0 |
| 206250 2002 XS ₄₆ | 15.4 | X | 46.38800 | 189.85933 | 280.90131 | 16.43901 | 0.1712787 | 0.17970272 | 3.1100422 | 20 | 2 12.7 | 19.2 |
| 206251 2002 XE ₄₇ | 14.7 | X | 84.73996 | 289.61092 | 113.79360 | 21.58492 | 0.2174643 | 0.17654205 | 3.1470522 | 20 | 2 2.2 | 18.9 |
| 206252 2002 XM ₆₀ | 15.6 | X | 98.92736 | 221.82115 | 240.50050 | 1.50684 | 0.1101389 | 0.18824225 | 3.0152591 | 20 | 4 14.4 | 19.8 |
| 206253 2002 XM ₆₃ | 17.2 | X | 301.52729 | 248.37681 | 126.70138 | 5.30292 | 0.2999620 | 0.32329674 | 2.1024959 | 20 | 7 29.9 | 18.3 |
| 206254 2002 XD ₆₆ | 14.5 | X | 32.02205 | 84.16053 | 56.53099 | 25.58389 | 0.3241315 | 0.17499534 | 3.1655686 | 20 | 4 5.9 | 17.9 |
| 206255 2002 XL ₆₈ | 14.8 | X | 113.30973 | 107.06101 | 307.86585 | 11.75268 | 0.1512162 | 0.18633254 | 3.0358262 | 20 | 3 5.2 | 19.4 |
| 206256 2002 XR ₇₃ | 15.7 | X | 71.87911 | 89.80295 | 4.70306 | 3.47316 | 0.2519840 | 0.18207034 | 3.0830217 | 20 | 3 22.6 | 19.4 |
| 206257 2002 XJ ₇₆ | 15.5 | X | 183.66932 | 50.29036 | 314.22504 | 3.25955 | 0.1898054 | 0.19071699 | 2.9891184 | 20 | 3 16.5 | 20.5 |
| 206258 2002 XG ₇₇ | 15.6 | X | 356.49864 | 52.22721 | 51.78035 | 5.27147 | 0.1592779 | 0.17148838 | 3.2085804 | 20 | — | — |
| 206259 2002 XN ₈₃ | 14.6 | X | 10.67088 | 213.18334 | 278.31065 | 26.50466 | 0.1032969 | 0.17600504 | 3.1534503 | 20 | 1 12.7 | 18.6 |
| 206260 2002 XX ₈₃ | 15.4 | X | 52.78621 | 286.65215 | 141.64191 | 10.96957 | 0.1794577 | 0.17779131 | 3.1322928 | 20 | 1 7.9 | 19.1 |
| 206261 2002 XB ₉₀ | 15.0 | X | 75.21761 | 319.85789 | 97.85874 | 18.54425 | 0.2098895 | 0.17925657 | 3.1152005 | 20 | 2 6.7 | 19.1 |
| 206262 2002 XA ₉₁ | 15.1 | X | 64.87415 | 66.13624 | 17.45506 | 16.13705 | 0.2252000 | 0.17810011 | 3.1286712 | 20 | 3 1.5 | 19.1 |
| 206263 2002 XL ₁₀₂ | 15.4 | X | 142.73618 | 279.21115 | 79.43576 | 10.74647 | 0.1081612 | 0.18149169 | 3.0895713 | 20 | 2 1.1 | 20.2 |
| 206264 2002 XQ ₁₁₃ | 14.8 | X | 84.08887 | 30.23750 | 12.07485 | 12.64055 | 0.2781514 | 0.17965830 | 3.1105548 | 20 | 2 12.7 | 19.1 |
| 206265 2002 XP ₁₁₅ | 15.0 | X | 71.81894 | 329.67774 | 112.10172 | 12.50978 | 0.1387456 | 0.17978294 | 3.1091170 | 20 | 2 21.6 | 19.1 |
| 206266 2002 YW ₆ | 14.5 | X | 71.33760 | 265.27806 | 111.39957 | 26.60371 | 0.2736805 | 0.17155260 | 3.2077796 | 20 | — | — |
| 206267 2002 YB ₇ | 14.9 | X | 9.23114 | 38.76586 | 103.97907 | 18.39482 | 0.1658037 | 0.17363133 | 3.1821256 | 20 | 1 26.5 | 18.5 |
| 206268 2002 YN ₇ | 15.4 | X | 58.65294 | 20.67920 | 81.57549 | 9.16168 | 0.1107591 | 0.18165917 | 3.0876721 | 20 | 2 25.5 | 19.4 |
| 206269 2002 YE ₉ | 15.5 | X | 167.85560 | 328.66799 | 120.03411 | 3.54682 | 0.1320675 | 0.19455837 | 2.9496429 | 20 | 6 12.1 | 20.1 |
| 206270 2002 YC ₁₀ | 15.1 | X | 28.28785 | 162.06299 | 287.65210 | 8.89738 | 0.0368722 | 0.17208018 | 3.2012197 | 20 | — | — |
| 206271 2002 YP ₁₂ | 15.0 | X | 84.59531 | 153.83282 | 270.52203 | 5.80777 | 0.2726059 | 0.18112511 | 3.0937385 | 20 | 3 2.2 | 19.2 |
| 206272 2002 YB ₂₂ | 15.2 | X | 61.23531 | 1.87407 | 84.21634 | 2.85717 | 0.1492981 | 0.17828859 | 3.1264658 | 20 | 2 11.2 | 18.9 |
| 206273 2002 YF ₂₆ | 14.9 | X | 311.06681 | 303.79477 | 278.33003 | 15.23792 | 0.1638083 | 0.17738395 | 3.1370865 | 20 | 1 30.3 | 19.4 |
| 206274 2002 YZ ₂₈ | 15.5 | X | 53.27522 | 332.42714 | 105.59356 | 10.76042 | 0.2465501 | 0.17518714 | 3.1632577 | 20 | 1 31.6 | 18.9 |
| 206275 2002 YG ₃₃ | 15.3 | X | 64.82628 | 136.34265 | 281.84730 | 15.58149 | 0.2170866 | 0.17691768 | 3.1425960 | 20 | 1 18.9 | 19.0 |
| 206276 2003 AH ₅ | 16.0 | X | 48.59478 | 186.43806 | 251.32538 | 0.77050 | 0.2339308 | 0.17489046 | 3.1668340 | 20 | 1 19.3 | 19.3 |
| 206277 2003 AM ₉ | 15.7 | X | 325.69795 | 77.23164 | 102.37322 | 2.60106 | 0.0865327 | 0.17335178 | 3.1855458 | 20 | 1 13.5 | 19.8 |
| 206278 2003 AT ₁₇ | 14.0 | X | 357.27052 | 96.69352 | 106.47288 | 26.20670 | 0.2164308 | 0.17747684 | 3.1359919 | 20 | 4 1.9 | 18.0 |
| 206279 2003 AA ₂₁ | 15.2 | X | 351.33231 | 99.62678 | 85.60891 | 6.69572 | 0.0861513 | 0.17923791 | 3.1154167 | 20 | 2 26.8 | 19.2 |
| 206280 2003 AR ₂₁ | 14.8 | X | 337.94968 | 223.73875 | 309.84364 | 13.42094 | 0.1978809 | 0.17341300 | 3.1847959 | 20 | 1 9.8 | 18.8 |
| 206281 2003 AH ₂₆ | 15.2 | X | 26.80243 | 165.56260 | 280.04849 | 14.84434 | 0.0857882 | 0.17100426 | 3.2146332 | 20 | — | — |
| 206282 2003 AL ₄₃ | 15.2 | X | 92.41226 | 284.93417 | 120.17379 | 17.19242 | 0.2501435 | 0.17979914 | 3.1089302 | 20 | 2 19.6 | 19.6 |
| 206283 2003 AV ₆₄ | 15.3 | X | 109.83284 | 17.55710 | 13.90103 | 9.99477 | 0.3478314 | 0.18169361 | 3.0872819 | 20 | 3 4.5 | 20.3 |
| 206284 2003 AL ₆₆ | 14.8 | X | 103.60507 | 2.50979 | 70.57281 | 17.93646 | 0.0783821 | 0.18182213 | 3.0858269 | 20 | 3 21.8 | 19.5 |
| 206285 2003 AT ₆₇ | 14.5 | X | 53.56687 | 323.44921 | 108.90682 | 34.22420 | 0.1270796 | 0.17175097 | 3.2053090 | 20 | 1 10.9 | 18.5 |
| 206286 2003 AY ₆₉ | 16.2 | X | 10.57698 | 33.48861 | 61.94756 | 0.17453 | 0.2801186 | 0.16973634 | 3.2306221 | 20 | — | — |
| 206287 2003 AG ₇₄ | 15.2 | X | 61.58735 | 353.56800 | 65.51891 | 13.77673 | 0.1709352 | 0.17439945 | 3.1727753 | 20 | 1 12.1 | 19.2 |
| 206288 2003 AG ₈₅ | 15.5 | X | 24.16119 | 75.28928 | 78.58819 | 10.79160 | 0.1851059 | 0.17643053 | 3.1483782 | 20 | 3 14.5 | 19.1 |
| 206289 2003 AT ₈₅ | 14.9 | X | 66.23448 | 298.24273 | 111.78198 | 18.59941 | 0.2062057 | 0.17286361 | 3.1915402 | 20 | 1 12.3 | 18.4 |
| 206290 2003 AL ₈₉ | 15.1 | X | 328.98661 | 100.25467 | 56.65459 | 12.27146 | 0.1527747 | 0.17134637 | 3.2103529 | 20 | — | — |
| 206291 2003 AM ₉₂ | 14.8 | X | 343.65724 | 285.49782 | 281.57683 | 13.40067 | 0.2036147 | 0.17935076 | 3.1141097 | 20 | 2 20.9 | 18.7 |
| 206292 2003 BR ₃₁ | 16.7 | X | 291.60439 | 88.83362 | 274.26472 | 2.26582 | 0.0890152 | 0.31098401 | 2.1576319 | 20 | 7 26.2 | 18.7 |
| 206293 2003 BH ₄₃ | 14.8 | X | 8.51247 | 77.55418 | 128.04492 | 16.95553 | 0.1535950 | 0.18289146 | 3.0737869 | 20 | 4 23.7 | 18.6 |
| 206294 2003 BH ₈₃ | 14.9 | X | 357.84365 | 99.51853 | 112.25081 | 15.36627 | 0.2163608 | 0.17769332 | 3.1334443 | 20 | 4 9.7 | 18.4 |
| 206295 2003 BQ ₈₆ | 15.0 | X | 320.96685 | 334.39755 | 180.19851 | 10.18799 | 0.0127494 | 0.16787381 | 3.2544736 | 20 | — | — |
| 206296 2003 CJ ₁₈ | 16.0 | X | 51.14362 | 1.46389 | 143.51640 | 1.50898 | 0.1463524 | 0.17973262 | 3.1096972 | 20 | 4 10.0 | 19.9 |
| 206297 2003 DB ₃ | 14.5 | X | 49.17621 | 295.89565 | 152.86467 | 22.00614 | 0.0292318 | 0.16885710 | 3.2418270 | 20 | 1 17.2 | 19.2 |
| 206298 2003 DO ₂₀ | 16.0 | X | 310.88877 | 213.00457 | 336.39720 | 4.10629 | 0.3519279 | 0.16495785 | 3.2927143 | 20 | — | — |
| 206299 2003 EJ ₃₂ | 15.5 | X | 325.48841 | 59.78312 | 167.97046 | 5.76620 | 0.0642222 | 0.17553212 | 3.1591118 | 20 | 3 14.5 | 19.6 |
| 206300 2003 FX ₂₀ | 16.7 | X | 53.93012 | 85.58378 | 147.31263 | 4.00824 | 0.1504512 | 0.29915751 | 2.2141283 | 20 | 8 21.8 | 19.0 |
| 206301 2003 FH ₂₁ | 16.7 | X | 347.61827 | 224.14120 | 63.37090 | 5.95115 | 0.1632099 | 0.29546684 | 2.2325278 | 20 | 7 8.4 | 18.2 |
| 206302 2003 FJ ₁₀₆ | 16.5 | X | 277.96848 | 185.24512 | 91.19718 | 4.80315 | 0.1749740 | 0.28427309 | 2.2907562 | 20 | 2 19.3 | 19.8 |
| 206303 2003 HT | 16.9 | X | 187.62665 | 222.26662 | 130.66496 | 4.10175 | 0.2276671 | 0.27940913 | 2.3172647 | 20 | 3 2.9 | 20.6 |
| 206304 2003 HX ₃ | 17.5 | X | 280.17273 | 230.59319 | 54.82331 | 3.66603 | 0.2127796 | 0.28350689 | 2.2948817 | 20 | 2 29.1 | 20.8 |
| 206305 2003 HZ ₃ | 16.0 | X | 195.83733 | 161.01942 | 211.74932 | 7.05721 | 0.1338236 | 0.28641466 | 2.2793231 | 20 | 3 31.2 | 19.5 |
| 206306 2003 HT ₆ | 16.4 | X | 280.11339 | 110.17722 | 204.78343 | 4.50861 | 0.2328008 | 0.28929391 | 2.2641743 | 20 | 4 2.6 | 19.3 |
| 206307 2003 HZ ₉ | 17.4 | X | 116.72271 | 177.63813 | 68.12726 | 1.90361 | 0.1116302 | 0.31107111 | 2.1572291 | 20 | 11 20.5 | 20.3 |
| 206308 2003 HY ₁₂ | 16.9 | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 206321 | 2003 | NJ ₈ | 15.7 | X | 57.10890 | 189.54752 | 120.06455 | 14.86888 | 0.0947770 | 0.24273817 | 2.5451341 | 20 | 11 26.0 | 19.4 |
| 206322 | 2003 | NV ₁₀ | 17.1 | X | 156.45199 | 214.92816 | 166.95016 | 6.48520 | 0.1298369 | 0.26917204 | 2.3756516 | 20 | 3 4.9 | 20.4 |
| 206323 | 2003 | NH ₁₁ | 16.2 | X | 315.71532 | 140.66618 | 286.08941 | 12.03912 | 0.2565402 | 0.24131042 | 2.5551633 | 20 | 11 26.1 | 18.2 |
| 206324 | 2003 | ON | 16.9 | X | 217.88572 | 233.24296 | 58.69671 | 3.90413 | 0.1517432 | 0.26863560 | 2.3788132 | 20 | 1 14.0 | 20.5 |
| 206325 | 2003 | OG ₂ | 17.2 | X | 146.09686 | 200.90776 | 123.49232 | 3.53752 | 0.2072456 | 0.26003261 | 2.4309956 | 20 | — | — |
| 206326 | 2003 | OT ₃ | 17.1 | X | 180.26808 | 164.68217 | 151.18520 | 4.83354 | 0.2207217 | 0.26337672 | 2.4103742 | 20 | 1 12.2 | 21.0 |
| 206327 | 2003 | OY ₃ | 17.1 | X | 245.21289 | 144.70108 | 142.98961 | 1.82573 | 0.1860030 | 0.27088803 | 2.3656083 | 20 | 1 31.3 | 21.0 |
| 206328 | 2003 | OW ₄ | 16.5 | X | 119.91203 | 195.36602 | 133.21358 | 5.80383 | 0.1205796 | 0.25546043 | 2.4599161 | 20 | — | — |
| 206329 | 2003 | OB ₆ | 16.6 | X | 261.92135 | 167.19075 | 144.45329 | 6.00326 | 0.2464827 | 0.27692838 | 2.3310830 | 20 | 3 12.2 | 20.1 |
| 206330 | 2003 | OO ₆ | 16.8 | X | 305.64646 | 169.79019 | 97.96715 | 5.95518 | 0.2055597 | 0.27840568 | 2.3228295 | 20 | 3 9.4 | 19.7 |
| 206331 | 2003 | OK ₈ | 16.5 | X | 210.61173 | 357.70052 | 346.36144 | 3.60514 | 0.1676235 | 0.27312541 | 2.3526716 | 20 | 3 10.4 | 20.3 |
| 206332 | 2003 | OZ ₈ | 15.6 | X | 77.20741 | 123.67015 | 241.44721 | 12.43059 | 0.1814328 | 0.25338837 | 2.4733084 | 20 | — | — |
| 206333 | 2003 | OB ₁₀ | 16.8 | X | 21.39833 | 207.38574 | 148.95246 | 3.64817 | 0.2443734 | 0.24196148 | 2.5505777 | 20 | 12 28.6 | 20.0 |
| 206334 | 2003 | OA ₂₀ | 17.3 | X | 288.44291 | 212.54699 | 81.40241 | 3.76992 | 0.1822072 | 0.28040594 | 2.3117697 | 20 | 3 25.4 | 20.2 |
| 206335 | 2003 | OV ₂₂ | 15.4 | X | 321.79215 | 351.75485 | 351.20626 | 9.08482 | 0.3846284 | 0.22787413 | 2.6546424 | 20 | 6 26.5 | 17.6 |
| 206336 | 2003 | OC ₂₇ | 16.9 | X | 158.63329 | 62.50785 | 307.31781 | 6.28437 | 0.1188204 | 0.26743261 | 2.3859416 | 20 | 2 18.9 | 20.4 |
| 206337 | 2003 | OY ₃₀ | 16.9 | X | 216.88462 | 213.43460 | 70.71577 | 3.66912 | 0.2062641 | 0.26616082 | 2.3935360 | 20 | 1 14.7 | 20.8 |
| 206338 | 2003 | OU ₃₀ | 16.8 | X | 157.51354 | 191.98461 | 143.29756 | 6.93863 | 0.1197761 | 0.26076842 | 2.4264204 | 20 | 1 6.8 | 20.3 |
| 206339 | 2003 | PN ₁ | 16.5 | X | 195.91562 | 35.43442 | 296.63002 | 7.05060 | 0.1369756 | 0.26949308 | 2.3737645 | 20 | 2 9.7 | 20.2 |
| 206340 | 2003 | PW ₂ | 16.5 | X | 162.62623 | 185.40654 | 144.80366 | 6.37847 | 0.1387974 | 0.26333157 | 2.4106496 | 20 | 1 7.4 | 20.0 |
| 206341 | 2003 | PO ₃ | 17.1 | X | 245.16315 | 46.69545 | 260.80002 | 1.52418 | 0.2187541 | 0.27258712 | 2.3557678 | 20 | 2 21.9 | 20.8 |
| 206342 | 2003 | PQ ₆ | 17.3 | X | 6.37050 | 103.91817 | 314.28783 | 15.32724 | 0.0678062 | 0.42466293 | 1.7529646 | 20 | — | — |
| 206343 | 2003 | PB ₇ | 17.2 | X | 83.95215 | 78.52535 | 194.31560 | 2.86413 | 0.1150836 | 0.30264807 | 2.1970711 | 20 | 11 19.9 | 20.1 |
| 206344 | 2003 | PA ₈ | 17.0 | X | 183.98813 | 56.60996 | 255.68602 | 2.44088 | 0.1335384 | 0.26450955 | 2.4034872 | 20 | 1 6.4 | 20.5 |
| 206345 | 2003 | PA ₉ | 16.3 | X | 182.18119 | 30.70922 | 110.68334 | 6.07494 | 0.1431861 | 0.26699518 | 2.3885469 | 20 | 2 9.5 | 20.0 |
| 206346 | 2003 | PM ₉ | 17.0 | X | 296.29528 | 89.76255 | 229.34614 | 1.58499 | 0.1844663 | 0.28229960 | 2.3014200 | 20 | 5 8.3 | 19.6 |
| 206347 | 2003 | QL ₁ | 16.8 | X | 219.85829 | 336.61294 | 310.87718 | 4.70850 | 0.1996082 | 0.26498684 | 2.4006003 | 20 | 1 10.5 | 20.8 |
| 206348 | 2003 | QA ₁₂ | 16.9 | X | 37.24468 | 341.80036 | 20.10144 | 3.08179 | 0.2401076 | 0.24393438 | 2.5368067 | 20 | — | — |
| 206349 | 2003 | QQ ₁₃ | 16.3 | X | 271.19646 | 187.06310 | 151.55500 | 7.17920 | 0.1588684 | 0.27746750 | 2.3280625 | 20 | 5 8.3 | 19.4 |
| 206350 | 2003 | QA ₂₆ | 16.7 | X | 213.16526 | 352.49061 | 322.79884 | 5.55006 | 0.1412806 | 0.26677629 | 2.3898532 | 20 | 2 7.2 | 20.4 |
| 206351 | 2003 | QC ₂₈ | 16.8 | X | 237.18056 | 167.37668 | 132.71684 | 4.49704 | 0.1639163 | 0.26926112 | 2.3751276 | 20 | 2 9.8 | 20.6 |
| 206352 | 2003 | QT ₂₈ | 16.7 | X | 195.11564 | 226.54541 | 72.57906 | 3.22375 | 0.1954121 | 0.26295373 | 2.4129584 | 20 | 1 3.9 | 20.5 |
| 206353 | 2003 | QL ₃₄ | 16.5 | X | 185.09937 | 176.53927 | 133.58251 | 3.37667 | 0.2046834 | 0.26333294 | 2.4106413 | 20 | 1 8.8 | 20.4 |
| 206354 | 2003 | QF ₄₀ | 16.3 | X | 140.75575 | 11.23241 | 344.46683 | 6.44765 | 0.1400386 | 0.25973334 | 2.4328626 | 20 | 1 18.4 | 19.7 |
| 206355 | 2003 | QS ₄₀ | 17.0 | X | 141.86279 | 192.87084 | 134.21362 | 2.02347 | 0.1928690 | 0.25817912 | 2.4426166 | 20 | — | — |
| 206356 | 2003 | QX ₄₃ | 17.0 | X | 234.08260 | 281.71481 | 5.58702 | 2.51724 | 0.1772652 | 0.26646557 | 2.3917107 | 20 | 1 22.7 | 20.7 |
| 206357 | 2003 | QJ ₄₄ | 16.5 | X | 180.83055 | 3.66181 | 304.39156 | 5.64677 | 0.1406157 | 0.26305135 | 2.4123613 | 20 | — | — |
| 206358 | 2003 | QL ₄₄ | 16.9 | X | 118.29554 | 125.08148 | 225.18952 | 1.38238 | 0.2293962 | 0.25702705 | 2.4499102 | 20 | — | — |
| 206359 | 2003 | QM ₄₇ | 18.2 | X | 280.77005 | 303.07246 | 149.12771 | 33.11700 | 0.3034180 | 0.41075072 | 1.7923266 | 20 | — | — |
| 206360 | 2003 | QW ₅₀ | 16.3 | X | 352.14903 | 271.27081 | 152.72661 | 14.35780 | 0.2103061 | 0.24243271 | 2.5472715 | 20 | — | — |
| 206361 | 2003 | QG ₅₂ | 17.0 | X | 283.25093 | 184.52209 | 123.94322 | 3.26766 | 0.1648337 | 0.27921560 | 2.3183354 | 20 | 4 9.9 | 20.0 |
| 206362 | 2003 | QF ₅₆ | 15.2 | X | 247.53746 | 8.96401 | 356.83175 | 13.93262 | 0.2020959 | 0.21949155 | 2.7218082 | 20 | 5 5.9 | 19.7 |
| 206363 | 2003 | QB ₅₇ | 16.7 | X | 186.07088 | 326.78612 | 5.49532 | 3.45326 | 0.2221055 | 0.26438371 | 2.4042498 | 20 | 2 6.9 | 20.7 |
| 206364 | 2003 | QS ₆₁ | 16.1 | X | 342.06050 | 222.84548 | 136.25203 | 8.42677 | 0.2021902 | 0.23252649 | 2.6191142 | 20 | 10 17.1 | 18.5 |
| 206365 | 2003 | QT ₆₄ | 16.1 | X | 7.11587 | 222.08897 | 135.95224 | 6.50678 | 0.2532643 | 0.23541770 | 2.5976261 | 20 | 12 10.7 | 19.0 |
| 206366 | 2003 | QS ₆₅ | 16.1 | X | 302.39519 | 286.15816 | 145.05876 | 13.26106 | 0.2368117 | 0.23614316 | 2.5923032 | 20 | 11 3.5 | 18.6 |
| 206367 | 2003 | QK ₆₈ | 16.7 | X | 330.04386 | 96.98942 | 321.74566 | 4.39357 | 0.2401481 | 0.24010931 | 2.5636774 | 20 | 12 22.5 | 18.7 |
| 206368 | 2003 | QR ₇₀ | 16.9 | X | 46.33430 | 267.86183 | 86.80872 | 4.18925 | 0.2450844 | 0.24401229 | 2.5362667 | 20 | — | — |
| 206369 | 2003 | QO ₇₁ | 16.9 | X | 44.15390 | 52.53190 | 286.17345 | 7.37937 | 0.2660964 | 0.24268849 | 2.5454814 | 20 | — | — |
| 206370 | 2003 | QU ₈₆ | 16.7 | X | 335.97553 | 321.37448 | 299.05126 | 4.83789 | 0.1397836 | 0.28148798 | 2.3058417 | 20 | 4 23.6 | 18.9 |
| 206371 | 2003 | QW ₈₇ | 16.5 | X | 183.77068 | 20.86812 | 330.91387 | 6.73040 | 0.1363936 | 0.26830356 | 2.3807754 | 20 | 2 23.8 | 20.0 |
| 206372 | 2003 | QO ₈₉ | 17.3 | X | 334.79626 | 332.23018 | 137.95613 | 2.49407 | 0.1582623 | 0.28437714 | 2.2901975 | 20 | 6 9.9 | 19.2 |
| 206373 | 2003 | QB ₉₉ | 17.7 | X | 248.78405 | 124.22574 | 143.69593 | 2.84521 | 0.1735954 | 0.26766927 | 2.3845350 | 20 | 1 11.3 | 21.6 |
| 206374 | 2003 | QK ₁₀₃ | 15.6 | X | 303.22857 | 219.17775 | 120.57990 | 14.31741 | 0.1682373 | 0.22494756 | 2.6776174 | 20 | 6 23.0 | 18.8 |
| 206375 | 2003 | QK ₁₀₅ | 15.6 | X | 338.35261 | 209.61992 | 142.60759 | 12.82250 | 0.2027766 | 0.23082723 | 2.6319524 | 20 | 9 26.8 | 18.0 |
| 206376 | 2003 | QD ₁₀₈ | 15.4 | X | 13.60545 | 250.87636 | 135.49960 | 27.93887 | 0.1425723 | 0.24122889 | 2.5557390 | 20 | — | — |
| 206377 | 2003 | QK ₁₁₄ | 17.3 | X | 299.01864 | 17.19879 | 267.36898 | 2.51702 | 0.2355672 | 0.27729213 | 2.3290439 | 20 | 3 14.6 | 20.2 |
| 206378 | 2003 | RB | 18.7 | X | 347.53425 | 44.00457 | 317.15237 | 6.72510 | 0.4388831 | 0.41219635 | 1.7881336 | 20 | — | — |
| 206379 | 2003 | RV ₅ | 15.8 | X | 340.65132 | 109.37912 | 278.45089 | 12.66344 | 0.1900037 | 0.23515143 | 2.5995866 | 20 | 11 20.4 | 18.4 |
| 206380 | 2003 | RT ₈ | 16.2 | X | 43.76785 | 232.65266 | 144.11275 | 15.16557 | 0.2107158 | 0.24451323 | 2.5328014 | 20 | — | — |
| 206381 | 2003 | RB ₉ | 16.5 | X | 19.47051 | 40.05726 | 340.88052 | 8.65428 | 0.1494297 | 0.24317470 | 2.5420873 | 20 | — | — |
| 206382 | 2003 | RU ₁₃ | 15.9 | X | 230.28099 | 185.99138 | 244.18393 | 10.23341 | 0.2744379 | 0.22060978 | 2.7126029 | 20 | 7 7.2 | 20.6 |
| 206383 | 2003 | RC ₁₆ | 16.6 | X | 179.28854 | 322.67016 | 324.36322 | 4.78081 | 0.1516277 | 0.25735618 | 2.4478209 | 20 | — | — |
| 206384 | 2003 | RJ ₁₇ | 16.2 | X | 37.80425 | 104.67260 | 258.07629 | 7.80698 | 0.1178706 | 0.24510593 | 2.5287167 | 20 | — | — |
| 206385 | 2003 | RZ ₁₇ | 16.8 | X | 328.78495 | 299.34448 | 83.39082 | 2.83953 | 0.1956628 | 0.23487340 | 2.6016378 | 20 | 10 20.2 | 18.9 |
| 206386 | 2003 | RR ₂₁ | 16.8 | X | 158.16811 | 40.29045 | 307.22660 | 2.97284 | 0.1359055 | 0.26195004 | 2.4191181 | 20 | 1 24.8 | 20.2 |
| 206387 | 2003 | RT ₂₃ | 15.7 | X | 242.54164 | 149.14229 | 298.99006 | 12.28588 | 0.1539645 | 0.22796348 | 2.6539487 | 20 | 8 22.8 | 19.6 |
| 206388 | 2003 | RF ₂₆ | 16.5 | X | 259.57865 | 123.62985 | 353.82239 | 4.07546 | 0.1527885 | 0.23276785 | 2.6173033 | 20 | 10 26.8 | 19.9 |
| 206389 | 2003 | SD ₇ | 16.6 | X | 281.80668 | 287.37976 | 5.45921 | 6.29561 | 0.2567712 | 0.27511522 | 2.3413139 | 20 | 3 6.4 | 20.0 |
| 206390 | 2003 | SY ₁₂ | 17.0 | X | 147.41604 | 344.87772 | 351.49589 | 0.85331 | 0.1848122 | 0.25813349 | 2.4429044 | 20 | | |

ELEMENTS AND OPPOSITION DATES IN 2020

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|-------------|-----------|----|---------|----------|
| 206401 2003 SM ₅₄ | 16.6 ^m | X | 25.09153 | 117.54097 | 255.70574 | 5.89574 | 0.1430170 | 0.24239439 | 2.5475400 | 20 | — | — |
| 206402 2003 SQ ₅₈ | 16.6 | X | 136.64062 | 25.48684 | 295.68476 | 9.50787 | 0.1809922 | 0.25511789 | 2.4621175 | 20 | — | — |
| 206403 2003 SF ₆₃ | 16.3 | X | 174.61615 | 34.53635 | 307.51512 | 5.60785 | 0.1342364 | 0.26314778 | 2.4117720 | 20 | 2 3.1 | 19.8 |
| 206404 2003 SM ₆₃ | 16.5 | X | 307.75470 | 73.81949 | 332.51323 | 10.98520 | 0.1833431 | 0.23363274 | 2.6108399 | 20 | 10 2.1 | 19.2 |
| 206405 2003 SA ₇₂ | 16.8 | X | 142.69320 | 53.47862 | 333.29978 | 9.58969 | 0.0881078 | 0.26364617 | 2.4087316 | 20 | 2 21.4 | 19.8 |
| 206406 2003 SH ₈₉ | 16.4 | X | 209.88470 | 191.30346 | 253.78107 | 8.97183 | 0.2329542 | 0.22035342 | 2.7147063 | 20 | 7 11.6 | 21.0 |
| 206407 2003 SB ₉₀ | 16.1 | X | 241.71583 | 115.76128 | 331.06030 | 11.48038 | 0.1488999 | 0.22760124 | 2.6567639 | 20 | 8 24.8 | 19.8 |
| 206408 2003 SH ₉₅ | 16.1 | X | 324.82734 | 83.30134 | 292.78557 | 4.50759 | 0.1943557 | 0.23126698 | 2.6286149 | 20 | 9 24.8 | 18.5 |
| 206409 2003 ST ₉₅ | 16.7 | X | 135.09135 | 65.57970 | 254.00424 | 3.82864 | 0.1942518 | 0.25249082 | 2.4791663 | 20 | — | — |
| 206410 2003 SE ₉₉ | 17.2 | X | 9.16333 | 314.21147 | 53.46442 | 2.55292 | 0.1697434 | 0.23695857 | 2.5863528 | 20 | 12 12.9 | 20.1 |
| 206411 2003 SS ₁₀₀ | 15.8 | X | 185.63300 | 70.23354 | 353.26305 | 8.58791 | 0.1582244 | 0.21452535 | 2.7636538 | 20 | 5 26.3 | 20.4 |
| 206412 2003 SY ₁₀₄ | 15.7 | X | 302.91837 | 96.91571 | 270.34690 | 10.38301 | 0.0793714 | 0.22750403 | 2.6575206 | 20 | 8 9.1 | 19.0 |
| 206413 2003 SO ₁₁₁ | 16.3 | X | 313.67035 | 263.05883 | 164.28451 | 9.03834 | 0.2147785 | 0.23372746 | 2.6101345 | 20 | 11 22.9 | 18.6 |
| 206414 2003 SZ ₁₁₃ | 16.9 | X | 306.71565 | 337.47677 | 302.42658 | 2.67602 | 0.1656250 | 0.27779225 | 2.3262478 | 20 | 3 29.9 | 19.7 |
| 206415 2003 SM ₁₁₆ | 16.7 | X | 334.68932 | 61.52997 | 339.13582 | 4.29788 | 0.2497832 | 0.23608857 | 2.5927028 | 20 | 12 3.7 | 18.7 |
| 206416 2003 SO ₁₁₈ | 16.3 | X | 322.06544 | 355.68633 | 179.24674 | 5.16838 | 0.1267899 | 0.25682017 | 2.4512257 | 20 | — | — |
| 206417 2003 SP ₁₃₂ | 17.2 | X | 223.50119 | 120.04237 | 171.15670 | 1.24006 | 0.1896423 | 0.26216132 | 2.4178182 | 20 | 1 17.7 | 21.2 |
| 206418 2003 SD ₁₃₇ | 15.7 | X | 323.07843 | 357.11071 | 8.15963 | 13.36141 | 0.2931678 | 0.22903664 | 2.6456522 | 20 | 9 2.4 | 17.5 |
| 206419 2003 SS ₁₃₇ | 16.9 | X | 31.96536 | 344.80820 | 4.06912 | 3.46215 | 0.0989528 | 0.23735310 | 2.5834860 | 20 | 12 9.4 | 20.2 |
| 206420 2003 SG ₁₄₀ | 16.1 | X | 22.42564 | 243.98258 | 106.45458 | 4.73301 | 0.2245582 | 0.23716248 | 2.5848701 | 20 | 12 18.3 | 19.2 |
| 206421 2003 ST ₁₄₁ | 16.4 | X | 33.26375 | 354.42597 | 5.58545 | 4.78708 | 0.1602899 | 0.23919474 | 2.5702082 | 20 | — | — |
| 206422 2003 SQ ₁₄₆ | 15.4 | X | 257.37193 | 29.31672 | 26.80030 | 13.65055 | 0.2777979 | 0.22147185 | 2.7055591 | 20 | 7 19.6 | 19.8 |
| 206423 2003 SG ₁₄₈ | 15.7 | X | 347.52198 | 356.27861 | 37.38649 | 15.25517 | 0.1093562 | 0.23913013 | 2.5706711 | 20 | 12 2.9 | 18.8 |
| 206424 2003 SX ₁₄₉ | 16.6 | X | 284.59779 | 182.79744 | 116.58988 | 7.50188 | 0.1333933 | 0.27540615 | 2.3396647 | 20 | 4 6.4 | 19.7 |
| 206425 2003 SU ₁₅₇ | 16.3 | X | 7.49208 | 137.01779 | 271.46268 | 3.41831 | 0.1157531 | 0.24286279 | 2.5442633 | 20 | — | — |
| 206426 2003 SP ₁₆₆ | 15.7 | X | 201.20136 | 123.64569 | 327.07299 | 10.49458 | 0.1407519 | 0.22067955 | 2.7120310 | 20 | 7 19.4 | 20.1 |
| 206427 2003 SZ ₁₆₈ | 16.3 | X | 338.92603 | 273.63753 | 130.13292 | 11.94181 | 0.1928504 | 0.23774094 | 2.5806755 | 20 | 12 14.9 | 18.9 |
| 206428 2003 SV ₁₇₀ | 17.1 | X | 27.82576 | 190.21105 | 151.73965 | 3.10058 | 0.1627675 | 0.23724969 | 2.5842367 | 20 | 12 5.5 | 20.4 |
| 206429 2003 SZ ₁₇₄ | 16.4 | X | 242.25089 | 93.58131 | 8.73605 | 5.72641 | 0.2248626 | 0.22968250 | 2.6406902 | 20 | 9 6.5 | 20.3 |
| 206430 2003 SH ₁₇₈ | 15.9 | X | 254.34303 | 253.51061 | 354.37604 | 14.52082 | 0.0718208 | 0.258996956 | 2.4376437 | 20 | 1 1.7 | 19.7 |
| 206431 2003 SY ₁₈₀ | 16.9 | X | 151.34506 | 38.71222 | 266.50557 | 5.06081 | 0.1145568 | 0.25318098 | 2.4746588 | 20 | — | — |
| 206432 2003 SY ₁₈₁ | 16.4 | X | 348.34020 | 220.62119 | 130.19780 | 6.52223 | 0.3427122 | 0.23177676 | 2.6247591 | 20 | 11 6.4 | 18.1 |
| 206433 2003 SK ₁₈₈ | 16.5 | X | 254.58453 | 83.36789 | 346.45262 | 6.94699 | 0.2376462 | 0.22512851 | 2.6761824 | 20 | 8 7.2 | 20.4 |
| 206434 2003 SF ₁₉₅ | 16.3 | X | 105.92537 | 60.77958 | 246.82003 | 4.53240 | 0.0723486 | 0.24370003 | 2.5384327 | 20 | — | — |
| 206435 2003 ST ₁₉₆ | 16.2 | X | 332.46451 | 82.37237 | 359.02464 | 12.52741 | 0.2022135 | 0.23871906 | 2.5736213 | 20 | — | — |
| 206436 2003 SE ₁₉₈ | 15.8 | X | 240.58262 | 96.44348 | 337.39749 | 11.26787 | 0.2704216 | 0.22165373 | 2.7040789 | 20 | 7 25.6 | 20.2 |
| 206437 2003 SW ₁₉₈ | 16.1 | X | 296.05376 | 85.72870 | 339.86527 | 10.93786 | 0.1892562 | 0.23112098 | 2.6292718 | 20 | 10 6.1 | 19.0 |
| 206438 2003 SS ₂₀₄ | 15.2 | X | 321.04051 | 325.34725 | 43.88245 | 7.93554 | 0.2215708 | 0.22635103 | 2.6665377 | 20 | 9 9.5 | 17.6 |
| 206439 2003 SE ₂₀₇ | 17.3 | X | 27.67622 | 293.53862 | 68.47581 | 0.49669 | 0.1536208 | 0.24043969 | 2.5613285 | 20 | 12 30.1 | 20.5 |
| 206440 2003 SC ₂₁₀ | 15.7 | X | 262.44506 | 222.41774 | 219.05124 | 11.13974 | 0.1561348 | 0.22853807 | 2.6494985 | 20 | 9 8.4 | 19.3 |
| 206441 2003 SY ₂₂₀ | 15.9 | X | 225.42629 | 212.24861 | 207.60356 | 8.74369 | 0.1822797 | 0.21644396 | 2.7472978 | 20 | 6 28.1 | 20.4 |
| 206442 2003 SY ₂₃₃ | 15.4 | X | 136.79590 | 141.67078 | 127.91064 | 3.75671 | 0.0436347 | 0.18410177 | 3.0603005 | 20 | 12 15.5 | 20.0 |
| 206443 2003 SY ₂₃₄ | 16.2 | X | 249.77388 | 46.92083 | 59.33526 | 1.88599 | 0.0306022 | 0.23489065 | 2.6015104 | 20 | 10 19.4 | 19.4 |
| 206444 2003 SJ ₂₃₅ | 17.1 | X | 7.61679 | 89.25517 | 292.70695 | 1.85966 | 0.2267041 | 0.23890688 | 2.5722723 | 20 | — | — |
| 206445 2003 SL ₂₄₆ | 16.0 | X | 267.21676 | 76.47131 | 8.31346 | 14.95845 | 0.0607467 | 0.23269145 | 2.6178761 | 20 | 10 7.9 | 19.5 |
| 206446 2003 SU ₂₆₀ | 17.3 | X | 319.50721 | 297.61859 | 341.11462 | 6.03782 | 0.1320156 | 0.27813008 | 2.3243636 | 20 | 4 22.6 | 19.7 |
| 206447 2003 SN ₂₆₈ | 16.9 | X | 182.38289 | 220.62304 | 313.27716 | 2.17842 | 0.0576432 | 0.23155731 | 2.6264173 | 20 | 10 17.4 | 20.8 |
| 206448 2003 SY ₂₇₁ | 16.3 | X | 273.87137 | 251.62878 | 178.72987 | 14.57935 | 0.1598647 | 0.22935994 | 2.6431654 | 20 | 9 12.7 | 19.5 |
| 206449 2003 SJ ₂₇₄ | 16.8 | X | 284.14620 | 320.08036 | 93.37987 | 3.10598 | 0.1711845 | 0.22910311 | 2.6451404 | 20 | 9 5.9 | 19.9 |
| 206450 2003 SG ₂₇₉ | 17.0 | X | 51.15587 | 19.55464 | 334.19944 | 7.00513 | 0.2088059 | 0.24211837 | 2.5494757 | 20 | — | — |
| 206451 2003 SD ₃₀₂ | 17.2 | X | 203.67262 | 246.04278 | 63.01169 | 1.99871 | 0.1794055 | 0.26371230 | 2.4083289 | 20 | 1 22.9 | 20.9 |
| 206452 2003 SA ₃₀₉ | 14.9 | X | 273.07975 | 30.67388 | 317.97386 | 13.02306 | 0.2984642 | 0.22012279 | 2.7166022 | 20 | 4 28.5 | 19.4 |
| 206453 2003 SE ₃₁₄ | 15.7 | X | 4.13819 | 16.35100 | 348.54223 | 14.23795 | 0.1268006 | 0.23510052 | 2.5999619 | 20 | 11 19.4 | 19.0 |
| 206454 2003 SK ₃₁₈ | 17.4 | X | 243.71760 | 33.08317 | 257.69068 | 2.20198 | 0.1845258 | 0.26824164 | 2.3811417 | 20 | 2 2.5 | 21.1 |
| 206455 2003 SM ₃₁₉ | 16.0 | X | 240.54676 | 283.27625 | 148.99032 | 14.29272 | 0.2635861 | 0.22242735 | 2.6978052 | 20 | 7 20.8 | 20.4 |
| 206456 2003 SJ ₃₂₁ | 15.9 | X | 179.81791 | 278.13909 | 332.02140 | 6.57478 | 0.1146943 | 0.24651468 | 2.5190736 | 20 | — | — |
| 206457 2003 SV ₃₅₆ | 17.0 | X | 196.64763 | 352.74538 | 278.92899 | 1.42046 | 0.1736214 | 0.25611590 | 2.4557172 | 20 | — | — |
| 206458 2003 TM | 16.3 | X | 348.50363 | 75.10131 | 310.36017 | 10.03872 | 0.1968104 | 0.23485642 | 2.6017632 | 20 | 12 4.3 | 19.1 |
| 206459 2003 TD ₅ | 15.8 | X | 343.20748 | 78.86708 | 274.21295 | 12.85376 | 0.2022153 | 0.238009423 | 2.6375391 | 20 | 9 26.5 | 18.6 |
| 206460 2003 TY ₆ | 15.8 | X | 311.55527 | 314.89482 | 50.96721 | 14.58867 | 0.2695538 | 0.22816745 | 2.6523669 | 20 | 8 6.5 | 18.6 |
| 206461 2003 TE ₇ | 15.7 | X | 2.92793 | 221.31882 | 118.33635 | 12.62396 | 0.1988593 | 0.23410221 | 2.6073483 | 20 | 11 3.4 | 18.7 |
| 206462 2003 TN ₁₀ | 16.2 | X | 321.15180 | 266.69738 | 245.21974 | 5.10163 | 0.0947409 | 0.25367862 | 2.4714214 | 20 | — | — |
| 206463 2003 TW ₁₄ | 16.7 | X | 24.50892 | 271.25821 | 108.70949 | 6.04866 | 0.2450077 | 0.24043520 | 2.5613603 | 20 | — | — |
| 206464 2003 TM ₁₅ | 15.6 | X | 266.05898 | 311.47272 | 66.84644 | 14.27255 | 0.1931005 | 0.22035212 | 2.7147170 | 20 | 6 16.8 | 19.5 |
| 206465 2003 TA ₁₈ | 16.1 | X | 289.11686 | 199.04634 | 238.15532 | 10.96731 | 0.1571484 | 0.23396697 | 2.6083529 | 20 | 10 17.2 | 19.2 |
| 206466 2003 TZ ₄₁ | 17.2 | X | 317.31938 | 169.13962 | 236.12797 | 3.68959 | 0.1030310 | 0.23380611 | 2.6095491 | 20 | 10 29.0 | 19.9 |
| 206467 2003 TY ₅₈ | 16.6 | X | 299.07779 | 91.43466 | 286.66154 | 11.90704 | 0.2263475 | 0.22538507 | 2.6741511 | 20 | 7 28.9 | 19.7 |
| 206468 2003 UY | 16.7 | X | 80.48800 | 104.13674 | 295.15690 | 6.27957 | 0.0738429 | 0.25899439 | 2.4374880 | 20 | — | — |
| 206469 2003 UD ₂ | 16.9 | X | 23.62968 | 101.34012 | 237.66609 | 2.95878 | 0.1274084 | 0.23557807 | 2.5964471 | 20 | 11 19.4 | 19.9 |
