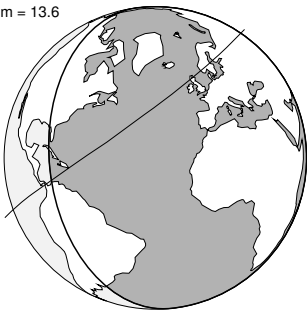
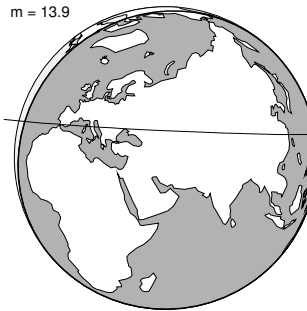
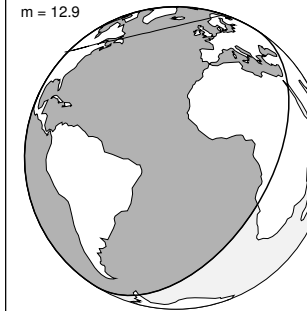
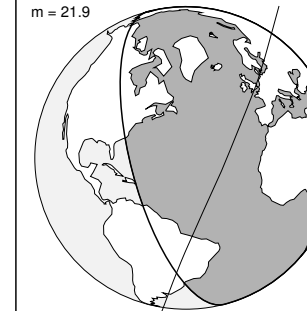
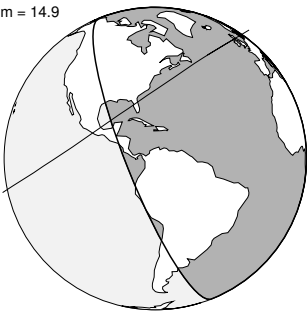
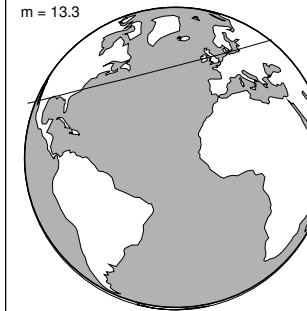
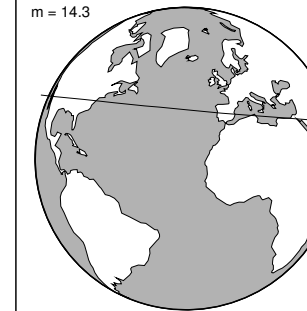
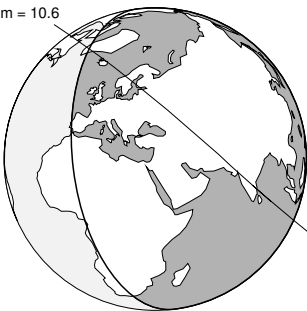
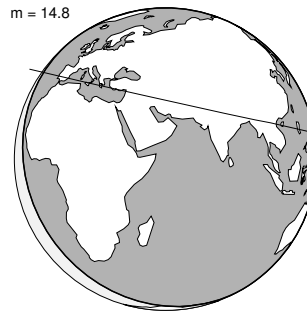
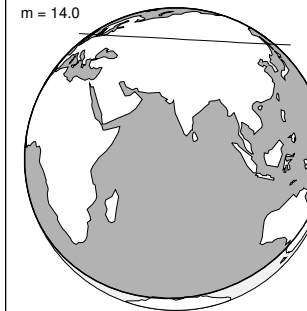
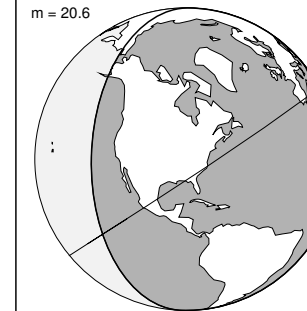
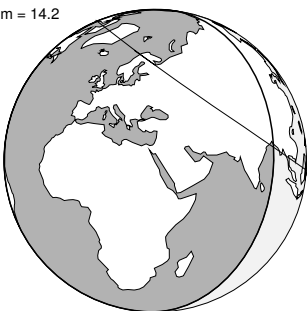
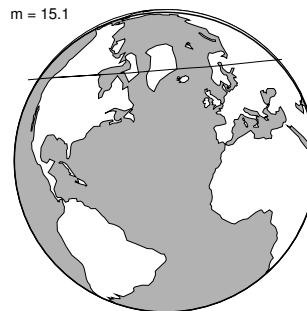
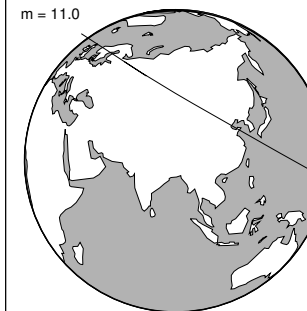
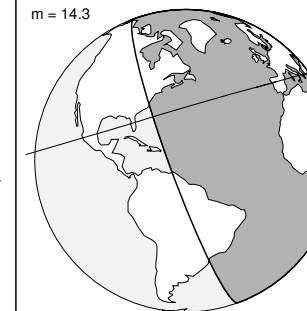


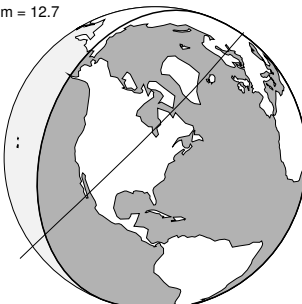
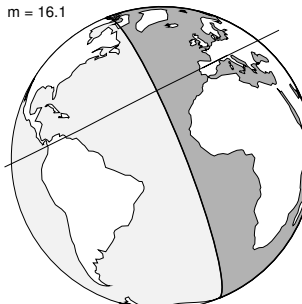
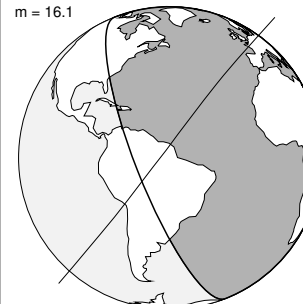
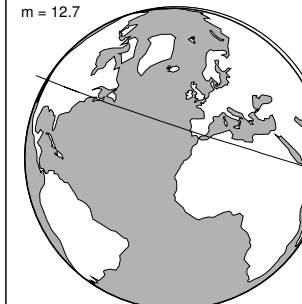
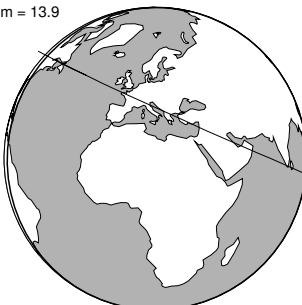
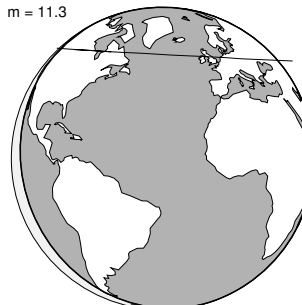
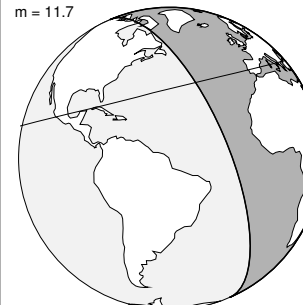
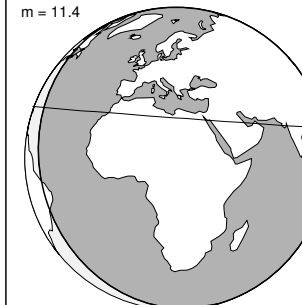
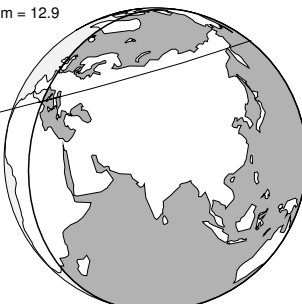
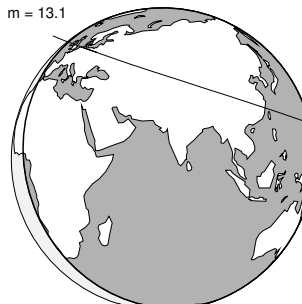
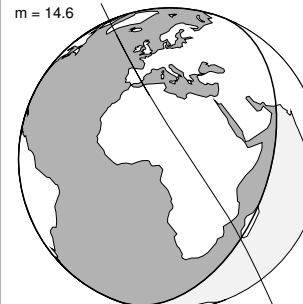
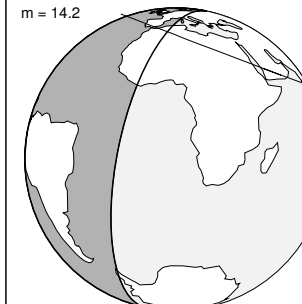
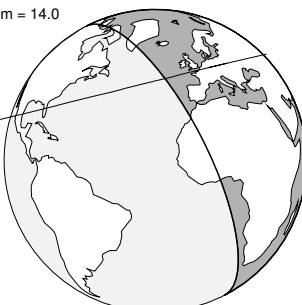
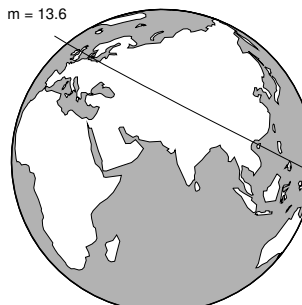
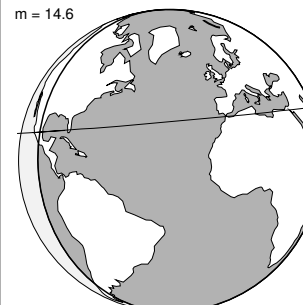
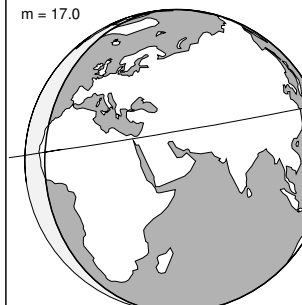
Occultations by major and minor planets – 2023

Region 3

2023 jan 1 22h46.3m A23_01070 388 Charybdis PPMX 4874957 Diam = 120.0 m = 12.5 m = 13.6  Dur = 23.2s Dmag = 1.5 Sun: 134° Moon: 13°	2023 jan 2 19h33.0m A23_01116 906 Repsolda TYC 2418-00635-1 Diam = 52.5 m = 8.7 m = 13.9  Dur = 4.1s Dmag = 5.2 Sun: 161° Moon: 35°	2023 jan 3 4h35.3m A23_01033 85 Io TYC 4896-00120-1 Diam = 178.0 m = 11.4 m = 12.9  Dur = 29.4s Dmag = 1.7 Sun: 128° Moon: 92°	2023 jan 3 22h 6.1m B23_01003 523601 2003UY413 UCAC4 599-004486 Diam = 331.1 m = 14.3 m = 21.9  Dur = 32.5s Dmag = 7.7 Sun: 111° Moon: 37°
2023 jan 3 23h33.4m A23_01048 131 Vala UCAC4 488-002214 Diam = 43.3 m = 12.3 m = 14.9  Dur = 4.0s Dmag = 2.7 Sun: 101° Moon: 46°	2023 jan 4 19h32.3m A23_01149 3063 Makhaon UCAC5 597-014045 Diam = 125.0 m = 12.4 m = 15.6  Dur = 8.8s Dmag = 3.2 Sun: 152° Moon: 5°	2023 jan 5 1h44.3m A23_01131 1197 Rhodesia UCAC4 513-034067 Diam = 49.0 m = 12.3 m = 13.3  Dur = 4.2s Dmag = 1.3 Sun: 169° Moon: 24°	2023 jan 7 1h26.5m A23_01082 468 Lina UCAC4 568-034455 Diam = 71.7 m = 11.7 m = 14.3  Dur = 5.1s Dmag = 2.7 Sun: 175° Moon: 7°
2023 jan 7 17h23.9m A23_01041 115 Thyra TYC 2330-00241-1 Diam = 83.5 m = 9.9 m = 10.6  Dur = 10.2s Dmag = 1.2 Sun: 123° Moon: 64°	2023 jan 8 19h 4.5m A23_01059 217 Eudora PPMX 6977023 Diam = 45.7 m = 12.4 m = 14.8  Dur = 3.2s Dmag = 2.6 Sun: 156° Moon: 43°	2023 jan 8 19h43.2m A23_01071 392 Wilhelmina TYC 4832-01100-1 Diam = 64.6 m = 12.2 m = 14.0  Dur = 5.2s Dmag = 1.9 Sun: 155° Moon: 28°	2023 jan 10 2h 2.5m B23_01001 24835 1995SM55 UCAC4 643-015255 Diam = 485.3 m = 14.9 m = 20.6  Dur = 29.8s Dmag = 5.7 Sun: 128° Moon: 81°
2023 jan 12 0h35.5m A23_01108 784 Pickeringia TYC 1972-00501-1 Diam = 90.0 m = 12.4 m = 14.2  Dur = 10.2s Dmag = 2.0 Sun: 141° Moon: 21°	2023 jan 12 2h31.9m A23_01138 1437 Diomedes UCAC4 616-041440 Diam = 171.0 m = 11.8 m = 15.1  Dur = 9.5s Dmag = 3.3 Sun: 168° Moon: 57°	2023 jan 13 18h14.9m A23_01093 505 Cava TYC 1924-00126-1 Diam = 79.1 m = 10.2 m = 11.0  Dur = 8.6s Dmag = 1.3 Sun: 173° Moon: 74°	2023 jan 15 22h 7.9m A23_01040 112 Iphigenia TYC 0629-00283-1 Diam = 75.5 m = 11.7 m = 14.3  Dur = 4.9s Dmag = 2.7 Sun: 96° Moon: 175°

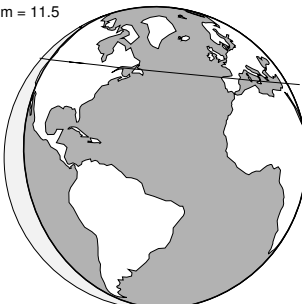
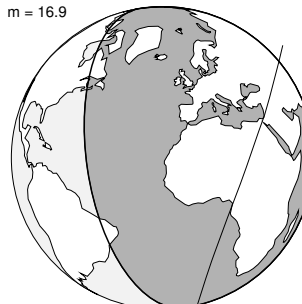
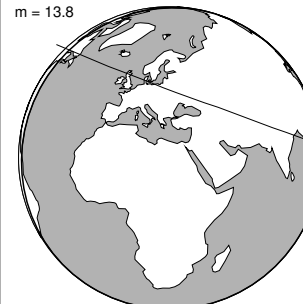
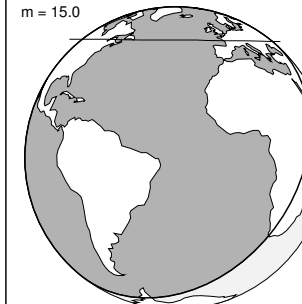
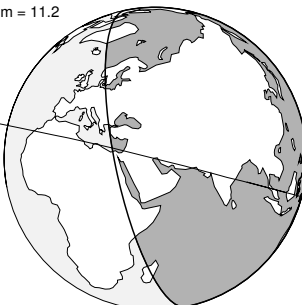
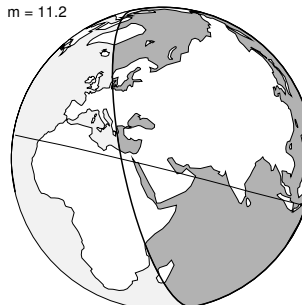
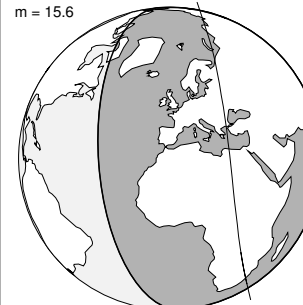
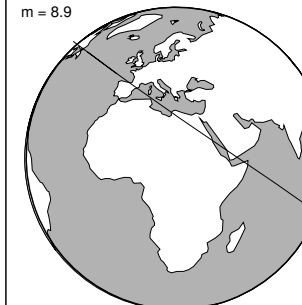
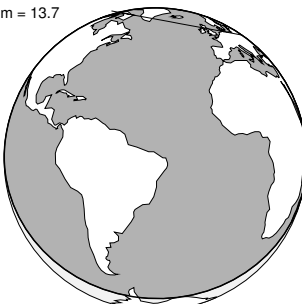
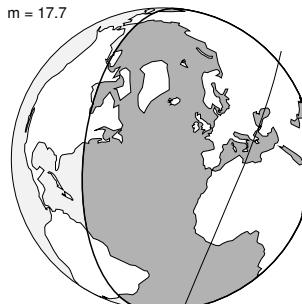
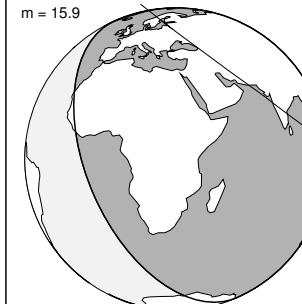
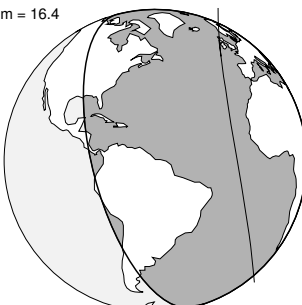
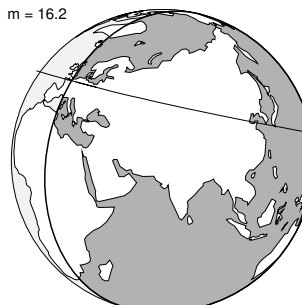
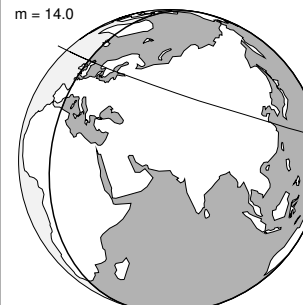
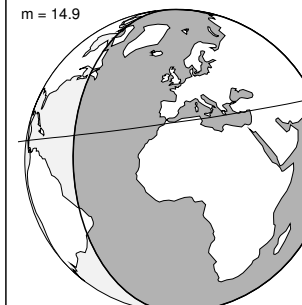
Occultations by major and minor planets – 2023

Region 3

2023 jan 16 2h43.4m A23_01046 117 Lomia UCAC4 667-032641 Diam = 154.0 m = 11.4 m = 12.7  Dur = 16.6s Dmag = 1.6 Sun: 138° Moon: 135°	2023 jan 16 19h19.2m A23_01105 738 Alagasta TYC 0023-00979-1 Diam = 64.8 m = 11.7 m = 16.1  Dur = 3.3s Dmag = 4.4 Sun: 81° Moon: 151°	2023 jan 16 22h37.8m A23_01140 1614 Goldschmidt UCAC4 449-003636 Diam = 49.5 m = 11.9 m = 16.1  Dur = 4.9s Dmag = 4.2 Sun: 103° Moon: 161°	2023 jan 17 1h59.1m A23_01079 454 Mathesis TYC 1948-01645-1 Diam = 84.5 m = 9.3 m = 12.7  Dur = 7.4s Dmag = 3.4 Sun: 167° Moon: 106°
2023 jan 17 22h18.8m A23_01115 891 Gunhild TYC 1895-01282-1 Diam = 53.6 m = 11.0 m = 13.9  Dur = 4.1s Dmag = 3.0 Sun: 167° Moon: 137°	2023 jan 18 1h 1.9m A23_01012 12 Victoria TYC 0745-01168-1 Diam = 117.0 m = 12.4 m = 11.3  Dur = 9.1s Dmag = 0.3 Sun: 158° Moon: 144°	2023 jan 21 19h51.0m A23_01058 216 Kleopatra TYC 0013-01531-1 Diam = 112.6 m = 11.2 m = 11.7  Dur = 3.5s Dmag = 1.0 Sun: 67° Moon: 68°	2023 jan 21 21h 4.4m A23_01014 12 Victoria UCAC4 519-026461 Diam = 117.0 m = 12.4 m = 11.4  Dur = 9.8s Dmag = 0.4 Sun: 154° Moon: 152°
2023 jan 22 16h42.2m A23_01062 224 Oceana UCAC4 608-027143 Diam = 79.8 m = 12.1 m = 12.9  Dur = 9.2s Dmag = 1.2 Sun: 146° Moon: 135°	2023 jan 22 17h52.4m A23_01091 490 Veritas Gaia 101-0047758 Diam = 121.0 m = 11.8 m = 13.1  Dur = 10.2s Dmag = 1.6 Sun: 154° Moon: 142°	2023 jan 23 2h35.9m A23_01101 655 Briseis UCAC5 486-051122 Diam = 50.1 m = 12.5 m = 14.6  Dur = 10.3s Dmag = 2.3 Sun: 131° Moon: 149°	2023 jan 23 6h55.2m A23_01057 200 Dynamene UCAC4 325-078156 Diam = 132.0 m = 11.9 m = 14.2  Dur = 4.9s Dmag = 2.5 Sun: 67° Moon: 87°
2023 jan 23 18h 4.1m A23_01084 476 Hedwig TYC 0609-01153-1 Diam = 121.0 m = 9.7 m = 14.0  Dur = 4.3s Dmag = 4.3 Sun: 70° Moon: 45°	2023 jan 23 19h27.2m A23_01087 484 Pittsburghia UCAC4 541-044918 Diam = 44.5 m = 12.1 m = 13.6  Dur = 3.2s Dmag = 1.8 Sun: 176° Moon: 148°	2023 jan 24 0h18.9m A23_01096 552 Sigelinde TYC 1323-00329-1 Diam = 81.0 m = 11.9 m = 14.6  Dur = 7.1s Dmag = 2.8 Sun: 150° Moon: 120°	2023 jan 24 18h39.2m A23_01151 6545 Leitus UCAC4 565-025997 Diam = 41.7 m = 11.6 m = 17.0  Dur = 3.1s Dmag = 5.3 Sun: 150° Moon: 109°

