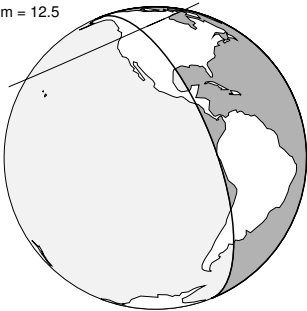
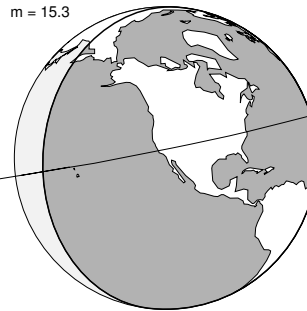
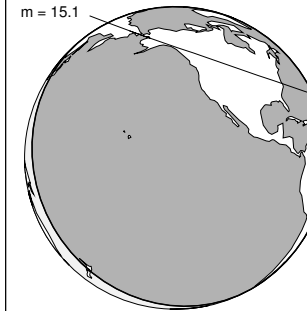
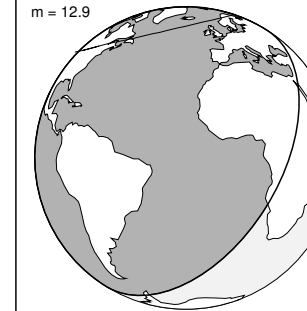
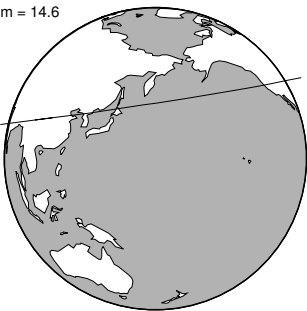
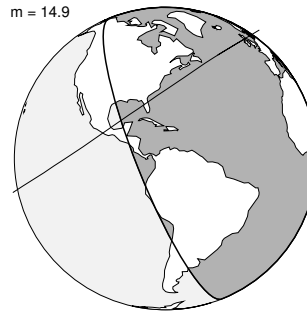
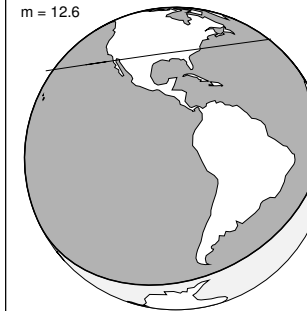
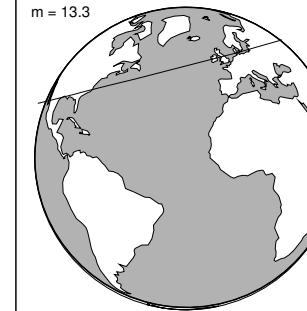
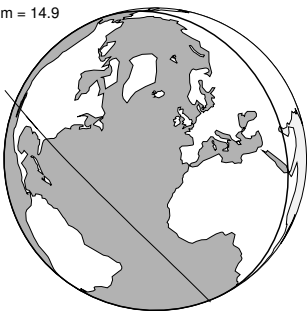
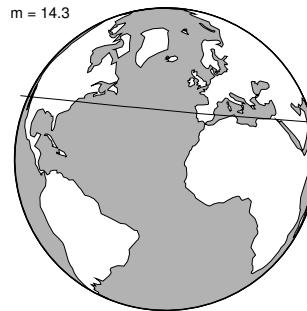
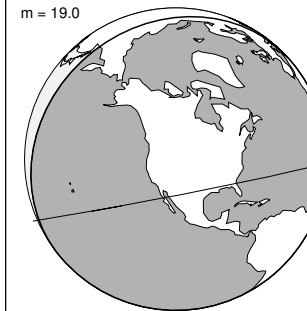
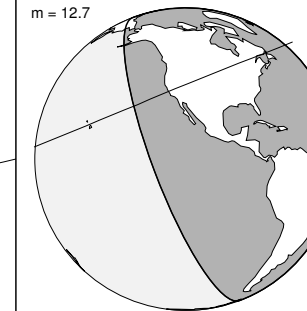
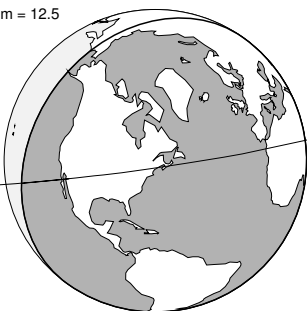
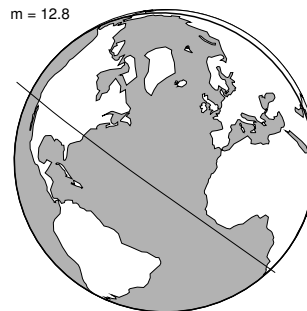
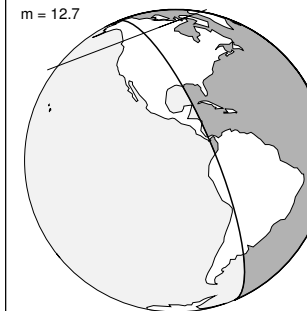
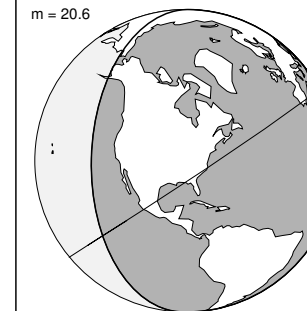


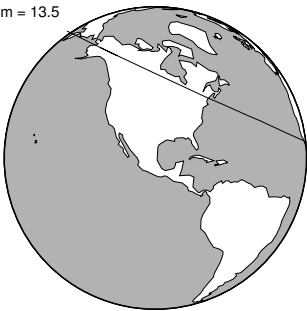
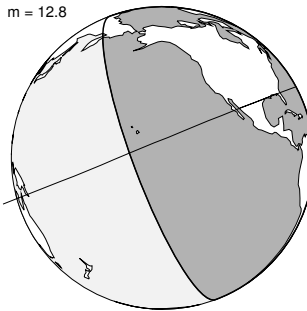
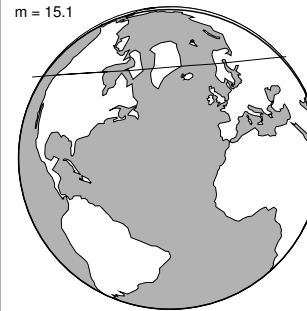
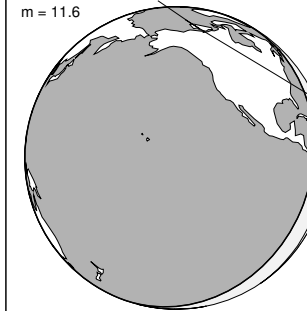
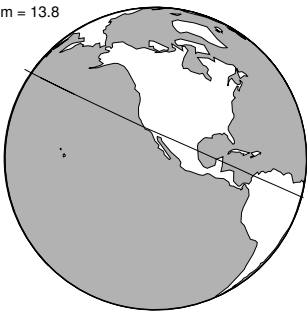
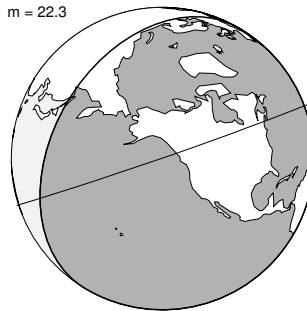
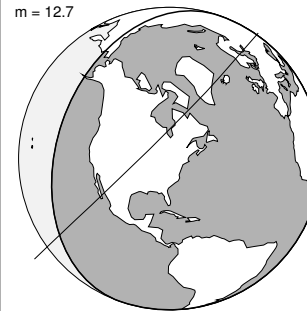
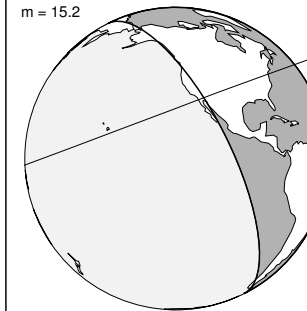
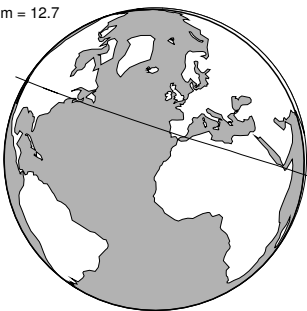
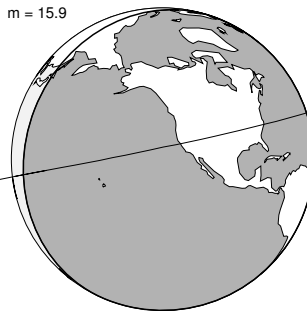
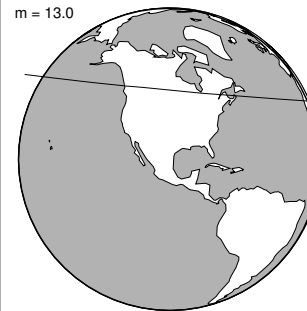
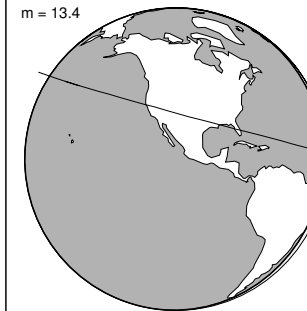
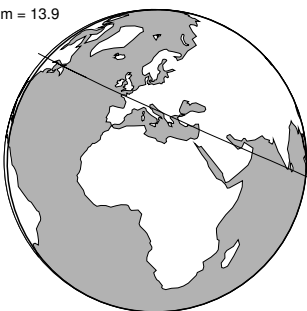
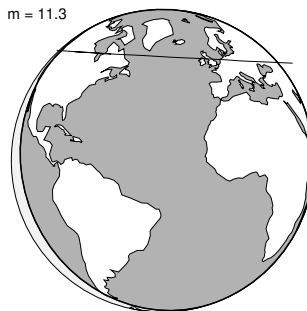
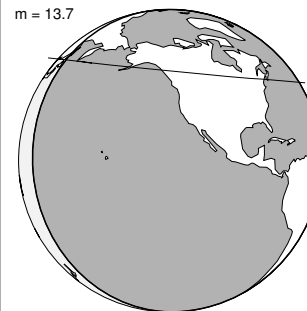
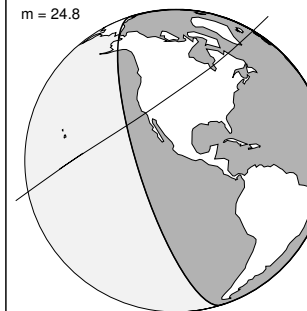
Occultations by major and minor planets – 2023

Region 1

2023 jan 1 23h36.8m A23_01008 5 Astraea TYC 5822–00327–1 Diam = 125.0 m = 11.1 m = 12.5  Dur = 4.7s Dmag = 1.7 Sun: 66° Moon: 58°	2023 jan 2 5h16.6m A23_01075 448 Natalie UCAC4 613–013260 Diam = 49.7 m = 12.4 m = 15.3  Dur = 5.6s Dmag = 3.0 Sun: 144° Moon: 21°	2023 jan 2 7h51.2m A23_01150 4063 Euforbo UCAC4 511–011677 Diam = 79.4 m = 12.5 m = 15.1  Dur = 5.0s Dmag = 2.7 Sun: 158° 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 12h57.8m A23_01135 1297 Quadea UCAC5 585–030161 Diam = 66.0 m = 12.5 m = 14.6  Dur = 5.2s Dmag = 2.3 Sun: 174° Moon: 34°	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 6h59.4m A23_01017 25 Phocaea UCAC5 396–037116 Diam = 78.0 m = 12.4 m = 12.6  Dur = 5.4s Dmag = 0.8 Sun: 142° Moon: 59°	2023 jan 5 1h44.3m A23_01131 1197 Rhodessa UCAC4 513–034067 Diam = 49.0 m = 12.3 m = 13.3  Dur = 4.2s Dmag = 1.3 Sun: 169° Moon: 24°
2023 jan 6 3h38.1m A23_01120 926 Imhilde UCAC4 649–047499 Diam = 50.5 m = 12.5 m = 14.9  Dur = 4.2s Dmag = 2.5 Sun: 148° Moon: 36°	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 8 6h10.9m B23_01002 54598 Bienor UCAC4 670–044222 Diam = 129.4 m = 13.5 m = 19.0  Dur = 6.2s Dmag = 5.5 Sun: 153° Moon: 34°	2023 jan 9 2h20.4m A23_01025 46 Hestia TYC 0623–01079–1 Diam = 131.0 m = 10.3 m = 12.7  Dur = 9.9s Dmag = 2.5 Sun: 102° Moon: 100°
2023 jan 9 2h45.0m A23_01119 912 Maritima UCAC4 686–036880 Diam = 86.6 m = 12.4 m = 12.5  Dur = 10.2s Dmag = 0.8 Sun: 145° Moon: 51°	2023 jan 9 2h59.2m A23_01109 814 Tauris UCAC4 625–041432 Diam = 116.0 m = 12.1 m = 12.8  Dur = 7.7s Dmag = 1.2 Sun: 164° Moon: 19°	2023 jan 9 23h17.1m A23_01027 48 Doris UCAC4 449–000382 Diam = 219.0 m = 12.2 m = 12.7  Dur = 9.1s Dmag = 1.0 Sun: 75° Moon: 138°	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°

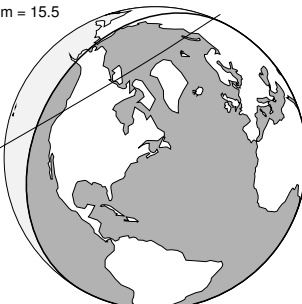
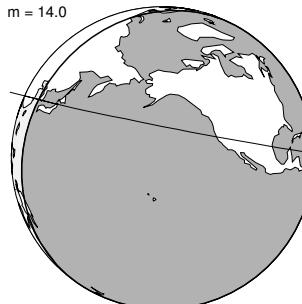
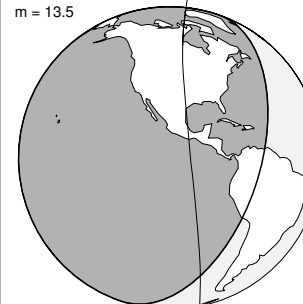
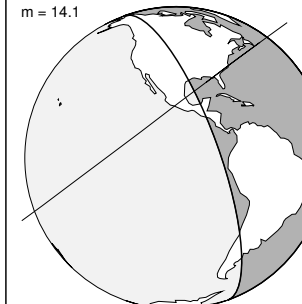
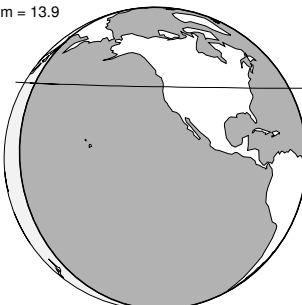
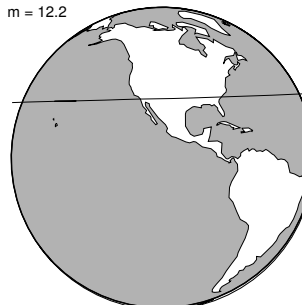
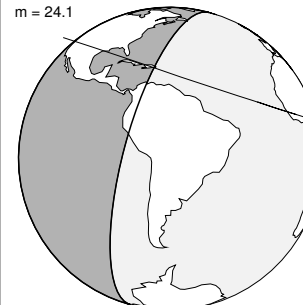
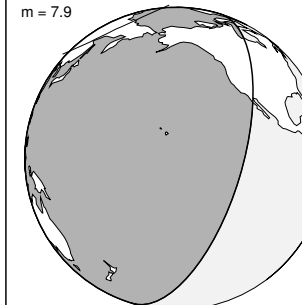
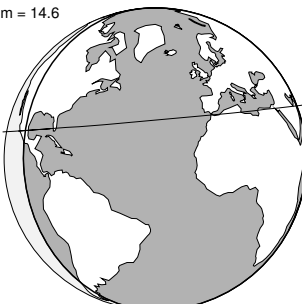
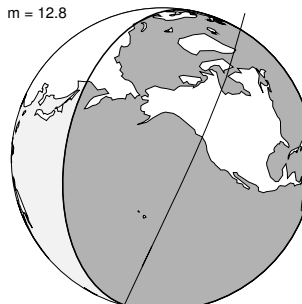
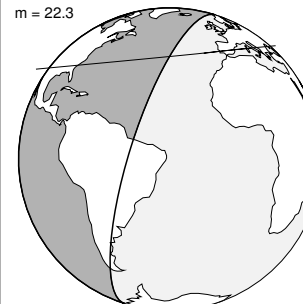
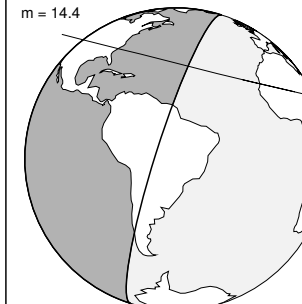
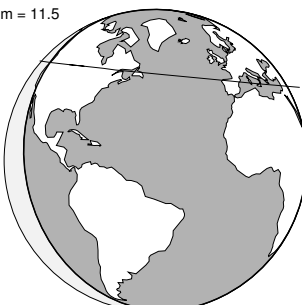
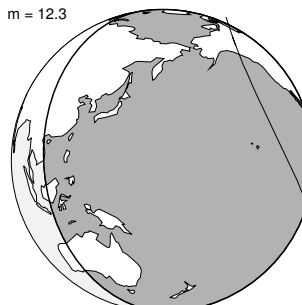
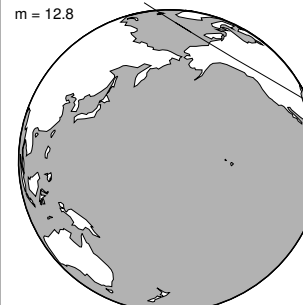
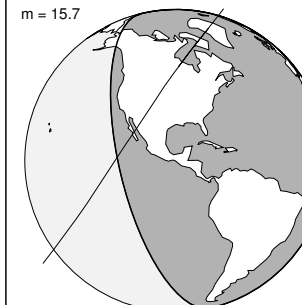
Occultations by major and minor planets – 2023

Region 1

2023 jan 10 6h31.1m A23_01113 891 Gunhild TYC 1896-00494-1 Diam = 53.6 m = 10.8 m = 13.5  Dur = 3.9s Dmag = 2.8 Sun: 177° Moon: 39°	2023 jan 11 4h22.3m A23_01026 46 Hestia UCAC4 499-002862 Diam = 131.0 m = 11.2 m = 12.8  Dur = 9.4s Dmag = 1.8 Sun: 101° Moon: 125°	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 12 11h28.5m A23_01028 53 Kalyppo UCAC4 515-049953 Diam = 119.0 m = 12.3 m = 11.6  Dur = 19.5s Dmag = 0.4 Sun: 153° Moon: 35°
2023 jan 13 7h24.8m A23_01114 891 Gunhild TYC 1896-01533-1 Diam = 53.6 m = 9.8 m = 13.8  Dur = 4.0s Dmag = 3.9 Sun: 173° Moon: 76°	2023 jan 15 6h48.4m B23_01008 2006UX184 UCAC4 710-036766 Diam = 69.2 m = 12.7 m = 22.3  Dur = 3.6s Dmag = 9.6 Sun: 137° Moon: 120°	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 17 0h50.2m A23_01083 469 Argentina TYC 0594-00338-1 Diam = 129.0 m = 12.0 m = 15.2  Dur = 5.3s Dmag = 3.3 Sun: 68° Moon: 135°
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 7h16.2m A23_01145 1977 Shura TYC 2424-00475-1 Diam = 60.8 m = 11.3 m = 15.9  Dur = 5.1s Dmag = 4.6 Sun: 155° Moon: 140°	2023 jan 17 7h20.3m A23_01031 84 Klio TYC 1944-00276-1 Diam = 83.0 m = 11.3 m = 13.0  Dur = 5.9s Dmag = 1.9 Sun: 170° Moon: 111°	2023 jan 17 8h20.8m A23_01094 551 Ortrud UCAC5 542-044860 Diam = 81.2 m = 12.5 m = 13.4  Dur = 7.5s Dmag = 1.3 Sun: 166° Moon: 104°
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 18 7h 0.4m A23_01052 167 Urda TYC 1322-00213-1 Diam = 42.2 m = 9.5 m = 13.7  Dur = 3.9s Dmag = 4.2 Sun: 155° Moon: 154°	2023 jan 19 1h48.4m B23_01009 2011UT412 UCAC4 529-004606 Diam = 114.8 m = 13.4 m = 24.8  Dur = 28.7s Dmag = 11.4 Sun: 104° Moon: 144°

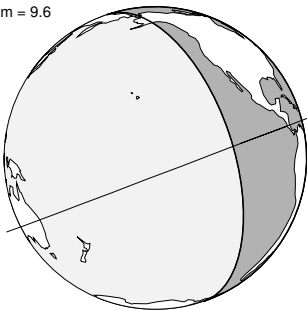
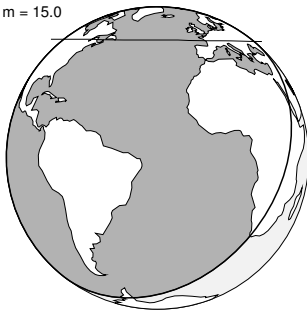
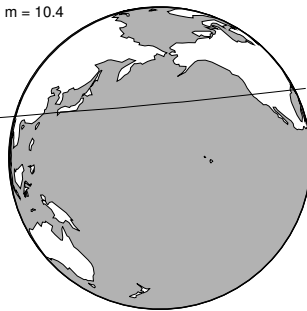
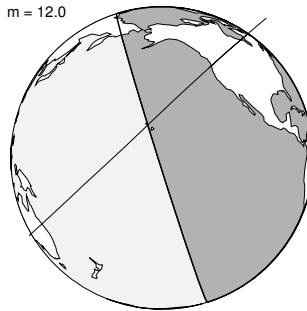
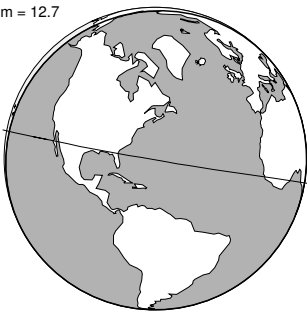
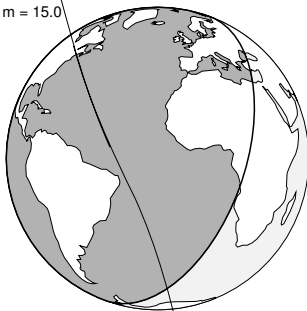
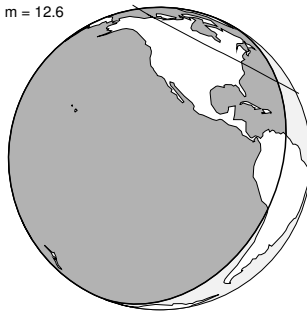
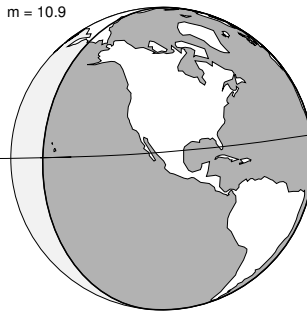
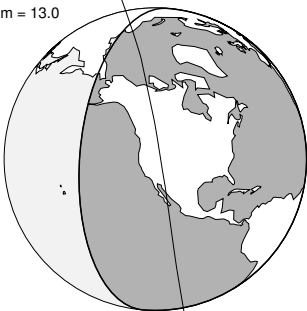
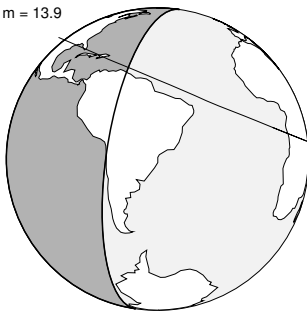
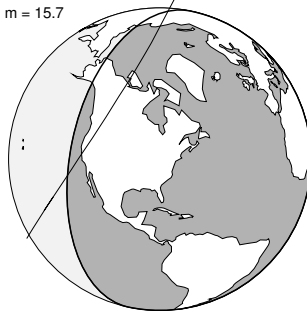
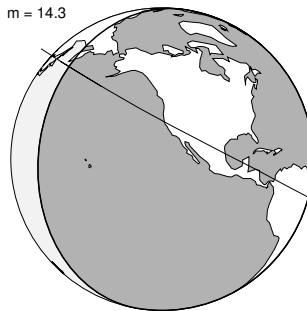
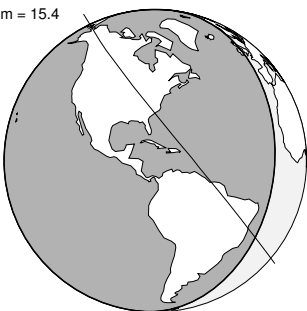
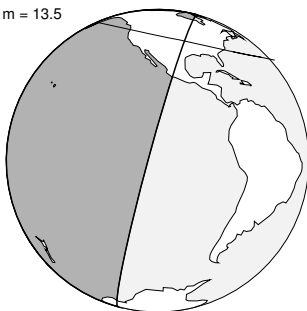
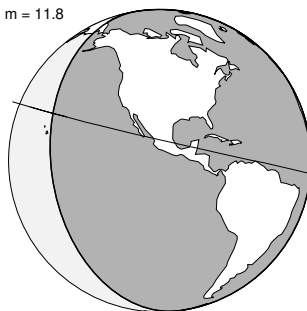
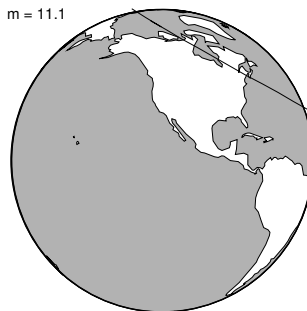
Occultations by major and minor planets – 2023

Region 1

2023 jan 19 2h 1.0m A23_01122 1000 Piazzia PPMX 3052222 Diam = 54.0 m = 12.5 m = 15.5  Dur = 3.5s Dmag = 3.1 Sun: 143° Moon: 161°	2023 jan 20 8h48.5m A23_01110 818 Kapteynia TYC 2443-00118-1 Diam = 53.0 m = 11.1 m = 14.0  Dur = 4.4s Dmag = 2.9 Sun: 154° Moon: 172°	2023 jan 20 10h44.7m A23_01067 360 Carlova TYC 0857-00754-1 Diam = 121.0 m = 10.0 m = 13.5  Dur = 20.4s Dmag = 3.5 Sun: 126° Moon: 107°	2023 jan 21 23h48.9m A23_01088 488 Kreusa UCAC4 439-001371 Diam = 158.0 m = 12.2 m = 14.1  Dur = 6.8s Dmag = 2.1 Sun: 73° Moon: 71°
2023 jan 23 6h53.7m A23_01104 701 Oriola TYC 1328-01049-1 Diam = 46.0 m = 12.2 m = 13.9  Dur = 4.3s Dmag = 1.9 Sun: 153° Moon: 133°	2023 jan 23 7h34.2m A23_01121 980 Anacostia UCAC4 501-050129 Diam = 89.0 m = 12.3 m = 12.2  Dur = 5.8s Dmag = 0.7 Sun: 169° Moon: 160°	2023 jan 23 11h14.8m B23_01006 2003HO57 UCAC4 357-071072 Diam = 104.7 m = 13.1 m = 24.1  Dur = 7.2s Dmag = 11.0 Sun: 72° Moon: 95°	2023 jan 23 14h42.1m A23_01001 1 Ceres TYC 0878-00014-1 Diam = 952.5 m = 10.8 m = 7.9  Dur = 139.4s Dmag = 0.1 Sun: 115° Moon: 141°
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 25 6h34.6m A23_01047 117 Lomia UCAC4 662-029397 Diam = 154.0 m = 12.0 m = 12.8  Dur = 19.5s Dmag = 1.3 Sun: 130° Moon: 87°	2023 jan 25 9h21.2m B23_01005 550310 2012DD86 UCAC4 409-060530 Diam = 51.5 m = 14.5 m = 22.3  Dur = 3.0s Dmag = 7.8 Sun: 74° Moon: 124°	2023 jan 25 9h51.2m A23_01053 168 Sibylla TYC 6154-00161-1 Diam = 154.0 m = 12.0 m = 14.4  Dur = 8.2s Dmag = 2.5 Sun: 82° Moon: 132°
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 28 10h40.7m A23_01128 1021 Flammario TYC 1320-00324-1 Diam = 103.0 m = 10.7 m = 12.3  Dur = 13.8s Dmag = 1.8 Sun: 141° Moon: 54°	2023 jan 28 12h29.5m A23_01100 628 Christine UCAC4 566-044161 Diam = 51.0 m = 11.6 m = 12.8  Dur = 3.8s Dmag = 1.5 Sun: 174° Moon: 93°	2023 jan 29 1h41.4m A23_01148 2621 Goto UCAC4 530-007466 Diam = 50.1 m = 11.5 m = 15.7  Dur = 5.9s Dmag = 4.3 Sun: 112° Moon: 18°