| 206470 2003 UQ ₂ | 17.4 | X | 167.98078 | 171.61943 | 154.54070 | 2.83456 | 0.2026488 | 0.25840623 | 2.4411852 | 20 | 1 13.7 | 21.2 |
| 206471 2003 US ₈ | 16.0 | X | 348.95170 | 75.69178 | 305.27419 | 21.17436 | 0.0949620 | 0.23453882 | 2.6041114 | 20 | 11 11.8 | 19.6 |
| 206472 2003 UX ₁₁ | 16.1 | X | 192.70099 | 240.34632 | 340.60559 | 7.43421 | 0.1013320 | 0.24188073 | 2.5511454 | 20 | 12 26.6 | 19.9 |
| 206473 2003 UZ ₂₂ | 16.2 | X | 72.39993 | 125.28302 | 44.01428 | 7.59016 | 0.0591520 | 0.26948178 | 2.3738309 | 20 | 5 27.9 | 19.1 |
| 206474 2003 UO ₃₄ | 15 | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 206481 | 2003 | UL ₅₈ | 16.4 | X | 290.25223 | 85.71128 | 255.73783 | 4.93016 | 0.1490927 | 0.22097161 | 2.7096409 | 20 | 6 7.0 | 19.9 |
| 206482 | 2003 | UX ₆₄ | 15.9 | X | 10.01214 | 228.87524 | 94.48844 | 11.73862 | 0.2842977 | 0.23284614 | 2.6167166 | 20 | 11 6.1 | 18.7 |
| 206483 | 2003 | UU ₆₅ | 15.9 | X | 337.36084 | 264.74114 | 95.69782 | 10.38592 | 0.1236632 | 0.23024928 | 2.6363548 | 20 | 10 7.2 | 18.9 |
| 206484 | 2003 | UJ ₆₆ | 16.0 | X | 350.71547 | 248.16641 | 136.66116 | 9.98517 | 0.1714129 | 0.23506915 | 2.6001933 | 20 | 12 7.2 | 18.9 |
| 206485 | 2003 | UP ₆₆ | 16.0 | X | 267.40979 | 260.12976 | 131.02720 | 12.90607 | 0.1609033 | 0.22154014 | 2.7050031 | 20 | 7 11.2 | 19.7 |
| 206486 | 2003 | US ₆₆ | 15.9 | X | 257.13681 | 283.24186 | 145.86417 | 11.92064 | 0.1779629 | 0.22424129 | 2.6832368 | 20 | 8 15.7 | 19.6 |
| 206487 | 2003 | UG ₆₈ | 16.9 | X | 263.98878 | 307.71524 | 178.07829 | 4.40039 | 0.0710360 | 0.23644968 | 2.5900624 | 20 | 11 28.6 | 20.1 |
| 206488 | 2003 | UJ ₇₄ | 16.0 | X | 1.74574 | 276.12945 | 90.40048 | 4.48803 | 0.2241990 | 0.23411763 | 2.6072337 | 20 | 12 7.3 | 18.5 |
| 206489 | 2003 | UO ₇₄ | 16.6 | X | 259.93703 | 309.09469 | 327.90288 | 6.18000 | 0.0835717 | 0.26345867 | 2.4098743 | 20 | 2 10.8 | 20.0 |
| 206490 | 2003 | UX ₇₆ | 16.4 | X | 262.96572 | 96.72762 | 334.99334 | 11.97655 | 0.1454354 | 0.22700568 | 2.6614086 | 20 | 8 31.9 | 19.8 |
| 206491 | 2003 | UW ₇₉ | 16.1 | X | 321.80441 | 329.64057 | 107.40321 | 5.13157 | 0.1129637 | 0.23812126 | 2.5779269 | 20 | 12 22.3 | 18.8 |
| 206492 | 2003 | UW ₈₀ | 15.7 | X | 353.49491 | 278.47032 | 71.64315 | 14.94459 | 0.1787746 | 0.23084787 | 2.6317955 | 20 | 10 27.9 | 18.5 |
| 206493 | 2003 | UX ₈₀ | 16.2 | X | 330.95653 | 306.16617 | 81.94838 | 13.08754 | 0.1862180 | 0.23162447 | 2.6259095 | 20 | 11 5.2 | 18.8 |
| 206494 | 2003 | UQ ₈₄ | 16.9 | X | 107.93735 | 165.44373 | 136.58316 | 1.41754 | 0.0821925 | 0.24153431 | 2.5535841 | 20 | — | — |
| 206495 | 2003 | UG ₈₅ | 16.9 | X | 207.10274 | 312.62961 | 182.67703 | 3.07555 | 0.1162362 | 0.22654773 | 2.6649940 | 20 | 9 21.0 | 20.7 |
| 206496 | 2003 | UC ₉₅ | 16.3 | X | 251.88496 | 40.47628 | 22.87868 | 5.09800 | 0.0949991 | 0.22443217 | 2.6817151 | 20 | 8 16.1 | 20.0 |
| 206497 | 2003 | UP ₁₀₀ | 16.3 | X | 47.66956 | 187.02189 | 154.15129 | 6.29504 | 0.2514436 | 0.23959353 | 2.5673554 | 20 | — | — |
| 206498 | 2003 | UT ₁₀₀ | 15.5 | X | 233.65173 | 304.27887 | 73.09189 | 5.84588 | 0.0637394 | 0.21341476 | 2.7732334 | 20 | 5 25.6 | 19.4 |
| 206499 | 2003 | UV ₁₀₀ | 16.3 | X | 299.45466 | 76.79833 | 5.41406 | 13.86374 | 0.1717428 | 0.23567469 | 2.5957374 | 20 | 11 9.0 | 19.1 |
| 206500 | 2003 | UQ ₁₀₃ | 16.6 | X | 33.10922 | 113.87787 | 223.14152 | 2.23294 | 0.2729688 | 0.23703074 | 2.5858278 | 20 | 12 21.2 | 20.1 |
| 206501 | 2003 | UD ₁₀₉ | 16.4 | X | 248.33020 | 61.56225 | 40.56612 | 2.91260 | 0.0486150 | 0.22849615 | 2.6498226 | 20 | 10 8.4 | 19.7 |
| 206502 | 2003 | UJ ₁₁₃ | 16.5 | X | 76.15194 | 191.18767 | 125.34307 | 6.16932 | 0.2674668 | 0.24214896 | 2.5492610 | 20 | — | — |
| 206503 | 2003 | UB ₁₁₅ | 16.1 | X | 254.12933 | 282.75646 | 219.17765 | 12.38738 | 0.1089708 | 0.23484373 | 2.6018569 | 20 | 11 29.6 | 19.4 |
| 206504 | 2003 | UN ₁₁₆ | 16.3 | X | 255.88245 | 46.94159 | 83.35243 | 5.38345 | 0.1358845 | 0.23402987 | 2.6078855 | 20 | 11 13.2 | 19.5 |
| 206505 | 2003 | UR ₁₁₆ | 16.3 | X | 345.14450 | 11.86723 | 27.00005 | 4.52608 | 0.1648457 | 0.23528127 | 2.5986302 | 20 | 12 13.6 | 19.0 |
| 206506 | 2003 | UJ ₁₁₈ | 16.3 | X | 257.22354 | 114.81286 | 296.32789 | 3.98092 | 0.0846967 | 0.22395207 | 2.6855464 | 20 | 8 5.4 | 19.9 |
| 206507 | 2003 | UV ₁₁₉ | 16.0 | X | 303.00037 | 266.32199 | 111.94429 | 13.53572 | 0.2794022 | 0.22609421 | 2.6685566 | 20 | 7 30.3 | 18.5 |
| 206508 | 2003 | UP ₁₂₂ | 15.9 | X | 320.62159 | 245.13644 | 130.13293 | 14.26834 | 0.2181660 | 0.22761888 | 2.6566267 | 20 | 9 19.0 | 18.4 |
| 206509 | 2003 | UJ ₁₂₄ | 15.5 | X | 263.20681 | 64.80724 | 31.11488 | 28.08488 | 0.2024107 | 0.22978561 | 2.6399001 | 20 | 10 6.4 | 19.1 |
| 206510 | 2003 | UU ₁₂₆ | 15.8 | X | 307.86116 | 359.51724 | 18.49704 | 15.40690 | 0.0968074 | 0.22647711 | 2.6655480 | 20 | 9 10.4 | 19.1 |
| 206511 | 2003 | UW ₁₂₆ | 16.7 | X | 34.87447 | 94.59285 | 239.89242 | 0.64603 | 0.1639748 | 0.23499268 | 2.6007573 | 20 | 12 4.2 | 20.1 |
| 206512 | 2003 | UL ₁₂₇ | 16.8 | X | 152.22637 | 34.94440 | 83.44389 | 1.59358 | 0.1240130 | 0.21415694 | 2.7668224 | 20 | 7 4.1 | 21.0 |
| 206513 | 2003 | UT ₁₂₉ | 16.3 | X | 244.33924 | 322.50216 | 339.68260 | 6.31777 | 0.1165965 | 0.26388486 | 2.4072789 | 20 | 2 22.9 | 19.6 |
| 206514 | 2003 | UK ₁₃₂ | 15.9 | X | 24.17243 | 71.67069 | 279.61459 | 3.85063 | 0.2783769 | 0.23636276 | 2.5906973 | 20 | 12 29.3 | 19.2 |
| 206515 | 2003 | UB ₁₃₃ | 15.6 | X | 265.84268 | 340.14100 | 25.53409 | 9.29727 | 0.1713462 | 0.21680862 | 2.7442164 | 20 | 6 2.0 | 19.6 |
| 206516 | 2003 | UJ ₁₃₃ | 16.5 | X | 312.83137 | 77.54947 | 339.60120 | 7.60427 | 0.1331410 | 0.23351702 | 2.6117024 | 20 | 11 2.7 | 19.4 |
| 206517 | 2003 | UX ₁₃₄ | 15.9 | X | 3.89100 | 98.51574 | 279.45315 | 2.98681 | 0.1673369 | 0.23557004 | 2.5965061 | 20 | 12 17.9 | 18.6 |
| 206518 | 2003 | UQ ₁₃₈ | 16.2 | X | 352.85197 | 254.65493 | 163.15102 | 5.81788 | 0.1011134 | 0.23903323 | 2.5713658 | 20 | — | — |
| 206519 | 2003 | UF ₁₃₈ | 15.9 | X | 296.85301 | 332.67267 | 86.64403 | 4.85529 | 0.1511594 | 0.22874700 | 2.6478849 | 20 | 10 10.5 | 18.7 |
| 206520 | 2003 | UM ₁₄₁ | 16.4 | X | 51.24261 | 212.67138 | 120.80521 | 7.58041 | 0.1657547 | 0.24097662 | 2.5575224 | 20 | 12 24.1 | 20.1 |
| 206521 | 2003 | UH ₁₄₃ | 16.3 | X | 13.04044 | 56.24616 | 284.51071 | 4.38883 | 0.2994102 | 0.23430335 | 2.6058558 | 20 | 12 2.9 | 19.2 |
| 206522 | 2003 | UL ₁₄₅ | 15.9 | X | 198.68519 | 251.10488 | 207.80976 | 7.35705 | 0.2576254 | 0.21565497 | 2.7539945 | 20 | 7 17.9 | 20.9 |
| 206523 | 2003 | UT ₁₄₅ | 15.8 | X | 227.83004 | 224.15598 | 211.93024 | 8.58871 | 0.1823297 | 0.21833451 | 2.7314156 | 20 | 7 19.8 | 20.3 |
| 206524 | 2003 | UQ ₁₅₆ | 16.2 | X | 218.36047 | 284.47502 | 136.72839 | 6.74075 | 0.0925826 | 0.21759088 | 2.7376353 | 20 | 6 30.9 | 20.2 |
| 206525 | 2003 | UN ₁₅₉ | 16.3 | X | 39.01760 | 143.20842 | 51.18307 | 7.50208 | 0.0537459 | 0.26791300 | 2.3830886 | 20 | 5 12.7 | 18.8 |
| 206526 | 2003 | UR ₁₅₉ | 16.1 | X | 175.93964 | 136.89654 | 58.04940 | 12.38805 | 0.1424719 | 0.23013835 | 2.6372019 | 20 | 11 3.3 | 20.3 |
| 206527 | 2003 | UD ₁₆₂ | 16.6 | X | 328.76063 | 244.69666 | 172.36443 | 3.01174 | 0.0752297 | 0.23633261 | 2.5909177 | 20 | 12 4.7 | 19.6 |
| 206528 | 2003 | US ₁₆₂ | 16.7 | X | 353.46275 | 266.56386 | 99.06885 | 3.38253 | 0.2238475 | 0.23339515 | 2.6126115 | 20 | 11 20.6 | 19.0 |
| 206529 | 2003 | UM ₁₆₈ | 15.2 | X | 123.90821 | 286.55894 | 18.80084 | 14.29363 | 0.0988664 | 0.24420631 | 2.5349231 | 20 | — | — |
| 206530 | 2003 | UQ ₁₆₈ | 16.1 | X | 18.82631 | 24.98227 | 343.17056 | 2.90332 | 0.0593623 | 0.23532543 | 2.5983051 | 20 | 12 10.5 | 19.4 |
| 206531 | 2003 | UP ₁₇₃ | 15.8 | X | 325.17638 | 171.50970 | 195.58209 | 5.50678 | 0.0554508 | 0.22608289 | 2.6686457 | 20 | 9 17.9 | 19.2 |
| 206532 | 2003 | UJ ₁₇₄ | 16.3 | X | 99.76241 | 288.62489 | 5.61273 | 3.03017 | 0.1057179 | 0.23912210 | 2.5707287 | 20 | 12 19.9 | 20.1 |
| 206533 | 2003 | UN ₁₇₄ | 16.4 | X | 333.18401 | 30.12665 | 283.39939 | 1.39192 | 0.0981440 | 0.22476816 | 2.6790420 | 20 | 7 15.6 | 19.4 |
| 206534 | 2003 | UJ ₁₇₆ | 16.8 | X | 271.78122 | 88.90816 | 332.87444 | 2.68825 | 0.1700579 | 0.22721515 | 2.6597727 | 20 | 8 27.5 | 20.2 |
| 206535 | 2003 | UJ ₁₈₄ | 16.4 | X | 225.29828 | 267.52117 | 172.46285 | 7.22134 | 0.2099815 | 0.21940828 | 2.7224968 | 20 | 7 20.8 | 20.8 |
| 206536 | 2003 | UK ₁₈₇ | 15.6 | X | 300.42202 | 62.13034 | 255.27162 | 8.32306 | 0.1721579 | 0.21724015 | 2.7405811 | 20 | 5 15.5 | 19.0 |
| 206537 | 2003 | UY ₁₈₇ | 16.1 | X | 273.71046 | 62.03554 | 322.50062 | 3.64852 | 0.1517080 | 0.22116284 | 2.7080787 | 20 | 7 12.9 | 19.6 |
| 206538 | 2003 | UJ ₁₉₄ | 16.2 | X | 237.42719 | 44.85137 | 50.83301 | 6.48093 | 0.1357390 | 0.22665113 | 2.6641835 | 20 | 9 5.6 | 20.0 |
| 206539 | 2003 | UM ₁₉₅ | 16.0 | X | 335.95974 | 331.18090 | 32.93461 | 4.42845 | 0.1144592 | 0.22785464 | 2.6547938 | 20 | 10 3.8 | 18.8 |
| 206540 | 2003 | UH ₁₉₆ | 16.2 | X | 74.85872 | 53.00295 | 265.83707 | 2.52003 | 0.0517343 | 0.23822857 | 2.5771527 | 20 | 12 18.2 | 19.5 |
| 206541 | 2003 | UV ₁₉₆ | 16.4 | X | 256.84412 | 25.29388 | 21.02942 | 2.30140 | 0.0877159 | 0.22182483 | 2.7026882 | 20 | 7 30.1 | 19.9 |
| 206542 | 2003 | UB ₁₉₈ | 15.8 | X | 232.84299 | 48.72012 | 55.46667 | 6.13503 | 0.1010440 | 0.22700425 | 2.6614198 | 20 | 9 15.8 | 19.6 |
| 206543 | 2003 | UN ₁₉₈ | 16.4 | X | 273.75381 | 253.81479 | 167.23456 | 4.49839 | 0.2089811 | 0.22637441 | 2.6663541 | 20 | 8 22.3 | 19.7 |
| 206544 | 2003 | UE ₁₉₉ | 16.9 | X | 50.92278 | 74.26644 | 324.90636 | 2.07822 | 0.0534307 | 0.24787721 | 2.5098339 | 20 | — | — |
| 206545 | 2003 | UH ₂₀₄ | 16.8 | X | 329.22241 | 316.10296 | 72.78356 | 2.92157 | 0.1368058 | 0.23173736 | 2.6250567 | 20 | 10 28.2 | 19.3 |
| 206546 | 2003 | UT ₂₀₆ | 16.2 | X | 268.29123 | 40.29713 | 350.47929 | 6.63644 | 0.1352629 | 0.22050695 | 2.7134461 | 20 | 7 17.7 | 19.9 |
| 206547 | 2003 | UO ₂₁₇ | 15.5 | X | 102.58025 | 342.29962 | 45.93686 | 12.64990 | 0.0685076 | 0.19463825 | 2.9488358 | 20 | 1 14.2 | 19.7 |
| 206548 | 2003 | UY ₂₁₇ | 15.8 | X | 334.00597 | 298.84332 | 92.47580 | 4.61647 | 0.0323285 | 0.23140141 | 2.6275968 | 20 | 11 6.4 | 19.2 |
| 206549 | 2003 | UW ₂₁₉ | 16.6 | X | 295.21747 | 62.22231 | 0.78425 | 3.93113 | 0.0923374 | 0.2314110 | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 206561 2003 UQ ₂₅₈ | 16.5 | X | 12.99887 | 112.68876 | 199.15890 | 2.63828 | 0.0764164 | 0.22764507 | 2.6564229 | 20 | 9 18.0 | 19.5 |
| 206562 2003 UU ₂₆₁ | 16.9 | X | 2.95314 | 315.04323 | 36.40564 | 3.51753 | 0.2221714 | 0.23360547 | 2.6110431 | 20 | 11 17.2 | 19.3 |
| 206563 2003 UO ₂₆₅ | 15.6 | X | 260.83617 | 177.13512 | 275.16655 | 8.87559 | 0.0882148 | 0.22781644 | 2.6550906 | 20 | 9 30.4 | 19.2 |
| 206564 2003 UL ₂₆₈ | 16.4 | X | 342.67026 | 353.33819 | 39.62360 | 4.10801 | 0.0848662 | 0.23333422 | 2.6130663 | 20 | 11 22.7 | 19.4 |
| 206565 2003 UJ ₂₇₀ | 16.2 | X | 5.90956 | 282.60181 | 141.46326 | 13.47576 | 0.1794048 | 0.24518189 | 2.5281944 | 20 | — | — |
| 206566 2003 UT ₂₇₄ | 16.0 | X | 127.87711 | 350.40079 | 291.60404 | 1.70156 | 0.0710659 | 0.23960017 | 2.5673080 | 20 | — | — |
| 206567 2003 UA ₂₇₅ | 16.4 | X | 300.59416 | 284.01419 | 85.77455 | 4.57051 | 0.1354915 | 0.22352274 | 2.6889841 | 20 | 8 6.4 | 19.5 |
| 206568 2003 UX ₂₇₉ | 15.9 | X | 232.88069 | 160.00661 | 183.86541 | 8.67190 | 0.1637327 | 0.21601201 | 2.7509590 | 20 | 6 12.9 | 20.3 |
| 206569 2003 UX ₂₈₀ | 16.1 | X | 256.53136 | 192.53132 | 217.13458 | 5.65393 | 0.1394391 | 0.22063081 | 2.7124304 | 20 | 7 23.8 | 19.9 |
| 206570 2003 UR ₂₉₈ | 16.9 | X | 289.73344 | 261.80803 | 3.39731 | 3.09011 | 0.1460264 | 0.26718886 | 2.3873924 | 20 | 2 22.7 | 19.9 |
| 206571 2003 UT ₃₀₇ | 16.3 | X | 323.54073 | 281.32987 | 154.91330 | 11.92249 | 0.1606553 | 0.23779363 | 2.5802943 | 20 | 12 26.7 | 19.1 |
| 206572 2003 UK ₃₀₉ | 16.7 | X | 203.06100 | 228.13170 | 138.51450 | 2.86732 | 0.0947714 | 0.20701010 | 2.8301428 | 20 | 4 7.2 | 21.0 |
| 206573 2003 UJ ₃₁₄ | 16.1 | X | 219.49536 | 183.18670 | 329.96618 | 6.57528 | 0.1778837 | 0.22902610 | 2.6457333 | 20 | 10 17.7 | 20.3 |
| 206574 2003 VC | 16.3 | X | 183.97129 | 70.06564 | 24.09418 | 8.48971 | 0.0751626 | 0.21299197 | 2.7769021 | 20 | 7 7.2 | 20.6 |
| 206575 2003 VT ₅ | 15.7 | X | 285.83947 | 251.13800 | 57.46694 | 5.57391 | 0.1468245 | 0.21185274 | 2.7868483 | 20 | 4 19.9 | 19.6 |
| 206576 2003 VE ₈ | 15.4 | X | 299.17252 | 351.92835 | 10.43007 | 14.01197 | 0.1915284 | 0.22191820 | 2.7019301 | 20 | 7 18.2 | 18.8 |
| 206577 2003 WU ₁₀ | 16.5 | X | 12.29267 | 234.55896 | 93.65659 | 3.20303 | 0.0869990 | 0.22806345 | 2.6531731 | 20 | 10 13.2 | 19.6 |
| 206578 2003 WQ | 16.5 | X | 34.54183 | 262.55379 | 82.65597 | 4.91444 | 0.1510421 | 0.23502056 | 2.6005516 | 20 | 12 15.6 | 20.0 |
| 206579 2003 WX ₂ | 16.4 | X | 145.10455 | 229.45431 | 233.23160 | 3.30341 | 0.0264809 | 0.21178088 | 2.7874786 | 20 | 5 30.8 | 20.4 |
| 206580 2003 WU ₃ | 15.7 | X | 220.01810 | 357.05765 | 80.76031 | 10.34858 | 0.1380924 | 0.21729922 | 2.7400844 | 20 | 7 21.4 | 19.9 |
| 206581 2003 WT ₇ | 15.7 | X | 356.45857 | 273.02694 | 98.25000 | 15.21807 | 0.1336771 | 0.23055532 | 2.6340213 | 20 | 11 24.3 | 18.8 |
| 206582 2003 WV ₇ | 15.9 | X | 311.70327 | 90.91636 | 276.60861 | 13.75571 | 0.1996607 | 0.22448307 | 2.6813098 | 20 | 8 7.9 | 18.9 |
| 206583 2003 WA ₁₀ | 15.6 | X | 229.84511 | 67.90118 | 283.85199 | 7.83277 | 0.1640809 | 0.20922514 | 2.8101325 | 20 | 4 6.6 | 20.3 |
| 206584 2003 WJ ₁₃ | 16.4 | X | 207.64344 | 211.90785 | 262.53930 | 3.93936 | 0.1227741 | 0.22197861 | 2.7014398 | 20 | 8 23.1 | 20.5 |
| 206585 2003 WM ₁₃ | 16.2 | X | 239.60145 | 48.13805 | 36.16459 | 6.77796 | 0.1231699 | 0.22303459 | 2.6929062 | 20 | 8 25.4 | 20.1 |
| 206586 2003 WO ₁₇ | 16.4 | X | 271.48815 | 138.43133 | 314.89683 | 10.73208 | 0.0983401 | 0.22895070 | 2.6463141 | 20 | 10 14.8 | 20.0 |
| 206587 2003 WJ ₂₀ | 15.6 | X | 192.04846 | 86.56604 | 36.33120 | 14.65410 | 0.0933800 | 0.21924718 | 2.7238302 | 20 | 8 28.8 | 20.0 |
| 206588 2003 WP ₂₂ | 15.7 | X | 6.02097 | 89.16171 | 273.52992 | 12.89659 | 0.1090122 | 0.23339669 | 2.6126000 | 20 | 11 20.3 | 18.9 |
| 206589 2003 WU ₂₇ | 16.5 | X | 297.38217 | 172.66542 | 338.39717 | 3.66660 | 0.1404194 | 0.24146290 | 2.5540875 | 20 | — | — |
| 206590 2003 WU ₂₈ | 16.5 | X | 331.58392 | 23.03137 | 331.13154 | 5.66999 | 0.0550789 | 0.22457345 | 2.6805903 | 20 | 9 9.7 | 19.6 |
| 206591 2003 WV ₃₁ | 16.2 | X | 99.58578 | 344.48693 | 321.39278 | 3.96607 | 0.1149512 | 0.24057296 | 2.5603825 | 20 | — | — |
| 206592 2003 WV ₃₁ | 16.2 | X | 316.79939 | 105.36633 | 307.48038 | 4.86127 | 0.0210891 | 0.23265161 | 2.6181750 | 20 | 11 7.6 | 19.6 |
| 206593 2003 WN ₃₄ | 16.8 | X | 261.82860 | 50.89281 | 351.22720 | 2.21064 | 0.1803382 | 0.21981593 | 2.7191298 | 20 | 7 16.5 | 20.6 |
| 206594 2003 WY ₃₇ | 15.8 | X | 301.49876 | 20.80631 | 11.55676 | 8.79019 | 0.0774015 | 0.22457923 | 2.6805443 | 20 | 9 17.1 | 19.1 |
| 206595 2003 WN ₃₉ | 16.2 | X | 281.96255 | 50.08991 | 346.98850 | 4.55408 | 0.0414486 | 0.22333110 | 2.6905222 | 20 | 8 28.4 | 19.7 |
| 206596 2003 WA ₄₁ | 16.0 | X | 125.40963 | 318.19375 | 336.87639 | 2.91662 | 0.2035521 | 0.24092010 | 2.5579223 | 20 | — | — |
| 206597 2003 WC ₄₄ | 15.4 | X | 162.10966 | 277.63314 | 358.30758 | 9.27081 | 0.2009964 | 0.24405924 | 2.5359414 | 20 | — | — |
| 206598 2003 WJ ₄₄ | 15.8 | X | 294.78773 | 77.27392 | 293.75117 | 4.58080 | 0.0511243 | 0.22260165 | 2.6963968 | 20 | 8 8.3 | 19.3 |
| 206599 2003 WE ₄₉ | 16.5 | X | 193.15565 | 151.91955 | 80.43006 | 1.11722 | 0.0478124 | 0.24197602 | 2.5504755 | 20 | — | — |
| 206600 2003 WE ₅₃ | 16.2 | X | 271.49536 | 44.59176 | 47.36733 | 5.97653 | 0.0885833 | 0.23032124 | 2.6358057 | 20 | 10 21.8 | 19.4 |
| 206601 2003 WE ₅₄ | 16.6 | X | 324.02536 | 12.24326 | 334.03300 | 4.55359 | 0.0796798 | 0.22191909 | 2.7019228 | 20 | 8 17.6 | 19.8 |
| 206602 2003 WB ₅₅ | 16.0 | X | 53.73224 | 62.94976 | 297.23275 | 6.21342 | 0.0750220 | 0.23839228 | 2.5759727 | 20 | — | — |
| 206603 2003 WG ₅₅ | 16.1 | X | 278.95034 | 45.97911 | 357.85150 | 3.58625 | 0.0926878 | 0.22251230 | 2.6971185 | 20 | 8 25.9 | 19.5 |
| 206604 2003 WJ ₆₁ | 17.1 | X | 16.92412 | 135.07763 | 244.90763 | 0.50075 | 0.1751411 | 0.23671668 | 2.5881144 | 20 | — | — |
| 206605 2003 WY ₆₄ | 16.2 | X | 259.42160 | 314.24426 | 69.55223 | 6.67903 | 0.1930475 | 0.21767508 | 2.7369292 | 20 | 6 16.8 | 20.2 |
| 206606 2003 WO ₆₆ | 17.1 | X | 232.90912 | 141.46247 | 318.79562 | 1.20272 | 0.2133347 | 0.22196827 | 2.7015237 | 20 | 8 23.9 | 21.2 |
| 206607 2003 WD ₆₉ | 15.4 | X | 126.44916 | 215.06670 | 243.04106 | 14.02752 | 0.1062058 | 0.20428920 | 2.8552169 | 20 | 5 9.7 | 19.7 |
| 206608 2003 WN ₇₆ | 15.6 | X | 209.91317 | 332.64401 | 332.34933 | 6.40420 | 0.2339718 | 0.25771905 | 2.4455227 | 20 | 1 24.9 | 19.8 |
| 206609 2003 WC ₇₇ | 15.5 | X | 302.70666 | 234.70068 | 142.44158 | 8.96119 | 0.2738356 | 0.22399149 | 2.6852313 | 20 | 7 27.3 | 18.3 |
| 206610 2003 WF ₇₈ | 16.4 | X | 117.70592 | 15.18818 | 295.54748 | 5.45004 | 0.2070437 | 0.24455620 | 2.5325047 | 20 | — | — |
| 206611 2003 WZ ₇₉ | 15.6 | X | 87.82395 | 201.24562 | 255.80742 | 8.82794 | 0.0655237 | 0.19885183 | 2.9070309 | 20 | 3 13.3 | 19.7 |
| 206612 2003 WN ₉₄ | 16.4 | X | 254.30396 | 61.14361 | 18.43493 | 2.88828 | 0.1299542 | 0.22483134 | 2.6785401 | 20 | 9 3.6 | 20.0 |
| 206613 2003 WO ₁₀₀ | 16.2 | X | 55.97373 | 128.78435 | 334.11007 | 16.20445 | 0.3316071 | 0.19024097 | 2.9941026 | 20 | 3 14.9 | 19.4 |
| 206614 2003 WJ ₁₀₃ | 15.7 | X | 149.62201 | 104.48713 | 62.71360 | 14.46061 | 0.0425851 | 0.21935433 | 2.7229431 | 20 | 9 8.4 | 19.9 |
| 206615 2003 WX ₁₀₇ | 16.3 | X | 269.03454 | 135.34850 | 252.49062 | 5.18296 | 0.0590566 | 0.21715305 | 2.7413139 | 20 | 7 23.5 | 20.0 |
| 206616 2003 WK ₁₁₀ | 16.0 | X | 238.01262 | 15.49517 | 27.96139 | 3.68317 | 0.1929404 | 0.21673285 | 2.7448559 | 20 | 6 19.4 | 20.4 |
| 206617 2003 WX ₁₁₀ | 15.6 | X | 195.49699 | 93.75598 | 289.01744 | 6.37662 | 0.0904426 | 0.20660022 | 2.8338848 | 20 | 4 15.2 | 20.0 |
| 206618 2003 WX ₁₁₄ | 15.5 | X | 218.99228 | 121.06441 | 48.49897 | 16.42531 | 0.1307591 | 0.23005680 | 2.6378251 | 20 | 11 14.8 | 19.3 |
| 206619 2003 WS ₁₁₇ | 16.3 | X | 17.43381 | 48.07816 | 298.88463 | 3.80126 | 0.0899239 | 0.22958502 | 2.6414376 | 20 | 11 12.8 | 19.6 |
| 206620 2003 WW ₁₂₃ | 15.8 | X | 324.03704 | 73.94079 | 303.74731 | 4.25643 | 0.1715627 | 0.22574517 | 2.6713066 | 20 | 9 25.4 | 18.5 |
| 206621 2003 WY ₁₂₃ | 15.7 | X | 182.51246 | 191.95821 | 275.60961 | 11.86185 | 0.1806810 | 0.21227179 | 2.7831794 | 20 | 7 17.7 | 20.4 |
| 206622 2003 WT ₁₄₀ | 15.7 | X | 269.19041 | 293.14637 | 76.63499 | 13.20511 | 0.1896858 | 0.21581279 | 2.7526517 | 20 | 6 10.4 | 19.4 |
| 206623 2003 WA ₁₄₁ | 15.1 | X | 279.82182 | 264.26530 | 82.17172 | 15.70972 | 0.3010237 | 0.21577922 | 2.7529372 | 20 | 5 12.5 | 19.2 |
| 206624 2003 WR ₁₄₂ | 16.2 | X | 288.26644 | 358.69247 | 53.52861 | 5.78506 | 0.0760676 | 0.22482775 | 2.6785686 | 20 | 9 25.3 | 19.5 |
| 206625 2003 WW ₁₄₂ | 15.9 | X | 173.03226 | 105.22065 | 58.46698 | 6.51155 | 0.0644412 | 0.22335113 | 2.6903614 | 20 | 9 26.3 | 19.9 |
| 206626 2003 WM ₁₄₅ | 16.1 | X | 305.31683 | 143.00682 | 217.92881 | 5.12498 | 0.1220855 | 0.22138599 | 2.7062586 | 20 | 7 31.1 | 19.3 |
| 206627 2003 WO ₁₄₆ | 15.5 | X | 289.75670 | 279.40724 | 99.41187 | 14.74011 | 0.2255064 | 0.22301399 | 2.6930721 | 20 | 7 16.3 | 18.7 |
| 206628 2003 WE ₁₅₁ | 14.3 | X | 316.70687 | 267.84629 | 269.42476 | 24.07934 | 0.2170143 | 0.17764540 | 3.1340077 | 20 | — | — |
| 206629 2003 WT ₁₅₄ | 16.0 | X | 76.43034 | 239.47842 | 54.84603 | 6.93999 | 0.0716517 | 0.23154999 | 2.6264726 | 20 | 11 19.9 | 19.6 |
| 206630 2003 WK ₁₅₉ | 15.8 | X | 187.37549 | 310.06270 | 162.31514 | 14.62934 | 0.1373328 | 0.21533762 | 2.7566996 | 20 | 7 29.6 | 20.4 |
| 206631 2003 WO ₁₆₁ | 15.9 | X | 56.94745 | 236.98175 | 98.51402 | 10.31953 | 0.0571774 | 0.23545944 | 2.5973191 | 20 | 12 18.0 | 19.3 |
| 206632 2003 WD ₁₆₇ | 16.2 | X | 276.22698 | 302.05695 | 134.44605 | 6.58518 | 0.1441189 | 0.22754399 | 2.6572095 | 20 | 9 30.6 | 19.4 |
| 206633 2003 WO ₁₇₀ | 14.5 | X | 326.75125 | 86.86411 | 118.52680 | 19.06604 | 0.3386127 | 0.17980784 | 3.1088300 | 20 | 1 8.5 | 18.6 |

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 |
|-------------------------------|------|---|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|------|
| 206641 2003 XJ ₈ | 14.4 | X | 77.71645 | 210.48465 | 283.80084 | 27.06811 | 0.2243282 | 0.20008211 | 2.8951020 | 20 | 5 12.3 | 18.8 |
| 206642 2003 XH ₁₃ | 16.4 | X | 32.37637 | 219.29250 | 143.10919 | 2.81397 | 0.2121503 | 0.23665800 | 2.5885423 | 20 | — | — |
| 206643 2003 XL ₁₃ | 16.0 | X | 251.92749 | 302.70204 | 84.69725 | 8.72390 | 0.2248250 | 0.21636506 | 2.7479657 | 20 | 6 9.9 | 20.3 |
| 206644 2003 XM ₂₁ | 16.2 | X | 302.58019 | 40.90503 | 344.05117 | 3.59327 | 0.3015501 | 0.22275012 | 2.6951985 | 20 | 8 4.1 | 18.8 |
| 206645 2003 XZ ₃₄ | 15.9 | X | 332.13133 | 56.39324 | 323.52129 | 13.26995 | 0.1202249 | 0.23040260 | 2.6351852 | 20 | 10 11.2 | 19.0 |
| 206646 2003 YG ₃ | 15.4 | X | 166.31562 | 88.42760 | 36.56643 | 16.33631 | 0.1164593 | 0.21033472 | 2.8002410 | 20 | 8 1.0 | 20.1 |
| 206647 2003 YL ₆ | 16.6 | X | 345.27699 | 75.12590 | 332.34476 | 6.83580 | 0.1321837 | 0.23424060 | 2.6063212 | 20 | 12 22.3 | 19.5 |
| 206648 2003 YL ₉ | 14.6 | X | 324.96804 | 58.52450 | 103.05461 | 20.52836 | 0.1575154 | 0.17871895 | 3.1214448 | 20 | — | — |
| 206649 2003 YD ₁₈ | 15.4 | X | 197.12002 | 156.50156 | 288.21266 | 6.95091 | 0.1931138 | 0.20952082 | 2.8074881 | 20 | 7 3.3 | 20.0 |
| 206650 2003 YP ₂₃ | 15.9 | X | 246.55442 | 85.02346 | 316.26196 | 7.96591 | 0.2185475 | 0.21647652 | 2.7470223 | 20 | 6 23.1 | 20.2 |
| 206651 2003 YU ₂₄ | 15.7 | X | 147.63966 | 103.50612 | 50.21601 | 17.21335 | 0.1266154 | 0.21418333 | 2.7665951 | 20 | 8 21.9 | 20.4 |
| 206652 2003 YH ₂₅ | 16.1 | X | 270.21655 | 106.37863 | 304.20350 | 3.91187 | 0.1358429 | 0.21986812 | 2.7186995 | 20 | 8 13.9 | 19.6 |
| 206653 2003 YQ ₂₆ | 14.8 | X | 15.18097 | 157.42076 | 295.52325 | 17.85988 | 0.1347179 | 0.17925649 | 3.1152013 | 20 | — | — |
| 206654 2003 YX ₂₇ | 16.1 | X | 238.50345 | 179.51233 | 230.05414 | 2.46205 | 0.0983856 | 0.21552688 | 2.7550856 | 20 | 7 8.2 | 20.1 |
| 206655 2003 YN ₃₅ | 15.7 | X | 151.22627 | 270.41186 | 276.36866 | 11.97298 | 0.0826318 | 0.22084128 | 2.7107068 | 20 | 9 21.0 | 20.0 |
| 206656 2003 YD ₃₇ | 16.2 | X | 152.93791 | 34.28669 | 70.32315 | 3.05064 | 0.0235497 | 0.20434777 | 2.8546713 | 20 | 6 11.8 | 20.1 |
| 206657 2003 YF ₃₉ | 15.9 | X | 75.40490 | 82.33740 | 27.02044 | 2.69124 | 0.1190915 | 0.19256375 | 2.6969766 | 20 | 3 25.9 | 19.7 |
| 206658 2003 YW ₃₉ | 16.2 | X | 160.55932 | 354.95279 | 89.72967 | 3.22546 | 0.0751990 | 0.20301919 | 2.8671120 | 20 | 5 28.9 | 20.5 |
| 206659 2003 YD ₄₄ | 15.9 | X | 289.65641 | 67.70310 | 100.25023 | 2.51336 | 0.1263491 | 0.17529313 | 3.1619824 | 20 | — | — |
| 206660 2003 YL ₅₀ | 16.0 | X | 244.84808 | 312.05976 | 82.14863 | 7.51681 | 0.0501137 | 0.21228368 | 2.803755 | 20 | 7 2.3 | 19.8 |
| 206661 2003 YP ₆₀ | 15.4 | X | 170.90915 | 167.03668 | 249.04720 | 15.90477 | 0.0638263 | 0.20540546 | 2.8448632 | 20 | 5 1.5 | 19.7 |
| 206662 2003 YB ₆₄ | 16.2 | X | 237.10440 | 160.73925 | 287.85787 | 3.03470 | 0.0732399 | 0.21755465 | 2.7379392 | 20 | 8 29.7 | 19.9 |
| 206663 2003 YF ₆₆ | 16.0 | X | 210.85442 | 109.48073 | 5.50617 | 3.23168 | 0.0400613 | 0.21982450 | 2.7190591 | 20 | 9 7.0 | 19.8 |
| 206664 2003 YL ₇₁ | 16.1 | X | 274.53158 | 104.56124 | 292.77733 | 2.34787 | 0.1853166 | 0.22005060 | 2.7171963 | 20 | 7 25.5 | 19.6 |
| 206665 2003 YZ ₇₂ | 16.5 | X | 225.36287 | 0.88354 | 276.22308 | 2.79134 | 0.2187391 | 0.21379970 | 2.7699036 | 20 | 6 22.3 | 20.9 |
| 206666 2003 YA ₇₈ | 15.0 | X | 31.08052 | 204.94014 | 287.03827 | 12.20973 | 0.1200885 | 0.18927604 | 3.0042700 | 20 | 2 11.6 | 18.6 |
| 206667 2003 YJ ₈₂ | 15.3 | X | 19.24606 | 86.17867 | 95.07276 | 14.74465 | 0.1092811 | 0.19316817 | 2.9637780 | 20 | 4 8.8 | 19.1 |
| 206668 2003 YE ₈₅ | 15.4 | X | 47.58885 | 130.55946 | 218.37494 | 5.91936 | 0.2100420 | 0.23569929 | 2.5955568 | 20 | — | — |
| 206669 2003 YY ₈₆ | 15.9 | X | 184.89033 | 216.30858 | 238.90246 | 7.75941 | 0.1115195 | 0.21049033 | 2.7988607 | 20 | 7 6.3 | 20.3 |
| 206670 2003 YL ₈₉ | 14.8 | X | 41.23793 | 307.16405 | 116.49073 | 17.62530 | 0.1196391 | 0.17861936 | 3.1226049 | 20 | — | — |
| 206671 2003 YK ₉₅ | 16.2 | X | 227.72232 | 342.45833 | 109.42269 | 4.61343 | 0.1551186 | 0.21912664 | 2.7248290 | 20 | 8 15.1 | 20.3 |
| 206672 2003 YR ₁₀₇ | 15.7 | X | 233.01687 | 142.46739 | 287.32763 | 8.31812 | 0.1152554 | 0.21465376 | 2.7625515 | 20 | 7 25.6 | 19.7 |
| 206673 2003 YK ₁₁₁ | 16.0 | X | 266.26949 | 279.95745 | 111.69500 | 7.08076 | 0.0615824 | 0.21179244 | 2.7873772 | 20 | 7 25.7 | 19.7 |
| 206674 2003 YX ₁₁₁ | 15.7 | X | 242.09320 | 186.73885 | 290.33062 | 12.28153 | 0.1323717 | 0.22485219 | 2.6783745 | 20 | 9 28.8 | 19.7 |
| 206675 2003 YB ₁₁₄ | 15.9 | X | 269.46984 | 108.63914 | 247.55105 | 4.32015 | 0.0797909 | 0.21213085 | 2.7844120 | 20 | 6 9.2 | 19.8 |
| 206676 2003 YF ₁₂₅ | 16.3 | X | 245.12362 | 129.26696 | 316.04224 | 7.01392 | 0.2226155 | 0.22157013 | 2.7047590 | 20 | 8 16.2 | 20.4 |
| 206677 2003 YT ₁₂₆ | 15.4 | X | 310.28583 | 85.70338 | 58.39788 | 10.77611 | 0.1907154 | 0.17683947 | 3.1435225 | 20 | — | — |
| 206678 2003 YJ ₁₂₉ | 14.5 | X | 309.56572 | 72.88555 | 103.81595 | 25.16115 | 0.1106616 | 0.17837095 | 3.1255034 | 20 | — | — |
| 206679 2003 YJ ₁₃₁ | 15.6 | X | 244.12460 | 334.66894 | 52.66559 | 14.59228 | 0.1848023 | 0.21329300 | 2.7742887 | 20 | 6 4.3 | 19.9 |
| 206680 2003 YU ₁₃₂ | 15.3 | X | 51.09445 | 45.71269 | 75.32232 | 11.05850 | 0.1003997 | 0.18936791 | 3.0032982 | 20 | 3 8.9 | 19.3 |
| 206681 2003 YD ₁₃₅ | 14.8 | X | 340.97025 | 136.30331 | 317.98607 | 26.28317 | 0.1693473 | 0.17458203 | 3.1705628 | 20 | — | — |
| 206682 2003 YQ ₁₃₅ | 14.9 | X | 324.90826 | 90.86197 | 121.50390 | 21.93604 | 0.3244947 | 0.17933029 | 3.1143467 | 20 | 1 16.6 | 18.9 |
| 206683 2003 YJ ₁₄₀ | 15.9 | X | 164.62731 | 109.50726 | 305.48454 | 9.85734 | 0.1351272 | 0.20137438 | 2.8827031 | 20 | 4 23.7 | 20.7 |
| 206684 2003 YL ₁₄₂ | 15.8 | X | 155.07808 | 132.83383 | 320.85811 | 14.45056 | 0.1088038 | 0.20503302 | 2.8483073 | 20 | 6 3.4 | 20.5 |
| 206685 2003 YM ₁₄₃ | 15.7 | X | 59.36482 | 13.49942 | 40.75625 | 12.02382 | 0.0805006 | 0.18376922 | 3.0639913 | 20 | — | — |
| 206686 2003 YM ₁₄₄ | 16.0 | X | 47.01171 | 338.82501 | 287.11141 | 3.40874 | 0.2333339 | 0.21444334 | 2.7643584 | 20 | 8 26.1 | 19.7 |
| 206687 2003 YC ₁₄₈ | 15.4 | X | 174.82065 | 163.37119 | 22.93339 | 13.59109 | 0.1134008 | 0.22241105 | 2.6979370 | 20 | 10 20.3 | 19.4 |
| 206688 2003 YO ₁₅₄ | 15.4 | X | 56.85620 | 148.72688 | 51.84145 | 13.68698 | 0.0358185 | 0.20197081 | 2.8770250 | 20 | 6 13.5 | 19.3 |
| 206689 2003 YK ₁₅₅ | 15.0 | X | 7.76468 | 36.63265 | 89.25847 | 28.61319 | 0.1405012 | 0.18209236 | 3.0827731 | 20 | — | — |