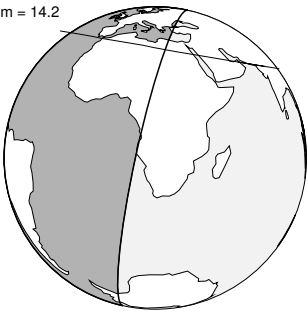
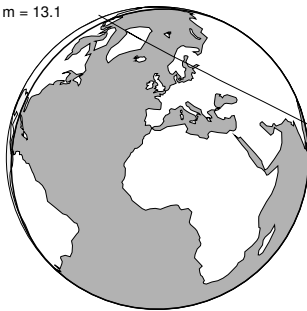
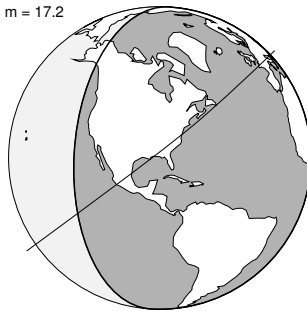
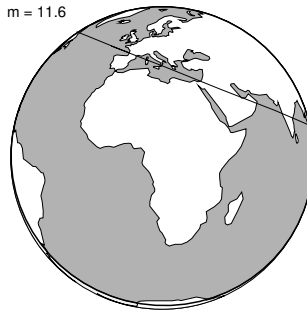
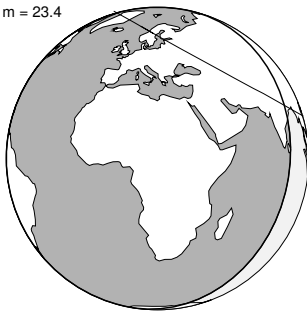
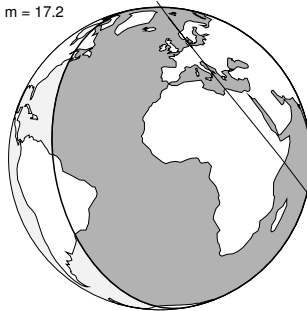
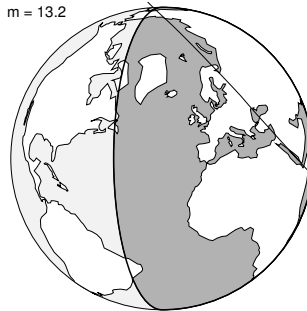
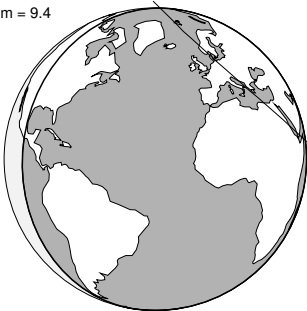
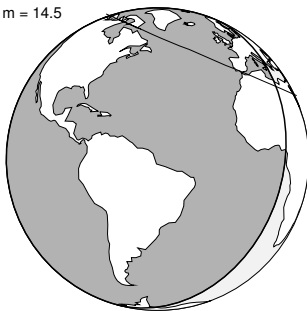
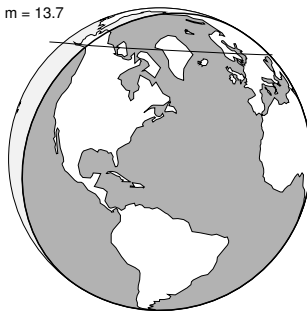
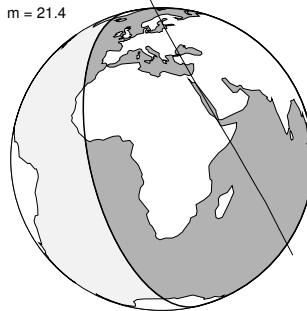
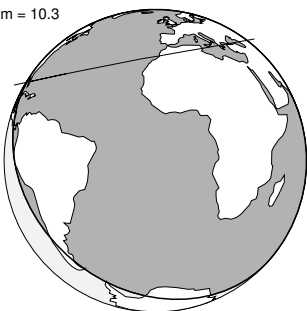
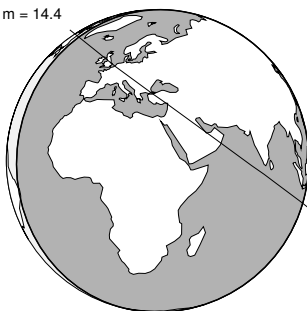
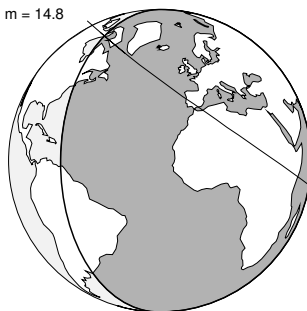
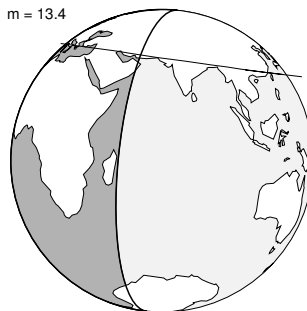
Occultations by major and minor planets – 2023

Region 3

2023 jan 26 1h10.9m A23_01013 12 Victoria PPMX 7020391 Diam = 117.0 m = 12.1 m = 11.5  Dur = 10.8s Dmag = 0.5 Sun: 149° Moon: 92°	2023 jan 27 21h 5.9m A23_01152 9799 Thronium TYC 1816-00645-1 Diam = 52.5 m = 11.4 m = 16.9  Dur = 6.2s Dmag = 5.6 Sun: 120° Moon: 39°	2023 jan 28 21h42.4m A23_01081 464 Megaira UCAC4 578-042307 Diam = 76.5 m = 12.5 m = 13.8  Dur = 5.7s Dmag = 1.6 Sun: 166° Moon: 74°	2023 jan 29 4h 5.3m A23_01123 1001 Gaussia TYC 4916-01034-1 Diam = 78.3 m = 10.0 m = 15.0  Dur = 8.0s Dmag = 5.0 Sun: 143° Moon: 118°
2023 jan 30 15h29.2m A23_01043 115 Thyra HIP 15744 Diam = 83.5 m = 8.5 m = 11.2  Dur = 5.9s Dmag = 2.8 Sun: 105° Moon: 11°	2023 jan 30 15h42.4m A23_01044 115 Thyra HIP 15746 Diam = 83.5 m = 8.6 m = 11.2  Dur = 5.9s Dmag = 2.6 Sun: 105° Moon: 11°	2023 jan 30 19h58.7m A23_01097 588 Achilles PPMX 3932611 Diam = 147.0 m = 12.5 m = 15.6  Dur = 26.7s Dmag = 3.2 Sun: 118° Moon: 8°	2023 jan 31 22h10.9m A23_01009 6 Hebe UCAC4 522-045618 Diam = 186.0 m = 12.4 m = 8.9  Dur = 14.2s Dmag = 0.0 Sun: 171° Moon: 46°
2023 feb 1 2h41.3m A23_02107 957 Camelia TYC 4872-01283-1 Diam = 76.6 m = 11.4 m = 13.7  Dur = 6.6s Dmag = 2.5 Sun: 157° Moon: 59°	2023 feb 1 22h 2.7m A23_02122 1877 Marsden UCAC4 665-029419 Diam = 50.3 m = 12.0 m = 17.7  Dur = 5.4s Dmag = 5.7 Sun: 121° Moon: 21°	2023 feb 4 3h37.4m A23_02048 221 Eos UCAC4 523-050270 Diam = 110.0 m = 11.9 m = 12.2  Dur = 7.3s Dmag = 0.9 Sun: 178° Moon: 19°	2023 feb 5 18h51.3m A23_02120 1583 Antiochus UCAC4 426-011697 Diam = 109.0 m = 11.1 m = 15.9  Dur = 11.1s Dmag = 4.8 Sun: 126° Moon: 57°
2023 feb 5 23h38.2m A23_02121 1819 Laputa TYC 0092-00150-1 Diam = 44.6 m = 10.6 m = 16.4  Dur = 3.9s Dmag = 5.8 Sun: 114° Moon: 69°	2023 feb 6 16h50.8m A23_02118 1357 Khama UCAC4 607-033541 Diam = 45.1 m = 11.1 m = 16.2  Dur = 6.0s Dmag = 5.1 Sun: 139° Moon: 49°	2023 feb 6 17h13.0m A23_02092 629 Bernardina UCAC4 596-036060 Diam = 43.7 m = 12.2 m = 14.0  Dur = 8.1s Dmag = 2.0 Sun: 141° Moon: 48°	2023 feb 8 21h 2.0m A23_02087 552 Sigelinde UCAC4 552-022888 Diam = 81.0 m = 11.9 m = 14.9  Dur = 13.6s Dmag = 3.1 Sun: 132° Moon: 82°

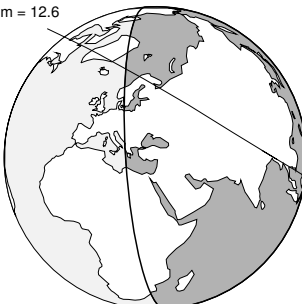
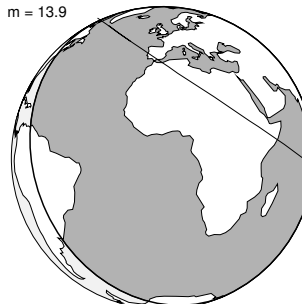
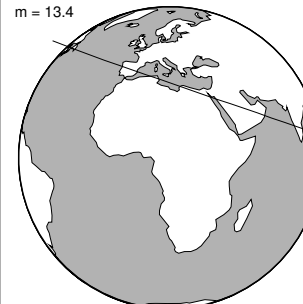
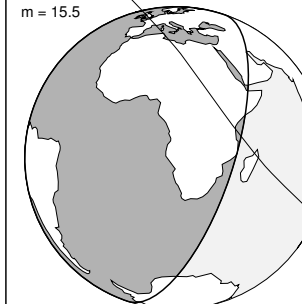
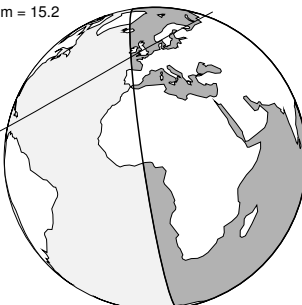
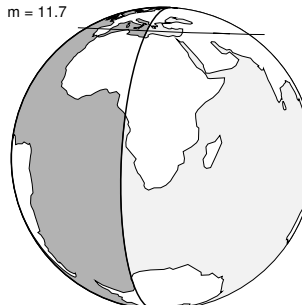
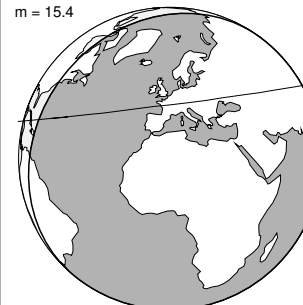
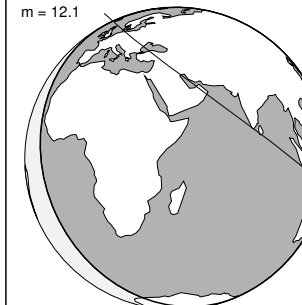
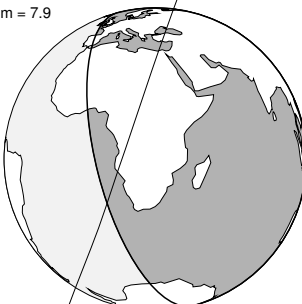
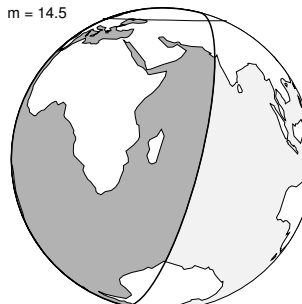
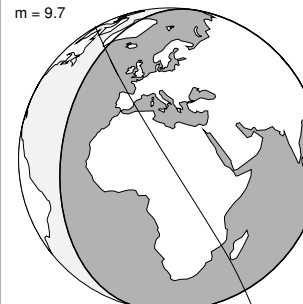
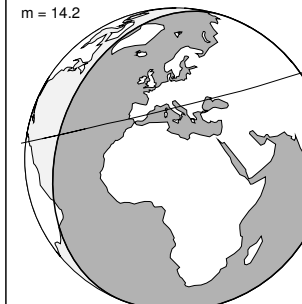
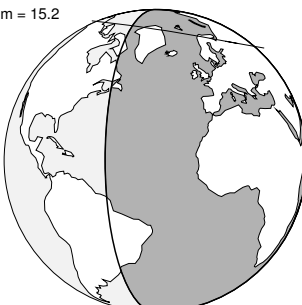
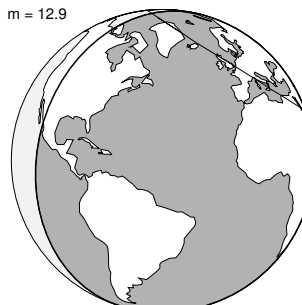
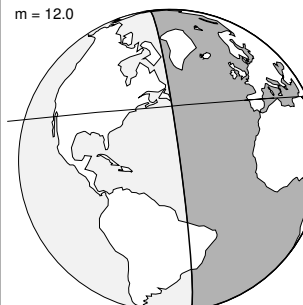
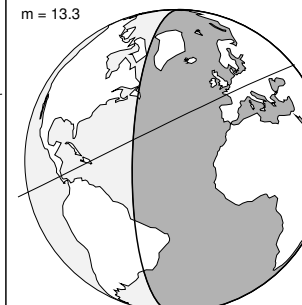
Occultations by major and minor planets – 2023

Region 3

2023 feb 11 5h 9.1m A23_02042 150 Nuwa TYC 6194–00739–1 Diam = 157.0 m = 9.2 m = 14.2  Dur = 8.0s Dmag = 5.0 Sun: 82° Moon: 37°	2023 feb 11 23h26.0m A23_02091 628 Christine TYC 1942–01025–1 Diam = 51.0 m = 9.7 m = 13.1  Dur = 4.3s Dmag = 3.4 Sun: 162° Moon: 86°	2023 feb 12 2h 7.2m A23_02129 3794 Sthenelos TYC 1874–00338–1 Diam = 43.7 m = 12.2 m = 17.2  Dur = 9.0s Dmag = 5.0 Sun: 124° Moon: 126°	2023 feb 12 22h51.4m A23_02022 80 Sappho TYC 0228–02046–1 Diam = 81.7 m = 9.1 m = 11.6  Dur = 6.1s Dmag = 2.6 Sun: 166° Moon: 81°
2023 feb 14 22h26.3m A23_02123 1877 Marsden UCAC4 660–027321 Diam = 50.3 m = 11.9 m = 17.8  Dur = 5.6s Dmag = 6.0 Sun: 109° Moon: 163°	2023 feb 16 0h54.0m B23_02004 523899 1997CV29 UCAC4 490–055326 Diam = 144.5 m = 12.7 m = 23.4  Dur = 6.7s Dmag = 10.8 Sun: 150° Moon: 92°	2023 feb 16 21h50.7m A23_02131 5285 Krethon UCAC4 482–028557 Diam = 43.7 m = 12.3 m = 17.2  Dur = 3.1s Dmag = 4.9 Sun: 134° Moon: 159°	2023 feb 17 21h 1.4m A23_02036 117 Lomia UCAC5 649–023396 Diam = 154.0 m = 12.4 m = 13.2  Dur = 15.2s Dmag = 1.2 Sun: 108° Moon: 143°
2023 feb 18 0h27.5m A23_02006 6 Hebe UCAC5 536–044288 Diam = 186.0 m = 12.5 m = 9.4  Dur = 18.1s Dmag = 0.1 Sun: 151° Moon: 171°	2023 feb 18 5h41.9m A23_02055 257 Silesia UCAC4 460–050078 Diam = 73.5 m = 11.6 m = 14.5  Dur = 8.1s Dmag = 2.9 Sun: 146° Moon: 117°	2023 feb 19 2h42.1m A23_02084 494 Virtus TYC 1947–00079–1 Diam = 89.1 m = 11.8 m = 13.7  Dur = 8.4s Dmag = 2.0 Sun: 150° Moon: 168°	2023 feb 20 18h48.4m B23_02006 600217 2011QY100 UCAC4 438–014504 Diam = 95.1 m = 14.6 m = 21.4  Dur = 6.8s Dmag = 6.8 Sun: 118° Moon: 110°
2023 feb 20 23h40.7m A23_02094 654 Zelinda UCAC5 382–050832 Diam = 132.0 m = 12.5 m = 10.3  Dur = 20.4s Dmag = 0.1 Sun: 148° Moon: 141°	2023 feb 21 20h42.6m A23_02104 893 Leopoldina UCAC4 522–047116 Diam = 78.0 m = 12.3 m = 14.4  Dur = 5.5s Dmag = 2.2 Sun: 158° Moon: 137°	2023 feb 21 22h21.7m A23_02056 260 Huberta UCAC4 534–036145 Diam = 101.0 m = 12.4 m = 14.8  Dur = 16.5s Dmag = 2.6 Sun: 131° Moon: 108°	2023 feb 22 2h38.1m A23_02040 146 Lucina TYC 6237–02456–1 Diam = 137.0 m = 11.1 m = 13.4  Dur = 5.2s Dmag = 2.5 Sun: 73° Moon: 99°

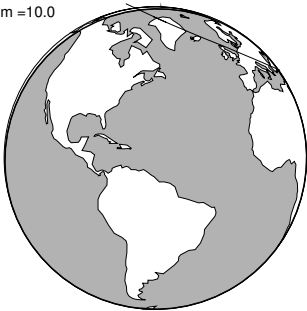
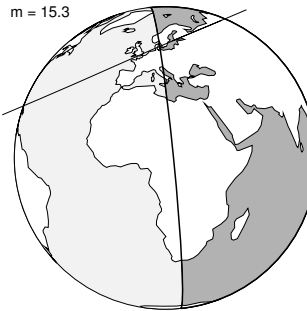
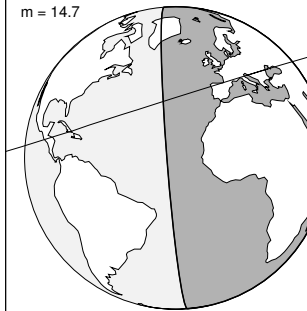
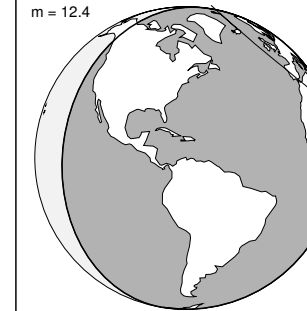
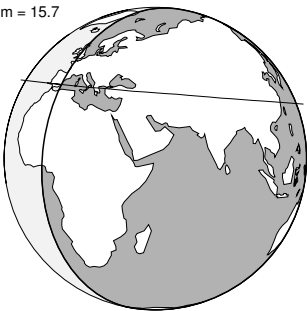
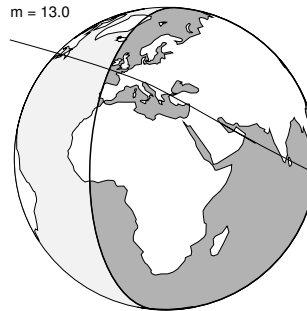
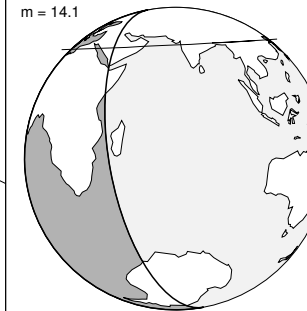
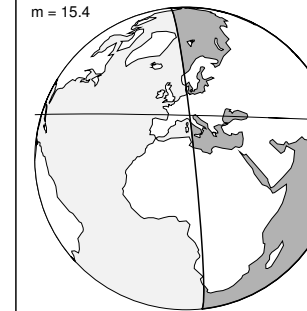
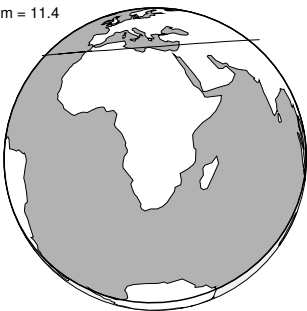
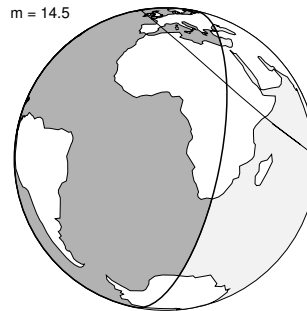
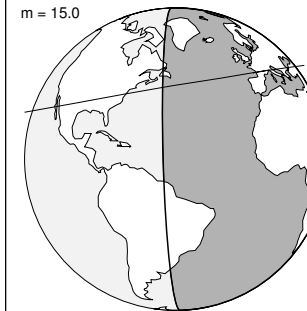
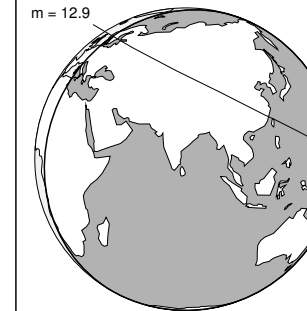
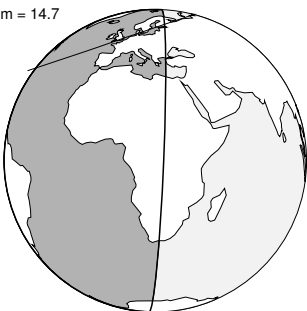
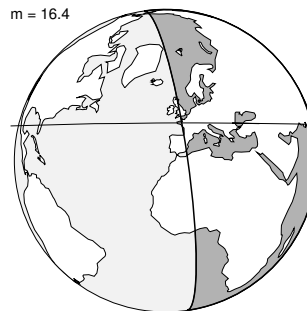
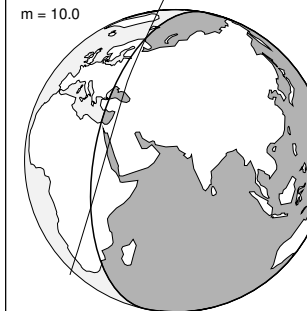
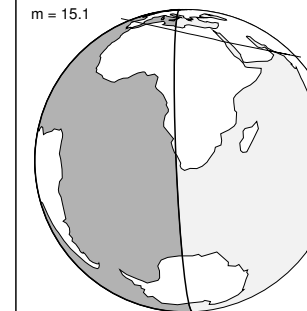
Occultations by major and minor planets – 2023

Region 3

2023 feb 23 16h20.9m A23_02075 385 Ilmatar UCAC5 637–018781 Diam = 94.1 m = 12.3  Dur = 7.7s Dmag = 0.9 Sun: 101° Moon: 57°	2023 feb 23 22h23.5m A23_02109 957 Camelia UCAC4 431–047031 Diam = 76.6 m = 11.1  Dur = 7.8s Dmag = 2.9 Sun: 147° Moon: 105°	2023 feb 24 23h 3.2m A23_02086 514 Armida TYC 0249–00399–1 Diam = 110.0 m = 11.5  Dur = 8.2s Dmag = 2.0 Sun: 174° Moon: 118°	2023 feb 25 3h21.0m A23_02069 333 Badenia TYC 6158–00192–1 Diam = 81.5 m = 11.6  Dur = 22.8s Dmag = 4.0 Sun: 112° Moon: 176°
2023 feb 25 18h 4.2m A23_02119 1469 Linzia TYC 0683–00789–1 Diam = 60.2 m = 9.1  Dur = 4.1s Dmag = 6.1 Sun: 94° Moon: 28°	2023 feb 26 5h21.1m A23_02009 20 Massalia UCAC4 336–101500 Diam = 151.0 m = 11.7  Dur = 6.3s Dmag = 0.7 Sun: 74° Moon: 151°	2023 feb 26 22h36.5m A23_02126 2760 Kacha UCAC4 584–043793 Diam = 62.6 m = 12.5  Dur = 5.2s Dmag = 3.0 Sun: 152° Moon: 69°	2023 feb 27 19h21.5m A23_02097 712 Boliviana TYC 4869–00208–1 Diam = 132.0 m = 8.8  Dur = 13.4s Dmag = 3.4 Sun: 151° Moon: 66°
2023 mar 2 18h 4.1m A23_03003 2 Pallas UCAC4 377–015793 Diam = 530.9 m = 7.9  Dur = 27.2s Dmag = 0.0 Sun: 112° Moon: 43°	2023 mar 3 1h37.0m A23_03090 266 Aline TYC 6764–00370–1 Diam = 113.0 m = 10.1  Dur = 15.2s Dmag = 4.4 Sun: 104° Moon: 125°	2023 mar 3 20h 5.9m A23_03014 6 Hebe UCAC5 544–042645 Diam = 186.0 m = 12.5  Dur = 28.2s Dmag = 0.1 Sun: 135° Moon: 8°	2023 mar 3 20h53.0m A23_03144 661 Cloelia UCAC4 566–043456 Diam = 52.0 m = 11.8  Dur = 6.7s Dmag = 2.5 Sun: 142° Moon: 3°
2023 mar 3 21h39.7m A23_03128 552 Sigelinde TYC 1322–00228–1 Diam = 81.0 m = 10.8  Dur = 18.9s Dmag = 4.5 Sun: 109° Moon: 32°	2023 mar 5 1h 9.6m A23_03084 221 Eos TYC 1393–00914–1 Diam = 110.0 m = 10.4  Dur = 10.5s Dmag = 2.5 Sun: 145° Moon: 9°	2023 mar 6 21h17.3m A23_03031 30 Urania UCAC4 567–011329 Diam = 104.0 m = 12.3  Dur = 4.9s Dmag = 0.6 Sun: 86° Moon: 87°	2023 mar 6 21h24.3m A23_03169 1021 Flammario TYC 1877–00832–1 Diam = 103.0 m = 11.5  Dur = 8.6s Dmag = 2.0 Sun: 106° Moon: 66°