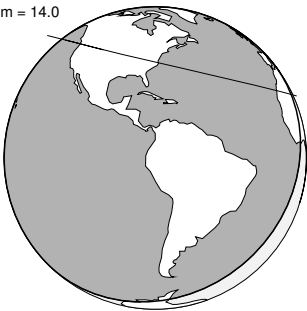
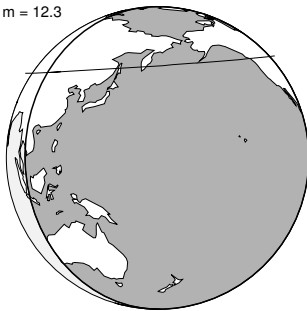
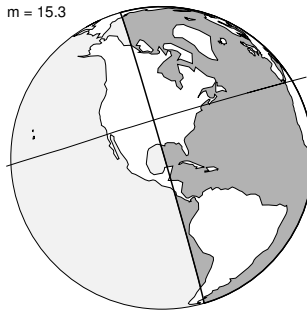
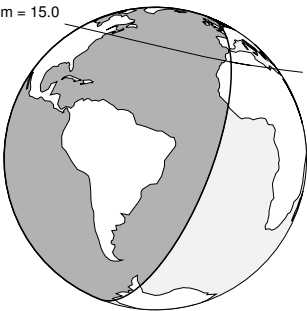
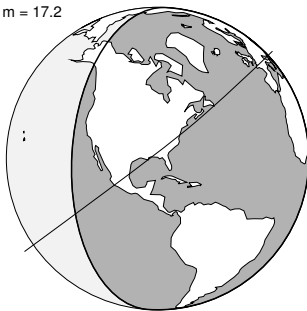
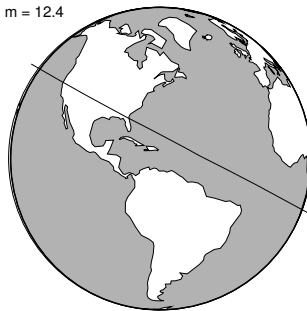
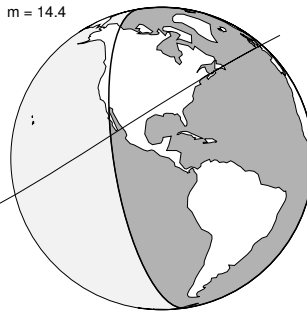
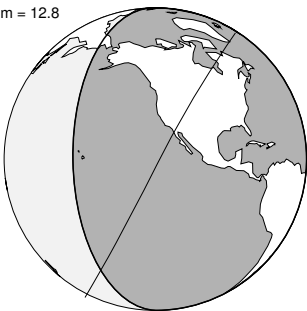
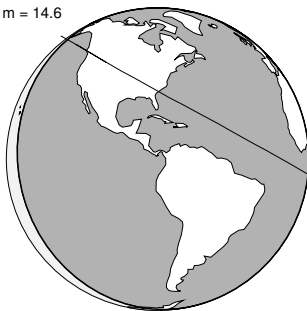
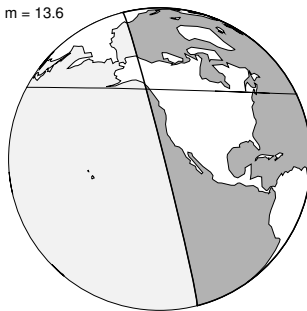
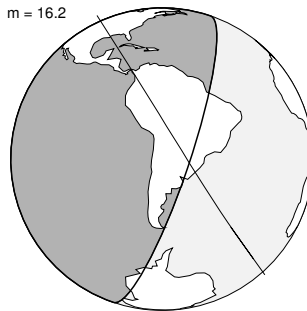
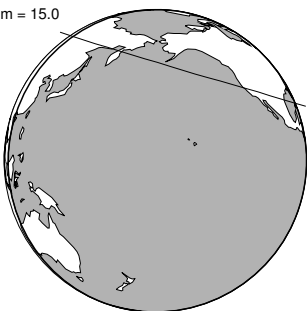
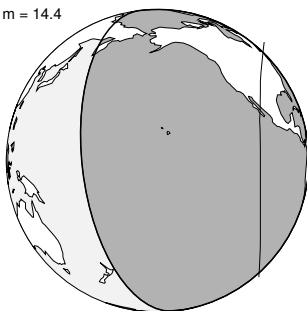
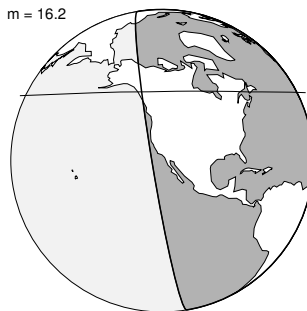
Occultations by major and minor planets – 2023

Region 1

2023 jan 29 2h 1.3m A23_01007 3 Juno TYC 4675–01032–1 Diam = 257.6 m = 9.8  Dur = 7.3s Dmag = 0.7 Sun: 59° Moon: 37°	2023 jan 29 4h 5.3m A23_01123 1001 Gaussia TYC 4916–01034–1 Diam = 78.3 m = 15.0  Dur = 8.0s Dmag = 5.0 Sun: 143° Moon: 118°	2023 jan 29 11h38.3m A23_01035 89 Julia UCAC4 562–045465 Diam = 159.0 m = 12.3  Dur = 10.9s Dmag = 0.2 Sun: 173° Moon: 74°	2023 jan 31 4h15.1m A23_01076 451 Patientia UCAC4 492–003986 Diam = 230.0 m = 12.1  Dur = 13.2s Dmag = 0.7 Sun: 91° Moon: 29°
2023 feb 1 3h57.4m A23_02080 454 Mathesis TYC 1940–00878–1 Diam = 84.5 m = 12.7  Dur = 7.5s Dmag = 1.4 Sun: 165° Moon: 39°	2023 feb 1 5h 8.4m A23_02088 580 Selene UCAC4 458–052110 Diam = 54.7 m = 15.0  Dur = 22.2s Dmag = 2.6 Sun: 125° Moon: 104°	2023 feb 2 10h31.7m A23_02064 308 Polyxo UCAC5 457–046438 Diam = 148.0 m = 12.6  Dur = 22.4s Dmag = 0.8 Sun: 142° Moon: 74°	2023 feb 4 4h41.5m A23_02019 64 Angelina TYC 1879–00971–1 Diam = 121.9 m = 10.9  Dur = 28.0s Dmag = 1.6 Sun: 142° Moon: 21°
2023 feb 5 3h41.4m A23_02032 117 Lomia UCAC4 656–027177 Diam = 154.0 m = 13.0  Dur = 20.0s Dmag = 1.1 Sun: 120° Moon: 52°	2023 feb 5 10h27.4m A23_02054 250 Bettina UCAC5 317–080989 Diam = 85.5 m = 13.9  Dur = 3.4s Dmag = 1.7 Sun: 70° Moon: 114°	2023 feb 6 2h 0.7m A23_02111 1000 Piazzia UCAC4 660–037031 Diam = 54.0 m = 15.7  Dur = 4.6s Dmag = 5.2 Sun: 126° Moon: 55°	2023 feb 6 6h 9.0m A23_02103 891 Gunhild PPMX 5053238 Diam = 53.6 m = 14.3  Dur = 6.2s Dmag = 2.2 Sun: 144° Moon: 40°
2023 feb 6 8h 5.3m A23_02116 1075 Helina TYC 1441–01261–1 Diam = 40.5 m = 15.4  Dur = 3.8s Dmag = 3.9 Sun: 142° Moon: 30°	2023 feb 6 13h28.1m A23_02059 268 Adorea UCAC4 373–071976 Diam = 142.0 m = 13.5  Dur = 7.2s Dmag = 1.5 Sun: 86° Moon: 85°	2023 feb 7 4h 4.1m A23_02007 12 Victoria TYC 0743–01398–1 Diam = 117.0 m = 11.8  Dur = 17.1s Dmag = 1.0 Sun: 135° Moon: 60°	2023 feb 7 7h46.5m A23_02015 53 Kalypso UCAC4 529–047791 Diam = 119.0 m = 11.1  Dur = 14.0s Dmag = 0.3 Sun: 174° Moon: 23°

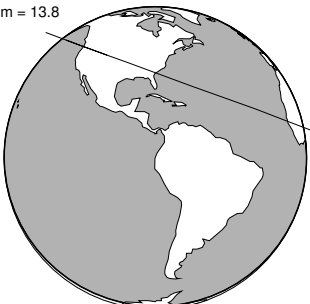
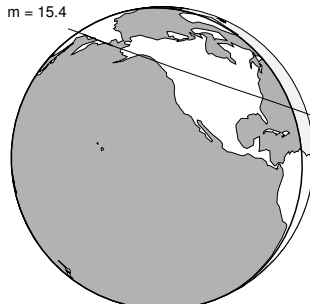
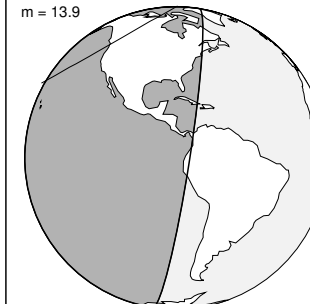
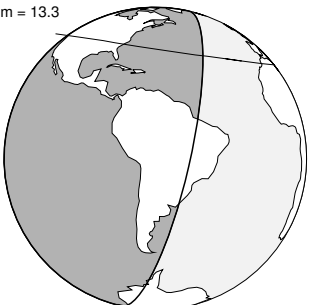
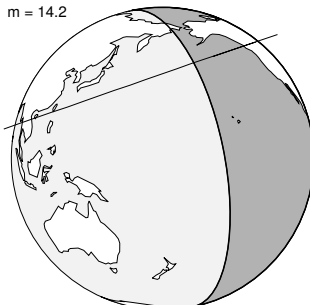
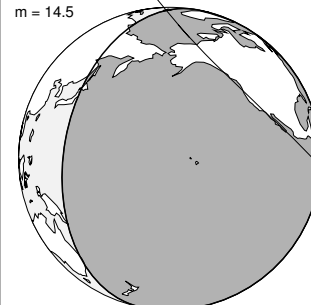
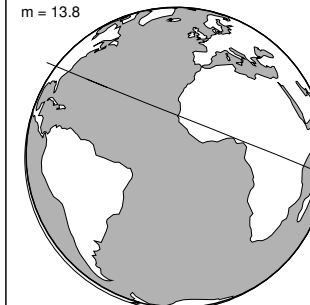
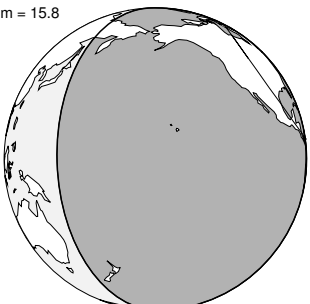
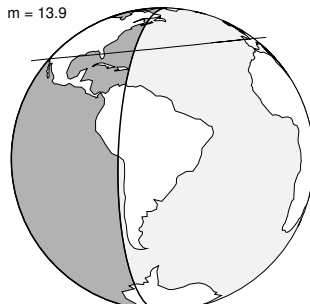
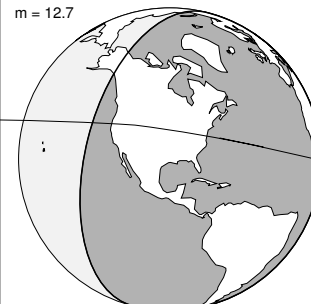
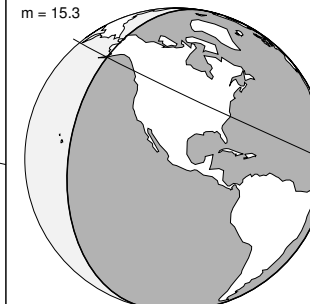
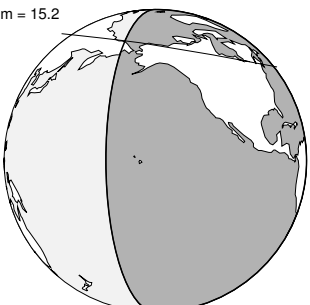
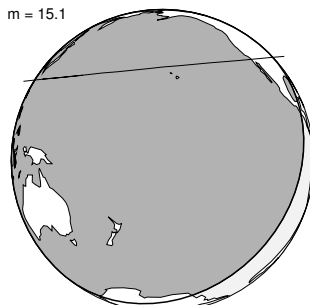
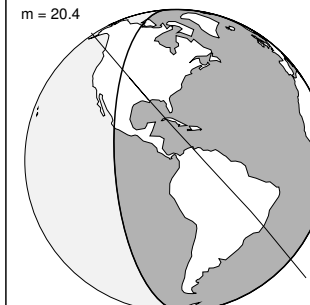
Occultations by major and minor planets – 2023

Region 1

2023 feb 8 6h30.2m 322 Phaeo Diam = 73.8 m = 14.0  Dur = 5.4s Sun: 155° Dmag = 3.4 Moon: 16°	2023 feb 8 11h 8.9m 584 Semiramis Diam = 56.2 m = 12.3  Dur = 6.4s Sun: 151° Dmag = 0.9 Moon: 59°	2023 feb 9 1h27.3m 2 Pallas Diam = 530.9 m = 7.7  Dur = 33.6s Sun: 122° Dmag = 0.3 Moon: 82°	2023 feb 10 23h48.8m 99 Dike Diam = 54.2 m = 11.7  Dur = 3.9s Sun: 89° Dmag = 3.6 Moon: 148°
2023 feb 11 7h16.9m 102 Miriam Diam = 86.0 m = 15.0  Dur = 27.3s Sun: 111° Dmag = 4.7 Moon: 7°	2023 feb 12 2h 7.2m 3794 Sthenelos Diam = 43.7 m = 17.2  Dur = 9.0s Sun: 124° Dmag = 5.0 Moon: 126°	2023 feb 12 4h 6.5m 221 Eos Diam = 110.0 m = 12.4  Dur = 7.4s Sun: 170° Dmag = 2.0 Moon: 81°	2023 feb 16 1h23.0m 585 Bilkis Diam = 60.3 m = 14.4  Dur = 6.8s Sun: 108° Dmag = 4.4 Moon: 162°
2023 feb 16 4h37.3m 1021 Flammario Diam = 103.0 m = 12.8  Dur = 14.3s Sun: 123° Dmag = 1.2 Moon: 174°	2023 feb 17 4h 5.9m 1023 Thomana Diam = 60.2 m = 14.6  Dur = 4.8s Sun: 157° Dmag = 2.6 Moon: 150°	2023 feb 19 2h 9.0m 172 Baucis Diam = 64.5 m = 13.6  Dur = 3.4s Sun: 88° Dmag = 2.3 Moon: 106°	2023 feb 19 9h29.1m 1035 Amata Diam = 56.8 m = 16.2  Dur = 4.2s Sun: 100° Dmag = 3.9 Moon: 87°
2023 feb 21 10h46.5m 1911 Schubart Diam = 83.0 m = 15.0  Dur = 6.9s Sun: 166° Dmag = 4.4 Moon: 150°	2023 feb 22 6h48.7m 286 Iclea Diam = 96.5 m = 14.4  Dur = 10.5s Sun: 119° Dmag = 2.2 Moon: 93°	2023 feb 22 9h 8.4m 1032 Pafuri Diam = 59.1 m = 14.7  Dur = 5.1s Sun: 156° Dmag = 3.0 Moon: 166°	2023 feb 23 2h 0.4m 448 Natalie Diam = 49.7 m = 16.2  Dur = 3.7s Sun: 93° Dmag = 7.9 Moon: 57°

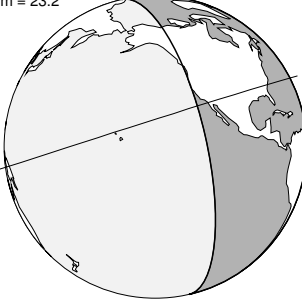
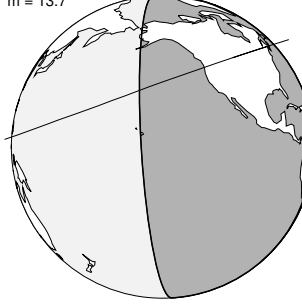
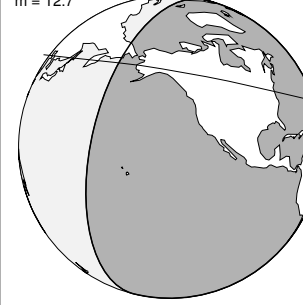
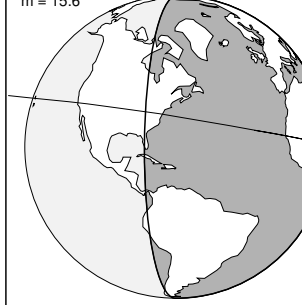
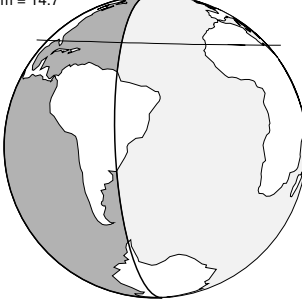
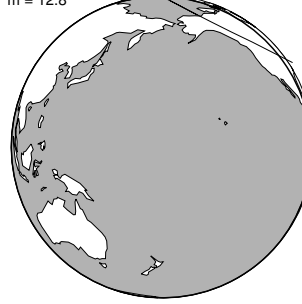
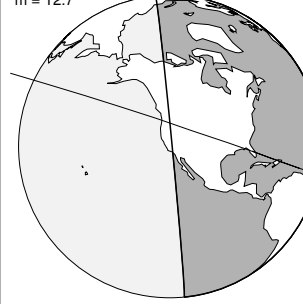
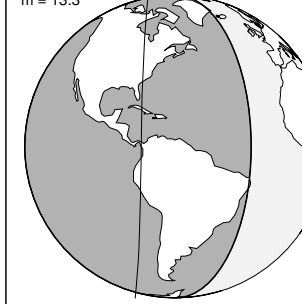
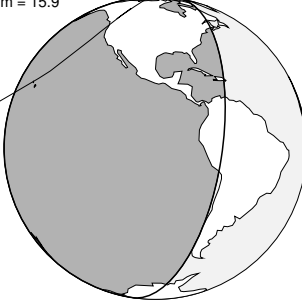
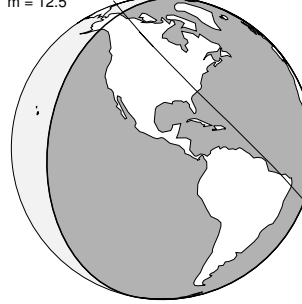
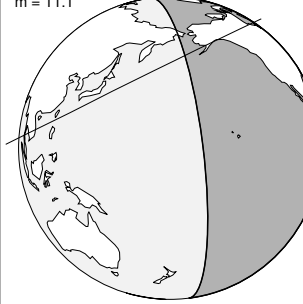
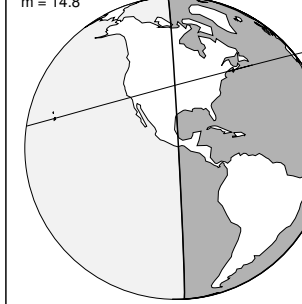
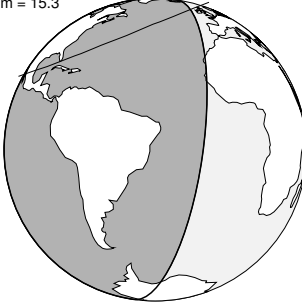
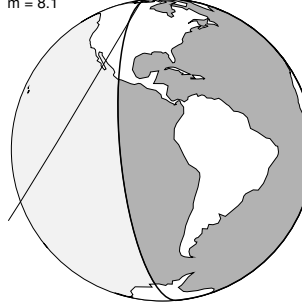
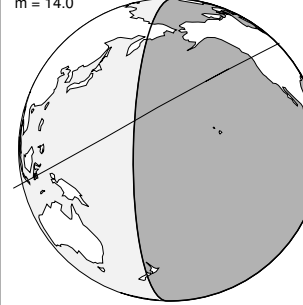
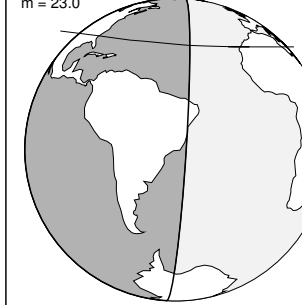
Occultations by major and minor planets – 2023

Region 1

2023 feb 24 5h28.4m A23_02066 322 Phaeo TYC 4904–02054–1 Diam = 73.8 m = 11.6 m = 13.8  Dur = 4.7s Dmag = 2.4 Sun: 168° Moon: 128°	2023 feb 24 10h27.0m A23_02127 2826 Ahti HIP 58521 Diam = 42.0 m = 8.6 m = 15.4  Dur = 3.6s Dmag = 6.8 Sun: 156° Moon: 139°	2023 feb 25 5h10.1m A23_02025 96 Aegle HIP 58084 Diam = 174.0 m = 10.3 m = 11.6  Dur = 17.0s Dmag = 1.7 Sun: 148° Moon: 141°	2023 feb 26 11h26.3m A23_02044 181 Eucharis UCAC5 447–058558 Diam = 107.0 m = 12.4 m = 13.9  Dur = 7.3s Dmag = 1.7 Sun: 95° Moon: 158°
2023 feb 27 9h24.4m A23_02060 268 Adorea TYC 6184–00630–1 Diam = 142.0 m = 12.1 m = 13.3  Dur = 12.7s Dmag = 1.5 Sun: 103° Moon: 165°	2023 feb 28 5h 2.7m A23_02072 365 Corduba TYC 0061–00545–1 Diam = 110.0 m = 12.3 m = 14.2  Dur = 3.5s Dmag = 2.1 Sun: 66° Moon: 37°	2023 feb 28 8h17.8m A23_02082 484 Pittsburghia TYC 1373–00691–1 Diam = 44.5 m = 12.5 m = 14.5  Dur = 7.2s Dmag = 2.1 Sun: 134° Moon: 33°	2023 mar 1 0h54.0m A23_03096 322 Phaeo UCAC4 444–051525 Diam = 73.8 m = 11.8 m = 13.8  Dur = 4.8s Dmag = 2.1 Sun: 168° Moon: 69°
2023 mar 3 7h50.0m A23_03158 805 Hormuthia UCAC4 493–045651 Diam = 73.0 m = 12.1 m = 15.8  Dur = 7.3s Dmag = 3.8 Sun: 130° Moon: 18°	2023 mar 3 10h53.3m A23_03033 34 Circe TYC 6254–00325–1 Diam = 118.0 m = 10.4 m = 13.9  Dur = 4.6s Dmag = 3.6 Sun: 72° Moon: 150°	2023 mar 4 2h49.1m A23_03119 505 Cava TYC 2451–01245–1 Diam = 79.1 m = 9.9 m = 12.7  Dur = 23.8s Dmag = 2.9 Sun: 123° Moon: 18°	2023 mar 4 4h 3.8m A23_03123 530 Turandot PPMX 6133647 Diam = 89.3 m = 12.5 m = 15.3  Dur = 10.7s Dmag = 2.9 Sun: 135° Moon: 10°
2023 mar 4 5h21.4m A23_03129 552 Sigelinde UCAC4 551–022853 Diam = 81.0 m = 11.9 m = 15.2  Dur = 18.3s Dmag = 3.4 Sun: 109° Moon: 35°	2023 mar 5 12h21.5m A23_03137 605 Juvisia HIP 60711 Diam = 72.0 m = 8.2 m = 15.1  Dur = 5.1s Dmag = 6.9 Sun: 151° Moon: 52°	2023 mar 5 12h37.4m A23_03079 206 Hersilia TYC 6241–00632–1 Diam = 76.6 m = 12.1 m = 14.1  Dur = 4.0s Dmag = 2.2 Sun: 84° Moon: 117°	2023 mar 6 0h59.8m B23_03001 55638 2002VE95 UCAC4 484–024681 Diam = 363.1 m = 12.9 m = 20.4  Dur = 35.0s Dmag = 7.5 Sun: 113° Moon: 52°