| 206690 2003 YL ₁₅₆ | 15.9 | X | 279.38895 | 37.92053 | 319.26751 | 5.61366 | 0.0573263 | 0.21555701 | 2.7548288 | 20 | 6 28.0 | 19.6 |
| 206691 2003 YP ₁₅₆ | 16.4 | X | 171.20528 | 276.97001 | 213.18580 | 3.70945 | 0.0521159 | 0.21625817 | 2.7488710 | 20 | 8 6.7 | 20.5 |
| 206692 2003 YT ₁₅₆ | 16.1 | X | 281.44629 | 202.33673 | 192.41503 | 5.85864 | 0.0370926 | 0.22020861 | 2.7158963 | 20 | 8 22.4 | 19.7 |
| 206693 2003 YA ₁₆₃ | 15.7 | X | 184.70205 | 205.79259 | 314.71343 | 8.28989 | 0.0581603 | 0.22029902 | 2.7151532 | 20 | 9 28.2 | 19.7 |
| 206694 2003 YJ ₁₇₀ | 16.0 | X | 37.75191 | 259.34932 | 339.98716 | 5.34110 | 0.0451918 | 0.20870043 | 2.8148407 | 20 | 7 12.9 | 19.6 |
| 206695 2004 AH ₂ | 16.1 | X | 170.91569 | 197.01964 | 300.22540 | 3.16970 | 0.0364001 | 0.21187700 | 2.7866356 | 20 | 8 16.2 | 20.1 |
| 206696 2004 AO ₂ | 15.8 | X | 274.66338 | 261.28229 | 126.97492 | 5.66086 | 0.0788029 | 0.21289439 | 2.7777505 | 20 | 7 29.8 | 19.6 |
| 206697 2004 AZ ₈ | 15.1 | X | 326.65501 | 227.84977 | 280.19219 | 17.00081 | 0.1332748 | 0.17645455 | 3.1480924 | 20 | — | — |
| 206698 2004 AD ₁₃ | 15.8 | X | 2.47051 | 223.18033 | 111.24426 | 5.70894 | 0.0561416 | 0.21893601 | 2.7264105 | 20 | 10 3.0 | 19.2 |
| 206699 2004 BZ ₁ | 15.8 | X | 343.77530 | 259.08444 | 95.69785 | 6.37893 | 0.1202060 | 0.22540583 | 2.6739870 | 20 | 10 7.0 | 18.8 |
| 206700 2004 BC ₂ | 15.8 | X | 289.85551 | 278.32338 | 111.28890 | 12.30002 | 0.0230261 | 0.21970957 | 2.7200073 | 20 | 9 3.9 | 19.5 |
| 206701 2004 BD ₃ | 15.3 | X | 70.64536 | 321.72338 | 129.50984 | 10.03135 | 0.1240524 | 0.18796840 | 3.0181871 | 20 | 2 27.7 | 19.2 |
| 206702 2004 BR ₁₁ | 16.8 | X | 179.33447 | 22.45608 | 85.49197 | 0.57580 | 0.0849801 | 0.20806098 | 2.8206051 | 20 | 7 18.4 | 21.1 |
| 206703 2004 BP ₁₉ | 15.7 | X | 176.88119 | 102.28804 | 334.85999 | 14.24593 | 0.1686584 | 0.20376115 | 2.8601477 | 20 | 6 4.7 | 20.7 |
| 206704 2004 BJ ₃₁ | 14.4 | X | 8.67014 | 276.27650 | 83.06363 | 17.08200 | 0.0805319 | 0.16838778 | 3.2478478 | 20 | 11 7.9 | 18.9 |
| 206705 2004 BH ₃₃ | 16.2 | X | 85.91377 | 56.29212 | 59.27364 | 1.93342 | 0.0300005 | 0.19367914 | 2.9585629 | 20 | 4 3.9 | 20.1 |
| 206706 2004 BD ₃₄ | 15.8 | X | 13.95882 | 197.56118 | 120.70494 | 14.75683 | 0.0501467 | 0.21566541 | 2.7539056 | 20 | 9 30.4 | 19.6 |
| 206707 2004 BK ₃₅ | 15.5 | X | 103.25641 | 99.17881 | 318.83035 | 9.21185 | 0.0460377 | 0.18732821 | 3.0250596 | 20 | 2 15.8 | 19.7 |
| 206708 2004 BS ₃₅ | 16.4 | X | 189.07353 | 69.24092 | 23.16046 | 2.04451 | 0.0268685 | 0.20644570 | 2.8352987 | 20 | 7 11.6 | 20.3 |
| 206709 2004 BW ₃₆ | 16.1 | X | 196.38931 | 134.73200 | 325.79788 | 3.65631 | 0.0726882 | 0.20942864 | 2.8083118 | 20 | 7 28.8 | 20.3 |
| 206710 2004 BK ₃₇ | 15.7 | X | 63.58278 | 104.52643 | 420.48395 | 3.74962 | 0.1760350 | 0.18379897 | 3.0636607 | 20 | 1 20.9 | 19.4 |
| 206711 2004 BO ₃₉ | 15.4 | X | 108.33941 | 93.91396 | 342.99984 | 9.83346 | 0.0666297 | 0.19324019 | 2.9630416 | 20 | 3 17.5 | 19.6 |
| 206712 2004 BS ₄₁ | 15.6 | X | 180.89853 | 40.93034 | 35.65237 | 15.37804 | 0.1276510 | 0.20379644 | 2.8598175 | 20 | 6 6.8 | 20.3 |
| 206713 2004 BZ ₄₁ | 14.9 | X | 335.14277 | 33.04079 | 120.72498 | 12.35193 | 0.1515907 | 0.17830498 | 3.1262742 | 20 | — | — |
| 206714 2004 BK ₄₇ | 15.5 | X | 62.16669 | 135.56798 | 290.74024 | 9.31169 | 0.1146244 | 0.18462842 | 3.0544781 | 20 | 1 12 | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 206721 | 2004 | BJ ₅₈ | 15.5 | X | 138.57002 | 188.63420 | 256.32922 | 6.11710 | 0.2100192 | 0.19902518 | 2.9053426 | 20 | 5 14.5 | 20.3 |
| 206722 | 2004 | BH ₆₃ | 16.2 | X | 321.07237 | 209.91069 | 14.88751 | 1.66927 | 0.0447232 | 0.19091450 | 2.9870565 | 20 | 3 5.8 | 20.1 |
| 206723 | 2004 | BT ₇₁ | 16.3 | X | 220.89641 | 313.41581 | 166.38581 | 6.93624 | 0.1512835 | 0.21758993 | 2.7376433 | 20 | 9 11.8 | 20.3 |
| 206724 | 2004 | BY ₇₂ | 16.0 | X | 12.49779 | 262.99882 | 294.00833 | 4.18160 | 0.1394839 | 0.19193087 | 2.9765019 | 20 | 4 8.1 | 19.5 |
| 206725 | 2004 | BR ₇₃ | 16.2 | X | 193.95777 | 354.20320 | 159.42683 | 3.04430 | 0.1125518 | 0.21617182 | 2.7496030 | 20 | 9 29.9 | 20.2 |
| 206726 | 2004 | BX ₇₃ | 16.2 | X | 103.48972 | 287.24209 | 144.22763 | 7.48715 | 0.2477241 | 0.19267664 | 2.9688164 | 20 | 4 2.3 | 20.7 |
| 206727 | 2004 | BE ₇₈ | 16.3 | X | 224.78694 | 279.78393 | 103.44606 | 3.17626 | 0.0800433 | 0.20226290 | 2.8742546 | 20 | 5 21.7 | 20.4 |
| 206728 | 2004 | BP ₇₈ | 15.6 | X | 343.25430 | 56.88873 | 76.66259 | 3.60742 | 0.0901700 | 0.17836049 | 3.1256255 | 20 | — | — |
| 206729 | 2004 | BL ₈₀ | 16.1 | X | 68.69543 | 334.15896 | 327.51158 | 1.48071 | 0.0550912 | 0.22140839 | 2.7060761 | 20 | 11 15.4 | 19.9 |
| 206730 | 2004 | BM ₉₀ | 15.5 | X | 135.87659 | 262.16175 | 280.02468 | 8.36062 | 0.1132961 | 0.21135102 | 2.7912570 | 20 | 9 1.6 | 19.9 |
| 206731 | 2004 | BP ₉₉ | 15.5 | X | 354.02010 | 23.95423 | 139.97450 | 10.17568 | 0.0819334 | 0.17982437 | 3.1086394 | 20 | 2 1.0 | 19.3 |
| 206732 | 2004 | BY ₉₉ | 15.6 | X | 34.30196 | 267.74032 | 145.24735 | 13.96139 | 0.3059867 | 0.17384426 | 3.1795267 | 20 | — | — |
| 206733 | 2004 | BG ₁₀₁ | 16.2 | X | 286.01676 | 56.64900 | 305.18936 | 2.84546 | 0.1146557 | 0.20918393 | 2.8105016 | 20 | 7 4.3 | 19.8 |
| 206734 | 2004 | BD ₁₁₂ | 16.2 | X | 183.13616 | 295.35040 | 134.08133 | 3.55095 | 0.0798541 | 0.20164357 | 2.8801369 | 20 | 6 3.6 | 20.5 |
| 206735 | 2004 | BP ₁₁₈ | 15.6 | X | 72.00682 | 313.34786 | 114.00498 | 6.92880 | 0.1792779 | 0.18583149 | 3.0412807 | 20 | 2 6.6 | 19.3 |
| 206736 | 2004 | BV ₁₁₉ | 15.3 | X | 90.63328 | 116.83154 | 356.15597 | 10.81976 | 0.0608937 | 0.19200863 | 2.9756982 | 20 | 4 7.8 | 19.5 |
| 206737 | 2004 | BE ₁₂₀ | 15.5 | X | 41.54655 | 116.68814 | 15.85396 | 11.69520 | 0.1140682 | 0.18772031 | 3.0208457 | 20 | 3 8.4 | 19.2 |
| 206738 | 2004 | BD ₁₂₀ | 15.5 | X | 83.10495 | 37.58641 | 69.75033 | 10.54836 | 0.1185630 | 0.19160943 | 2.9798299 | 20 | 4 7.3 | 19.6 |
| 206739 | 2004 | BV ₁₂₀ | 14.7 | X | 56.35173 | 7.41294 | 60.40799 | 18.98086 | 0.2364098 | 0.18357473 | 3.0661551 | 20 | 1 22.6 | 18.4 |
| 206740 | 2004 | BR ₁₂₄ | 15.9 | X | 103.61059 | 19.73666 | 70.27201 | 3.53890 | 0.0896800 | 0.19170448 | 2.9788448 | 20 | 4 3.7 | 20.0 |
| 206741 | 2004 | BR ₁₂₄ | 15.7 | X | 65.08399 | 200.97370 | 327.76265 | 9.93089 | 0.0728833 | 0.19858374 | 2.9096467 | 20 | 5 17.1 | 19.8 |
| 206742 | 2004 | BY ₁₂₄ | 15.0 | X | 333.72930 | 327.09282 | 211.04820 | 16.74028 | 0.1635069 | 0.18115204 | 3.0934319 | 20 | 1 7.6 | 19.3 |
| 206743 | 2004 | BB ₁₂₉ | 15.6 | X | 200.59016 | 87.35248 | 299.89027 | 5.40733 | 0.1709596 | 0.20189463 | 2.8777488 | 20 | 4 24.9 | 20.4 |
| 206744 | 2004 | BJ ₁₃₅ | 15.9 | X | 289.61819 | 233.36857 | 61.55596 | 2.71230 | 0.0574820 | 0.19749338 | 2.9203463 | 20 | 4 20.5 | 20.0 |
| 206745 | 2004 | BR ₁₃₉ | 16.3 | X | 184.00961 | 314.50974 | 53.68732 | 0.17570 | 0.1110139 | 0.19400491 | 2.9552501 | 20 | 3 20.8 | 21.0 |
| 206746 | 2004 | BB ₁₄₂ | 16.2 | X | 229.45189 | 149.00270 | 190.73912 | 1.62200 | 0.1204176 | 0.19623360 | 2.9328317 | 20 | 3 30.1 | 20.8 |
| 206747 | 2004 | BH ₁₄₅ | 16.0 | X | 288.35518 | 181.26022 | 126.89563 | 2.99461 | 0.0507866 | 0.19883127 | 2.9072313 | 20 | 5 7.3 | 20.0 |
| 206748 | 2004 | BA ₁₄₆ | 16.2 | X | 338.36962 | 50.36405 | 59.69530 | 2.54633 | 0.1775630 | 0.17663545 | 3.1459427 | 20 | — | — |
| 206749 | 2004 | BX ₁₄₈ | 16.1 | X | 208.73788 | 8.97894 | 46.85292 | 2.66467 | 0.0438965 | 0.20509112 | 2.8477693 | 20 | 6 16.2 | 20.2 |
| 206750 | 2004 | BD ₁₄₉ | 16.4 | X | 124.61119 | 220.60580 | 338.97658 | 1.58386 | 0.0204084 | 0.21439996 | 2.7647312 | 20 | 9 9.7 | 20.1 |
| 206751 | 2004 | BJ ₁₄₉ | 16.4 | X | 176.55697 | 199.07577 | 337.82040 | 1.63861 | 0.1123629 | 0.21791715 | 2.7349021 | 20 | 10 10.0 | 20.5 |
| 206752 | 2004 | BT ₁₅₀ | 15.3 | X | 90.13092 | 122.29754 | 307.76238 | 8.55823 | 0.1387094 | 0.18629848 | 3.0361963 | 20 | 2 25.6 | 19.5 |
| 206753 | 2004 | BA ₁₅₁ | 15.4 | X | 109.29001 | 149.82049 | 252.25024 | 8.03588 | 0.1382092 | 0.18867354 | 3.0106624 | 20 | 2 13.4 | 19.8 |
| 206754 | 2004 | BM ₁₅₅ | 16.6 | X | 187.07754 | 296.24341 | 153.39854 | 4.55403 | 0.0956581 | 0.20679513 | 2.8321039 | 20 | 7 2.6 | 20.9 |
| 206755 | 2004 | CJ ₂ | 15.3 | X | 349.88050 | 101.39601 | 77.33461 | 17.51562 | 0.1762571 | 0.18185783 | 3.0854230 | 20 | 2 9.1 | 19.2 |
| 206756 | 2004 | CF ₅ | 15.7 | X | 49.32846 | 88.54640 | 69.95212 | 4.67161 | 0.1022396 | 0.19196148 | 2.9761854 | 20 | 4 19.5 | 19.5 |
| 206757 | 2004 | CH ₅ | 15.4 | X | 342.12012 | 43.62425 | 131.29171 | 10.95915 | 0.0436219 | 0.18364379 | 3.0653864 | 20 | 2 1.5 | 19.3 |
| 206758 | 2004 | CV ₆ | 15.9 | X | 32.80032 | 330.02416 | 212.86176 | 2.79646 | 0.2058802 | 0.19117182 | 2.9843755 | 20 | 5 5.4 | 18.9 |
| 206759 | 2004 | CA ₇ | 16.0 | X | 175.81657 | 341.25670 | 104.81781 | 3.18705 | 0.0238330 | 0.20366518 | 2.8610461 | 20 | 6 16.3 | 20.0 |
| 206760 | 2004 | CU ₁₁ | 15.9 | X | 335.58934 | 46.55857 | 149.25861 | 5.56026 | 0.0880037 | 0.18443160 | 3.0566508 | 20 | 2 13.3 | 19.7 |
| 206761 | 2004 | CU ₁₃ | 15.3 | X | 294.45197 | 247.60135 | 327.47901 | 8.42477 | 0.0194840 | 0.18112466 | 3.0937436 | 20 | 1 26.4 | 19.6 |
| 206762 | 2004 | CE ₂₁ | 15.0 | X | 63.83792 | 315.03441 | 117.65203 | 17.91582 | 0.0337428 | 0.18057239 | 3.1000485 | 20 | 1 15.3 | 19.1 |
| 206763 | 2004 | CV ₂₁ | 15.9 | X | 45.06226 | 276.36275 | 299.89676 | 5.43314 | 0.0250670 | 0.20058899 | 2.8902228 | 20 | 6 18.3 | 19.8 |
| 206764 | 2004 | CR ₂₂ | 15.4 | X | 44.73131 | 352.83740 | 150.04847 | 10.44276 | 0.0431926 | 0.18885219 | 3.0087633 | 20 | 3 18.4 | 19.4 |
| 206765 | 2004 | CG ₂₆ | 16.0 | X | 144.19639 | 310.55690 | 149.21608 | 6.38760 | 0.0377456 | 0.19750937 | 2.9201887 | 20 | 5 28.1 | 20.3 |
| 206766 | 2004 | CR ₂₇ | 16.3 | X | 28.83989 | 203.50385 | 17.02362 | 2.24998 | 0.1057062 | 0.19917428 | 2.9038926 | 20 | 6 8.4 | 19.9 |
| 206767 | 2004 | CM ₃₀ | 16.9 | X | 125.80994 | 260.90555 | 182.64803 | 1.84685 | 0.0568945 | 0.19555866 | 2.9395759 | 20 | 4 16.3 | 21.1 |
| 206768 | 2004 | CT ₄₃ | 15.5 | X | 202.50426 | 117.52408 | 13.14659 | 9.31457 | 0.0964853 | 0.21344922 | 2.7729349 | 20 | 9 12.9 | 19.6 |
| 206769 | 2004 | CW ₄₃ | 15.7 | X | 22.48717 | 52.71960 | 139.40856 | 15.04673 | 0.0624756 | 0.19188125 | 2.9770150 | 20 | 4 24.1 | 19.8 |
| 206770 | 2004 | CO ₄₈ | 15.4 | X | 34.24088 | 125.05355 | 331.19742 | 14.21694 | 0.1880071 | 0.17982738 | 3.1086047 | 20 | 1 13.6 | 18.9 |
| 206771 | 2004 | CO ₅₃ | 15.3 | X | 275.48971 | 292.72198 | 339.90323 | 6.89280 | 0.0857067 | 0.18580627 | 3.0415559 | 20 | 3 2.3 | 19.5 |
| 206772 | 2004 | CM ₆₃ | 15.6 | X | 347.57385 | 43.59344 | 104.10007 | 10.30048 | 0.0718318 | 0.17918570 | 3.1160218 | 20 | 1 4.5 | 19.6 |
| 206773 | 2004 | CX ₆₄ | 15.5 | X | 136.32337 | 105.55875 | 85.44512 | 8.74201 | 0.1554407 | 0.21030283 | 2.8005240 | 20 | 9 23.3 | 20.1 |
| 206774 | 2004 | CG ₆₄ | 15.8 | X | 42.65124 | 103.89511 | 58.19481 | 5.97074 | 0.1177518 | 0.19090231 | 2.9871837 | 20 | 4 15.9 | 19.4 |
| 206775 | 2004 | CC ₆₅ | 15.7 | X | 67.93102 | 10.80512 | 58.87271 | 6.98394 | 0.1557171 | 0.18313541 | 3.0710567 | 20 | 2 2.0 | 19.6 |
| 206776 | 2004 | CS ₇₈ | 16.2 | X | 67.38516 | 315.59177 | 131.74940 | 2.64213 | 0.2333740 | 0.18563810 | 3.0433925 | 20 | 3 3.9 | 19.7 |
| 206777 | 2004 | CM ₈₉ | 15.7 | X | 190.68321 | 209.08358 | 113.04368 | 11.63101 | 0.1268657 | 0.18445314 | 3.0564128 | 20 | 2 4.1 | 20.5 |
| 206778 | 2004 | CK ₉₆ | 15.1 | X | 336.31095 | 197.79625 | 330.60980 | 15.23966 | 0.0293323 | 0.17904699 | 3.1176309 | 20 | 1 22.6 | 19.5 |
| 206779 | 2004 | CR ₉₇ | 15.8 | X | 97.29162 | 103.91868 | 32.62420 | 8.08074 | 0.0698351 | 0.19769157 | 2.9183942 | 20 | 5 19.1 | 20.0 |
| 206780 | 2004 | CV ₁₀₅ | 15.4 | X | 4.58847 | 338.24300 | 238.76229 | 9.69651 | 0.0666307 | 0.19177238 | 2.9781416 | 20 | 4 22.6 | 19.2 |
| 206781 | 2004 | CS ₁₀₉ | 15.3 | X | 96.85074 | 160.68131 | 262.51908 | 9.25561 | 0.1440466 | 0.18591627 | 3.0403561 | 20 | 2 24.3 | 19.7 |
| 206782 | 2004 | CG ₁₁₀ | 15.2 | X | 342.26024 | 191.29162 | 306.20328 | 7.96985 | 0.0597023 | 0.17388608 | 3.1790169 | 20 | — | — |
| 206783 | 2004 | CN ₁₁₂ | 15.4 | X | 269.74128 | 222.96384 | 92.75597 | 13.10648 | 0.0205790 | 0.19732912 | 2.9219667 | 20 | 5 1.8 | 19.6 |
| 206784 | 2004 | CO ₁₁₅ | 15.0 | X | 320.79005 | 169.86168 | 64.54499 | 14.66856 | 0.1205362 | 0.18962458 | 3.0005874 | 20 | 3 15.8 | 19.2 |
| 206785 | 2004 | CK ₁₁₇ | 15.7 | X | 326.17660 | 235.68872 | 279.37529 | 1.49061 | 0.0967694 | 0.17800451 | 3.1297913 | 20 | — | — |
| 206786 | 2004 | CP ₁₂₅ | 15.8 | X | 132.07716 | 277.16391 | 171.39934 | 6.26280 | 0.0660766 | 0.19473567 | 2.9478523 | 20 | 5 2.5 | 20.1 |
| 206787 | 2004 | DQ | 16.2 | X | 46.36394 | 18.92741 | 106.38966 | 3.76784 | 0.2706659 | 0.18701858 | 3.0283975 | 20 | 3 24.1 | 19.2 |
| 206788 | 2004 | DP ₅ | 17.1 | X | 136.06973 | 111.98569 | 2.14890 | 20.09992 | 0.1460082 | 0.38023303 | 1.8869895 | 20 | 6 13.9 | 20.0 |
| 206789 | 2004 | DN ₇ | 16.2 | X | 137.55517 | 287.55882 | 155.39571 | 2.56541 | 0.0964612 | 0.19460061 | 2.9492160 | 20 | 5 3.7 | 20.5 |
| 206790 | 2004 | DD ₁₃ | 14.8 | X | 261.9 | | | | | | | | | |

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 |
|-------------------------------|------|---|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|------|
| 206801 2004 DQ ₄₈ | 15.1 | X | 238.09362 | 296.58559 | 336.74970 | 10.04662 | 0.0553890 | 0.17841494 | 3.1249896 | 20 | 1 28.3 | 19.8 |
| 206802 2004 DF ₄₉ | 15.4 | X | 105.71382 | 254.67441 | 168.85579 | 9.17762 | 0.1325982 | 0.18534742 | 3.0465737 | 20 | 3 9.3 | 19.8 |
| 206803 2004 DO ₄₉ | 15.9 | X | 288.17936 | 0.47220 | 329.52615 | 8.04532 | 0.0383737 | 0.20029449 | 2.8930552 | 20 | 6 4.5 | 20.0 |
| 206804 2004 DZ ₄₉ | 15.4 | X | 114.02774 | 109.68636 | 327.13335 | 9.43585 | 0.0963544 | 0.19032185 | 2.9932543 | 20 | 3 26.2 | 19.8 |
| 206805 2004 DJ ₅₁ | 15.3 | X | 111.00264 | 94.28739 | 3.60027 | 7.68054 | 0.0930878 | 0.19036194 | 2.9928341 | 20 | 4 19.4 | 19.7 |
| 206806 2004 DT ₅₁ | 15.3 | X | 315.01883 | 34.25381 | 150.65799 | 9.41876 | 0.0424162 | 0.17610657 | 3.1522380 | 20 | 1 11.0 | 19.8 |
| 206807 2004 DK ₅₂ | 15.4 | X | 199.65755 | 19.31572 | 296.64186 | 9.01188 | 0.0454381 | 0.18162668 | 3.0880402 | 20 | 2 2.9 | 19.9 |
| 206808 2004 DU ₅₅ | 16.3 | X | 119.64498 | 104.21958 | 302.83232 | 0.41253 | 0.0235234 | 0.18476011 | 3.0530265 | 20 | 2 20.1 | 20.7 |
| 206809 2004 DS ₅₈ | 16.1 | X | 290.09873 | 142.04908 | 99.74041 | 3.54380 | 0.0369414 | 0.18460418 | 3.0547455 | 20 | 2 19.3 | 20.4 |
| 206810 2004 DG ₅₉ | 14.9 | X | 311.10669 | 38.08741 | 157.05062 | 19.34067 | 0.0347325 | 0.17771663 | 3.1331703 | 20 | 1 18.8 | 19.5 |
| 206811 2004 DB ₆₁ | 15.9 | X | 8.99114 | 72.45852 | 129.54016 | 2.05467 | 0.0679133 | 0.19014033 | 2.9951591 | 20 | 4 12.2 | 19.6 |
| 206812 2004 DF ₆₃ | 16.0 | X | 155.40241 | 348.10478 | 95.94443 | 3.18960 | 0.0787333 | 0.19744943 | 2.9207797 | 20 | 5 22.8 | 20.3 |
| 206813 2004 DP ₇₂ | 15.5 | X | 92.34183 | 274.42211 | 123.43547 | 0.97775 | 0.1434364 | 0.17944214 | 3.1130524 | 20 | 1 24.3 | 19.6 |
| 206814 2004 DF ₇₈ | 15.0 | X | 339.13734 | 350.80262 | 140.88573 | 17.02572 | 0.0884130 | 0.17206432 | 3.2014164 | 20 | — | — |
| 206815 2004 EG ₅ | 15.4 | X | 66.82962 | 61.42569 | 15.31529 | 8.46068 | 0.1499320 | 0.18028507 | 3.1033413 | 20 | 2 10.0 | 19.4 |
| 206816 2004 EZ ₅ | 15.1 | X | 335.35446 | 95.25473 | 46.91315 | 6.98707 | 0.0436657 | 0.17275372 | 3.1928935 | 20 | — | — |
| 206817 2004 EW ₈ | 16.0 | X | 32.86544 | 60.08289 | 132.89793 | 3.81554 | 0.1046669 | 0.19206350 | 2.9751315 | 20 | 5 9.8 | 19.7 |
| 206818 2004 EJ ₁₁ | 15.6 | X | 355.37459 | 139.92815 | 66.16269 | 5.08933 | 0.1493786 | 0.18644403 | 3.0346159 | 20 | 3 25.5 | 19.0 |
| 206819 2004 EF ₁₃ | 15.3 | X | 303.67216 | 60.66440 | 122.32802 | 5.87854 | 0.1223372 | 0.17406953 | 3.1767830 | 20 | — | — |
| 206820 2004 ET ₁₃ | 15.7 | X | 23.45683 | 359.46992 | 97.56962 | 6.30259 | 0.1865739 | 0.17669433 | 3.1452438 | 20 | — | — |
| 206821 2004 EQ ₁₄ | 14.9 | X | 258.45610 | 105.04703 | 140.88641 | 13.98935 | 0.1054148 | 0.17453224 | 3.1711658 | 20 | 1 11.6 | 19.9 |
| 206822 2004 EB ₁₇ | 15.1 | X | 27.86959 | 70.91123 | 117.72702 | 10.05142 | 0.0763811 | 0.18807762 | 3.0170185 | 20 | 4 27.4 | 19.1 |
| 206823 2004 EC ₁₉ | 14.6 | X | 280.54181 | 98.77359 | 88.39499 | 16.35387 | 0.1073842 | 0.17002677 | 3.2269422 | 20 | — | — |
| 206824 2004 EF ₁₉ | 15.2 | X | 66.26137 | 88.81903 | 357.79841 | 9.77909 | 0.0914545 | 0.18148386 | 3.0896601 | 20 | 2 13.6 | 19.3 |
| 206825 2004 EH ₂₁ | 15.8 | X | 17.55275 | 336.53524 | 178.59046 | 5.25041 | 0.0908009 | 0.18219950 | 3.0815645 | 20 | 2 23.6 | 19.6 |
| 206826 2004 EH ₃₃ | 15.2 | X | 25.53885 | 88.28779 | 57.90447 | 9.32947 | 0.0784672 | 0.18290003 | 3.0736910 | 20 | 2 29.9 | 19.2 |
| 206827 2004 EK ₃₇ | 15.1 | X | 0.02142 | 305.36520 | 188.54561 | 26.95810 | 0.1910658 | 0.17999563 | 3.1066673 | 20 | — | — |
| 206828 2004 EO ₃₈ | 15.7 | X | 18.01506 | 172.34410 | 94.90026 | 3.27860 | 0.0403928 | 0.19817973 | 2.9135998 | 20 | 7 20.3 | 19.3 |
| 206829 2004 EC ₄₀ | 15.2 | X | 36.80840 | 344.95601 | 151.46127 | 20.91041 | 0.1530542 | 0.18359111 | 3.0659727 | 20 | 3 6.8 | 18.7 |
| 206830 2004 EV ₄₁ | 15.5 | X | 336.78378 | 324.01145 | 201.21233 | 4.81618 | 0.1113854 | 0.17691763 | 3.1425966 | 20 | 1 6.3 | 19.6 |
| 206831 2004 EY ₄₅ | 15.8 | X | 279.50624 | 169.05510 | 89.78073 | 0.94270 | 0.1287199 | 0.18065296 | 3.0991267 | 20 | 2 14.9 | 20.3 |
| 206832 2004 EL ₄₆ | 16.0 | X | 61.19862 | 51.94780 | 83.79869 | 5.20892 | 0.1519456 | 0.18813280 | 3.0164285 | 20 | 4 15.5 | 19.8 |
| 206833 2004 EU ₄₉ | 15.7 | X | 30.59136 | 8.74253 | 96.96255 | 4.03666 | 0.0519214 | 0.17702311 | 3.1413481 | 20 | 1 13.6 | 19.7 |
| 206834 2004 EA ₅₅ | 15.5 | X | 329.91743 | 305.95111 | 257.64883 | 9.55965 | 0.2342760 | 0.18011068 | 3.1053442 | 20 | 1 24.1 | 19.4 |
| 206835 2004 EH ₅₆ | 15.1 | X | 318.61501 | 197.37172 | 358.80554 | 10.91814 | 0.0738709 | 0.17584040 | 3.1554183 | 20 | 1 28.9 | 19.5 |
| 206836 2004 ET ₆₁ | 15.6 | X | 272.97915 | 59.85891 | 189.42856 | 5.22566 | 0.1040937 | 0.17786753 | 3.1313980 | 20 | 1 29.3 | 20.3 |
| 206837 2004 ER ₆₈ | 15.5 | X | 91.34330 | 291.01965 | 181.07998 | 5.35258 | 0.0777856 | 0.18993163 | 2.9973527 | 20 | 4 13.9 | 19.5 |
| 206838 2004 EV ₇₀ | 16.2 | X | 11.22267 | 295.70338 | 185.10748 | 1.31667 | 0.1449304 | 0.17686884 | 3.1431745 | 20 | 1 1.2 | 20.0 |
| 206839 2004 EX ₇₁ | 15.4 | X | 301.96880 | 222.98500 | 346.13424 | 10.34356 | 0.0497271 | 0.17725007 | 3.1386660 | 20 | 1 26.1 | 19.9 |
| 206840 2004 EH ₈₀ | 15.1 | X | 318.98468 | 51.19620 | 109.53213 | 11.16239 | 0.1021843 | 0.17407693 | 3.1766929 | 20 | — | — |
| 206841 2004 EJ ₈₁ | 15.0 | X | 4.79029 | 79.05406 | 78.14612 | 10.72430 | 0.1223590 | 0.18073703 | 3.0981655 | 20 | 2 3.3 | 18.3 |
| 206842 2004 EJ ₈₁ | 15.1 | X | 242.70654 | 120.14689 | 133.74330 | 15.10489 | 0.1801443 | 0.17089052 | 3.2160594 | 20 | 1 1.9 | 20.6 |
| 206843 2004 EK ₈₁ | 15.2 | X | 26.15724 | 24.99853 | 115.91954 | 12.92614 | 0.1744543 | 0.18186877 | 3.0852993 | 20 | 2 25.4 | 18.6 |
| 206844 2004 EF ₈₈ | 15.4 | X | 296.05879 | 278.91656 | 342.54278 | 9.92720 | 0.0642428 | 0.18571267 | 3.0425778 | 20 | 3 15.2 | 19.6 |
| 206845 2004 ET ₉₂ | 15.2 | X | 42.33635 | 88.70363 | 55.24783 | 9.75730 | 0.0932084 | 0.18344878 | 3.0675583 | 20 | 3 24.1 | 19.2 |
| 206846 2004 EM ₉₆ | 15.7 | X | 307.05135 | 249.38153 | 326.66990 | 4.25070 | 0.0838096 | 0.18197407 | 3.0841090 | 20 | 2 2.0 | 19.8 |
| 206847 2004 ER ₁₀₇ | 16.2 | X | 293.41840 | 16.02354 | 166.99813 | 1.65632 | 0.0433681 | 0.17197297 | 3.2025500 | 20 | — | — |
| 206848 2004 EY ₁₁₂ | 15.7 | X | 76.40148 | 281.44499 | 148.13546 | 10.26532 | 0.0524253 | 0.17841422 | 3.1249979 | 20 | 1 29.3 | 20.0 |
| 206849 2004 FZ ₁₇ | 14.5 | X | 309.53426 | 248.93551 | 292.00176 | 23.99153 | 0.3494837 | 0.17429863 | 3.1739986 | 20 | — | — |
| 206850 2004 FZ ₂₀ | 15.2 | X | 272.42868 | 259.37908 | 327.75475 | 4.93790 | 0.1199891 | 0.17330437 | 3.1861267 | 20 | 1 3.7 | 19.9 |
| 206851 2004 FZ ₂₃ | 16.0 | X | 315.33471 | 181.93614 | 0.79639 | 0.60347 | 0.1358602 | 0.17494222 | 3.1662093 | 20 | — | — |
| 206852 2004 FW ₂₄ | 15.0 | X | 22.87642 | 178.02457 | 325.46224 | 12.49556 | 0.0369452 | 0.18090579 | 3.0962385 | 20 | 2 17.1 | 19.2 |
| 206853 2004 FS ₂₈ | 17.0 | X | 162.89382 | 35.99741 | 39.54267 | 22.08815 | 0.1050577 | 0.37401860 | 1.9078340 | 20 | 5 14.2 | 19.3 |
| 206854 2004 FT ₃₀ | 16.7 | X | 143.18395 | 269.41252 | 131.73674 | 24.64731 | 0.0795566 | 0.36880415 | 1.9257749 | 20 | 3 2.5 | 19.0 |
| 206855 2004 FS ₃₁ | 14.8 | X | 261.83531 | 130.36961 | 124.71493 | 27.32581 | 0.2138667 | 0.17291863 | 3.1908632 | 20 | 1 16.7 | 20.0 |
| 206856 2004 FO ₄₄ | 15.2 | X | 340.26908 | 187.79260 | 29.90288 | 11.20941 | 0.0918774 | 0.18384452 | 3.0631547 | 20 | 3 22.3 | 19.1 |
| 206857 2004 FZ ₅₁ | 16.1 | X | 312.15044 | 88.75577 | 152.10959 | 5.40159 | 0.1367573 | 0.18198080 | 3.0840330 | 20 | 3 2.4 | 20.0 |
| 206858 2004 FF ₅₃ | 16.1 | X | 65.85185 | 289.47096 | 212.13962 | 1.34823 | 0.0519272 | 0.18912265 | 3.0058942 | 20 | 4 13.3 | 20.0 |
| 206859 2004 FC ₅₅ | 16.0 | X | 323.44288 | 65.31694 | 128.85088 | 4.02784 | 0.1010789 | 0.17936384 | 3.1139582 | 20 | 1 24.9 | 20.1 |
| 206860 2004 FJ ₅₆ | 17.0 | X | 295.78147 | 118.45946 | 117.40040 | 4.64216 | 0.1130193 | 0.29946192 | 2.2126275 | 20 | 1 21.3 | 19.9 |
| 206861 2004 FM ₅₆ | 15.6 | X | 23.88142 | 56.94541 | 180.30473 | 9.98422 | 0.0157681 | 0.19340675 | 2.9613401 | 20 | 6 16.4 | 19.8 |
| 206862 2004 FF ₆₃ | 15.9 | X | 58.71766 | 39.53897 | 96.57804 | 2.60770 | 0.1169350 | 0.18481786 | 3.0523905 | 20 | 4 6.5 | 19.7 |
| 206863 2004 FJ ₇₀ | 15.9 | X | 62.28561 | 304.74539 | 166.59911 | 0.72129 | 0.0839132 | 0.18328642 | 3.0693696 | 20 | 3 5.7 | 19.8 |
| 206864 2004 FZ ₇₈ | 16.1 | X | 220.87175 | 244.16858 | 18.17003 | 1.02239 | 0.1060534 | 0.16969744 | 3.2311158 | 20 | — | — |
| 206865 2004 FD ₈₁ | 14.8 | X | 283.90068 | 196.41619 | 58.20648 | 16.15932 | 0.0271504 | 0.17906842 | 3.1173822 | 20 | 3 8.2 | 19.5 |
| 206866 2004 FV ₈₃ | 15.3 | X | 25.93781 | 322.37315 | 129.85382 | 10.46667 | 0.1328925 | 0.17515117 | 3.1636907 | 20 | — | — |
| 206867 2004 FZ ₈₅ | 15.3 | X | 206.42610 | 196.18458 | 149.74588 | 19.47383 | 0.0516816 | 0.18663720 | 3.0325216 | 20 | 3 20.8 | 19.9 |
| 206868 2004 FB ₈₈ | 15.0 | X | 266.72168 | 174.04124 | 54.46881 | 9.22527 | 0.1266055 | 0.17300404 | 3.1898130 | 20 | — | — |
| 206869 2004 FW ₉₂ | 15.9 | X | 358.91314 | 271.99418 | 333.52632 | 3.13077 | 0.1154535 | 0.19086959 | 2.9875250 | 20 | 5 22.3 | 19.3 |
| 206870 2004 FX ₉₃ | 16.0 | X | 336.45957 | 94.62660 | 108.40839 | 4.48000 | 0.1424104 | 0.18000353 | 3.1065764 | 20 | 2 19.2 | 19.9 |
| 206871 2004 FA ₁₁₂ | 15.9 | X | 258.30342 | 89.54567 | 182.88247 | 4.84756 | 0.0852382 | 0.17874487 | 3.1211430 | 20 | 2 11.9 | 20.5 |
| 206872 2004 FU ₁₁₈ | 15.4 | X | 57.72617 | 309.88108 | 174.18195 | 8.98079 | 0.0588776 | 0.18052458 | 3.1005957 | 20 | 3 12.7 | 19.3 |
| 206873 2004 FR ₁₂₀ | 15.1 | X | 331.90235 | 16.45782 | 159.62819 | 14.45532 | 0.1103712 | 0.17494951 | 3.1661213 | 20 | 1 13.0 | 19.4 |
| 206874 2004 FJ ₁₂₁ | 15.4 | X | 334.28454 | 86.4512 | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|--------|----------|
| 206881 2004 <i>FJ</i> ₁₆₁ | 15.9 | X | 79.08637 | 125.75934 | 324.95342 | 3.93154 | 0.1979649 | 0.18437496 | 3.0572768 | 20 | 3 17.9 | 19.9 |
| 206882 2004 <i>GF</i> ₁ | 14.9 | X | 296.81586 | 88.67431 | 111.43827 | 21.00247 | 0.1010043 | 0.17042522 | 3.2219105 | 20 | 1 1.4 | 19.6 |
| 206883 2004 <i>GN</i> ₂ | 14.8 | X | 38.96727 | 17.82153 | 105.57997 | 23.70930 | 0.1026184 | 0.18002139 | 3.1063709 | 20 | 2 22.9 | 19.0 |
| 206884 2004 <i>GZ</i> ₁₀ | 15.3 | X | 21.63823 | 78.96245 | 99.22436 | 17.68445 | 0.1923246 | 0.18528335 | 3.0472759 | 20 | 4 15.1 | 18.9 |
| 206885 2004 <i>GC</i> ₁₂ | 15.3 | X | 300.14368 | 112.89861 | 145.55096 | 26.55689 | 0.2266005 | 0.17837094 | 3.1255034 | 20 | 2 25.7 | 19.7 |
| 206886 2004 <i>GJ</i> ₁₅ | 17.3 | X | 150.31616 | 329.29048 | 150.77246 | 23.37063 | 0.0783553 | 0.37877651 | 1.8918238 | 20 | 7 9.9 | 20.0 |
| 206887 2004 <i>GG</i> ₁₉ | 17.6 | X | 142.61032 | 180.85725 | 328.47609 | 11.15903 | 0.1123410 | 0.38235799 | 1.8799917 | 20 | 8 16.2 | 19.8 |
| 206888 2004 <i>GC</i> ₂₁ | 15.6 | X | 339.47426 | 72.21473 | 98.29691 | 9.49341 | 0.1574611 | 0.17463857 | 3.1698784 | 20 | 1 12.1 | 19.4 |
| 206889 2004 <i>GT</i> ₃₂ | 15.6 | X | 2.10506 | 158.74579 | 11.36016 | 6.62397 | 0.1551583 | 0.17902765 | 3.1178555 | 20 | 2 19.4 | 19.2 |
| 206890 2004 <i>GA</i> ₄₂ | 14.9 | X | 323.83190 | 185.17003 | 17.11242 | 27.27356 | 0.0863982 | 0.17505667 | 3.1648292 | 20 | 2 22.2 | 19.6 |
| 206891 2004 <i>GT</i> ₄₄ | 15.9 | X | 107.77952 | 145.55914 | 325.64111 | 2.13043 | 0.0961475 | 0.19006605 | 2.9959393 | 20 | 5 3.8 | 20.1 |
| 206892 2004 <i>GJ</i> ₇₅ | 15.5 | X | 277.37583 | 240.69709 | 351.62739 | 2.27709 | 0.1765576 | 0.17366707 | 3.1816891 | 20 | 1 8.4 | 20.4 |
| 206893 2004 <i>HZ</i> ₆ | 15.6 | X | 329.16749 | 22.95232 | 156.81356 | 5.24034 | 0.1289726 | 0.17354874 | 3.1831352 | 20 | 1 11.9 | 19.9 |
| 206894 2004 <i>HY</i> ₁₀ | 15.5 | X | 322.40739 | 270.45963 | 309.02265 | 2.68428 | 0.2253693 | 0.17652992 | 3.1471963 | 20 | 2 6.3 | 19.5 |
| 206895 2004 <i>HW</i> ₁₆ | 15.5 | X | 324.99659 | 204.33909 | 310.15681 | 3.98006 | 0.1282518 | 0.17156922 | 3.2075724 | 20 | — | — |
| 206896 2004 <i>HL</i> ₂₁ | 15.8 | X | 8.03911 | 47.88261 | 75.21966 | 2.11075 | 0.2053631 | 0.17400226 | 3.1776017 | 20 | — | — |
| 206897 2004 <i>HJ</i> ₂₈ | 15.6 | X | 352.76044 | 85.44335 | 140.97976 | 3.98575 | 0.2039374 | 0.18300075 | 3.0725630 | 20 | 4 12.9 | 18.7 |
| 206898 2004 <i>HJ</i> ₃₀ | 15.7 | X | 42.33302 | 160.72167 | 37.44058 | 2.83036 | 0.1284676 | 0.18839755 | 3.0136019 | 20 | 6 2.3 | 19.3 |
| 206899 2004 <i>HP</i> ₃₄ | 15.2 | X | 325.40742 | 45.19253 | 156.57291 | 10.72905 | 0.1539066 | 0.17632995 | 3.1495753 | 20 | 1 29.2 | 19.4 |
| 206900 2004 <i>HT</i> ₃₆ | 17.4 | X | 81.15128 | 108.16700 | 58.17077 | 22.83114 | 0.0816935 | 0.37465924 | 1.9056585 | 20 | 6 8.2 | 19.2 |
| 206901 2004 <i>HU</i> ₃₆ | 14.6 | X | 232.59147 | 195.13864 | 78.00511 | 23.31946 | 0.1505281 | 0.17045722 | 3.2215073 | 20 | 1 16.7 | 20.0 |
| 206902 2004 <i>HC</i> ₄₅ | 15.9 | X | 358.25746 | 324.31850 | 196.74458 | 3.80065 | 0.2476683 | 0.17735145 | 3.1374698 | 20 | 1 19.5 | 19.2 |
| 206903 2004 <i>HV</i> ₅₂ | 14.9 | X | 270.09194 | 300.45748 | 319.97256 | 12.42795 | 0.1591763 | 0.17545146 | 3.1600798 | 20 | 2 4.4 | 19.7 |
| 206904 2004 <i>HV</i> ₅₄ | 15.3 | X | 357.87935 | 97.25233 | 42.98138 | 15.57346 | 0.2619379 | 0.17450962 | 3.1714398 | 20 | — | — |
| 206905 2004 <i>HQ</i> ₇₁ | 14.9 | X | 313.78402 | 202.36710 | 15.30742 | 18.46214 | 0.1462994 | 0.17536987 | 3.1610599 | 20 | 2 12.7 | 19.5 |
| 206906 2004 <i>JZ</i> ₂₇ | 15.0 | X | 316.65023 | 246.73026 | 318.31159 | 15.19634 | 0.1830524 | 0.17508639 | 3.1644710 | 20 | 1 20.7 | 19.4 |
| 206907 2004 <i>KA</i> ₁₄ | 15.6 | X | 325.27004 | 85.26069 | 169.67889 | 10.50722 | 0.1712539 | 0.18111296 | 3.0938770 | 20 | 4 5.0 | 19.3 |