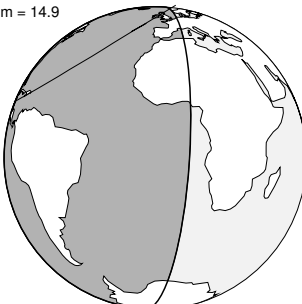
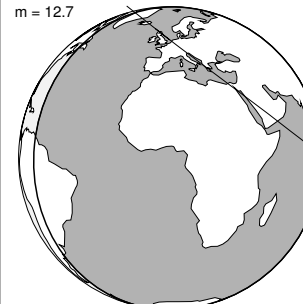
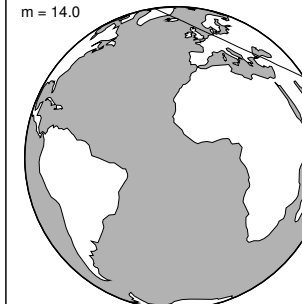
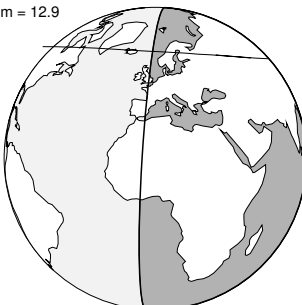
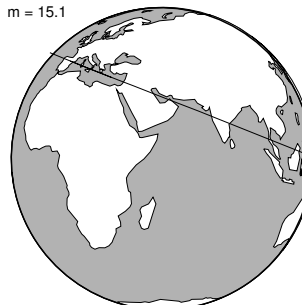
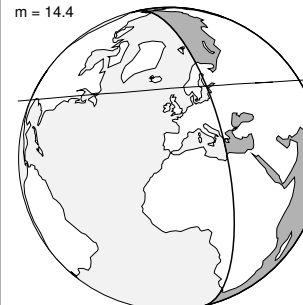
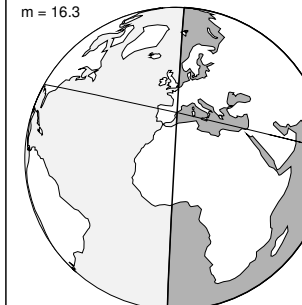
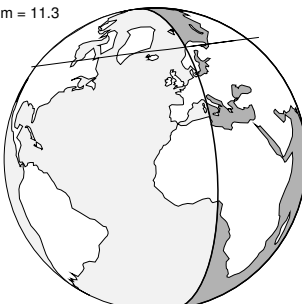
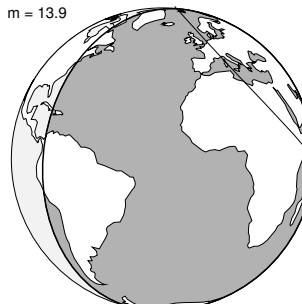
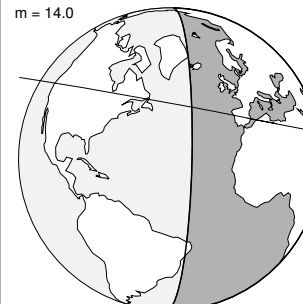
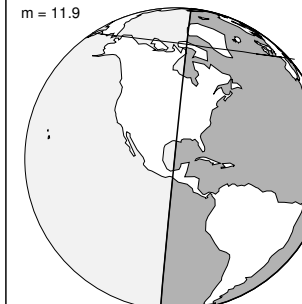
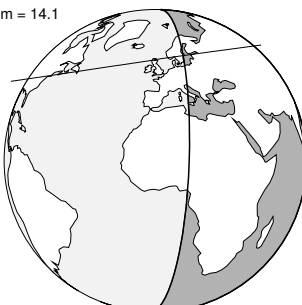
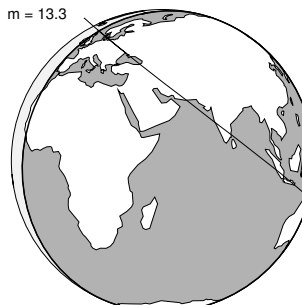
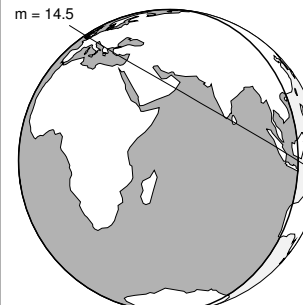
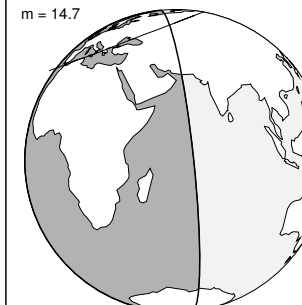
Occultations by major and minor planets – 2023

Region 3

2023 mar 7 3h41.2m A23_03035 40 Harmonia UCAC4 527-051448 Diam = 111.0 m = 11.7 m = 10.0  Dur = 10.3s Dmag = 0.2 Sun: 168° Moon: 6°	2023 mar 7 16h54.0m A23_03179 1469 Linzia Gaia 099-0018270 Diam = 60.2 m = 8.9 m = 15.3  Dur = 3.2s Dmag = 6.4 Sun: 86° Moon: 96°	2023 mar 7 20h 9.0m A23_03135 585 Bilkis UCAC4 524-012118 Diam = 60.3 m = 12.0 m = 14.7  Dur = 3.7s Dmag = 2.8 Sun: 93° Moon: 91°	2023 mar 8 2h38.5m A23_03040 59 Elpis UCAC4 510-048658 Diam = 173.0 m = 12.1 m = 12.4  Dur = 19.9s Dmag = 0.9 Sun: 144° Moon: 42°
2023 mar 8 17h57.1m A23_03167 982 Franklina TYC 0808-01081-1 Diam = 43.7 m = 11.8 m = 15.7  Dur = 4.4s Dmag = 3.9 Sun: 138° Moon: 56°	2023 mar 9 18h31.1m A23_03133 584 Semiramis TYC 1346-01306-1 Diam = 56.2 m = 11.8 m = 13.0  Dur = 26.5s Dmag = 1.5 Sun: 119° Moon: 86°	2023 mar 11 3h18.0m A23_03081 209 Dido UCAC4 306-268579 Diam = 149.0 m = 12.0 m = 14.1  Dur = 4.9s Dmag = 2.3 Sun: 63° Moon: 75°	2023 mar 11 17h13.1m A23_03154 769 Tatjana UCAC4 595-015734 Diam = 102.0 m = 11.9 m = 15.4  Dur = 6.8s Dmag = 3.5 Sun: 86° Moon: 141°
2023 mar 11 22h46.8m A23_03048 96 Aegle TYC 5516-01389-1 Diam = 174.0 m = 10.6 m = 11.4  Dur = 15.0s Dmag = 1.3 Sun: 161° Moon: 42°	2023 mar 13 4h21.0m A23_03122 519 Sylvania UCAC4 351-077192 Diam = 53.1 m = 12.0 m = 14.5  Dur = 8.3s Dmag = 2.6 Sun: 111° Moon: 4°	2023 mar 13 21h46.5m A23_03067 188 Menippe PPMX 6972264 Diam = 41.3 m = 12.2 m = 15.0  Dur = 3.5s Dmag = 2.9 Sun: 94° Moon: 157°	2023 mar 14 17h19.0m A23_03102 335 Roberta TYC 0840-00493-1 Diam = 93.6 m = 12.2 m = 12.9  Dur = 8.2s Dmag = 1.1 Sun: 157° Moon: 108°
2023 mar 15 4h30.7m A23_03145 679 Pax UCAC4 440-068490 Diam = 65.5 m = 12.5 m = 14.7  Dur = 4.7s Dmag = 2.4 Sun: 93° Moon: 26°	2023 mar 15 18h 7.6m A23_03159 806 Gyldenja UCAC4 620-018223 Diam = 65.2 m = 12.2 m = 16.4  Dur = 3.3s Dmag = 4.3 Sun: 81° Moon: 162°	2023 mar 16 16h 1.4m A23_03015 6 Hebe PPMX 6133648 Diam = 186.0 m = 12.4 m = 10.0  Dur = 39.3s Dmag = 0.1 Sun: 122° Moon: 167°	2023 mar 21 5h 2.6m A23_03053 109 Felicitas UCAC4 295-185778 Diam = 91.0 m = 12.3 m = 15.1  Dur = 5.5s Dmag = 2.9 Sun: 86° Moon: 79°

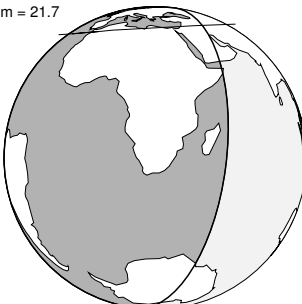
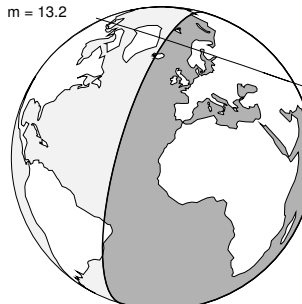
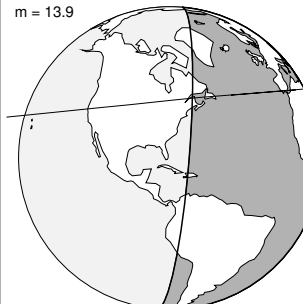
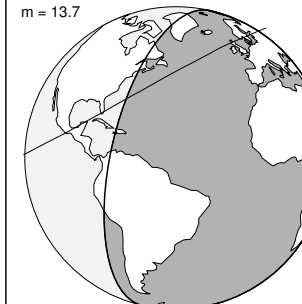
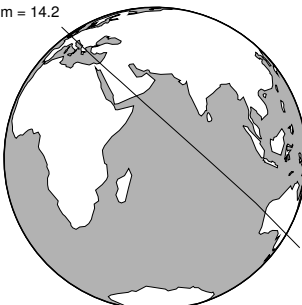
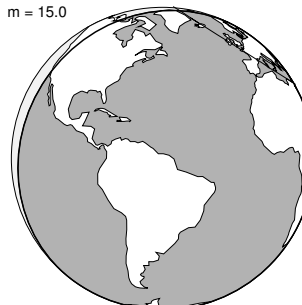
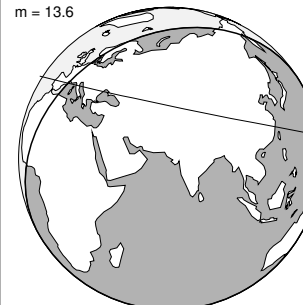
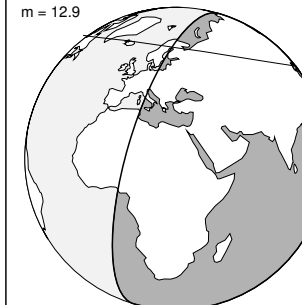
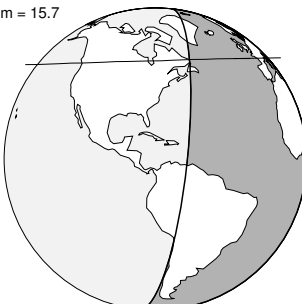
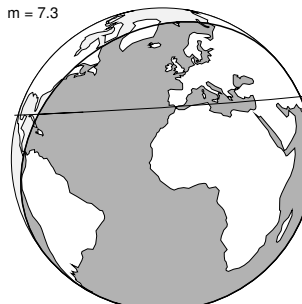
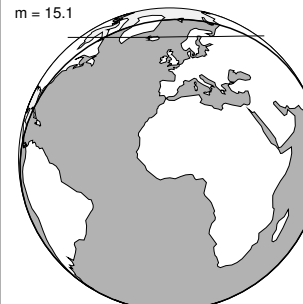
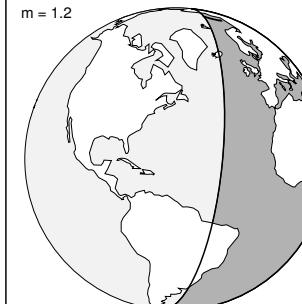
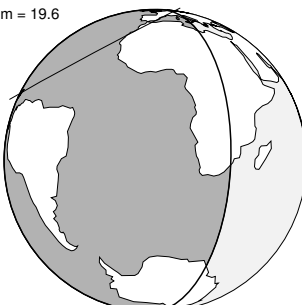
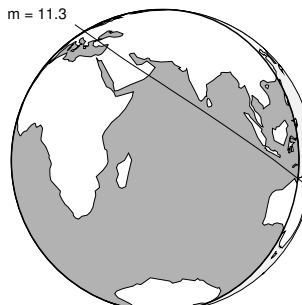
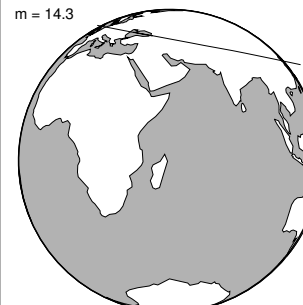
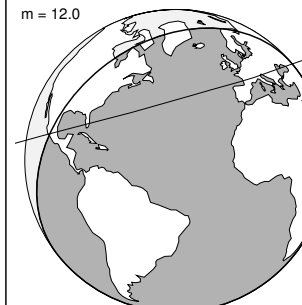
Occultations by major and minor planets – 2023

Region 3

2023 mar 21 5h46.4m A23_03172 1102 Pepita UCAC4 371-080853 Diam = 43.5 m = 11.5  Dur = 3.5s Dmag = 3.5 Sun: 103° Moon: 97°	2023 mar 21 21h46.0m A23_03182 1735 ITA UCAC4 646-042108 Diam = 66.0 m = 11.3  Dur = 5.9s Dmag = 4.2 Sun: 101° Moon: 100°	2023 mar 22 22h10.2m A23_03115 444 Gyptis TYC 0246-00846-1 Diam = 170.0 m = 11.7  Dur = 13.1s Dmag = 1.4 Sun: 153° Moon: 138°	2023 mar 23 1h16.8m A23_03106 379 Huenna TYC 4940-00408-1 Diam = 96.1 m = 10.3  Dur = 6.1s Dmag = 3.7 Sun: 178° Moon: 164°
2023 mar 24 18h17.8m A23_03037 43 Ariadne UCAC4 555-030492 Diam = 65.3 m = 12.1  Dur = 5.4s Dmag = 1.2 Sun: 95° Moon: 56°	2023 mar 24 21h 8.7m A23_03165 940 Kordula TYC 0293-00023-1 Diam = 51.3 m = 12.4  Dur = 3.2s Dmag = 2.8 Sun: 170° Moon: 144°	2023 mar 26 16h49.8m A23_03103 344 Desiderata UCAC4 619-016311 Diam = 138.0 m = 11.6  Dur = 5.8s Dmag = 2.9 Sun: 67° Moon: 10°	2023 mar 27 18h11.3m A23_03173 1297 Quadea UCAC4 566-027742 Diam = 66.0 m = 12.3  Dur = 4.1s Dmag = 4.0 Sun: 90° Moon: 16°
2023 mar 29 17h33.4m A23_03030 27 Euterpe HIP 22767 Diam = 124.0 m = 11.3  Dur = 3.9s Dmag = 1.8 Sun: 66° Moon: 31°	2023 mar 31 23h10.8m A23_03083 219 Thusnelda TYC 0244-00239-1 Diam = 43.6 m = 10.7  Dur = 4.3s Dmag = 3.2 Sun: 141° Moon: 26°	2023 apr 2 20h28.6m A23_04053 224 Oceana TYC 1890-01493-1 Diam = 79.8 m = 12.5  Dur = 3.9s Dmag = 1.8 Sun: 81° Moon: 60°	2023 apr 3 0h23.9m A23_04025 64 Angelina UCAC4 564-034808 Diam = 121.9 m = 11.9  Dur = 6.8s Dmag = 0.7 Sun: 90° Moon: 53°
2023 apr 3 17h29.4m A23_04055 236 Honoria UCAC4 531-021525 Diam = 90.5 m = 11.9  Dur = 3.8s Dmag = 2.3 Sun: 77° Moon: 75°	2023 apr 5 19h 5.1m A23_04103 737 Arequipa UCAC4 459-048706 Diam = 46.3 m = 12.2  Dur = 3.5s Dmag = 1.4 Sun: 156° Moon: 19°	2023 apr 6 22h29.8m A23_04063 294 Felicia TYC 5580-00821-1 Diam = 59.6 m = 11.3  Dur = 6.7s Dmag = 3.3 Sun: 148° Moon: 23°	2023 apr 8 1h41.7m A23_04099 676 Melitta UCAC5 402-078827 Diam = 82.6 m = 12.4  Dur = 5.7s Dmag = 2.4 Sun: 96° Moon: 62°

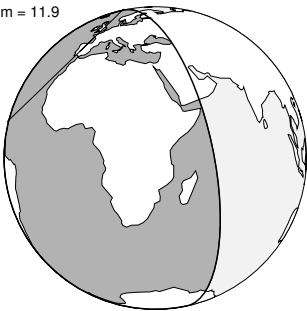
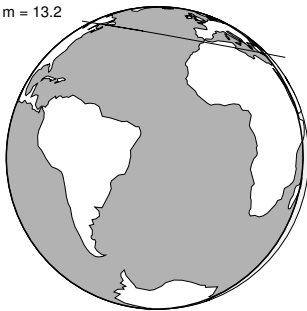
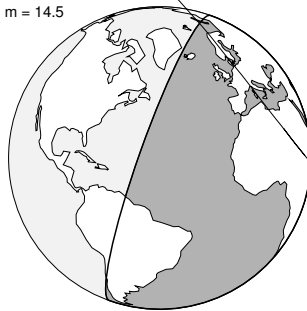
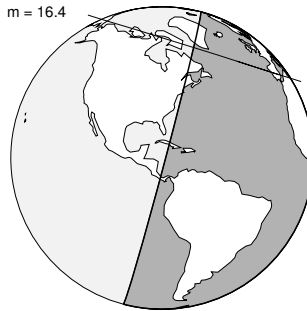
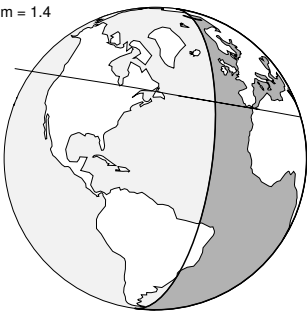
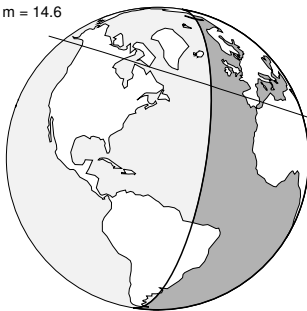
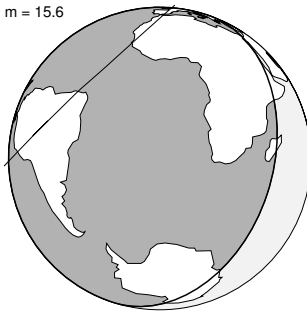
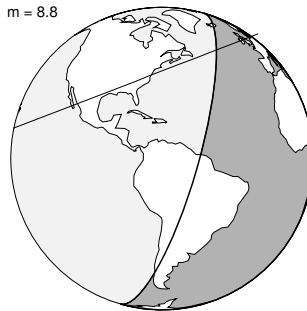
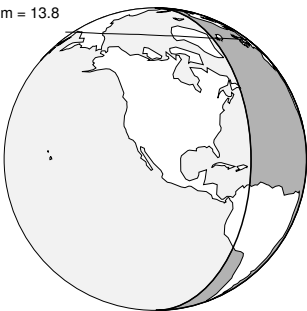
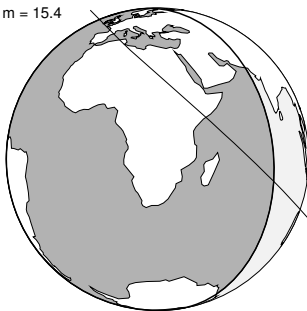
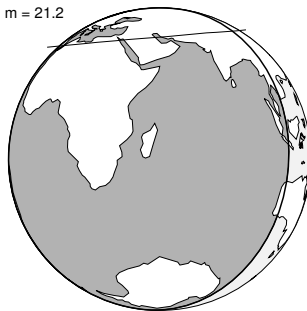
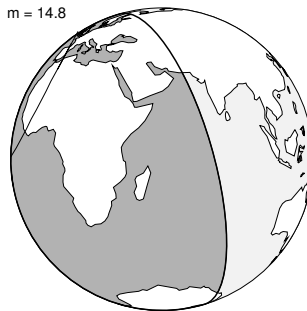
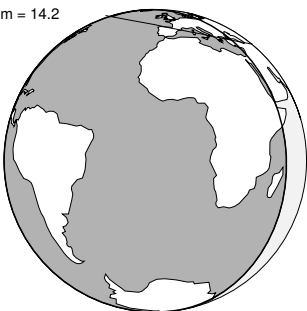
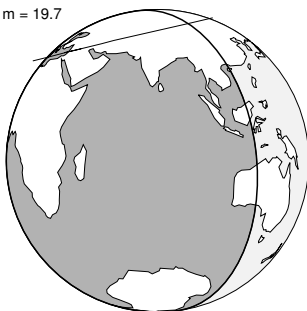
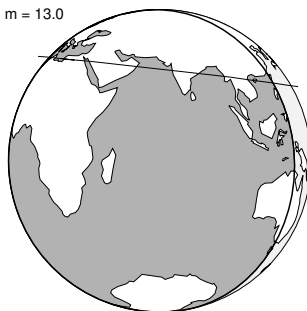
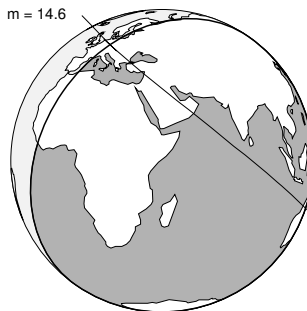
Occultations by major and minor planets – 2023