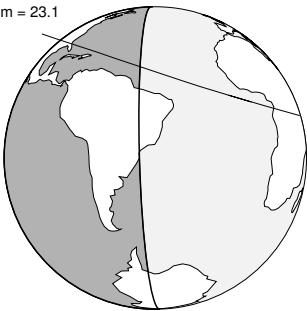
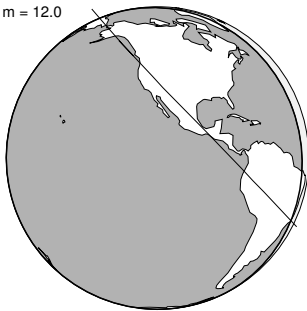
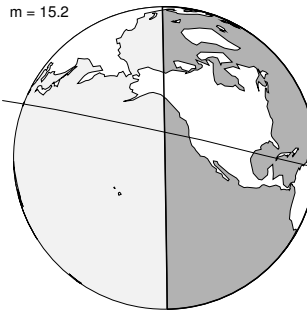
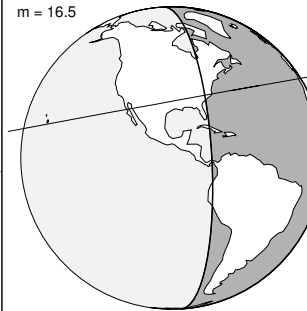
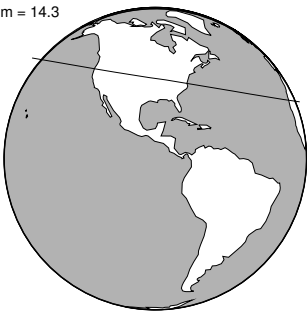
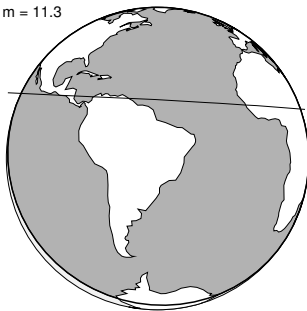
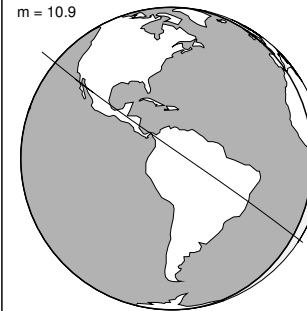
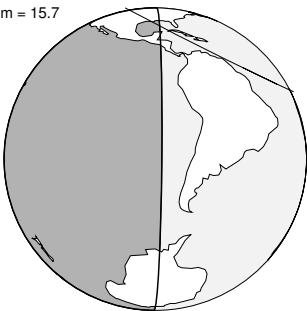
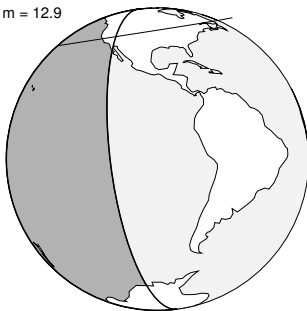
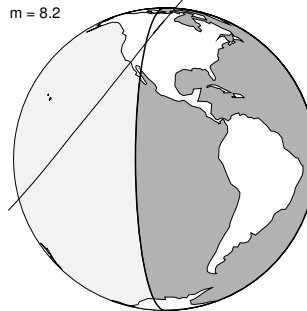
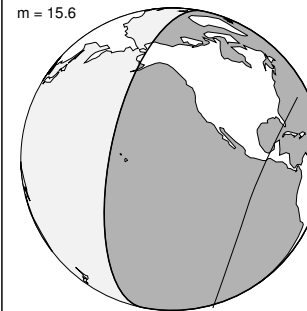
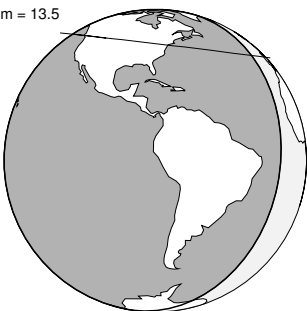
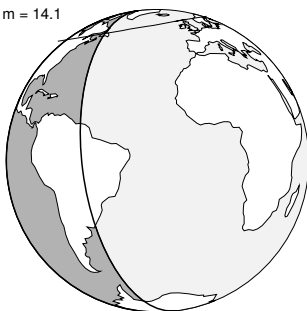
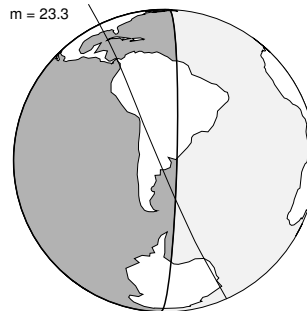
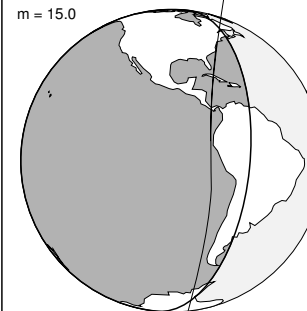
Occultations by major and minor planets – 2023

Region 1

2023 mar 6 2h 6.7m B23_03010 2002VV130 UCAC4 535–006560 Diam = 130.6 m = 13.6 m = 23.2  Dur = 8.6s Dmag = 9.6 Sun: 70° Moon: 94°	2023 mar 7 4h27.8m A23_03086 236 Honoria UCAC4 524–014210 Diam = 90.5 m = 12.0 m = 13.7  Dur = 6.8s Dmag = 1.9 Sun: 98° Moon: 79°	2023 mar 7 5h37.1m A23_03120 505 Cava TYC 2452–01121–1 Diam = 79.1 m = 12.7 m = 9.0  Dur = 17.7s Dmag = 3.7 Sun: 121° Moon: 55°	2023 mar 7 23h27.8m A23_03138 615 Roswitha UCAC4 583–020550 Diam = 49.5 m = 12.0 m = 15.6  Dur = 5.6s Dmag = 3.7 Sun: 102° Moon: 83°
2023 mar 9 9h37.0m A23_03078 203 Pompeja UCAC5 318–153272 Diam = 120.0 m = 12.4 m = 14.7  Dur = 4.9s Dmag = 2.4 Sun: 74° Moon: 84°	2023 mar 10 12h58.1m A23_03127 535 Montague UCAC4 511–052355 Diam = 77.0 m = 12.3 m = 12.8  Dur = 7.2s Dmag = 1.0 Sun: 167° Moon: 30°	2023 mar 11 1h52.8m A23_03107 385 Ilmatar PPMX 3968694 Diam = 94.1 m = 12.3 m = 12.7  Dur = 5.3s Dmag = 1.0 Sun: 89° Moon: 130°	2023 mar 11 8h30.1m A23_03058 130 Elektra TYC 0927–00734–1 Diam = 189.0 m = 11.0 m = 13.3  Dur = 16.0s Dmag = 2.4 Sun: 119° Moon: 28°
2023 mar 11 10h52.5m A23_03171 1054 Forsytia UCAC4 404–060982 Diam = 49.6 m = 12.3 m = 15.9  Dur = 19.0s Dmag = 3.7 Sun: 116° Moon: 21°	2023 mar 13 3h46.4m A23_03041 59 Elpis TYC 0813–01352–1 Diam = 173.0 m = 9.6 m = 12.5  Dur = 23.8s Dmag = 3.0 Sun: 139° Moon: 106°	2023 mar 13 5h30.6m A23_03125 532 Herculina UCAC4 536–009363 Diam = 216.5 m = 11.4 m = 11.1  Dur = 9.7s Dmag = 0.6 Sun: 77° Moon: 167°	2023 mar 14 0h31.3m A23_03136 585 Bilkis UCAC4 527–013207 Diam = 60.3 m = 10.7 m = 14.8  Dur = 3.3s Dmag = 4.1 Sun: 89° Moon: 163°
2023 mar 14 7h17.4m A23_03092 289 Nenetta UCAC4 373–076882 Diam = 41.5 m = 12.1 m = 15.3  Dur = 6.0s Dmag = 3.3 Sun: 108° Moon: 12°	2023 mar 15 0h58.6m A23_03006 2 Pallas PPMX 10136540 Diam = 530.9 m = 11.5 m = 8.1  Dur = 24.7s Dmag = 0.0 Sun: 106° Moon: 139°	2023 mar 15 6h49.3m A23_03118 490 Veritas UCAC4 520–027728 Diam = 121.0 m = 12.4 m = 14.0  Dur = 12.4s Dmag = 1.8 Sun: 103° Moon: 162°	2023 mar 16 8h43.4m B23_03012 2007HV90 UCAC4 337–095221 Diam = 199.5 m = 14.8 m = 23.0  Dur = 63.0s Dmag = 8.2 Sun: 93° Moon: 21°

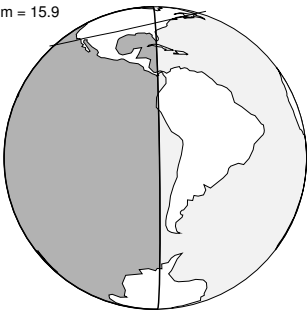
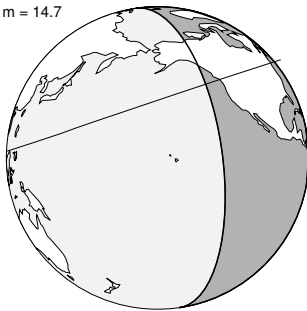
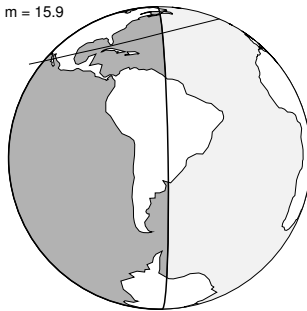
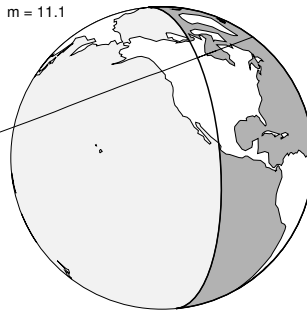
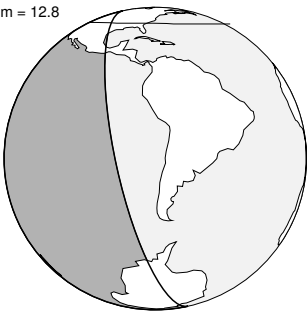
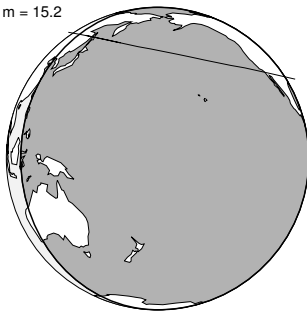
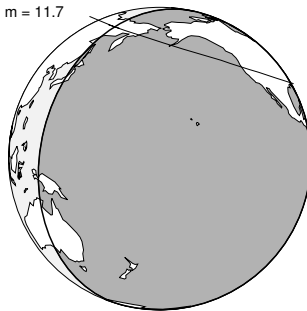
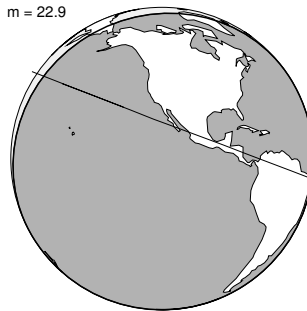
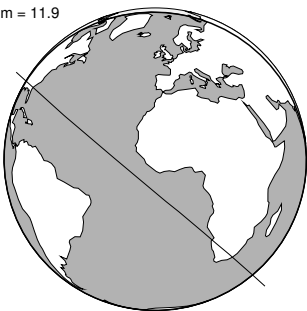
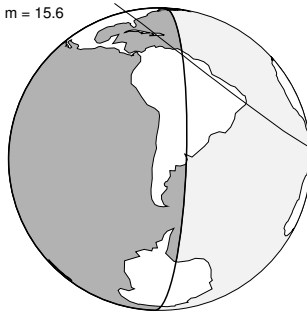
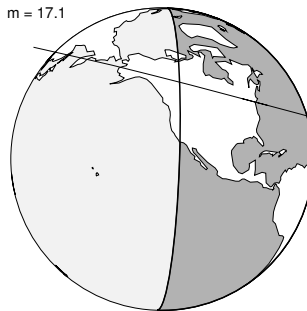
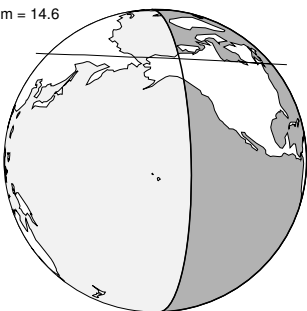
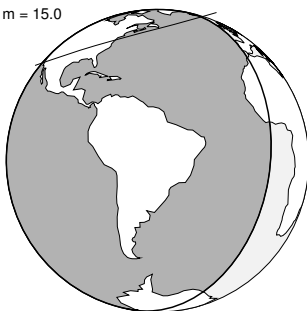
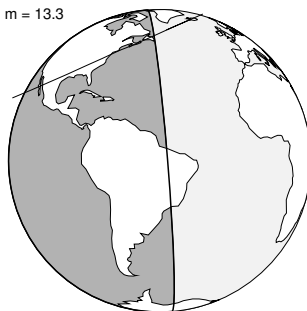
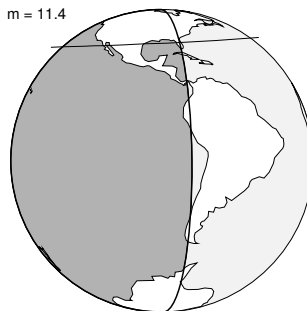
Occultations by major and minor planets – 2023

Region 1

2023 mar 17 9h19.7m B23_03005 119066 2001KJ76 UCAC4 310–172659 Diam = 182.0 m = 15.0 m = 23.1  Dur = 20.6s Dmag = 8.2 Sun: 83° Moon: 24°	2023 mar 18 8h53.8m A23_03071 194 Prokne TYC 0883–01179–1 Diam = 174.0 m = 9.2 m = 12.0  Dur = 11.6s Dmag = 2.9 Sun: 161° Moon: 121°	2023 mar 19 3h13.6m A23_03162 906 Repsolda TYC 2413–00659–1 Diam = 52.5 m = 10.9 m = 15.2  Dur = 3.3s Dmag = 4.3 Sun: 89° Moon: 126°	2023 mar 19 23h24.5m A23_03187 2920 Automedon UCAC4 505–009012 Diam = 123.0 m = 12.4 m = 16.5  Dur = 6.1s Dmag = 4.2 Sun: 74° Moon: 97°
2023 mar 21 6h 9.9m A23_03147 697 Galilea HIP 58372 Diam = 82.5 m = 8.7 m = 14.3  Dur = 5.2s Dmag = 5.7 Sun: 172° Moon: 176°	2023 mar 22 2h53.7m A23_03049 96 Aegle TYC 5515–00643–1 Diam = 174.0 m = 10.4 m = 11.3  Dur = 15.1s Dmag = 1.3 Sun: 163° Moon: 160°	2023 mar 23 6h14.4m A23_03025 17 Thetis Gaia 090–0103596 Diam = 93.2 m = 8.4 m = 10.9  Dur = 11.6s Dmag = 2.6 Sun: 158° Moon: 172°	2023 mar 23 6h17.3m A23_03024 17 Thetis HIP 66212 Diam = 93.2 m = 7.5 m = 10.9  Dur = 11.6s Dmag = 3.4 Sun: 158° Moon: 172°
2023 mar 23 11h56.0m A23_03069 193 Ambrosia UCAC5 270–127020 Diam = 48.3 m = 12.2 m = 15.7  Dur = 3.6s Dmag = 3.6 Sun: 92° Moon: 115°	2023 mar 23 13h45.1m A23_03052 103 Hera UCAC5 360–183602 Diam = 95.2 m = 12.5 m = 12.9  Dur = 3.4s Dmag = 1.0 Sun: 71° Moon: 96°	2023 mar 24 1h38.7m A23_03012 2 Pallas UCAC4 417–022180 Diam = 530.9 m = 12.3 m = 8.2  Dur = 23.0s Dmag = 0.0 Sun: 101° Moon: 74°	2023 mar 24 4h59.3m A23_03124 530 Turandot UCAC4 556–043533 Diam = 89.3 m = 15.6 m = 12.3  Dur = 45.2s Dmag = 3.3 Sun: 114° Moon: 82°
2023 mar 24 7h42.4m A23_03114 438 Zeuxo UCAC4 404–057745 Diam = 63.6 m = 11.6 m = 13.5  Dur = 11.4s Dmag = 2.1 Sun: 145° Moon: 175°	2023 mar 24 9h45.8m A23_03152 739 Mandeville UCAC4 402–120940 Diam = 110.0 m = 11.7 m = 14.1  Dur = 3.6s Dmag = 2.6 Sun: 60° Moon: 95°	2023 mar 24 9h47.9m B23_03004 95625 2002GX32 UCAC4 273–130594 Diam = 138.0 m = 14.9 m = 23.3  Dur = 18.1s Dmag = 8.4 Sun: 94° Moon: 129°	2023 mar 24 10h27.9m A23_03111 424 Gratia TYC 5620–00869–1 Diam = 90.5 m = 11.4 m = 15.0  Dur = 53.0s Dmag = 3.6 Sun: 121° Moon: 155°

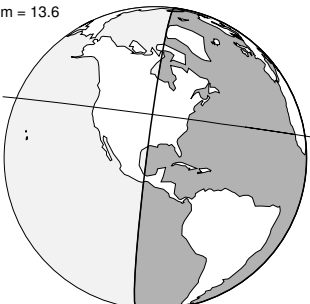
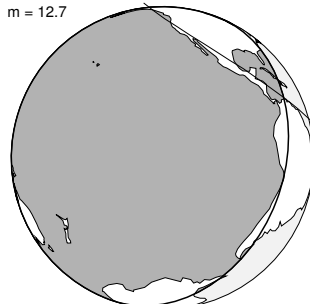
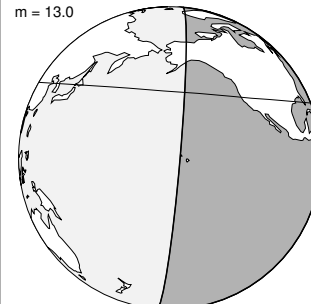
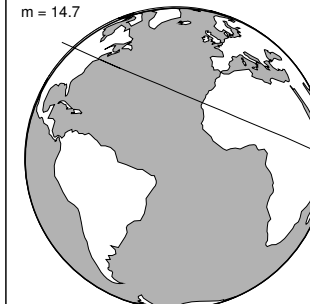
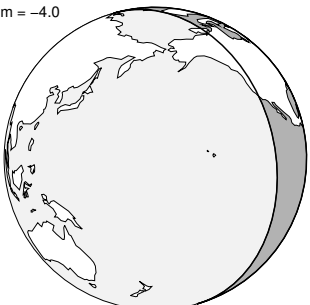
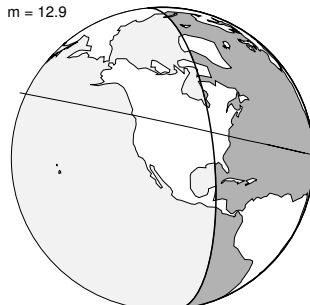
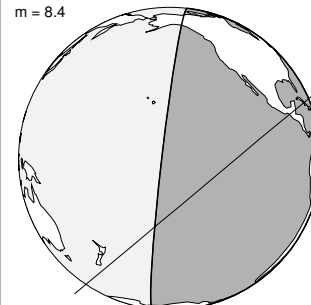
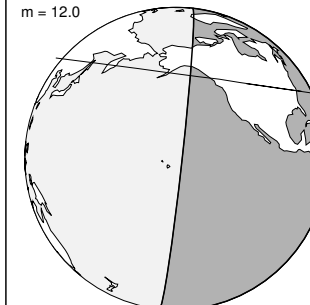
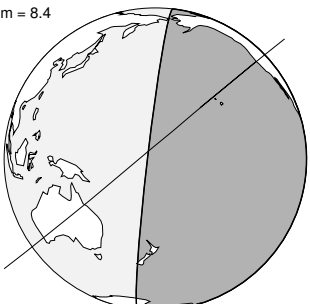
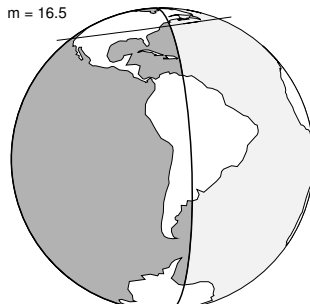
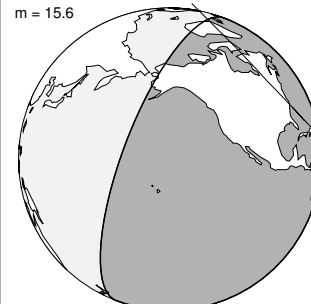
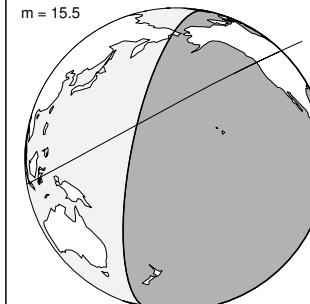
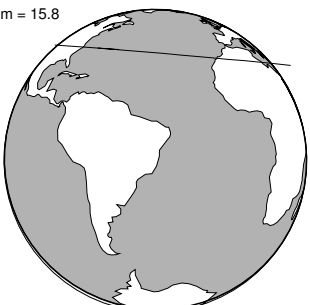
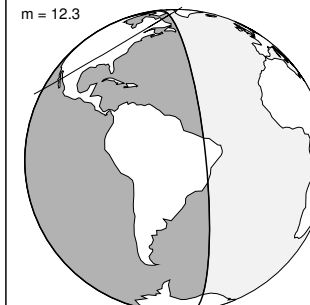
Occultations by major and minor planets – 2023

Region 1

2023 mar 24 11h27.5m A23_03177 1436 Salonta UCAC4 323–133520 Diam = 63.6 m = 12.3 m = 15.9  Dur = 3.9s Dmag = 3.7 Sun: 91° Moon: 128°	2023 mar 25 3h12.7m A23_03109 404 Arsinoë UCAC4 553–009906 Diam = 101.0 m = 10.9 m = 14.7  Dur = 3.7s Dmag = 3.8 Sun: 64° Moon: 21°	2023 mar 26 9h55.8m A23_03178 1436 Salonta UCAC5 323–127495 Diam = 63.6 m = 12.4 m = 15.9  Dur = 4.1s Dmag = 3.5 Sun: 93° Moon: 153°	2023 mar 27 1h13.7m A23_03126 532 Herculina UCAC4 544–010820 Diam = 216.5 m = 11.0 m = 11.1  Dur = 8.0s Dmag = 0.8 Sun: 67° Moon: 7°
2023 mar 27 12h27.1m A23_03066 187 Lamberta UCAC4 296–225921 Diam = 135.0 m = 12.5 m = 12.8  Dur = 5.0s Dmag = 1.0 Sun: 74° Moon: 147°	2023 mar 28 10h 4.7m A23_03186 2892 Filipenko TYC 4916–00388–1 Diam = 58.5 m = 8.7 m = 15.2  Dur = 4.7s Dmag = 6.5 Sun: 154° Moon: 76°	2023 mar 29 9h 2.1m A23_03055 111 Ate UCAC4 484–049175 Diam = 139.0 m = 12.1 m = 11.7  Dur = 31.1s Dmag = 0.6 Sun: 142° Moon: 50°	2023 mar 30 7h12.3m A23_03189 183964 2004DJ71 TYC 0870–00540–1 Diam = 124.2 m = 11.1 m = 22.9  Dur = 5.4s Dmag = 11.8 Sun: 160° Moon: 61°
2023 mar 31 0h54.6m A23_03072 194 Prokne PPMX 7266763 Diam = 174.0 m = 12.2 m = 11.9  Dur = 11.4s Dmag = 0.6 Sun: 165° Moon: 66°	2023 mar 31 7h29.1m B23_03002 82155 2001FZ173 UCAC4 312–077512 Diam = 237.7 m = 13.5 m = 21.7  Dur = 14.6s Dmag = 8.2 Sun: 137° Moon: 108°	2023 apr 1 10h 7.0m A23_04048 193 Ambrosia UCAC5 267–134890 Diam = 48.3 m = 12.5 m = 15.6  Dur = 4.8s Dmag = 3.2 Sun: 100° Moon: 133°	2023 apr 2 2h17.6m A23_04125 1977 Shura UCAC4 591–031311 Diam = 60.8 m = 12.2 m = 17.1  Dur = 3.2s Dmag = 4.9 Sun: 83° Moon: 50°
2023 apr 2 3h39.4m A23_04046 175 Andromache UCAC4 583–020020 Diam = 107.0 m = 12.4 m = 14.6  Dur = 4.9s Dmag = 2.3 Sun: 76° Moon: 58°	2023 apr 2 6h24.0m A23_04121 1119 Euboea HIP 75879 Diam = 44.8 m = 8.2 m = 15.0  Dur = 16.1s Dmag = 6.7 Sun: 137° Moon: 86°	2023 apr 2 9h12.2m A23_04057 246 Asporina UCAC4 423–084998 Diam = 63.8 m = 12.4 m = 13.3  Dur = 3.5s Dmag = 1.3 Sun: 92° Moon: 126°	2023 apr 2 11h18.6m A23_04014 20 Massalia TYC 6842–00363–1 Diam = 151.0 m = 9.9 m = 11.4  Dur = 15.2s Dmag = 1.7 Sun: 101° Moon: 121°

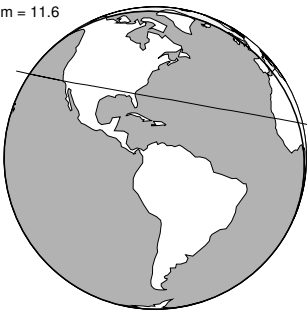
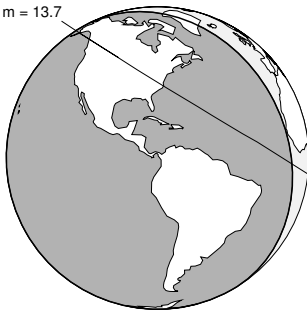
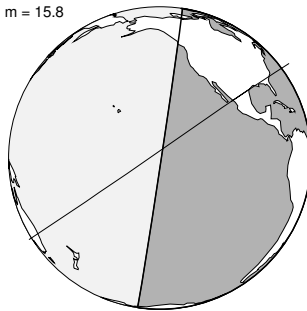
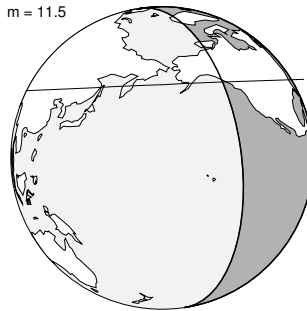
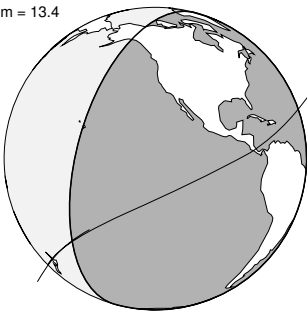
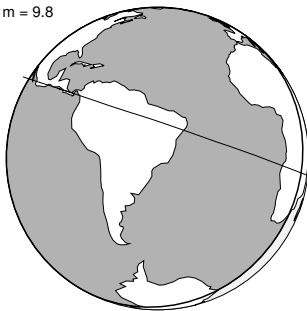
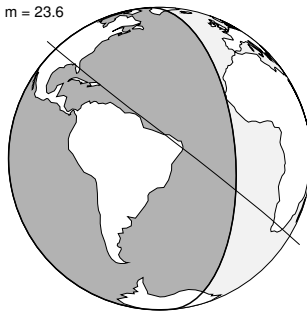
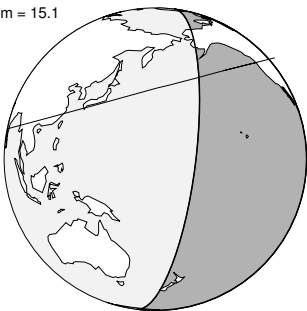
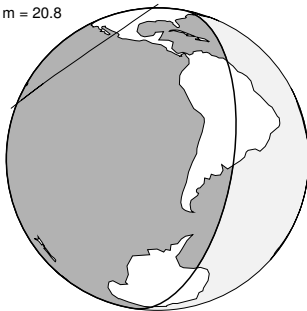
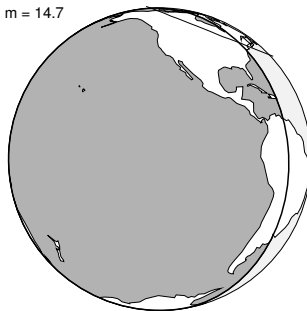
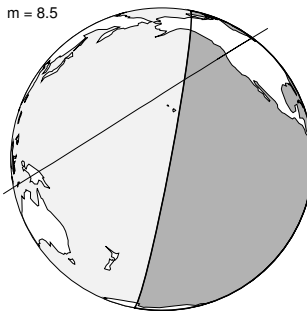
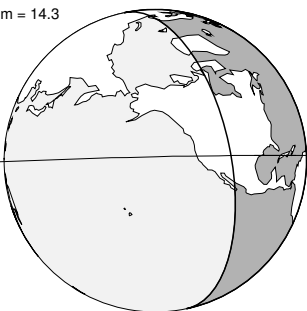
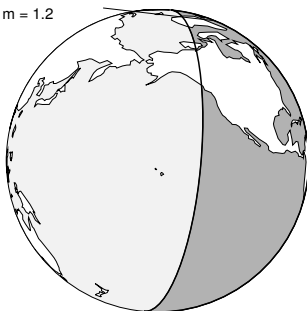
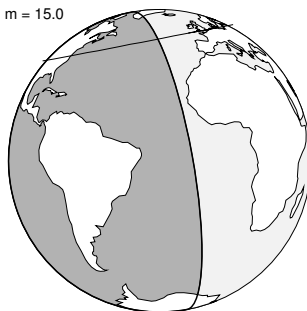
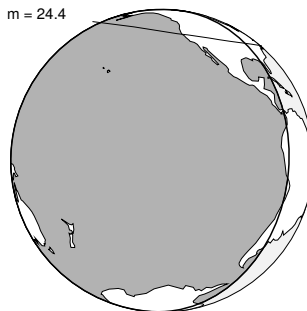
Occultations by major and minor planets – 2023