| 206908 2004 <i>NW</i> ₂ | 15.7 | X | 86.60036 | 230.59799 | 91.04113 | 24.27613 | 0.3088101 | 0.26170928 | 2.4206015 | 20 | — | — |
| 206909 2004 <i>NB</i> ₆ | 14.6 | X | 316.93566 | 107.45187 | 134.40224 | 24.94230 | 0.3166548 | 0.17113066 | 3.2130501 | 20 | 2 14.0 | 18.8 |
| 206910 2004 <i>NL</i> ₈ | 17.1 | X | 280.80150 | 277.96037 | 151.05166 | 5.00919 | 0.1756116 | 0.23788698 | 2.5796192 | 20 | 7 2.3 | 21.6 |
| 206911 2004 <i>PE</i> ₁₄ | 17.0 | X | 167.78813 | 264.68525 | 105.48564 | 3.28858 | 0.2240536 | 0.28355871 | 2.2946021 | 20 | 3 7.9 | 20.7 |
| 206912 2004 <i>PK</i> ₁₇ | 17.2 | X | 245.15441 | 14.97066 | 320.50820 | 3.21799 | 0.1751062 | 0.29228921 | 2.2486793 | 20 | 3 29.1 | 20.6 |
| 206913 2004 <i>PH</i> ₂₀ | 16.3 | X | 129.10286 | 271.58318 | 134.20219 | 20.63153 | 0.3336498 | 0.27652954 | 2.3333239 | 20 | 4 2.7 | 20.5 |
| 206914 2004 <i>PZ</i> ₆₁ | 16.5 | X | 270.55899 | 235.14172 | 89.67164 | 5.48346 | 0.1592442 | 0.29248371 | 2.2476823 | 20 | 4 17.7 | 19.5 |
| 206915 2004 <i>PL</i> ₆₅ | 17.0 | X | 235.41904 | 272.56253 | 124.36121 | 7.32258 | 0.1668576 | 0.29723473 | 2.2236666 | 20 | 6 12.8 | 20.1 |
| 206916 2004 <i>PD</i> ₈₀ | 16.1 | X | 123.21992 | 94.85954 | 327.30725 | 22.41887 | 0.2067702 | 0.28176532 | 2.3043283 | 20 | 3 18.1 | 19.7 |
| 206917 2004 <i>PY</i> ₈₈ | 16.5 | X | 184.59946 | 27.36038 | 342.52972 | 6.79174 | 0.1343659 | 0.28438560 | 2.2901520 | 20 | 3 16.4 | 19.9 |
| 206918 2004 <i>PT</i> ₈₉ | 17.2 | X | 288.33823 | 198.15413 | 137.65870 | 2.78593 | 0.2516799 | 0.29899787 | 2.2149163 | 20 | 5 10.3 | 19.9 |
| 206919 2004 <i>PS</i> ₉₄ | 17.2 | X | 95.77800 | 28.16253 | 318.83004 | 2.47697 | 0.2129820 | 0.26750182 | 2.3855300 | 20 | — | — |
| 206920 2004 <i>PE</i> ₉₅ | 17.2 | X | 117.86992 | 195.15760 | 200.31627 | 5.14076 | 0.2555434 | 0.27890244 | 2.3200705 | 20 | 2 21.9 | 20.3 |
| 206921 2004 <i>PU</i> ₁₀₀ | 16.7 | X | 286.13741 | 155.07125 | 184.79499 | 3.09996 | 0.2631924 | 0.29835528 | 2.2180954 | 20 | 5 11.1 | 19.2 |
| 206922 2004 <i>PR</i> ₁₀₁ | 16.3 | X | 188.29662 | 8.41650 | 331.51173 | 4.56518 | 0.2043300 | 0.27924745 | 2.3181591 | 20 | 2 15.2 | 20.0 |
| 206923 2004 <i>PY</i> ₁₀₁ | 16.4 | X | 122.62036 | 189.51469 | 207.08497 | 5.21406 | 0.2300112 | 0.27502476 | 2.3418273 | 20 | 2 25.6 | 19.7 |
| 206924 2004 <i>PP</i> ₁₀₂ | 17.0 | X | 290.68180 | 43.23568 | 303.42701 | 5.11940 | 0.2520980 | 0.30099368 | 2.2051144 | 20 | 5 27.8 | 19.5 |
| 206925 2004 <i>PR</i> ₁₀₈ | 17.1 | X | 165.76066 | 19.28998 | 349.30175 | 9.01270 | 0.2164638 | 0.28157527 | 2.3053651 | 20 | 3 3.1 | 20.6 |
| 206926 2004 <i>PM</i> ₁₁₁ | 16.6 | X | 155.88834 | 125.17472 | 217.13782 | 5.28560 | 0.1384058 | 0.27520815 | 2.3407868 | 20 | 1 12.9 | 19.9 |
| 206927 2004 <i>QH</i> ₂₁ | 17.2 | X | 158.16213 | 250.08281 | 169.00097 | 5.31970 | 0.2437976 | 0.28757547 | 2.2731852 | 20 | 5 1.2 | 20.9 |
| 206928 2004 <i>RC</i> ₁₃ | 16.6 | X | 145.93989 | 227.19763 | 136.79401 | 3.46660 | 0.1397554 | 0.27768065 | 2.3268710 | 20 | 1 30.6 | 19.8 |
| 206929 2004 <i>RH</i> ₂₀ | 17.1 | X | 140.00389 | 213.27069 | 183.70682 | 6.02940 | 0.2518285 | 0.28066519 | 2.3103459 | 20 | 3 17.6 | 20.7 |
| 206930 2004 <i>RU</i> ₃₀ | 17.5 | X | 236.26614 | 46.51723 | 329.10366 | 4.87839 | 0.1044280 | 0.29746423 | 2.2225228 | 20 | 5 19.3 | 20.6 |
| 206931 2004 <i>RO</i> ₄₂ | 17.1 | X | 125.17381 | 98.72580 | 263.37208 | 0.69218 | 0.2045005 | 0.27344717 | 2.3508257 | 20 | 1 13.4 | 19.9 |
| 206932 2004 <i>RW</i> ₄₈ | 17.1 | X | 179.09718 | 26.12018 | 11.00010 | 5.73414 | 0.2104976 | 0.28777815 | 2.2721178 | 20 | 4 17.2 | 20.8 |
| 206933 2004 <i>RS</i> ₄₉ | 16.5 | X | 120.46134 | 267.31468 | 162.05711 | 7.01789 | 0.0621304 | 0.28442743 | 2.2899275 | 20 | 3 16.2 | 19.2 |
| 206934 2004 <i>RS</i> ₆₁ | 17.7 | X | 222.60894 | 41.59564 | 335.31359 | 2.18448 | 0.1797594 | 0.29284348 | 2.2458410 | 20 | 4 30.5 | 21.2 |
| 206935 2004 <i>RZ</i> ₆₈ | 17.0 | X | 138.48407 | 44.75057 | 9.81250 | 5.98047 | 0.1295948 | 0.28271586 | 2.2991604 | 20 | 3 27.2 | 20.1 |
| 206936 2004 <i>RX</i> ₆₉ | 17.3 | X | 190.32858 | 106.72009 | 345.71422 | 4.72842 | 0.1057379 | 0.29951135 | 2.2123841 | 20 | 7 14.9 | 20.3 |
| 206937 2004 <i>RU</i> ₇₂ | 17.1 | X | 136.33248 | 297.00101 | 151.71648 | 3.94898 | 0.2036268 | 0.28675282 | 2.2775307 | 20 | 5 17.3 | 20.6 |
| 206938 2004 <i>RJ</i> ₇₆ | 16.9 | X | 283.07882 | 291.94562 | 82.85360 | 3.66418 | 0.2008656 | 0.23877247 | 2.5732375 | 20 | 7 5.3 | 20.0 |
| 206939 2004 <i>RP</i> ₈₂ | 18.0 | X | 307.57191 | 340.93280 | 14.13458 | 2.17031 | 0.1322489 | 0.30485450 | 2.1864572 | 20 | 8 7.1 | 19.8 |
| 206940 2004 <i>RU</i> ₉₀ | 16.6 | X | 17.01661 | 163.27641 | 229.37478 | 6.67872 | 0.1672892 | 0.26093375 | 2.4253954 | 20 | — | — |
| 206941 2004 <i>RG</i> ₉₉ | 17.1 | X | 170.32651 | 139.07708 | 325.50893 | 5.06387 | 0.0806306 | 0.29894409 | 2.2151819 | 20 | 7 8.7 | 20.1 |
| 206942 2004 <i>RT</i> ₁₀₁ | 17.5 | X | 314.21908 | 17.02068 | 337.63905 | 7.19761 | 0.1486243 | 0.30570485 | 2.1824007 | 20 | 8 19.5 | 18.8 |
| 206943 2004 <i>RZ</i> ₁₆₇ | 17.3 | X | 331.69739 | 7.72968 | 327.67483 | 5.00646 | 0.1736509 | 0.30504648 | 2.1855397 | 20 | 8 25.5 | 18.5 |
| 206944 2004 <i>RK</i> ₁₇₀ | 17.1 | X | 215.60164 | 165.22508 | 229.15542 | 6.49092 | 0.0771204 | 0.29364766 | 2.2417389 | 20 | 5 24.9 | 19.9 |
| 206945 2004 <i>RT</i> ₁₇₁ | 16.6 | X | 202.62257 | 193.46382 | 190.58703 | 3.37269 | 0.1512468 | 0.28971432 | 2.2619833 | 20 | 4 23.2 | 19.8 |
| 206946 2004 <i>RO</i> ₁₇₃ | 16.5 | X | 230.22715 | 146.24943 | 211.23794 | 6.11430 | 0.1341829 | 0.28936431 | 2.2638070 | 20 | 4 16.2 | 19.7 |
| 206947 2004 <i>RU</i> ₁₇₈ | 16.8 | X | 107.26484 | 137.17678 | 279.02862 | 6.21830 | 0.1194564 | 0.27839143 | 2.3229087 | 20 | 2 15.4 | 19.6 |
| 206948 2004 <i>RJ</i> ₁₈₇ | 16.6 | X | 184.99932 | 17.51891 | 283.37508 | 5.92162 | 0.1350353 | 0.27494699 | 2.3422688 | 20 | — | — |
| 206949 2004 <i>RD</i> ₁₈₉ | 17.1 | X | 140.23040 | 172.25365 | 250.13922 | 4.76247 | 0.1525411 | 0.28348619 | 2.2949934 | 20 | 4 8.8 | 20.5 |
| 206950 2004 <i>RP</i> ₂₀₅ | 16.5 | X | 197.15505 | 257.68497 | 129.11399 | 7.02234 | 0.1254553 | 0.28827621 | 2.2695000 | 20 | 4 24.4 | 19.9 |
| 206951 2004 <i>RT</i> ₃₀₇ | 17.1 | X | 301.03998 | 64.79099 | 246.36443 | 1.21410 | 0.1830790 | 0.29726460 | 2.223 | | | |

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|-------------|-----------|----|---------|----------|
| 206961 2004 <i>SN</i> ₃₀ | 17.1 | X | 227.02691 | 26.01550 | 9.87062 | 5.37252 | 0.1591575 | 0.29463117 | 2.2367473 | 20 | 5 31.9 | 20.3 |
| 206962 2004 <i>SG</i> ₃₂ | 17.0 | X | 180.95010 | 229.35457 | 161.42995 | 5.23353 | 0.1606760 | 0.28554029 | 2.2839738 | 20 | 4 12.2 | 20.4 |
| 206963 2004 <i>SV</i> ₃₃ | 16.8 | X | 277.46811 | 240.00343 | 139.19221 | 5.46545 | 0.1612316 | 0.29951895 | 2.2123467 | 20 | 7 13.2 | 19.1 |
| 206964 2004 <i>SE</i> ₄₁ | 17.6 | X | 299.16105 | 4.60336 | 14.34162 | 3.34802 | 0.1526781 | 0.30377164 | 2.1916502 | 20 | 8 27.5 | 19.3 |
| 206965 2004 <i>SL</i> ₄₃ | 17.0 | X | 189.12456 | 137.33468 | 315.47535 | 6.21271 | 0.0869792 | 0.29878228 | 2.2159816 | 20 | 7 14.6 | 19.9 |
| 206966 2004 <i>SZ</i> ₄₆ | 17.3 | X | 167.06597 | 88.16038 | 346.59705 | 6.12880 | 0.1475912 | 0.29001686 | 2.2604100 | 20 | 5 22.9 | 20.7 |
| 206967 2004 <i>SZ</i> ₄₇ | 16.6 | X | 122.81493 | 13.11708 | 4.38861 | 5.63480 | 0.2002524 | 0.27174296 | 2.3606441 | 20 | 2 1.3 | 19.7 |
| 206968 2004 <i>SO</i> ₅₂ | 17.2 | X | 117.90649 | 62.05499 | 338.52954 | 5.90606 | 0.2369952 | 0.27619502 | 2.3352075 | 20 | 2 28.2 | 20.4 |
| 206969 2004 <i>SC</i> ₆₁ | 17.2 | X | 154.16918 | 351.62718 | 63.30505 | 3.65949 | 0.1942758 | 0.28308867 | 2.2971414 | 20 | 4 19.3 | 20.8 |
| 206970 2004 <i>TL</i> ₁₅ | 17.1 | X | 187.28991 | 197.12494 | 198.55402 | 3.97888 | 0.1371256 | 0.28538050 | 2.2848263 | 20 | 4 23.3 | 20.3 |
| 206971 2004 <i>TP</i> ₄₇ | 16.6 | X | 278.35295 | 292.19764 | 32.35306 | 3.80696 | 0.2247980 | 0.23063665 | 2.6334021 | 20 | 4 18.2 | 20.4 |
| 206972 2004 <i>TS</i> ₅₄ | 17.0 | X | 93.84533 | 9.21272 | 42.08078 | 3.37754 | 0.2180779 | 0.27086077 | 2.3657671 | 20 | 2 10.6 | 19.6 |
| 206973 2004 <i>TG</i> ₆₇ | 16.4 | X | 248.13686 | 229.00577 | 100.05316 | 7.47663 | 0.2137131 | 0.28871535 | 2.2671981 | 20 | 3 26.3 | 20.0 |
| 206974 2004 <i>TN</i> ₇₂ | 16.5 | X | 16.77547 | 338.36445 | 172.25775 | 3.65391 | 0.0499970 | 0.27710208 | 2.3301088 | 20 | 2 1.7 | 18.9 |
| 206975 2004 <i>TE</i> ₇₉ | 16.8 | X | 137.27735 | 2.13018 | 44.41361 | 6.80935 | 0.2267039 | 0.27863853 | 2.3215352 | 20 | 3 27.9 | 20.3 |
| 206976 2004 <i>TS</i> ₁₀₂ | 17.6 | X | 100.03866 | 25.78258 | 349.17455 | 2.09996 | 0.2134030 | 0.26805091 | 2.3822711 | 20 | — | — |
| 206977 2004 <i>TF</i> ₁₀₃ | 16.2 | X | 114.22035 | 107.53103 | 47.94806 | 8.19826 | 0.0995799 | 0.29176367 | 2.2513788 | 20 | 7 14.3 | 19.3 |
| 206978 2004 <i>TP</i> ₁₁₀ | 16.9 | X | 82.12358 | 320.56691 | 68.87068 | 2.36461 | 0.1895411 | 0.26655186 | 2.3911945 | 20 | — | — |
| 206979 2004 <i>TV</i> ₁₁₅ | 15.9 | X | 345.86511 | 264.80467 | 86.48448 | 17.12667 | 0.2071198 | 0.24372736 | 2.5382430 | 20 | 10 24.2 | 18.5 |
| 206980 2004 <i>TM</i> ₁₁₇ | 17.5 | X | 154.11950 | 263.79488 | 152.99491 | 3.67648 | 0.1968731 | 0.28486650 | 2.2875739 | 20 | 4 22.1 | 21.0 |
| 206981 2004 <i>TC</i> ₁₁₈ | 17.3 | X | 307.26680 | 188.73110 | 149.48262 | 5.74072 | 0.1303717 | 0.30013687 | 2.2093091 | 20 | 7 6.9 | 19.3 |
| 206982 2004 <i>TU</i> ₁₂₆ | 16.6 | X | 263.63602 | 146.44253 | 142.85803 | 6.72182 | 0.2024180 | 0.28730256 | 2.2746245 | 20 | 2 16.6 | 20.0 |
| 206983 2004 <i>TH</i> ₁₃₀ | 17.5 | X | 90.66249 | 244.85731 | 122.32371 | 5.01514 | 0.2175806 | 0.26704298 | 2.3882618 | 20 | — | — |
| 206984 2004 <i>TA</i> ₁₃₃ | 16.4 | X | 129.36702 | 26.53798 | 31.61847 | 7.60112 | 0.2258600 | 0.27704519 | 2.3304277 | 20 | 4 3.2 | 19.8 |
| 206985 2004 <i>TB</i> ₁₃₄ | 17.0 | X | 224.75400 | 246.72480 | 99.08562 | 2.26445 | 0.2237313 | 0.28583440 | 2.2824068 | 20 | 3 23.8 | 20.6 |
| 206986 2004 <i>TV</i> ₁₃₅ | 17.0 | X | 183.73090 | 33.43684 | 346.90617 | 6.68137 | 0.1203520 | 0.28377030 | 2.2934613 | 20 | 3 28.3 | 20.4 |
| 206987 2004 <i>TE</i> ₁₃₈ | 16.8 | X | 171.82683 | 270.62959 | 136.49476 | 5.97749 | 0.2414052 | 0.28238224 | 2.3009709 | 20 | 4 28.2 | 20.7 |
| 206988 2004 <i>TL</i> ₁₅₂ | 17.3 | X | 107.52568 | 313.53774 | 202.09066 | 3.56048 | 0.1556644 | 0.29182099 | 2.2510840 | 20 | 7 10.7 | 20.3 |
| 206989 2004 <i>TH</i> ₁₅₉ | 17.2 | X | 93.31256 | 273.33138 | 346.98264 | 1.25413 | 0.0977837 | 0.30961943 | 2.1639667 | 20 | 11 12.7 | 20.0 |
| 206990 2004 <i>TV</i> ₁₆₃ | 16.4 | X | 64.04679 | 26.68300 | 45.45621 | 5.92517 | 0.2067816 | 0.26823148 | 2.3812019 | 20 | 1 15.6 | 18.3 |
| 206991 2004 <i>TZ</i> ₁₆₅ | 16.8 | X | 113.79362 | 162.59594 | 351.81431 | 5.21532 | 0.1716966 | 0.29467765 | 2.2365121 | 20 | 7 19.8 | 20.1 |
| 206992 2004 <i>TS</i> ₁₈₂ | 17.0 | X | 317.40282 | 259.28792 | 239.86590 | 4.62796 | 0.1192206 | 0.26364071 | 2.4087648 | 20 | — | — |
| 206993 2004 <i>TF</i> ₁₉₁ | 17.3 | X | 103.10452 | 243.40090 | 179.48047 | 4.53076 | 0.2153256 | 0.27566032 | 2.3382263 | 20 | 3 7.4 | 20.1 |
| 206994 2004 <i>TD</i> ₂₀₀ | 17.5 | X | 208.48304 | 209.93920 | 156.88224 | 1.99213 | 0.1236465 | 0.28621873 | 2.2803631 | 20 | 4 7.3 | 20.8 |
| 206995 2004 <i>TB</i> ₂₀₃ | 16.6 | X | 350.82406 | 8.44254 | 204.83232 | 6.60973 | 0.0833268 | 0.28707474 | 2.2758278 | 20 | 5 12.5 | 18.6 |
| 206996 2004 <i>TX</i> ₂₀₅ | 17.0 | X | 121.49149 | 211.27758 | 209.79165 | 4.66211 | 0.2288928 | 0.27612653 | 2.3355937 | 20 | 3 27.9 | 20.3 |
| 206997 2004 <i>TC</i> ₂₀₇ | 17.0 | X | 83.59924 | 32.09051 | 60.41762 | 3.50896 | 0.0926240 | 0.27423738 | 2.3463076 | 20 | 3 3.3 | 19.6 |
| 206998 2004 <i>TP</i> ₂₀₇ | 17.0 | X | 93.21655 | 327.03880 | 215.64216 | 5.21308 | 0.1144027 | 0.290969675 | 2.2568841 | 20 | 7 25.2 | 20.0 |
| 206999 2004 <i>TJ</i> ₂₂₀ | 16.7 | X | 163.62848 | 331.59460 | 51.81750 | 9.24958 | 0.2974490 | 0.28244871 | 2.3006099 | 20 | 3 27.3 | 20.8 |
| 207000 2004 <i>TX</i> ₂₂₀ | 16.5 | X | 199.26349 | 295.27848 | 84.08342 | 7.24698 | 0.1324611 | 0.28622703 | 2.2803191 | 20 | 4 16.9 | 19.9 |
| 207001 2004 <i>TY</i> ₂₂₂ | 17.0 | X | 183.91615 | 78.59026 | 289.86603 | 5.01667 | 0.1366885 | 0.28169962 | 2.3046866 | 20 | 3 12.6 | 20.4 |
| 207002 2004 <i>TM</i> ₂₃₄ | 17.3 | X | 135.48956 | 28.44276 | 305.98186 | 0.61861 | 0.1895360 | 0.26901340 | 2.3765855 | 20 | — | — |
| 207003 2004 <i>TO</i> ₂₆₉ | 17.2 | X | 117.57930 | 221.48884 | 191.82673 | 4.74961 | 0.1640984 | 0.27580371 | 2.3374158 | 20 | 3 1.9 | 20.3 |
| 207004 2004 <i>TS</i> ₂₆₉ | 17.1 | X | 66.44537 | 97.50087 | 54.05036 | 5.05989 | 0.0936612 | 0.28287305 | 2.2983085 | 20 | 4 29.3 | 19.6 |
| 207005 2004 <i>TG</i> ₂₇₃ | 16.5 | X | 193.80168 | 10.96236 | 17.64585 | 5.52584 | 0.1782828 | 0.28519293 | 2.2858280 | 20 | 4 19.4 | 20.2 |
| 207006 2004 <i>TC</i> ₂₇₄ | 17.2 | X | 340.34616 | 197.11211 | 280.06615 | 1.59974 | 0.1578307 | 0.25930244 | 2.4355571 | 20 | — | — |
| 207007 2004 <i>TE</i> ₂₇₇ | 17.7 | X | 68.99896 | 27.98936 | 52.21780 | 3.49886 | 0.1546511 | 0.26987103 | 2.3715478 | 20 | 1 30.3 | 20.0 |
| 207008 2004 <i>TY</i> ₂₈₂ | 17.1 | X | 179.61433 | 98.01529 | 289.09651 | 7.83610 | 0.0876272 | 0.28432149 | 2.2904975 | 20 | 3 28.7 | 20.5 |
| 207009 2004 <i>TT</i> ₂₈₆ | 16.9 | X | 78.91083 | 210.53173 | 177.78220 | 4.52365 | 0.1518997 | 0.26670527 | 2.3902775 | 20 | — | — |
| 207010 2004 <i>TQ</i> ₃₁₉ | 17.4 | X | 57.24833 | 63.63183 | 29.02262 | 3.47875 | 0.2212420 | 0.27011106 | 2.3701426 | 20 | 2 2.9 | 19.0 |
| 207011 2004 <i>TY</i> ₃₂₀ | 17.4 | X | 136.69381 | 301.15602 | 168.09185 | 2.45160 | 0.0526462 | 0.28931109 | 2.2640847 | 20 | 5 31.7 | 20.1 |
| 207012 2004 <i>TB</i> ₃₂₅ | 17.2 | X | 115.04383 | 159.43875 | 24.05640 | 6.94919 | 0.0936185 | 0.29824730 | 2.2186308 | 20 | 8 26.1 | 20.2 |
| 207013 2004 <i>TC</i> ₃₅₄ | 17.0 | X | 335.35605 | 357.25682 | 33.07562 | 1.30835 | 0.1533946 | 0.24620690 | 2.5211726 | 20 | 11 15.5 | 19.4 |
| 207014 2004 <i>UQ</i> ₈ | 16.9 | X | 222.54734 | 346.92796 | 14.25393 | 7.24261 | 0.1365744 | 0.28623888 | 2.2802561 | 20 | 4 12.6 | 20.1 |
| 207015 2004 <i>VE</i> ₂ | 16.8 | X | 97.75321 | 348.91313 | 65.76952 | 5.59589 | 0.2454297 | 0.27108757 | 2.3644474 | 20 | 2 26.9 | 19.6 |
| 207016 2004 <i>VZ</i> ₅ | 17.4 | X | 359.55968 | 320.22797 | 137.90308 | 2.08339 | 0.1368634 | 0.26008111 | 2.4306933 | 20 | — | — |
| 207017 2004 <i>VB</i> ₆ | 16.4 | X | 9.83646 | 282.21059 | 80.02056 | 3.71440 | 0.0586275 | 0.24774150 | 2.5107504 | 20 | 11 23.9 | 19.5 |
| 207018 2004 <i>VH</i> ₈ | 16.7 | X | 103.63566 | 339.11955 | 77.97435 | 6.19225 | 0.1549672 | 0.27275116 | 2.3548232 | 20 | 2 23.7 | 19.6 |
| 207019 2004 <i>VY</i> ₁₂ | 16.7 | X | 269.21508 | 134.34922 | 190.03456 | 4.30039 | 0.2042144 | 0.28918190 | 2.2647589 | 20 | 4 7.4 | 19.9 |
| 207020 2004 <i>VX</i> ₁₄ | 16.9 | X | 104.24064 | 342.86051 | 316.87486 | 5.27105 | 0.2450114 | 0.32144296 | 2.1105717 | 20 | — | — |
| 207021 2004 <i>VQ</i> ₂₃ | 15.5 | X | 251.89069 | 285.56010 | 68.98072 | 13.50835 | 0.1700302 | 0.22606657 | 2.6687741 | 20 | 5 7.5 | 19.6 |
| 207022 2004 <i>VQ</i> ₂₈ | 16.7 | X | 141.18528 | 353.35565 | 41.55023 | 3.66165 | 0.1745486 | 0.27591590 | 2.3367822 | 20 | 3 11.1 | 20.1 |
| 207023 2004 <i>VS</i> ₄₆ | 16.5 | X | 56.81300 | 159.45193 | 82.76850 | 7.02501 | 0.1245645 | 0.29641403 | 2.2277693 | 20 | 9 8.4 | 19.2 |
| 207024 2004 <i>VX</i> ₄₇ | 17.4 | X | 51.47785 | 338.99385 | 135.11678 | 3.05084 | 0.1748185 | 0.26979388 | 2.3719998 | 20 | 2 17.2 | 19.3 |
| 207025 2004 <i>VT</i> ₅₇ | 17.0 | X | 301.76806 | 312.49062 | 37.93115 | 5.94449 | 0.1968965 | 0.29855988 | 2.2170820 | 20 | 7 5.5 | 18.9 |
| 207026 2004 <i>VV</i> ₅₇ | 16.4 | X | 227.63846 | 308.76016 | 67.82290 | 6.48505 | 0.1112016 | 0.28630562 | 2.2799018 | 20 | 5 12.3 | 19.4 |
| 207027 2004 <i>VD</i> ₅₉ | 17.2 | X | 343.56791 | 54.25073 | 264.35684 | 5.43851 | 0.2986538 | 0.30364742 | 2.1922479 | 20 | 9 1.7 | 17.6 |
| 207028 2004 <i>VN</i> ₆₀ | 16.7 | X | 125.40815 | 31.38860 | 58.86978 | 7.88294 | 0.0608172 | 0.28061555 | 2.3106184 | 20 | 4 22.5 | 19.6 |
| 207029 2004 <i>VV</i> ₆₃ | 17.2 | X | 114.25574 | 246.85922 | 163.82269 | 2.18623 | 0.1880140 | 0.27294122 | 2.3537299 | 20 | 3 1.8 | 20.3 |
| 207030 2004 <i>VH</i> ₇₇ | 17.6 | X | 71.47696 | 212.88939 | 167.64114 | 0.66095 | 0.2378143 | 0.26276358 | 2.4141223 | 20 | — | — |
| 207031 2004 <i>VG</i> ₈₁ | 16.7 | X | 52.21460 | 156.96214 | 53.11482 | 9.63273 | 0.2579447 | 0.28901014 | 2.2656561 | 20 | 8 6.7 | 19.4 |
| 207032 2 | | | | | | | | | | | | |

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| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 207041 | 2004 | <i>XX</i> ₁₇ | 16.6 ^m | X | 51.08059 | 314.10153 | 160.89970 | 12.88569 | 0.0994197 | 0.26970761 | 2.3725056 | 20 | 2 9.1 | 19.2 |
| 207042 | 2004 | <i>XH</i> ₂₄ | 16.9 | X | 30.18710 | 26.74678 | 83.86066 | 3.57800 | 0.1683520 | 0.26555549 | 2.3971720 | 20 | — | — |
| 207043 | 2004 | <i>XP</i> ₂₄ | 17.3 | X | 175.35483 | 221.33624 | 198.50865 | 2.41024 | 0.1369895 | 0.28442342 | 2.2899490 | 20 | 5 13.3 | 20.6 |
| 207044 | 2004 | <i>XT</i> ₂₇ | 17.1 | X | 338.88995 | 28.61187 | 100.04452 | 3.14699 | 0.1471533 | 0.25778509 | 2.4451051 | 20 | — | — |
| 207045 | 2004 | <i>XA</i> ₃₁ | 17.5 | X | 1.61376 | 353.44151 | 76.19603 | 2.30483 | 0.1690645 | 0.25458905 | 2.4655259 | 20 | — | — |
| 207046 | 2004 | <i>XM</i> ₃₁ | 16.0 | X | 197.24145 | 77.56519 | 98.68463 | 16.36548 | 0.0754972 | 0.23813447 | 2.5778316 | 20 | 11 13.2 | 19.9 |
| 207047 | 2004 | <i>XP</i> ₃₆ | 16.9 | X | 23.26291 | 134.78693 | 298.91483 | 1.84383 | 0.1762625 | 0.25509807 | 2.4622450 | 20 | — | — |
| 207048 | 2004 | <i>XF</i> ₄₀ | 17.4 | X | 80.39288 | 309.62081 | 121.12123 | 2.02486 | 0.1618971 | 0.26832504 | 2.3806483 | 20 | 2 6.1 | 19.7 |
| 207049 | 2004 | <i>XJ</i> ₄₄ | 16.0 | X | 259.48421 | 279.55690 | 89.36948 | 7.12459 | 0.0500826 | 0.22078725 | 2.7111490 | 20 | 6 17.7 | 19.7 |
| 207050 | 2004 | <i>XV</i> ₅₀ | 16.2 | X | 350.23150 | 172.65158 | 314.19446 | 5.87580 | 0.0739699 | 0.25678031 | 2.4514793 | 20 | — | — |
| 207051 | 2004 | <i>XY</i> ₅₀ | 16.0 | X | 120.43472 | 273.20199 | 76.60453 | 9.26983 | 0.1632264 | 0.25898189 | 2.4375664 | 20 | — | — |
| 207052 | 2004 | <i>XK</i> ₅₃ | 16.8 | X | 339.13968 | 119.48487 | 88.68400 | 6.78370 | 0.0726812 | 0.27197406 | 2.3593067 | 20 | 2 27.1 | 19.5 |
| 207053 | 2004 | <i>XR</i> ₅₈ | 16.2 | X | 3.57333 | 122.78453 | 321.65475 | 5.48102 | 0.0999929 | 0.25335991 | 2.4734935 | 20 | — | — |
| 207054 | 2004 | <i>XF</i> ₆₃ | 15.7 | X | 242.44192 | 138.94164 | 3.79259 | 17.23575 | 0.2265661 | 0.23413437 | 2.6071095 | 20 | 10 22.1 | 19.5 |
| 207055 | 2004 | <i>XL</i> ₆₄ | 16.3 | X | 226.87052 | 13.91029 | 303.38545 | 6.72805 | 0.1310409 | 0.27428485 | 2.3460369 | 20 | 2 20.3 | 20.0 |
| 207056 | 2004 | <i>XC</i> ₆₈ | 16.9 | X | 7.43090 | 283.26249 | 174.14499 | 2.13195 | 0.1474296 | 0.25598174 | 2.4565752 | 20 | — | — |
| 207057 | 2004 | <i>XF</i> ₇₄ | 16.4 | X | 37.15987 | 200.61311 | 270.78005 | 7.57169 | 0.1445506 | 0.26475349 | 2.4020106 | 20 | 1 11.9 | 18.6 |
| 207058 | 2004 | <i>XP</i> ₇₄ | 16.1 | X | 265.09682 | 151.58577 | 294.91081 | 14.95160 | 0.1829652 | 0.23574993 | 2.5951851 | 20 | 9 11.1 | 19.7 |
| 207059 | 2004 | <i>XU</i> ₇₇ | 16.6 | X | 29.90938 | 106.23660 | 45.03715 | 1.99072 | 0.1232983 | 0.27102172 | 2.3648303 | 20 | 2 27.3 | 18.7 |
| 207060 | 2004 | <i>XX</i> ₈₃ | 16.6 | X | 50.74394 | 342.28705 | 88.11117 | 7.36389 | 0.0865032 | 0.25927930 | 2.4357020 | 20 | — | — |
| 207061 | 2004 | <i>XA</i> ₈₄ | 16.5 | X | 60.66115 | 159.17058 | 287.71944 | 6.25105 | 0.0843818 | 0.26397565 | 2.4067268 | 20 | 1 17.2 | 19.0 |
| 207062 | 2004 | <i>XD</i> ₈₆ | 17.2 | X | 137.77608 | 262.38062 | 183.60438 | 1.45593 | 0.1913861 | 0.27811407 | 2.3244529 | 20 | 5 13.4 | 20.6 |
| 207063 | 2004 | <i>XD</i> ₉₈ | 15.8 | X | 126.47639 | 121.63333 | 92.52179 | 14.43344 | 0.1954226 | 0.22957333 | 2.6415272 | 20 | 10 18.8 | 20.5 |
| 207064 | 2004 | <i>XS</i> ₉₉ | 17.1 | X | 141.07963 | 295.08589 | 76.65619 | 2.36919 | 0.1957017 | 0.26860903 | 2.3789700 | 20 | 2 12.7 | 20.4 |
| 207065 | 2004 | <i>XX</i> ₁₀₃ | 15.5 | X | 247.39495 | 136.67550 | 304.61926 | 21.42361 | 0.1465767 | 0.23146463 | 2.6271183 | 20 | 8 18.7 | 19.5 |
| 207066 | 2004 | <i>XV</i> ₁₀₄ | 16.7 | X | 9.29913 | 111.83540 | 16.26774 | 2.89566 | 0.1547016 | 0.26191605 | 2.4193274 | 20 | — | — |
| 207067 | 2004 | <i>XW</i> ₁₀₉ | 16.2 | X | 326.67196 | 126.82922 | 28.84740 | 4.79988 | 0.1534518 | 0.25670922 | 2.4519319 | 20 | — | — |
| 207068 | 2004 | <i>XG</i> ₁₁₀ | 16.5 | X | 102.47634 | 127.73648 | 309.17050 | 6.63255 | 0.1081396 | 0.27262606 | 2.3555435 | 20 | 3 7.0 | 19.4 |
| 207069 | 2004 | <i>XH</i> ₁₁₂ | 16.8 | X | 267.10795 | 296.47844 | 283.84452 | 3.88863 | 0.1013669 | 0.26253708 | 2.4155106 | 20 | — | — |
| 207070 | 2004 | <i>XE</i> ₁₁₄ | 16.9 | X | 1.07166 | 296.43543 | 44.53294 | 2.34609 | 0.1764066 | 0.24186858 | 2.5512308 | 20 | 10 25.7 | 19.4 |
| 207071 | 2004 | <i>XY</i> ₁₁₈ | 16.6 | X | 314.59000 | 87.12614 | 87.62307 | 2.25981 | 0.1215377 | 0.25793812 | 2.4441378 | 20 | — | — |
| 207072 | 2004 | <i>XX</i> ₁₂₀ | 16.2 | X | 309.40335 | 169.25064 | 280.00179 | 4.43599 | 0.1381924 | 0.24564575 | 2.5250106 | 20 | 12 20.0 | 18.5 |
| 207073 | 2004 | <i>XR</i> ₁₂₆ | 16.1 | X | 173.47716 | 271.91168 | 99.62235 | 13.63770 | 0.2122706 | 0.27816004 | 2.3241967 | 20 | 3 19.4 | 20.1 |
| 207074 | 2004 | <i>XJ</i> ₁₂₈ | 16.8 | X | 123.06795 | 344.79051 | 104.08841 | 2.50127 | 0.2116246 | 0.27657860 | 2.3330479 | 20 | 5 4.9 | 20.2 |
| 207075 | 2004 | <i>XV</i> ₁₃₁ | 16.3 | X | 103.08107 | 83.29105 | 69.07938 | 5.95979 | 0.0472516 | 0.21971992 | 2.7199219 | 20 | 6 14.5 | 20.0 |
| 207076 | 2004 | <i>XS</i> ₁₃₂ | 16.5 | X | 141.42693 | 274.61429 | 87.00872 | 7.62326 | 0.1543125 | 0.26866755 | 2.3786246 | 20 | 1 26.9 | 19.8 |
| 207077 | 2004 | <i>XP</i> ₁₄₀ | 17.0 | X | 12.63555 | 6.57183 | 170.22300 | 2.46999 | 0.1497269 | 0.26801128 | 2.3825060 | 20 | 3 1.0 | 19.1 |
| 207078 | 2004 | <i>XH</i> ₁₄₁ | 16.8 | X | 326.30778 | 275.60264 | 125.74289 | 2.07502 | 0.1328902 | 0.25782266 | 2.4448675 | 20 | — | — |
| 207079 | 2004 | <i>XQ</i> ₁₄₃ | 16.9 | X | 354.70605 | 354.64644 | 323.07042 | 3.27346 | 0.1770252 | 0.29970020 | 2.2114546 | 20 | 9 19.6 | 18.3 |
| 207080 | 2004 | <i>XR</i> ₁₄₇ | 15.6 | X | 341.47229 | 217.78595 | 124.60774 | 12.74226 | 0.2030505 | 0.23008409 | 2.6376165 | 20 | 9 19.7 | 18.1 |
| 207081 | 2004 | <i>XZ</i> ₁₄₇ | 17.2 | X | 63.37957 | 30.15908 | 89.93055 | 4.32698 | 0.1478230 | 0.27308122 | 2.3529254 | 20 | 3 19.2 | 19.5 |
| 207082 | 2004 | <i>XZ</i> ₁₆₀ | 16.8 | X | 279.47522 | 224.34940 | 326.13073 | 5.51928 | 0.0462978 | 0.25573397 | 2.4581616 | 20 | — | — |
| 207083 | 2004 | <i>XA</i> ₁₆₄ | 16.7 | X | 204.27128 | 172.39855 | 204.81325 | 6.00500 | 0.1143762 | 0.28436684 | 2.2902528 | 20 | 4 16.4 | 20.0 |
| 207084 | 2004 | <i>XY</i> ₁₆₅ | 16.4 | X | 349.93989 | 49.04256 | 263.82668 | 6.28948 | 0.0878045 | 0.29877532 | 2.2160161 | 20 | 8 19.7 | 18.5 |
| 207085 | 2004 | <i>XW</i> ₁₆₆ | 17.1 | X | 343.80981 | 12.72515 | 154.24541 | 3.93165 | 0.1124460 | 0.26340389 | 2.4102084 | 20 | — | — |
| 207086 | 2004 | <i>XQ</i> ₁₇₁ | 16.8 | X | 83.31578 | 355.00882 | 66.88084 | 5.09368 | 0.1321947 | 0.27049104 | 2.3679224 | 20 | 1 25.5 | 19.2 |
| 207087 | 2004 | <i>YX</i> ₁₁ | 17.0 | X | 331.20060 | 187.35559 | 342.99386 | 1.71736 | 0.1374519 | 0.25904853 | 2.4371483 | 20 | — | — |
| 207088 | 2004 | <i>YV</i> ₁₃ | 16.7 | X | 185.37160 | 220.11331 | 106.50156 | 3.75147 | 0.2023071 | 0.26589785 | 2.3951139 | 20 | 1 29.0 | 20.6 |
| 207089 | 2004 | <i>YS</i> ₁₇ | 16.9 | X | 334.72634 | 54.86250 | 112.08714 | 3.39500 | 0.1369608 | 0.25901538 | 2.4373563 | 20 | — | — |
| 207090 | 2004 | <i>YW</i> ₂₀ | 17.3 | X | 346.64932 | 131.26091 | 281.66370 | 2.43463 | 0.1202488 | 0.24415075 | 2.5353077 | 20 | — | — |
| 207091 | 2005 | <i>AQ</i> ₁ | 16.5 | X | 29.06552 | 334.84946 | 160.97273 | 2.73146 | 0.1572169 | 0.26318321 | 2.4115555 | 20 | 2 2.0 | 18.3 |
| 207092 | 2005 | <i>AH</i> ₄ | 16.3 | X | 230.39556 | 152.80468 | 46.28866 | 6.09709 | 0.2129414 | 0.24448788 | 2.5329765 | 20 | 12 28.3 | 19.6 |
| 207093 | 2005 | <i>AU</i> ₄ | 16.9 | X | 150.24197 | 45.66039 | 323.07530 | 4.54227 | 0.1864589 | 0.26915888 | 2.3757290 | 20 | 2 16.0 | 20.4 |
| 207094 | 2005 | <i>AS</i> ₅ | 16.0 | X | 300.95584 | 127.31371 | 33.86933 | 3.86566 | 0.1086768 | 0.25259608 | 2.4784775 | 20 | — | — |
| 207095 | 2005 | <i>AR</i> ₆ | 16.8 | X | 269.57744 | 100.37371 | 45.04995 | 5.05539 | 0.1723530 | 0.24320509 | 2.5418755 | 20 | 12 20.9 | 19.4 |
| 207096 | 2005 | <i>AT</i> ₆ | 16.4 | X | 64.19183 | 153.03961 | 359.66740 | 6.70348 | 0.0736362 | 0.27207724 | 2.3587101 | 20 | 4 21.8 | 19.0 |
| 207097 | 2005 | <i>AG</i> ₇ | 16.4 | X | 88.69599 | 82.37714 | 343.75680 | 7.07647 | 0.0648479 | 0.26324158 | 2.4111990 | 20 | 1 31.7 | 19.3 |
| 207098 | 2005 | <i>AY</i> ₇ | 16.2 | X | 239.03432 | 271.60397 | 335.51323 | 5.68197 | 0.0954740 | 0.25452693 | 2.4659271 | 20 | — | — |
| 207099 | 2005 | <i>AS</i> ₁₀ | 15.9 | X | 207.37757 | 50.95969 | 75.98457 | 8.52885 | 0.0393113 | 0.23125059 | 2.6287391 | 20 | 9 24.3 | 19.6 |
| 207100 | 2005 | <i>AK</i> ₁₁ | 16.4 | X | 355.37803 | 236.22437 | 168.74402 | 3.54508 | 0.1934067 | 0.24538388 | 2.5268068 | 20 | — | — |
| 207101 | 2005 | <i>AP</i> ₁₄ | 16.6 | X | 5.38947 | 327.58465 | 158.13700 | 3.22053 | 0.1090989 | 0.25810629 | 2.4430761 | 20 | — | — |
| 207102 | 2005 | <i>AS</i> ₂₀ | 16.7 | X | 98.16303 | 285.02144 | 133.81835 | 6.88343 | 0.1192253 | 0.26531947 | 2.3985934 | 20 | 2 10.9 | 19.6 |
| 207103 | 2005 | <i>AZ</i> ₂₂ | 17.0 | X | 37.54407 | 130.88451 | 41.46089 | 2.71279 | 0.1423102 | 0.27096089 | 2.3651843 | 20 | 4 16.1 | 19.0 |
| 207104 | 2005 | <i>AP</i> ₂₃ | 15.6 | X | 208.64192 | 349.19186 | 122.14127 | 14.43573 | 0.1202983 | 0.22571554 | 2.6715404 | 20 | 8 24.9 | 19.7 |
| 207105 | 2005 | <i>AG</i> ₂₄ | 16.9 | X | 92.56267 | 288.50918 | 159.92582 | 5.58876 | 0.1727134 | 0.26831240 | 2.3807231 | 20 | 3 23.8 | 19.6 |
| 207106 | 2005 | <i>AS</i> ₂₄ | 16.2 | X | 331.36309 | 232.02405 | 174.11550 | 6.61732 | 0.2288359 | 0.24124151 | 2.5556499 | 20 | 12 6.3 | 18.3 |
| 207107 | 2005 | <i>AT</i> ₂₄ | 16.0 | X | 286.29888 | 180.78642 | 267.22641 | 7.94665 | 0.1293031 | 0.23813713 | 2.5778124 | 20 | 11 1.6 | 19.0 |
| 207108 | 2005 | <i>AZ</i> ₂₆ | 16.6 | X | 14.41283 | 357.06632 | 43.05438 | 4.27259 | 0.0821385 | 0.24542364 | 2.5265339 | 20 | — | — |
| 207109 | 2005 | Stürmenchopf | 16.7 | X | 65.41474 | 283.16941 | 99.98493 | 3.75119 | 0.1501593 | 0. | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207121 2005 AT ₅₈ | 16.5 | X | 330.34784 | 329.78363 | 99.85027 | 1.97740 | 0.1051644 | 0.24393762 | 2.5367842 | 20 | 12 28.2 | 19.0 |
| 207122 2005 AA ₅₉ | 16.9 | X | 33.68161 | 304.11196 | 199.27455 | 1.71245 | 0.1543903 | 0.26502193 | 2.4003883 | 20 | 2 23.0 | 18.8 |
| 207123 2005 AY ₆₁ | 16.5 | X | 13.20792 | 27.25333 | 1.98932 | 3.22110 | 0.1895158 | 0.24489892 | 2.5301415 | 20 | — | — |