Region 3

2023 apr 8 2h34.5m B23_04009 2010JK124 UCAC4 309–112800 Diam = 354.8 m = 14.5 m = 21.7  Dur = 37.9s Dmag = 7.3 Sun: 117° Moon: 39°	2023 apr 8 20h31.8m A23_04058 261 Prymno TYC 1942–00750–1 Diam = 52.6 m = 11.5 m = 13.2  Dur = 5.5s Dmag = 2.0 Sun: 107° Moon: 105°	2023 apr 8 23h 0.9m A23_04114 1021 Flammario UCAC4 580–033251 Diam = 103.0 m = 12.4 m = 13.9  Dur = 4.5s Dmag = 1.8 Sun: 82° Moon: 131°	2023 apr 8 23h 3.8m A23_04072 377 Campania UCAC4 499–052055 Diam = 94.0 m = 11.4 m = 13.7  Dur = 17.5s Dmag = 2.5 Sun: 115° Moon: 97°
2023 apr 9 20h 4.7m A23_04085 439 Ohio TYC 5537–00111–1 Diam = 79.3 m = 11.4 m = 14.2  Dur = 5.2s Dmag = 2.8 Sun: 178° Moon: 44°	2023 apr 10 2h34.5m A23_04064 314 Rosalia TYC 0283–00675–1 Diam = 61.6 m = 12.4 m = 15.0  Dur = 4.2s Dmag = 2.7 Sun: 159° Moon: 69°	2023 apr 10 18h17.1m A23_04097 618 Elfriede UCAC4 566–048348 Diam = 124.0 m = 11.5 m = 13.6  Dur = 10.9s Dmag = 2.3 Sun: 144° Moon: 86°	2023 apr 11 17h43.6m A23_04022 53 Kalypso TYC 1396–01752–1 Diam = 119.0 m = 10.5 m = 12.9  Dur = 11.8s Dmag = 2.5 Sun: 109° Moon: 139°
2023 apr 11 22h29.2m A23_04122 1243 Pamela PPMX 7031367 Diam = 75.5 m = 12.2 m = 15.7  Dur = 3.6s Dmag = 3.6 Sun: 77° Moon: 164°	2023 apr 14 23h25.7m A23_04001 1 Ceres TYC 1442–01219–1 Diam = 952.5 m = 11.3 m = 7.3  Dur = 116.7s Dmag = 0.0 Sun: 147° Moon: 140°	2023 apr 16 23h43.4m A23_04117 1042 Amazone UCAC4 513–055380 Diam = 76.7 m = 12.5 m = 15.1  Dur = 5.0s Dmag = 2.7 Sun: 155° Moon: 151°	2023 apr 22 21h 0.0m P23_04004 Mars TYC 1899–00945–1 Diam = 6759.2 m = 8.6 m = 1.2  Dur = 250.9s Dmag = 0.0 Sun: 72° Moon: 39°
2023 apr 25 4h17.8m B23_04001 28978 Ixion UCAC4 295–188437 Diam = 794.3 m = 14.8 m = 19.6  Dur = 71.4s Dmag = 4.8 Sun: 119° Moon: 177°	2023 apr 25 21h32.8m A23_04027 67 Asia TYC 6187–01489–1 Diam = 60.0 m = 11.4 m = 11.3  Dur = 8.8s Dmag = 0.7 Sun: 154° Moon: 136°	2023 apr 27 21h 2.9m A23_04119 1071 Brita TYC 5590–00903–1 Diam = 52.7 m = 10.6 m = 14.3  Dur = 4.0s Dmag = 3.8 Sun: 172° Moon: 97°	2023 apr 28 1h 3.3m A23_04084 432 Pythia TYC 1446–01948–1 Diam = 48.6 m = 9.9 m = 12.0  Dur = 6.8s Dmag = 2.2 Sun: 141° Moon: 55°

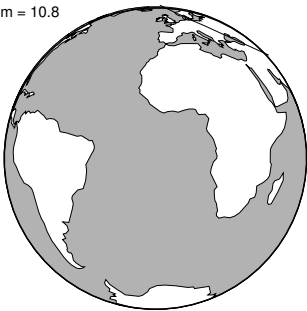
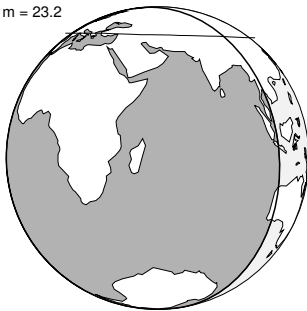
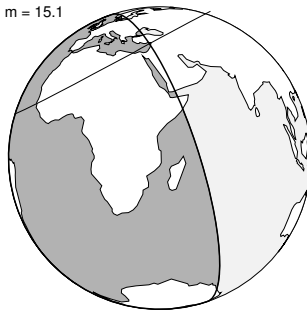
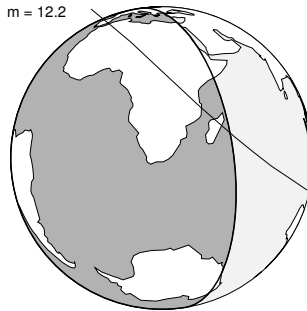
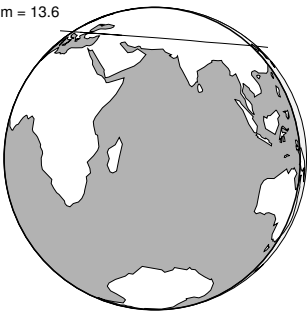
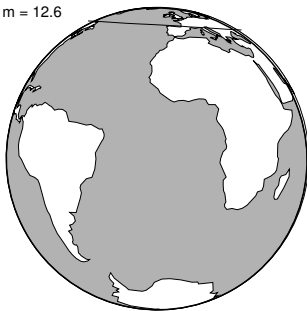
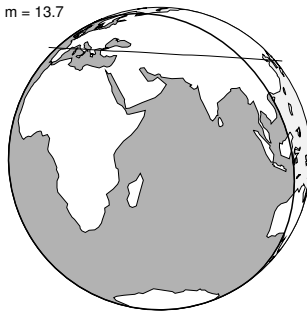
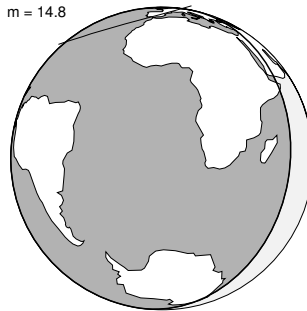
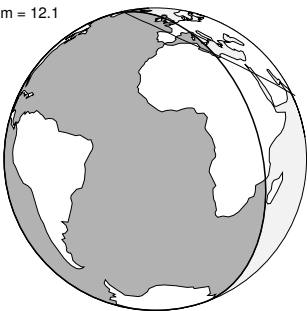
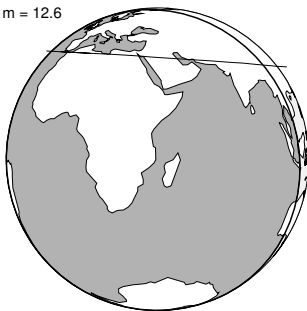
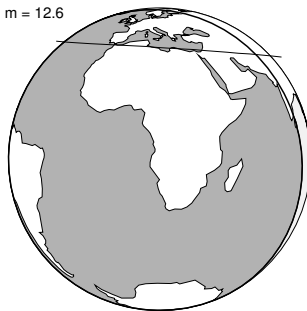
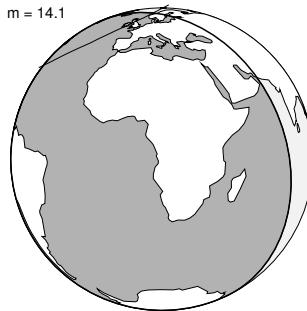
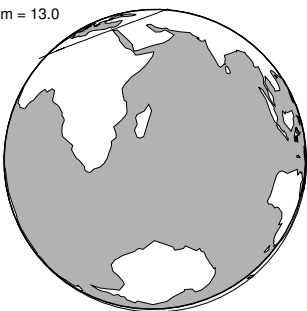
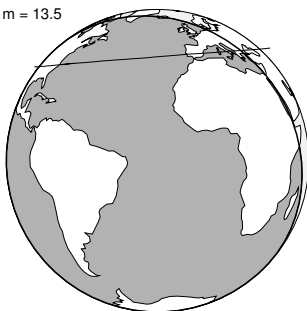
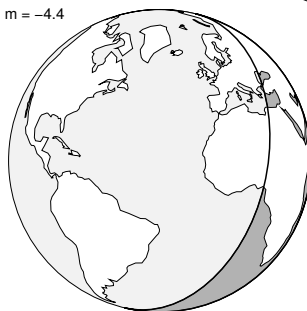
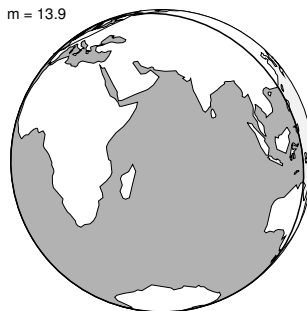
Occultations by major and minor planets – 2023

Region 3

2023 apr 28 2h18.1m A23_04080 393 Lampetia TYC 5706–09041–1 Diam = 106.0 m = 10.9 m = 11.9  Dur = 7.4s Dmag = 1.3 Sun: 112° Moon: 147°	2023 apr 28 2h56.2m A23_04056 245 Vera HIP 75423 Diam = 84.8 m = 10.8 m = 13.2  Dur = 5.9s Dmag = 2.5 Sun: 164° Moon: 103°	2023 apr 28 22h 8.7m A23_04108 784 Pickeringia TYC 1952–01448–1 Diam = 90.0 m = 11.3 m = 14.5  Dur = 7.6s Dmag = 3.3 Sun: 97° Moon: 5°	2023 apr 29 23h36.1m A23_04120 1092 Lilium UCAC4 533–047602 Diam = 47.6 m = 12.4 m = 16.4  Dur = 3.0s Dmag = 4.0 Sun: 88° Moon: 25°
2023 may 2 20h37.7m P23_05001 Mars TYC 1910–01431–1 Diam = 6759.2 m = 9.9 m = 1.4  Dur = 232.4s Dmag = 0.0 Sun: 67° Moon: 77°	2023 may 3 20h59.8m A23_05056 303 Josephina PPMX 5107031 Diam = 103.0 m = 12.4 m = 14.6  Dur = 4.0s Dmag = 2.4 Sun: 71° Moon: 86°	2023 may 4 3h 5.0m A23_05117 3248 Farinella UCAC4 270–105066 Diam = 50.1 m = 12.3 m = 15.6  Dur = 6.9s Dmag = 3.3 Sun: 138° Moon: 61°	2023 may 6 21h44.9m A23_05002 2 Pallas UCAC4 474–038289 Diam = 530.9 m = 11.1 m = 8.8  Dur = 17.2s Dmag = 0.1 Sun: 76° Moon: 117°
2023 may 6 22h45.2m A23_05032 121 Hermione TYC 1887–01582–1 Diam = 217.0 m = 9.2 m = 13.8  Dur = 6.4s Dmag = 4.6 Sun: 50° Moon: 145°	2023 may 8 1h 2.7m A23_05110 2393 Suzuki UCAC4 370–103265 Diam = 50.8 m = 11.9 m = 15.4  Dur = 7.3s Dmag = 3.5 Sun: 139° Moon: 15°	2023 may 13 22h44.6m B23_05008 470593 2008LP17 Gaia 064–0198541 Diam = 239.9 m = 14.8 m = 21.2  Dur = 12.9s Dmag = 6.4 Sun: 148° Moon: 76°	2023 may 14 1h 6.9m A23_05092 983 Gunila UCAC4 401–121982 Diam = 77.3 m = 12.3 m = 14.8  Dur = 7.6s Dmag = 2.6 Sun: 109° Moon: 41°
2023 may 15 2h45.4m A23_05057 305 Gordonia TYC 6243–00170–1 Diam = 50.7 m = 10.1 m = 14.2  Dur = 4.4s Dmag = 4.1 Sun: 149° Moon: 93°	2023 may 16 22h 9.2m B23_05005 95626 2002GZ32 UCAC4 344–175994 Diam = 173.8 m = 14.1 m = 19.7  Dur = 14.9s Dmag = 5.6 Sun: 130° Moon: 97°	2023 may 17 21h19.8m A23_05043 206 Hersilia TYC 6239–01077–1 Diam = 76.6 m = 10.7 m = 13.0  Dur = 8.4s Dmag = 2.4 Sun: 152° Moon: 131°	2023 may 18 18h52.7m A23_05095 1030 Vitja UCAC5 454–050525 Diam = 65.5 m = 12.5 m = 14.6  Dur = 10.3s Dmag = 2.3 Sun: 143° Moon: 153°

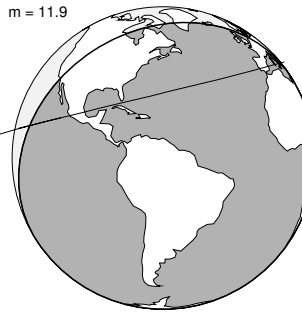
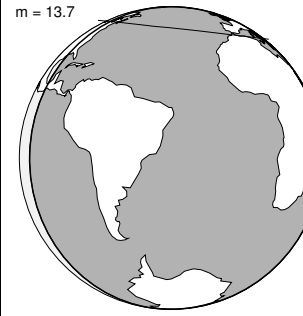
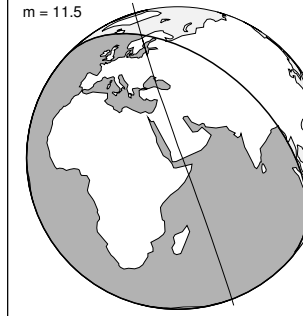
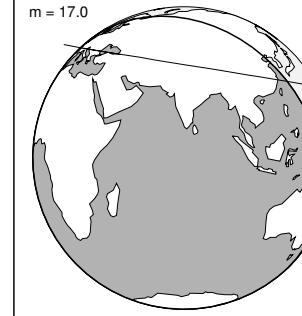
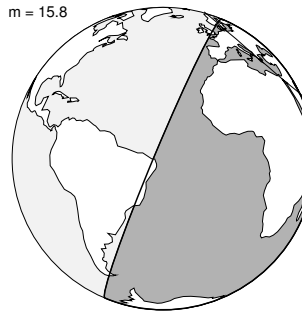
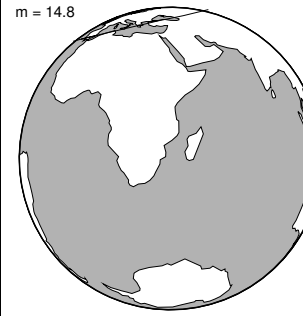
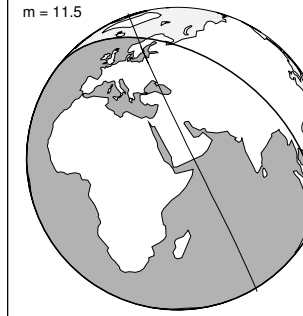
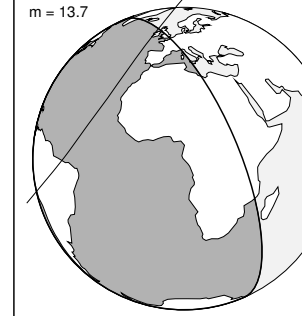
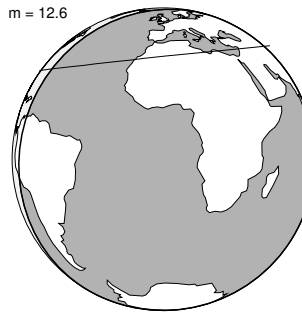
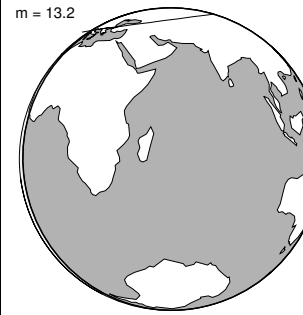
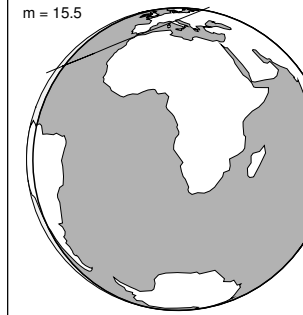
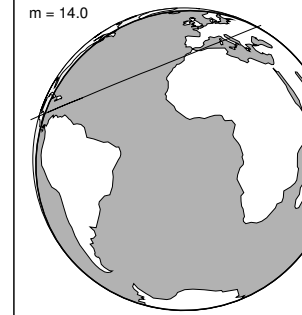
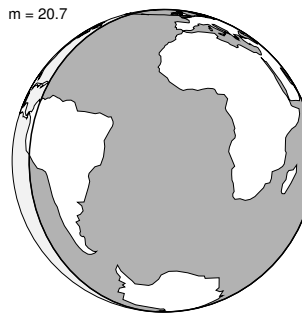
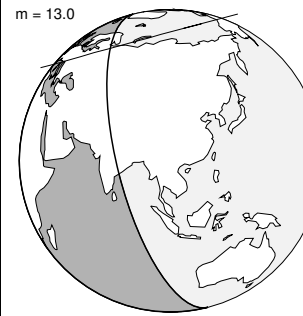
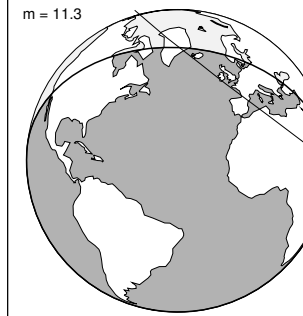
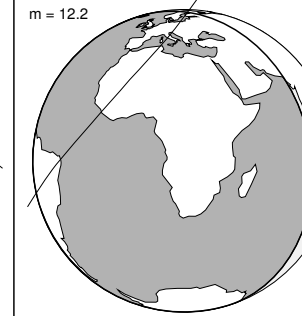
Occultations by major and minor planets – 2023

Region 3

2023 may 21 0h26.5m A23_05026 67 Asia HIP 76363 Diam = 60.0 m = 8.9 m = 10.8  Dur = 6.5s Dmag = 2.0 Sun: 172° Moon: 157°	2023 may 22 22h52.7m B23_05013 2004KC19 UCAC4 351-142278 Diam = 95.5 m = 13.7 m = 23.2  Dur = 5.4s Dmag = 9.5 Sun: 143° Moon: 172°	2023 may 24 2h32.4m A23_05067 395 Delia HIP 105079 Diam = 54.0 m = 15.1  Dur = 5.1s Dmag = 8.7 Sun: 104° Moon: 155°	2023 may 28 2h54.5m A23_05038 187 Lamberta TYC 7462-00798-1 Diam = 135.0 m = 10.8 m = 12.2  Dur = 23.4s Dmag = 1.6 Sun: 118° Moon: 144°
2023 may 29 20h54.9m A23_05028 76 Freia TYC 6247-00203-1 Diam = 190.0 m = 11.8 m = 13.6  Dur = 13.1s Dmag = 2.0 Sun: 163° Moon: 81°	2023 jun 3 1h30.4m A23_06052 206 Hersilia UCAC4 362-086633 Diam = 76.6 m = 11.3 m = 12.6  Dur = 6.5s Dmag = 1.6 Sun: 170° Moon: 24°	2023 jun 4 22h 9.5m A23_06089 676 Melitta UCAC4 416-097889 Diam = 82.6 m = 12.3 m = 13.7  Dur = 10.6s Dmag = 1.7 Sun: 147° Moon: 27°	2023 jun 5 2h24.2m A23_06134 1859 Kovalevskaya TYC 7414-00737-1 Diam = 48.6 m = 12.2 m = 14.8  Dur = 6.2s Dmag = 2.7 Sun: 147° Moon: 19°
2023 jun 5 3h50.1m A23_06022 79 Eurynome UCAC4 381-159055 Diam = 68.0 m = 12.0 m = 12.1  Dur = 18.7s Dmag = 0.8 Sun: 133° Moon: 34°	2023 jun 7 22h39.1m A23_06015 34 Circe UCAC4 376-116026 Diam = 118.0 m = 11.5 m = 12.6  Dur = 11.3s Dmag = 1.4 Sun: 158° Moon: 34°	2023 jun 8 0h21.6m A23_06014 34 Circe UCAC4 376-115964 Diam = 118.0 m = 12.1 m = 12.6  Dur = 11.3s Dmag = 1.0 Sun: 158° Moon: 35°	2023 jun 8 1h15.7m A23_06100 856 Backlunda UCAC4 399-112651 Diam = 52.0 m = 12.3 m = 14.1  Dur = 7.8s Dmag = 2.0 Sun: 144° Moon: 26°
2023 jun 10 20h59.3m A23_06104 886 Washingtonia UCAC4 279-120872 Diam = 93.3 m = 11.7 m = 13.0  Dur = 6.8s Dmag = 1.6 Sun: 167° Moon: 84°	2023 jun 14 2h47.8m A23_06091 676 Melitta Gaia 084-0156834 Diam = 82.6 m = 11.2 m = 13.5  Dur = 8.5s Dmag = 2.4 Sun: 155° Moon: 112°	2023 jun 15 17h32.4m P23_06002 Venus TYC 1396-00794-1 Diam = 12104.0 m = -4.4 m = -4.4  Dur = 752.7s Dmag = 0.0 Sun: 44° Moon: 74°	2023 jun 17 21h28.1m A23_06102 856 Backlunda TYC 5712-00569-1 Diam = 52.0 m = 10.8 m = 13.9  Dur = 5.7s Dmag = 3.2 Sun: 155° Moon: 150°