Region 1

2023 apr 3 0h32.5m A23_04088 449 Hamburga PPMX 5071601 Diam = 88.6 m = 13.6  Dur = 5.1s Sun: 93° Dmag = 1.8 Moon: 50°	2023 apr 3 10h52.7m A23_04068 336 Lacadiera UCAC4 345-073642 Diam = 72.0 m = 12.7  Dur = 21.5s Sun: 143° Dmag = 1.3 Moon: 68°	2023 apr 5 4h45.7m A23_04021 43 Ariadne TYC 1342-00611-1 Diam = 65.3 m = 13.0  Dur = 3.9s Sun: 86° Dmag = 3.0 Moon: 82°	2023 apr 6 1h35.1m A23_04093 522 Helga TYC 0290-00862-1 Diam = 113.0 m = 10.8  Dur = 7.4s Sun: 171° Dmag = 3.9 Moon: 7°
2023 apr 6 2h28.4m P23_04001 Venus HIP 15838 Diam = 12104.0 m = -4.0  Dur = 293.9s Sun: 38° Dmag = 0.0 Moon: 141°	2023 apr 7 0h 0.9m A23_04073 385 Ilmatar TYC 2413-00102-1 Diam = 94.1 m = 12.9  Dur = 3.4s Sun: 70° Dmag = 2.7 Moon: 119°	2023 apr 7 4h 9.4m A23_04003 2 Pallas TYC 4819-02370-1 Diam = 530.9 m = 8.4  Dur = 20.9s Sun: 93° Dmag = 0.0 Moon: 98°	2023 apr 7 4h12.8m A23_04026 64 Angelina PPMX 5064974 Diam = 121.9 m = 12.2  Dur = 6.3s Sun: 87° Dmag = 0.7 Moon: 104°
2023 apr 7 6h26.1m A23_04004 2 Pallas TYC 4819-02418-1 Diam = 530.9 m = 8.4  Dur = 20.8s Sun: 92° Dmag = 0.2 Moon: 99°	2023 apr 7 10h23.5m A23_04118 1057 Wanda UCAC4 334-163431 Diam = 49.1 m = 16.5  Dur = 4.3s Sun: 100° Dmag = 4.4 Moon: 64°	2023 apr 8 5h51.3m A23_04040 155 Scylla UCAC4 610-044628 Diam = 49.5 m = 15.6  Dur = 3.9s Sun: 108° Dmag = 3.3 Moon: 96°	2023 apr 8 6h58.2m A23_04116 1023 Thomania UCAC4 501-049309 Diam = 60.2 m = 11.6  Dur = 7.2s Sun: 107° Dmag = 3.9 Moon: 97°
2023 apr 9 2h29.9m A23_04130 3012 Minsk TYC 6114-00215-1 Diam = 64.1 m = 15.8  Dur = 4.3s Sun: 168° Dmag = 6.4 Moon: 35°	2023 apr 9 6h33.6m A23_04061 284 Amalia UCAC4 345-072075 Diam = 55.1 m = 12.9  Dur = 9.3s Sun: 154° Dmag = 1.4 Moon: 12°	2023 apr 10 7h22.9m A23_04045 168 Sibylla UCAC4 376-069705 Diam = 154.0 m = 13.4  Dur = 12.8s Sun: 155° Dmag = 1.5 Moon: 26°	2023 apr 10 8h51.9m A23_04075 393 Lampetia UCAC4 393-089316 Diam = 106.0 m = 12.2  Dur = 5.7s Sun: 101° Dmag = 0.8 Moon: 31°

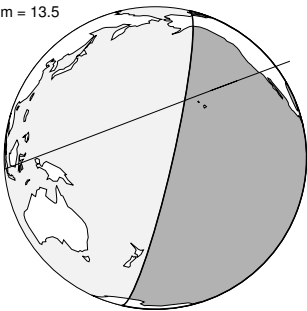
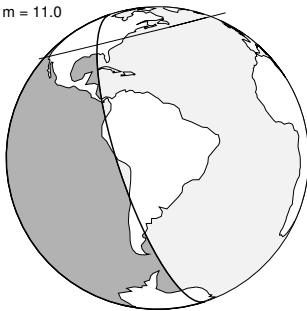
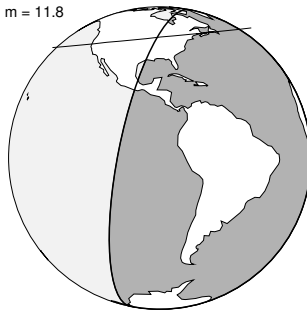
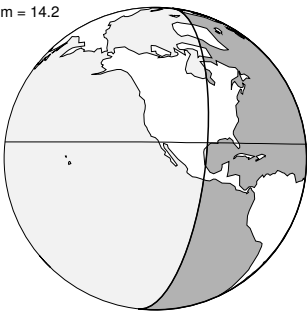
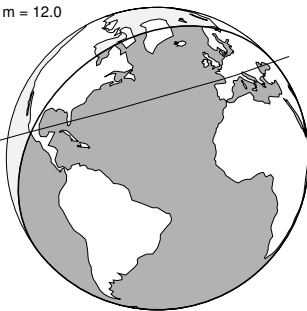
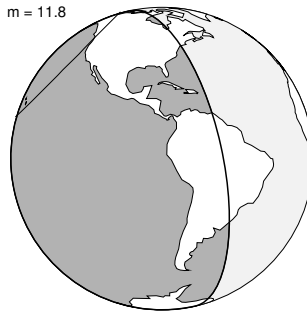
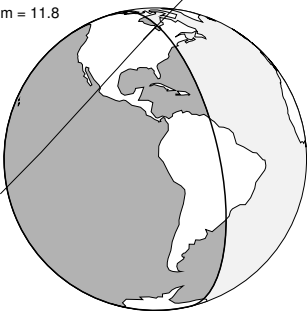
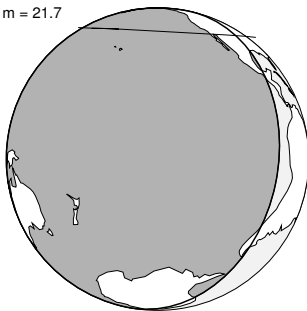
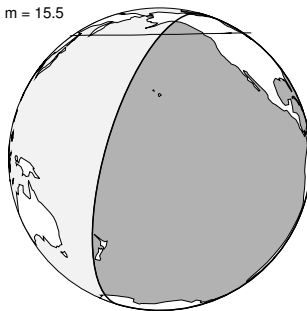
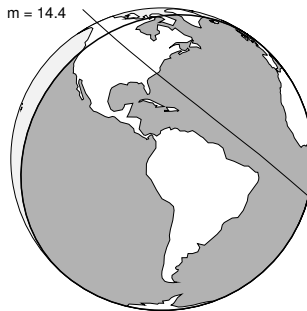
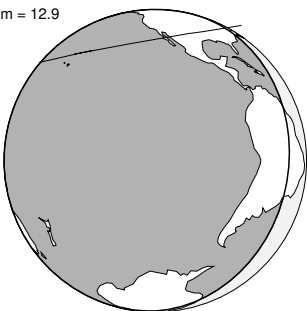
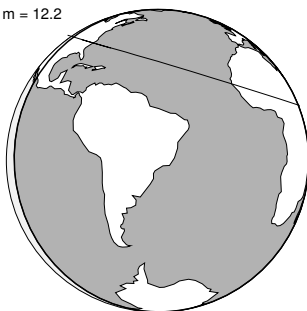
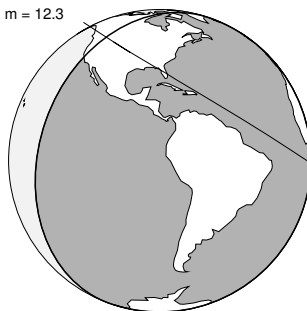
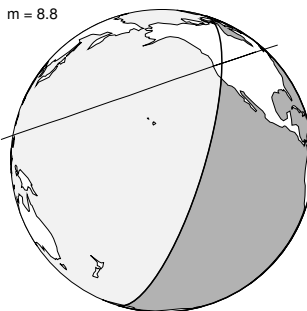
Occultations by major and minor planets – 2023

Region 1

2023 apr 11 5h31.3m A23_04038 145 Adeona UCAC4 480–053839 Diam = 155.0 m = 12.0 m = 11.6  Dur = 13.9s Dmag = 0.6 Sun: 162° Moon: 61°	2023 apr 11 7h 4.3m A23_04104 747 Winchester TYC 0346–00728–1 Diam = 178.0 m = 9.6 m = 13.7  Dur = 11.1s Dmag = 4.1 Sun: 148° Moon: 49°	2023 apr 12 3h14.9m A23_04054 225 Henrietta UCAC4 459–032537 Diam = 124.0 m = 12.4 m = 15.8  Dur = 7.8s Dmag = 3.4 Sun: 89° Moon: 151°	2023 apr 12 3h42.4m A23_04071 349 Dembowska UCAC4 599–017679 Diam = 143.0 m = 11.1 m = 11.5  Dur = 4.4s Dmag = 0.9 Sun: 58° Moon: 164°
2023 apr 12 4h37.2m A23_04036 141 Lumen UCAC4 494–053253 Diam = 135.0 m = 11.8 m = 13.4  Dur = 110.1s Dmag = 1.9 Sun: 121° Moon: 132°	2023 apr 15 4h10.7m A23_04007 7 Iris TYC 6165–01305–1 Diam = 329.6 m = 11.1 m = 9.8  Dur = 25.6s Dmag = 0.3 Sun: 160° Moon: 94°	2023 apr 15 6h59.1m A23_04132 2006HZ122 TYC 5667–01319–1 Diam = 125.9 m = 9.8 m = 23.6  Dur = 9.9s Dmag = 13.8 Sun: 120° Moon: 58°	2023 apr 16 5h24.9m B23_04011 2013GN158 UCAC4 383–070094 Diam = 94.6 m = 14.8 m = 24.3  Dur = 4.3s Dmag = 9.5 Sun: 153° Moon: 102°
2023 apr 17 6h 7.9m A23_04062 286 Iclea UCAC4 521–030829 Diam = 96.5 m = 12.1 m = 15.1  Dur = 4.0s Dmag = 3.1 Sun: 74° Moon: 112°	2023 apr 17 9h58.5m B23_04005 471155 2010GF65 UCAC4 270–109949 Diam = 158.5 m = 14.3 m = 20.8  Dur = 16.7s Dmag = 6.5 Sun: 120° Moon: 84°	2023 apr 17 10h20.2m A23_04082 415 Palatia UCAC4 406–063599 Diam = 80.1 m = 12.3 m = 14.7  Dur = 6.3s Dmag = 2.5 Sun: 148° Moon: 114°	2023 apr 18 4h27.9m A23_04005 2 Pallas UCAC4 454–035083 Diam = 530.9 m = 12.2 m = 8.5  Dur = 19.3s Dmag = 0.0 Sun: 86° Moon: 110°
2023 apr 19 1h40.1m A23_04107 772 Tanete UCAC4 655–037775 Diam = 123.0 m = 12.2 m = 14.3  Dur = 4.2s Dmag = 2.2 Sun: 60° Moon: 74°	2023 apr 20 3h34.9m P23_04003 Mars TYC 1898–00682–1 Diam = 6759.2 m = 9.8 m = 1.2  Dur = 256.9s Dmag = 0.0 Sun: 73° Moon: 74°	2023 apr 22 7h 6.5m A23_04110 856 Backlunda UCAC5 400–107614 Diam = 52.0 m = 12.4 m = 15.0  Dur = 4.9s Dmag = 2.7 Sun: 102° Moon: 128°	2023 apr 23 11h 6.9m B23_04012 2015KC173 UCAC4 360–078542 Diam = 79.4 m = 14.4 m = 24.4  Dur = 4.0s Dmag = 10.0 Sun: 147° Moon: 170°

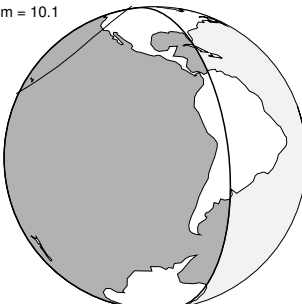
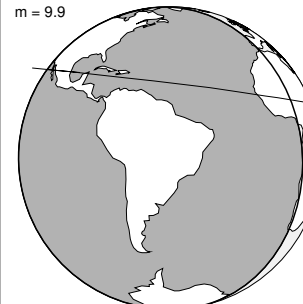
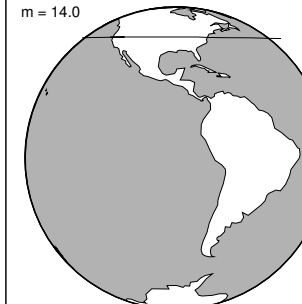
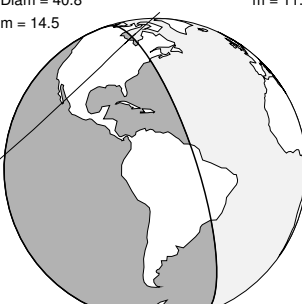
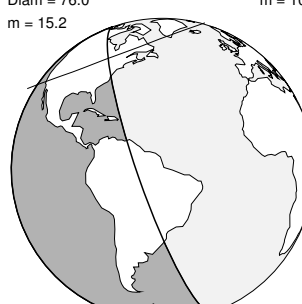
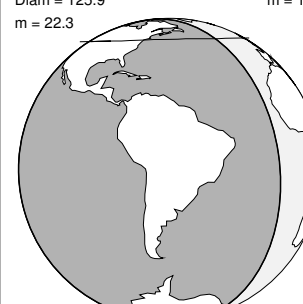
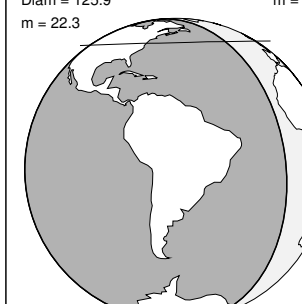
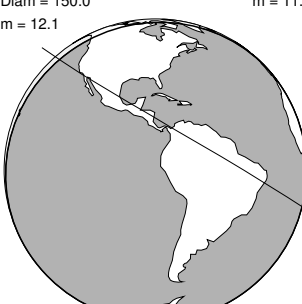
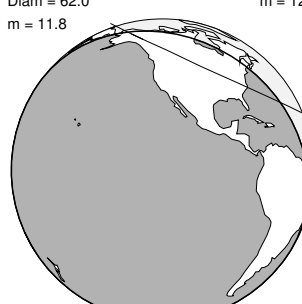
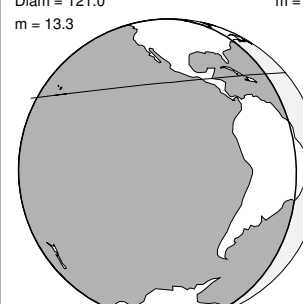
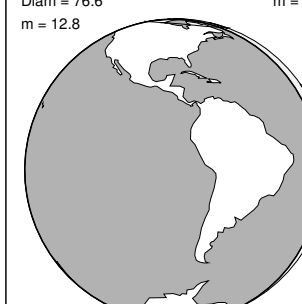
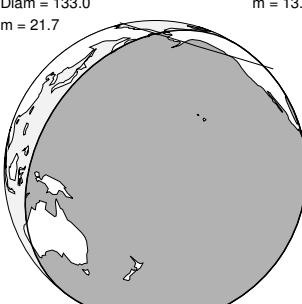
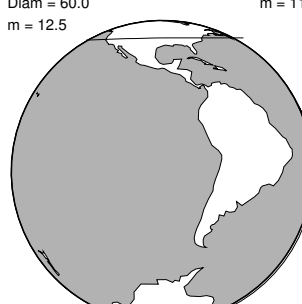
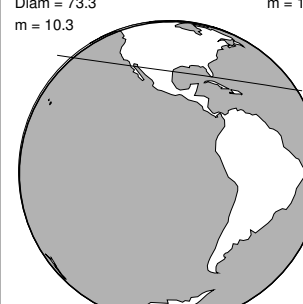
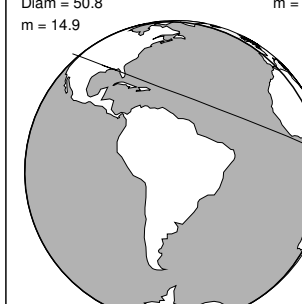
Occultations by major and minor planets – 2023

Region 1

2023 apr 24 5h14.3m A23_04017 25 Phocaea TYC 4831–02869–1 Diam = 78.0 m = 13.5  Dur = 4.0s Dmag = 2.4 Sun: 83° Moon: 42°	2023 apr 24 11h15.4m A23_04008 8 Flora TYC 6360–00856–1 Diam = 141.0 m = 11.0  Dur = 5.2s Dmag = 0.5 Sun: 74° Moon: 127°	2023 apr 27 0h45.3m A23_04098 654 Zelinda UCAC4 397–045366 Diam = 132.0 m = 11.8  Dur = 10.2s Dmag = 0.9 Sun: 106° Moon: 41°	2023 apr 27 7h43.8m A23_04049 200 Dynamene TYC 7328–00981–1 Diam = 132.0 m = 13.0  Dur = 12.1s Dmag = 2.0 Sun: 152° Moon: 123°
2023 apr 28 0h50.7m A23_04115 1021 Flammario PPMX 5078599 Diam = 103.0 m = 14.2  Dur = 3.6s Dmag = 2.0 Sun: 70° Moon: 21°	2023 apr 28 1h 3.3m A23_04084 432 Pythia TYC 1446–01948–1 Diam = 48.6 m = 12.0  Dur = 6.8s Dmag = 2.2 Sun: 141° Moon: 55°	2023 apr 28 2h56.2m A23_04056 245 Vera HIP 75423 Diam = 84.8 m = 13.2  Dur = 5.9s Dmag = 2.5 Sun: 164° Moon: 103°	2023 apr 29 9h59.3m A23_04081 393 Lampetia UCAC4 413–107041 Diam = 106.0 m = 11.8  Dur = 7.6s Dmag = 0.8 Sun: 113° Moon: 135°
2023 may 1 9h50.9m A23_05064 393 Lampetia UCAC4 416–111763 Diam = 106.0 m = 11.8  Dur = 7.8s Dmag = 1.0 Sun: 114° Moon: 113°	2023 may 3 11h50.4m B23_05016 2010JK124 UCAC4 309–111439 Diam = 354.8 m = 21.7  Dur = 18.6s Dmag = 7.1 Sun: 142° Moon: 64°	2023 may 8 5h40.8m A23_05077 623 Chimaera UCAC4 424–053059 Diam = 46.0 m = 15.5  Dur = 7.1s Dmag = 3.5 Sun: 111° Moon: 99°	2023 may 10 3h27.6m A23_05094 1030 Vitja UCAC5 450–052095 Diam = 65.5 m = 14.4  Dur = 7.4s Dmag = 2.1 Sun: 152° Moon: 85°
2023 may 10 9h43.7m A23_05046 207 Hedda UCAC4 317–101551 Diam = 60.0 m = 12.9  Dur = 9.4s Dmag = 1.1 Sun: 151° Moon: 33°	2023 may 11 1h45.9m A23_05060 337 Devosa TYC 6135–00153–1 Diam = 63.2 m = 12.2  Dur = 6.0s Dmag = 0.8 Sun: 161° Moon: 85°	2023 may 11 3h 3.6m A23_05054 270 Anahita UCAC4 412–054029 Diam = 52.2 m = 12.3  Dur = 7.8s Dmag = 0.7 Sun: 143° Moon: 107°	2023 may 11 3h 4.2m A23_05003 2 Pallas HIP 39848 Diam = 530.9 m = 8.8  Dur = 16.8s Dmag = 1.8 Sun: 73° Moon: 160°

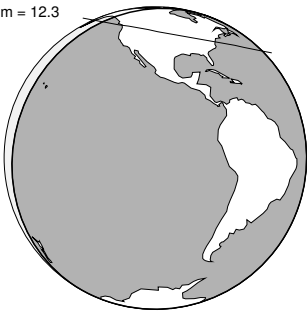
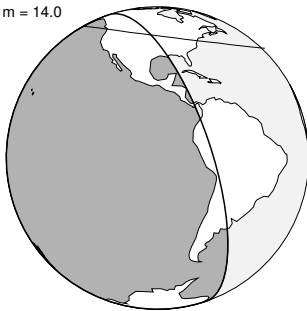
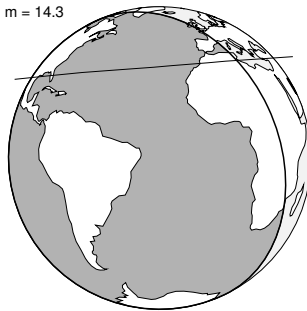
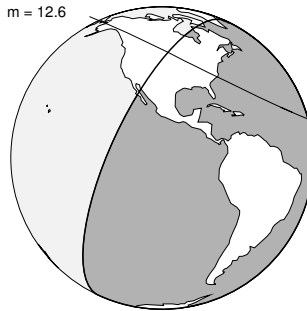
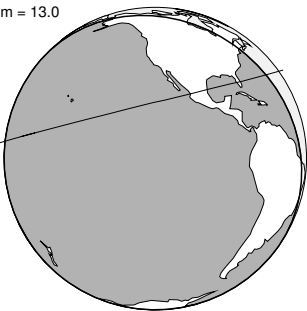
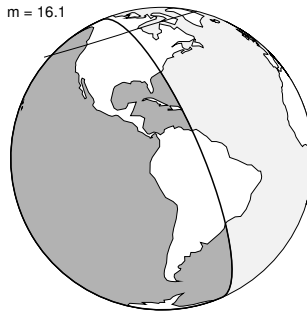
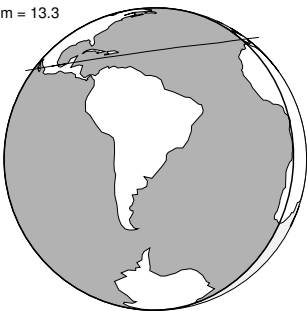
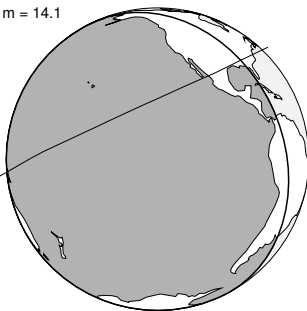
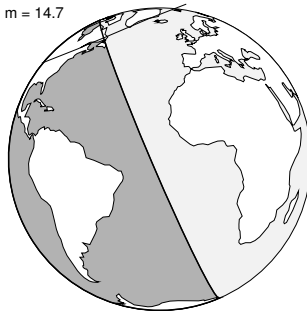
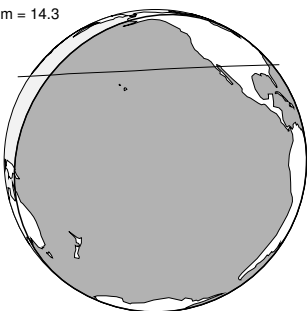
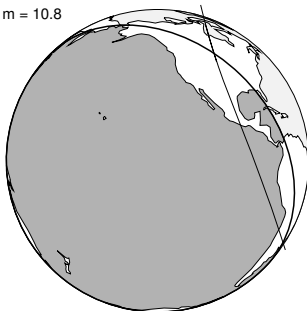
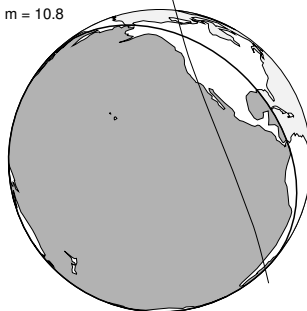
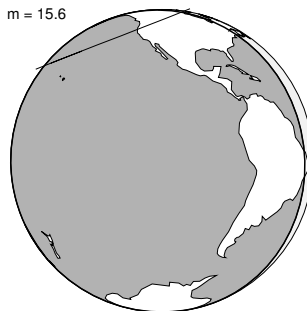
Occultations by major and minor planets – 2023

Region 1

2023 may 12 10h44.1m A23_05008 15 Eunomia UCAC4 317–225674 Diam = 272.0 m = 12.4 m = 10.1  Dur = 89.4s Dmag = 0.1 Sun: 119° Moon: 27°	2023 may 13 2h27.2m A23_05079 654 Zelinda TYC 5465–00901–1 Diam = 132.0 m = 10.9 m = 12.1  Dur = 7.5s Dmag = 1.5 Sun: 97° Moon: 152°	2023 may 13 5h25.2m A23_05005 11 Parthenope TYC 6233–00804–1 Diam = 162.0 m = 11.2 m = 9.9  Dur = 26.1s Dmag = 0.3 Sun: 151° Moon: 71°	2023 may 13 5h40.4m A23_05102 1119 Euboea UCAC4 376–070369 Diam = 44.8 m = 11.4 m = 14.0  Dur = 4.5s Dmag = 2.6 Sun: 174° Moon: 104°
2023 may 14 9h27.0m A23_05090 894 Erda PPMX 9791573 Diam = 40.8 m = 11.8 m = 14.5  Dur = 3.7s Dmag = 2.8 Sun: 105° Moon: 44°	2023 may 15 9h59.1m A23_05076 601 Nerthus TYC 5224–01131–1 Diam = 76.0 m = 10.6 m = 15.2  Dur = 3.4s Dmag = 4.5 Sun: 80° Moon: 30°	2023 may 17 7h 3.4m B23_05017 2014JV80 UCAC4 356–155919 Diam = 125.9 m = 12.6 m = 22.3  Dur = 8.6s Dmag = 9.7 Sun: 136° Moon: 108°	2023 may 17 7h 3.6m A23_05126 2014JV80 UCAC5 356–147407 Diam = 125.9 m = 12.5 m = 22.3  Dur = 8.6s Dmag = 9.8 Sun: 136° Moon: 108°
2023 may 18 4h53.7m A23_05033 137 Meliboea UCAC4 414–059524 Diam = 150.0 m = 11.7 m = 12.1  Dur = 12.3s Dmag = 1.0 Sun: 165° Moon: 168°	2023 may 24 9h 2.3m A23_05051 218 Bianca TYC 0403–00979–1 Diam = 62.0 m = 12.2 m = 11.8  Dur = 7.0s Dmag = 0.6 Sun: 151° Moon: 130°	2023 may 24 9h22.8m A23_05037 171 Ophelia TYC 6278–00041–1 Diam = 121.0 m = 9.8 m = 13.3  Dur = 13.7s Dmag = 3.6 Sun: 146° Moon: 158°	2023 may 26 6h58.2m A23_05045 206 Hersilia TYC 6238–00084–1 Diam = 76.6 m = 10.6 m = 12.8  Dur = 7.1s Dmag = 2.3 Sun: 162° Moon: 121°
2023 may 26 9h27.1m B23_05009 471149 2010FB49 UCAC4 448–056814 Diam = 133.0 m = 13.8 m = 21.7  Dur = 7.1s Dmag = 8.0 Sun: 141° Moon: 66°	2023 may 27 6h49.4m A23_05047 207 Hedda UCAC4 316–093005 Diam = 60.0 m = 11.6 m = 12.5  Dur = 6.7s Dmag = 1.3 Sun: 170° Moon: 103°	2023 may 28 6h 7.2m A23_05019 44 Nysa TYC 5622–01115–1 Diam = 73.3 m = 11.8 m = 10.3  Dur = 6.4s Dmag = 0.2 Sun: 170° Moon: 76°	2023 may 30 4h56.5m A23_05112 2393 Suzuki Gaia 076–0146512 Diam = 50.8 m = 11.1 m = 14.9  Dur = 4.5s Dmag = 3.8 Sun: 162° Moon: 76°