| 207124 2005 AB ₆₂ | 15.5 | X | 80.06513 | 327.45623 | 321.19852 | 14.60288 | 0.1243372 | 0.23378869 | 2.6096788 | 20 | 11 19.3 | 19.7 |
| 207125 2005 AX ₆₈ | 16.0 | X | 129.21752 | 312.06668 | 347.41420 | 6.08326 | 0.1667586 | 0.24358466 | 2.5392342 | 20 | — | — |
| 207126 2005 AD ₆₉ | 15.9 | X | 123.90832 | 13.96022 | 43.16186 | 10.00647 | 0.1274443 | 0.20666868 | 2.8332590 | 20 | 3 23.7 | 20.1 |
| 207127 2005 AK ₆₉ | 16.9 | X | 71.98549 | 115.38043 | 17.15256 | 1.59136 | 0.1292372 | 0.27034429 | 2.3687792 | 20 | 4 15.8 | 19.4 |
| 207128 2005 AJ ₇₃ | 16.8 | X | 81.53302 | 324.63858 | 89.69315 | 2.36430 | 0.1727186 | 0.26173354 | 2.4204520 | 20 | 1 18.8 | 19.2 |
| 207129 2005 AV ₇₄ | 16.3 | X | 185.03278 | 99.76684 | 119.60570 | 5.06763 | 0.0652109 | 0.24117296 | 2.5651342 | 20 | 12 19.4 | 19.8 |
| 207130 2005 BW | 16.6 | X | 234.95129 | 156.34199 | 21.10479 | 13.32164 | 0.1985500 | 0.24001926 | 2.5643186 | 20 | 12 4.4 | 20.3 |
| 207131 2005 BM ₄ | 16.6 | X | 310.42709 | 172.07529 | 356.11457 | 2.46990 | 0.0827439 | 0.25632184 | 2.4544017 | 20 | — | — |
| 207132 2005 BU ₅ | 16.3 | X | 94.46188 | 7.43353 | 344.72855 | 4.21905 | 0.2079399 | 0.25484994 | 2.4638430 | 20 | — | — |
| 207133 2005 BE ₆ | 16.5 | X | 2.85073 | 104.37749 | 34.87631 | 2.45587 | 0.1544472 | 0.25971751 | 2.4329615 | 20 | — | — |
| 207134 2005 BO ₇ | 16.6 | X | 259.36343 | 272.64195 | 338.34075 | 4.64603 | 0.0721064 | 0.26082106 | 2.4260939 | 20 | 1 9.7 | 20.0 |
| 207135 2005 BX ₇ | 16.4 | X | 295.04511 | 112.33183 | 91.63027 | 3.27054 | 0.1346295 | 0.25708054 | 2.4495704 | 20 | — | — |
| 207136 2005 BN ₁₁ | 15.2 | X | 155.81289 | 324.03490 | 315.02789 | 14.96449 | 0.2110589 | 0.24344382 | 2.5402135 | 20 | — | — |
| 207137 2005 BC ₁₆ | 16.6 | X | 51.90865 | 28.51240 | 74.01606 | 3.53129 | 0.1604881 | 0.26510991 | 2.4998572 | 20 | 1 31.8 | 18.7 |
| 207138 2005 BO ₁₇ | 16.8 | X | 307.58559 | 57.50116 | 136.19832 | 3.33607 | 0.1334746 | 0.25732726 | 2.4480043 | 20 | — | — |
| 207139 2005 BL ₂₀ | 16.0 | X | 290.56514 | 319.54760 | 109.81431 | 15.75064 | 0.0891191 | 0.23494612 | 2.6011009 | 20 | 10 28.2 | 19.5 |
| 207140 2005 BY ₂₄ | 17.1 | X | 286.07645 | 30.73172 | 178.35657 | 1.35010 | 0.1270840 | 0.25625057 | 2.4548568 | 20 | — | — |
| 207141 2005 BL ₂₇ | 16.1 | X | 264.00227 | 286.20365 | 163.53594 | 13.18297 | 0.2415684 | 0.23653474 | 2.5894414 | 20 | 9 14.2 | 19.4 |
| 207142 2005 BM ₂₉ | 17.1 | X | 349.16761 | 239.77860 | 330.40372 | 2.32720 | 0.0608753 | 0.27042424 | 2.3683123 | 20 | 3 19.2 | 20.0 |
| 207143 2005 CH ₅ | 16.1 | X | 220.12752 | 345.13944 | 135.65708 | 5.37708 | 0.1694525 | 0.22885523 | 2.6470501 | 20 | 9 12.9 | 20.1 |
| 207144 2005 CT ₁₂ | 16.7 | X | 7.55315 | 307.05966 | 162.70034 | 6.36238 | 0.0921070 | 0.25452047 | 2.4659688 | 20 | — | — |
| 207145 2005 CT ₁₃ | 16.7 | X | 233.53005 | 186.43183 | 340.55993 | 8.62998 | 0.0984282 | 0.23859130 | 2.5745400 | 20 | 12 5.0 | 20.3 |
| 207146 2005 CB ₁₅ | 16.8 | X | 0.76507 | 351.73550 | 73.31958 | 1.52143 | 0.0765577 | 0.24604760 | 2.5222606 | 20 | — | — |
| 207147 2005 CV ₁₆ | 16.2 | X | 184.88691 | 262.46733 | 316.08859 | 13.70115 | 0.0345400 | 0.23996157 | 2.5647296 | 20 | 12 22.1 | 19.9 |
| 207148 2005 CH ₁₇ | 17.0 | X | 353.02745 | 183.71494 | 243.26054 | 1.14879 | 0.0815522 | 0.24564323 | 2.5250279 | 20 | — | — |
| 207149 2005 CA ₁₈ | 16.9 | X | 199.93080 | 332.43651 | 275.46305 | 2.00113 | 0.1777491 | 0.24577851 | 2.5241013 | 20 | — | — |
| 207150 2005 CV ₁₉ | 16.7 | X | 351.45457 | 226.79372 | 178.39392 | 5.27212 | 0.2316041 | 0.24460749 | 2.5321507 | 20 | — | — |
| 207151 2005 CB ₂₁ | 16.8 | X | 38.61506 | 124.87345 | 6.77683 | 6.90669 | 0.1238045 | 0.26228679 | 2.4170471 | 20 | 2 17.9 | 19.1 |
| 207152 2005 CT ₂₁ | 16.5 | X | 225.30102 | 131.84835 | 352.27040 | 6.22047 | 0.1800144 | 0.22982203 | 2.6396212 | 20 | 9 19.7 | 20.3 |
| 207153 2005 CF ₂₅ | 15.8 | X | 153.65549 | 191.78005 | 36.22467 | 13.14267 | 0.2465225 | 0.22731453 | 2.6589974 | 20 | 11 16.2 | 20.6 |
| 207154 2005 CQ ₂₅ | 16.9 | X | 61.85639 | 353.22896 | 138.24466 | 1.90183 | 0.1183912 | 0.26734265 | 2.3864768 | 20 | 3 27.9 | 19.3 |
| 207155 2005 CN ₂₆ | 15.9 | X | 106.88502 | 289.36146 | 337.55871 | 13.41965 | 0.0833338 | 0.23270417 | 2.6177807 | 20 | 11 16.7 | 20.1 |
| 207156 2005 CD ₂₇ | 16.6 | X | 271.75790 | 189.18953 | 289.97162 | 0.92729 | 0.1340722 | 0.23749006 | 2.5824926 | 20 | 11 21.9 | 19.5 |
| 207157 2005 CL ₂₈ | 16.9 | X | 343.16621 | 224.96102 | 28.14668 | 2.06605 | 0.1566097 | 0.27110679 | 2.3643356 | 20 | 4 27.8 | 18.9 |
| 207158 2005 CF ₃₄ | 16.8 | X | 6.89323 | 190.86832 | 17.46901 | 2.40796 | 0.1581076 | 0.26830426 | 2.3807712 | 20 | 4 7.7 | 18.7 |
| 207159 2005 CT ₃₆ | 16.4 | X | 243.91600 | 233.97644 | 6.98069 | 2.71425 | 0.1420575 | 0.25154960 | 2.4853466 | 20 | — | — |
| 207160 2005 CQ ₃₈ | 15.4 | X | 344.82115 | 41.17607 | 8.82627 | 12.37453 | 0.2944021 | 0.24328780 | 2.5412994 | 20 | — | — |
| 207161 2005 CT ₄₃ | 16.5 | X | 357.10770 | 37.47503 | 138.45087 | 2.68539 | 0.1089505 | 0.26226263 | 2.4171955 | 20 | 2 4.3 | 18.9 |
| 207162 2005 CH ₄₇ | 17.3 | X | 282.77436 | 325.14516 | 134.97973 | 4.26981 | 0.1069930 | 0.23698415 | 2.5861667 | 20 | 11 18.6 | 20.2 |
| 207163 2005 CW ₄₇ | 16.3 | X | 274.01263 | 330.80317 | 144.49415 | 7.14860 | 0.1620808 | 0.23836300 | 2.5761837 | 20 | 11 19.1 | 19.2 |
| 207164 2005 CY ₄₇ | 16.9 | X | 27.96153 | 217.65188 | 171.60158 | 1.18301 | 0.0716934 | 0.26716893 | 2.3875112 | 20 | 3 27.9 | 19.4 |
| 207165 2005 CZ ₄₇ | 16.5 | X | 329.47433 | 127.90522 | 309.34913 | 4.45029 | 0.1149586 | 0.24220241 | 2.5488860 | 20 | — | — |
| 207166 2005 CV ₅₀ | 15.4 | X | 318.10243 | 349.37443 | 157.92952 | 12.63389 | 0.1226366 | 0.18423937 | 3.0587766 | 20 | — | — |
| 207167 2005 CR ₅₂ | 15.8 | X | 266.14521 | 268.91003 | 127.48396 | 12.83338 | 0.2853141 | 0.22715013 | 2.6602802 | 20 | 6 29.5 | 19.9 |
| 207168 2005 CQ ₅₃ | 16.1 | X | 190.24932 | 116.94738 | 12.86481 | 8.97370 | 0.2463400 | 0.22411588 | 2.6842377 | 20 | 8 24.0 | 20.8 |
| 207169 2005 CO ₅₆ | 16.9 | X | 109.66572 | 258.48509 | 116.19625 | 7.31015 | 0.1115435 | 0.25591763 | 2.4569854 | 20 | — | — |
| 207170 2005 CO ₅₈ | 16.5 | X | 201.95263 | 311.43745 | 254.79607 | 4.50633 | 0.1772016 | 0.23819223 | 2.5774148 | 20 | 12 8.7 | 20.2 |
| 207171 2005 CS ₅₉ | 15.7 | X | 356.87021 | 110.91342 | 286.57718 | 6.60745 | 0.3060246 | 0.24311682 | 2.5424907 | 20 | — | — |
| 207172 2005 CX ₆₂ | 16.6 | X | 348.54645 | 128.54303 | 74.75066 | 4.13992 | 0.0744654 | 0.26418234 | 2.4054714 | 20 | 3 6.1 | 19.2 |
| 207173 2005 CJ ₆₆ | 17.0 | X | 247.33698 | 342.56397 | 134.56185 | 6.07281 | 0.2344182 | 0.23400786 | 2.6080490 | 20 | 10 1.7 | 20.6 |
| 207174 2005 CK ₆₇ | 16.1 | X | 122.46988 | 282.60516 | 331.39184 | 11.17991 | 0.0410752 | 0.23382413 | 2.6094151 | 20 | 11 16.8 | 20.1 |
| 207175 2005 CL ₆₇ | 17.0 | X | 311.25053 | 35.15207 | 155.17269 | 2.41922 | 0.1350652 | 0.25528225 | 2.4610606 | 20 | — | — |
| 207176 2005 CU ₆₇ | 16.9 | X | 12.95693 | 359.22928 | 170.44993 | 3.81048 | 0.0678757 | 0.26487680 | 2.4012651 | 20 | 2 24.2 | 19.4 |
| 207177 2005 CV ₆₈ | 16.0 | X | 338.52199 | 237.13553 | 123.50496 | 12.73186 | 0.1790186 | 0.23177575 | 2.6247668 | 20 | 10 12.5 | 18.7 |
| 207178 2005 CL ₇₆ | 16.0 | X | 102.57052 | 113.98360 | 107.18174 | 6.06559 | 0.1554327 | 0.22523632 | 2.6753284 | 20 | 9 28.4 | 20.2 |
| 207179 2005 CP ₇₈ | 15.9 | X | 290.00763 | 308.00404 | 118.34840 | 10.23853 | 0.1125314 | 0.23419892 | 2.6066304 | 20 | 10 17.4 | 19.1 |
| 207180 2005 EU | 15.9 | X | 287.19908 | 272.81429 | 155.44028 | 14.76205 | 0.1132065 | 0.23084110 | 2.6318469 | 20 | 10 13.4 | 19.1 |
| 207181 2005 EJ ₆ | 16.5 | X | 180.93742 | 42.50448 | 143.52610 | 2.10003 | 0.0788675 | 0.22922459 | 2.6442058 | 20 | 10 31.1 | 20.3 |
| 207182 2005 EB ₁₀ | 16.7 | X | 245.33641 | 342.68535 | 168.29229 | 2.86739 | 0.1095255 | 0.23553023 | 2.5967987 | 20 | 11 29.4 | 19.9 |
| 207183 2005 EU ₁₂ | 15.6 | X | 85.69308 | 248.20644 | 9.45619 | 9.70499 | 0.2292845 | 0.22209864 | 2.7004664 | 20 | 10 27.8 | 20.1 |
| 207184 2005 EZ ₁₄ | 16.3 | X | 42.30280 | 227.82052 | 32.90982 | 1.54315 | 0.2236478 | 0.21461538 | 2.7628809 | 20 | 9 14.4 | 19.7 |
| 207185 2005 EH ₁₆ | 17.0 | X | 356.18249 | 289.18788 | 118.90661 | 1.51553 | 0.1189615 | 0.23943621 | 2.5684799 | 20 | — | — |
| 207186 2005 EQ ₁₈ | 16.8 | X | 155.57964 | 245.12689 | 33.45351 | 1.35068 | 0.1549635 | 0.23749598 | 2.5824497 | 20 | — | — |
| 207187 2005 EE ₂₁ | 16.8 | X | 219.71355 | 70.38113 | 128.01149 | 3.99515 | 0.1173506 | 0.23837210 | 2.5761181 | 20 | 12 26.3 | 20.4 |
| 207188 2005 EK ₂₆ | 15.9 | X | 331.99444 | 355.31191 | 155.21719 | 2.41244 | 0.0919966 | 0.18630287 | 3.0361486 | 20 | — | — |
| 207189 2005 EP ₂₉ | 16.0 | X | 94.83605 | 172.38129 | 58.38068 | 5.12605 | 0.1922316 | 0.21764507 | 2.7371808 | 20 | 10 4.2 | 20.3 |
| 207190 2005 EY ₃₃ | 16.3 | X | 296.62873 | 265.08890 | 163.64991 | 12.11005 | 0.1767234 | 0.23272175 | 2.6176489 | 20 | 10 22.4 | 19.1 |
| 207191 2005 EF ₃₅ | 16.1 | X | 31.23615 | 359.31578 | 190.33529 | 12.89703 | 0.0387466 | 0.26546464 | 2.3977189 | 20 | 4 24.0 | 18.9 |
| 207192 2005 EB ₃₈ | 15.9 | X | 257.09289 | 170.11187 | 203.41016 | 6.72022 | 0.0155985 | 0.21152244 | 2.7897487 | 20 | 6 25.3 | 19.8 |
| 207193 2005 EZ ₃₈ | 16.1 | X | 269.22131 | 134.07294 | 2.53865 | 12.61715 | 0.1116625 | 0.23696884 | 2.5862781 | 20 | 12 13.3 | 19.4 |
| 207194 2005 EB ₄₃ | 16.2 | X | 167.47756 | 157.69421 | 128.55671 | 4.03671 | 0.1020004 | 0.24341288 | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|-------------------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207201 2005 <i>EJ</i> ₅₂ | 16.9 ^m | X | 134.13446 | 117.65196 | 171.91686 | 1.97244 | 0.0542818 | 0.24360998 | 2.5390583 | 20 | — | — |
| 207202 2005 <i>EZ</i> ₅₃ | 16.0 | X | 278.03301 | 284.12518 | 163.53182 | 14.60233 | 0.0429558 | 0.23024595 | 2.6363803 | 20 | 11 3.3 | 19.6 |
| 207203 2005 <i>EN</i> ₆₂ | 16.4 | X | 45.48634 | 320.91808 | 338.08926 | 6.08585 | 0.1935018 | 0.22520494 | 2.6755769 | 20 | 11 1.9 | 20.1 |
| 207204 2005 <i>EX</i> ₆₄ | 16.2 | X | 220.53914 | 341.55216 | 151.09545 | 6.17365 | 0.0524952 | 0.22826852 | 2.6515838 | 20 | 10 13.4 | 19.8 |
| 207205 2005 <i>ED</i> ₆₆ | 16.1 | X | 192.23616 | 166.86795 | 79.12941 | 12.45439 | 0.1379930 | 0.23952201 | 2.5678664 | 20 | — | — |
| 207206 2005 <i>EL</i> ₆₆ | 16.0 | X | 137.25995 | 110.59371 | 122.48816 | 15.23945 | 0.1285527 | 0.22747573 | 2.6577411 | 20 | 11 16.4 | 20.5 |
| 207207 2005 <i>EP</i> ₆₉ | 15.4 | X | 299.03097 | 62.10337 | 336.58776 | 12.23106 | 0.1577173 | 0.22595738 | 2.6696338 | 20 | 9 8.7 | 18.2 |
| 207208 2005 <i>EC</i> ₇₂ | 16.0 | X | 62.97675 | 88.25231 | 142.43958 | 21.72731 | 0.1853153 | 0.27951352 | 2.3166877 | 20 | 9 5.8 | 19.0 |
| 207209 2005 <i>ES</i> ₇₂ | 17.0 | X | 274.26583 | 151.56582 | 13.27606 | 13.14786 | 0.1782244 | 0.24370637 | 2.5383887 | 20 | — | — |
| 207210 2005 <i>EF</i> ₇₄ | 16.4 | X | 190.23665 | 110.42921 | 40.81203 | 2.39432 | 0.0249603 | 0.22570001 | 2.6716629 | 20 | 10 1.1 | 19.9 |
| 207211 2005 <i>EH</i> ₇₆ | 16.3 | X | 258.51704 | 198.45172 | 191.18448 | 3.30101 | 0.2028556 | 0.21730856 | 2.7400059 | 20 | 6 22.3 | 20.3 |
| 207212 2005 <i>EK</i> ₇₆ | 17.0 | X | 234.63647 | 51.37020 | 177.10914 | 4.63819 | 0.2079477 | 0.24334737 | 2.5408847 | 20 | — | — |
| 207213 2005 <i>ES</i> ₇₆ | 16.5 | X | 42.23202 | 111.17868 | 191.49752 | 2.89128 | 0.1077357 | 0.22375612 | 2.6871141 | 20 | 10 23.2 | 19.9 |
| 207214 2005 <i>EF</i> ₇₈ | 16.9 | X | 230.14689 | 117.10173 | 36.89830 | 1.62904 | 0.1494986 | 0.23369329 | 2.6103890 | 20 | 11 6.9 | 20.6 |
| 207215 2005 <i>EF</i> ₈₁ | 17.0 | X | 287.99445 | 35.53674 | 316.24743 | 2.51102 | 0.0604800 | 0.21443405 | 2.7644382 | 20 | 7 1.9 | 20.5 |
| 207216 2005 <i>ED</i> ₈₆ | 16.0 | X | 102.82641 | 114.70941 | 73.94298 | 4.29247 | 0.0515155 | 0.21500448 | 2.7595464 | 20 | 8 3.6 | 19.8 |
| 207217 2005 <i>EK</i> ₈₇ | 16.0 | X | 185.27160 | 304.28402 | 190.53926 | 4.48205 | 0.0559692 | 0.21966884 | 2.7203435 | 20 | 8 29.8 | 19.8 |
| 207218 2005 <i>EG</i> ₈₉ | 16.3 | X | 21.62120 | 324.96900 | 322.22449 | 5.49761 | 0.2143734 | 0.21483378 | 2.7610080 | 20 | 9 13.5 | 19.3 |
| 207219 2005 <i>ED</i> ₉₃ | 15.2 | X | 77.71937 | 264.80171 | 42.03101 | 14.95915 | 0.1203458 | 0.23306660 | 2.6150662 | 20 | 12 10.4 | 19.2 |
| 207220 2005 <i>EY</i> ₉₆ | 16.5 | X | 234.40822 | 306.43743 | 239.84368 | 7.36048 | 0.1534739 | 0.24085421 | 2.5583889 | 20 | 12 24.4 | 19.9 |
| 207221 2005 <i>EE</i> ₁₁₂ | 15.8 | X | 164.89071 | 164.60292 | 11.72559 | 13.92203 | 0.1773164 | 0.22402656 | 2.6849511 | 20 | 9 28.7 | 20.1 |
| 207222 2005 <i>EK</i> ₁₁₃ | 16.0 | X | 210.99643 | 322.83869 | 139.60875 | 5.47916 | 0.0691795 | 0.21950740 | 2.7216772 | 20 | 8 18.2 | 20.0 |
| 207223 2005 <i>EV</i> ₁₁₅ | 16.5 | X | 258.41190 | 52.08511 | 0.72260 | 4.61983 | 0.1071280 | 0.22033154 | 2.7148860 | 20 | 8 7.5 | 20.2 |
| 207224 2005 <i>EW</i> ₁₃₅ | 16.3 | X | 31.75786 | 92.59926 | 216.29407 | 1.73910 | 0.1294865 | 0.22423801 | 2.6832629 | 20 | 10 19.7 | 19.5 |
| 207225 2005 <i>EG</i> ₁₃₅ | 16.3 | X | 188.93782 | 88.33252 | 111.47334 | 3.40116 | 0.0965914 | 0.23134343 | 2.6280357 | 20 | 11 24.7 | 20.2 |
| 207226 2005 <i>EX</i> ₁₄₅ | 16.3 | X | 283.90590 | 79.41117 | 37.47145 | 3.21474 | 0.0514608 | 0.23512200 | 2.5998036 | 20 | 12 16.2 | 19.6 |
| 207227 2005 <i>EL</i> ₁₄₇ | 16.2 | X | 266.16802 | 257.36513 | 31.75736 | 3.96313 | 0.1089825 | 0.19493395 | 2.9458529 | 20 | 3 9.7 | 20.6 |
| 207228 2005 <i>EE</i> ₁₄₉ | 16.2 | X | 58.75586 | 158.57347 | 140.07913 | 4.99379 | 0.2242198 | 0.22036510 | 2.7146104 | 20 | 11 23.3 | 20.3 |
| 207229 2005 <i>EA</i> ₁₅₅ | 15.7 | X | 145.94258 | 150.92693 | 10.96589 | 6.83420 | 0.0453753 | 0.21611827 | 2.7500572 | 20 | 8 22.0 | 19.6 |
| 207230 2005 <i>ED</i> ₁₅₅ | 15.9 | X | 241.50484 | 23.25169 | 14.27898 | 4.88236 | 0.0729960 | 0.21092338 | 2.7950285 | 20 | 6 29.7 | 20.0 |
| 207231 2005 <i>EM</i> ₁₅₅ | 15.8 | X | 298.77447 | 122.26667 | 173.45904 | 2.82513 | 0.0509155 | 0.20145151 | 2.8819672 | 20 | 5 4.6 | 19.6 |
| 207232 2005 <i>EN</i> ₁₅₆ | 16.2 | X | 239.32405 | 97.90428 | 43.77769 | 9.45093 | 0.1346502 | 0.23562846 | 2.5960769 | 20 | 11 5.1 | 19.7 |
| 207233 2005 <i>EC</i> ₁₅₉ | 16.9 | X | 100.29643 | 172.67598 | 353.85062 | 1.90566 | 0.0085475 | 0.20994063 | 2.8037442 | 20 | 6 24.2 | 20.7 |
| 207234 2005 <i>EH</i> ₁₅₉ | 16.0 | X | 254.46458 | 9.03946 | 1.67867 | 4.17131 | 0.0876088 | 0.21007909 | 2.8025121 | 20 | 6 7.4 | 20.0 |
| 207235 2005 <i>EB</i> ₁₆₃ | 16.4 | X | 355.29693 | 255.82389 | 60.71816 | 1.92761 | 0.0651625 | 0.21717768 | 2.7411065 | 20 | 8 26.7 | 19.7 |
| 207236 2005 <i>EG</i> ₁₆₃ | 16.1 | X | 253.58636 | 352.69856 | 172.75577 | 14.43275 | 0.0525519 | 0.23767905 | 2.5811234 | 20 | — | — |
| 207237 2005 <i>EE</i> ₁₆₆ | 16.2 | X | 334.24048 | 334.41607 | 341.35020 | 4.41260 | 0.0718036 | 0.21364352 | 2.7712534 | 20 | 7 22.3 | 19.5 |
| 207238 2005 <i>EE</i> ₁₆₈ | 16.2 | X | 159.70381 | 158.06747 | 232.45481 | 8.08831 | 0.1019960 | 0.19776097 | 2.9177113 | 20 | 3 22.6 | 20.5 |
| 207239 2005 <i>EJ</i> ₁₆₈ | 16.6 | X | 34.57384 | 346.01018 | 349.23065 | 2.06973 | 0.1037897 | 0.22799377 | 2.6537137 | 20 | 11 23.6 | 20.1 |
| 207240 2005 <i>EB</i> ₁₆₉ | 15.7 | X | 184.17065 | 124.73299 | 97.30400 | 14.17001 | 0.2169622 | 0.22946906 | 2.6423273 | 20 | 12 7.7 | 20.0 |
| 207241 2005 <i>EJ</i> ₁₇₂ | 16.1 | X | 215.03361 | 353.32615 | 107.35149 | 4.06348 | 0.0699231 | 0.22311626 | 2.6922491 | 20 | 8 21.9 | 19.8 |
| 207242 2005 <i>EJ</i> ₁₈₀ | 16.4 | X | 24.96014 | 147.05905 | 216.99959 | 3.26566 | 0.1179479 | 0.23383873 | 2.6093064 | 20 | 12 21.9 | 19.7 |
| 207243 2005 <i>EU</i> ₁₈₃ | 16.6 | X | 297.79433 | 7.11951 | 355.17992 | 4.09967 | 0.0823067 | 0.21534402 | 2.7566450 | 20 | 7 28.9 | 20.1 |
| 207244 2005 <i>EH</i> ₁₈₄ | 16.5 | X | 91.92970 | 294.28692 | 4.36138 | 1.82416 | 0.1884719 | 0.22822386 | 2.6519298 | 20 | 12 20.9 | 20.7 |
| 207245 2005 <i>ER</i> ₁₉₈ | 16.5 | X | 174.46769 | 27.81068 | 209.87858 | 2.01173 | 0.1404299 | 0.23249395 | 2.6193585 | 20 | 12 21.9 | 20.5 |
| 207246 2005 <i>EN</i> ₂₀₉ | 15.8 | X | 235.53091 | 148.49703 | 330.79047 | 21.83990 | 0.0926685 | 0.23370974 | 2.6102665 | 20 | 9 26.7 | 19.8 |
| 207247 2005 <i>EO</i> ₂₁₁ | 15.8 | X | 347.12192 | 128.75527 | 71.13674 | 3.10248 | 0.0620092 | 0.19839960 | 2.9114468 | 20 | 3 8.4 | 19.5 |
| 207248 2005 <i>EN</i> ₂₁₃ | 16.8 | X | 252.34984 | 274.97286 | 166.66625 | 2.95788 | 0.0512325 | 0.22300183 | 2.6931699 | 20 | 9 14.7 | 20.4 |
| 207249 2005 <i>EF</i> ₂₁₇ | 16.3 | X | 101.51536 | 56.68093 | 159.23876 | 4.91323 | 0.0569428 | 0.21954003 | 2.7214075 | 20 | 9 7.0 | 20.2 |
| 207250 2005 <i>EC</i> ₂₁₈ | 15.5 | X | 164.98061 | 103.97160 | 174.23788 | 13.04429 | 0.2137630 | 0.23273471 | 2.6175518 | 20 | — | — |
| 207251 2005 <i>EC</i> ₂₂₂ | 16.9 | X | 284.02044 | 39.61548 | 108.08460 | 4.75026 | 0.1173756 | 0.24315795 | 2.5422040 | 20 | — | — |
| 207252 2005 <i>EY</i> ₂₃₁ | 16.8 | X | 302.31520 | 302.37914 | 137.5126 | 2.80023 | 0.0892592 | 0.23505481 | 2.6002990 | 20 | 11 23.4 | 19.8 |
| 207253 2005 <i>EC</i> ₂₃₄ | 16.6 | X | 261.86074 | 38.08614 | 152.42542 | 13.35723 | 0.2297548 | 0.24269754 | 2.5454181 | 20 | — | — |
| 207254 2005 <i>EX</i> ₂₄₂ | 15.3 | X | 44.98168 | 206.80537 | 122.18326 | 14.20535 | 0.1854016 | 0.22855054 | 2.6494021 | 20 | 12 12.9 | 19.2 |
| 207255 2005 <i>EJ</i> ₂₄₃ | 16.0 | X | 159.15196 | 41.71503 | 79.27177 | 8.95495 | 0.1607488 | 0.21602020 | 2.7508895 | 20 | 7 15.8 | 20.5 |
| 207256 2005 <i>EL</i> ₂₄₇ | 16.7 | X | 37.39145 | 337.55763 | 16.31222 | 1.80822 | 0.1290831 | 0.23207287 | 2.6225260 | 20 | 12 26.3 | 20.3 |
| 207257 2005 <i>EH</i> ₂₄₈ | 17.0 | X | 178.11923 | 50.58193 | 162.07207 | 1.13218 | 0.0601266 | 0.23196229 | 2.6233594 | 20 | 12 1.5 | 20.7 |
| 207258 2005 <i>EW</i> ₂₅₀ | 16.4 | X | 229.01824 | 99.46509 | 98.92667 | 9.51313 | 0.1963868 | 0.23779983 | 2.5802494 | 20 | 12 26.3 | 20.0 |
| 207259 2005 <i>EZ</i> ₂₅₀ | 16.0 | X | 299.88874 | 258.44744 | 220.27698 | 10.61398 | 0.1243053 | 0.24433494 | 2.5340334 | 20 | — | — |
| 207260 2005 <i>ES</i> ₂₅₁ | 15.8 | X | 243.18677 | 68.96490 | 36.26258 | 22.31332 | 0.0700262 | 0.22564251 | 2.6721168 | 20 | 10 8.9 | 19.6 |
| 207261 2005 <i>EP</i> ₂₅₃ | 16.4 | X | 134.42871 | 113.87347 | 150.80895 | 5.36650 | 0.1330050 | 0.23166327 | 2.6256163 | 20 | 12 17.4 | 20.5 |
| 207262 2005 <i>ER</i> ₂₅₆ | 15.8 | X | 206.91648 | 279.70144 | 321.96841 | 10.51708 | 0.2422423 | 0.23891549 | 2.5722105 | 20 | — | — |
| 207263 2005 <i>EO</i> ₂₆₀ | 15.7 | X | 70.46103 | 208.37874 | 43.78545 | 5.33870 | 0.1053998 | 0.21535322 | 2.7565665 | 20 | 9 24.0 | 19.5 |
| 207264 2005 <i>EW</i> ₂₆₆ | 16.1 | X | 277.95050 | 67.60781 | 357.99530 | 5.26658 | 0.0530542 | 0.22208666 | 2.7005635 | 20 | 9 27.5 | 19.7 |
| 207265 2005 <i>EQ</i> ₂₇₁ | 16.5 | X | 223.91611 | 346.58607 | 153.34471 | 3.48531 | 0.0372454 | 0.22781017 | 2.6551393 | 20 | 10 28.2 | 20.0 |
| 207266 2005 <i>EX</i> ₂₇₁ | 15.9 | X | 24.86479 | 33.24346 | 352.53969 | 14.73690 | 0.1390444 | 0.23904093 | 2.5713106 | 20 | — | — |
| 207267 2005 <i>EK</i> ₂₈₀ | 15.8 | X | 127.77297 | 170.25820 | 31.46943 | 14.04631 | 0.0793844 | 0.22015959 | 2.7162994 | 20 | 9 26.1 | 19.9 |
| 207268 2005 <i>EH</i> ₂₈₁ | 16.3 | X | 252.27692 | 6.56801 | 117.99720 | 4.85608 | 0.0819694 | 0.23139717 | 2.6276288 | 20 | 11 8.9 | 19.7 |
| 207269 2005 <i>EU</i> ₂₈₈ | 16.1 | X | 119.47339 | 214.23553 | 328.20522 | 4.01390 | 0.0640733 | 0.21575310 | 2.7531593 | 20 | 8 16.2 | 20.1 |
| 207270 2005 <i>EA</i> ₂₉₃ | 15.8 | X | 130.71375 | 109.78700 | 40.33794 | 13.35998 | 0.1214721 | 0.21136112 | 2.7911680 | 20 | 7 25.9 | 20.3 |
| 207271 2005 <i>ER</i> ₃₀₇ | 16.8 | X | 208.38520 | 291.91311 | 173.35804 | 4.83360 | 0.068 | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020
ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207281 2005 <i>GT</i> ₂ | 16.1 | X | 68.30606 | 232.64474 | 44.35692 | 4.03872 | 0.0813349 | 0.22048393 | 2.7136349 | 20 | 10 19.2 | 19.7 |
| 207282 2005 <i>GO</i> ₅ | 16.3 | X | 109.40427 | 26.95212 | 153.85115 | 5.13397 | 0.0086514 | 0.21026178 | 2.8008885 | 20 | 7 24.8 | 20.1 |
| 207283 2005 <i>GC</i> ₈ | 15.9 | X | 265.44610 | 72.77098 | 113.40549 | 5.26849 | 0.1728039 | 0.23960343 | 2.5672847 | 20 | — | — |
| 207284 2005 <i>GV</i> ₁₁ | 15.2 | X | 220.09823 | 130.31233 | 72.48471 | 11.15022 | 0.0762433 | 0.17011579 | 3.2258163 | 20 | 12 20.8 | 19.9 |
| 207285 2005 <i>GE</i> ₁₂ | 15.5 | X | 325.12272 | 275.36731 | 60.59379 | 6.96955 | 0.0563062 | 0.21322858 | 2.7748474 | 20 | 8 7.6 | 19.1 |
| 207286 2005 <i>GZ</i> ₁₂ | 15.2 | X | 77.19124 | 116.86136 | 103.79964 | 5.73829 | 0.0477160 | 0.21184240 | 2.7869389 | 20 | 8 12.3 | 18.9 |
| 207287 2005 <i>GN</i> ₁₃ | 15.8 | X | 202.40625 | 78.08711 | 66.48434 | 13.64614 | 0.2093930 | 0.22441974 | 2.6818142 | 20 | 9 27.6 | 20.4 |
| 207288 2005 <i>GJ</i> ₁₄ | 16.4 | X | 174.34649 | 2.06510 | 165.92620 | 7.37223 | 0.0655904 | 0.22636387 | 2.6664369 | 20 | 10 1.7 | 20.2 |
| 207289 2005 <i>GY</i> ₂₂ | 15.5 | X | 100.20340 | 180.78942 | 46.32511 | 13.80546 | 0.0613233 | 0.21858153 | 2.7293574 | 20 | 9 26.9 | 19.6 |
| 207290 2005 <i>GT</i> ₂₄ | 16.2 | X | 105.04010 | 285.37568 | 356.36866 | 3.97663 | 0.1500010 | 0.22785256 | 2.6548100 | 20 | 12 9.9 | 20.4 |
| 207291 2005 <i>GK</i> ₂₇ | 15.5 | X | 346.44529 | 54.85690 | 221.05087 | 7.38144 | 0.1324625 | 0.20491916 | 2.8493623 | 20 | 6 12.3 | 18.6 |
| 207292 2005 <i>GJ</i> ₂₈ | 16.1 | X | 157.52286 | 125.32603 | 16.03206 | 4.71161 | 0.0932816 | 0.21449048 | 2.7639533 | 20 | 8 8.9 | 20.4 |
| 207293 2005 <i>GW</i> ₃₀ | 16.4 | X | 218.88080 | 337.16612 | 47.26240 | 2.84673 | 0.0825234 | 0.20280342 | 2.8691452 | 20 | 5 15.7 | 20.6 |
| 207294 2005 <i>GZ</i> ₃₂ | 15.7 | X | 85.85618 | 216.92715 | 30.17066 | 12.39210 | 0.1512129 | 0.21667013 | 2.7453856 | 20 | 10 10.9 | 19.7 |
| 207295 2005 <i>GH</i> ₃₅ | 15.7 | X | 217.06888 | 188.14785 | 344.88741 | 13.34070 | 0.1143084 | 0.23051319 | 2.6343422 | 20 | 11 15.0 | 19.8 |
| 207296 2005 <i>GJ</i> ₃₈ | 15.8 | X | 145.11811 | 201.69554 | 3.02904 | 10.34950 | 0.1283903 | 0.22166965 | 2.7039494 | 20 | 10 12.4 | 20.1 |
| 207297 2005 <i>GU</i> ₃₈ | 16.0 | X | 157.43577 | 312.56480 | 181.32565 | 4.42001 | 0.0120905 | 0.21329617 | 2.7742612 | 20 | 7 25.4 | 19.9 |
| 207298 2005 <i>GF</i> ₄₃ | 16.3 | X | 162.94598 | 235.26336 | 308.20393 | 7.31865 | 0.2669409 | 0.22348591 | 2.6892795 | 20 | 9 29.6 | 21.2 |
| 207299 2005 <i>GR</i> ₄₅ | 16.1 | X | 144.84431 | 137.01693 | 37.02433 | 8.51831 | 0.2319652 | 0.21779563 | 2.7359192 | 20 | 9 11.7 | 20.9 |
| 207300 2005 <i>GA</i> ₄₈ | 15.8 | X | 128.80308 | 90.14019 | 120.11665 | 12.86921 | 0.1389345 | 0.22051165 | 2.7134075 | 20 | 10 11.5 | 20.3 |
| 207301 2005 <i>GD</i> ₅₀ | 16.4 | X | 233.77030 | 212.80370 | 189.61475 | 4.14022 | 0.0709314 | 0.20862216 | 2.8155447 | 20 | 6 26.3 | 20.5 |
| 207302 2005 <i>GX</i> ₅₀ | 15.5 | X | 176.86935 | 52.51912 | 86.21964 | 6.11714 | 0.0669794 | 0.21566658 | 2.7538957 | 20 | 8 28.1 | 19.6 |
| 207303 2005 <i>GX</i> ₅₁ | 16.0 | X | 222.55492 | 39.14672 | 34.76866 | 13.96578 | 0.1298616 | 0.21126890 | 2.7919802 | 20 | 7 21.9 | 20.5 |
| 207304 2005 <i>GK</i> ₅₆ | 16.3 | X | 232.76277 | 158.21910 | 315.67611 | 0.88376 | 0.0410946 | 0.22440497 | 2.6819318 | 20 | 10 2.8 | 19.9 |
| 207305 2005 <i>GN</i> ₅₆ | 16.4 | X | 103.36251 | 353.00520 | 196.38728 | 5.60128 | 0.0723174 | 0.21341332 | 2.7732458 | 20 | 8 4.7 | 20.4 |
| 207306 2005 <i>GP</i> ₅₆ | 16.1 | X | 182.88796 | 218.94277 | 185.04996 | 5.62730 | 0.0577152 | 0.19968272 | 2.8989611 | 20 | 5 2.7 | 20.3 |
| 207307 2005 <i>GQ</i> ₆₄ | 15.7 | X | 114.79803 | 183.26474 | 122.04994 | 16.78929 | 0.2649143 | 0.23080978 | 2.6320850 | 20 | — | — |
| 207308 2005 <i>GC</i> ₇₀ | 16.6 | X | 16.65652 | 1.07055 | 233.01938 | 1.13737 | 0.0343700 | 0.20416121 | 2.8564101 | 20 | 6 3.0 | 20.2 |
| 207309 2005 <i>GL</i> ₇₇ | 15.7 | X | 235.91948 | 38.49605 | 52.83369 | 11.08640 | 0.0571258 | 0.22116673 | 2.7080469 | 20 | 9 11.1 | 19.6 |
| 207310 2005 <i>GZ</i> ₇₇ | 15.5 | X | 159.51804 | 47.98162 | 151.38542 | 13.67183 | 0.1903204 | 0.22398361 | 2.6852943 | 20 | 10 24.7 | 20.2 |
| 207311 2005 <i>GA</i> ₈₀ | 15.5 | X | 251.37489 | 127.76008 | 107.24897 | 7.64084 | 0.2370509 | 0.17776581 | 3.1325924 | 20 | — | — |
| 207312 2005 <i>GU</i> ₈₁ | 16.6 | X | 348.74510 | 325.72725 | 44.55507 | 2.16766 | 0.0354762 | 0.22970616 | 2.6405088 | 20 | 10 28.7 | 19.7 |
| 207313 2005 <i>GB</i> ₉₄ | 16.3 | X | 263.85941 | 327.68277 | 42.41394 | 3.18389 | 0.0986667 | 0.21000079 | 2.8032086 | 20 | 6 17.2 | 20.2 |
| 207314 2005 <i>GP</i> ₉₄ | 16.8 | X | 220.11983 | 32.88498 | 60.23144 | 3.04972 | 0.0940164 | 0.21626818 | 2.7487862 | 20 | 8 14.9 | 20.8 |
| 207315 2005 <i>GB</i> ₉₅ | 15.7 | X | 324.45756 | 43.46504 | 83.75324 | 2.68205 | 0.1378205 | 0.17704070 | 3.1411401 | 20 | — | — |
| 207316 2005 <i>GN</i> ₉₆ | 16.3 | X | 164.28039 | 331.66272 | 42.23269 | 4.07367 | 0.1382694 | 0.19028050 | 2.9936879 | 20 | 3 11.9 | 21.1 |
| 207317 2005 <i>GN</i> ₉₈ | 16.6 | X | 350.04893 | 181.55612 | 50.77332 | 2.74545 | 0.0484363 | 0.19643051 | 2.9308713 | 20 | 4 23.6 | 20.3 |
| 207318 2005 <i>GW</i> ₁₀₃ | 15.7 | X | 152.29018 | 100.64303 | 94.18500 | 14.29323 | 0.1217849 | 0.22263522 | 2.6961257 | 20 | 10 16.6 | 20.2 |
| 207319 Eugeniemar | 15.7 | X | 179.13967 | 151.87834 | 29.15354 | 13.69227 | 0.1017130 | 0.22332648 | 2.6905593 | 20 | 10 20.1 | 19.6 |
| 207320 2005 <i>GJ</i> ₁₁₀ | 16.4 | X | 246.88464 | 119.31910 | 234.00472 | 1.31851 | 0.0660928 | 0.19932729 | 2.9024063 | 20 | 5 9.9 | 20.6 |
| 207321 Crawshaw | 15.8 | X | 129.74968 | 326.59834 | 216.17865 | 7.14550 | 0.1579619 | 0.21489681 | 2.7604681 | 20 | 8 31.2 | 20.3 |
| 207322 2005 <i>GY</i> ₁₁₁ | 15.9 | X | 23.32517 | 217.22685 | 70.49935 | 10.85537 | 0.0730724 | 0.21577674 | 2.7529583 | 20 | 9 5.2 | 19.6 |
| 207323 2005 <i>GQ</i> ₁₁₉ | 15.7 | X | 184.21533 | 259.71135 | 327.47411 | 10.89821 | 0.1954926 | 0.23104849 | 2.6302718 | 20 | 12 13.9 | 20.1 |
| 207324 2005 <i>GV</i> ₁₃₀ | 15.7 | X | 117.49743 | 182.29906 | 160.60267 | 6.52582 | 0.1874852 | 0.17207338 | 3.2013040 | 20 | — | — |
| 207325 2005 <i>GC</i> ₁₃₂ | 16.3 | X | 345.52092 | 107.17252 | 89.54756 | 3.34204 | 0.0363337 | 0.19143229 | 2.9816677 | 20 | 3 5.1 | 20.2 |
| 207326 2005 <i>GK</i> ₁₃₅ | 15.7 | X | 168.91030 | 281.60000 | 68.57898 | 7.73718 | 0.1893359 | 0.18345547 | 3.0674837 | 20 | 2 22.0 | 20.9 |
| 207327 2005 <i>GE</i> ₁₄₀ | 17.1 | X | 233.17886 | 159.75039 | 34.66889 | 0.95407 | 0.0503558 | 0.23456232 | 2.6039374 | 20 | — | — |
| 207328 2005 <i>GH</i> ₁₄₅ | 16.2 | X | 97.22117 | 200.00593 | 274.73676 | 1.03873 | 0.0414273 | 0.19739132 | 2.9213529 | 20 | 4 17.6 | 20.3 |
| 207329 2005 <i>GW</i> ₁₄₇ | 16.5 | X | 205.70508 | 263.21596 | 2.93420 | 4.83737 | 0.2071086 | 0.23996886 | 2.5646777 | 20 | — | — |
| 207330 2005 <i>GS</i> ₁₄₇ | 16.4 | X | 65.12034 | 306.07308 | 310.89775 | 2.42200 | 0.0340748 | 0.21601658 | 2.7509202 | 20 | 9 9.9 | 20.0 |