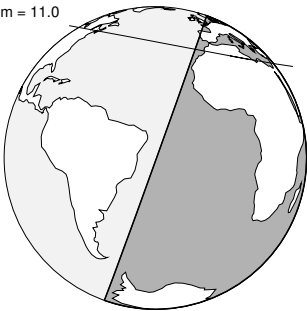
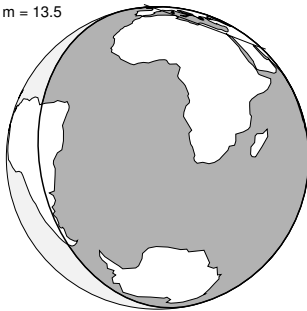
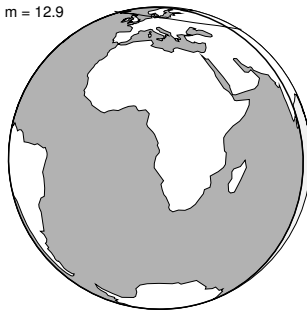
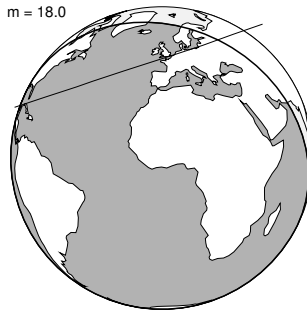
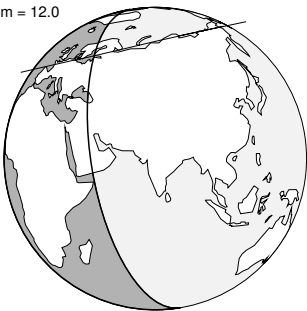
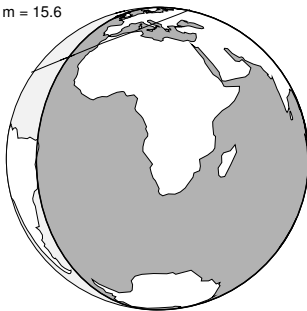
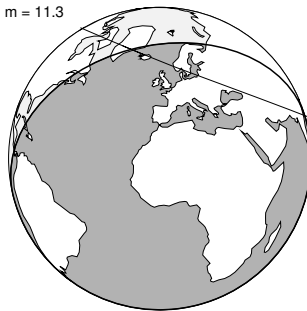
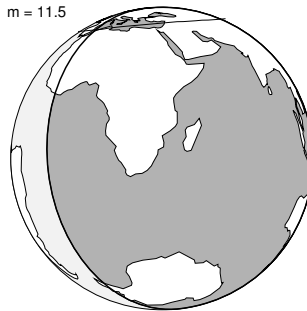
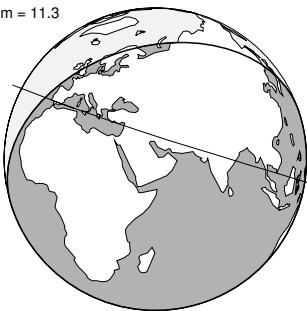
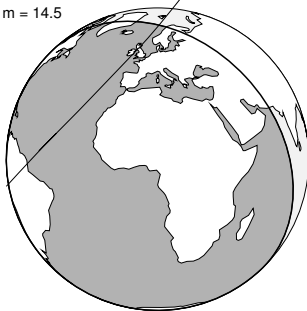
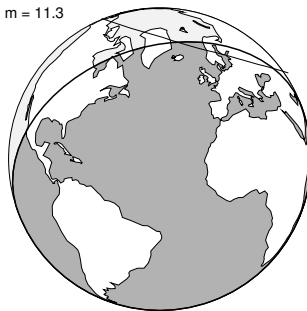
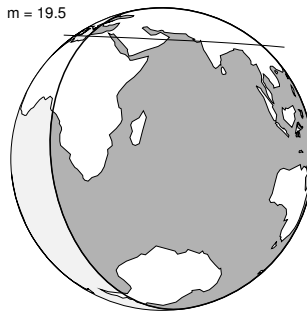
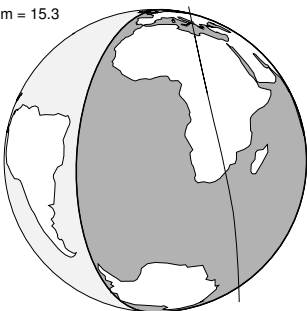
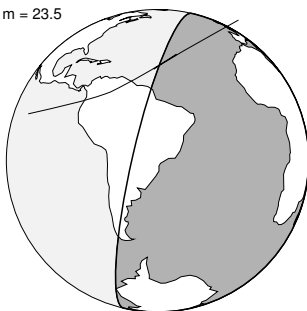
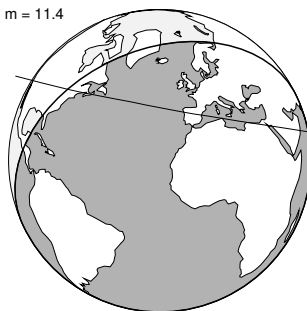
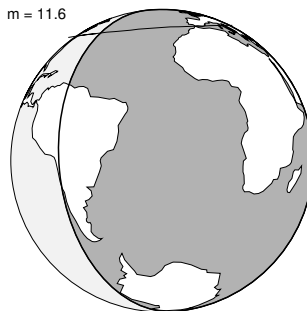
Occultations by major and minor planets – 2023

Region 3

2023 jun 22 3h 0.3m A23_06053 218 Bianca UCAC4 466-058011 Diam = 62.0 m = 12.3 m = 11.9  Dur = 7.8s Dmag = 0.6 Sun: 147° Moon: 111°	2023 jun 26 0h53.4m A23_06031 104 Klymene TYC 6800-00645-1 Diam = 127.0 m = 11.5 m = 13.7  Dur = 9.6s Dmag = 2.3 Sun: 158° Moon: 72°	2023 jun 28 23h17.4m A23_06108 914 Palisana UCAC5 521-128615 Diam = 79.0 m = 11.5 m = 12.4  Dur = 6.0s Dmag = 0.4 Sun: 129° Moon: 100°	2023 jun 29 20h40.1m A23_06143 5130 Ilioneus UCAC4 435-109309 Diam = 45.7 m = 12.3 m = 17.0  Dur = 3.3s Dmag = 4.7 Sun: 148° Moon: 77°
2023 jul 3 20h19.9m A23_07097 859 Bouzaréah UCAC4 426-057418 Diam = 77.5 m = 9.0 m = 15.8  Dur = 5.9s Dmag = 6.9 Sun: 93° Moon: 92°	2023 jul 3 21h52.1m A23_07116 1154 Astronomia UCAC4 325-198498 Diam = 64.3 m = 11.4 m = 14.8  Dur = 5.4s Dmag = 3.5 Sun: 175° Moon: 3°	2023 jul 3 22h56.5m A23_07100 914 Palisana PPMX 6639524 Diam = 79.0 m = 12.4 m = 11.5  Dur = 6.3s Dmag = 0.4 Sun: 132° Moon: 47°	2023 jul 8 3h57.9m A23_07080 545 Messalina HIP 116732 Diam = 115.0 m = 8.2 m = 13.7  Dur = 14.7s Dmag = 5.5 Sun: 111° Moon: 5°
2023 jul 9 22h57.6m A23_07009 34 Circe UCAC4 376-104923 Diam = 118.0 m = 12.3 m = 12.6  Dur = 11.0s Dmag = 0.9 Sun: 160° Moon: 106°	2023 jul 10 19h24.3m A23_07025 86 Semele UCAC4 326-152005 Diam = 127.0 m = 12.4 m = 13.2  Dur = 9.6s Dmag = 1.2 Sun: 167° Moon: 112°	2023 jul 14 22h 0.9m A23_07128 2127 Tanya UCAC4 343-143279 Diam = 42.5 m = 11.7 m = 15.5  Dur = 3.5s Dmag = 3.9 Sun: 163° Moon: 163°	2023 jul 14 23h55.4m A23_07114 1069 Planckia UCAC5 396-086272 Diam = 43.2 m = 12.4 m = 14.0  Dur = 3.2s Dmag = 1.8 Sun: 163° Moon: 154°
2023 jul 15 23h 7.9m B23_07004 119951 2002KX14 UCAC4 333-115956 Diam = 478.6 m = 15.0 m = 20.7  Dur = 22.6s Dmag = 5.7 Sun: 152° Moon: 172°	2023 jul 21 0h12.7m A23_07071 409 Aspasia TYC 1782-00252-1 Diam = 168.0 m = 10.0 m = 13.0  Dur = 6.5s Dmag = 3.0 Sun: 69° Moon: 104°	2023 jul 24 2h48.1m A23_07104 914 Palisana UCAC4 558-120552 Diam = 79.0 m = 12.3 m = 11.3  Dur = 7.8s Dmag = 0.4 Sun: 138° Moon: 115°	2023 jul 28 1h 1.0m A23_07051 213 Lilaea TYC 5818-00333-1 Diam = 84.6 m = 11.4 m = 12.2  Dur = 13.5s Dmag = 1.3 Sun: 146° Moon: 97°

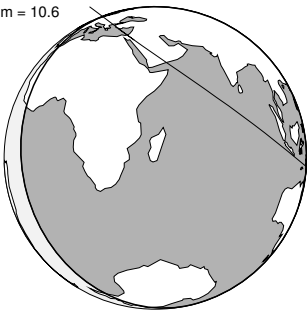
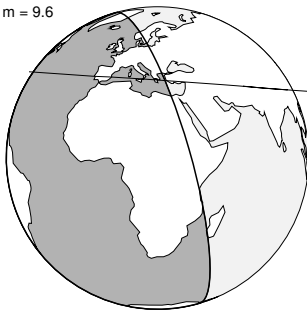
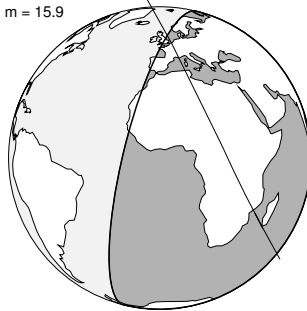
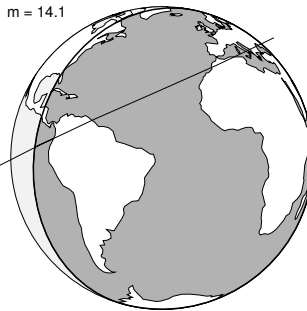
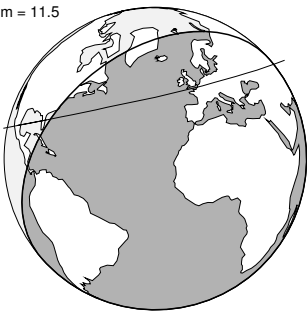
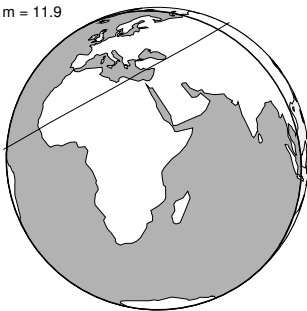
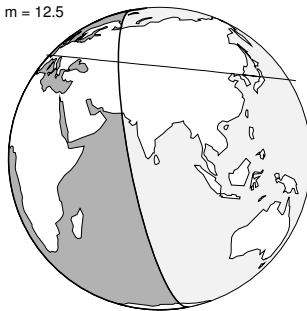
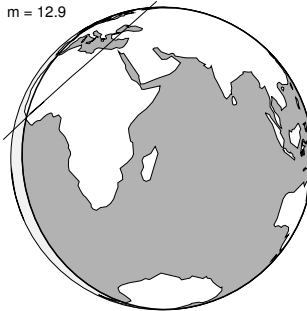
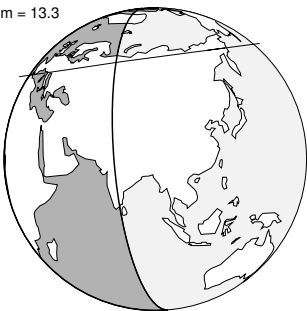
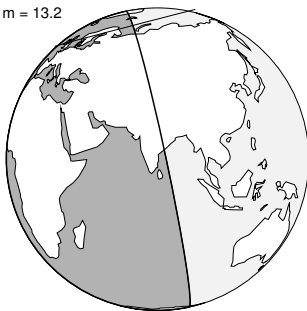
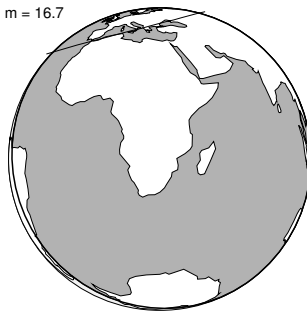
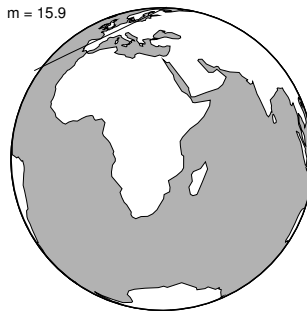
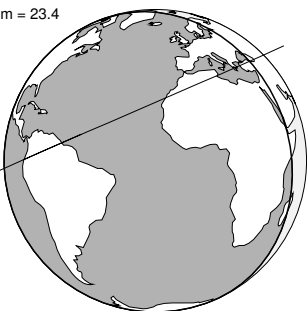
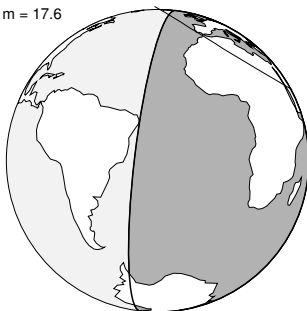
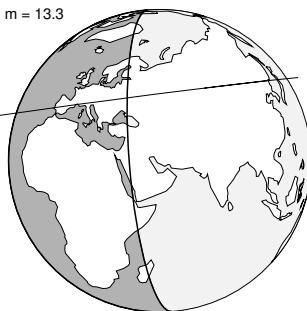
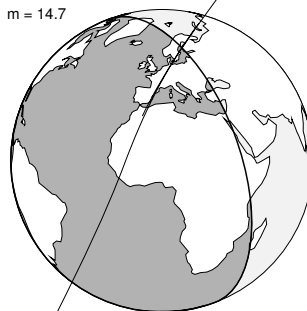
Occultations by major and minor planets – 2023

Region 3

2023 jul 28 19h50.3m A23_07002 7 Iris UCAC4 374–066799 Diam = 329.6 m = 12.2 m = 11.0  Dur = 22.5s Dmag = 0.3 Sun: 89° Moon: 36°	2023 jul 28 21h19.4m A23_07066 356 Liguria UCAC4 280–132312 Diam = 135.0 m = 11.1 m = 13.5  Dur = 13.7s Dmag = 2.5 Sun: 141° Moon: 17°	2023 jul 31 0h28.4m A23_07091 773 Irmintraud TYC 5801–00863–1 Diam = 99.1 m = 10.6 m = 12.9  Dur = 8.9s Dmag = 2.4 Sun: 160° Moon: 44°	2023 aug 2 1h21.4m A23_08116 1873 Agenor TYC 1121–01293–1 Diam = 64.8 m = 10.9 m = 18.0  Dur = 4.2s Dmag = 7.0 Sun: 149° Moon: 31°
2023 aug 3 2h24.4m A23_08015 37 Fides UCAC5 564–008965 Diam = 112.0 m = 12.4 m = 12.0  Dur = 3.5s Dmag = 0.6 Sun: 64° Moon: 96°	2023 aug 3 20h20.5m A23_08098 943 Begonia TYC 6273–01308–1 Diam = 72.0 m = 10.1 m = 15.6  Dur = 6.8s Dmag = 5.5 Sun: 143° Moon: 67°	2023 aug 3 23h47.6m A23_08095 914 Palisana UCAC5 566–098049 Diam = 79.0 m = 12.4 m = 11.3  Dur = 9.6s Dmag = 0.3 Sun: 138° Moon: 53°	2023 aug 4 18h56.2m A23_08038 196 Philomela TYC 6854–02161–1 Diam = 146.0 m = 11.9 m = 11.5  Dur = 26.3s Dmag = 0.5 Sun: 139° Moon: 83°
2023 aug 5 19h54.1m A23_08094 914 Palisana UCAC5 567–095106 Diam = 79.0 m = 12.4 m = 11.3  Dur = 10.0s Dmag = 0.4 Sun: 137° Moon: 68°	2023 aug 7 1h20.0m A23_08106 1051 Merope TYC 1153–00782–1 Diam = 68.6 m = 10.0 m = 14.5  Dur = 8.1s Dmag = 4.4 Sun: 142° Moon: 40°	2023 aug 7 1h32.2m A23_08093 914 Palisana TYC 2154–00086–1 Diam = 79.0 m = 8.9 m = 11.3  Dur = 10.2s Dmag = 2.5 Sun: 137° Moon: 79°	2023 aug 7 17h21.8m B23_08001 28978 Ixion UCAC4 294–162279 Diam = 794.3 m = 13.5 m = 19.5  Dur = 46.6s Dmag = 6.0 Sun: 136° Moon: 123°
2023 aug 7 19h55.3m A23_08064 408 Fama TYC 6818–01068–1 Diam = 45.0 m = 10.0 m = 15.3  Dur = 11.0s Dmag = 5.3 Sun: 121° Moon: 141°	2023 aug 9 21h37.3m B23_08008 2013GJ137 UCAC4 331–077708 Diam = 83.2 m = 13.9 m = 23.5  Dur = 65.4s Dmag = 9.6 Sun: 99° Moon: 172°	2023 aug 10 0h20.3m A23_08096 914 Palisana UCAC4 568–102984 Diam = 79.0 m = 12.3 m = 11.4  Dur = 11.0s Dmag = 0.4 Sun: 137° Moon: 106°	2023 aug 10 22h15.4m A23_08040 196 Philomela UCAC5 307–156966 Diam = 146.0 m = 12.5 m = 11.6  Dur = 42.9s Dmag = 0.4 Sun: 132° Moon: 166°

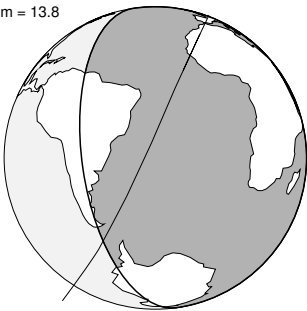
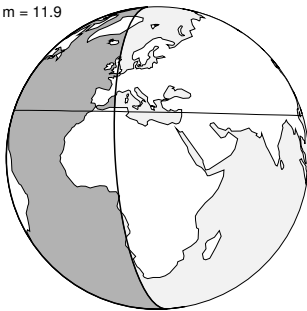
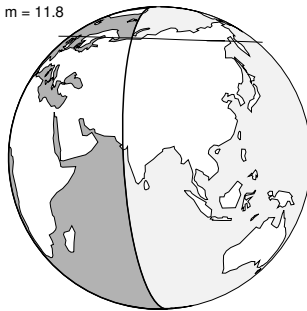
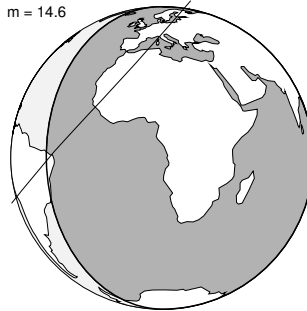
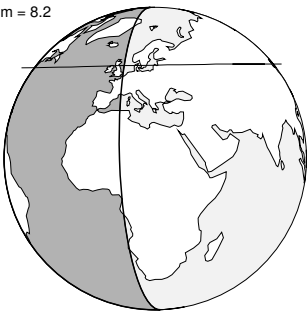
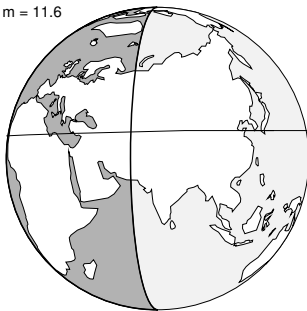
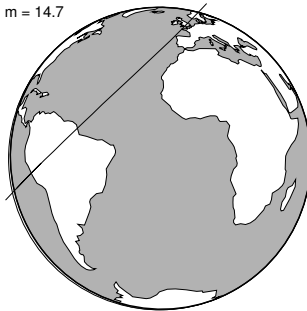
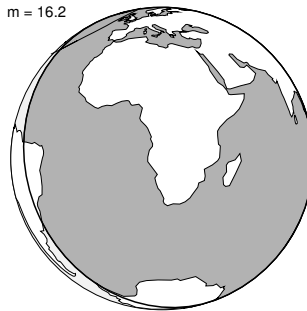
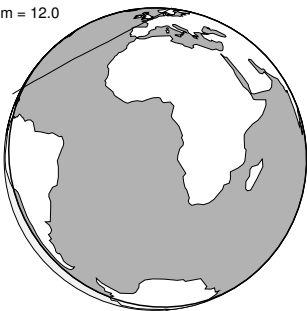
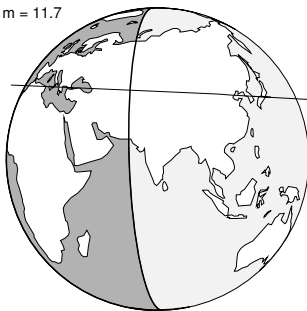
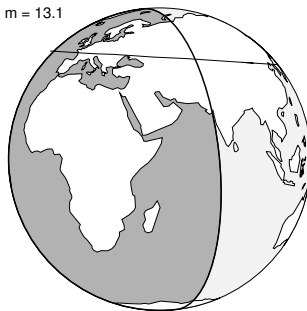
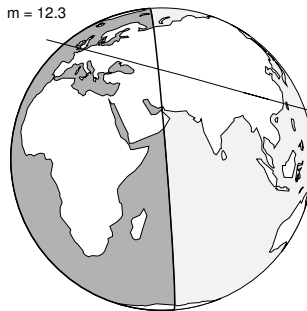
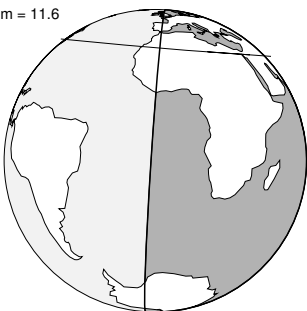
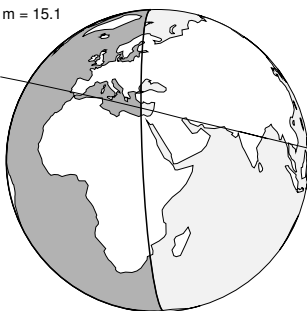
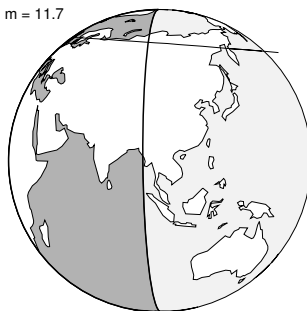
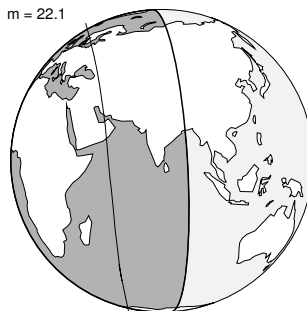
Occultations by major and minor planets – 2023

Region 3

2023 aug 14 19h 7.2m A23_08020 54 Alexandra UCAC4 330–195111 Diam = 171.0 m = 12.5 m = 10.6  Dur = 25.4s Dmag = 0.2 Sun: 151° Moon: 169°	2023 aug 15 3h34.2m A23_08009 18 Melpomene UCAC4 484–003561 Diam = 135.0 m = 12.1 m = 9.6  Dur = 8.8s Dmag = 0.1 Sun: 102° Moon: 90°	2023 aug 18 19h19.6m A23_08092 892 Seeligeria TYC 0384–00224–1 Diam = 78.5 m = 12.0 m = 15.9  Dur = 6.4s Dmag = 4.0 Sun: 104° Moon: 79°	2023 aug 19 0h 2.0m A23_08102 979 Ilsewa UCAC4 417–131032 Diam = 40.6 m = 12.4 m = 14.1  Dur = 5.4s Dmag = 1.9 Sun: 147° Moon: 120°
2023 aug 19 23h45.8m A23_08097 914 Palisana UCAC5 568–095424 Diam = 79.0 m = 12.4 m = 11.5  Dur = 14.7s Dmag = 0.4 Sun: 134° Moon: 112°	2023 aug 20 22h47.5m A23_08023 69 Hesperia UCAC4 450–137158 Diam = 143.0 m = 12.4 m = 11.9  Dur = 11.9s Dmag = 0.5 Sun: 157° Moon: 151°	2023 aug 21 1h16.4m A23_08035 173 Ino TYC 0682–01096–1 Diam = 159.0 m = 10.4 m = 12.5  Dur = 6.3s Dmag = 2.2 Sun: 78° Moon: 128°	2023 aug 21 19h 4.4m A23_08088 739 Mandeville TYC 6333–00536–1 Diam = 110.0 m = 9.6 m = 12.9  Dur = 8.4s Dmag = 3.3 Sun: 157° Moon: 98°
2023 aug 23 0h39.6m A23_08059 389 Industria TYC 1843–00096–1 Diam = 81.0 m = 10.6 m = 13.3  Dur = 3.3s Dmag = 2.9 Sun: 74° Moon: 147°	2023 aug 25 0h18.9m A23_08073 481 Emila UCAC4 518–006688 Diam = 116.0 m = 11.9 m = 13.2  Dur = 6.8s Dmag = 1.6 Sun: 93° Moon: 166°	2023 aug 25 21h21.2m A23_08113 1439 Vogtia TYC 6368–01042–1 Diam = 60.1 m = 11.8 m = 16.7  Dur = 3.9s Dmag = 5.0 Sun: 164° Moon: 57°	2023 aug 26 21h36.4m A23_08109 1212 Francette TYC 5805–01333–1 Diam = 90.7 m = 10.5 m = 15.9  Dur = 5.3s Dmag = 5.4 Sun: 175° Moon: 54°
2023 aug 28 3h 1.2m A23_08127 2002PO149 UCAC4 451–000138 Diam = 195.9 m = 11.7 m = 23.4  Dur = 8.8s Dmag = 11.7 Sun: 152° Moon: 69°	2023 aug 28 20h14.1m A23_08122 2655 Guangxi UCAC4 336–085683 Diam = 40.7 m = 11.8 m = 17.6  Dur = 4.2s Dmag = 5.8 Sun: 98° Moon: 50°	2023 aug 29 3h 3.3m A23_08060 389 Industria UCAC4 594–014915 Diam = 81.0 m = 10.5 m = 13.3  Dur = 3.6s Dmag = 2.9 Sun: 78° Moon: 130°	2023 aug 29 3h21.4m A23_08055 309 Fraternitas TYC 0636–00468–1 Diam = 54.7 m = 10.8 m = 14.7  Dur = 21.4s Dmag = 4.0 Sun: 120° Moon: 87°