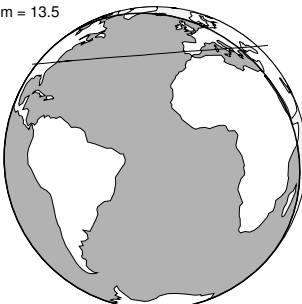
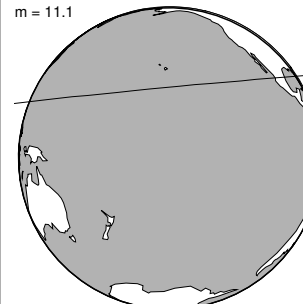
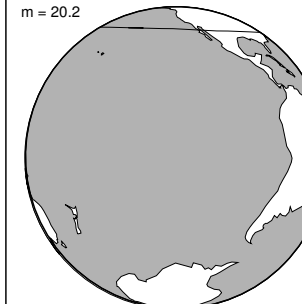
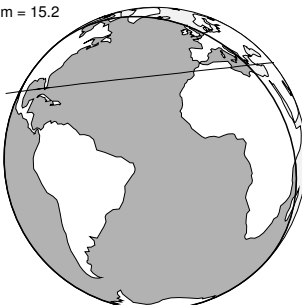
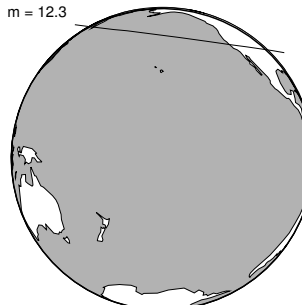
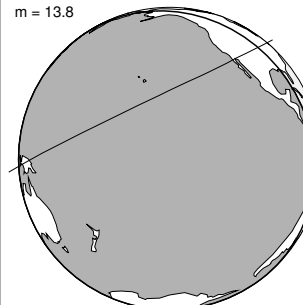
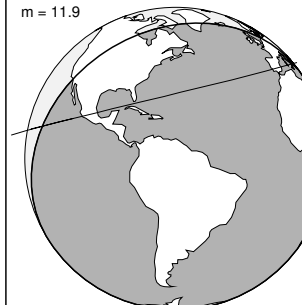
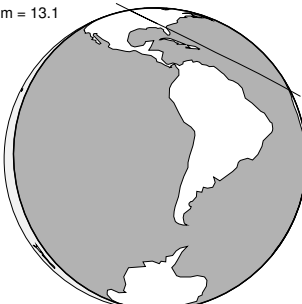
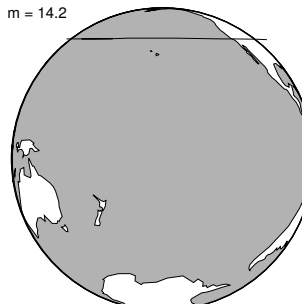
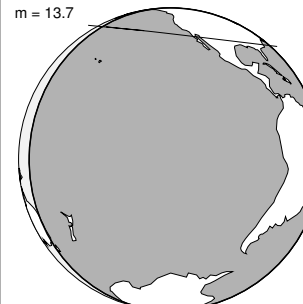
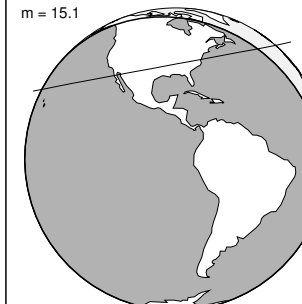
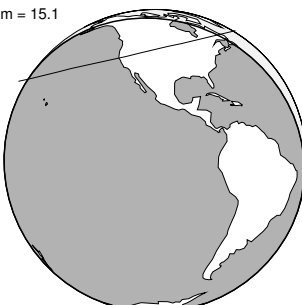
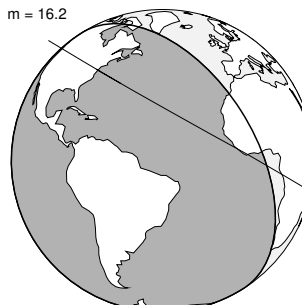
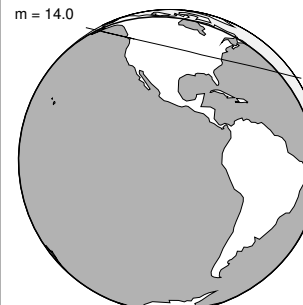
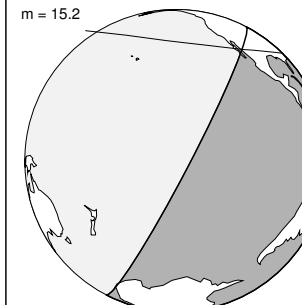
Occultations by major and minor planets – 2023

Region 1

2023 may 30 5h39.4m A23_05053 268 Adorea UCAC4 381-069012 Diam = 142.0 m = 12.1  Dur = 15.9s Dmag = 0.8 Sun: 159° Moon: 41°	2023 may 30 11h 5.7m A23_05070 402 Chloë UCAC4 387-142778 Diam = 57.6 m = 14.0  Dur = 10.5s Dmag = 2.0 Sun: 110° Moon: 127°	2023 jun 4 4h16.1m A23_06118 1069 Plankia UCAC5 406-109574 Diam = 43.2 m = 12.4  Dur = 5.3s Dmag = 2.1 Sun: 142° Moon: 39°	2023 jun 5 2h22.0m A23_06033 114 Kassandra UCAC4 463-049847 Diam = 103.0 m = 12.5  Dur = 11.7s Dmag = 0.8 Sun: 109° Moon: 83°
2023 jun 5 9h 0.7m A23_06093 729 Watsonia UCAC4 432-072743 Diam = 53.3 m = 12.2  Dur = 5.1s Dmag = 1.2 Sun: 155° Moon: 24°	2023 jun 5 9h13.6m A23_06058 255 Oppavia UCAC4 265-122609 Diam = 58.0 m = 12.3  Dur = 5.2s Dmag = 2.1 Sun: 162° Moon: 11°	2023 jun 6 3h47.1m A23_06057 250 Bettina UCAC4 284-084164 Diam = 85.5 m = 12.4  Dur = 6.0s Dmag = 0.9 Sun: 163° Moon: 38°	2023 jun 7 10h 0.3m A23_06128 1337 Gerarda TYC 5211-00516-1 Diam = 41.0 m = 10.7  Dur = 4.4s Dmag = 5.4 Sun: 104° Moon: 34°
2023 jun 8 5h16.7m A23_06049 203 Pompeja TYC 6867-00322-1 Diam = 120.0 m = 11.8  Dur = 12.5s Dmag = 1.7 Sun: 155° Moon: 32°	2023 jun 9 10h44.5m A23_06101 856 Backlunda UCAC4 398-115739 Diam = 52.0 m = 11.6  Dur = 7.4s Dmag = 2.6 Sun: 146° Moon: 43°	2023 jun 11 7h37.3m A23_06099 834 Burnhamia TYC 5251-00487-1 Diam = 69.2 m = 11.9  Dur = 3.8s Dmag = 2.9 Sun: 86° Moon: 6°	2023 jun 12 7h21.9m A23_06123 1154 Astronomia TYC 6875-00892-1 Diam = 64.3 m = 10.6  Dur = 7.3s Dmag = 4.8 Sun: 152° Moon: 81°
2023 jun 12 8h 0.3m A23_06114 1015 Christa UCAC4 406-063582 Diam = 101.0 m = 14.3  Dur = 8.3s Dmag = 2.4 Sun: 153° Moon: 133°	2023 jun 12 10h44.5m A23_06068 393 Lampetia UCAC4 468-094091 Diam = 106.0 m = 10.4  Dur = 15.1s Dmag = 1.0 Sun: 142° Moon: 84°	2023 jun 12 10h59.1m A23_06067 393 Lampetia UCAC4 468-094088 Diam = 106.0 m = 10.3  Dur = 15.1s Dmag = 1.0 Sun: 142° Moon: 84°	2023 jun 13 8h50.9m A23_06136 2127 Tanya UCAC4 355-164295 Diam = 42.5 m = 12.4  Dur = 3.7s Dmag = 3.3 Sun: 160° Moon: 103°

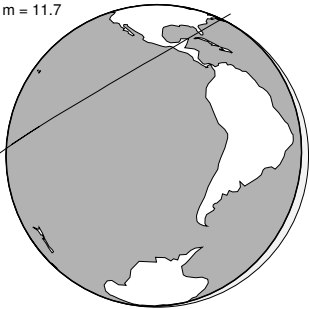
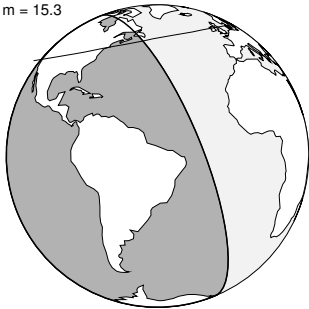
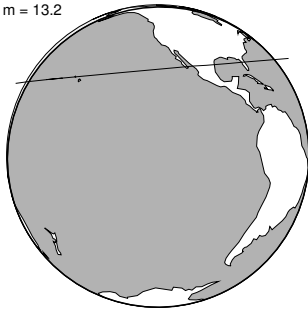
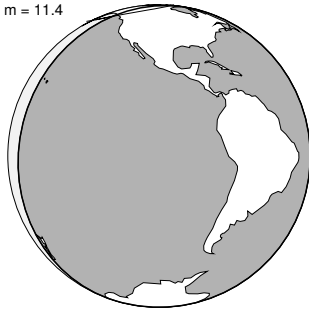
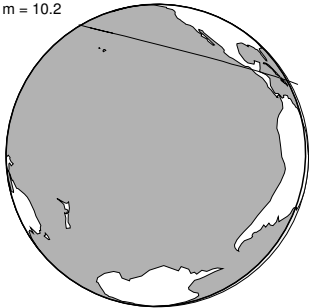
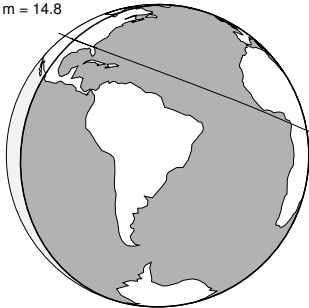
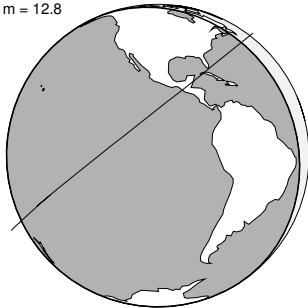
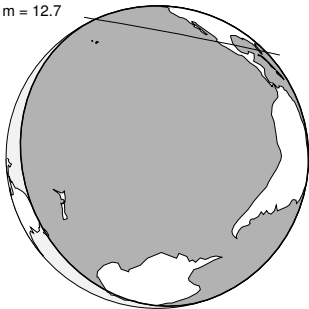
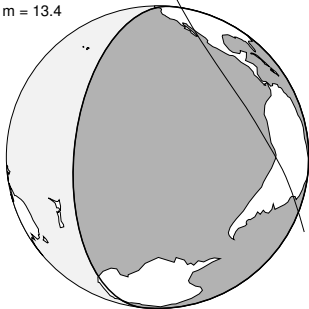
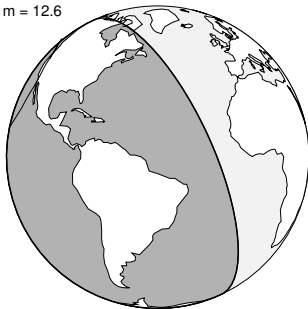
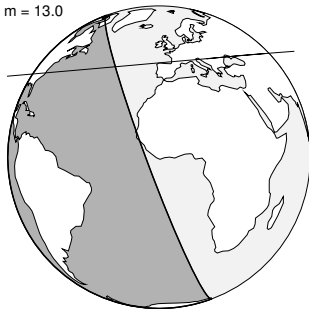
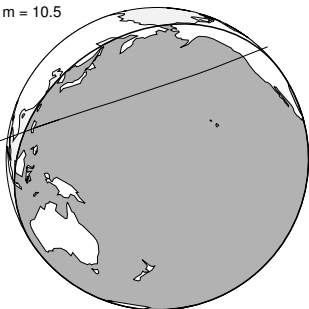
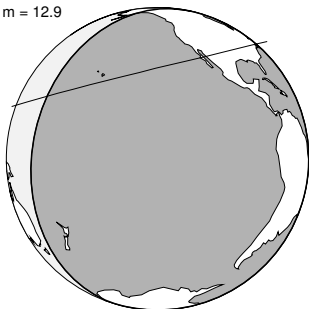
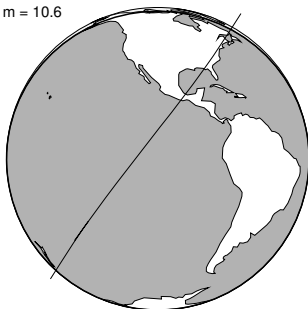
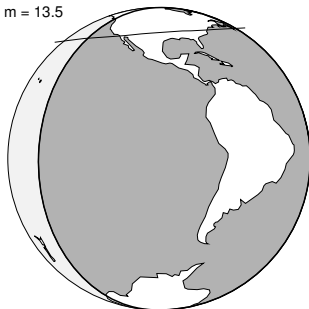
Occultations by major and minor planets – 2023

Region 1

2023 jun 14 2h47.8m 676 Melitta Diam = 82.6 m = 13.5  Dur = 8.5s Sun: 155° Dmag = 2.4 Moon: 112°	2023 jun 17 6h34.6m 729 Watsonia Diam = 53.3 m = 12.9  Dur = 4.5s Sun: 161° Dmag = 1.2 Moon: 155°	2023 jun 17 10h35.6m 52 Europa Diam = 278.0 m = 11.1  Dur = 19.7s Sun: 171° Dmag = 0.3 Moon: 163°	2023 jun 19 7h53.7m 469442 2002GG166 Diam = 94.2 m = 20.2  Dur = 4.6s Sun: 171° Dmag = 5.2 Moon: 162°
2023 jun 20 3h22.0m 1330 Spiridonia Diam = 58.0 m = 15.2  Dur = 5.2s Sun: 150° Dmag = 2.9 Moon: 157°	2023 jun 21 10h35.1m 153 Hilda Diam = 175.0 m = 12.3  Dur = 14.2s Sun: 171° Dmag = 1.7 Moon: 144°	2023 jun 21 10h55.3m 856 Backlunda Diam = 52.0 m = 13.8  Dur = 5.3s Sun: 159° Dmag = 1.7 Moon: 156°	2023 jun 22 3h 0.3m 218 Bianca Diam = 62.0 m = 11.9  Dur = 7.8s Sun: 147° Dmag = 0.6 Moon: 111°
2023 jun 23 4h18.4m 500 Selinur Diam = 45.1 m = 13.1  Dur = 4.1s Sun: 159° Dmag = 1.9 Moon: 106°	2023 jun 24 9h49.8m 1128 Astrid Diam = 40.2 m = 14.2  Dur = 3.8s Sun: 174° Dmag = 2.3 Moon: 105°	2023 jun 26 6h52.9m 104 Klymene Diam = 127.0 m = 13.7  Dur = 9.7s Sun: 158° Dmag = 1.9 Moon: 69°	2023 jun 26 6h56.7m 1330 Spiridonia Diam = 58.0 m = 15.1  Dur = 4.7s Sun: 155° Dmag = 3.0 Moon: 106°
2023 jun 30 7h49.8m 1330 Spiridonia Diam = 58.0 m = 15.1  Dur = 4.5s Sun: 158° Dmag = 3.9 Moon: 58°	2023 jul 1 5h54.9m 2241 Alcahous Diam = 123.0 m = 16.2  Dur = 12.4s Sun: 127° Dmag = 5.0 Moon: 82°	2023 jul 5 7h49.4m 983 Gunila Diam = 77.3 m = 14.0  Dur = 6.5s Sun: 157° Dmag = 2.4 Moon: 22°	2023 jul 6 2h16.4m 1241 Dysona Diam = 86.2 m = 15.2  Dur = 4.6s Sun: 84° Dmag = 4.4 Moon: 126°

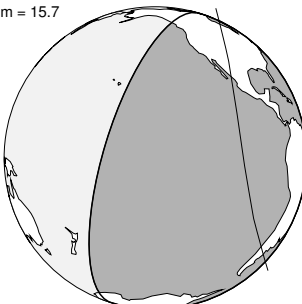
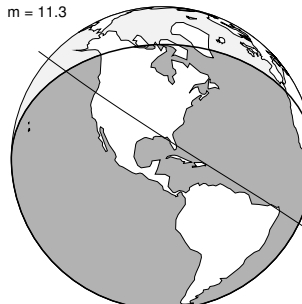
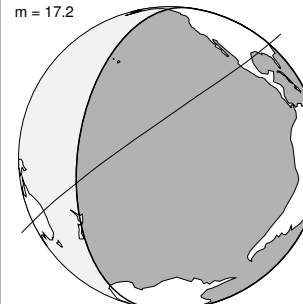
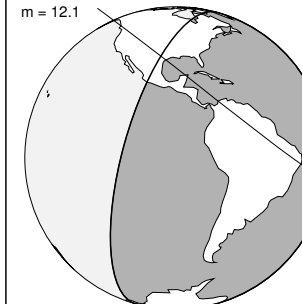
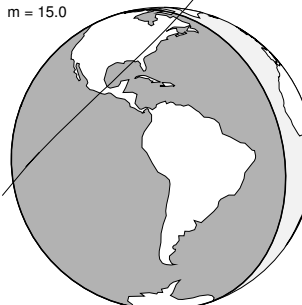
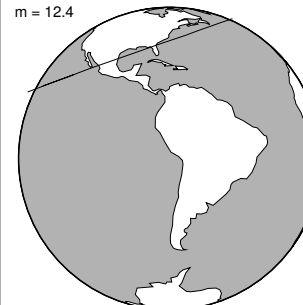
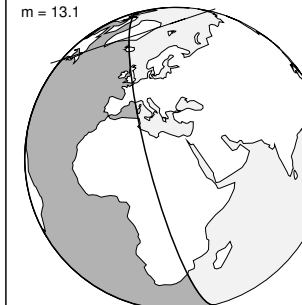
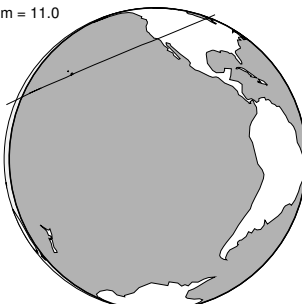
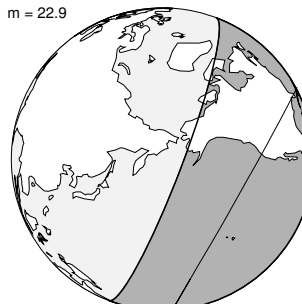
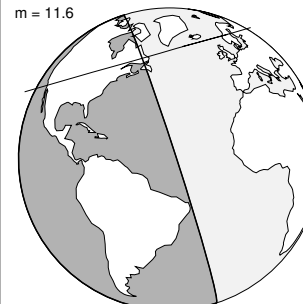
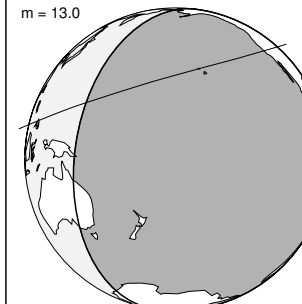
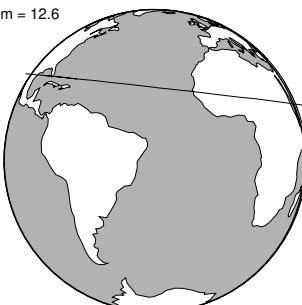
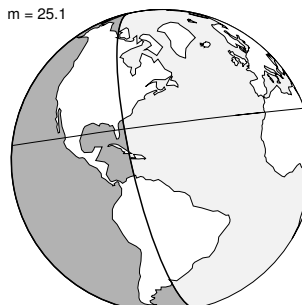
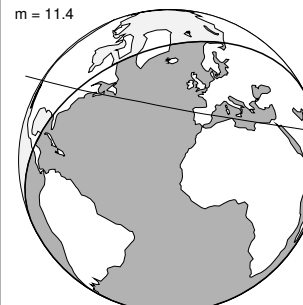
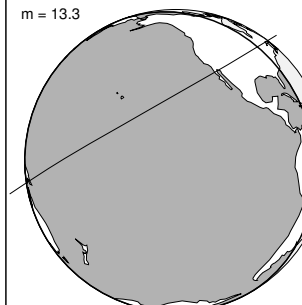
Occultations by major and minor planets – 2023

Region 1

2023 jul 6 8h 0.0m A23_07026 87 Sylvia TYC 7442–01392–1 Diam = 271.0 m = 11.7  Dur = 23.1s Dmag = 0.7 Sun: 161° Moon: 25°	2023 jul 6 8h 1.7m A23_07112 1010 Marlene TYC 5259–00244–1 Diam = 45.2 m = 9.7 m = 15.3  Dur = 4.7s Dmag = 5.6 Sun: 107° Moon: 33°	2023 jul 7 7h46.6m A23_07073 417 Suevia UCAC5 387–096560 Diam = 43.3 m = 12.4 m = 13.2  Dur = 3.8s Dmag = 1.2 Sun: 168° Moon: 61°	2023 jul 10 5h26.9m A23_07021 52 Europa UCAC4 365–104647 Diam = 278.0 m = 11.2 m = 11.4  Dur = 22.5s Dmag = 0.9 Sun: 157° Moon: 113°
2023 jul 12 9h49.9m A23_07022 54 Alexandra TYC 6914–01860–1 Diam = 171.0 m = 9.4 m = 10.2  Dur = 20.8s Dmag = 1.2 Sun: 167° Moon: 108°	2023 jul 13 1h47.5m A23_07121 1436 Salonta TYC 6252–02442–1 Diam = 63.6 m = 10.6 m = 14.8  Dur = 6.3s Dmag = 4.1 Sun: 154° Moon: 151°	2023 jul 14 8h22.2m A23_07086 739 Mandeville UCAC4 395–126090 Diam = 110.0 m = 12.1 m = 12.8  Dur = 8.6s Dmag = 1.2 Sun: 156° Moon: 118°	2023 jul 17 4h19.5m A23_07117 1154 Astronomia TYC 6864–00325–1 Diam = 64.3 m = 11.1 m = 15.0  Dur = 5.6s Dmag = 3.9 Sun: 168° Moon: 175°
2023 jul 17 6h59.1m A23_07031 94 Aurora TYC 7386–01352–1 Diam = 212.0 m = 11.3 m = 12.7  Dur = 18.5s Dmag = 1.7 Sun: 152° Moon: 159°	2023 jul 18 4h19.9m A23_07057 250 Bettina UCAC4 291–083221 Diam = 85.5 m = 12.1 m = 13.4  Dur = 27.9s Dmag = 1.6 Sun: 123° Moon: 120°	2023 jul 19 7h32.2m A23_07083 602 Marianna UCAC4 476–000324 Diam = 130.0 m = 12.5 m = 12.6  Dur = 11.5s Dmag = 0.8 Sun: 111° Moon: 128°	2023 jul 20 6h51.0m A23_07060 287 Nephthys TYC 0043–00234–1 Diam = 70.1 m = 9.2 m = 13.0  Dur = 3.5s Dmag = 3.8 Sun: 85° Moon: 113°
2023 jul 23 10h46.2m A23_07069 393 Lampetia TYC 0460–00315–1 Diam = 106.0 m = 10.7 m = 10.5  Dur = 28.8s Dmag = 0.7 Sun: 145° Moon: 99°	2023 jul 24 6h36.4m A23_07013 34 Circe UCAC4 374–101115 Diam = 118.0 m = 11.8 m = 12.9  Dur = 15.6s Dmag = 1.5 Sun: 145° Moon: 75°	2023 jul 25 7h10.3m A23_07054 234 Barbara UCAC4 416–141013 Diam = 44.6 m = 11.9 m = 10.6  Dur = 5.5s Dmag = 0.3 Sun: 167° Moon: 99°	2023 jul 26 4h 4.0m A23_07040 171 Ophelia UCAC4 335–112875 Diam = 121.0 m = 12.3 m = 13.5  Dur = 16.4s Dmag = 1.5 Sun: 142° Moon: 50°

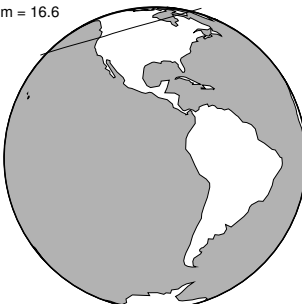
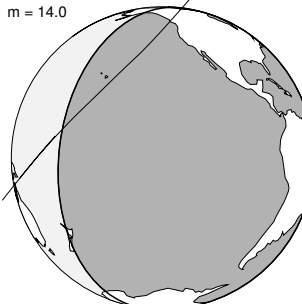
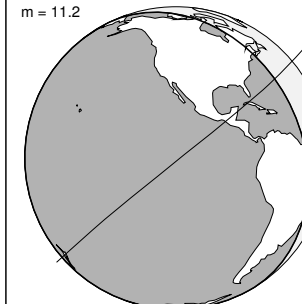
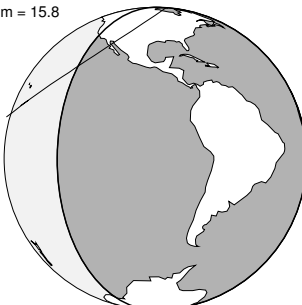
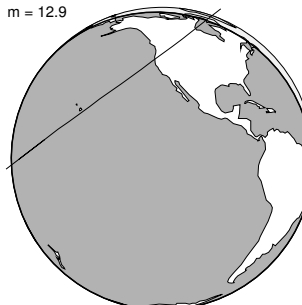
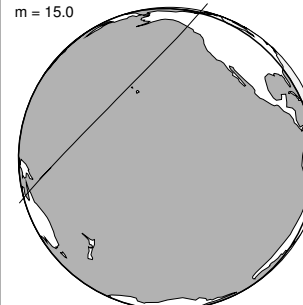
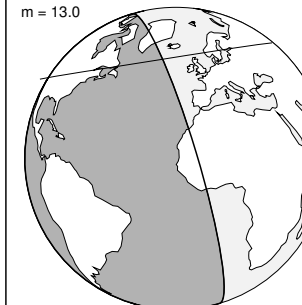
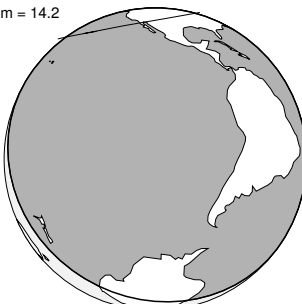
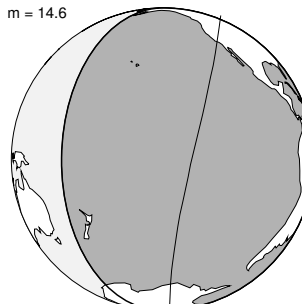
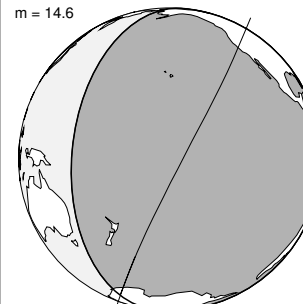
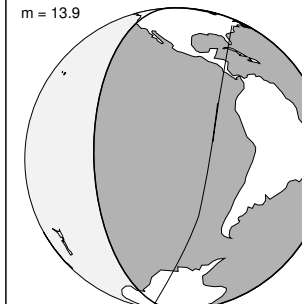
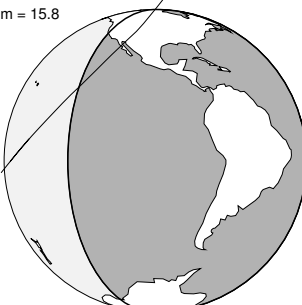
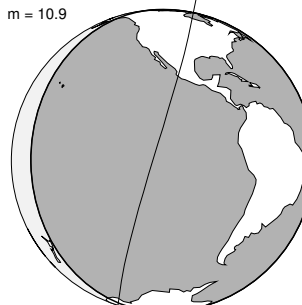
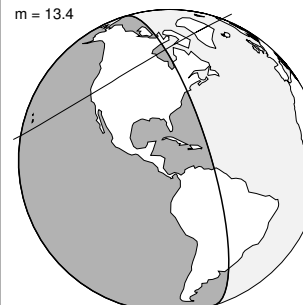
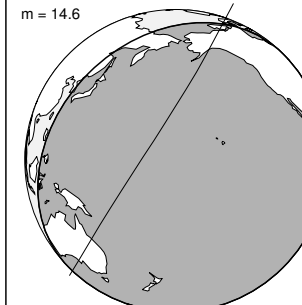
Occultations by major and minor planets – 2023