| 207331 2005 <i>GH</i> ₁₅₇ | 16.4 | X | 237.69785 | 252.33387 | 29.66547 | 3.41073 | 0.1633410 | 0.25334756 | 2.4735739 | 20 | 1 21.8 | 20.4 |
| 207332 2005 <i>GA</i> ₁₆₂ | 16.2 | X | 292.98141 | 117.40590 | 215.54043 | 1.33658 | 0.1031748 | 0.20272336 | 2.8699006 | 20 | 6 6.6 | 20.0 |
| 207333 2005 <i>GL</i> ₁₇₂ | 16.3 | X | 164.51976 | 114.91491 | 188.84923 | 3.51044 | 0.0747915 | 0.22189535 | 2.7021155 | 20 | 10 10.1 | 20.2 |
| 207334 2005 <i>GN</i> ₁₈₁ | 16.2 | X | 6.54797 | 248.54689 | 162.15228 | 8.42072 | 0.1478846 | 0.24004881 | 2.5641082 | 20 | — | — |
| 207335 2005 <i>GD</i> ₂₀₉ | 15.1 | X | 208.44627 | 172.33991 | 117.75962 | 18.39718 | 0.1653455 | 0.17913065 | 3.1166601 | 20 | 1 13.8 | 20.2 |
| 207336 2005 <i>GV</i> ₂₂₅ | 15.6 | X | 206.19722 | 214.70922 | 78.42984 | 2.08657 | 0.0496947 | 0.18874339 | 3.0099195 | 20 | 1 14.6 | 19.9 |
| 207337 2005 <i>HB</i> ₂ | 16.4 | X | 59.97728 | 218.82164 | 104.47763 | 3.84851 | 0.1121731 | 0.22250732 | 2.6971588 | 20 | 12 10.5 | 20.1 |
| 207338 2005 <i>HG</i> ₂ | 15.8 | X | 74.28373 | 140.51180 | 147.80936 | 5.60255 | 0.1411283 | 0.22049900 | 2.7135113 | 20 | 11 17.7 | 19.8 |
| 207339 2005 <i>HQ</i> ₃ | 15.6 | X | 185.65535 | 264.13410 | 343.46326 | 3.02047 | 0.2283589 | 0.23292097 | 2.6161561 | 20 | — | — |
| 207340 2005 <i>JQ</i> ₂ | 16.4 | X | 176.42052 | 99.56008 | 54.52060 | 4.14339 | 0.1340605 | 0.21793560 | 2.7347477 | 20 | 9 13.4 | 20.7 |
| 207341 Isabelmartin | 16.4 | X | 328.23513 | 315.19329 | 229.46345 | 0.49583 | 0.1392347 | 0.18460008 | 3.0547907 | 20 | 1 13.6 | 20.2 |
| 207342 2005 <i>JU</i> ₂₂ | 17.1 | X | 284.23360 | 123.51289 | 33.79687 | 3.24294 | 0.1113750 | 0.23927926 | 2.5696029 | 20 | — | — |
| 207343 2005 <i>JG</i> ₂₆ | 15.7 | X | 280.60233 | 191.01225 | 94.83884 | 8.16597 | 0.2140066 | 0.18904515 | 3.0067156 | 20 | 3 11.6 | 20.3 |
| 207344 2005 <i>JQ</i> ₂₉ | 15.9 | X | 218.27670 | 53.86719 | 177.67698 | 3.44693 | 0.1767695 | 0.23594953 | 2.5937212 | 20 | — | — |
| 207345 2005 <i>JX</i> ₃₀ | 15.9 | X | 72.89442 | 86.98872 | 3.65143 | 1.66911 | 0.0798014 | 0.19124874 | 2.9835753 | 20 | 2 22.3 | 19.6 |
| 207346 2005 <i>JV</i> ₃₂ | 15.3 | X | 91.74364 | 186.67835 | 220.91824 | 5.52678 | 0.1380201 | 0.18014399 | 3.1049613 | 20 | 2 1.5 | 19.5 |
| 207347 2005 <i>JW</i> ₃₅ | 16.1 | X | 225.70660 | 154.69715 | 139.98308 | 6.27972 | 0.0460013 | 0.18129238 | 3.0918353 | 20 | 2 7.2 | 20.7 |
| 207348 2005 <i>JD</i> ₄₈ | 15.3 | X | 198.60192 | 167.48586 | 109.79144 | 7.48793 | 0.0980959 | 0.17314655 | 3.1880624 | 20 | — | — |
| 207349 2005 <i>JE</i> ₅₄ | 15.3 | X | 201.55204 | 154.35848 | 120.16165 | 6.29493 | 0.0985489 | 0.17434398 | 3.1734482 | 20 | — | — |
| 207350 2005 <i>JH</i> ₅₉ | 16.4 | X | 339.41197 | 272.28847 | 359.93883 | 2.75763 | 0.1641723 | 0.20270187 | 2.8701034 | 20 | 5 21.1 | 19.4 |
| 207351 2005 <i>JP</i> ₆₈ | 15.9 | X | 180.79177 | 115.04389 | 86.38244 | 13.72959 | 0.1264993 | 0.22541307 | 2.6739297 | 20 | 11 17.3 | 20.1 |
| 207352 2005 <i>JT</i> ₆₉ | 16.6 | X | 354.86899 | 180.28017 | 144.00010 | 2.41396 | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|--------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 207361 | 2005 | <i>JW</i> ₁₄₅ | 15.6 | X | 4.04338 | 304.88789 | 242.32383 | 8.46527 | 0.0296995 | 0.18963000 | 3.0005303 | 20 | 3 12.8 | 19.8 |
| 207362 | 2005 | <i>JE</i> ₁₄₇ | 15.2 | X | 195.62969 | 222.17306 | 134.19945 | 17.50988 | 0.1324290 | 0.18576501 | 3.0420062 | 20 | 3 22.9 | 20.3 |
| 207363 | 2005 | <i>JE</i> ₁₄₈ | 16.2 | X | 176.51785 | 29.34353 | 163.86223 | 14.03599 | 0.0355083 | 0.22129480 | 2.7070020 | 20 | 11 8.5 | 20.2 |
| 207364 | 2005 | <i>JR</i> ₁₆₂ | 16.1 | X | 332.29137 | 203.75176 | 166.60821 | 5.70762 | 0.0568674 | 0.21441107 | 2.7646357 | 20 | 10 3.3 | 19.5 |
| 207365 | 2005 | <i>JJ</i> ₁₆₃ | 16.0 | X | 183.00996 | 243.66648 | 336.93207 | 3.97122 | 0.1529462 | 0.22919927 | 2.6444005 | 20 | 12 7.6 | 20.1 |
| 207366 | 2005 | <i>KA</i> ₈ | 16.0 | X | 70.23162 | 347.84175 | 188.69393 | 4.86469 | 0.2620786 | 0.20104553 | 2.8858457 | 20 | 7 5.4 | 20.0 |
| 207367 | 2005 | <i>LR</i> ₂ | 15.9 | X | 275.63726 | 100.76289 | 145.22072 | 11.09816 | 0.1064989 | 0.18133744 | 3.0913231 | 20 | 1 28.2 | 20.5 |
| 207368 | 2005 | <i>LG</i> ₁₀ | 16.3 | X | 70.79339 | 147.01980 | 102.58702 | 3.88831 | 0.1120507 | 0.21134466 | 2.7913130 | 20 | 9 21.3 | 20.1 |
| 207369 | 2005 | <i>LL</i> ₁₁ | 14.6 | X | 270.46650 | 95.33471 | 256.46898 | 2.68734 | 0.1963042 | 0.12356156 | 3.9922139 | 20 | 5 19.7 | 20.5 |
| 207370 | 2005 | <i>LZ</i> ₁₆ | 15.3 | X | 98.00953 | 356.74466 | 74.80721 | 10.76675 | 0.0439985 | 0.18370428 | 3.0647134 | 20 | 3 2.9 | 19.8 |
| 207371 | 2005 | <i>LJ</i> ₃₃ | 16.4 | X | 49.87660 | 83.04131 | 187.42859 | 4.07331 | 0.0284364 | 0.21168635 | 2.7883084 | 20 | 9 6.0 | 20.2 |
| 207372 | 2005 | <i>LB</i> ₃₆ | 16.5 | X | 353.72268 | 159.05050 | 79.00355 | 3.12167 | 0.0338238 | 0.19647686 | 2.9304103 | 20 | 5 7.3 | 20.4 |
| 207373 | 2005 | <i>LB</i> ₃₉ | 15.6 | X | 228.09338 | 159.34027 | 124.23545 | 11.15361 | 0.0585894 | 0.17840286 | 3.1251306 | 20 | 1 27.6 | 20.2 |
| 207374 | 2005 | <i>LJ</i> ₄₂ | 16.2 | X | 256.98556 | 133.00506 | 134.03861 | 1.81681 | 0.1194680 | 0.17596861 | 3.1538855 | 20 | 2 2.4 | 20.9 |
| 207375 | 2005 | <i>MC</i> ₁₄ | 15.8 | X | 302.76656 | 106.58732 | 152.23090 | 3.21924 | 0.0808668 | 0.18857058 | 3.0117581 | 20 | 3 20.0 | 19.9 |
| 207376 | 2005 | <i>MR</i> ₄₁ | 15.4 | X | 129.77720 | 3.30826 | 311.25262 | 2.13557 | 0.0460016 | 0.15732460 | 3.3983776 | 20 | — | — |
| 207377 | 2005 | <i>NO</i> ₁₈ | 15.9 | X | 290.35506 | 55.01234 | 176.37651 | 1.49456 | 0.1133061 | 0.17480776 | 3.1678328 | 20 | 1 27.7 | 20.5 |
| 207378 | 2005 | <i>NE</i> ₂₈ | 15.0 | X | 211.85227 | 17.16088 | 161.58161 | 10.34523 | 0.0188472 | 0.14855534 | 3.5308332 | 20 | 11 18.6 | 20.2 |
| 207379 | 2005 | <i>NJ</i> ₃₈ | 14.9 | X | 311.32297 | 184.53310 | 145.09824 | 6.74602 | 0.1665125 | 0.12548228 | 3.9513709 | 20 | 6 18.8 | 20.1 |
| 207380 | 2005 | <i>OH</i> ₇ | 14.4 | X | 314.21227 | 255.37669 | 73.62664 | 3.93531 | 0.2118660 | 0.12347308 | 3.9941208 | 20 | 6 15.8 | 19.3 |
| 207381 | 2005 | <i>QW</i> ₇ | 14.7 | X | 321.59131 | 250.19214 | 79.52296 | 1.74277 | 0.1340863 | 0.12294911 | 4.0054605 | 20 | 7 8.2 | 19.8 |
| 207382 | 2005 | <i>QU</i> ₂₈ | 14.3 | X | 337.11636 | 148.14422 | 167.10524 | 8.95040 | 0.1587140 | 0.12596274 | 3.9413164 | 20 | 7 12.4 | 19.1 |
| 207383 | 2005 | <i>QT</i> ₁₂₃ | 15.1 | X | 1.94863 | 16.49072 | 167.80690 | 5.42258 | 0.0420576 | 0.17105408 | 3.2140090 | 20 | 3 12.1 | 19.2 |
| 207384 | 2005 | <i>QO</i> ₁₇₃ | 14.0 | X | 2.92386 | 290.91343 | 6.32535 | 8.14364 | 0.2367354 | 0.12513739 | 3.9586277 | 20 | 8 12.1 | 18.3 |
| 207385 | 2005 | Maxou | 14.3 | X | 314.21850 | 294.37857 | 280.59267 | 24.04339 | 0.2070031 | 0.17293289 | 3.1906879 | 20 | 1 19.9 | 18.9 |
| 207386 | 2005 | <i>TN</i> ₁₀₅ | 16.8 | X | 138.61898 | 357.41969 | 62.57465 | 23.09507 | 0.1064209 | 0.36608948 | 1.9352833 | 20 | 4 9.3 | 19.5 |
| 207387 | 2005 | <i>TI</i> ₁₂₇ | 15.3 | X | 163.87708 | 188.62736 | 349.12573 | 2.18762 | 0.1374891 | 0.12597753 | 3.9410081 | 20 | 9 18.7 | 21.3 |
| 207388 | 2005 | <i>TT</i> ₁₇₀ | 15.8 | X | 307.54869 | 107.68494 | 168.35517 | 1.69684 | 0.1693282 | 0.17997085 | 3.1069524 | 20 | 4 4.6 | 19.8 |
| 207389 | 2005 | <i>VK</i> ₇ | 16.3 | X | 14.51121 | 223.98134 | 289.51067 | 18.12720 | 0.0620528 | 0.35937497 | 1.9593146 | 20 | 1 14.9 | 17.7 |
| 207390 | 2005 | <i>VJ</i> ₉₉ | 17.1 | X | 138.96111 | 175.64269 | 270.57075 | 18.53563 | 0.0922836 | 0.37165780 | 1.9159046 | 20 | 4 27.1 | 19.7 |
| 207391 | 2005 | <i>WT</i> ₃ | 17.0 | X | 188.58673 | 70.93988 | 313.23488 | 18.35697 | 0.1090514 | 0.37106740 | 1.9179363 | 20 | 3 22.5 | 19.8 |
| 207392 | 2005 | <i>WO</i> ₅₄ | 16.9 | X | 353.46173 | 110.12669 | 69.94307 | 23.44357 | 0.0794565 | 0.35680692 | 1.9687045 | 20 | 1 21.9 | 19.1 |
| 207393 | 2005 | <i>WM</i> ₅₆ | 16.8 | X | 128.07937 | 288.01342 | 78.33992 | 23.42863 | 0.0957513 | 0.35230049 | 1.9854573 | 20 | — | — |
| 207394 | 2005 | <i>XL</i> ₁₀₁ | 17.4 | X | 248.93912 | 219.35937 | 109.22431 | 5.63068 | 0.1739365 | 0.29403262 | 2.2397818 | 20 | 3 28.3 | 20.7 |
| 207395 | 2005 | <i>YW</i> ₁₁₈ | 17.4 | X | 351.25174 | 98.92952 | 223.95550 | 1.29441 | 0.1421571 | 0.31502032 | 2.1391620 | 20 | 9 20.7 | 18.7 |
| 207396 | 2005 | <i>YE</i> ₂₅₄ | 17.2 | X | 143.57032 | 177.51317 | 105.68009 | 6.64436 | 0.2145991 | 0.26286440 | 2.4135050 | 20 | — | — |
| 207397 | 2005 | <i>YZ</i> ₂₇₃ | 20.3 | X | 209.06286 | 297.73606 | 98.82397 | 9.16815 | 0.1221482 | 0.29992646 | 2.2103423 | 20 | 5 19.4 | 20.5 |
| 207398 | 2006 | <i>AS</i> ₂ | 17.3 | X | 249.18360 | 79.59496 | 125.96392 | 2.59335 | 0.6386881 | 0.32539329 | 2.0934551 | 20 | 12 13.2 | 22.2 |
| 207399 | 2006 | <i>AG</i> ₄₀ | 17.2 | X | 185.00343 | 329.40977 | 116.30607 | 5.18294 | 0.0783357 | 0.30313666 | 2.1947096 | 20 | 6 29.1 | 20.2 |
| 207400 | 2006 | <i>BN</i> ₅₃ | 17.7 | X | 294.44001 | 248.76402 | 136.53070 | 4.15050 | 0.1165762 | 0.31037284 | 2.1604634 | 20 | 9 3.5 | 19.4 |
| 207401 | 2006 | <i>BE</i> ₆₂ | 17.0 | X | 0.86468 | 107.83872 | 83.60941 | 8.59741 | 0.0334905 | 0.28498843 | 2.2869213 | 20 | 3 12.1 | 19.7 |
| 207402 | 2006 | <i>BR</i> ₈₀ | 17.3 | X | 96.97314 | 67.08306 | 110.13685 | 5.27617 | 0.0626897 | 0.29762232 | 2.2217357 | 20 | 7 17.2 | 20.0 |
| 207403 | 2006 | <i>BB</i> ₈₃ | 17.2 | X | 160.16868 | 176.98899 | 288.16592 | 2.46990 | 0.0333927 | 0.30115880 | 2.2043083 | 20 | 6 25.1 | 19.8 |
| 207404 | 2006 | <i>BU</i> ₉₁ | 17.0 | X | 128.52863 | 205.71948 | 167.00716 | 2.73222 | 0.2228250 | 0.27769276 | 2.3268034 | 20 | 2 1.4 | 20.0 |
| 207405 | 2006 | <i>BP</i> ₁₀₃ | 17.2 | X | 102.64008 | 21.15996 | 147.20577 | 6.05502 | 0.1743123 | 0.29743099 | 2.2226884 | 20 | 7 25.4 | 20.3 |
| 207406 | 2006 | <i>BG</i> ₁₄₇ | 17.5 | X | 74.53710 | 124.04832 | 133.12009 | 3.88344 | 0.1220224 | 0.30842176 | 2.1695652 | 20 | 10 22.1 | 20.2 |
| 207407 | 2006 | <i>BZ</i> ₁₆₈ | 16.7 | X | 288.64295 | 338.16562 | 342.18304 | 5.38004 | 0.1960288 | 0.29195914 | 2.2503738 | 20 | 4 24.1 | 19.4 |
| 207408 | 2006 | <i>BY</i> ₁₇₂ | 17.3 | X | 57.92468 | 5.99844 | 284.26625 | 3.88533 | 0.2351076 | 0.31490273 | 2.1396945 | 20 | 11 28.2 | 20.3 |
| 207409 | 2006 | <i>BD</i> ₂₁₃ | 17.9 | X | 214.99997 | 341.86309 | 112.12881 | 1.76988 | 0.1160630 | 0.30590413 | 2.1814528 | 20 | 8 14.6 | 20.7 |
| 207410 | 2006 | <i>BC</i> ₂₅₂ | 17.2 | X | 159.98815 | 239.60912 | 140.17678 | 3.97257 | 0.1600903 | 0.28478629 | 2.2880034 | 20 | 3 7.9 | 20.5 |
| 207411 | 2006 | <i>BH</i> ₂₆₇ | 17.0 | X | 165.76864 | 195.98829 | 266.57558 | 6.76470 | 0.1040931 | 0.29930765 | 2.2133878 | 20 | 6 29.6 | 20.1 |
| 207412 | 2006 | <i>BM</i> ₂₇₅ | 17.1 | X | 231.71548 | 241.69159 | 23.42694 | 2.69539 | 0.1708159 | 0.26441194 | 2.4040787 | 20 | — | — |
| 207413 | 2006 | <i>DF</i> ₄ | 16.3 | X | 299.66786 | 86.56014 | 156.94326 | 5.73391 | 0.0971671 | 0.27798541 | 2.3251700 | 20 | 2 10.6 | 19.3 |
| 207414 | 2006 | <i>DG</i> ₂₇ | 17.1 | X | 254.52186 | 266.30414 | 15.75250 | 2.35110 | 0.2047143 | 0.27359701 | 2.3499673 | 20 | 2 1.1 | 20.7 |
| 207415 | 2006 | <i>DY</i> ₃₃ | 17.1 | X | 348.09622 | 153.60955 | 137.89845 | 1.01369 | 0.1033414 | 0.29451639 | 2.2373284 | 20 | 7 15.7 | 18.9 |
| 207416 | 2006 | <i>DC</i> ₃₄ | 16.8 | X | 184.28430 | 200.99915 | 161.25218 | 5.15886 | 0.2540191 | 0.27910513 | 2.3189471 | 20 | 3 11.8 | 20.9 |
| 207417 | 2006 | <i>DA</i> ₄₄ | 17.2 | X | 56.07620 | 7.97743 | 162.16990 | 4.51248 | 0.0730714 | 0.28940493 | 2.2635952 | 20 | 5 7.8 | 19.6 |
| 207418 | 2006 | <i>DM</i> ₅₄ | 15.9 | X | 92.66728 | 7.82249 | 24.18369 | 2.00619 | 0.0864597 | 0.19955786 | 2.9001703 | 20 | 1 6.2 | 19.7 |
| 207419 | 2006 | <i>DG</i> ₅₉ | 17.4 | X | 337.27717 | 276.35656 | 345.92591 | 3.28320 | 0.1657049 | 0.28588301 | 2.2821481 | 20 | 4 26.6 | 19.3 |
| 207420 | 2006 | <i>DR</i> ₆₅ | 17.0 | X | 283.06550 | 218.19679 | 10.37035 | 2.42056 | 0.1571397 | 0.27106567 | 2.3645747 | 20 | — | — |
| 207421 | 2006 | <i>DK</i> ₇₉ | 17.7 | X | 28.44798 | 36.20866 | 229.20483 | 1.50042 | 0.1356265 | 0.29820789 | 2.2188263 | 20 | 8 26.3 | 19.8 |
| 207422 | 2006 | <i>DM</i> ₈₂ | 16.8 | X | 143.01870 | 180.64228 | 137.37104 | 1.97022 | 0.1944087 | 0.26063509 | 2.4272478 | 20 | — | — |
| 207423 | 2006 | <i>DH</i> ₈₄ | 16.4 | X | 119.73092 | 122.36308 | 189.20122 | 3.85331 | 0.0876823 | 0.25696731 | 2.4502899 | 20 | — | — |
| 207424 | 2006 | <i>DG</i> ₉₄ | 15.8 | X | 104.99153 | 141.81860 | 167.49283 | 0.61827 | 0.1696409 | 0.17872193 | 3.1214100 | 20 | — | — |
| 207425 | 2006 | <i>DA</i> ₉₇ | 16.9 | X | 24.43368 | 98.25778 | 117.71488 | 0.30423 | 0.1543368 | 0.28681857 | 2.2771827 | 20 | 5 30.2 | 18.7 |
| 207426 | 2006 | <i>DA</i> ₁₀₂ | 16.9 | X | 144.73635 | 264.22824 | 43.60014 | 2.77973 | 0.2152592 | 0.25888515 | 2.4381736 | 20 | — | — |
| 207427 | 2006 | <i>DG</i> ₁₀₄ | 17.2 | X | 94.47213 | 95.76503 | 153.07487 | 2.97857 | 0.0953131 | 0.30855806 | 2.1689262 | 20 | 10 30.8 | 19.9 |
| 207428 | 2006 | <i>DF</i> ₁₀₅ | 18.2 | X | 7.42967 | 172.50231 | 145.34906 | 0.47989 | 0.0477313 | 0.30634021 | 2.1793821 | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|------------|------------|-----------|----|---------|----------|
| 207441 2006 <i>ED</i> ₁₆ | 16.5 | X | 21.94604 | 219.43053 | 5.23845 | 5.12049 | 0.0652391 | 0.28935024 | 2.2638804 | 20 | 5 29.5 | 18.9 |
| 207442 2006 <i>EF</i> ₁₆ | 17.2 | X | 319.00701 | 241.95229 | 32.84752 | 2.69295 | 0.1307841 | 0.28502368 | 2.2867328 | 20 | 4 18.5 | 19.5 |
| 207443 2006 <i>EQ</i> ₂₃ | 16.8 | X | 293.03080 | 189.38887 | 150.23411 | 2.94265 | 0.2173621 | 0.22907405 | 2.6453641 | 20 | 5 29.0 | 20.2 |
| 207444 2006 <i>EG</i> ₃₁ | 17.4 | X | 300.35452 | 289.64115 | 140.22645 | 4.98293 | 0.0528831 | 0.31631811 | 2.1333069 | 20 | 12 1.1 | 19.4 |
| 207445 2006 <i>EU</i> ₄₅ | 17.2 | X | 263.13141 | 190.99928 | 151.61818 | 4.92514 | 0.1846654 | 0.29169536 | 2.2517303 | 20 | 4 29.3 | 20.3 |
| 207446 2006 <i>EC</i> ₆₃ | 17.2 | X | 325.92564 | 1.90858 | 260.63957 | 2.07069 | 0.1921404 | 0.28226940 | 2.3015841 | 20 | 3 31.3 | 19.6 |
| 207447 2006 <i>EX</i> ₆₅ | 17.1 | X | 354.04526 | 303.11449 | 323.23540 | 0.61251 | 0.1321314 | 0.28897441 | 2.2658429 | 20 | 6 15.2 | 18.8 |
| 207448 2006 <i>FV</i> ₁₂ | 16.0 | X | 168.71873 | 261.87417 | 70.76890 | 3.05393 | 0.1102246 | 0.19590159 | 2.9361444 | 20 | 1 24.4 | 20.4 |
| 207449 2006 <i>FR</i> ₁₇ | 16.9 | X | 97.40928 | 205.96266 | 167.98228 | 3.51914 | 0.0506856 | 0.26004377 | 2.4309260 | 20 | — | — |
| 207450 2006 <i>FZ</i> ₂₃ | 17.8 | X | 346.61322 | 123.27675 | 156.04098 | 2.03907 | 0.2018617 | 0.28674298 | 2.2775829 | 20 | 6 17.6 | 19.1 |
| 207451 2006 <i>FH</i> ₃₄ | 16.2 | X | 345.64102 | 19.84516 | 244.57556 | 6.13885 | 0.0963501 | 0.28670219 | 2.2777989 | 20 | 5 26.5 | 18.2 |
| 207452 2006 <i>FV</i> ₃₆ | 17.0 | X | 328.85509 | 101.67176 | 129.39459 | 5.88243 | 0.1982884 | 0.27778500 | 2.3262882 | 20 | 2 20.3 | 19.5 |
| 207453 2006 <i>FH</i> ₃₇ | 16.6 | X | 5.60658 | 177.36573 | 34.70145 | 7.92943 | 0.0586320 | 0.28314194 | 2.2968532 | 20 | 4 13.8 | 18.8 |
| 207454 2006 <i>FU</i> ₄₀ | 17.7 | X | 72.14504 | 27.50989 | 166.08775 | 3.29971 | 0.1108840 | 0.29161871 | 2.2521249 | 20 | 7 12.8 | 20.2 |
| 207455 2006 <i>GV</i> ₄ | 16.8 | X | 323.15800 | 205.49651 | 61.26535 | 4.29890 | 0.2072546 | 0.28169937 | 2.3046880 | 20 | 4 2.5 | 18.9 |
| 207456 2006 <i>GZ</i> ₆ | 16.8 | X | 103.53630 | 198.37492 | 51.41446 | 7.59728 | 0.1653363 | 0.23699907 | 2.5860582 | 20 | 11 3.5 | 20.9 |
| 207457 2006 <i>GQ</i> ₉ | 16.8 | X | 165.34884 | 339.70739 | 40.97903 | 7.64539 | 0.1188965 | 0.27755485 | 2.3275740 | 20 | 3 14.9 | 20.2 |
| 207458 2006 <i>GG</i> ₁₅ | 16.7 | X | 91.86506 | 292.58561 | 70.95742 | 3.40221 | 0.1909882 | 0.25610542 | 2.4557842 | 20 | — | — |
| 207459 2006 <i>GJ</i> ₁₉ | 17.4 | X | 316.50027 | 165.24226 | 66.94173 | 2.90500 | 0.1763425 | 0.27422928 | 2.3463538 | 20 | 2 7.9 | 20.2 |
| 207460 2006 <i>GN</i> ₃₂ | 16.7 | X | 97.75324 | 226.09187 | 134.29634 | 5.01042 | 0.2027610 | 0.25940724 | 2.4349011 | 20 | — | — |
| 207461 2006 <i>GG</i> ₃₆ | 15.6 | X | 356.94345 | 186.73390 | 62.09574 | 12.23173 | 0.2080977 | 0.21389687 | 2.7690647 | 20 | 5 22.1 | 17.8 |
| 207462 2006 <i>GG</i> ₃₇ | 16.9 | X | 314.45550 | 195.97202 | 58.17651 | 3.77515 | 0.1470835 | 0.27751836 | 2.3277781 | 20 | 3 11.7 | 19.6 |
| 207463 2006 <i>GW</i> ₃₈ | 16.6 | X | 158.03751 | 227.45989 | 357.28413 | 5.17176 | 0.0585175 | 0.31040205 | 2.1603278 | 20 | 12 10.3 | 19.3 |
| 207464 2006 <i>GH</i> ₄₀ | 16.5 | X | 11.14158 | 7.78616 | 224.22559 | 6.15592 | 0.0917766 | 0.28548511 | 2.2842681 | 20 | 5 24.5 | 18.5 |
| 207465 2006 <i>GN</i> ₄₁ | 16.7 | X | 39.07889 | 100.80853 | 181.90028 | 4.00046 | 0.0736483 | 0.30084045 | 2.2058631 | 20 | 9 29.9 | 18.9 |
| 207466 2006 <i>GH</i> ₄₂ | 16.8 | X | 13.67821 | 166.88301 | 72.23686 | 6.34700 | 0.1132955 | 0.28625216 | 2.2801856 | 20 | 6 10.8 | 18.5 |
| 207467 2006 <i>GL</i> ₄₃ | 16.6 | X | 292.72393 | 233.34493 | 50.09757 | 6.84760 | 0.1008838 | 0.27938110 | 2.3174198 | 20 | 3 29.9 | 19.5 |
| 207468 2006 <i>GE</i> ₄₆ | 16.8 | X | 332.78207 | 215.12986 | 60.07159 | 6.91693 | 0.1191608 | 0.28295415 | 2.2978694 | 20 | 5 16.7 | 18.9 |
| 207469 2006 <i>GK</i> ₄₉ | 16.7 | X | 8.78327 | 315.98813 | 284.27590 | 3.71696 | 0.1091444 | 0.28617002 | 2.2806219 | 20 | 6 2.2 | 18.6 |
| 207470 2006 <i>HZ</i> ₃ | 17.4 | X | 312.17385 | 52.81432 | 184.08765 | 2.06772 | 0.1646491 | 0.27378229 | 2.3489070 | 20 | 2 8.5 | 20.3 |
| 207471 2006 <i>HL</i> ₆ | 16.8 | X | 61.96546 | 217.13184 | 5.45306 | 5.30447 | 0.1141308 | 0.29396476 | 2.2401265 | 20 | 8 13.6 | 19.3 |
| 207472 2006 <i>HT</i> ₆ | 16.3 | X | 336.02684 | 350.34728 | 242.67765 | 5.17743 | 0.0688755 | 0.27974895 | 2.3153878 | 20 | 3 22.4 | 18.8 |
| 207473 2006 <i>HU</i> ₁₃ | 16.6 | X | 35.97575 | 333.04549 | 327.87839 | 5.04461 | 0.1248886 | 0.30356785 | 2.1926309 | 20 | 10 28.4 | 19.1 |
| 207474 2006 <i>HP</i> ₁₆ | 16.8 | X | 174.30029 | 174.84728 | 127.44422 | 4.99514 | 0.1855266 | 0.25583022 | 2.4575451 | 20 | — | — |
| 207475 2006 <i>HS</i> ₂₀ | 17.1 | X | 84.42128 | 287.60594 | 212.53347 | 5.93453 | 0.1189095 | 0.28249023 | 2.3003845 | 20 | 5 14.7 | 19.7 |
| 207476 2006 <i>HJ</i> ₂₂ | 17.6 | X | 315.33980 | 100.84251 | 153.95203 | 2.83218 | 0.1563889 | 0.27675190 | 2.3320739 | 20 | 3 10.8 | 20.3 |
| 207477 2006 <i>HK</i> ₂₃ | 16.6 | X | 287.42295 | 311.50156 | 90.85833 | 3.05971 | 0.0317502 | 0.23255102 | 2.6189300 | 20 | 9 16.2 | 20.0 |
| 207478 2006 <i>HD</i> ₂₅ | 16.9 | X | 295.11580 | 176.29825 | 58.04270 | 3.35150 | 0.1460643 | 0.27140428 | 2.3626075 | 20 | 1 19.2 | 20.1 |
| 207479 2006 <i>HL</i> ₂₇ | 16.8 | X | 236.65714 | 20.91034 | 215.56101 | 3.55549 | 0.0545172 | 0.25725464 | 2.4484650 | 20 | — | — |
| 207480 2006 <i>HC</i> ₂₉ | 16.9 | X | 274.44504 | 75.14780 | 202.16238 | 3.49750 | 0.2210863 | 0.27019215 | 2.3696683 | 20 | 2 10.4 | 20.7 |
| 207481 2006 <i>HC</i> ₃₁ | 17.2 | X | 116.12399 | 230.33002 | 318.94886 | 0.38370 | 0.18785314 | 0.29780908 | 2.2208067 | 20 | 8 30.9 | 19.9 |
| 207482 2006 <i>HN</i> ₃₁ | 17.4 | X | 351.31989 | 131.30680 | 74.28319 | 5.63326 | 0.1719331 | 0.27748202 | 2.3279813 | 20 | 3 1.2 | 19.6 |
| 207483 2006 <i>HD</i> ₄₁ | 16.1 | X | 275.12326 | 285.42706 | 128.26877 | 11.44687 | 0.1476603 | 0.22861873 | 2.6488753 | 20 | 8 27.1 | 19.4 |
| 207484 2006 <i>HU</i> ₄₂ | 17.1 | X | 211.62762 | 310.31550 | 35.90139 | 1.14537 | 0.0674653 | 0.27366762 | 2.3495631 | 20 | 3 16.6 | 20.2 |
| 207485 2006 <i>HN</i> ₄₆ | 16.5 | X | 289.40327 | 188.95737 | 85.12157 | 7.43640 | 0.1149949 | 0.27657076 | 2.3330921 | 20 | 3 11.9 | 19.6 |
| 207486 2006 <i>HE</i> ₄₈ | 17.4 | X | 7.86620 | 83.60769 | 148.07690 | 3.86196 | 0.1372891 | 0.28352742 | 2.2947709 | 20 | 5 19.5 | 19.3 |
| 207487 2006 <i>HS</i> ₅₁ | 15.6 | X | 59.21348 | 318.28021 | 266.32703 | 13.68323 | 0.1238689 | 0.22282525 | 2.6945926 | 20 | 7 31.1 | 19.3 |
| 207488 2006 <i>HV</i> ₅₁ | 16.7 | X | 13.70603 | 243.46183 | 356.66932 | 6.38033 | 0.1230492 | 0.28610756 | 2.2809538 | 20 | 6 12.8 | 18.8 |
| 207489 2006 <i>HT</i> ₅₃ | 17.0 | X | 32.99577 | 71.99760 | 151.03268 | 7.40522 | 0.1554860 | 0.28609129 | 2.2810403 | 20 | 6 29.6 | 19.2 |
| 207490 2006 <i>HC</i> ₅₄ | 17.1 | X | 47.10405 | 252.97356 | 359.58278 | 4.17911 | 0.1636199 | 0.29681510 | 2.2257620 | 20 | 9 12.4 | 19.5 |
| 207491 2006 <i>HS</i> ₅₉ | 17.3 | X | 29.68139 | 41.44766 | 177.93652 | 2.22169 | 0.1078477 | 0.28575535 | 2.2828277 | 20 | 6 10.4 | 19.3 |
| 207492 2006 <i>HT</i> ₆₁ | 17.4 | X | 326.63285 | 54.62121 | 183.77663 | 2.77941 | 0.1292721 | 0.27807777 | 2.3246551 | 20 | 3 8.5 | 19.9 |
| 207493 2006 <i>HG</i> ₆₆ | 16.2 | X | 106.81063 | 50.25387 | 60.17770 | 4.62459 | 0.0550654 | 0.20991474 | 2.8039747 | 20 | 4 27.0 | 20.0 |
| 207494 2006 <i>HV</i> ₆₈ | 17.9 | X | 303.59749 | 91.70402 | 164.55197 | 2.61094 | 0.0980070 | 0.27349346 | 2.3505604 | 20 | 3 5.3 | 20.6 |
| 207495 2006 <i>HK</i> ₇₂ | 16.7 | X | 107.73197 | 204.27171 | 162.18240 | 6.45553 | 0.1050657 | 0.25591421 | 2.4570073 | 20 | — | — |
| 207496 2006 <i>HU</i> ₇₈ | 16.8 | X | 54.31883 | 278.70133 | 224.18201 | 6.15844 | 0.0664175 | 0.27634586 | 2.3343577 | 20 | 3 21.1 | 19.5 |
| 207497 2006 <i>HO</i> ₉₀ | 17.2 | X | 302.42673 | 237.48945 | 30.01299 | 2.35205 | 0.0948323 | 0.27593581 | 2.3366698 | 20 | 3 20.3 | 20.0 |
| 207498 2006 <i>HH</i> ₉₈ | 17.2 | X | 111.34744 | 11.83386 | 31.58759 | 3.95130 | 0.1539142 | 0.26636981 | 2.3922839 | 20 | 2 15.1 | 20.1 |
| 207499 2006 <i>HW</i> ₁₀₈ | 16.8 | X | 90.89247 | 46.59919 | 167.95844 | 6.62459 | 0.1032895 | 0.29572051 | 2.2312510 | 20 | 9 6.4 | 19.7 |
| 207500 2006 <i>HC</i> ₁₁₁ | 16.9 | X | 29.04384 | 108.42300 | 138.99367 | 5.48457 | 0.1243518 | 0.28978537 | 2.2616137 | 20 | 7 26.8 | 19.0 |
| 207501 2006 <i>HQ</i> ₁₁₁ | 16.7 | X | 322.22082 | 331.90946 | 291.13783 | 5.22076 | 0.1285011 | 0.27974350 | 2.3154178 | 20 | 4 3.5 | 19.2 |
| 207502 2006 <i>HZ</i> ₁₁₁ | 16.4 | X | 220.75849 | 53.47795 | 135.14856 | 6.45684 | 0.0705832 | 0.24554163 | 2.5257244 | 20 | 12 23.9 | 19.8 |
| 207503 2006 <i>HY</i> ₁₂₀ | 16.8 | X | 44.06629 | 272.91279 | 193.71942 | 6.78909 | 0.0894530 | 0.26563762 | 2.3966778 | 20 | 1 16.0 | 19.4 |
| 207504 2006 <i>HK</i> ₁₅₂ | 16.8 | X | 66.52843 | 215.54926 | 129.04526 | 4.50990 | 0.1081381 | 0.24281965 | 2.5445647 | 20 | — | — |
| 207505 2006 <i>JU</i> ₁ | 16.5 | X | 0.77731 | 21.56053 | 227.38053 | 7.28680 | 0.1690917 | 0.21407667 | 2.7675140 | 20 | 5 31.9 | 19.1 |
| 207506 2006 <i>JU</i> ₄ | 17.0 | X | 248.03497 | 112.90969 | 163.38094 | 2.73851 | 0.1565447 | 0.26512989 | 2.3997367 | 20 | 1 21.8 | 20.8 |
| 207507 2006 <i>JX</i> ₅ | 16.9 | X | 59.61441 | 61.19208 | 244.64793 | 2.31258 | 0.1659029 | 0.23375696 | 2.6099149 | 20 | 11 27.3 | 20.4 |
| 207508 2006 <i>JA</i> ₁₂ | 16.7 | X | 228.87988 | 152.39590 | 125.50692 | 5.66015 | 0.1469435 | 0.26153667 | 2.4216664 | 20 | 1 7.2 | 20.5 |
| 207509 2006 <i>JP</i> ₁₂ | 16.6 | X | 17.66576 | 298.49051 | 165.95686 | 6.27148 | 0.1355901 | 0.26061229 | 2.4273894 | 20 | — | — |
| 207510 2006 <i>JF</i> ₁₄ | 17.0 | X | 211.64700 | 338.73364 | 291.71078 | 1.66817 | 0.1726214 | 0.25830821 | 2.4418027 | 20 | — | — |
| 207511 2006 <i>JT</i> ₁₆ | 16.8 | X | 80.86352 | 291.88517 | 154.83448 | 2.87099 | 0.1329939 | 0.27052262 | 2.3677381 | 20 | 2 24.6 | 19.2 |
| 207512 2006 <i>JU</i> ₁₇ | | | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|-------------|-----------|----------|---------|------|
| 207521 | 2006 | JD ₄₉ | 17.1 | X | 301.18714 | 66.29987 | 198.90782 | 2.58461 | 0.1537154 | 0.27893570 | 2.3198860 | 20 | 3 4.1 | 19.8 |
| 207522 | 2006 | JB ₅₄ | 17.2 | X | 236.73959 | 201.79829 | 54.74561 | 1.94647 | 0.1496705 | 0.25944632 | 2.4346565 | 20 | — | — |
| 207523 | 2006 | JE ₅₄ | 15.4 | X | 338.34022 | 71.66794 | 214.99326 | 11.08080 | 0.0530339 | 0.214442079 | 2.7645522 | 20 | 6 17.5 | 19.0 |
| 207524 | 2006 | JV ₇₉ | 16.2 | X | 232.73850 | 338.46754 | 80.98081 | 8.67720 | 0.1680607 | 0.22057547 | 2.7128841 | 20 | 7 7.5 | 20.4 |
| 207525 | 2006 | JW ₇₉ | 16.5 | X | 347.85843 | 215.98480 | 112.07844 | 4.33475 | 0.1005905 | 0.22315077 | 2.6919715 | 20 | 9 2.6 | 19.5 |
| 207526 | 2006 | JP ₈₀ | 16.6 | X | 265.64226 | 21.45535 | 189.49048 | 6.84750 | 0.0582118 | 0.25657435 | 2.4527911 | 20 | — | — |
| 207527 | 2006 | KF | 17.0 | X | 236.67453 | 50.05413 | 223.56290 | 4.33024 | 0.1275376 | 0.26459419 | 2.4029746 | 20 | 1 8.9 | 20.7 |
| 207528 | 2006 | KJ ₂ | 17.4 | X | 0.23886 | 312.90287 | 307.04983 | 2.27503 | 0.1356375 | 0.28548907 | 2.2842470 | 20 | 6 18.2 | 19.2 |
| 207529 | 2006 | KB ₄ | 16.2 | X | 108.73362 | 336.78483 | 195.20105 | 11.41670 | 0.1305500 | 0.22298157 | 2.6933331 | 20 | 7 25.4 | 20.4 |
| 207530 | 2006 | KT ₁₁ | 16.6 | X | 296.06665 | 112.76118 | 117.72918 | 5.64285 | 0.1320136 | 0.26710211 | 2.3879093 | 20 | 1 17.1 | 19.8 |
| 207531 | 2006 | KQ ₁₃ | 16.2 | X | 87.96701 | 195.42660 | 111.18176 | 12.85877 | 0.1892421 | 0.24012277 | 2.5635817 | 20 | 12 29.2 | 20.3 |
| 207532 | 2006 | KU ₂₁ | 15.6 | X | 234.08732 | 21.32755 | 59.72585 | 13.18795 | 0.1878997 | 0.22739113 | 2.6584003 | 20 | 8 8.5 | 19.9 |
| 207533 | 2006 | KM ₂₃ | 17.1 | X | 337.75515 | 345.02393 | 274.97536 | 2.49010 | 0.1447660 | 0.28127764 | 2.3069911 | 20 | 4 27.5 | 19.2 |
| 207534 | 2006 | KZ ₂₅ | 16.1 | X | 310.24170 | 275.46450 | 125.18685 | 14.50495 | 0.1902340 | 0.23532526 | 2.5983064 | 20 | 10 11.8 | 18.9 |
| 207535 | 2006 | KP ₃₂ | 17.1 | X | 73.86032 | 172.33605 | 177.91785 | 1.74483 | 0.1689933 | 0.24370424 | 2.5384035 | 20 | — | — |
| 207536 | 2006 | KE ₃₈ | 16.7 | X | 337.06217 | 187.29674 | 46.15407 | 3.91838 | 0.1326211 | 0.27516353 | 2.3410398 | 20 | 3 21.2 | 19.1 |
| 207537 | 2006 | KF ₃₉ | 16.8 | X | 215.86435 | 108.97299 | 180.74894 | 5.69277 | 0.1713822 | 0.25927903 | 2.3570737 | 20 | 1 9.4 | 20.9 |
| 207538 | 2006 | KM ₅₂ | 16.7 | X | 327.64287 | 342.13422 | 159.31302 | 4.24419 | 0.0616089 | 0.25684458 | 2.4510703 | 20 | — | — |
| 207539 | 2006 | KR ₅₄ | 16.8 | X | 91.40820 | 123.74024 | 169.22428 | 3.01604 | 0.0705773 | 0.23767551 | 2.5811491 | 20 | 12 7.0 | 20.4 |
| 207540 | 2006 | KD ₅₆ | 16.3 | X | 296.85295 | 10.31443 | 244.59863 | 9.81227 | 0.1293404 | 0.27129566 | 2.3632381 | 20 | 2 14.2 | 19.6 |
| 207541 | 2006 | KT ₅₇ | 16.7 | X | 56.49235 | 184.69690 | 176.71137 | 5.67520 | 0.1036071 | 0.24319546 | 2.5419426 | 20 | — | — |
| 207542 | 2006 | KW ₅₇ | 16.4 | X | 22.11366 | 219.54236 | 163.81299 | 5.52269 | 0.0796769 | 0.24174980 | 2.5520664 | 20 | — | — |
| 207543 | 2006 | KK ₆₁ | 16.6 | X | 33.83807 | 274.83016 | 163.15554 | 6.38403 | 0.1047536 | 0.25577418 | 2.4579040 | 20 | — | — |
| 207544 | 2006 | KX ₉₀ | 15.9 | X | 89.79264 | 97.78312 | 206.06996 | 3.22424 | 0.1929216 | 0.23659919 | 2.5889712 | 20 | 12 26.8 | 20.2 |
| 207545 | 2006 | KK ₁₂₀ | 16.2 | X | 16.23494 | 246.54662 | 105.59484 | 12.46306 | 0.2157864 | 0.23043423 | 2.6349440 | 20 | 12 9.9 | 19.4 |
| 207546 | 2006 | LL | 17.4 | X | 270.23546 | 310.57130 | 274.08281 | 1.65101 | 0.1149426 | 0.26279680 | 2.4139189 | 20 | — | — |
| 207547 | 2006 | Charito | 15.7 | X | 213.16033 | 301.59578 | 72.69357 | 2.85427 | 0.0814090 | 0.20501984 | 2.8484294 | 20 | 4 27.5 | 20.0 |