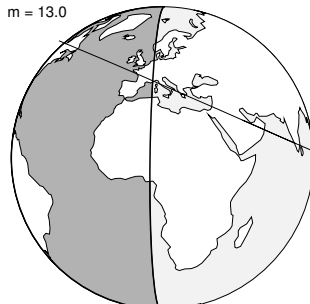
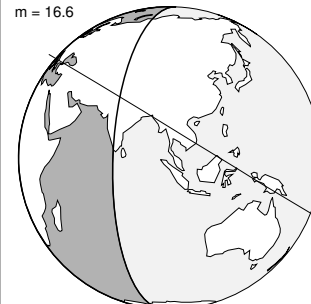
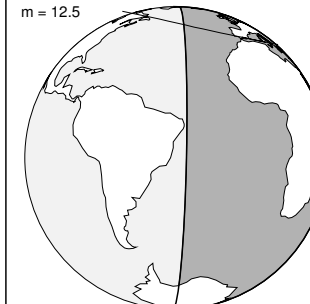
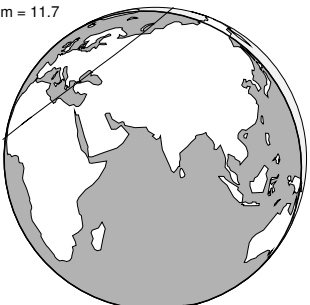
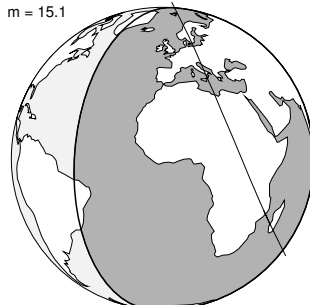
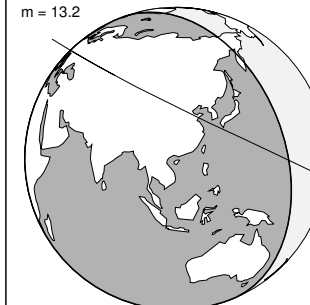
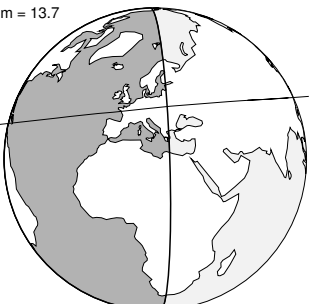
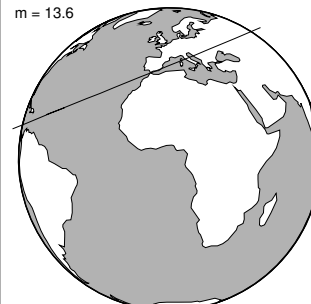
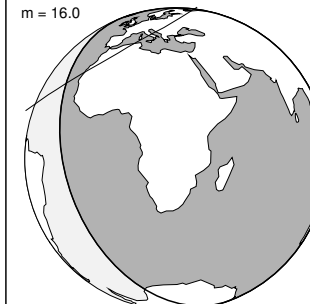
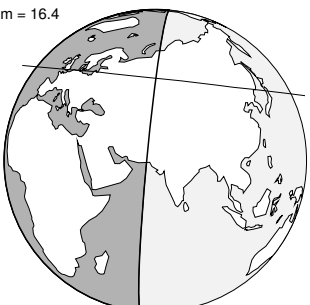
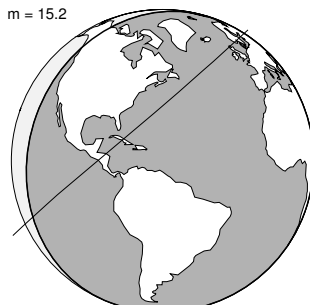
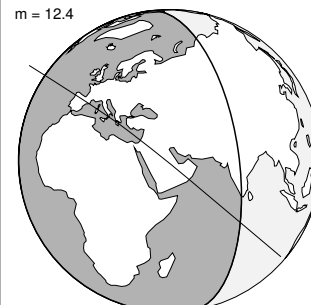
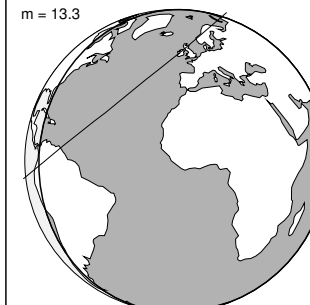
Occultations by major and minor planets – 2023

Region 3

2023 aug 30 21h52.8m A23_08030 143 Adria UCAC4 288–191221 Diam = 92.0 m = 13.8  Dur = 13.0s Dmag = 1.8 Sun: 118° Moon: 58°	2023 sep 1 5h19.8m A23_09002 5 Astraea UCAC4 542–016908 Diam = 125.0 m = 11.2  Dur = 4.6s Dmag = 1.1 Sun: 73° Moon: 90°	2023 sep 5 1h 5.3m A23_09003 5 Astraea UCAC4 541–018229 Diam = 125.0 m = 11.1  Dur = 4.8s Dmag = 1.1 Sun: 76° Moon: 37°	2023 sep 6 20h32.2m A23_09103 513 Centesima UCAC5 404–118226 Diam = 52.5 m = 12.4  Dur = 6.7s Dmag = 2.3 Sun: 139° Moon: 126°
2023 sep 7 5h17.6m A23_09001 4 Vesta UCAC5 546–019100 Diam = 523.2 m = 12.5  Dur = 23.0s Dmag = 0.0 Sun: 76° Moon: 13°	2023 sep 8 1h32.1m A23_09117 704 Interamnia TYC 2412–01627–1 Diam = 333.0 m = 11.5  Dur = 15.8s Dmag = 0.8 Sun: 79° Moon: 7°	2023 sep 9 0h32.1m A23_09146 2326 Tololo HIP 111200 Diam = 45.6 m = 14.7  Dur = 3.7s Dmag = 8.4 Sun: 169° Moon: 124°	2023 sep 9 21h11.5m A23_09140 1345 Potomac TYC 6361–00138–1 Diam = 79.3 m = 9.4  Dur = 5.6s Dmag = 6.8 Sun: 153° Moon: 149°
2023 sep 9 22h48.1m A23_09057 213 Lilaea TYC 6381–00674–1 Diam = 84.6 m = 11.4  Dur = 10.1s Dmag = 1.1 Sun: 161° Moon: 142°	2023 sep 10 1h24.8m A23_09004 5 Astraea UCAC4 541–019927 Diam = 125.0 m = 12.0  Dur = 5.1s Dmag = 0.6 Sun: 79° Moon: 27°	2023 sep 12 1h 1.1m A23_09108 598 Octavia TYC 0068–00951–1 Diam = 74.7 m = 13.1  Dur = 9.2s Dmag = 4.4 Sun: 113° Moon: 83°	2023 sep 12 2h 2.5m A23_09051 173 Ino TYC 0111–01245–1 Diam = 159.0 m = 12.3  Dur = 8.8s Dmag = 1.6 Sun: 91° Moon: 62°
2023 sep 12 18h28.9m A23_09019 20 Massalia UCAC4 339–091673 Diam = 151.0 m = 11.6  Dur = 10.0s Dmag = 1.2 Sun: 91° Moon: 117°	2023 sep 13 3h46.6m A23_09075 319 Leona UCAC4 521–014751 Diam = 73.3 m = 11.9  Dur = 3.4s Dmag = 3.2 Sun: 84° Moon: 65°	2023 sep 16 23h37.0m A23_09005 5 Astraea UCAC5 540–021235 Diam = 125.0 m = 12.5  Dur = 5.6s Dmag = 0.4 Sun: 83° Moon: 105°	2023 sep 18 23h57.0m B23_09005 160427 2005RL43 UCAC4 502–009455 Diam = 107.2 m = 14.7  Dur = 17.4s Dmag = 7.4 Sun: 99° Moon: 142°

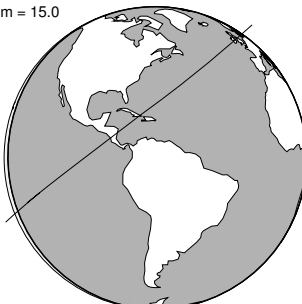
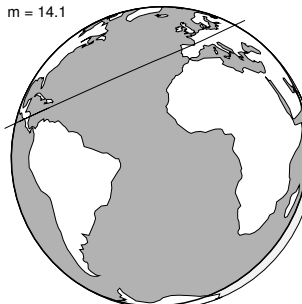
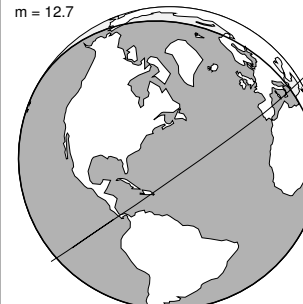
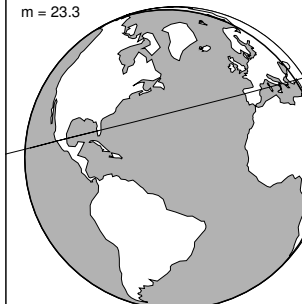
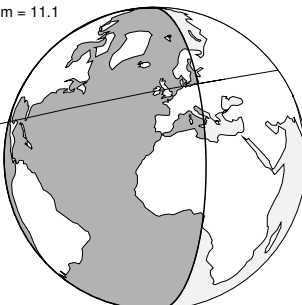
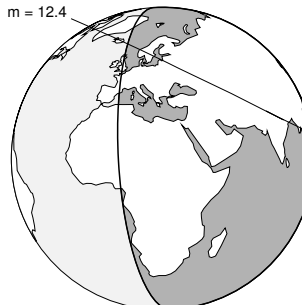
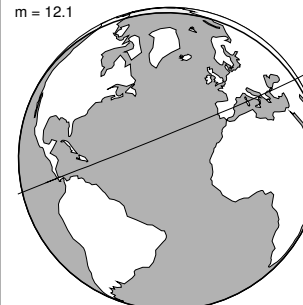
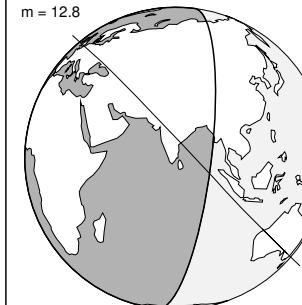
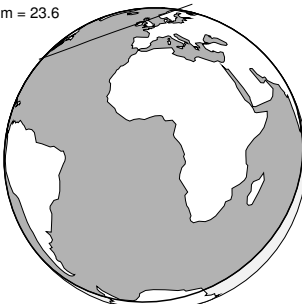
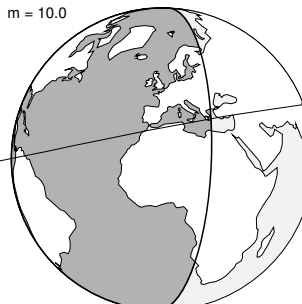
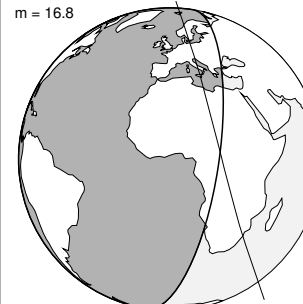
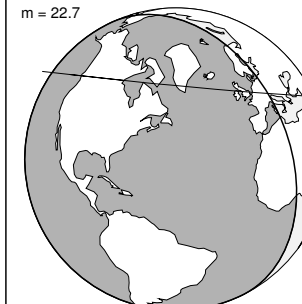
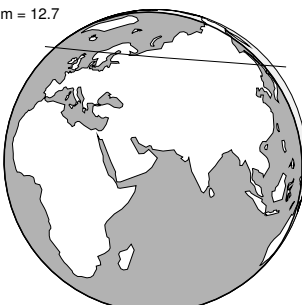
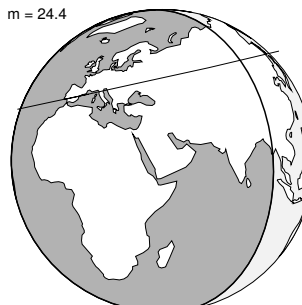
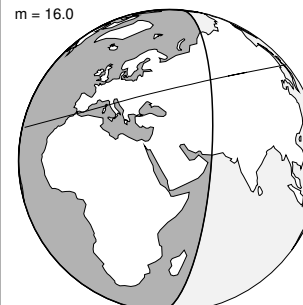
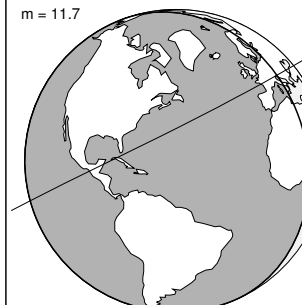
Occultations by major and minor planets – 2023

Region 3

2023 sep 21 23h24.8m A23_09156 1999RV215 TYC 2865–01846–1 Diam = 87.1 m = 10.9 m = 24.3  Dur = 6.2s Dmag = 13.4 Sun: 117° Moon: 155°	2023 sep 22 5h22.9m A23_09070 258 Tyche UCAC4 518–022477 Diam = 67.7 m = 12.4 m = 13.0  Dur = 3.3s Dmag = 1.1 Sun: 85° Moon: 161°	2023 sep 23 0h46.3m A23_09147 2920 Automedon TYC 0177–02784–1 Diam = 123.0 m = 10.4 m = 16.6  Dur = 4.7s Dmag = 6.2 Sun: 67° Moon: 151°	2023 sep 23 20h 7.4m A23_09027 52 Europa UCAC4 350–112253 Diam = 278.0 m = 11.7 m = 12.5  Dur = 16.0s Dmag = 1.2 Sun: 86° Moon: 19°
2023 sep 23 20h10.4m A23_09079 345 Tercidina UCAC4 517–001676 Diam = 100.0 m = 11.6 m = 11.7  Dur = 11.2s Dmag = 0.8 Sun: 160° Moon: 96°	2023 sep 23 20h40.5m A23_09111 612 Veronika UCAC4 483–126633 Diam = 40.5 m = 12.4 m = 15.1  Dur = 3.5s Dmag = 2.8 Sun: 125° Moon: 40°	2023 sep 24 1h37.7m A23_09024 38 Leda UCAC4 560–045206 Diam = 120.0 m = 12.4 m = 13.3  Dur = 3.6s Dmag = 1.4 Sun: 60° Moon: 166°	2023 sep 25 19h14.9m A23_09107 595 Polyxena UCAC4 553–005449 Diam = 114.0 m = 12.3 m = 13.2  Dur = 12.7s Dmag = 1.3 Sun: 136° Moon: 95°
2023 sep 26 4h21.0m A23_09087 407 Arachne UCAC4 601–024235 Diam = 97.0 m = 11.8 m = 13.7  Dur = 7.0s Dmag = 2.0 Sun: 95° Moon: 130°	2023 sep 28 1h 8.1m A23_09011 9 Metis HIP 28216 Diam = 231.2 m = 10.5 m = 10.3  Dur = 14.1s Dmag = 0.7 Sun: 94° Moon: 104°	2023 sep 28 23h57.0m A23_09059 222 Lucia HIP 3055 Diam = 58.0 m = 8.6 m = 13.6  Dur = 4.3s Dmag = 5.0 Sun: 175° Moon: 10°	2023 oct 1 19h22.4m A23_10120 2249 Yamamoto UCAC4 380–165554 Diam = 46.0 m = 12.4 m = 16.0  Dur = 10.0s Dmag = 3.7 Sun: 136° Moon: 75°
2023 oct 2 1h35.0m A23_10111 1280 Baillauda TYC 1898–01697–1 Diam = 55.3 m = 10.0 m = 16.4  Dur = 3.3s Dmag = 6.4 Sun: 86° Moon: 58°	2023 oct 3 2h14.2m A23_10107 1172 Aeneas TYC 1159–01132–1 Diam = 151.0 m = 9.3 m = 15.2  Dur = 10.3s Dmag = 5.9 Sun: 152° Moon: 69°	2023 oct 5 0h43.9m A23_10031 95 Arethusa UCAC4 576–012121 Diam = 145.0 m = 12.3 m = 12.4  Dur = 28.5s Dmag = 0.8 Sun: 117° Moon: 10°	2023 oct 5 22h52.6m A23_10043 156 Xanthippe UCAC4 490–144176 Diam = 126.0 m = 12.5 m = 13.3  Dur = 10.2s Dmag = 1.2 Sun: 154° Moon: 103°

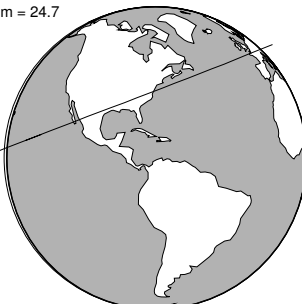
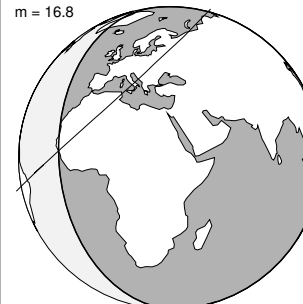
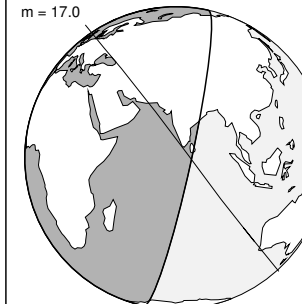
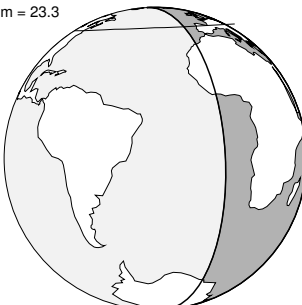
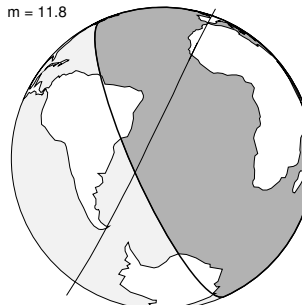
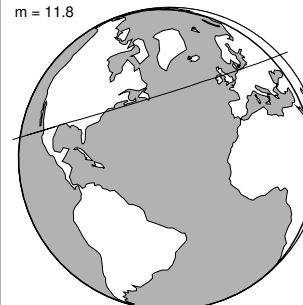
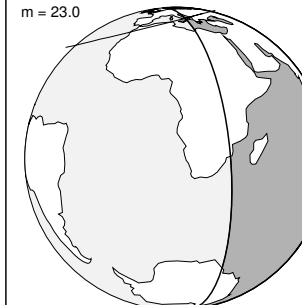
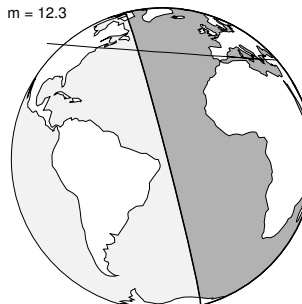
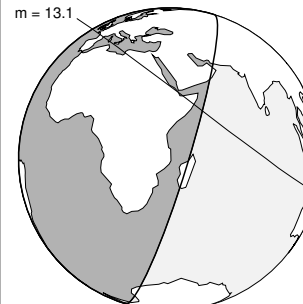
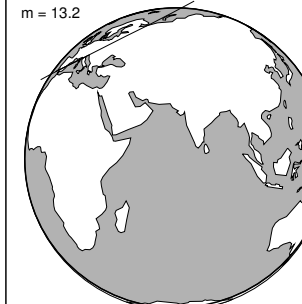
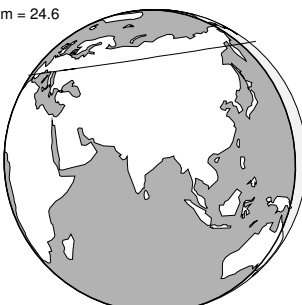
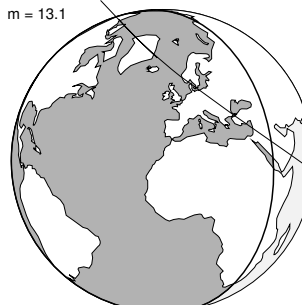
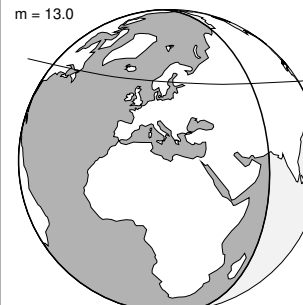
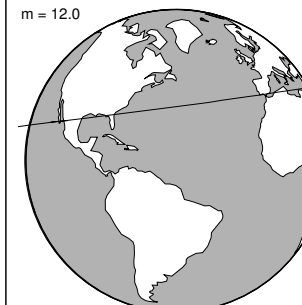
Occultations by major and minor planets – 2023