Region 1

2023 jul 27 4h41.1m A23_07107 931 Whitemora UCAC4 400–060821 Diam = 52.6 m = 12.4 m = 15.7  Dur = 8.3s Dmag = 3.4 Sun: 110° Moon: 12°	2023 jul 27 5h48.2m A23_07106 914 Palisana PPMX 6615011 Diam = 79.0 m = 11.8 m = 11.3  Dur = 8.2s Dmag = 0.5 Sun: 138° Moon: 88°	2023 jul 29 5h20.0m A23_07136 2655 Guangxi UCAC4 343–085833 Diam = 40.7 m = 11.1 m = 17.2  Dur = 6.4s Dmag = 6.1 Sun: 127° Moon: 5°	2023 jul 30 1h26.3m A23_07019 45 Eugenia UCAC4 391–065392 Diam = 214.0 m = 11.4 m = 12.1  Dur = 24.4s Dmag = 1.1 Sun: 110° Moon: 33°
2023 jul 30 2h14.1m A23_07007 20 Massalia UCAC4 341–088248 Diam = 151.0 m = 12.2 m = 10.9  Dur = 51.3s Dmag = 0.3 Sun: 130° Moon: 13°	2023 jul 31 7h29.9m A23_07093 820 Adriana TYC 5824–00586–1 Diam = 61.0 m = 10.1 m = 15.0  Dur = 8.9s Dmag = 5.0 Sun: 142° Moon: 58°	2023 aug 2 5h22.4m A23_08048 240 Vanadis TYC 6349–00617–1 Diam = 108.0 m = 11.0 m = 12.4  Dur = 9.3s Dmag = 1.7 Sun: 176° Moon: 5°	2023 aug 3 4h32.8m A23_08049 241 Germania TYC 1783–01134–1 Diam = 169.0 m = 11.7 m = 13.1  Dur = 7.6s Dmag = 1.7 Sun: 79° Moon: 81°
2023 aug 4 7h 2.4m A23_08026 103 Hera UCAC4 357–189393 Diam = 95.2 m = 12.1 m = 11.0  Dur = 10.3s Dmag = 0.3 Sun: 165° Moon: 51°	2023 aug 4 7h22.8m B23_08004 528219 2008KV42 UCAC4 744–050282 Diam = 72.4 m = 13.8 m = 22.9  Dur = 3.1s Dmag = 9.0 Sun: 82° Moon: 108°	2023 aug 5 8h31.2m A23_08011 21 Lutetia UCAC4 508–004106 Diam = 99.5 m = 11.7 m = 11.6  Dur = 6.0s Dmag = 0.7 Sun: 92° Moon: 37°	2023 aug 7 7h55.0m A23_08032 153 Hilda UCAC4 373–102755 Diam = 175.0 m = 12.4 m = 13.0  Dur = 56.0s Dmag = 1.1 Sun: 132° Moon: 123°
2023 aug 9 2h47.1m A23_08089 773 Irmintraud TYC 5800–00767–1 Diam = 99.1 m = 11.9 m = 12.6  Dur = 8.1s Dmag = 1.2 Sun: 171° Moon: 90°	2023 aug 9 10h42.4m A23_08128 2015VK169 TYC 1252–00889–1 Diam = 95.5 m = 10.7 m = 25.1  Dur = 9.5s Dmag = 14.3 Sun: 78° Moon: 5°	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 11 10h33.6m A23_08034 163 Erigone TYC 5241–01414–1 Diam = 76.0 m = 12.3 m = 13.3  Dur = 8.4s Dmag = 1.4 Sun: 154° Moon: 100°

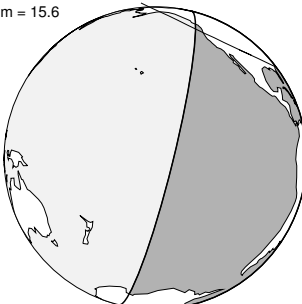
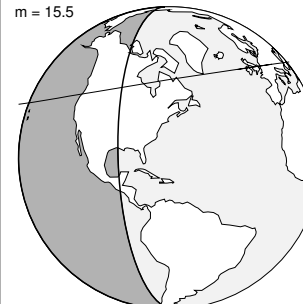
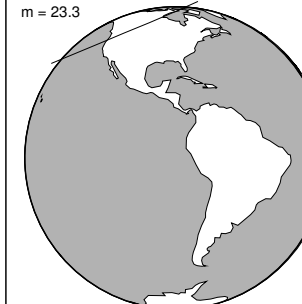
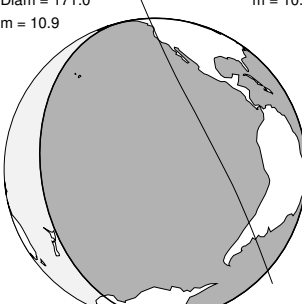
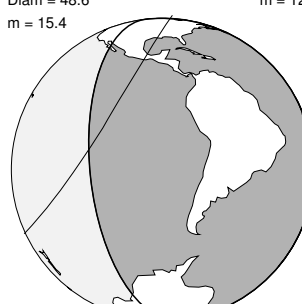
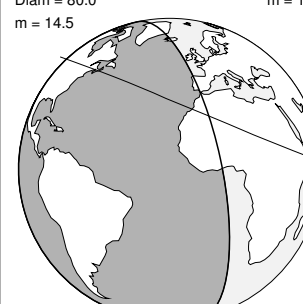
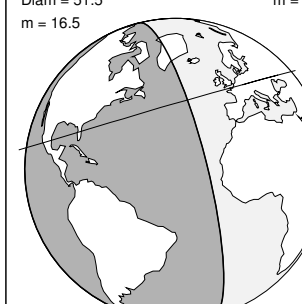
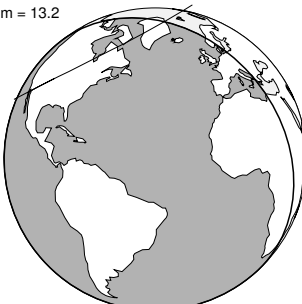
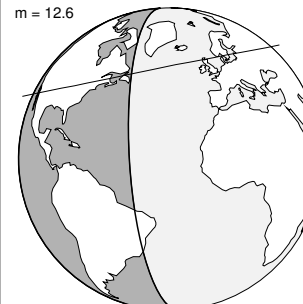
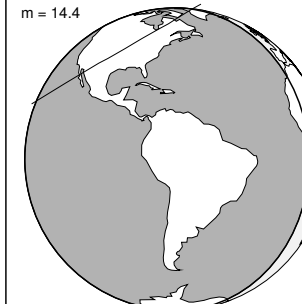
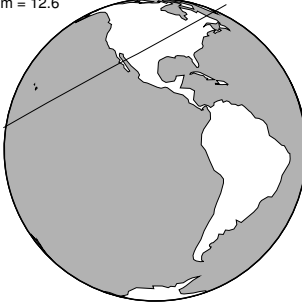
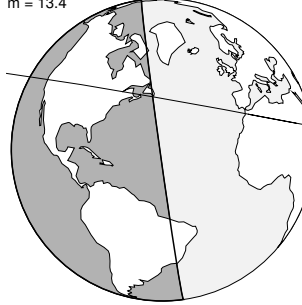
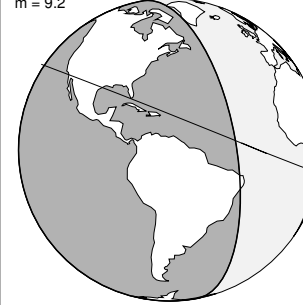
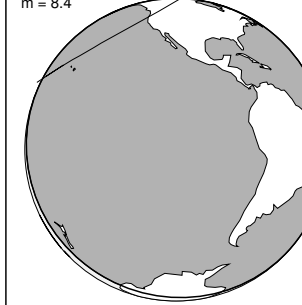
Occultations by major and minor planets – 2023

Region 1

2023 aug 12 6h11.9m A23_08121 2483 Guinevere TYC 5777–00654–1 Diam = 53.3 m = 10.5 m = 16.6  Dur = 3.4s Dmag = 6.1 Sun: 174° Moon: 133°	2023 aug 13 5h40.5m A23_08066 417 Suevia TYC 5689–01625–1 Diam = 43.3 m = 10.8 m = 14.0  Dur = 11.2s Dmag = 3.2 Sun: 133° Moon: 162°	2023 aug 14 3h12.6m B23_08007 2010JJ124 UCAC4 400–101804 Diam = 190.5 m = 13.8 m = 21.0  Dur = 10.9s Dmag = 7.2 Sun: 141° Moon: 159°	2023 aug 15 9h37.7m A23_08016 51 Nemausa TYC 0585–00301–1 Diam = 152.3 m = 11.3 m = 11.2  Dur = 19.8s Dmag = 0.7 Sun: 146° Moon: 135°
2023 aug 16 2h55.8m A23_08101 943 Begonia UCAC4 345–133852 Diam = 72.0 m = 12.3 m = 15.8  Dur = 10.8s Dmag = 3.5 Sun: 130° Moon: 133°	2023 aug 16 8h42.2m A23_08074 482 Petrina TYC 0559–01642–1 Diam = 51.6 m = 11.5 m = 12.9  Dur = 4.4s Dmag = 1.7 Sun: 162° Moon: 160°	2023 aug 16 10h40.6m A23_08120 2326 Tololo TYC 5240–00115–1 Diam = 45.6 m = 10.8 m = 15.0  Dur = 4.0s Dmag = 4.2 Sun: 162° Moon: 162°	2023 aug 17 6h22.2m A23_08028 119 Althaea UCAC5 535–004879 Diam = 60.7 m = 12.5 m = 13.0  Dur = 4.4s Dmag = 1.0 Sun: 97° Moon: 107°
2023 aug 17 6h29.4m A23_08110 1237 Genevieve UCAC5 282–198934 Diam = 42.0 m = 12.4 m = 14.2  Dur = 4.7s Dmag = 1.9 Sun: 156° Moon: 151°	2023 aug 18 6h25.9m A23_08091 856 Backlunda TYC 6274–01434–1 Diam = 52.0 m = 11.2 m = 14.6  Dur = 8.8s Dmag = 3.5 Sun: 131° Moon: 111°	2023 aug 19 7h 4.0m A23_08108 1069 Planckia UCAC4 381–108791 Diam = 43.2 m = 12.4 m = 14.6  Dur = 6.1s Dmag = 2.3 Sun: 130° Moon: 99°	2023 aug 20 3h 2.8m A23_08043 203 Pompeja TYC 6849–01368–1 Diam = 120.0 m = 12.3 m = 13.9  Dur = 65.1s Dmag = 1.8 Sun: 122° Moon: 82°
2023 aug 21 2h56.8m A23_08100 943 Begonia UCAC5 344–122864 Diam = 72.0 m = 12.4 m = 15.8  Dur = 14.2s Dmag = 3.4 Sun: 125° Moon: 74°	2023 aug 21 5h26.9m A23_08047 234 Barbara TYC 5750–00865–1 Diam = 44.6 m = 10.7 m = 10.9  Dur = 5.7s Dmag = 0.9 Sun: 150° Moon: 98°	2023 aug 21 10h 9.9m A23_08029 127 Johanna TYC 0645–01001–1 Diam = 91.2 m = 9.9 m = 13.4  Dur = 10.4s Dmag = 3.5 Sun: 105° Moon: 161°	2023 aug 22 10h 4.5m A23_08079 612 Veronika UCAC4 518–130100 Diam = 40.5 m = 11.1 m = 14.6  Dur = 4.4s Dmag = 3.6 Sun: 144° Moon: 97°

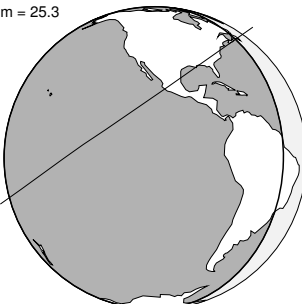
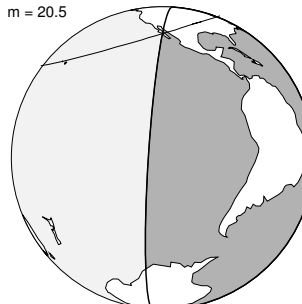
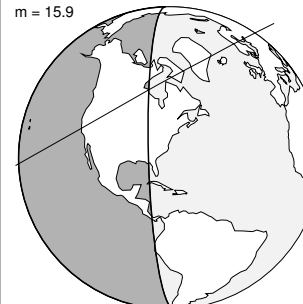
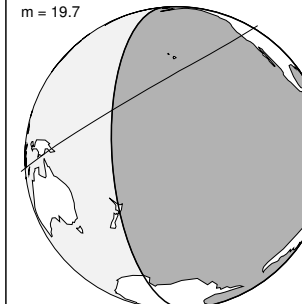
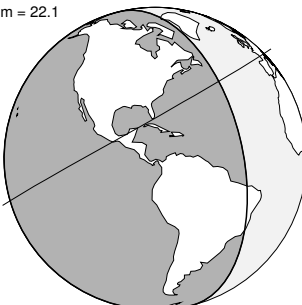
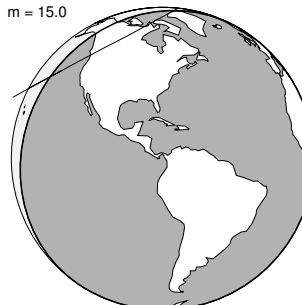
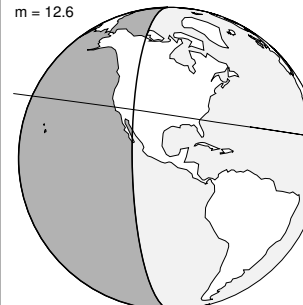
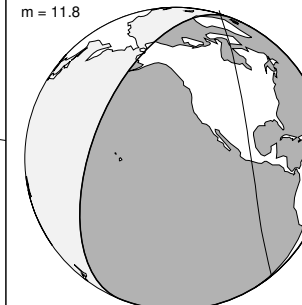
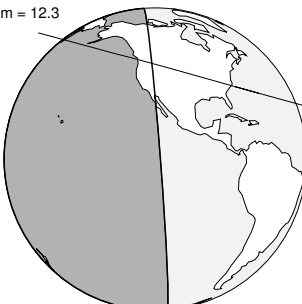
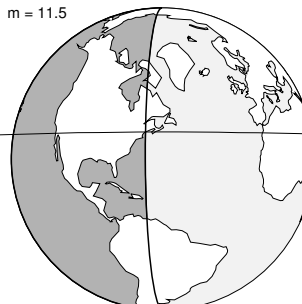
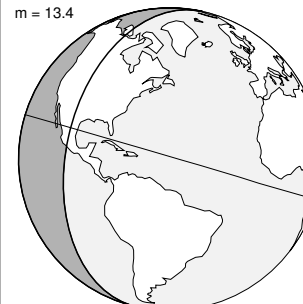
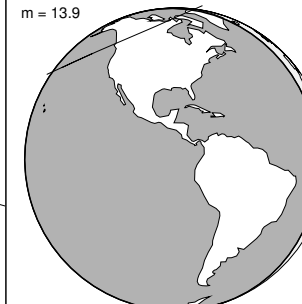
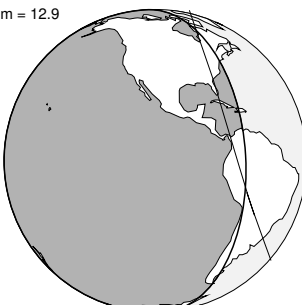
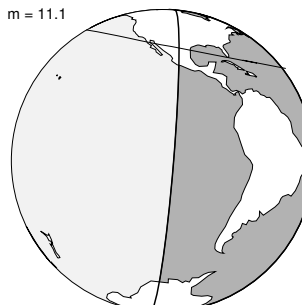
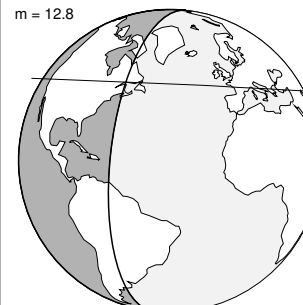
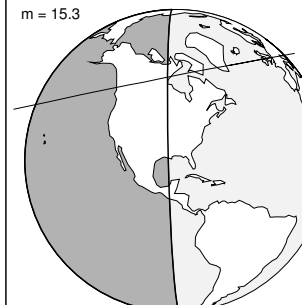
Occultations by major and minor planets – 2023

Region 1

2023 aug 23 3h21.9m A23_08068 424 Gratia UCAC4 377-070442 Diam = 90.5 m = 12.1 m = 15.6  Dur = 4.7s Dmag = 3.6 Sun: 83° Moon: 10°	2023 aug 24 3h33.2m A23_08062 395 Delia TYC 5768-00076-1 Diam = 54.0 m = 9.9 m = 14.1  Dur = 6.3s Dmag = 4.2 Sun: 158° Moon: 73°	2023 aug 25 11h50.1m A23_08045 231 Vindobona TYC 1855-00232-1 Diam = 85.1 m = 9.2 m = 15.5  Dur = 3.5s Dmag = 6.3 Sun: 70° Moon: 173°	2023 aug 26 6h17.3m B23_08006 2003QJ91 UCAC4 402-130070 Diam = 181.1 m = 14.1 m = 23.3  Dur = 7.3s Dmag = 9.2 Sun: 171° Moon: 75°
2023 aug 27 5h31.1m A23_08022 54 Alexandra TYC 6889-01241-1 Diam = 171.0 m = 10.8 m = 10.9  Dur = 34.9s Dmag = 0.8 Sun: 138° Moon: 13°	2023 aug 29 1h52.0m A23_08115 1859 Kovalevskaya UCAC5 295-174493 Diam = 48.6 m = 12.4 m = 15.4  Dur = 9.1s Dmag = 3.1 Sun: 118° Moon: 33°	2023 aug 29 5h57.3m A23_08077 559 Nanon UCAC4 478-004511 Diam = 80.0 m = 11.7 m = 14.5  Dur = 12.0s Dmag = 2.9 Sun: 110° Moon: 94°	2023 aug 30 7h17.1m A23_08123 3148 Grechko UCAC4 547-006699 Diam = 51.5 m = 11.3 m = 16.5  Dur = 4.1s Dmag = 5.2 Sun: 101° Moon: 89°
2023 sep 1 4h13.7m A23_09093 429 Lotis TYC 0601-00010-1 Diam = 70.3 m = 11.6 m = 13.2  Dur = 12.8s Dmag = 1.8 Sun: 147° Moon: 20°	2023 sep 2 3h32.8m A23_09101 482 Petrina UCAC4 442-126630 Diam = 51.6 m = 12.5 m = 12.8  Dur = 4.1s Dmag = 0.9 Sun: 168° Moon: 37°	2023 sep 2 8h52.8m A23_09122 776 Berbericia TYC 1302-00855-1 Diam = 121.3 m = 9.7 m = 12.6  Dur = 4.9s Dmag = 3.0 Sun: 74° Moon: 73°	2023 sep 3 6h24.7m A23_09141 1356 Nyanza Gaia 083-0001842 Diam = 67.2 m = 12.1 m = 14.4  Dur = 7.4s Dmag = 2.4 Sun: 151° Moon: 21°
2023 sep 3 6h26.9m A23_09050 163 Erigone TYC 5812-00514-1 Diam = 76.0 m = 12.0 m = 12.6  Dur = 6.4s Dmag = 1.1 Sun: 177° Moon: 46°	2023 sep 3 9h 1.8m A23_09099 480 Hansa Gaia 116-0022945 Diam = 58.0 m = 10.6 m = 13.4  Dur = 3.4s Dmag = 2.8 Sun: 88° Moon: 45°	2023 sep 5 8h29.1m A23_09017 18 Melpomene TYC 0061-01117-1 Diam = 135.0 m = 8.5 m = 9.2  Dur = 13.9s Dmag = 1.2 Sun: 115° Moon: 16°	2023 sep 6 6h45.0m A23_09007 8 Flora TYC 6388-01355-1 Diam = 141.0 m = 11.0 m = 8.4  Dur = 19.1s Dmag = 0.1 Sun: 165° Moon: 95°

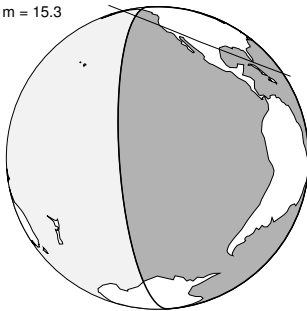
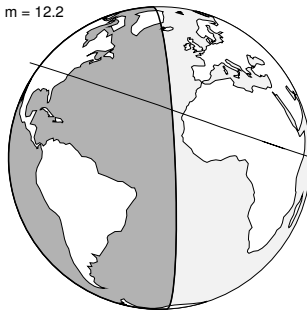
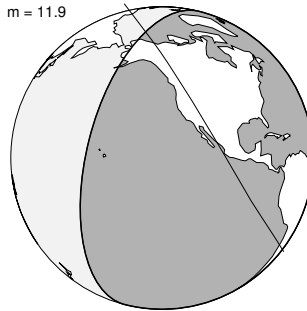
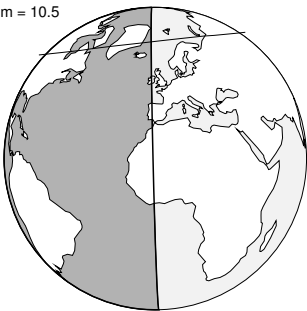
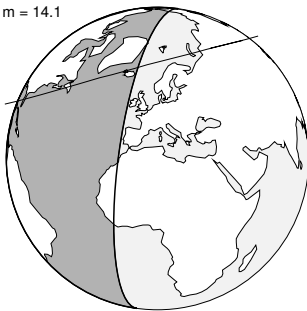
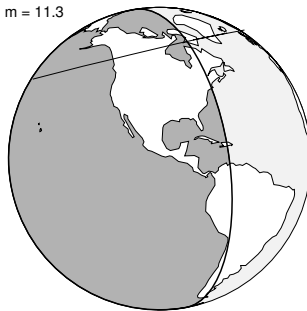
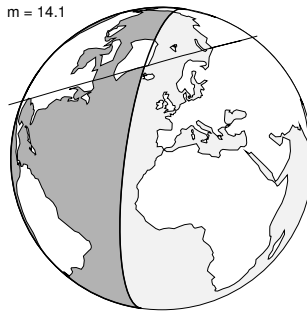
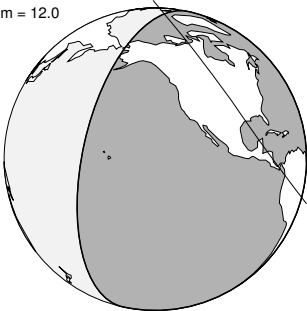
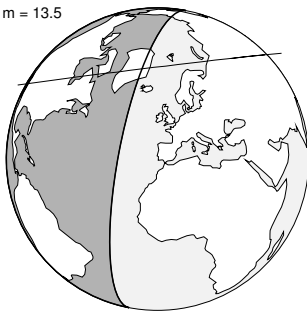
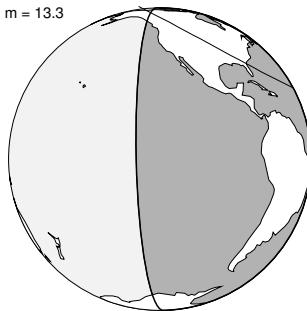
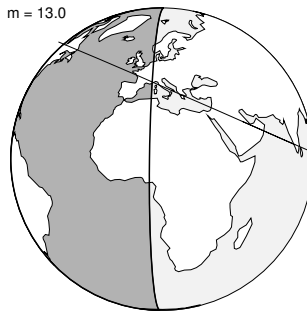
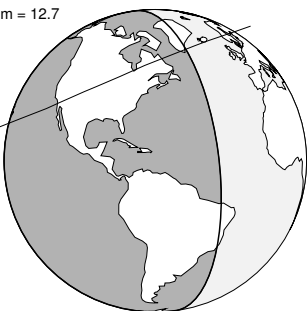
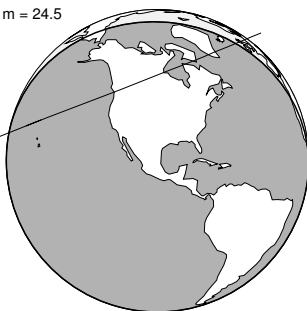
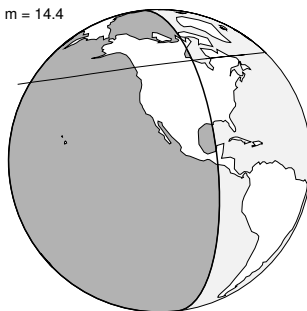
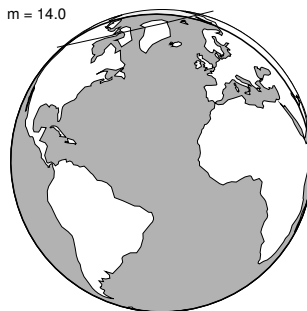
Occultations by major and minor planets – 2023