| 207548 | 2006 | LZ | 16.1 | X | 125.52768 | 49.53369 | 253.85914 | 3.93829 | 0.1588457 | 0.24293760 | 2.5437410 | 20 | — | — |
| 207549 | 2006 | LR ₁ | 16.5 | X | 218.52718 | 193.89126 | 120.37068 | 3.42567 | 0.2066344 | 0.26225456 | 2.4172451 | 20 | 2 10.6 | 20.6 |
| 207550 | 2006 | LM ₂ | 17.0 | X | 312.63809 | 217.20235 | 29.85440 | 2.56633 | 0.1801829 | 0.27275755 | 2.3547864 | 20 | 2 22.4 | 19.7 |
| 207551 | 2006 | LS ₃ | 15.8 | X | 63.00886 | 144.51576 | 98.33573 | 13.83530 | 0.1317957 | 0.22284662 | 2.6944203 | 20 | 9 11.3 | 19.7 |
| 207552 | 2006 | LL ₄ | 15.6 | X | 272.47090 | 298.94638 | 30.57941 | 3.01495 | 0.3227123 | 0.20017847 | 2.8941729 | 20 | 4 8.6 | 20.3 |
| 207553 | 2006 | LU ₄ | 16.7 | X | 42.05506 | 238.98293 | 17.48726 | 6.50218 | 0.1776629 | 0.29122406 | 2.2541590 | 20 | 9 13.8 | 19.1 |
| 207554 | 2006 | LZ ₅ | 16.0 | X | 130.89563 | 358.74823 | 296.51359 | 4.96858 | 0.2614931 | 0.24217327 | 2.5490905 | 20 | — | — |
| 207555 | 2006 | LS ₅ | 15.5 | X | 81.48020 | 166.96552 | 172.03217 | 11.90066 | 0.2659755 | 0.23711674 | 2.5852025 | 20 | — | — |
| 207556 | 2006 | LU ₅ | 15.1 | X | 119.77368 | 256.43527 | 112.22377 | 13.77644 | 0.1745599 | 0.17696481 | 3.1420381 | 20 | 1 26.3 | 19.7 |
| 207557 | 2006 | MS ₇ | 15.4 | X | 155.20739 | 227.23766 | 116.80916 | 10.97052 | 0.0897173 | 0.18082691 | 3.0971388 | 20 | 1 24.2 | 19.9 |
| 207558 | 2006 | MU ₇ | 16.3 | X | 174.12465 | 113.54078 | 236.23330 | 1.22224 | 0.1214012 | 0.18514882 | 3.0487519 | 20 | 2 19.2 | 21.2 |
| 207559 | 2006 | OQ ₁ | 15.9 | X | 13.03785 | 187.13235 | 96.82196 | 6.27096 | 0.1317686 | 0.21390885 | 2.7689613 | 20 | 8 16.2 | 19.0 |
| 207560 | 2006 | OU ₇ | 15.7 | X | 20.14489 | 184.90441 | 119.61631 | 15.21207 | 0.1136632 | 0.21773518 | 2.7364256 | 20 | 9 29.6 | 19.3 |
| 207561 | 2006 | OU ₁₂ | 15.0 | X | 148.58773 | 12.09174 | 329.56432 | 14.14174 | 0.1897612 | 0.17499938 | 3.1655198 | 20 | 1 26.4 | 20.1 |
| 207562 | 2006 | OW ₁₅ | 14.7 | X | 200.69399 | 357.59636 | 111.68855 | 26.51866 | 0.1040790 | 0.17734477 | 3.1375486 | 20 | 1 29.9 | 19.7 |
| 207563 | 2006 | Toscana | 15.9 | X | 297.22104 | 108.31636 | 183.94873 | 3.28044 | 0.0615176 | 0.19980111 | 2.8978159 | 20 | 4 26.4 | 19.8 |
| 207564 | 2006 | PZ | 16.1 | X | 212.44497 | 146.61660 | 170.45778 | 11.19213 | 0.1808340 | 0.25628814 | 2.4546169 | 20 | 2 7.7 | 20.3 |
| 207565 | 2006 | PM ₁ | 14.6 | X | 222.26153 | 344.62693 | 302.05719 | 21.56563 | 0.1627827 | 0.17927857 | 3.1149456 | 20 | 1 21.6 | 19.8 |
| 207566 | 2006 | PQ ₂ | 15.9 | X | 11.26923 | 92.02686 | 154.17584 | 5.76245 | 0.0683158 | 0.20463385 | 2.8520102 | 20 | 6 13.6 | 19.5 |
| 207567 | 2006 | PN ₄ | 16.2 | X | 128.02713 | 163.88948 | 120.32675 | 13.51352 | 0.1681865 | 0.23354901 | 2.6114639 | 20 | — | — |
| 207568 | 2006 | PW ₆ | 15.6 | X | 132.05795 | 248.73179 | 98.94167 | 7.25618 | 0.1625915 | 0.17384495 | 3.1795183 | 20 | 1 13.3 | 20.3 |
| 207569 | 2006 | PP ₈ | 17.2 | X | 260.63860 | 321.73093 | 298.43734 | 0.47819 | 0.1628042 | 0.25833532 | 2.4416319 | 20 | 1 14.9 | 20.8 |
| 207570 | 2006 | PQ ₁₂ | 15.6 | X | 167.31199 | 193.61937 | 162.37138 | 10.05652 | 0.0742312 | 0.18082913 | 3.0971135 | 20 | 2 17.5 | 20.3 |
| 207571 | 2006 | PY ₁₃ | 15.6 | X | 117.97917 | 129.92394 | 94.94637 | 15.08551 | 0.0490190 | 0.21948631 | 2.7218515 | 20 | 10 15.5 | 19.8 |
| 207572 | 2006 | PQ ₁₆ | 15.3 | X | 197.72749 | 16.26803 | 285.14630 | 3.30397 | 0.1614616 | 0.17751462 | 3.1355469 | 20 | 1 17.7 | 20.5 |
| 207573 | 2006 | PP ₁₉ | 15.8 | X | 187.76611 | 297.72907 | 356.25652 | 2.44104 | 0.1245487 | 0.17523891 | 3.1626347 | 20 | — | — |
| 207574 | 2006 | PZ ₂₁ | 15.9 | X | 48.29927 | 166.66602 | 135.85955 | 13.84568 | 0.1106019 | 0.22037475 | 2.7145311 | 20 | 11 4.8 | 19.8 |
| 207575 | 2006 | PN ₂₃ | 16.0 | X | 145.97943 | 148.27037 | 129.87559 | 7.98262 | 0.1343879 | 0.23713992 | 2.5850341 | 20 | — | — |
| 207576 | 2006 | PB ₃₁ | 15.4 | X | 198.29835 | 133.94792 | 151.11029 | 9.78150 | 0.0466565 | 0.17476460 | 3.1683543 | 20 | — | — |
| 207577 | 2006 | PF ₃₁ | 16.1 | X | 15.89950 | 118.84284 | 178.65718 | 4.31983 | 0.0483818 | 0.21218905 | 2.7839028 | 20 | 8 28.2 | 19.8 |
| 207578 | 2006 | PK ₄₃ | 16.2 | X | 278.51452 | 96.02156 | 254.94506 | 0.95151 | 0.0868065 | 0.20190209 | 2.8776778 | 20 | 6 13.0 | 20.0 |
| 207579 | 2006 | QM ₂ | 15.7 | X | 101.54795 | 84.15997 | 149.98094 | 11.85173 | 0.1017732 | 0.21722151 | 2.7407379 | 20 | 10 8.0 | 19.9 |
| 207580 | 2006 | QX ₂ | 14.6 | X | 146.33385 | 346.14658 | 338.30731 | 20.52642 | 0.0764246 | 0.16993085 | 3.2281564 | 20 | — | — |
| 207581 | 2006 | QY ₇ | 15.8 | X | 168.26482 | 281.36071 | 328.24552 | 9.71486 | 0.1242818 | 0.23388928 | 2.6089305 | 20 | — | — |
| 207582 | 2006 | QE ₉ | 15.1 | X | 108.42963 | 222.94177 | 161.93423 | 12.16883 | 0.1039478 | 0.17272859 | 3.1932032 | 20 | 1 22.6 | 19.7 |
| 207583 | 2006 | QF ₁₅ | 16.1 | X | 220.88098 | 52.22923 | 260.99315 | 5.95956 | 0.1453807 | 0.18581465 | 3.0414644 | 20 | 2 16.9 | 21.1 |
| 207584 | 2006 | QF ₂₃ | 15.5 | X | 95.94134 | 36.69433 | 328.37271 | 5.01446 | 0.0817354 | 0.17006760 | 3.2264257 | 20 | — | — |
| 207585 | 2006 | Lubar | 16.6 | X | 305.46584 | 297.41857 | 330.00141 | 4.17339 | 0.2162244 | 0.26724038 | 2.3870856 | 20 | 3 4.6 | 19.5 |
| 207586 | 2006 | QA ₂₇ | 15.6 | X | 178.16139 | 169.04730 | 157.28840 | 4.20124 | 0.1999497 | 0.17681016 | 3.1438700 | 20 | 1 30.6 | 21.0 |
| 207587 | 2006 | QR ₃₈ | 15.6 | X | 226.73532 | 340.55832 | 327.67153 | 7.78838 | 0.0935840 | 0.18391505 | 3.0623714 | 20 | 2 21.2 | 20.1 |
| 207588 | 2006 | QD ₅₂ | 15.9 | X | 222.63424 | 289.27000 | 70.42550 | 2.91136 | 0.0803221 | 0.19265416 | 2.9690473 | 20 | 4 20.3 | 20.4 |
| 207589 | 2006 | QQ ₅₄ | 15.3 | X | 175.56687 | 196.91207 | 147.01870 | 11.35165 | 0.0802071 | 0.17824393 | 3.1269880 | 20 | 2 12.9 | 19.9 |
| 207590 | 2006 | QC ₅₆ | 15.6 | X | 252.90189 | 332.12110 | 313.92732 | 8.10127 | 0.0453409 | 0.18568813 | 3.0428459 | 20 | 2 24.9 | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207601 2006 QQ ₉₉ | 14.9 | X | 105.57342 | 55.65477 | 300.15224 | 15.37304 | 0.1011626 | 0.16920430 | 3.2373907 | 20 | — | — |
| 207602 2006 QU ₁₀₅ | 15.4 | X | 156.70232 | 355.95523 | 167.06712 | 18.60314 | 0.2077552 | 0.21273158 | 2.7791676 | 20 | 9 2.7 | 20.1 |
| 207603 Liuchaohan | 15.1 | X | 240.08518 | 247.23690 | 63.53713 | 9.18794 | 0.0848355 | 0.18324760 | 3.0698030 | 20 | 3 14.6 | 19.8 |
| 207604 2006 QW ₁₁₁ | 15.7 | X | 33.68161 | 309.07592 | 308.88859 | 15.37128 | 0.1682715 | 0.20982975 | 2.8047318 | 20 | 8 15.1 | 19.1 |
| 207605 2006 QY ₁₁₃ | 14.5 | X | 249.84809 | 236.65182 | 137.02835 | 3.67768 | 0.2794313 | 0.12382663 | 3.9865144 | 20 | 5 18.1 | 20.9 |
| 207606 2006 QK ₁₂₂ | 15.5 | X | 214.60121 | 6.27349 | 329.06419 | 9.82156 | 0.1066794 | 0.18373751 | 3.0643439 | 20 | 3 9.7 | 20.4 |
| 207607 2006 QG ₁₃₀ | 15.3 | X | 185.19143 | 202.82844 | 116.21398 | 10.83265 | 0.1523161 | 0.17713583 | 3.1400153 | 20 | 1 27.6 | 20.4 |
| 207608 2006 QA ₁₄₀ | 15.5 | X | 221.09406 | 25.44594 | 295.72032 | 7.71126 | 0.0706675 | 0.18777379 | 3.0202720 | 20 | 2 28.8 | 20.2 |
| 207609 2006 QA ₁₄₂ | 15.0 | X | 137.89786 | 53.57752 | 300.63109 | 9.07319 | 0.1436241 | 0.17223634 | 3.1992845 | 20 | 1 24.4 | 19.8 |
| 207610 2006 QS ₁₅₅ | 16.4 | X | 234.48497 | 93.03191 | 247.35479 | 0.77412 | 0.1245315 | 0.19135014 | 2.9825212 | 20 | 4 4.6 | 21.0 |
| 207611 2006 QE ₁₅₇ | 14.9 | X | 86.60534 | 253.23335 | 158.49004 | 22.87882 | 0.1119168 | 0.17206243 | 3.2014398 | 20 | 1 29.2 | 19.5 |
| 207612 2006 QQ ₁₆₂ | 15.7 | X | 189.69245 | 32.26842 | 285.06758 | 5.91219 | 0.1946797 | 0.17750136 | 3.1357030 | 20 | 1 28.9 | 21.0 |
| 207613 2006 RK ₉ | 15.8 | X | 291.49679 | 355.03877 | 345.87121 | 1.44844 | 0.0768256 | 0.20331429 | 2.8643370 | 20 | 6 19.1 | 19.7 |
| 207614 2006 RU ₁₃ | 15.8 | X | 3.91149 | 317.12007 | 266.42302 | 8.14931 | 0.1000078 | 0.19647863 | 2.9303928 | 20 | 4 29.1 | 19.5 |
| 207615 2006 RK ₁₅ | 15.2 | X | 235.22277 | 347.97306 | 323.26284 | 9.08298 | 0.0914782 | 0.18408858 | 3.0604467 | 20 | 3 2.9 | 19.8 |
| 207616 2006 RX ₃₃ | 15.7 | X | 195.16599 | 203.03175 | 160.57587 | 10.03114 | 0.0722642 | 0.18473256 | 3.0533300 | 20 | 3 28.7 | 20.3 |
| 207617 2006 RJ ₄₃ | 15.6 | X | 206.30595 | 319.82530 | 19.40553 | 5.49614 | 0.1489085 | 0.18080791 | 3.0973558 | 20 | 3 9.5 | 20.7 |
| 207618 2006 RF ₄₅ | 15.8 | X | 19.61074 | 85.09637 | 152.27570 | 3.00219 | 0.0228935 | 0.19269768 | 2.9686003 | 20 | 6 11.1 | 19.7 |
| 207619 2006 RU ₆₀ | 15.3 | X | 221.45354 | 341.14770 | 304.24427 | 3.81679 | 0.1222448 | 0.17698018 | 3.1418562 | 20 | 1 20.8 | 20.4 |
| 207620 2006 SB ₇₄ | 16.2 | X | 309.23430 | 105.17338 | 173.68136 | 1.63874 | 0.0614616 | 0.18994482 | 2.9972140 | 20 | 4 25.6 | 20.1 |
| 207621 2006 RK ₈₁ | 15.9 | X | 216.88931 | 248.25580 | 50.28530 | 1.68403 | 0.1486506 | 0.17763889 | 3.1340844 | 20 | 1 31.3 | 21.1 |
| 207622 2006 RT ₁₂₁ | 15.3 | X | 251.46983 | 113.90009 | 166.20636 | 5.58045 | 0.1348827 | 0.18166949 | 3.0875551 | 20 | 2 9.4 | 20.2 |
| 207623 2006 SK ₅ | 14.4 | X | 259.68623 | 92.65040 | 274.41849 | 1.72812 | 0.2457182 | 0.12340074 | 3.9956817 | 20 | 5 21.0 | 20.3 |
| 207624 2006 SY ₁₄ | 15.2 | X | 222.93358 | 59.38774 | 246.01282 | 3.96208 | 0.1341177 | 0.17944028 | 3.1130738 | 20 | 2 11.7 | 20.1 |
| 207625 2006 SB ₄₅ | 15.5 | X | 38.38071 | 221.81885 | 268.91444 | 11.17498 | 0.1124153 | 0.18106628 | 3.0944087 | 20 | 2 21.3 | 19.5 |
| 207626 2006 SP ₅₆ | 14.8 | X | 185.91469 | 267.16603 | 86.11009 | 11.82931 | 0.0663438 | 0.18131690 | 3.0915565 | 20 | 3 10.8 | 19.6 |
| 207627 2006 SA ₉₃ | 16.2 | X | 281.05710 | 233.75466 | 20.12721 | 0.48570 | 0.1196000 | 0.17602091 | 3.1532607 | 20 | 2 12.3 | 20.6 |
| 207628 2006 SK ₁₁₁ | 15.7 | X | 239.36796 | 192.39694 | 112.67513 | 3.54419 | 0.1887433 | 0.18494291 | 3.0510144 | 20 | 2 24.9 | 20.6 |
| 207629 2006 SS ₁₄₄ | 15.4 | X | 240.61164 | 296.27398 | 328.85495 | 1.92570 | 0.0426696 | 0.17111050 | 3.2133024 | 20 | 1 21.6 | 20.2 |
| 207630 2006 SP ₁₆₇ | 14.7 | X | 285.71573 | 60.45458 | 284.48256 | 1.96498 | 0.1550443 | 0.12627251 | 3.9348680 | 20 | 6 3.7 | 20.1 |
| 207631 2006 SP ₂₂₅ | 16.2 | X | 329.58976 | 80.95331 | 142.46122 | 2.64039 | 0.0300969 | 0.18723913 | 3.0260189 | 20 | 3 17.6 | 20.3 |
| 207632 2006 SE ₂₉₉ | 15.3 | X | 264.70282 | 191.19046 | 115.38059 | 6.23626 | 0.1253537 | 0.18722500 | 3.0261712 | 20 | 3 29.5 | 19.8 |
| 207633 2006 SV ₃₃₉ | 16.8 | X | 97.17216 | 297.65318 | 60.43871 | 4.68748 | 0.1024586 | 0.23339470 | 2.6126148 | 20 | — | — |
| 207634 2006 SN ₃₅₀ | 15.1 | X | 158.92167 | 325.31455 | 8.31813 | 7.39305 | 0.0829042 | 0.17301725 | 3.1896506 | 20 | 1 18.0 | 20.0 |
| 207635 2006 SS ₃₉₀ | 15.5 | X | 130.08471 | 286.27156 | 180.36099 | 8.84093 | 0.0700082 | 0.18939921 | 3.0029674 | 20 | 5 23.4 | 20.0 |
| 207636 2006 SQ ₃₉₄ | 14.9 | X | 315.40866 | 329.74710 | 157.43663 | 10.66630 | 0.0301424 | 0.15615149 | 3.4153768 | 20 | — | — |
| 207637 2006 TE ₂₄ | 15.5 | X | 291.23412 | 331.10819 | 336.25020 | 2.74454 | 0.1564913 | 0.19072002 | 2.9890868 | 20 | 4 22.3 | 19.5 |
| 207638 2006 TJ ₃₂ | 14.6 | X | 11.93899 | 248.65286 | 38.92905 | 3.55169 | 0.0641017 | 0.12702315 | 3.9193508 | 20 | 8 3.7 | 19.8 |
| 207639 2006 TN ₁₂₃ | 15.5 | X | 245.07093 | 16.95726 | 240.35131 | 4.85103 | 0.1102685 | 0.16984100 | 3.2292948 | 20 | 1 11.4 | 20.6 |
| 207640 2006 UV ₂₂ | 15.5 | X | 222.52175 | 304.28307 | 357.51954 | 8.53534 | 0.0642198 | 0.17879456 | 3.1205647 | 20 | 2 14.0 | 20.2 |
| 207641 2006 UK ₄₆ | 14.6 | X | 12.06964 | 101.51119 | 192.89380 | 3.01335 | 0.0484599 | 0.12499741 | 3.9615825 | 20 | 8 8.9 | 20.0 |
| 207642 2006 UC ₁₈₀ | 15.0 | X | 186.98567 | 213.27016 | 204.09320 | 22.28817 | 0.1067209 | 0.18461762 | 3.0545972 | 20 | 5 23.5 | 20.0 |
| 207643 2006 UW ₁₈₁ | 14.9 | X | 221.60721 | 149.29207 | 178.37640 | 15.36067 | 0.0342395 | 0.17471632 | 3.1689379 | 20 | 3 13.9 | 19.4 |
| 207644 2006 UW ₃₂₂ | 14.7 | X | 137.29183 | 205.71319 | 322.11980 | 2.71232 | 0.0753755 | 0.12430892 | 3.9761966 | 20 | 8 11.1 | 20.5 |
| 207645 2007 HB ₃₃ | 17.7 | X | 216.32869 | 76.38926 | 238.48104 | 4.52263 | 0.1570493 | 0.28798645 | 2.2710220 | 20 | 2 5.3 | 21.2 |
| 207646 2007 HJ ₅₀ | 16.5 | X | 347.55406 | 218.63638 | 118.43161 | 5.39384 | 0.2211146 | 0.24154732 | 2.5534924 | 20 | 9 28.5 | 18.5 |
| 207647 2007 KQ ₈ | 15.2 | X | 34.32139 | 255.22871 | 68.67355 | 14.37564 | 0.2324885 | 0.24026272 | 2.5625861 | 20 | 12 1.2 | 18.5 |
| 207648 2007 LP ₁₈ | 16.5 | X | 97.75865 | 157.06776 | 159.10841 | 2.06720 | 0.3602324 | 0.25148313 | 2.4857845 | 20 | — | — |
| 207649 2007 MX ₅ | 17.3 | X | 201.07417 | 333.72430 | 98.86665 | 6.85104 | 0.1342502 | 0.29941182 | 2.2128743 | 20 | 6 26.6 | 20.4 |
| 207650 2007 MM ₈ | 16.3 | X | 332.48278 | 171.56991 | 242.23683 | 6.94525 | 0.2404659 | 0.24248291 | 2.5469200 | 20 | 12 21.5 | 18.2 |
| 207651 2007 MV ₁₃ | 16.7 | X | 209.57300 | 145.77906 | 148.04143 | 6.21461 | 0.0783249 | 0.27341019 | 2.3510377 | 20 | 1 5.8 | 20.0 |
| 207652 2007 OQ ₃ | 16.2 | X | 75.70289 | 164.84108 | 194.63952 | 4.24403 | 0.2304285 | 0.25272442 | 2.4776383 | 20 | — | — |
| 207653 2007 OS ₃ | 15.3 | X | 66.79781 | 89.44538 | 289.39608 | 23.34539 | 0.3470309 | 0.17477012 | 3.1682875 | 20 | — | — |
| 207654 2007 OF ₇ | 16.8 | X | 109.15594 | 175.33637 | 159.36407 | 1.37218 | 0.1917738 | 0.25773729 | 2.4454073 | 20 | — | — |
| 207655 2007 OE ₈ | 16.9 | X | 263.24783 | 236.43043 | 83.32090 | 3.94981 | 0.2075372 | 0.28596413 | 2.2817165 | 20 | 3 27.8 | 20.2 |
| 207656 2007 OG ₁₀ | 16.0 | X | 302.59142 | 256.68546 | 114.01165 | 8.45199 | 0.1510477 | 0.22432963 | 2.6825323 | 20 | 8 8.8 | 19.1 |
| 207657 Mangiantini | 16.9 | X | 152.21553 | 160.49971 | 166.84293 | 2.14291 | 0.2137802 | 0.26605884 | 2.3941476 | 20 | — | — |
| 207658 2007 PY | 16.9 | X | 126.81067 | 246.34449 | 112.83122 | 2.41941 | 0.2028113 | 0.26439569 | 2.4041772 | 20 | 1 12.9 | 19.9 |
| 207659 2007 PV ₁ | 15.8 | X | 86.48080 | 217.59329 | 131.75276 | 8.33734 | 0.1575704 | 0.25451190 | 2.4660241 | 20 | — | — |
| 207660 2007 PA ₂ | 16.7 | X | 96.41436 | 279.08835 | 132.43653 | 5.68845 | 0.1454110 | 0.27014195 | 2.3699619 | 20 | 2 1.4 | 19.1 |
| 207661 2007 PR ₅ | 15.8 | X | 247.29623 | 245.64117 | 134.77252 | 12.13842 | 0.2222999 | 0.21590502 | 2.7518678 | 20 | 5 30.3 | 20.4 |
| 207662 2007 PG ₇ | 17.0 | X | 144.85932 | 186.01740 | 182.23383 | 1.75429 | 0.2270668 | 0.26849359 | 2.3796519 | 20 | 2 13.8 | 20.5 |
| 207663 2007 PV ₇ | 16.6 | X | 115.98714 | 228.18682 | 146.80246 | 5.92587 | 0.1646556 | 0.26362940 | 2.4088337 | 20 | 1 14.2 | 19.5 |
| 207664 2007 PJ ₈ | 16.9 | X | 121.02376 | 231.31866 | 100.67980 | 2.67450 | 0.2043780 | 0.25795324 | 2.4440424 | 20 | — | — |
| 207665 2007 PK ₈ | 16.7 | X | 129.12892 | 288.98270 | 61.69179 | 2.15340 | 0.1916961 | 0.26230592 | 2.4169295 | 20 | 1 3.6 | 19.8 |
| 207666 Habibula | 16.7 | X | 165.67763 | 67.32951 | 234.76065 | 5.91422 | 0.1091816 | 0.26521551 | 2.3992202 | 20 | — | — |
| 207667 2007 PW ₁₈ | 16.6 | X | 96.62608 | 155.74737 | 200.84307 | 0.91274 | 0.1903620 | 0.25636808 | 2.4541065 | 20 | — | — |
| 207668 2007 PX ₁₈ | 16.5 | X | 69.65951 | 49.96259 | 314.30810 | 5.62661 | 0.2289933 | 0.25117450 | 2.4878204 | 20 | — | — |
| 207669 2007 PF ₂₀ | 16.9 | X | 118.27612 | 225.99773 | 140.71330 | 1.43547 | 0.1937189 | 0.26172693 | 2.4204927 | 20 | 1 11.3 | 20.0 |
| 207670 2007 PH ₂₀ | 17.3 | X | 295.88266 | 5.13581 | 306.04671 | 2.18287 | 0.1941377 | 0.29173485 | 2.2515271 | 20 | 4 22.7 | 19.7 |
| 207671 2007 PJ ₂₀ | 17.2 | X | 279.05462 | 23.24797 | 272.63097 | 1.79622 | 0.1691028 | 0.28556947 | 2.2838182 | 20 | 3 14.8 | 20.2 |
| 207672 2007 PD ₂₂ | 16.8 | X | 91.60434 | 97.29527 | 271.52013 | 3.42396 | 0.1526458 | 0.25832368 | 2.4417052 | 20 | — | — |
| 207673 2007 PQ ₂₆ | 15.2 | X | 24.73231 | 343.33830 | 339.70301 | 11.79358 | 0.2993657 | 0.23233877 | 2.6205247 | 20 | 11 22.7 | 18.7 |
| 207674 2007 PV ₂₉ | 16.7 | X | 156.97147 | 217.60992 | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|-------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207681 Caiqiao | 15.6 | X | 93.66960 | 14.56104 | 15.98628 | 8.31117 | 0.2452419 | 0.25906955 | 2.4370165 | 20 | 1 20.4 | 18.4 |
| 207682 2007 QX | 16.2 | X | 100.44002 | 120.88191 | 237.96927 | 5.65653 | 0.1421583 | 0.25729145 | 2.4482315 | 20 | — | — |
| 207683 2007 QJ ₁₀ | 16.3 | X | 178.48651 | 140.80891 | 322.63636 | 4.16628 | 0.1147150 | 0.21512051 | 2.7585541 | 20 | 7 12.0 | 20.5 |
| 207684 2007 QP ₁₂ | 15.5 | X | 116.02411 | 274.02767 | 52.62220 | 10.44756 | 0.2188705 | 0.18252063 | 3.0779489 | 20 | — | — |
| 207685 2007 QX ₁₂ | 16.6 | X | 259.62189 | 205.96887 | 193.27977 | 5.73635 | 0.1187962 | 0.21884767 | 2.7271442 | 20 | 7 17.1 | 20.5 |
| 207686 2007 RX ₂ | 17.0 | X | 95.08124 | 198.97882 | 178.61537 | 0.71964 | 0.1980280 | 0.25890276 | 2.4380630 | 20 | — | — |
| 207687 Senckenberg | 16.5 | X | 189.71124 | 141.21716 | 210.21761 | 2.76139 | 0.2168573 | 0.27140936 | 2.3625781 | 20 | 3 1.1 | 20.6 |
| 207688 2007 RQ ₁₆ | 16.7 | X | 151.03524 | 311.90693 | 31.92585 | 2.83363 | 0.2370929 | 0.26244131 | 2.4160982 | 20 | 1 23.4 | 20.4 |
| 207689 2007 RR ₁₈ | 15.3 | X | 27.64105 | 90.24612 | 343.43158 | 10.45298 | 0.2304380 | 0.17387206 | 3.1791878 | 20 | — | — |
| 207690 2007 RE ₁₉ | 16.4 | X | 212.69267 | 217.21489 | 178.46567 | 1.91623 | 0.0732215 | 0.20369735 | 2.8607448 | 20 | 5 24.3 | 20.5 |
| 207691 2007 RS ₂₃ | 16.7 | X | 165.59668 | 186.27445 | 181.60040 | 6.73189 | 0.1398893 | 0.27095913 | 2.3651945 | 20 | 2 25.1 | 20.2 |
| 207692 2007 RU ₂₇ | 16.6 | X | 254.85910 | 230.72374 | 81.56565 | 8.00815 | 0.1315271 | 0.28230212 | 2.3014063 | 20 | 3 19.5 | 20.0 |
| 207693 2007 RC ₃₄ | 15.7 | X | 228.18909 | 102.56737 | 264.34946 | 2.14199 | 0.1465005 | 0.20553354 | 2.8436813 | 20 | 4 28.3 | 20.2 |
| 207694 2007 RB ₃₈ | 15.8 | X | 303.78440 | 244.14471 | 168.72844 | 3.82124 | 0.0502873 | 0.21048095 | 2.7989438 | 20 | 6 2.6 | 19.3 |
| 207695 Olgakopyl | 16.7 | X | 319.26092 | 126.14939 | 51.42752 | 5.60975 | 0.0870369 | 0.28782919 | 2.2718492 | 20 | 5 2.3 | 19.1 |
| 207696 2007 RO ₅₅ | 15.8 | X | 248.89742 | 163.96104 | 223.43031 | 5.77609 | 0.0496523 | 0.21313757 | 2.7756373 | 20 | 6 28.0 | 19.7 |
| 207697 2007 RF ₅₈ | 15.7 | X | 290.28650 | 223.65351 | 183.65153 | 14.14644 | 0.1499769 | 0.22360144 | 2.6883531 | 20 | 9 6.3 | 19.0 |
| 207698 2007 RG ₅₈ | 16.3 | X | 289.40625 | 186.04439 | 180.61230 | 3.43555 | 0.2064966 | 0.21689073 | 2.7435237 | 20 | 6 30.9 | 19.6 |
| 207699 2007 RB ₅₉ | 17.0 | X | 214.95102 | 8.62531 | 289.90019 | 1.61970 | 0.2063233 | 0.27128812 | 2.3632819 | 20 | 1 18.6 | 20.9 |
| 207700 2007 RJ ₇₀ | 16.2 | X | 318.86567 | 288.12676 | 83.93299 | 2.86718 | 0.0227187 | 0.22805510 | 2.6532379 | 20 | 9 19.7 | 19.5 |
| 207701 2007 RL ₇₀ | 16.1 | X | 35.50173 | 337.69350 | 93.36508 | 2.71113 | 0.1772704 | 0.17585467 | 3.1552476 | 20 | — | — |
| 207702 2007 RN ₇₁ | 16.6 | X | 2.30517 | 70.60513 | 63.89709 | 2.86196 | 0.1579399 | 0.26113056 | 2.4241766 | 20 | — | — |
| 207703 2007 RH ₇₆ | 16.9 | X | 349.12856 | 296.10189 | 166.40886 | 2.88502 | 0.1003448 | 0.25296574 | 2.4760623 | 20 | — | — |
| 207704 2007 RT ₈₃ | 16.9 | X | 273.63398 | 310.26369 | 338.34248 | 3.96512 | 0.0847530 | 0.28056520 | 2.3108948 | 20 | 3 10.6 | 20.0 |
| 207705 2007 RF ₈₄ | 16.9 | X | 63.69683 | 122.42810 | 236.95557 | 1.88823 | 0.0553580 | 0.24789530 | 2.5097118 | 20 | — | — |
| 207706 2007 RN ₈₇ | 16.6 | X | 333.95921 | 193.66462 | 169.96051 | 3.05800 | 0.1661155 | 0.22771679 | 2.6558651 | 20 | 9 29.1 | 18.9 |
| 207707 2007 RB ₉₂ | 16.5 | X | 119.68276 | 330.88259 | 129.44918 | 3.69458 | 0.1762090 | 0.19645026 | 2.9306749 | 20 | 5 14.6 | 21.0 |
| 207708 2007 RU ₉₄ | 16.2 | X | 213.37055 | 334.27575 | 65.94569 | 2.67329 | 0.0684272 | 0.20642297 | 2.8355069 | 20 | 5 29.5 | 20.4 |
| 207709 2007 RR ₉₈ | 17.0 | X | 166.54815 | 150.86471 | 140.49944 | 5.42547 | 0.1403765 | 0.25463287 | 2.4652430 | 20 | — | — |
| 207710 2007 RR ₁₀₂ | 17.5 | X | 121.45830 | 157.27121 | 9.96150 | 1.34079 | 0.1101697 | 0.29764792 | 2.2216083 | 20 | 8 9.2 | 20.3 |
| 207711 2007 RQ ₁₀₄ | 16.5 | X | 43.54882 | 329.14100 | 141.22599 | 4.18039 | 0.1108241 | 0.26595752 | 2.3947556 | 20 | 1 22.3 | 18.6 |
| 207712 2007 RA ₁₀₆ | 16.5 | X | 287.06538 | 229.11658 | 174.91582 | 4.13229 | 0.1342564 | 0.22307877 | 2.6925507 | 20 | 8 30.9 | 19.6 |
| 207713 2007 RN ₁₀₉ | 17.1 | X | 191.26178 | 354.65309 | 302.32064 | 1.20490 | 0.1830028 | 0.26375587 | 2.4080636 | 20 | — | — |
| 207714 2007 RN ₁₁₈ | 16.6 | X | 12.58490 | 158.41134 | 177.86448 | 2.65192 | 0.0680155 | 0.22832630 | 2.6511365 | 20 | 10 21.1 | 19.7 |
| 207715 Muqinshuijiao | 16.8 | X | 279.62391 | 356.37271 | 352.62457 | 4.10653 | 0.1687654 | 0.29191858 | 2.2505823 | 20 | 5 29.2 | 19.6 |
| 207716 Wangxichan | 17.1 | X | 204.08172 | 359.45477 | 308.67097 | 1.01791 | 0.1869216 | 0.26905629 | 2.3763329 | 20 | 1 21.3 | 21.0 |
| 207717 Sa _a | 15.8 | X | 131.92853 | 264.89936 | 78.85565 | 2.17000 | 0.1679612 | 0.18153046 | 3.0891314 | 20 | 1 8.0 | 20.5 |
| 207718 2007 RF ₁₂₂ | 15.6 | X | 262.05084 | 9.44022 | 14.20477 | 13.67227 | 0.1540636 | 0.21472472 | 2.7619428 | 20 | 6 25.4 | 19.8 |
| 207719 2007 RE ₁₃₂ | 15.5 | X | 57.55167 | 84.11516 | 60.39867 | 11.04120 | 0.0603025 | 0.19287757 | 2.9667542 | 20 | 4 11.1 | 19.5 |
| 207720 2007 RA ₁₃₈ | 17.0 | X | 281.47672 | 40.22690 | 254.15230 | 2.00032 | 0.1545798 | 0.28352373 | 2.2947908 | 20 | 3 17.7 | 20.0 |
| 207721 2007 RW ₁₄₁ | 16.2 | X | 291.41366 | 185.91095 | 177.62191 | 3.50523 | 0.2066007 | 0.21692874 | 2.7432033 | 20 | 6 29.6 | 19.7 |
| 207722 2007 RU ₁₄₄ | 16.3 | X | 278.61573 | 145.44601 | 228.87450 | 5.45113 | 0.0985797 | 0.21785339 | 2.7354356 | 20 | 7 12.4 | 19.9 |
| 207723 Jiansanjiang | 16.8 | X | 256.09817 | 186.63521 | 108.37830 | 3.66774 | 0.0485567 | 0.27535948 | 2.3399291 | 20 | 3 4.3 | 19.7 |
| 207724 2007 RY ₁₄₉ | 16.6 | X | 248.52445 | 99.06562 | 278.09182 | 6.60049 | 0.2050266 | 0.21107752 | 2.7936676 | 20 | 5 25.8 | 21.0 |
| 207725 2007 RR ₁₅₀ | 16.4 | X | 243.04400 | 123.70264 | 309.26507 | 3.70315 | 0.0749751 | 0.22416101 | 2.6838722 | 20 | 8 17.7 | 20.2 |
| 207726 2007 RW ₁₅₀ | 15.8 | X | 231.18064 | 295.68833 | 79.64663 | 9.59483 | 0.2269870 | 0.20843037 | 2.8172716 | 20 | 5 8.6 | 20.6 |
| 207727 2007 RW ₁₆₅ | 16.4 | X | 283.94204 | 262.89736 | 208.84311 | 3.63645 | 0.1583594 | 0.23878423 | 2.5731531 | 20 | 11 30.3 | 18.9 |
| 207728 2007 RE ₁₇₂ | 16.2 | X | 200.34442 | 313.42580 | 124.83046 | 4.49162 | 0.1582390 | 0.21219010 | 2.7838936 | 20 | 6 29.5 | 20.8 |
| 207729 2007 RR ₁₇₃ | 16.5 | X | 25.89011 | 178.48213 | 141.73670 | 4.75843 | 0.0862946 | 0.22974923 | 2.6401788 | 20 | 10 23.2 | 19.8 |
| 207730 2007 RG ₁₇₄ | 15.4 | X | 86.50325 | 17.86451 | 30.56681 | 10.14426 | 0.1121388 | 0.18080865 | 3.0973473 | 20 | 1 28.3 | 19.7 |
| 207731 2007 RZ ₁₈₇ | 16.7 | X | 185.51004 | 68.19517 | 50.61256 | 5.68754 | 0.1063560 | 0.21677871 | 2.7444688 | 20 | 8 10.1 | 20.9 |
| 207732 2007 RH ₁₉₁ | 17.0 | X | 254.58005 | 203.00935 | 228.15789 | 1.18338 | 0.0384994 | 0.22363691 | 2.6880689 | 20 | 9 4.9 | 20.6 |
| 207733 2007 RJ ₁₉₂ | 17.5 | X | 299.44746 | 169.43718 | 121.25915 | 1.87721 | 0.1636301 | 0.28754807 | 2.2733296 | 20 | 4 5.8 | 20.0 |
| 207734 2007 RK ₁₉₂ | 16.9 | X | 100.59403 | 316.31489 | 61.19863 | 2.17045 | 0.1995289 | 0.25796620 | 2.4439605 | 20 | 1 3.4 | 19.5 |
| 207735 2007 RH ₁₉₃ | 16.9 | X | 275.93935 | 36.24560 | 346.24511 | 1.08137 | 0.1078153 | 0.21765287 | 2.7371154 | 20 | 7 19.7 | 20.6 |
| 207736 2007 RS ₂₁₈ | 17.1 | X | 355.65827 | 201.88713 | 152.89694 | 3.03267 | 0.1245965 | 0.23059311 | 2.6337335 | 20 | 10 27.3 | 20.0 |
| 207737 2007 RL ₂₁₉ | 16.7 | X | 230.09473 | 209.27988 | 313.44828 | 1.93447 | 0.1136679 | 0.23753407 | 2.5821736 | 20 | 11 23.5 | 20.2 |
| 207738 2007 RD ₂₂₆ | 17.9 | X | 101.33872 | 279.24899 | 326.15616 | 2.45317 | 0.1226043 | 0.31204073 | 2.1527579 | 20 | 11 3.1 | 20.9 |
| 207739 2007 RP ₂₃₆ | 16.0 | X | 310.87772 | 212.92932 | 148.44346 | 4.25211 | 0.1163486 | 0.22228242 | 2.6989778 | 20 | 8 12.9 | 19.0 |
| 207740 2007 RZ ₂₃₆ | 17.4 | X | 203.66799 | 178.03994 | 177.44415 | 2.89151 | 0.1525902 | 0.27970409 | 2.3156353 | 20 | 3 18.2 | 21.0 |
| 207741 2007 RO ₂₄₄ | 15.7 | X | 35.55068 | 276.52368 | 178.12134 | 9.73573 | 0.1508400 | 0.17702461 | 3.1413304 | 20 | 1 8.8 | 19.5 |
| 207742 2007 RP ₂₄₅ | 16.4 | X | 286.61945 | 348.76467 | 49.82993 | 7.11460 | 0.0509212 | 0.22202730 | 2.7010448 | 20 | 9 8.1 | 19.9 |
| 207743 2007 RK ₂₄₇ | 14.9 | X | 78.88619 | 104.92289 | 280.14026 | 17.32914 | 0.2137647 | 0.17653132 | 3.1471796 | 20 | 1 1.1 | 18.9 |
| 207744 2007 RY ₂₄₇ | 15.9 | X | 121.02961 | 285.64947 | 96.66424 | 2.59068 | 0.1475896 | 0.18449994 | 3.0558959 | 20 | 2 8.6 | 20.4 |
| 207745 2007 RP ₂₅₂ | 15.8 | X | 15.29619 | 9.41999 | 301.72936 | 13.16420 | 0.2812951 | 0.22769737 | 2.6560161 | 20 | 10 14.5 | 18.9 |
| 207746 2007 RC ₂₅₆ | 16.1 | X | 48.22270 | 4.80083 | 49.27254 | 6.57930 | 0.1770628 | 0.25451118 | 2.4660288 | 20 | — | — |
| 207747 2007 RL ₂₅₇ | 16.2 | X | 106.85605 | 303.75679 | 72.60433 | 7.47500 | 0.1313725 | 0.25972140 | 2.4329371 | 20 | — | — |
| 207748 2007 RM ₂₇₇ | 15.7 | X | 290.47102 | 123.01695 | 265.6 | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|--------------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----|---------|----------|
| 207761 2007 <i>TJ</i> ₄ | 16.3 | X | 163.98645 | 37.24878 | 183.36383 | 6.66271 | 0.0881756 | 0.23447322 | 2.6045971 | 20 | 11 25.5 | 20.3 |
| 207762 2007 <i>TA</i> ₁₃ | 15.4 | X | 37.85033 | 260.38048 | 170.31302 | 4.78302 | 0.1444165 | 0.17269362 | 3.1936344 | 20 | — | — |
| 207763 Oberursel | 16.0 | X | 116.59782 | 285.25129 | 133.35961 | 3.19894 | 0.1325763 | 0.18841828 | 3.0133808 | 20 | 3 16.4 | 20.4 |
| 207764 2007 <i>TC</i> ₂₄ | 15.3 | X | 101.24284 | 47.19995 | 357.59758 | 9.32611 | 0.0747582 | 0.18250969 | 3.0780719 | 20 | 2 5.6 | 19.6 |
| 207765 2007 <i>TV</i> ₃₂ | 15.9 | X | 340.31507 | 242.46992 | 53.48746 | 4.63292 | 0.0785021 | 0.21103738 | 2.7940218 | 20 | 7 2.9 | 19.2 |
| 207766 2007 <i>TJ</i> ₃₃ | 16.7 | X | 306.44310 | 206.20374 | 213.12085 | 1.46360 | 0.0835886 | 0.22732181 | 2.6589406 | 20 | 10 30.2 | 19.6 |
| 207767 2007 <i>TN</i> ₃₄ | 16.4 | X | 81.31086 | 106.14838 | 195.36547 | 3.06151 | 0.1035513 | 0.23406945 | 2.6075915 | 20 | 12 8.7 | 20.1 |
| 207768 2007 <i>TD</i> ₃₅ | 15.9 | X | 230.18334 | 251.11606 | 112.32789 | 3.12566 | 0.0722895 | 0.19958525 | 2.8999049 | 20 | 5 3.9 | 20.1 |
| 207769 2007 <i>TR</i> ₃₆ | 17.1 | X | 165.30851 | 317.96698 | 46.04581 | 2.88665 | 0.2122766 | 0.27035713 | 2.3687042 | 20 | 2 27.4 | 20.9 |
| 207770 2007 <i>TA</i> ₃₈ | 17.6 | X | 330.08451 | 129.85517 | 172.59317 | 1.20761 | 0.1818102 | 0.29427996 | 2.2385266 | 20 | 6 18.1 | 19.2 |
| 207771 2007 <i>TB</i> ₄₀ | 16.6 | X | 109.58234 | 219.49021 | 59.55123 | 3.39295 | 0.1153981 | 0.23538363 | 2.5978768 | 20 | 12 10.9 | 20.5 |
| 207772 2007 <i>TG</i> ₄₉ | 15.6 | X | 109.42811 | 157.39500 | 228.93494 | 3.98720 | 0.1463479 | 0.17967728 | 3.1103358 | 20 | 1 30.1 | 20.1 |