Region 3

2023 oct 9 3h29.0m A23_10115 1408 Trusanda UCAC4 470–000110 Diam = 41.0 m = 12.0 m = 15.0  Dur = 3.7s Dmag = 3.0 Sun: 166° Moon: 131°	2023 oct 11 2h 3.0m A23_10082 590 Tomyris TYC 4695–00746–1 Diam = 40.5 m = 11.6 m = 14.1  Dur = 3.5s Dmag = 2.6 Sun: 160° Moon: 129°	2023 oct 11 4h41.8m A23_10081 568 Cheruskia TYC 2311–02182–1 Diam = 89.7 m = 12.0 m = 12.7  Dur = 10.1s Dmag = 1.2 Sun: 152° Moon: 117°	2023 oct 13 3h55.1m B23_10007 508823 2001RX143 UCAC4 550–004338 Diam = 199.5 m = 13.3 m = 23.3  Dur = 8.0s Dmag = 9.9 Sun: 160° Moon: 143°
2023 oct 13 5h 9.8m A23_10016 37 Fides TYC 1871–00760–1 Diam = 112.0 m = 11.6 m = 11.1  Dur = 11.8s Dmag = 0.5 Sun: 109° Moon: 92°	2023 oct 13 17h11.2m A23_10097 914 Palisana UCAC4 534–122498 Diam = 79.0 m = 12.5 m = 12.4  Dur = 5.8s Dmag = 0.7 Sun: 106° Moon: 115°	2023 oct 14 2h17.1m A23_10085 639 Latona TYC 1749–01671–1 Diam = 74.5 m = 11.1 m = 12.1  Dur = 6.9s Dmag = 1.3 Sun: 164° Moon: 158°	2023 oct 16 23h40.4m A23_10053 258 Tyche UCAC4 501–029198 Diam = 67.7 m = 11.4 m = 12.8  Dur = 5.6s Dmag = 1.7 Sun: 103° Moon: 128°
2023 oct 17 0h28.4m B23_10014 2014XA48 UCAC4 398–002695 Diam = 154.2 m = 13.3 m = 23.6  Dur = 6.1s Dmag = 10.3 Sun: 156° Moon: 148°	2023 oct 17 4h36.7m A23_10005 9 Metis UCAC4 567–025760 Diam = 231.2 m = 12.5 m = 10.0  Dur = 24.1s Dmag = 0.1 Sun: 108° Moon: 137°	2023 oct 18 4h31.5m A23_10125 4068 Menestheus PPMX 8072705 Diam = 55.0 m = 12.2 m = 16.8  Dur = 6.0s Dmag = 4.6 Sun: 108° Moon: 143°	2023 oct 19 5h38.9m B23_10012 2010TE192 UCAC4 620–013572 Diam = 218.8 m = 12.7 m = 22.7  Dur = 11.2s Dmag = 10.0 Sun: 137° Moon: 165°
2023 oct 19 20h46.1m A23_10083 595 Polyxena HIP 11762 Diam = 114.0 m = 7.1 m = 12.7  Dur = 8.0s Dmag = 5.7 Sun: 162° Moon: 136°	2023 oct 19 23h36.6m B23_10016 2015VP164 UCAC4 549–009834 Diam = 69.2 m = 13.0 m = 24.4  Dur = 4.1s Dmag = 11.5 Sun: 136° Moon: 159°	2023 oct 20 1h57.9m A23_10055 267 Tirza UCAC5 571–032087 Diam = 53.6 m = 12.5 m = 16.0  Dur = 7.9s Dmag = 3.5 Sun: 105° Moon: 169°	2023 oct 21 5h27.8m A23_10073 409 Aspasia UCAC4 570–007886 Diam = 168.0 m = 11.9 m = 11.7  Dur = 17.2s Dmag = 0.7 Sun: 149° Moon: 132°

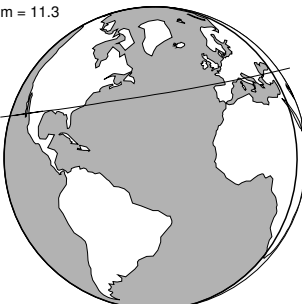
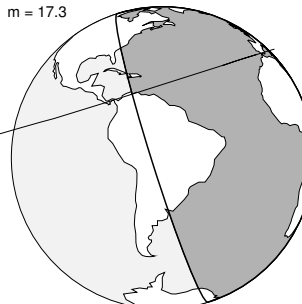
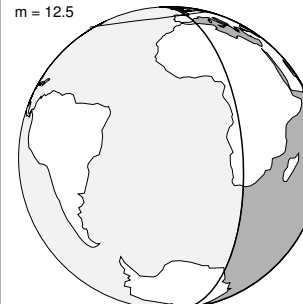
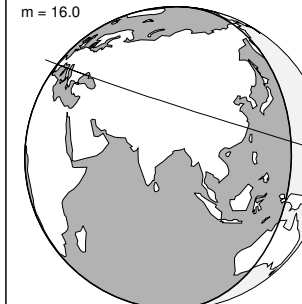
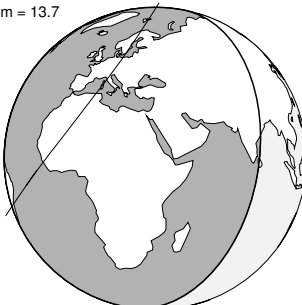
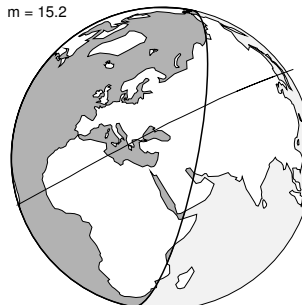
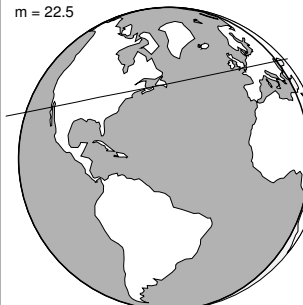
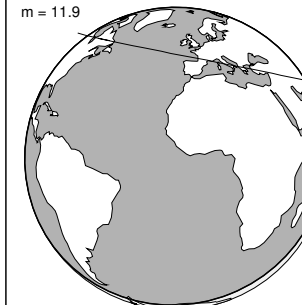
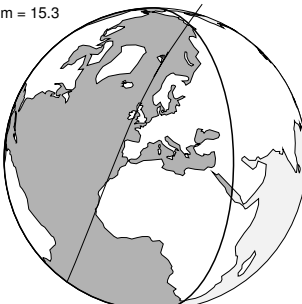
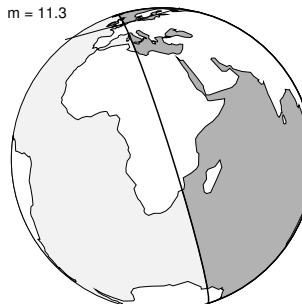
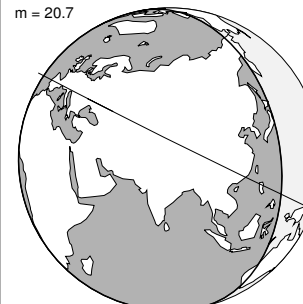
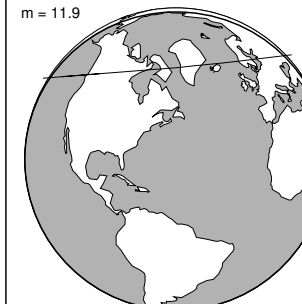
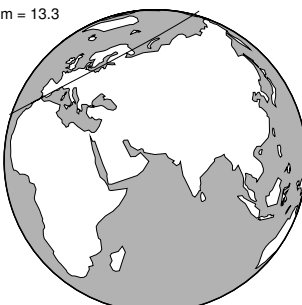
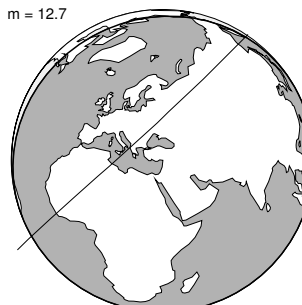
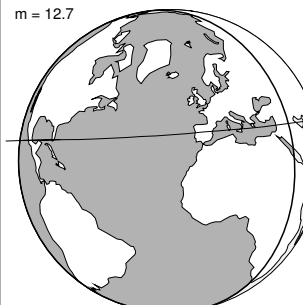
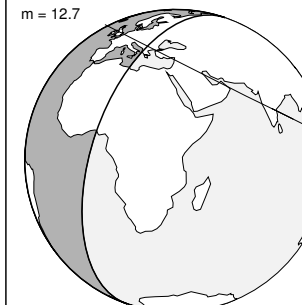
Occultations by major and minor planets – 2023

Region 3

2023 oct 22 3h58.3m B23_10015 2015RE279 UCAC4 510–001487 Diam = 91.2 m = 13.6 m = 24.7  Dur = 3.7s Dmag = 11.0 Sun: 169° Moon: 81°	2023 oct 23 4h30.5m A23_10074 416 Vaticana UCAC4 445–002028 Diam = 89.5 m = 12.4 m = 12.3  Dur = 6.2s Dmag = 0.7 Sun: 167° Moon: 69°	2023 oct 25 18h33.9m A23_10131 16070 Charops TYC 1163–00183–1 Diam = 45.3 m = 12.5 m = 16.8  Dur = 4.8s Dmag = 4.4 Sun: 137° Moon: 20°	2023 oct 27 0h25.7m A23_10099 921 Jovita HIP 37584 Diam = 60.5 m = 7.9 m = 17.0  Dur = 4.7s Dmag = 9.2 Sun: 95° Moon: 107°
2023 oct 27 18h 3.8m B23_10009 2001KH76 UCAC4 338–149418 Diam = 182.0 m = 13.0 m = 23.3  Dur = 9.6s Dmag = 10.3 Sun: 62° Moon: 103°	2023 oct 28 21h 6.7m A23_10008 13 Egeria TYC 7487–01616–1 Diam = 215.0 m = 10.2 m = 11.8  Dur = 16.0s Dmag = 1.9 Sun: 101° Moon: 79°	2023 oct 30 3h40.5m A23_10051 241 Germania UCAC4 573–007729 Diam = 169.0 m = 12.2 m = 11.8  Dur = 15.8s Dmag = 0.6 Sun: 159° Moon: 4°	2023 oct 30 15h50.9m B23_10003 91133 1998HK151 UCAC4 313–244166 Diam = 125.9 m = 12.9 m = 23.0  Dur = 7.5s Dmag = 10.1 Sun: 68° Moon: 135°
2023 oct 31 0h25.8m B23_10013 2014PS70 UCAC4 478–000123 Diam = 181.1 m = 14.8 m = 22.9  Dur = 9.0s Dmag = 8.1 Sun: 146° Moon: 61°	2023 nov 1 19h56.5m A23_11076 393 Lampetia UCAC4 425–122545 Diam = 106.0 m = 11.6 m = 12.3  Dur = 4.2s Dmag = 1.2 Sun: 88° Moon: 138°	2023 nov 2 2h17.5m A23_11101 582 Olympia UCAC4 379–037725 Diam = 47.0 m = 12.4 m = 13.1  Dur = 3.2s Dmag = 1.2 Sun: 96° Moon: 48°	2023 nov 2 19h13.1m A23_11068 339 Dorothea UCAC4 470–003529 Diam = 43.7 m = 11.7 m = 13.2  Dur = 3.6s Dmag = 1.8 Sun: 168° Moon: 65°
2023 nov 2 19h38.6m B23_11016 2015VR165 UCAC4 555–008657 Diam = 75.9 m = 12.8 m = 24.6  Dur = 3.3s Dmag = 11.8 Sun: 157° Moon: 39°	2023 nov 4 3h23.4m A23_11051 210 Isabella PPMX 4980028 Diam = 90.0 m = 12.3 m = 13.1  Dur = 22.3s Dmag = 1.2 Sun: 136° Moon: 33°	2023 nov 5 1h53.1m A23_11078 407 Arachne TYC 2419–00879–1 Diam = 97.0 m = 10.9 m = 13.0  Dur = 40.8s Dmag = 2.2 Sun: 131° Moon: 38°	2023 nov 5 2h47.2m A23_11027 127 Johanna TYC 0636–00455–1 Diam = 91.2 m = 10.8 m = 12.0  Dur = 7.5s Dmag = 1.5 Sun: 173° Moon: 94°

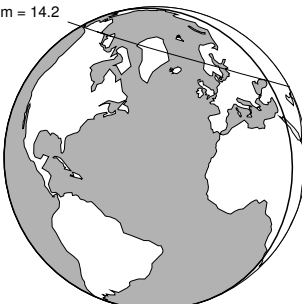
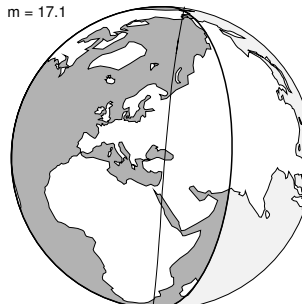
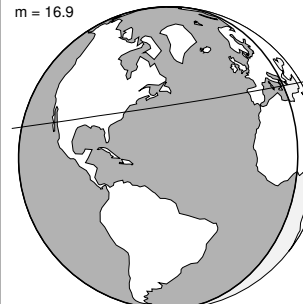
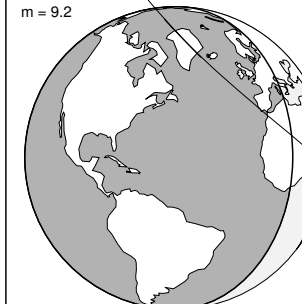
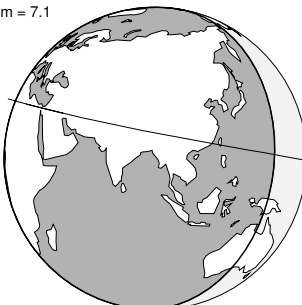
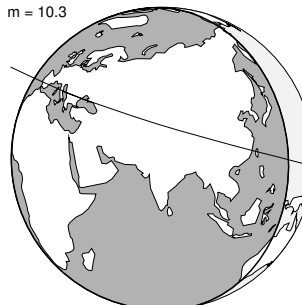
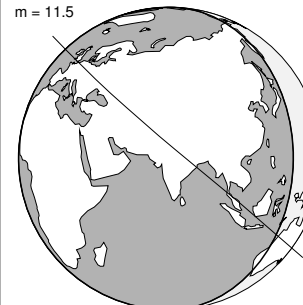
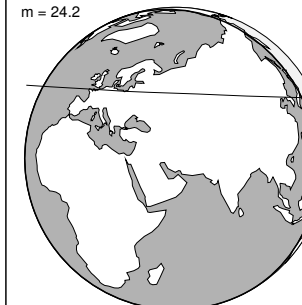
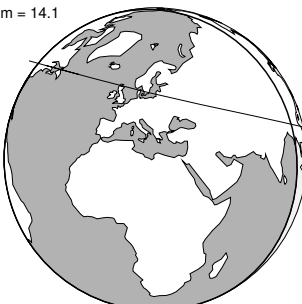
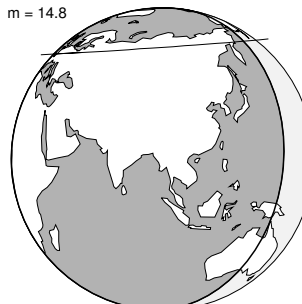
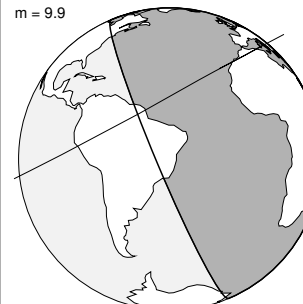
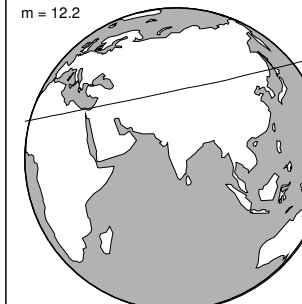
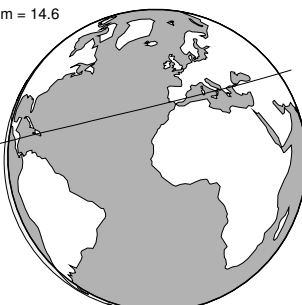
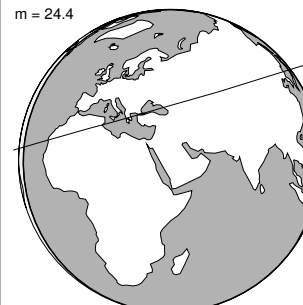
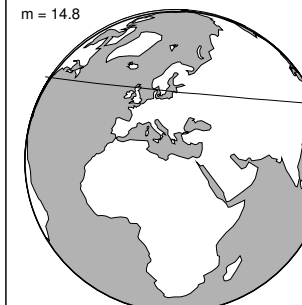
Occultations by major and minor planets – 2023

Region 3

2023 nov 5 3h53.3m A23_11043 182 Elsa UCAC4 538–007981 Diam = 45.3 m = 12.4 m = 11.3  Dur = 8.3s Dmag = 0.3 Sun: 159° Moon: 68°	2023 nov 5 22h17.2m A23_11141 3240 Laokoon UCAC4 378–170830 Diam = 41.7 m = 11.9 m = 17.3  Dur = 3.3s Dmag = 5.4 Sun: 94° Moon: 174°	2023 nov 6 16h50.4m A23_11046 196 Philomela UCAC4 313–242800 Diam = 146.0 m = 11.6 m = 12.5  Dur = 4.7s Dmag = 1.3 Sun: 61° Moon: 136°	2023 nov 7 20h40.2m A23_11145 4489 Dracius UCAC4 546–017448 Diam = 66.1 m = 11.3 m = 16.0  Dur = 5.9s Dmag = 4.8 Sun: 139° Moon: 77°
2023 nov 8 0h31.8m A23_11049 205 Martha TYC 0725–00115–1 Diam = 83.5 m = 10.9 m = 13.7  Dur = 12.7s Dmag = 2.9 Sun: 133° Moon: 74°	2023 nov 9 2h53.8m A23_11106 624 Hektor TYC 2486–00375–1 Diam = 132.4 m = 11.7 m = 15.2  Dur = 19.4s Dmag = 3.5 Sun: 103° Moon: 55°	2023 nov 10 4h42.2m A23_11151 535167 2014XT40 TYC 1270–00038–1 Diam = 144.5 m = 10.8 m = 22.5  Dur = 6.4s Dmag = 11.7 Sun: 157° Moon: 121°	2023 nov 12 0h59.9m A23_11103 598 Octavia TYC 0067–00210–1 Diam = 74.7 m = 10.9 m = 11.9  Dur = 8.7s Dmag = 1.4 Sun: 164° Moon: 156°
2023 nov 12 3h31.8m A23_11102 591 Irmgard UCAC4 637–040254 Diam = 54.7 m = 12.0 m = 15.3  Dur = 13.9s Dmag = 3.4 Sun: 121° Moon: 107°	2023 nov 12 15h59.4m A23_11006 10 Hygiea TYC 5779–01674–1 Diam = 429.0 m = 9.8 m = 11.3  Dur = 22.9s Dmag = 1.8 Sun: 86° Moon: 95°	2023 nov 12 21h15.5m A23_11153 2011UH413 TYC 2427–00338–1 Diam = 166.0 m = 10.1 m = 20.7  Dur = 8.4s Dmag = 10.6 Sun: 136° Moon: 131°	2023 nov 14 3h33.5m A23_11034 139 Juewa UCAC4 607–008805 Diam = 164.0 m = 12.3 m = 11.9  Dur = 12.1s Dmag = 0.6 Sun: 166° Moon: 169°
2023 nov 16 19h32.7m A23_11119 882 Svetlana UCAC4 564–006802 Diam = 48.8 m = 12.3 m = 13.3  Dur = 5.4s Dmag = 1.4 Sun: 175° Moon: 138°	2023 nov 16 20h46.0m A23_11031 132 Aethra HIP 13252 Diam = 47.0 m = 7.5 m = 12.7  Dur = 3.2s Dmag = 5.2 Sun: 160° Moon: 133°	2023 nov 18 3h37.4m A23_11079 407 Arachne UCAC4 603–028162 Diam = 97.0 m = 11.5 m = 12.7  Dur = 14.0s Dmag = 1.5 Sun: 145° Moon: 154°	2023 nov 18 5h34.2m A23_11008 12 Victoria TYC 4937–00331–1 Diam = 117.0 m = 10.6 m = 12.7  Dur = 3.5s Dmag = 2.2 Sun: 55° Moon: 116°

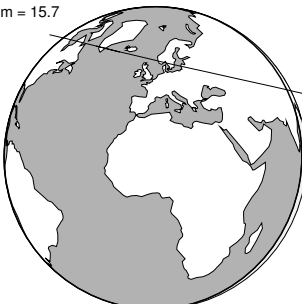
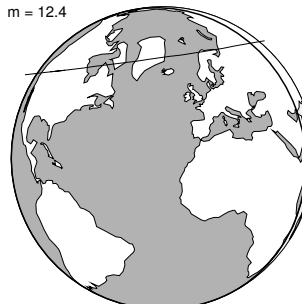
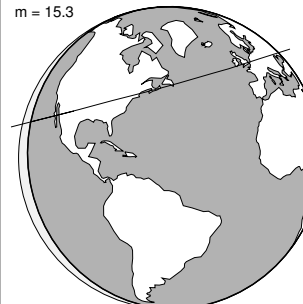
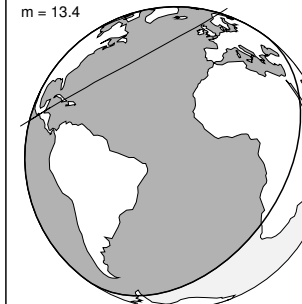
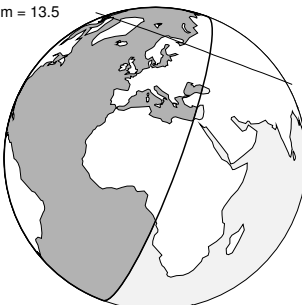
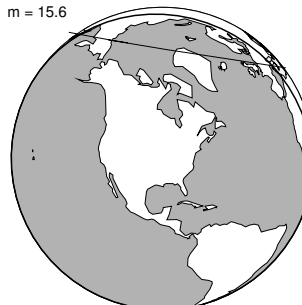
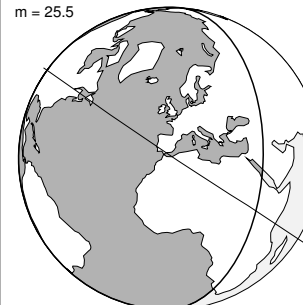
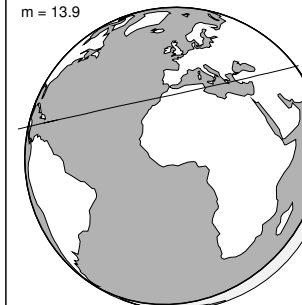
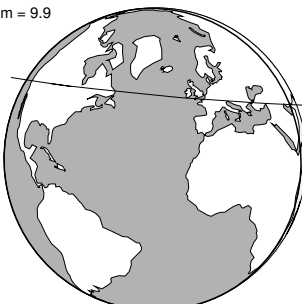
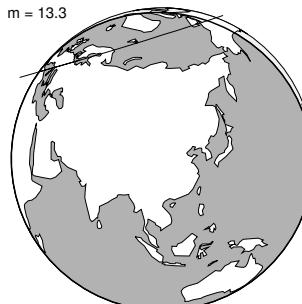
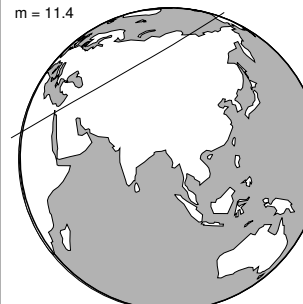
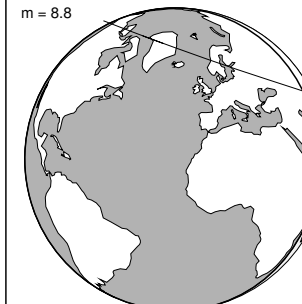
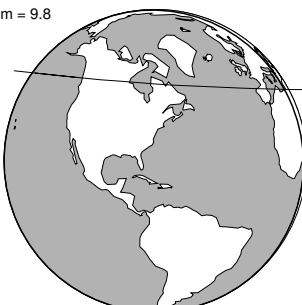
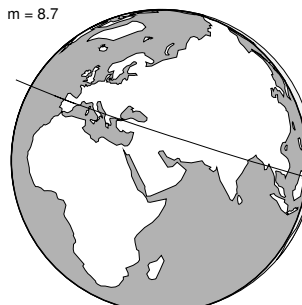
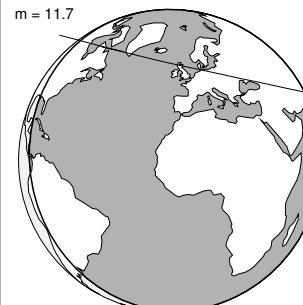
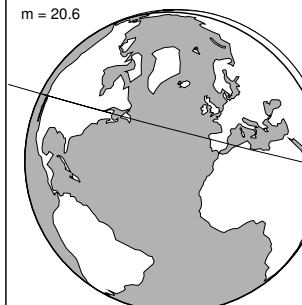
Occultations by major and minor planets – 2023