Region 1

2023 sep 7 9h20.5m B23_09013 2013UJ15 UCAC4 410-001397 Diam = 166.0 m = 14.1 m = 25.3  Dur = 7.0s Dmag = 11.1 Sun: 147° Moon: 68°	2023 sep 8 1h40.0m B23_09007 469442 2002GG166 UCAC4 305-125907 Diam = 94.2 m = 14.0 m = 20.5  Dur = 13.9s Dmag = 6.5 Sun: 95° Moon: 172°	2023 sep 8 11h22.7m A23_09116 680 Genoveva UCAC4 612-021323 Diam = 86.7 m = 11.4 m = 15.9  Dur = 5.0s Dmag = 4.6 Sun: 81° Moon: 10°	2023 sep 9 5h56.1m B23_09002 95626 2002GZ32 UCAC4 340-170266 Diam = 173.8 m = 14.0 m = 19.7  Dur = 33.0s Dmag = 5.8 Sun: 114° Moon: 174°
2023 sep 9 8h48.0m B23_09004 139775 2001QG298 UCAC4 499-003866 Diam = 175.4 m = 13.4 m = 22.1  Dur = 14.5s Dmag = 8.7 Sun: 125° Moon: 64°	2023 sep 10 3h53.5m A23_09113 643 Scheherezade UCAC5 487-127417 Diam = 76.1 m = 12.5 m = 15.0  Dur = 5.7s Dmag = 2.6 Sun: 156° Moon: 134°	2023 sep 10 13h 9.8m A23_09025 48 Doris TYC 1317-00172-1 Diam = 219.0 m = 8.7 m = 12.6  Dur = 9.1s Dmag = 3.9 Sun: 75° Moon: 28°	2023 sep 11 5h24.1m A23_09130 914 Palisana UCAC4 557-098148 Diam = 79.0 m = 12.5 m = 11.8  Dur = 15.2s Dmag = 0.5 Sun: 123° Moon: 134°
2023 sep 12 13h24.7m A23_09052 173 Ino UCAC4 485-010244 Diam = 159.0 m = 12.1 m = 12.3  Dur = 8.9s Dmag = 0.8 Sun: 91° Moon: 67°	2023 sep 13 10h19.2m A23_09118 704 Interamnia TYC 2413-01480-1 Diam = 333.0 m = 9.1 m = 11.5  Dur = 17.5s Dmag = 2.5 Sun: 83° Moon: 65°	2023 sep 14 12h35.8m A23_09056 211 Isolda HIP 41326 Diam = 148.0 m = 8.1 m = 13.4  Dur = 3.9s Dmag = 5.3 Sun: 46° Moon: 41°	2023 sep 15 7h 6.1m A23_09058 222 Lucia UCAC5 460-001002 Diam = 58.0 m = 12.5 m = 13.9  Dur = 4.9s Dmag = 1.6 Sun: 159° Moon: 162°
2023 sep 15 10h39.0m A23_09073 304 Olga UCAC4 447-003977 Diam = 68.5 m = 12.3 m = 12.9  Dur = 8.1s Dmag = 1.1 Sun: 126° Moon: 131°	2023 sep 16 0h49.9m A23_09013 11 Parthenope UCAC4 345-092252 Diam = 162.0 m = 11.9 m = 11.1  Dur = 7.8s Dmag = 0.4 Sun: 85° Moon: 75°	2023 sep 16 10h 5.8m A23_09036 92 Undina PPMX 6081544 Diam = 132.0 m = 11.5 m = 12.8  Dur = 5.1s Dmag = 1.6 Sun: 66° Moon: 82°	2023 sep 16 11h55.7m A23_09060 231 Vindobona PPMX 4988015 Diam = 85.1 m = 12.1 m = 15.3  Dur = 5.5s Dmag = 3.2 Sun: 87° Moon: 103°

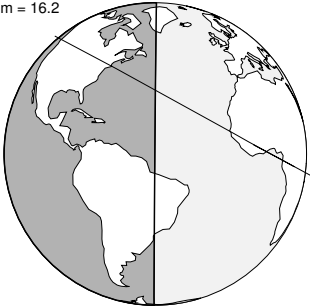
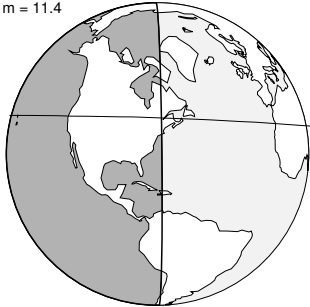
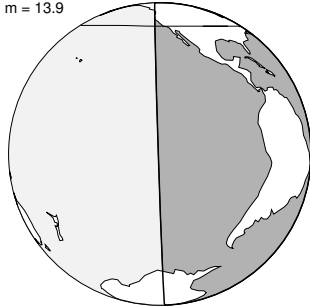
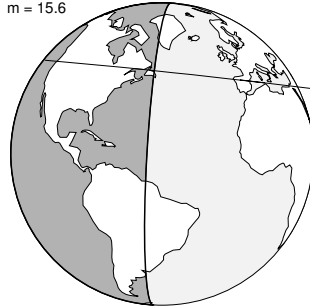
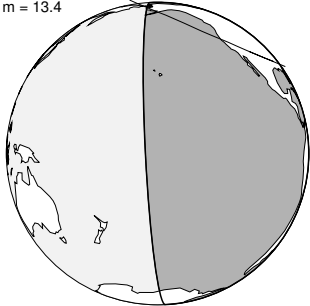
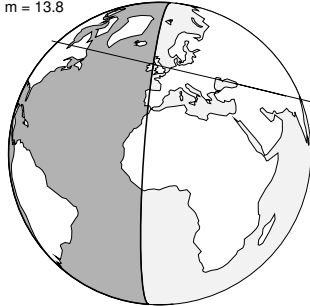
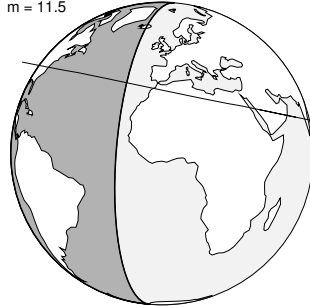
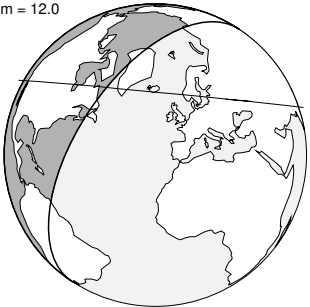
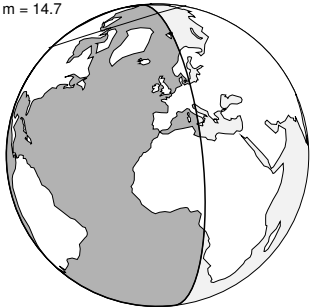
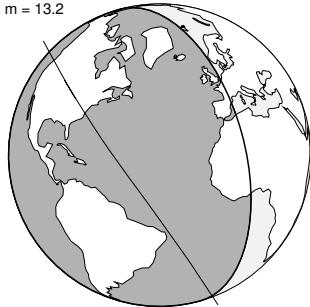
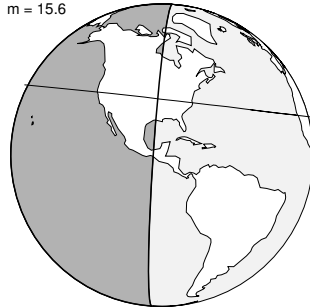
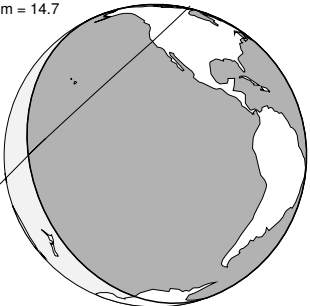
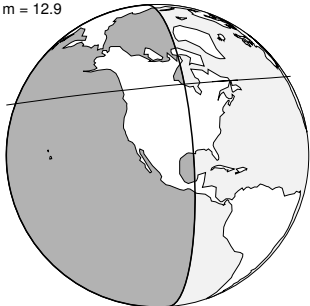
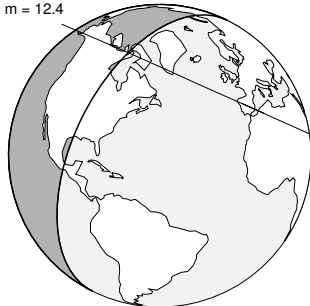
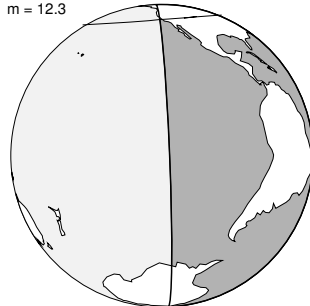
Occultations by major and minor planets – 2023

Region 1

2023 sep 17 0h40.6m A23_09031 79 Euryome TYC 6283–01352–1 Diam = 68.0 m = 10.8 m = 12.2  Dur = 11.7s Dmag = 1.7 Sun: 111° Moon: 90°	2023 sep 18 3h13.2m A23_09127 856 Backlunda UCAC4 340–164364 Diam = 52.0 m = 12.4 m = 15.3  Dur = 4.5s Dmag = 2.9 Sun: 104° Moon: 71°	2023 sep 18 7h13.8m A23_09053 173 Ino TYC 0112–02195–1 Diam = 159.0 m = 10.8 m = 12.2  Dur = 10.0s Dmag = 1.7 Sun: 95° Moon: 130°	2023 sep 19 4h51.2m A23_09131 914 Palisana UCAC5 552–097975 Diam = 79.0 m = 12.5 m = 11.9  Dur = 11.4s Dmag = 0.5 Sun: 119° Moon: 87°
2023 sep 19 6h17.3m A23_09009 9 Metis PPMX 5995745 Diam = 231.2 m = 12.0 m = 10.5  Dur = 12.0s Dmag = 0.2 Sun: 89° Moon: 136°	2023 sep 19 6h30.6m A23_09109 599 Luisa UCAC4 613–038473 Diam = 69.6 m = 12.3 m = 14.1  Dur = 3.0s Dmag = 2.0 Sun: 75° Moon: 122°	2023 sep 19 10h34.8m A23_09046 144 Vibilia UCAC4 526–007067 Diam = 178.0 m = 11.9 m = 11.3  Dur = 30.2s Dmag = 0.5 Sun: 117° Moon: 165°	2023 sep 20 7h24.6m A23_09110 599 Luisa PPMX 4042956 Diam = 69.6 m = 12.1 m = 14.1  Dur = 3.1s Dmag = 2.2 Sun: 75° Moon: 135°
2023 sep 21 5h 4.0m A23_09132 914 Palisana TYC 1624–01113–1 Diam = 79.0 m = 11.8 m = 12.0  Dur = 10.7s Dmag = 0.8 Sun: 118° Moon: 69°	2023 sep 21 7h43.9m A23_09125 804 Hispania UCAC4 638–039315 Diam = 140.6 m = 11.5 m = 13.5  Dur = 6.1s Dmag = 2.2 Sun: 75° Moon: 145°	2023 sep 22 2h42.9m A23_09066 246 Asporina UCAC4 395–083373 Diam = 63.8 m = 12.0 m = 13.3  Dur = 3.8s Dmag = 1.6 Sun: 98° Moon: 24°	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 22 8h37.1m A23_09100 481 Erita UCAC4 526–007932 Diam = 116.0 m = 12.1 m = 12.7  Dur = 18.0s Dmag = 1.1 Sun: 114° Moon: 158°	2023 sep 23 6h41.3m B23_09012 2007RW326 UCAC4 567–000350 Diam = 72.4 m = 14.4 m = 24.5  Dur = 3.1s Dmag = 10.0 Sun: 156° Moon: 98°	2023 sep 23 11h55.7m A23_09121 752 Sulamitis TYC 1265–00861–1 Diam = 65.7 m = 10.2 m = 14.4  Dur = 9.8s Dmag = 4.2 Sun: 112° Moon: 147°	2023 sep 24 2h31.7m A23_09136 1086 Nata TYC 0609–00733–1 Diam = 70.5 m = 10.4 m = 14.0  Dur = 5.6s Dmag = 3.6 Sun: 163° Moon: 88°

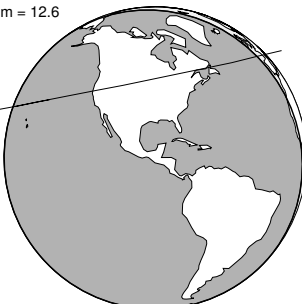
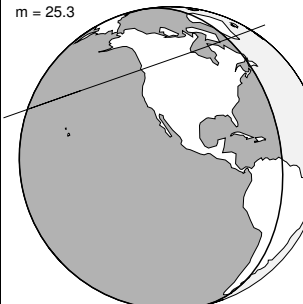
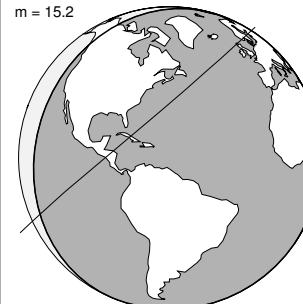
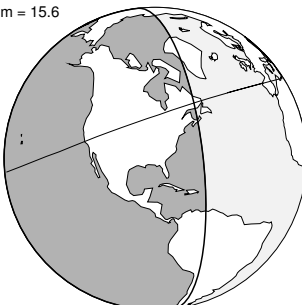
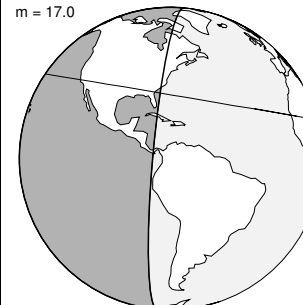
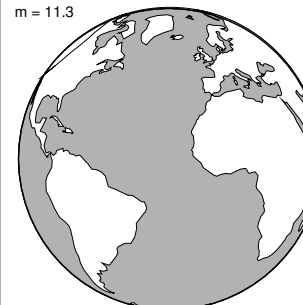
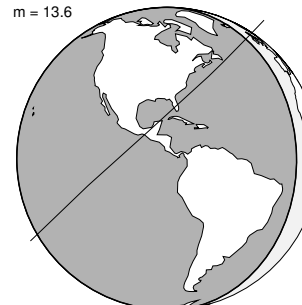
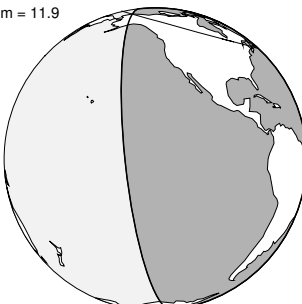
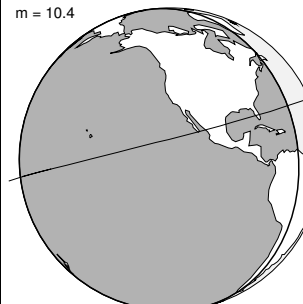
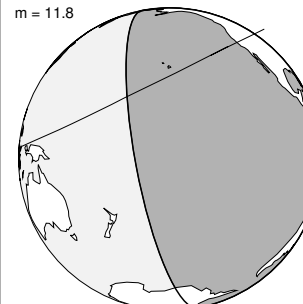
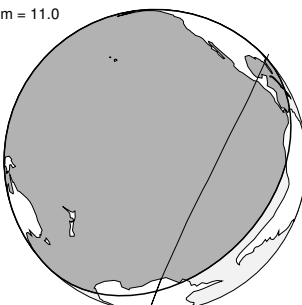
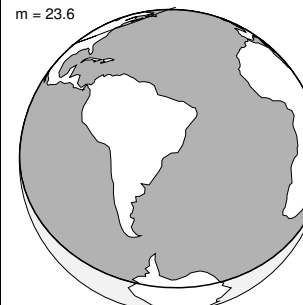
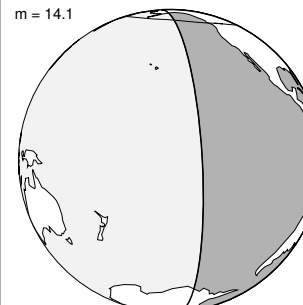
Occultations by major and minor planets – 2023

Region 1

2023 sep 24 9h 4.3m A23_09150 4060 Deipyllos UCAC4 485–016464 Diam = 69.2 m = 12.0 m = 16.2  Dur = 4.3s Dmag = 4.2 Sun: 89° Moon: 150°	2023 sep 24 10h41.2m A23_09119 704 Interamnia PPMX 4008001 Diam = 333.0 m = 12.1 m = 11.4  Dur = 22.9s Dmag = 0.5 Sun: 91° Moon: 157°	2023 sep 27 2h 3.3m A23_09095 431 Nephela UCAC4 334–144639 Diam = 97.7 m = 11.2 m = 13.9  Dur = 5.6s Dmag = 2.8 Sun: 90° Moon: 57°	2023 sep 27 9h34.1m A23_09104 527 Euryanthe TYC 1329–00384–1 Diam = 55.2 m = 11.1 m = 15.6  Dur = 3.2s Dmag = 4.6 Sun: 84° Moon: 123°
2023 sep 27 9h39.1m A23_09088 407 Arachne UCAC4 601–024484 Diam = 97.0 m = 12.4 m = 13.7  Dur = 7.3s Dmag = 1.6 Sun: 96° Moon: 112°	2023 sep 28 4h37.8m A23_09067 246 Asporina UCAC4 391–094961 Diam = 63.8 m = 10.6 m = 13.4  Dur = 3.5s Dmag = 2.9 Sun: 94° Moon: 69°	2023 sep 28 6h25.9m A23_09028 72 Feronia TYC 1338–00951–1 Diam = 89.3 m = 9.6 m = 13.8  Dur = 4.7s Dmag = 4.2 Sun: 83° Moon: 112°	2023 sep 28 7h18.7m A23_09081 354 Eleonora UCAC4 491–043785 Diam = 162.0 m = 10.7 m = 11.5  Dur = 6.2s Dmag = 1.2 Sun: 72° Moon: 122°
2023 sep 28 9h59.8m A23_09021 31 Euphrosyne TYC 2984–00554–1 Diam = 248.0 m = 10.9 m = 12.0  Dur = 6.8s Dmag = 1.4 Sun: 58° Moon: 135°	2023 sep 29 5h 5.0m A23_09072 271 Pentesilea PPMX 4958299 Diam = 61.2 m = 12.5 m = 14.7  Dur = 7.4s Dmag = 2.4 Sun: 107° Moon: 76°	2023 sep 29 5h51.9m A23_09049 154 Bertha UCAC4 577–009260 Diam = 192.0 m = 10.6 m = 13.2  Dur = 24.5s Dmag = 2.7 Sun: 124° Moon: 58°	2023 sep 30 12h 8.3m A23_09105 527 Euryanthe UCAC4 533–031664 Diam = 55.2 m = 12.2 m = 15.6  Dur = 3.4s Dmag = 3.4 Sun: 86° Moon: 78°
2023 oct 1 5h46.5m A23_10095 903 Nealley UCAC4 393–133530 Diam = 65.7 m = 11.3 m = 14.7  Dur = 7.8s Dmag = 3.5 Sun: 144° Moon: 60°	2023 oct 1 12h 1.2m A23_10067 389 Industria UCAC4 598–021439 Diam = 81.0 m = 11.6 m = 12.9  Dur = 8.9s Dmag = 1.6 Sun: 103° Moon: 48°	2023 oct 1 12h14.9m A23_10066 372 Palma TYC 1958–01555–1 Diam = 195.0 m = 10.2 m = 12.4  Dur = 5.6s Dmag = 2.4 Sun: 55° Moon: 97°	2023 oct 2 1h49.7m A23_10046 196 Philomela UCAC4 308–224656 Diam = 146.0 m = 12.4 m = 12.3  Dur = 8.1s Dmag = 0.7 Sun: 87° Moon: 129°

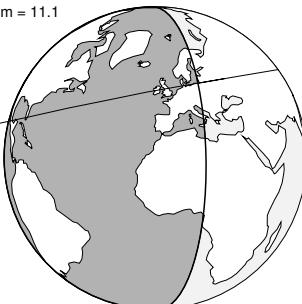
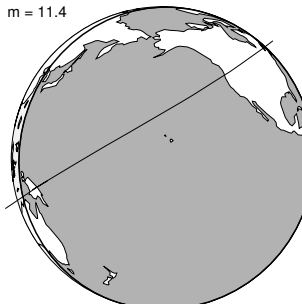
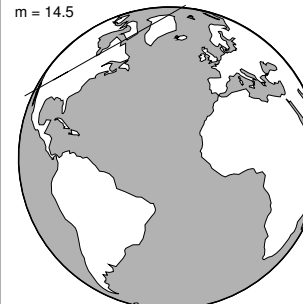
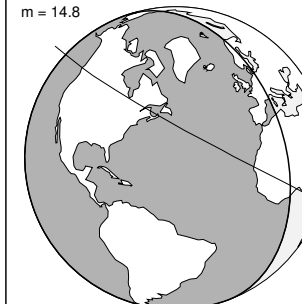
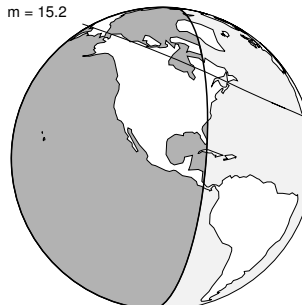
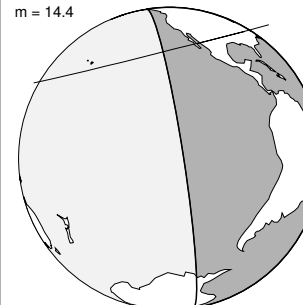
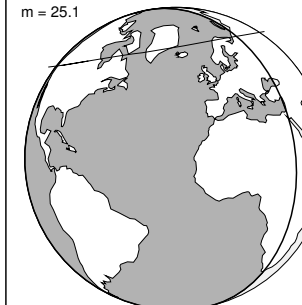
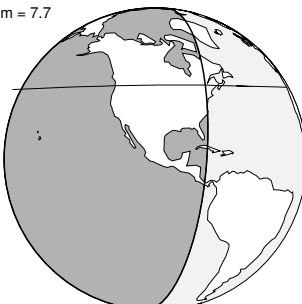
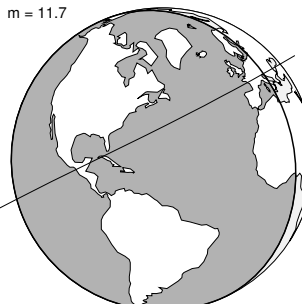
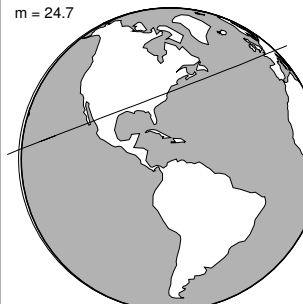
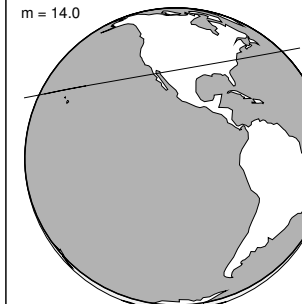
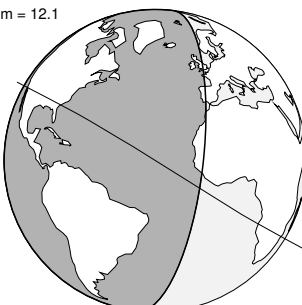
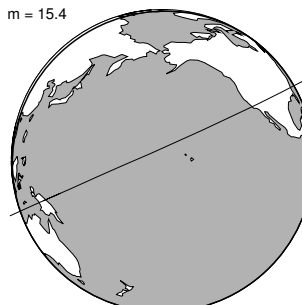
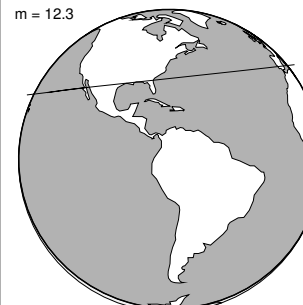
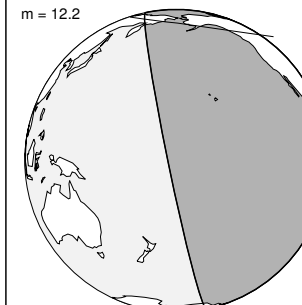
Occultations by major and minor planets – 2023

Region 1

2023 oct 2 6h49.1m A23_10035 120 Lachesis TYC 1198–00880–1 Diam = 178.0 m = 10.3 m = 12.6  Dur = 13.9s Dmag = 2.4 Sun: 161° Moon: 22°	2023 oct 2 9h57.8m A23_10134 2015VO166 TYC 0655–01087–1 Diam = 275.4 m = 10.5 m = 25.3  Dur = 14.1s Dmag = 14.8 Sun: 136° Moon: 6°	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 4 9h51.1m A23_10057 276 Adelheid TYC 0700–00511–1 Diam = 127.0 m = 10.5 m = 13.9  Dur = 10.0s Dmag = 3.4 Sun: 108° Moon: 19°
2023 oct 4 10h16.0m A23_10108 1194 Aletta PPMX 3980636 Diam = 56.8 m = 12.3 m = 15.6  Dur = 8.8s Dmag = 3.3 Sun: 108° Moon: 8°	2023 oct 4 11h14.5m A23_10127 5264 Telephus UCAC4 479–031541 Diam = 52.5 m = 12.3 m = 17.0  Dur = 3.5s Dmag = 4.6 Sun: 83° Moon: 37°	2023 oct 5 1h42.1m A23_10064 345 Tercidina PPMX 6811633 Diam = 100.0 m = 12.5 m = 11.3  Dur = 9.6s Dmag = 0.3 Sun: 172° Moon: 67°	2023 oct 6 7h34.4m A23_10063 339 Dorothea TYC 0054–00278–1 Diam = 43.7 m = 10.3 m = 13.6  Dur = 4.7s Dmag = 3.3 Sun: 148° Moon: 58°
2023 oct 7 3h12.2m A23_10068 393 Lampetia UCAC5 435–095406 Diam = 106.0 m = 12.4 m = 11.9  Dur = 5.8s Dmag = 0.5 Sun: 101° Moon: 156°	2023 oct 7 10h 2.5m A23_10012 21 Lutetia UCAC4 515–004673 Diam = 99.5 m = 11.9 m = 10.4  Dur = 17.0s Dmag = 0.2 Sun: 147° Moon: 68°	2023 oct 8 5h11.8m A23_10021 54 Alexandra UCAC5 360–189308 Diam = 171.0 m = 12.5 m = 11.8  Dur = 12.3s Dmag = 0.5 Sun: 103° Moon: 171°	2023 oct 8 5h16.4m B23_10006 469372 2001QF298 UCAC4 423–001278 Diam = 351.6 m = 14.2 m = 21.8  Dur = 13.7s Dmag = 7.6 Sun: 168° Moon: 111°
2023 oct 9 10h50.3m A23_10041 148 Gallia TYC 6434–00716–1 Diam = 104.0 m = 11.8 m = 11.0  Dur = 9.6s Dmag = 0.4 Sun: 140° Moon: 107°	2023 oct 11 2h33.7m B23_10004 149560 2003QZ91 UCAC4 320–000879 Diam = 100.0 m = 14.5 m = 23.6  Dur = 4.2s Dmag = 9.1 Sun: 146° Moon: 147°	2023 oct 11 3h 4.2m A23_10013 34 Circe UCAC4 359–138344 Diam = 118.0 m = 12.4 m = 14.1  Dur = 5.1s Dmag = 1.9 Sun: 77° 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°