| 207773 2007 <i>TV</i> ₅₈ | 15.1 | X | 175.30121 | 97.62121 | 324.79749 | 5.55210 | 0.2958760 | 0.12397428 | 3.9833486 | 20 | 5 18.3 | 22.0 |
| 207774 2007 <i>TY</i> ₆₆ | 15.9 | X | 58.96674 | 45.08539 | 9.72734 | 0.77962 | 0.0990400 | 0.17511226 | 3.1641593 | 20 | — | — |
| 207775 2007 <i>TZ</i> ₇₀ | 15.3 | X | 85.42026 | 340.17960 | 64.33635 | 14.93572 | 0.1370654 | 0.17636179 | 3.1491962 | 20 | 1 25.8 | 19.7 |
| 207776 2007 <i>TY</i> ₇₃ | 15.9 | X | 228.01311 | 239.55966 | 91.61233 | 3.24420 | 0.1205141 | 0.19582206 | 2.9369393 | 20 | 3 20.1 | 20.5 |
| 207777 2007 <i>TG</i> ₇₆ | 16.0 | X | 306.37010 | 113.36316 | 180.43953 | 1.84805 | 0.0353120 | 0.20361943 | 2.8614747 | 20 | 5 14.3 | 19.7 |
| 207778 2007 <i>TO</i> ₇₈ | 15.6 | X | 54.93197 | 83.22670 | 3.87423 | 4.77586 | 0.1436305 | 0.17724990 | 3.1386680 | 20 | 2 2.7 | 19.4 |
| 207779 2007 <i>TZ</i> ₈₄ | 15.8 | X | 70.98355 | 329.59676 | 230.58239 | 23.83771 | 0.1890892 | 0.28311290 | 2.2970103 | 20 | 7 23.9 | 19.4 |
| 207780 2007 <i>TO</i> ₈₆ | 16.1 | X | 117.03343 | 141.97933 | 129.59535 | 3.05954 | 0.0853213 | 0.23439034 | 2.6052110 | 20 | 12 8.5 | 19.9 |
| 207781 2007 <i>TC</i> ₁₀₃ | 15.9 | X | 224.79266 | 289.06177 | 75.39126 | 3.07973 | 0.0783975 | 0.19800806 | 2.9152836 | 20 | 4 28.4 | 20.3 |
| 207782 2007 <i>TT</i> ₁₀₃ | 16.6 | X | 273.10995 | 260.01889 | 58.56537 | 5.67807 | 0.1764288 | 0.28030110 | 2.3123461 | 20 | 4 10.0 | 19.8 |
| 207783 2007 <i>TA</i> ₁₀₆ | 15.8 | X | 79.13625 | 283.42516 | 166.93513 | 6.13012 | 0.1437654 | 0.18592371 | 3.0402750 | 20 | 3 10.8 | 19.9 |
| 207784 2007 <i>TO</i> ₁₁₇ | 15.0 | X | 92.98069 | 319.58319 | 59.06144 | 11.46961 | 0.0405619 | 0.17288402 | 3.1912891 | 20 | — | — |
| 207785 2007 <i>TD</i> ₁₃₀ | 16.2 | X | 35.10311 | 35.95170 | 81.00293 | 0.93221 | 0.0855117 | 0.17764401 | 3.1340241 | 20 | 2 3.8 | 20.0 |
| 207786 2007 <i>TO</i> ₁₃₀ | 15.4 | X | 184.94589 | 350.86312 | 4.94883 | 10.14495 | 0.1007745 | 0.19008833 | 2.9957053 | 20 | 3 8.9 | 20.1 |
| 207787 2007 <i>TW</i> ₁₃₀ | 16.8 | X | 332.47025 | 176.43496 | 155.85823 | 5.61927 | 0.2019990 | 0.29644715 | 2.2276034 | 20 | 8 18.9 | 18.0 |
| 207788 2007 <i>TQ</i> ₁₃₃ | 16.2 | X | 353.23790 | 56.85084 | 143.78763 | 1.46321 | 0.0267657 | 0.18889453 | 3.0083137 | 20 | 3 19.9 | 20.3 |
| 207789 2007 <i>TA</i> ₁₄₄ | 15.5 | X | 175.97667 | 83.26992 | 197.28903 | 5.08705 | 0.1027924 | 0.17822106 | 3.1272555 | 20 | — | — |
| 207790 2007 <i>TF</i> ₁₄₇ | 15.5 | X | 89.30389 | 4.69480 | 210.33855 | 9.18530 | 0.1086911 | 0.17917309 | 3.1161679 | 20 | 1 6.9 | 19.8 |
| 207791 2007 <i>TQ</i> ₁₅₀ | 15.8 | X | 235.55728 | 65.55619 | 314.45725 | 4.69821 | 0.0636630 | 0.20880782 | 2.8138755 | 20 | 5 30.4 | 20.0 |
| 207792 2007 <i>TO</i> ₁₅₉ | 15.8 | X | 28.07395 | 312.04572 | 14.02811 | 11.84783 | 0.0646616 | 0.22651478 | 2.6652524 | 20 | 10 25.7 | 19.3 |
| 207793 2007 <i>TN</i> ₁₆₃ | 16.0 | X | 126.38762 | 2.78519 | 26.04398 | 2.18884 | 0.1770007 | 0.18324971 | 3.0697796 | 20 | 2 25.5 | 20.6 |
| 207794 2007 <i>TM</i> ₁₆₇ | 16.2 | X | 338.06397 | 30.27238 | 320.84578 | 4.70250 | 0.1366471 | 0.22437427 | 2.6821765 | 20 | 9 15.5 | 19.0 |
| 207795 2007 <i>TR</i> ₁₆₇ | 15.9 | X | 122.65062 | 190.76057 | 314.66472 | 3.77586 | 0.0321176 | 0.20837519 | 2.8177689 | 20 | 6 28.5 | 19.9 |
| 207796 2007 <i>TB</i> ₁₇₁ | 16.6 | X | 325.80443 | 299.18937 | 13.86074 | 2.22038 | 0.0663839 | 0.21327834 | 2.7744158 | 20 | 7 4.5 | 20.0 |
| 207797 2007 <i>TO</i> ₁₈₇ | 15.2 | X | 236.63077 | 281.03315 | 87.80226 | 11.52028 | 0.1727314 | 0.20441530 | 2.8540425 | 20 | 5 10.7 | 19.9 |
| 207798 2007 <i>TR</i> ₁₈₉ | 16.5 | X | 187.37996 | 23.20996 | 164.86361 | 0.72858 | 0.0847105 | 0.23894263 | 2.5720157 | 20 | 11 10.4 | 20.1 |
| 207799 2007 <i>TA</i> ₁₉₃ | 16.3 | X | 162.04281 | 86.39821 | 55.77700 | 2.97420 | 0.0704413 | 0.21320743 | 2.7750309 | 20 | 8 14.1 | 20.4 |
| 207800 2007 <i>TW</i> ₁₉₅ | 15.7 | X | 15.56597 | 296.70542 | 201.01043 | 3.55767 | 0.1887420 | 0.17575309 | 3.1564633 | 20 | 1 28.4 | 19.1 |
| 207801 2007 <i>TZ</i> ₂₁₂ | 15.4 | X | 227.55696 | 97.77938 | 295.30649 | 3.67409 | 0.1509718 | 0.12632246 | 3.9338307 | 20 | 5 30.2 | 21.5 |
| 207802 2007 <i>TS</i> ₂₁₄ | 14.8 | X | 80.30925 | 329.66758 | 60.44313 | 15.98168 | 0.0635522 | 0.17178662 | 3.2048657 | 20 | — | — |
| 207803 2007 <i>TC</i> ₂₁₅ | 16.9 | X | 338.49296 | 290.36951 | 1.83129 | 4.34215 | 0.1504283 | 0.28823208 | 2.2697316 | 20 | 6 23.5 | 18.6 |
| 207804 2007 <i>TQ</i> ₂₃₁ | 16.6 | X | 357.30529 | 218.90810 | 60.35442 | 2.95757 | 0.0217142 | 0.20646062 | 2.8351621 | 20 | 7 6.4 | 20.3 |
| 207805 2007 <i>TM</i> ₂₃₆ | 15.8 | X | 54.43006 | 254.22198 | 164.60013 | 3.93375 | 0.1097070 | 0.17334780 | 3.1855945 | 20 | — | — |
| 207806 2007 <i>TX</i> ₂₃₇ | 16.6 | X | 9.20575 | 229.80476 | 345.81470 | 7.40912 | 0.0575604 | 0.28322643 | 2.2963964 | 20 | 4 20.8 | 19.2 |
| 207807 2007 <i>TT</i> ₂₄₃ | 17.0 | X | 130.48905 | 52.45484 | 327.55549 | 6.16909 | 0.0761262 | 0.26176308 | 2.4202699 | 20 | 1 27.9 | 20.1 |
| 207808 2007 <i>TP</i> ₂₄₄ | 15.3 | X | 77.20181 | 282.19849 | 259.95707 | 11.99074 | 0.0478119 | 0.20614984 | 2.8380108 | 20 | 6 19.9 | 19.2 |
| 207809 Wuzuze | 14.9 | X | 142.14947 | 287.19531 | 70.65665 | 10.67217 | 0.0994191 | 0.17901517 | 3.1180004 | 20 | 1 30.1 | 19.7 |
| 207810 2007 <i>TK</i> ₂₄₈ | 15.0 | X | 98.98804 | 116.13309 | 305.95972 | 8.36858 | 0.1051179 | 0.18287753 | 3.0739430 | 20 | 2 22.8 | 19.3 |
| 207811 2007 <i>TV</i> ₂₅₁ | 16.5 | X | 35.88368 | 2.52478 | 336.99908 | 7.42058 | 0.1786625 | 0.23449012 | 2.6044720 | 20 | 12 13.5 | 20.1 |
| 207812 2007 <i>TB</i> ₂₅₂ | 15.9 | X | 115.97662 | 185.05039 | 217.45071 | 5.77545 | 0.1171389 | 0.18505705 | 3.0497597 | 20 | 2 20.4 | 20.5 |
| 207813 2007 <i>TR</i> ₂₅₂ | 16.8 | X | 292.03506 | 25.53604 | 191.83999 | 2.69406 | 0.1364594 | 0.26198498 | 2.4189030 | 20 | — | — |
| 207814 2007 <i>TW</i> ₂₅₂ | 16.5 | X | 176.00577 | 306.80895 | 137.49111 | 0.88504 | 0.0366188 | 0.21345913 | 2.7728490 | 20 | 6 14.4 | 20.4 |
| 207815 2007 <i>TB</i> ₂₅₆ | 15.9 | X | 114.49057 | 13.12337 | 72.49373 | 2.33534 | 0.0787022 | 0.19128146 | 2.9832350 | 20 | 4 9.1 | 20.2 |
| 207816 2007 <i>TM</i> ₂₅₇ | 16.7 | X | 238.86752 | 332.24331 | 38.61738 | 2.45435 | 0.0804349 | 0.20348057 | 2.8627764 | 20 | 5 21.1 | 20.7 |
| 207817 2007 <i>TG</i> ₂₆₁ | 16.7 | X | 6.51158 | 137.69907 | 84.81847 | 2.25659 | 0.0566803 | 0.23259447 | 2.6186038 | 20 | 12 11.5 | 19.9 |
| 207818 2007 <i>TF</i> ₂₆₉ | 15.9 | X | 48.24879 | 272.60463 | 163.77284 | 1.76182 | 0.0701069 | 0.17590099 | 3.1546937 | 20 | 1 2.7 | 19.9 |
| 207819 2007 <i>TA</i> ₂₈₉ | 16.4 | X | 305.03321 | 214.44590 | 122.87968 | 9.87657 | 0.1696620 | 0.21590021 | 2.7519086 | 20 | 6 21.6 | 19.6 |
| 207820 2007 <i>TM</i> ₃₁₇ | 16.0 | X | 74.66110 | 37.19369 | 213.82364 | 4.37070 | 0.1138038 | 0.21837025 | 2.7311176 | 20 | 9 25.9 | 19.9 |
| 207821 2007 <i>TC</i> ₃₃₃ | 16.8 | X | 60.15967 | 26.70394 | 296.15198 | 1.44296 | 0.0212226 | 0.23086577 | 2.6316594 | 20 | 11 29.4 | 20.2 |
| 207822 2007 <i>TE</i> ₃₃₆ | 16.7 | X | 311.00204 | 90.79274 | 324.33711 | 3.58871 | 0.0723120 | 0.23401226 | 2.6080164 | 20 | 11 1.3 | 19.8 |
| 207823 2007 <i>TM</i> ₃₄₁ | 16.4 | X | 133.35638 | 355.61335 | 104.51731 | 3.30886 | 0.0601862 | 0.20096196 | 2.8866457 | 20 | 5 17.0 | 20.6 |
| 207824 2007 <i>TO</i> ₃₅₃ | 16.3 | X | 235.29548 | 255.98442 | 129.26864 | 2.85112 | 0.0414709 | 0.20375134 | 2.8602395 | 20 | 6 9.5 | 20.4 |
| 207825 2007 <i>TZ</i> ₃₅₃ | 15.8 | X | 322.29763 | 281.79457 | 59.00658 | 12.35231 | 0.1494224 | 0.21951052 | 2.7216513 | 20 | 8 4.6 | 19.0 |
| 207826 2007 <i>TM</i> ₃₅₆ | 16.5 | X | | | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> | | |
|--------|----------|-------------------|----------|----------|-----------|-----------|-----------|----------|-----------|------------|-----------|----------|---------|------|
| 207841 | 2007 | UR ₅₅ | 15.5 | X | 190.58758 | 288.37135 | 48.75798 | 3.10529 | 0.1131640 | 0.18596986 | 3.0397720 | 20 | 2 21.4 | 20.2 |
| 207842 | 2007 | UX ₇₈ | 16.0 | X | 216.70325 | 301.98909 | 46.60593 | 2.00944 | 0.0878293 | 0.19311477 | 2.9643244 | 20 | 3 30.7 | 20.6 |
| 207843 | 2007 | UA ₈₂ | 16.8 | X | 206.32085 | 68.46102 | 179.77422 | 6.21244 | 0.0930834 | 0.25129005 | 2.4870577 | 20 | — | — |
| 207844 | 2007 | UP ₈₈ | 16.1 | X | 304.77549 | 10.31166 | 190.11299 | 1.01217 | 0.0919665 | 0.17743921 | 3.1364352 | 20 | 1 10.5 | 20.6 |
| 207845 | 2007 | UZ ₁₀₁ | 16.5 | X | 133.13077 | 330.94949 | 221.65628 | 2.46959 | 0.0277944 | 0.21450706 | 2.7638109 | 20 | 9 10.8 | 20.3 |
| 207846 | 2007 | UO ₁₀₈ | 16.7 | X | 208.03770 | 62.60915 | 29.02385 | 1.95502 | 0.0595264 | 0.21021880 | 2.8012703 | 20 | 8 1.1 | 20.6 |
| 207847 | 2007 | UJ ₁₁₆ | 16.1 | X | 61.12099 | 153.24016 | 90.55658 | 4.87445 | 0.0465146 | 0.21089624 | 2.7952683 | 20 | 8 22.1 | 19.8 |
| 207848 | 2007 | UV ₁₁₆ | 15.4 | X | 195.31193 | 186.19352 | 180.90074 | 10.07041 | 0.0221973 | 0.19236468 | 2.9720253 | 20 | 3 31.8 | 19.7 |
| 207849 | 2007 | UY ₁₁₆ | 16.6 | X | 220.56588 | 9.70892 | 33.98458 | 2.46842 | 0.0667642 | 0.20693101 | 2.8308640 | 20 | 6 12.6 | 20.6 |
| 207850 | 2007 | UA ₁₁₉ | 16.5 | X | 300.56115 | 173.72041 | 193.40196 | 5.61422 | 0.0442914 | 0.22003086 | 2.7173588 | 20 | 8 11.0 | 20.0 |
| 207851 | 2007 | UN ₁₂₁ | 16.7 | X | 202.74405 | 182.69669 | 50.57430 | 2.84514 | 0.1517074 | 0.24150688 | 2.5537774 | 20 | — | — |
| 207852 | 2007 | UU ₁₂₃ | 15.1 | X | 128.11571 | 238.94141 | 129.73291 | 11.28726 | 0.1542378 | 0.17908766 | 3.1171589 | 20 | 1 31.9 | 19.9 |
| 207853 | 2007 | UP ₁₃₃ | 15.2 | X | 219.52227 | 230.35038 | 168.65484 | 2.20822 | 0.2901348 | 0.12309536 | 4.0022873 | 20 | 5 22.9 | 21.8 |
| 207854 | 2007 | VS ₂₀ | 16.5 | X | 135.35073 | 325.84851 | 142.16709 | 3.35105 | 0.0595121 | 0.20436994 | 2.8544649 | 20 | 5 29.3 | 20.7 |
| 207855 | 2007 | VN ₄₁ | 16.1 | X | 13.26996 | 9.84566 | 310.41126 | 14.79575 | 0.1309804 | 0.22598722 | 2.6693988 | 20 | 9 28.2 | 19.5 |
| 207856 | 2007 | VM ₅₂ | 16.3 | X | 313.54191 | 88.31804 | 164.17184 | 3.52912 | 0.1064765 | 0.19069944 | 2.9893019 | 20 | 3 22.4 | 20.0 |
| 207857 | 2007 | VR ₉₀ | 16.1 | X | 154.98102 | 12.24782 | 62.70969 | 2.73142 | 0.1046762 | 0.19465517 | 2.9486649 | 20 | 5 12.1 | 20.5 |
| 207858 | 2007 | VZ ₁₀₄ | 16.2 | X | 300.51501 | 123.87262 | 244.69019 | 2.90668 | 0.1267913 | 0.21417820 | 2.7666393 | 20 | 8 2.4 | 19.5 |
| 207859 | 2007 | VE ₁₀₉ | 16.0 | X | 220.52502 | 286.40086 | 341.81947 | 0.12095 | 0.1310011 | 0.17386826 | 3.1792341 | 20 | — | — |
| 207860 | 2007 | VV ₁₁₇ | 15.6 | X | 32.04640 | 324.95830 | 246.24989 | 8.44810 | 0.0526321 | 0.19839271 | 2.9115141 | 20 | 5 26.8 | 19.3 |
| 207861 | 2007 | VW ₁₁₉ | 16.4 | X | 261.88859 | 241.21536 | 162.10764 | 3.67373 | 0.0505311 | 0.21702085 | 2.7424270 | 20 | 8 5.7 | 20.1 |
| 207862 | 2007 | VM ₁₂₁ | 16.0 | X | 316.75378 | 74.24874 | 276.70941 | 4.83958 | 0.0302943 | 0.21351518 | 2.7723638 | 20 | 8 13.2 | 19.6 |
| 207863 | 2007 | VJ ₁₂₇ | 16.9 | X | 349.12887 | 26.66372 | 307.90470 | 1.57687 | 0.1550971 | 0.22551513 | 2.6731229 | 20 | 9 14.4 | 19.6 |
| 207864 | 2007 | VP ₁₃₃ | 16.2 | X | 3.66479 | 42.95308 | 110.45169 | 2.41520 | 0.1271281 | 0.17832441 | 3.1260471 | 20 | 1 31.2 | 20.0 |
| 207865 | 2007 | VY ₁₄₇ | 16.4 | X | 223.69676 | 182.03043 | 113.43784 | 3.69102 | 0.1760170 | 0.25836964 | 2.4414157 | 20 | 1 23.9 | 20.2 |
| 207866 | 2007 | VO ₁₆₅ | 15.3 | X | 94.47819 | 16.13311 | 66.74036 | 13.80002 | 0.0725043 | 0.18135450 | 3.0911292 | 20 | 3 19.2 | 19.8 |
| 207867 | 2007 | VF ₁₇₃ | 15.4 | X | 146.19604 | 220.36873 | 113.61154 | 7.15490 | 0.0880357 | 0.17409031 | 3.1765302 | 20 | 1 3.7 | 20.0 |
| 207868 | 2007 | VH ₁₇₆ | 15.4 | X | 74.41486 | 257.99041 | 137.38963 | 7.63309 | 0.0952819 | 0.16900803 | 3.2398966 | 20 | — | — |
| 207869 | 2007 | VY ₂₀₁ | 16.2 | X | 237.03197 | 129.28687 | 164.32267 | 5.20265 | 0.1111238 | 0.18473187 | 3.0533376 | 20 | 2 12.7 | 20.8 |
| 207870 | 2007 | VZ ₂₁₄ | 16.0 | X | 333.03386 | 27.54251 | 185.36805 | 5.48874 | 0.0468218 | 0.18470093 | 3.0536786 | 20 | 3 5.9 | 20.1 |
| 207871 | 2007 | VQ ₂₁₆ | 16.3 | X | 319.42188 | 350.77091 | 337.02246 | 1.55687 | 0.0933457 | 0.20852940 | 2.8163796 | 20 | 7 12.1 | 19.5 |
| 207872 | 2007 | VX ₂₄₃ | 16.3 | X | 295.87298 | 341.71230 | 4.76153 | 3.57434 | 0.1099578 | 0.20827356 | 2.8186855 | 20 | 6 28.6 | 20.0 |
| 207873 | 2007 | VX ₂₅₄ | 15.0 | X | 104.48318 | 336.19030 | 93.73712 | 17.13241 | 0.0384571 | 0.17999624 | 3.1066603 | 20 | 3 10.9 | 19.7 |
| 207874 | 2007 | VQ ₂₇₄ | 14.8 | X | 42.19766 | 10.94491 | 81.41122 | 11.84407 | 0.0541709 | 0.17161493 | 3.2070028 | 20 | 1 14.6 | 19.1 |
| 207875 | 2007 | VR ₂₉₇ | 15.9 | X | 130.95317 | 119.54574 | 131.99321 | 15.45333 | 0.0491411 | 0.23320115 | 2.6140602 | 20 | 12 1.0 | 19.9 |
| 207876 | 2007 | VB ₂₉₉ | 15.0 | X | 39.51537 | 289.65353 | 169.69908 | 16.12013 | 0.0701667 | 0.17307435 | 3.1889491 | 20 | 1 17.7 | 19.4 |
| 207877 | 2007 | VS ₃₀₀ | 17.0 | X | 282.56806 | 339.59970 | 337.26757 | 1.30949 | 0.2178610 | 0.28128645 | 2.3069429 | 20 | 4 10.5 | 20.2 |
| 207878 | 2007 | VN ₃₁₁ | 15.6 | X | 227.35901 | 242.34414 | 53.87681 | 4.58953 | 0.1939397 | 0.17984460 | 3.1084063 | 20 | 2 5.7 | 20.8 |
| 207879 | 2007 | VW ₃₁₁ | 16.3 | X | 93.50883 | 230.04011 | 296.34391 | 0.98057 | 0.0334189 | 0.19728413 | 2.9224109 | 20 | 6 18.4 | 20.4 |
| 207880 | 2007 | VC ₃₁₃ | 17.1 | X | 320.99570 | 221.56575 | 19.17747 | 0.90848 | 0.1959859 | 0.26471225 | 2.4022601 | 20 | 2 23.5 | 19.7 |
| 207881 | 2007 | VM ₃₁₄ | 15.9 | X | 37.23070 | 187.41551 | 121.50065 | 6.32066 | 0.0432346 | 0.22222303 | 2.6994586 | 20 | 10 17.4 | 19.5 |
| 207882 | 2007 | VF ₃₁₆ | 16.4 | X | 245.96994 | 71.47321 | 283.24621 | 0.85900 | 0.0711824 | 0.19780175 | 2.9173103 | 20 | 5 9.9 | 20.7 |
| 207883 | 2007 | WN | 16.0 | X | 135.61599 | 260.67942 | 49.98298 | 0.40665 | 0.1365303 | 0.16794553 | 3.2535470 | 20 | — | — |
| 207884 | 2007 | WG ₅₁ | 16.0 | X | 218.75916 | 238.73919 | 169.10584 | 2.14003 | 0.0658394 | 0.20210166 | 2.8757831 | 20 | 6 16.2 | 20.2 |
| 207885 | 2007 | WH ₅₁ | 16.4 | X | 83.54407 | 147.82222 | 108.98510 | 3.36975 | 0.1553718 | 0.21931951 | 2.7232314 | 20 | 10 21.0 | 20.4 |
| 207886 | 2007 | XT ₉ | 14.8 | X | 255.57348 | 251.45024 | 77.68494 | 18.63501 | 0.0382268 | 0.19116680 | 2.9844277 | 20 | 4 30.8 | 19.3 |
| 207887 | 2007 | XU ₁₀ | 16.2 | X | 80.18331 | 119.39455 | 122.83130 | 4.35924 | 0.0393050 | 0.21383969 | 2.7695583 | 20 | 9 13.1 | 20.0 |
| 207888 | 2007 | YJ ₃₂ | 16.1 | X | 73.82362 | 296.37726 | 277.53482 | 0.89645 | 0.1017605 | 0.20364618 | 2.8612241 | 20 | 7 22.1 | 19.9 |
| 207889 | 2008 | AZ ₆ | 15.6 | X | 40.23526 | 189.42230 | 88.71287 | 11.68929 | 0.1956412 | 0.21506167 | 2.7590572 | 20 | 10 6.5 | 19.3 |
| 207890 | 2008 | CA ₁₂₆ | 14.3 | X | 290.71276 | 320.18065 | 266.02789 | 20.75182 | 0.0284776 | 0.17555785 | 3.1588031 | 20 | 1 26.7 | 19.1 |
| 207891 | 2008 | RG ₂₅ | 17.2 | X | 56.27927 | 137.34684 | 194.54583 | 0.78396 | 0.2031495 | 0.26129034 | 2.4231882 | 20 | — | — |
| 207892 | 2008 | SG ₁₈₂ | 12.7 | X | 280.66837 | 46.71679 | 48.91846 | 5.61795 | 0.0290259 | 0.07985667 | 5.3406641 | 20 | 10 18.6 | 19.6 |
| 207893 | 2008 | SK ₂₅₁ | 16.2 | X | 54.54625 | 327.49231 | 101.98216 | 2.04123 | 0.0892638 | 0.18872007 | 3.0101675 | 20 | 1 1.9 | 20.1 |
| 207894 | 2008 | TA ₁₈ | 17.2 | X | 304.92722 | 333.99783 | 240.83022 | 2.99471 | 0.1054201 | 0.28266087 | 2.2994586 | 20 | 1 8.3 | 20.1 |
| 207895 | 2008 | TJ ₅₁ | 16.1 | X | 116.38460 | 304.39260 | 43.88732 | 2.77601 | 0.0833067 | 0.19042217 | 2.9922029 | 20 | — | — |
| 207896 | 2008 | TK ₁₁₃ | 16.5 | X | 126.12501 | 268.56384 | 81.66143 | 3.60587 | 0.0724474 | 0.19052981 | 2.9910758 | 20 | — | — |
| 207897 | 2008 | TL ₁₁₃ | 16.1 | X | 296.74218 | 259.19370 | 66.07956 | 4.00429 | 0.1538707 | 0.22739463 | 2.6583729 | 20 | 5 24.5 | 19.3 |
| 207898 | 2008 | UW ₁ | 15.7 | X | 216.75961 | 242.98641 | 97.88039 | 13.27820 | 0.2003115 | 0.21321628 | 2.7749541 | 20 | 3 21.6 | 20.6 |
| 207899 | 2008 | Grimalia | 15.5 | X | 72.79872 | 244.31020 | 181.67550 | 7.63705 | 0.2545571 | 0.18945072 | 3.0024230 | 20 | 2 14.3 | 19.1 |
| 207900 | 2008 | UQ ₇₁ | 16.3 | X | 336.71314 | 302.44854 | 8.90966 | 5.35360 | 0.0540990 | 0.22557394 | 2.6726583 | 20 | 7 22.4 | 19.6 |
| 207901 | 2008 | Tzecmaun | 15.6 | X | 141.59889 | 241.54882 | 70.40222 | 9.98381 | 0.1222092 | 0.18408757 | 3.0604579 | 20 | — | — |
| 207902 | 2008 | UW ₁₁₂ | 16.7 | X | 251.96507 | 330.54634 | 277.34709 | 3.22760 | 0.1469982 | 0.28077904 | 2.3097214 | 20 | — | — |
| 207903 | 2008 | UX ₁₆₃ | 16.4 | X | 140.19212 | 253.30468 | 235.94629 | 8.50659 | 0.1245481 | 0.22107670 | 2.7087821 | 20 | 7 4.7 | 20.6 |
| 207904 | 2008 | UZ ₁₈₁ | 17.3 | X | 1.09375 | 264.02629 | 49.29781 | 6.32427 | 0.2302462 | 0.24195968 | 2.5505904 | 20 | 9 24.7 | 19.5 |
| 207905 | 2008 | UD ₁₈₆ | 16.0 | X | 199.59326 | 96.45841 | 182.00945 | 1.61689 | 0.0583813 | 0.18454387 | 3.0554110 | 20 | — | — |
| 207906 | 2008 | UQ ₂₀₁ | 15.5 | X | 212.30448 | 230.65068 | 235.37928 | 12.36094 | 0.1296308 | 0.22983191 | 2.6395456 | 20 | 8 13.7 | 19.8 |
| 207907 | 2008 | UR ₂₅₇ | 16.2 | X | 91.36287 | 205.62250 | 40.93446 | 6.84095 | 0.2541245 | 0.23949316 | 2.5680726 | 20 | 10 26.3 | 20.5 |
| 207908 | 2008 | UO ₂₆₃ | 17.1 | X | 105.03560 | 7.34367 | 296.63722 | 1.47307 | 0.2116406 | 0.25820725 | 2.4424392 | 20 | — | — |
| 207909 | 2008 | UW ₂₇₆ | 15.9 | X | 330.26196 | 307.73503 | 178.57796 | 0.60800 | 0.1398548 | 0.17990349 | 3.1077279 | 20 | — | — |
| 207910 | 2008 | UA ₃₀₃ | 17.7 | X | 117.35651 | 135.6072 | | | | | | | | |

ELEMENTS AND OPPOSITION DATES IN 2020

ECLIPTIC AND EQUINOX 2000.0, EPOCH 2020 MAY 31.0 TT

| Planet | <i>H</i> | <i>G</i> | <i>M</i> | ω | Ω | <i>i</i> | <i>e</i> | μ | <i>a</i> | TE | Oppos. | <i>V</i> |
|------------------------------|----------|----------|-----------|-----------|-----------|----------|-----------|-------------|-----------|----|---------|----------|
| 207921 2008 WD ₁₂ | 16.3 | X | 240.55648 | 320.42731 | 67.95121 | 4.13095 | 0.0838249 | 0.22194144 | 2.7017414 | 20 | 6 14.8 | 20.1 |
| 207922 2008 WC ₁₅ | 16.6 | X | 338.91156 | 241.25474 | 36.00226 | 2.58211 | 0.0468535 | 0.22280891 | 2.6947244 | 20 | 6 5.9 | 19.9 |
| 207923 2008 WS ₃₂ | 17.4 | X | 292.39901 | 100.30987 | 53.45564 | 3.46481 | 0.1277433 | 0.25869759 | 2.4393519 | 20 | — | — |
| 207924 2008 WA ₄₃ | 17.5 | X | 5.38089 | 282.83920 | 11.32422 | 1.64056 | 0.1128064 | 0.31457057 | 2.1412004 | 20 | 8 29.8 | 19.0 |
| 207925 2008 WY ₄₃ | 16.5 | X | 32.49156 | 178.57648 | 317.43555 | 0.42792 | 0.1579887 | 0.19187473 | 2.9770825 | 20 | 2 24.8 | 19.7 |
| 207926 2008 WS ₆₀ | 16.5 | X | 299.45679 | 266.77020 | 108.46134 | 2.19874 | 0.1445799 | 0.23385824 | 2.6091613 | 20 | 8 11.5 | 19.2 |
| 207927 2008 WE ₆₃ | 15.5 | X | 78.52826 | 19.58981 | 303.90980 | 3.84272 | 0.1479717 | 0.17074540 | 3.2178814 | 20 | 12 23.3 | 20.4 |
| 207928 2008 WV ₆₈ | 15.9 | X | 180.89724 | 217.81797 | 118.91484 | 2.86107 | 0.1015863 | 0.19502578 | 2.9449281 | 20 | 2 9.5 | 20.5 |
| 207929 2008 WB ₇₆ | 15.9 | X | 338.87754 | 299.80525 | 180.81490 | 3.05520 | 0.0751434 | 0.17783191 | 3.1318161 | 20 | — | — |
| 207930 2008 XD ₃₇ | 16.4 | X | 178.81449 | 29.93907 | 9.69241 | 2.10877 | 0.0737051 | 0.20737601 | 2.8268128 | 20 | 4 21.1 | 20.4 |
| 207931 Weihai | 16.5 | X | 39.12196 | 114.94606 | 190.51264 | 2.61421 | 0.0449543 | 0.23597609 | 2.5935267 | 20 | 10 15.3 | 19.8 |
| 207932 2008 YW ₁₆ | 16.0 | X | 188.07121 | 291.59307 | 108.83102 | 3.77762 | 0.0318095 | 0.20043582 | 2.8916951 | 20 | 5 4.4 | 20.1 |
| 207933 2008 YF ₁₇ | 15.6 | X | 169.95606 | 272.00107 | 114.84985 | 11.80603 | 0.0474710 | 0.19305359 | 2.9649506 | 20 | 4 1.2 | 20.2 |
| 207934 2008 YQ ₁₇ | 16.2 | X | 174.12776 | 352.10366 | 120.83780 | 1.51420 | 0.0182465 | 0.21334922 | 2.7738013 | 20 | 7 20.1 | 19.8 |
| 207935 2009 AF | 16.5 | X | 88.11224 | 275.16475 | 102.44433 | 7.71773 | 0.1236200 | 0.26085948 | 2.4258557 | 20 | — | — |
| 207936 4511 P-L | 17.7 | X | 197.48166 | 234.56458 | 165.17632 | 5.66336 | 0.1610286 | 0.29111904 | 2.2547011 | 20 | 5 9.8 | 21.2 |
| 207937 3367 WE ₆₃ | 15.3 | X | 186.74589 | 198.45584 | 146.47197 | 5.91018 | 0.1494897 | 0.17983588 | 3.1085067 | 20 | 2 27.1 | 20.4 |
| 207938 2108 T-3 | 17.5 | X | 215.76441 | 75.76221 | 259.63722 | 3.80916 | 0.2176381 | 0.28956055 | 2.2627841 | 20 | 2 29.3 | 21.4 |
| 207939 3205 T-3 | 16.3 | X | 53.41417 | 273.88503 | 34.44163 | 2.44616 | 0.1893625 | 0.23146720 | 2.6270988 | 20 | 11 25.7 | 20.1 |
| 207940 3518 T-3 | 16.9 | X | 64.44880 | 295.36198 | 90.13861 | 1.53684 | 0.1979661 | 0.25873776 | 2.4390994 | 20 | — | — |
| 207941 3827 T-3 | 17.2 | X | 65.05587 | 345.04595 | 40.76119 | 1.75681 | 0.1826249 | 0.25872494 | 2.4391800 | 20 | — | — |
| 207942 4291 T-3 | 16.5 | X | 139.43254 | 308.06498 | 163.15782 | 8.39016 | 0.2596432 | 0.29009182 | 2.2600206 | 20 | 6 21.3 | 20.4 |
| 207943 1979 MN ₄ | 16.5 | X | 187.25825 | 98.10059 | 253.88873 | 5.30903 | 0.3653896 | 0.27952124 | 2.3166451 | 20 | 3 1.1 | 21.1 |
| 207944 1981 EG ₈ | 16.1 | X | 160.26928 | 296.79782 | 290.70126 | 3.37939 | 0.2311655 | 0.23991844 | 2.5650370 | 20 | 11 23.8 | 20.6 |
| 207945 1991 JW | 19.3 | X | 43.32210 | 301.92359 | 53.86604 | 8.70990 | 0.1186309 | 0.930571199 | 1.0390491 | 20 | — | — |
| 207946 1991 TH ₁₆ | 16.6 | X | 176.21304 | 183.01504 | 151.70397 | 4.02335 | 0.2162117 | 0.25378023 | 2.4707617 | 20 | 2 1.2 | 20.5 |
| 207947 1991 TU ₁₆ | 16.1 | X | 218.50874 | 354.46451 | 49.54518 | 14.95966 | 0.0987853 | 0.22790777 | 2.6543812 | 20 | 6 6.3 | 20.2 |
| 207948 1993 FL ₁₂ | 15.2 | X | 83.42381 | 2.07482 | 74.30350 | 4.98032 | 0.1750329 | 0.18067825 | 3.0988374 | 20 | 3 6.7 | 19.3 |
| 207949 1993 FX ₃₃ | 15.5 | X | 2.19649 | 56.33688 | 147.02088 | 4.97495 | 0.0866059 | 0.18224687 | 3.0810305 | 20 | 4 4.8 | 19.3 |
| 207950 1993 TX ₉ | 16.6 | X | 291.09813 | 81.06907 | 296.74152 | 2.71127 | 0.1098908 | 0.21369578 | 2.7708015 | 20 | 8 3.5 | 20.0 |
| 207951 1994 AH ₇ | 16.4 | X | 47.91938 | 88.41445 | 113.86710 | 7.36403 | 0.0415367 | 0.20010402 | 2.8948907 | 20 | 6 6.5 | 20.3 |
| 207952 1994 GT ₄ | 15.6 | X | 221.21470 | 321.03547 | 16.39903 | 10.06591 | 0.0961794 | 0.18792012 | 3.0187040 | 20 | 3 22.8 | 20.1 |
| 207953 1994 PQ ₁₈ | 16.0 | X | 85.73346 | 191.00196 | 164.51241 | 1.07183 | 0.1626005 | 0.23986300 | 2.5654322 | 20 | — | — |
| 207954 1994 RU ₂₁ | 16.6 | X | 263.61918 | 168.46579 | 161.17401 | 10.21437 | 0.1873704 | 0.25693779 | 2.4504775 | 20 | 4 14.7 | 20.2 |
| 207955 1994 US ₆ | 16.5 | X | 186.99951 | 217.99235 | 323.03441 | 2.45579 | 0.0740259 | 0.22799892 | 2.6536737 | 20 | 10 29.8 | 20.3 |
| 207956 1995 DU ₈ | 16.1 | X | 246.10587 | 230.88839 | 159.59733 | 8.51825 | 0.2392168 | 0.20925484 | 2.8098667 | 20 | 6 7.4 | 20.7 |
| 207957 1995 FN ₇ | 16.6 | X | 55.35952 | 76.38766 | 142.79996 | 5.80984 | 0.1066666 | 0.28298019 | 2.2977284 | 20 | 7 24.2 | 19.1 |
| 207958 1995 NA ₁ | 17.2 | X | 260.16327 | 152.88378 | 126.64866 | 7.31987 | 0.1457094 | 0.26826456 | 2.3811061 | 20 | 2 8.0 | 20.7 |
| 207959 1995 OR ₇ | 16.8 | X | 49.85597 | 192.80203 | 152.03652 | 4.95465 | 0.1517405 | 0.28351428 | 2.2948418 | 20 | — | — |
| 207960 1995 OZ ₉ | 15.4 | X | 269.21773 | 160.45729 | 163.76322 | 10.47785 | 0.0915507 | 0.18963753 | 3.0004509 | 20 | 4 29.8 | 19.8 |
| 207961 1995 OV ₁₇ | 16.0 | X | 102.32708 | 242.74088 | 193.83812 | 7.00684 | 0.1585390 | 0.18184577 | 3.0855594 | 20 | 3 24.6 | 20.4 |
| 207962 1995 SF ₁₉ | 16.0 | X | 100.82615 | 357.98182 | 10.56836 | 3.43848 | 0.1686276 | 0.17121382 | 3.2120096 | 20 | 1 5.2 | 20.4 |
| 207963 1995 SM ₂₀ | 14.9 | X | 115.97427 | 29.12517 | 19.01688 | 11.78945 | 0.0790591 | 0.17569255 | 3.1571883 | 20 | 3 1.2 | 19.6 |
| 207964 1995 SC ₇₉ | 15.5 | X | 72.70962 | 108.74465 | 350.19430 | 10.53697 | 0.0775655 | 0.17953588 | 3.1119686 | 20 | 3 4.8 | 19.6 |
| 207965 1995 UY ₂₁ | 16.9 | X | 271.15350 | 271.95865 | 356.22285 | 0.76414 | 0.1628525 | 0.25941156 | 2.4348740 | 20 | 2 4.2 | 20.4 |
| 207966 1995 UQ ₂₃ | 16.1 | X | 246.97946 | 140.32496 | 26.92413 | 15.77525 | 0.0655311 | 0.24166854 | 2.5526384 | 20 | 12 31.1 | 19.7 |
| 207967 1995 UZ ₂₃ | 18.4 | X | 310.30602 | 35.02266 | 357.31627 | 2.25591 | 0.1556915 | 0.31474519 | 2.1404084 | 20 | 10 16.8 | 19.8 |
| 207968 1995 VF ₁₄ | 17.2 | X | 25.98703 | 247.92031 | 128.67529 | 3.58584 | 0.1428670 | 0.24172948 | 2.5522094 | 20 | — | — |
| 207969 1996 AR ₅ | 16.8 | X | 309.32160 | 81.34419 | 317.17140 | 6.46796 | 0.1822071 | 0.23004450 | 2.6379191 | 20 | 9 24.8 | 19.5 |
| 207970 1996 BZ ₃ | 18.1 | X | 246.78716 | 280.05480 | 176.82147 | 3.38341 | 0.5306170 | 0.23039125 | 2.6352717 | 20 | 8 1.1 | 22.9 |
| 207971 1996 JV ₈ | 17.0 | X | 53.23016 | 72.64667 | 148.50637 | 5.19359 | 0.1275843 | 0.29198371 | 2.2502476 | 20 | 7 28.3 | 19.5 |
| 207972 1996 JZ ₁₃ | 15.9 | X | 119.16324 | 119.82042 | 61.11504 | 9.87958 | 0.1065755 | 0.21432032 | 2.7654161 | 20 | 8 21.9 | 20.2 |
| 207973 1996 PT ₄ | 16.7 | X | 200.62568 | 224.74024 | 146.74193 | 23.86768 | 0.0900305 | 0.35923379 | 1.9598279 | 20 | 4 6.7 | 19.6 |
| 207974 1996 RM ₁ | 16.7 | X | 279.19341 | 133.49269 | 156.93987 | 10.49973 | 0.3616278 | 0.27927305 | 2.3180175 | 20 | 2 17.7 | 20.6 |
| 207975 1996 TY ₈ | 15.1 | X | 83.80991 | 165.13178 | 227.38284 | 24.53906 | 0.2773768 | 0.26132087 | 2.4229995 | 20 | 1 2.5 | 18.0 |
| 207976 1996 TB ₃₆ | 16.4 | X | 329.43007 | 260.03882 | 27.06160 | 5.19743 | 0.2448048 | 0.27915129 | 2.3186914 | 20 | 5 8.3 | 18.2 |
| 207977 1996 TL ₃₆ | 17.0 | X | 23.48778 | 339.18775 | 331.61948 | 7.70009 | 0.1692752 | 0.29000240 | 2.2604851 | 20 | 10 27.2 | 19.7 |
| 207978 1996 VH ₁₅ | 16.5 | X | 274.91528 | 259.24343 | 101.32188 | 0.65083 | 0.0250155 | 0.19374462 | 2.9578963 | 20 | 6 30.1 | 20.3 |
| 207979 1996 WV ₂₂ | 16.0 | X | 357.22655 | 35.54838 | 146.94518 | 7.71296 | 0.1840573 | 0.17934111 | 3.1142214 | 20 | 2 22.4 | 19.2 |
| 207980 1996 VJ ₃₆ | 16.0 | X | 194.37751 | 334.90094 | 13.26174 | 9.16983 | 0.1418568 | 0.18485086 | 3.0520272 | 20 | 3 9.9 | 21.0 |
| 207981 1996 XO ₈ | 16.9 | X | 257.25197 | 292.97555 | 338.70609 | 5.79453 | 0.1042595 | 0.26574193 | 2.3960506 | 20 | 1 30.6 | 20.4 |
| 207982 1997 AY ₈ | 16.4 | X | 330.55001 | 253.57550 | 134.86697 | 6.36954 | 0.2083675 | 0.24048295 | 2.5610213 | 20 | 11 6.5 | 18.6 |
| 207983 1997 FT ₄ | 14.7 | X | 314.42379 | 323.80011 | 161.24738 | 17.39057 | 0.0390677 | 0.15544714 | 3.4256861 | 20 | — | — |
| 207984 1997 TG ₆ | 16.1 | X | 341.07455 | 196.00881 | 156.62961 | 5.55235 | 0.0324975 | 0.21278921 | 2.7786658 | 20 | 9 21.9 | 19.6 |
| 207985 1997 WL ₁₁ | 17.5 | X | 328.99931 | 114.84105 | 228.05490 | 3.77466 | 0.1917996 | 0.29681421 | 2.2257665 | 20 | 8 27.5 | 18.9 |
| 207986 1997 WM ₁₇ | 17.7 | X | 270.52403 | 336.24616 | 23.09905 | 5.21095 | 0.1627239 | 0.29095085 | 2.2555699 | 20 | 6 1.6 | 20.4 |
| 207987 1997 WT ₂₅ | 17.0 | X | 135.41392 | 28.49785 | 79.67141 | 5.93211 | 0.1260992 | 0.28389356 | 2.2927975 | 20 | 6 4.2 | 20.1 |
| 207988 1998 DJ ₁₂ | 15.8 | X | 177.23956 | 171.80175 | 16.43618 | 7.14477 | 0 | | | | | |