Region 3

2023 nov 19 4h 2.6m A23_11110 731 Sorgia UCAC4 602-020002 Diam = 46.6 m = 12.3  Dur = 4.0s Dmag = 2.0 Sun: 153° Moon: 133°	2023 nov 20 2h 2.3m A23_11149 5028 Halaesus UCAC5 660-048929 Diam = 43.7 m = 17.1  Dur = 3.9s Dmag = 4.7 Sun: 117° Moon: 151°	2023 nov 20 5h37.1m A23_11150 5258 Rhoeo TYC 1324-00730-1 Diam = 41.7 m = 11.3  Dur = 3.5s Dmag = 5.6 Sun: 147° Moon: 125°	2023 nov 20 6h10.6m A23_11005 9 Metis UCAC5 575-027578 Diam = 231.2 m = 9.2  Dur = 61.5s Dmag = 0.1 Sun: 140° Moon: 132°
2023 nov 20 20h16.2m A23_11002 4 Vesta UCAC5 547-025513 Diam = 523.2 m = 7.1  Dur = 75.8s Dmag = 0.0 Sun: 141° Moon: 122°	2023 nov 20 20h57.6m A23_11019 37 Fides PPMX 5016212 Diam = 112.0 m = 10.3  Dur = 24.9s Dmag = 0.2 Sun: 146° Moon: 118°	2023 nov 21 21h13.9m A23_11113 776 Berbericia UCAC5 572-025857 Diam = 121.3 m = 11.5  Dur = 12.5s Dmag = 0.4 Sun: 144° Moon: 106°	2023 nov 22 21h32.3m B23_11010 2004VG131 UCAC4 609-018391 Diam = 83.2 m = 24.2  Dur = 3.6s Dmag = 11.3 Sun: 157° Moon: 79°
2023 nov 22 23h50.8m A23_11111 731 Sorgia TYC 2390-00646-1 Diam = 46.6 m = 14.1  Dur = 3.7s Dmag = 3.5 Sun: 157° Moon: 78°	2023 nov 23 20h 2.0m A23_11126 1143 Odysseus TYC 1337-01481-1 Diam = 135.0 m = 14.8  Dur = 13.2s Dmag = 4.3 Sun: 142° Moon: 82°	2023 nov 23 21h19.3m A23_11003 8 Flora UCAC4 371-185283 Diam = 141.0 m = 9.9  Dur = 8.5s Dmag = 0.1 Sun: 94° Moon: 41°	2023 nov 24 19h 8.8m A23_11072 358 Apollonia UCAC4 530-008674 Diam = 91.8 m = 12.2  Dur = 9.5s Dmag = 1.1 Sun: 172° Moon: 39°
2023 nov 24 23h53.9m A23_11097 526 Jena UCAC4 521-005357 Diam = 46.7 m = 14.6  Dur = 3.8s Dmag = 2.7 Sun: 165° Moon: 17°	2023 nov 25 19h23.3m A23_11080 407 Arachne UCAC4 603-026747 Diam = 97.0 m = 12.4  Dur = 10.7s Dmag = 0.9 Sun: 153° Moon: 45°	2023 nov 25 19h54.8m B23_11013 2011UW410 UCAC4 567-006031 Diam = 91.2 m = 24.4  Dur = 3.7s Dmag = 11.4 Sun: 165° Moon: 8°	2023 nov 27 22h 1.9m A23_11130 1323 Tugela TYC 2357-01690-1 Diam = 60.1 m = 14.8  Dur = 3.7s Dmag = 5.1 Sun: 170° Moon: 9°

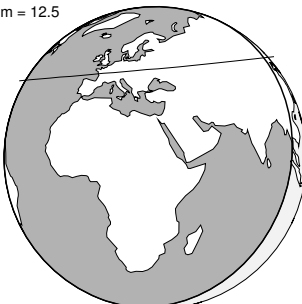
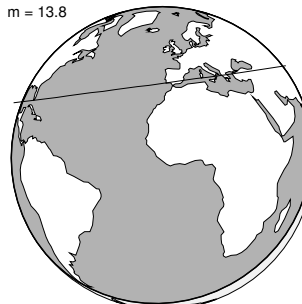
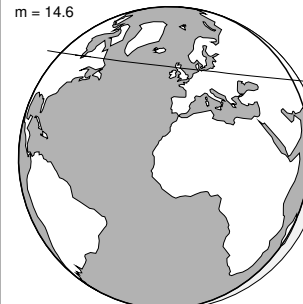
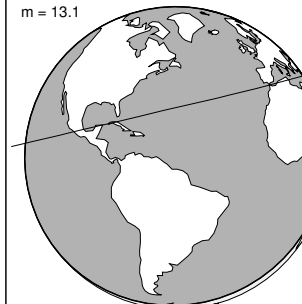
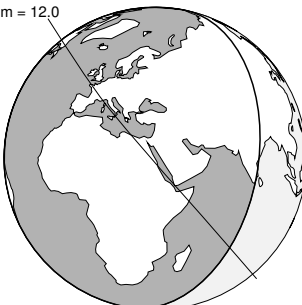
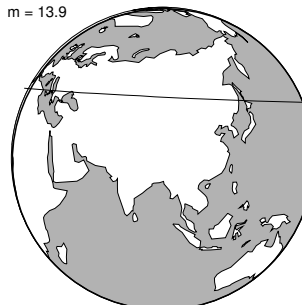
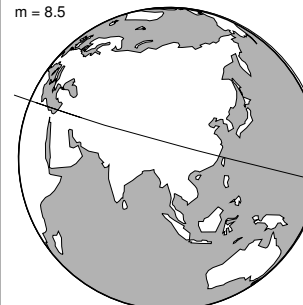
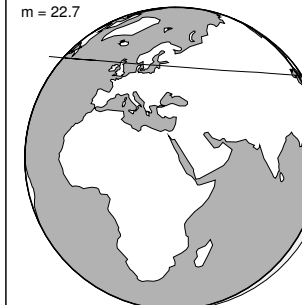
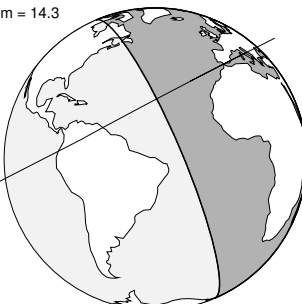
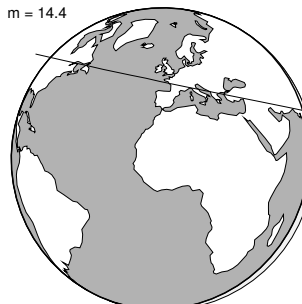
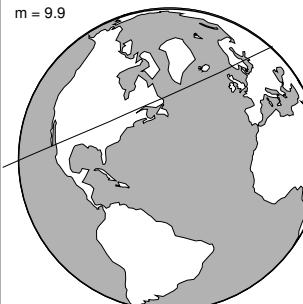
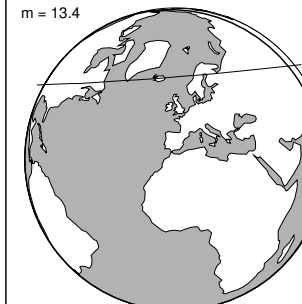
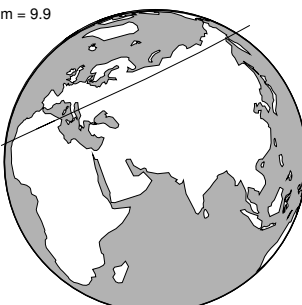
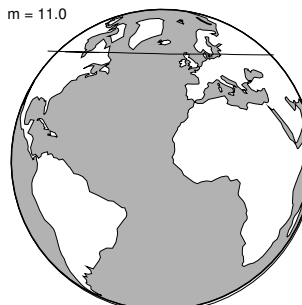
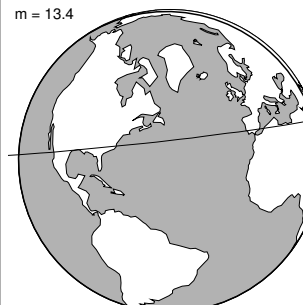
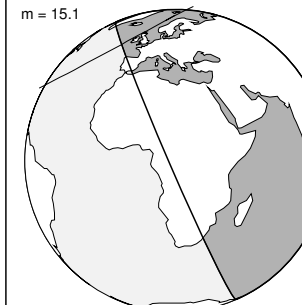
Occultations by major and minor planets – 2023

Region 3

2023 dec 1 0h37.6m A23_12183 4489 Dracius UCAC4 549–015121 Diam = 66.1 m = 11.3 m = 15.7  Dur = 3.8s Dmag = 4.4 Sun: 165° Moon: 31°	2023 dec 1 2h45.2m A23_12092 407 Arachne UCAC4 602–024255 Diam = 97.0 m = 11.3 m = 12.4  Dur = 9.5s Dmag = 1.5 Sun: 160° Moon: 26°	2023 dec 2 2h 3.1m A23_12178 3148 Grechko UCAC5 542–005358 Diam = 51.5 m = 12.5 m = 15.3  Dur = 6.6s Dmag = 2.9 Sun: 159° Moon: 76°	2023 dec 2 3h55.4m A23_12107 491 Carina UCAC5 435–025201 Diam = 101.0 m = 12.5 m = 13.4  Dur = 11.5s Dmag = 1.3 Sun: 135° Moon: 36°
2023 dec 2 4h45.6m A23_12046 101 Helena TYC 1420–00159–1 Diam = 68.3 m = 11.3 m = 13.5  Dur = 7.0s Dmag = 2.3 Sun: 99° Moon: 24°	2023 dec 3 6h30.4m A23_12163 1637 Swings PPMX 3025499 Diam = 49.7 m = 12.4 m = 15.6  Dur = 3.5s Dmag = 3.2 Sun: 160° Moon: 58°	2023 dec 4 3h54.3m B23_12010 2018AG37 UCAC4 623–043601 Diam = 597.0 m = 13.1 m = 25.5  Dur = 31.3s Dmag = 12.4 Sun: 128° Moon: 30°	2023 dec 6 1h13.7m A23_12085 319 Leona TYC 0716–01756–1 Diam = 73.3 m = 12.2 m = 13.9  Dur = 7.3s Dmag = 1.9 Sun: 157° Moon: 83°
2023 dec 6 2h55.9m A23_12026 37 Fides TYC 1875–01044–1 Diam = 112.0 m = 12.0 m = 9.9  Dur = 14.6s Dmag = 0.1 Sun: 163° Moon: 84°	2023 dec 6 17h20.7m A23_12098 466 Tisiphone UCAC4 635–024942 Diam = 121.0 m = 11.3 m = 13.3  Dur = 8.0s Dmag = 2.2 Sun: 163° Moon: 97°	2023 dec 7 17h 1.4m A23_12045 95 Arethusa UCAC4 546–009234 Diam = 145.0 m = 12.0 m = 11.4  Dur = 12.5s Dmag = 0.5 Sun: 170° Moon: 126°	2023 dec 8 2h37.4m A23_12014 9 Metis UCAC4 582–026499 Diam = 231.2 m = 12.3 m = 8.8  Dur = 30.0s Dmag = 0.0 Sun: 161° Moon: 103°
2023 dec 9 5h43.0m A23_12025 37 Fides PPMX 4998171 Diam = 112.0 m = 12.4 m = 9.8  Dur = 13.9s Dmag = 0.1 Sun: 167° Moon: 122°	2023 dec 9 21h45.4m A23_12013 9 Metis TYC 1885–00390–1 Diam = 231.2 m = 11.2 m = 8.7  Dur = 29.0s Dmag = 0.1 Sun: 163° Moon: 126°	2023 dec 9 23h 2.1m A23_12103 481 Erita UCAC4 541–006627 Diam = 116.0 m = 12.0 m = 11.7  Dur = 14.2s Dmag = 0.6 Sun: 157° Moon: 165°	2023 dec 10 2h37.0m B23_12007 2011UH413 UCAC4 624–029198 Diam = 166.0 m = 15.0 m = 20.6  Dur = 6.5s Dmag = 5.7 Sun: 162° Moon: 130°

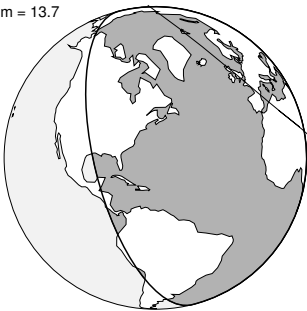
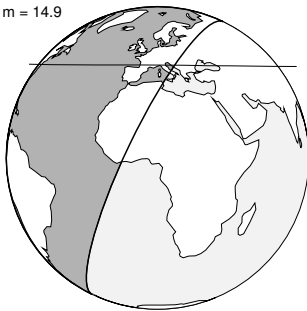
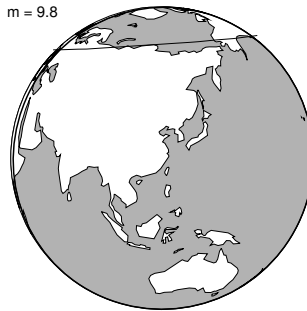
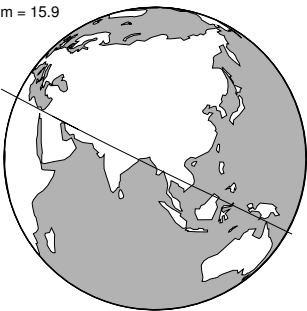
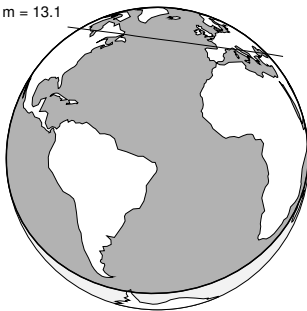
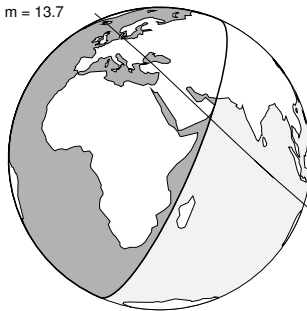
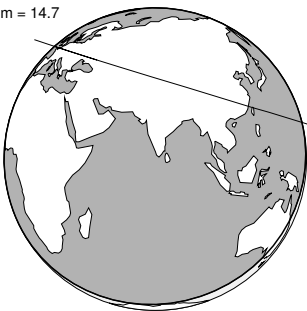
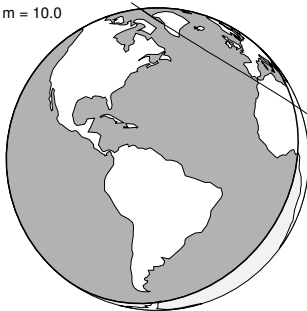
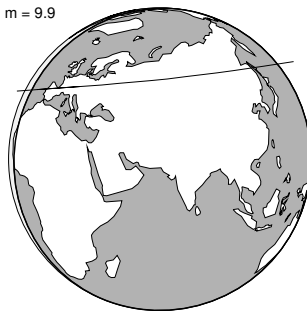
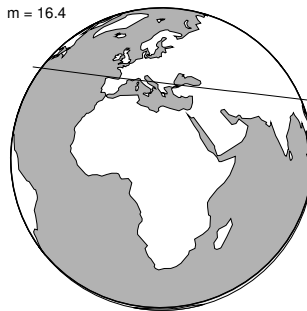
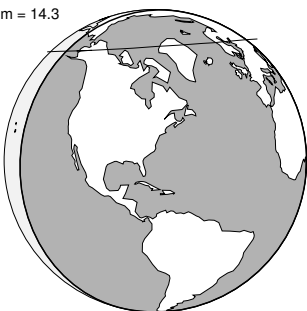
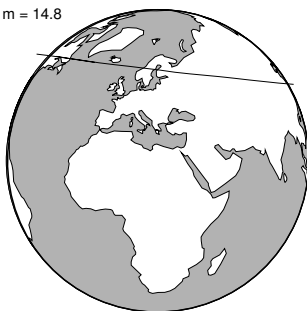
Occultations by major and minor planets – 2023

Region 3

2023 dec 10 23h37.0m A23_12039 72 Feronia TYC 0760–00023–1 Diam = 89.3 m = 10.2 m = 12.5  Dur = 8.9s Dmag = 2.5 Sun: 152° Moon: 128°	2023 dec 12 1h16.8m A23_12084 319 Leona HIP 27989 Diam = 73.3 m = 0.5 m = 13.8  Dur = 6.9s Dmag = 13.3 Sun: 161° Moon: 151°	2023 dec 12 2h 8.3m A23_12127 738 Alagasta PPMX 6060778 Diam = 64.8 m = 12.1 m = 14.6  Dur = 5.9s Dmag = 2.6 Sun: 157° Moon: 146°	2023 dec 12 4h 3.0m A23_12065 205 Martha TYC 0718–01114–1 Diam = 83.5 m = 11.4 m = 13.1  Dur = 6.8s Dmag = 1.9 Sun: 165° Moon: 157°
2023 dec 13 0h56.0m A23_12051 128 Nemesis UCAC4 567–043588 Diam = 194.0 m = 11.3 m = 12.0  Dur = 37.9s Dmag = 1.2 Sun: 132° Moon: 134°	2023 dec 14 17h20.7m A23_12125 731 Sorgia UCAC4 606–015838 Diam = 46.6 m = 11.7 m = 13.9  Dur = 3.4s Dmag = 2.4 Sun: 169° Moon: 151°	2023 dec 15 18h 2.4m A23_12015 9 Metis UCAC4 585–025748 Diam = 231.2 m = 12.4 m = 8.5  Dur = 26.8s Dmag = 0.0 Sun: 170° Moon: 153°	2023 dec 15 22h48.3m B23_12006 2000WW12 UCAC4 554–031831 Diam = 125.9 m = 13.2 m = 22.7  Dur = 5.5s Dmag = 9.5 Sun: 162° Moon: 157°
2023 dec 16 19h56.8m A23_12091 366 Vincentina HIP 113303 Diam = 98.1 m = 8.2 m = 14.3  Dur = 4.4s Dmag = 6.0 Sun: 79° Moon: 30°	2023 dec 17 1h19.3m A23_12113 527 Euryanthe UCAC4 534–030089 Diam = 55.2 m = 12.3 m = 14.4  Dur = 4.1s Dmag = 2.2 Sun: 164° Moon: 139°	2023 dec 17 3h26.1m A23_12124 704 Interamnia UCAC4 603–024059 Diam = 333.0 m = 12.1 m = 9.9  Dur = 23.9s Dmag = 0.1 Sun: 172° Moon: 126°	2023 dec 20 1h 7.0m A23_12118 606 Brangäne TYC 2439–00851–1 Diam = 40.0 m = 10.2 m = 13.4  Dur = 3.8s Dmag = 3.3 Sun: 164° Moon: 99°
2023 dec 20 19h36.3m A23_12123 704 Interamnia PPMX 3991562 Diam = 333.0 m = 12.5 m = 9.9  Dur = 23.9s Dmag = 0.1 Sun: 172° Moon: 73°	2023 dec 23 1h39.3m A23_12033 48 Doris UCAC4 518–023743 Diam = 219.0 m = 11.7 m = 11.0  Dur = 17.9s Dmag = 0.5 Sun: 169° Moon: 53°	2023 dec 24 3h50.6m A23_12119 606 Brangäne UCAC4 616–036182 Diam = 40.0 m = 11.9 m = 13.4  Dur = 3.7s Dmag = 1.7 Sun: 167° Moon: 41°	2023 dec 24 16h55.7m A23_12068 222 Lucia TYC 0003–01069–1 Diam = 58.0 m = 10.7 m = 15.1  Dur = 4.0s Dmag = 4.4 Sun: 92° Moon: 60°

Occultations by major and minor planets – 2023

Region 3

2023 dec 24 23h22.8m A23_12111 506 Marion TYC 2278–00959–1 Diam = 109.0 m = 11.9 m = 13.7  Dur = 12.1s Dmag = 1.9 Sun: 113° Moon: 43°	2023 dec 25 6h31.4m A23_12146 1021 Flammario TYC 0305–00331–1 Diam = 103.0 m = 10.7 m = 14.9  Dur = 4.9s Dmag = 4.3 Sun: 78° Moon: 121°	2023 dec 25 18h16.0m A23_12041 72 Feronia UCAC5 524–030151 Diam = 89.3 m = 12.4 m = 12.2  Dur = 7.3s Dmag = 0.7 Sun: 168° Moon: 26°	2023 dec 26 15h20.1m A23_12028 37 Fides UCAC4 594–019801 Diam = 112.0 m = 11.4 m = 9.8  Dur = 13.8s Dmag = 0.2 Sun: 168° Moon: 5°
2023 dec 28 18h 8.3m A23_12186 4833 Meges UCAC5 561–033989 Diam = 63.1 m = 12.4 m = 15.9  Dur = 3.1s Dmag = 3.5 Sun: 174° Moon: 16°	2023 dec 29 2h34.1m A23_12109 491 Carina TYC 4803–02166–1 Diam = 101.0 m = 12.3 m = 13.1  Dur = 7.9s Dmag = 1.2 Sun: 152° Moon: 36°	2023 dec 29 2h44.7m A23_12060 172 Baucis PPMX 8351842 Diam = 64.5 m = 12.3 m = 13.7  Dur = 6.7s Dmag = 1.7 Sun: 102° Moon: 53°	2023 dec 29 4h19.1m A23_12100 476 Hedwig PPMX 5071465 Diam = 121.0 m = 12.4 m = 12.5  Dur = 8.9s Dmag = 0.8 Sun: 170° Moon: 16°
2023 dec 29 19h24.4m A23_12134 781 Kartvelia UCAC4 487–032120 Diam = 60.0 m = 10.3 m = 14.7  Dur = 3.7s Dmag = 4.4 Sun: 162° Moon: 31°	2023 dec 30 5h38.0m A23_12089 354 Eleonora UCAC4 483–044391 Diam = 162.0 m = 10.7 m = 10.0  Dur = 17.2s Dmag = 0.5 Sun: 151° Moon: 21°	2023 dec 30 18h31.5m A23_12029 37 Fides PPMX 4976735 Diam = 112.0 m = 12.4 m = 9.9  Dur = 14.8s Dmag = 0.1 Sun: 164° Moon: 57°	2023 dec 30 22h53.1m A23_12191 4902 Thessandrus TYC 0756–01735–1 Diam = 50.1 m = 11.1 m = 16.4  Dur = 3.0s Dmag = 5.3 Sun: 168° Moon: 42°
2023 dec 31 3h10.3m A23_12126 731 Sorga UCAC4 606–014610 Diam = 46.6 m = 11.8 m = 14.3  Dur = 4.4s Dmag = 2.6 Sun: 152° Moon: 72°	2023 dec 31 22h 1.3m A23_12080 267 Tirza UCAC5 583–023611 Diam = 53.6 m = 12.4 m = 14.8  Dur = 3.8s Dmag = 2.5 Sun: 171° Moon: 62°		