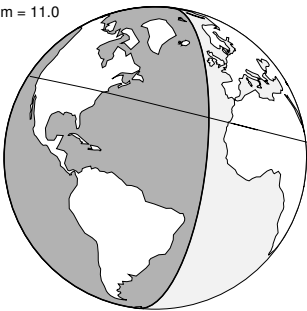
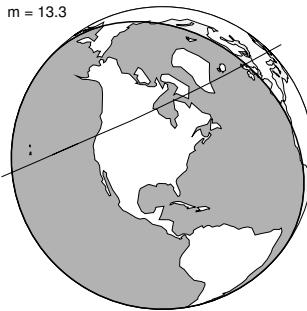
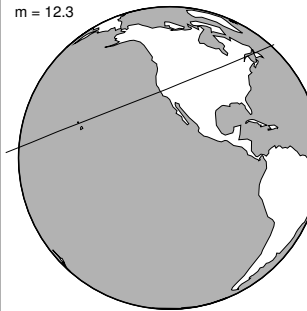
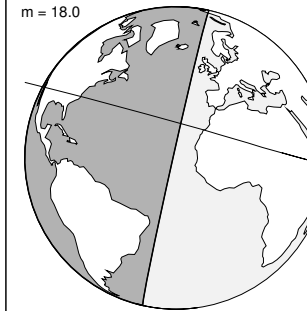
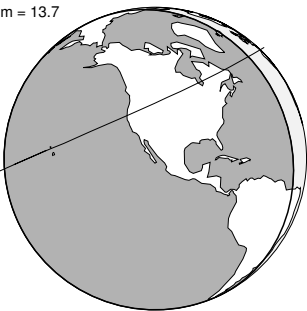
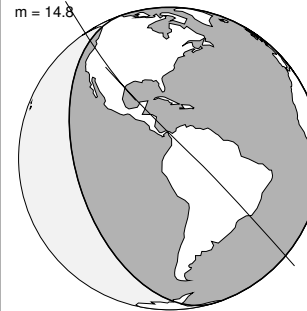
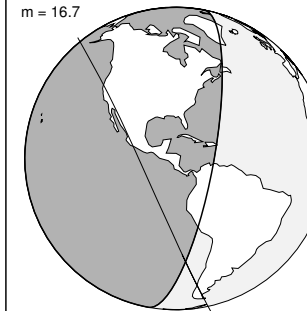
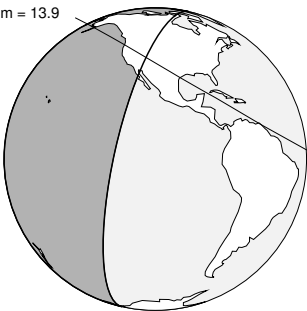
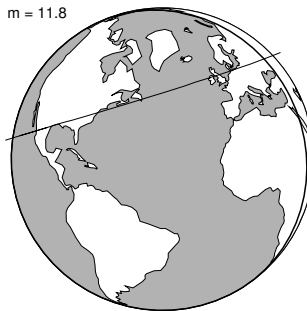
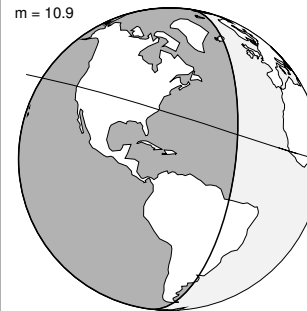
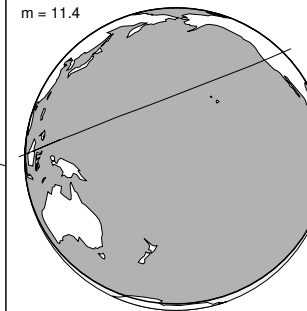
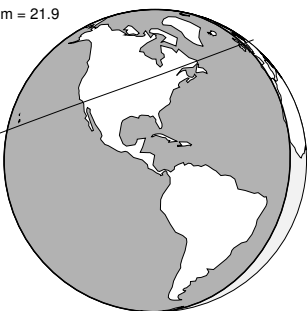
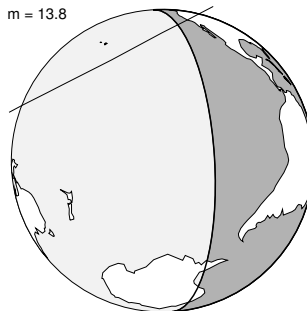
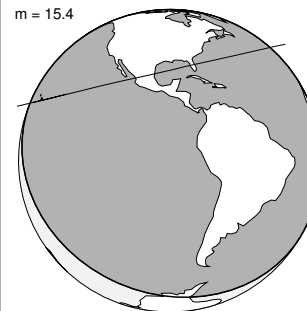
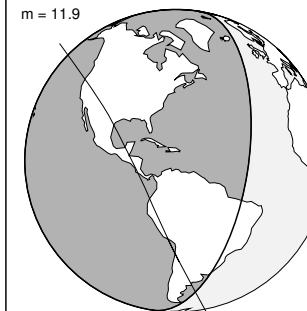
Occultations by major and minor planets – 2023

Region 1

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 14 9h 8.7m A23_10090 678 Fredegundis TYC 0600–00823–1 Diam = 44.0 m = 11.0 m = 11.4  Dur = 6.7s Dmag = 0.9 Sun: 161° Moon: 164°	2023 oct 15 1h54.3m A23_10113 1328 Devota TYC 0617–00904–1 Diam = 59.6 m = 11.4 m = 14.5  Dur = 5.0s Dmag = 3.2 Sun: 175° Moon: 177°	2023 oct 18 5h53.3m A23_10086 671 Carnegia TYC 2371–01155–1 Diam = 63.7 m = 10.2 m = 14.8  Dur = 10.4s Dmag = 4.5 Sun: 136° Moon: 174°
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 11h24.9m A23_10106 1143 Odysseus TYC 1341–01310–1 Diam = 135.0 m = 10.6 m = 15.2  Dur = 26.1s Dmag = 4.7 Sun: 106° Moon: 161°	2023 oct 20 1h49.7m A23_10025 82 Alkmene UCAC4 328–192742 Diam = 63.6 m = 12.4 m = 14.4  Dur = 3.7s Dmag = 2.2 Sun: 84° Moon: 21°	2023 oct 20 3h53.4m B23_10017 2015VQ202 PPMX 5912448 Diam = 79.8 m = 14.7 m = 25.1  Dur = 4.1s Dmag = 10.4 Sun: 141° Moon: 153°
2023 oct 20 11h19.5m A23_10002 4 Vesta UCAC4 545–028034 Diam = 523.2 m = 12.4 m = 7.7  Dur = 91.9s Dmag = 0.0 Sun: 109° Moon: 171°	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°	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 22 6h45.6m A23_10092 785 Zwetana TYC 4687–01288–1 Diam = 52.1 m = 9.5 m = 14.0  Dur = 3.4s Dmag = 4.5 Sun: 164° Moon: 81°
2023 oct 22 6h48.5m A23_10020 48 Doris TYC 1329–01113–1 Diam = 219.0 m = 12.1 m = 12.1  Dur = 28.0s Dmag = 0.8 Sun: 108° Moon: 156°	2023 oct 22 10h28.5m A23_10110 1254 Erfordia TYC 1200–00191–1 Diam = 49.2 m = 12.0 m = 15.4  Dur = 3.7s Dmag = 3.4 Sun: 169° Moon: 85°	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 23 5h27.5m A23_10071 393 Lampetia TYC 5168–01996–1 Diam = 106.0 m = 9.6 m = 12.2  Dur = 4.7s Dmag = 2.7 Sun: 93° Moon: 23°

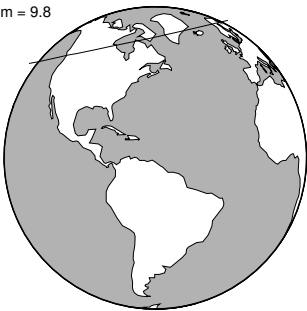
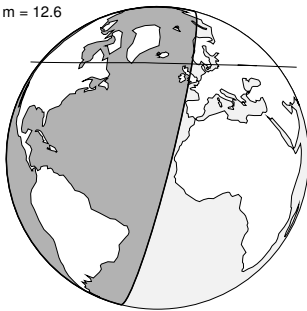
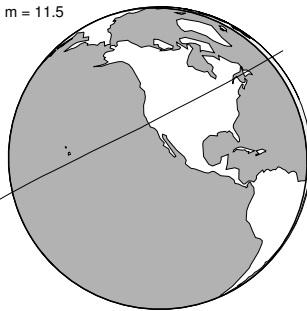
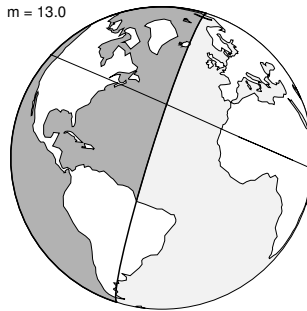
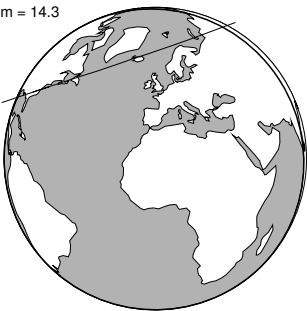
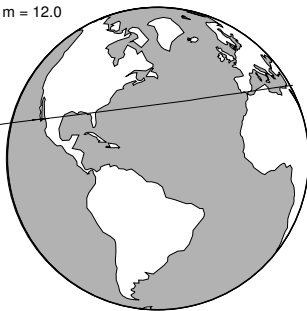
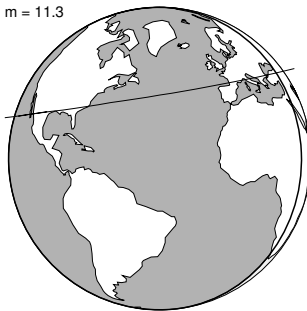
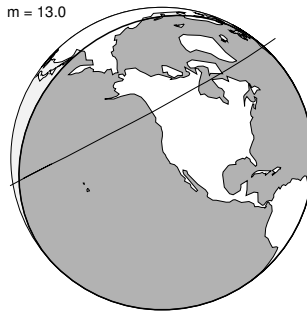
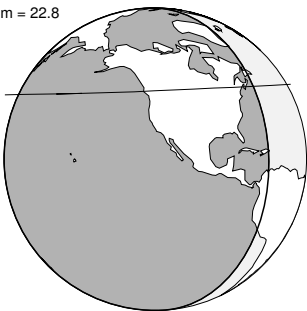
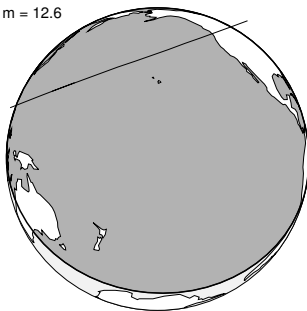
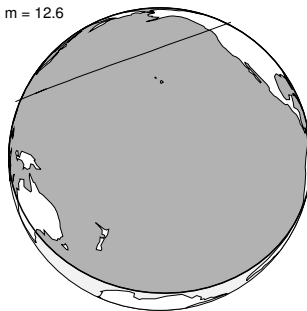
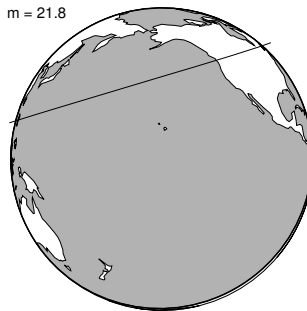
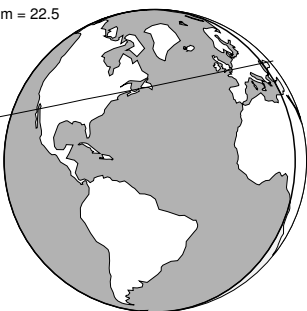
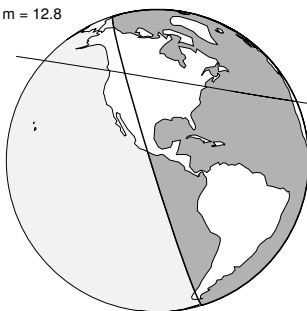
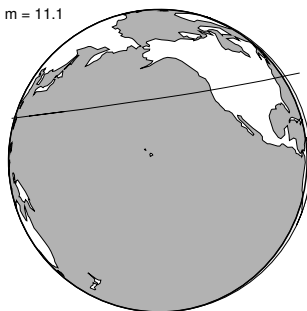
Occultations by major and minor planets – 2023

Region 1

2023 oct 23 7h38.8m A23_10003 5 Astraea UCAC4 534-030659 Diam = 125.0 m = 11.0  Dur = 13.4s Dmag = 0.3 Sun: 109° Moon: 143°	2023 oct 24 6h59.1m A23_10038 132 Aethra PPMX 2915000 Diam = 47.0 m = 12.2 m = 13.3  Dur = 4.7s Dmag = 1.4 Sun: 145° Moon: 91°	2023 oct 24 7h32.2m A23_10036 122 Gerda TYC 0625-00141-1 Diam = 86.5 m = 11.0 m = 12.3  Dur = 6.4s Dmag = 1.6 Sun: 178° Moon: 61°	2023 oct 24 7h43.0m A23_10122 2932 Kempchinsky TYC 1381-00323-1 Diam = 48.7 m = 9.6 m = 18.0  Dur = 3.4s Dmag = 8.5 Sun: 88° Moon: 152°
2023 oct 26 8h41.9m A23_10093 882 Swetlana HIP 17020 Diam = 48.8 m = 13.7  Dur = 7.6s Dmag = 3.4 Sun: 153° Moon: 60°	2023 oct 26 10h17.5m A23_10132 38050 Bias TYC 0154-01232-1 Diam = 42.3 m = 17.3 m = 10.8  Dur = 3.1s Dmag = 6.4 Sun: 111° Moon: 98°	2023 oct 28 1h35.8m A23_10103 1049 Gotha TYC 5234-00539-1 Diam = 58.2 m = 14.8 m = 11.7  Dur = 19.2s Dmag = 3.2 Sun: 128° Moon: 41°	2023 oct 29 10h36.6m A23_10130 15436 Dexius UCAC4 521-040515 Diam = 60.0 m = 16.7 m = 11.9  Dur = 7.0s Dmag = 4.9 Sun: 104° Moon: 68°
2023 oct 29 13h53.9m A23_10034 105 Artemis TYC 4887-00440-1 Diam = 123.0 m = 13.9 m = 10.9  Dur = 4.8s Dmag = 3.1 Sun: 74° Moon: 97°	2023 oct 30 3h40.5m A23_10051 241 Germania UCAC4 573-007729 Diam = 169.0 m = 11.8 m = 12.2  Dur = 15.8s Dmag = 0.6 Sun: 159° Moon: 4°	2023 oct 30 8h54.9m A23_10004 5 Astraea UCAC4 533-032124 Diam = 125.0 m = 10.9 m = 11.8  Dur = 18.7s Dmag = 0.4 Sun: 115° Moon: 45°	2023 oct 30 11h17.6m A23_10060 287 Nephthys TYC 4694-00875-1 Diam = 70.1 m = 11.4 m = 11.1  Dur = 6.5s Dmag = 0.9 Sun: 163° Moon: 32°
2023 oct 31 7h 6.1m B23_10008 523647 2010VV224 UCAC4 515-007000 Diam = 255.9 m = 21.9 m = 14.5  Dur = 11.3s Dmag = 7.4 Sun: 153° Moon: 13°	2023 nov 1 1h32.5m A23_11014 36 Atalante UCAC4 273-196532 Diam = 109.0 m = 13.8 m = 11.7  Dur = 4.0s Dmag = 2.3 Sun: 69° Moon: 150°	2023 nov 1 4h59.1m A23_11115 816 Juliana UCAC4 393-001725 Diam = 62.5 m = 15.4 m = 12.1  Dur = 5.2s Dmag = 3.3 Sun: 151° Moon: 67°	2023 nov 2 8h38.6m A23_11021 48 Doris UCAC4 525-032132 Diam = 219.0 m = 11.9 m = 12.4  Dur = 54.6s Dmag = 0.6 Sun: 118° Moon: 14°

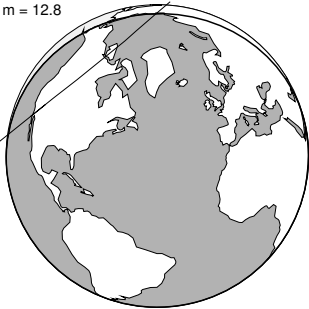
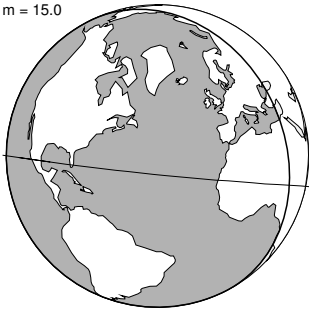
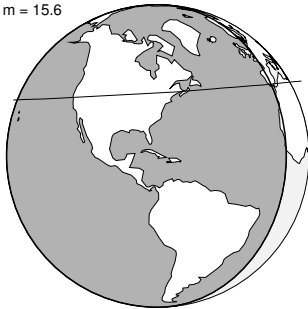
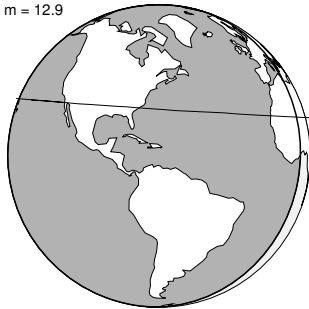
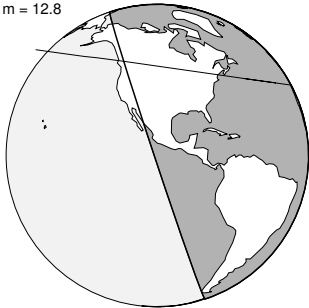
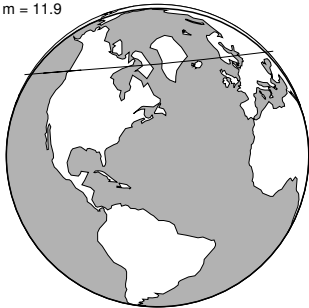
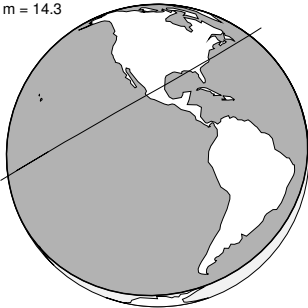
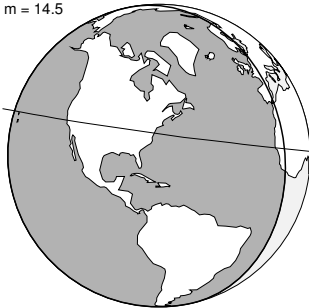
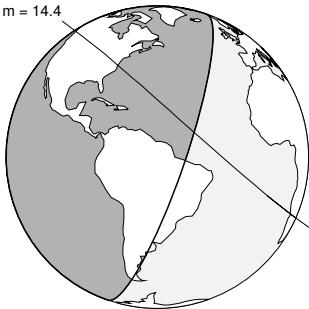
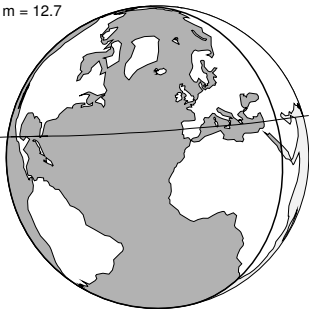
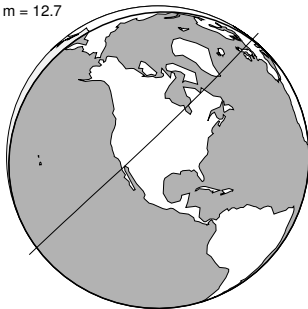
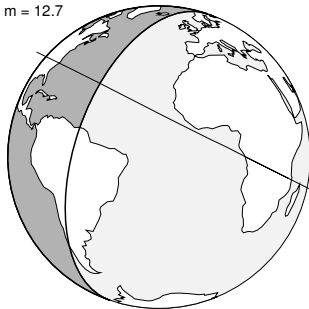
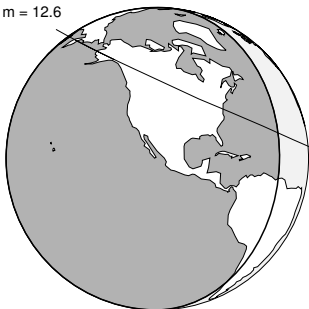
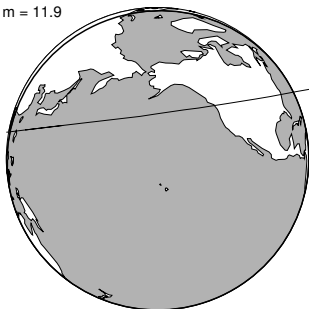
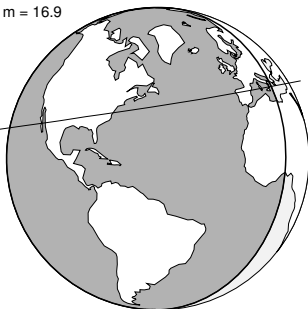
Occultations by major and minor planets – 2023

Region 1

2023 nov 3 3h55.4m A23_11012 21 Lutetia UCAC4 507-003752 Diam = 99.5 m = 12.4 m = 9.8  Dur = 10.4s Dmag = 0.1 Sun: 176° Moon: 66°	2023 nov 3 7h19.8m A23_11028 128 Nemesis UCAC4 561-047042 Diam = 194.0 m = 11.9 m = 12.6  Dur = 14.6s Dmag = 1.1 Sun: 95° Moon: 18°	2023 nov 3 8h21.9m A23_11081 409 Aspasia TYC 1797-01026-1 Diam = 168.0 m = 11.9 m = 11.5  Dur = 13.3s Dmag = 0.6 Sun: 165° Moon: 53°	2023 nov 3 9h 2.9m A23_11020 38 Leda TYC 1401-02070-1 Diam = 120.0 m = 8.8 m = 13.0  Dur = 5.8s Dmag = 4.2 Sun: 85° Moon: 27°
2023 nov 5 0h41.8m A23_11098 541 Deborah TYC 1797-00332-1 Diam = 59.1 m = 10.1 m = 14.3  Dur = 4.7s Dmag = 4.2 Sun: 166° Moon: 73°	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°	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 6h41.9m A23_11095 506 Marion TYC 2303-01454-1 Diam = 109.0 m = 12.2 m = 13.0  Dur = 9.6s Dmag = 1.3 Sun: 152° Moon: 95°
2023 nov 6 10h41.3m B23_11003 149348 2002VS130 UCAC4 570-018446 Diam = 229.1 m = 14.9 m = 22.8  Dur = 12.6s Dmag = 7.8 Sun: 138° Moon: 60°	2023 nov 8 9h53.6m A23_11065 304 Olga UCAC4 395-002989 Diam = 68.5 m = 9.6 m = 12.6  Dur = 8.6s Dmag = 3.1 Sun: 152° Moon: 132°	2023 nov 8 9h53.9m A23_11064 304 Olga HIP 12204 Diam = 68.5 m = 8.1 m = 12.6  Dur = 8.6s Dmag = 4.5 Sun: 152° Moon: 132°	2023 nov 9 10h34.3m B23_11001 26308 1998SM165 UCAC4 490-004687 Diam = 331.1 m = 13.7 m = 21.8  Dur = 12.9s Dmag = 8.1 Sun: 169° Moon: 131°
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 11 0h 3.0m A23_11121 914 Palisana PPMX 7688369 Diam = 79.0 m = 12.1 m = 12.8  Dur = 3.6s Dmag = 1.1 Sun: 92° Moon: 116°	2023 nov 11 10h46.9m A23_11045 182 Elsa TYC 1253-00072-1 Diam = 45.3 m = 11.9 m = 11.1  Dur = 7.1s Dmag = 0.4 Sun: 166° Moon: 144°	2023 nov 11 12h39.0m A23_11105 607 Jenny UCAC4 541-046560 Diam = 65.5 m = 12.5 m = 14.8  Dur = 6.3s Dmag = 2.5 Sun: 101° Moon: 80°

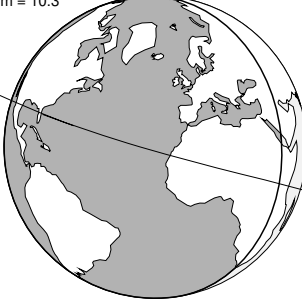
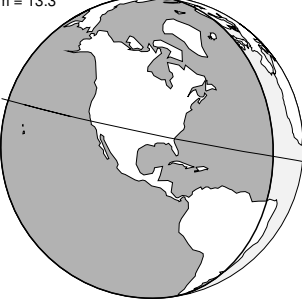
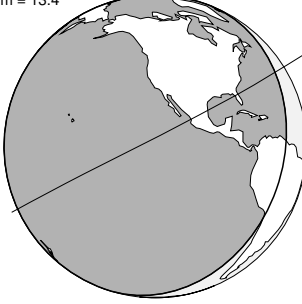
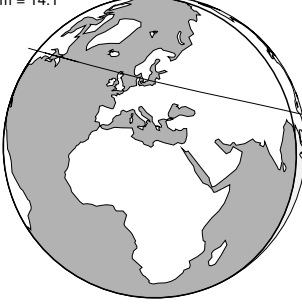
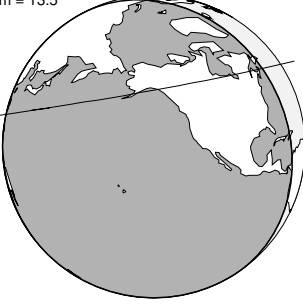
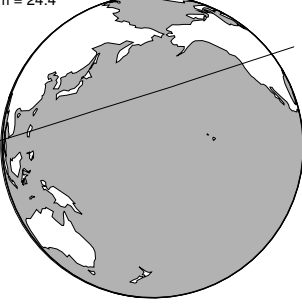
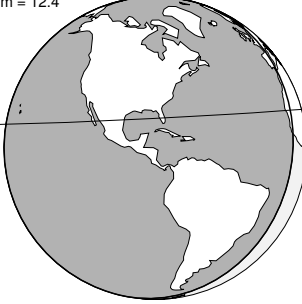
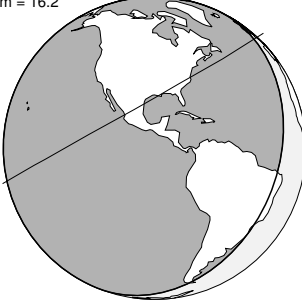
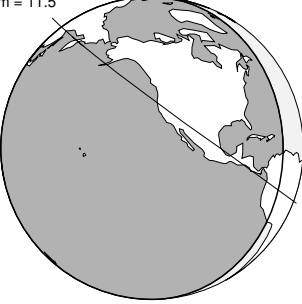
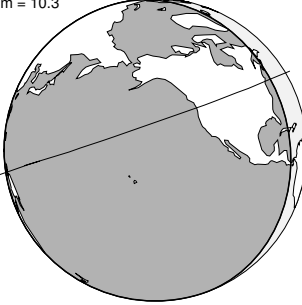
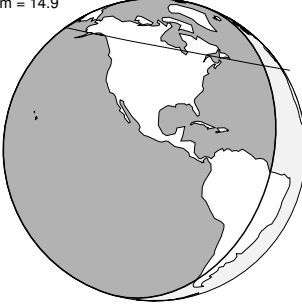
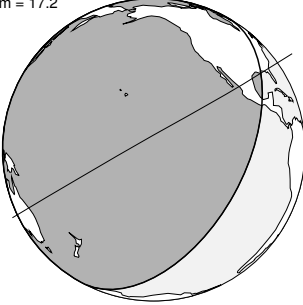
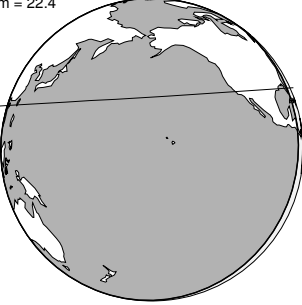
Occultations by major and minor planets – 2023

Region 1

2023 nov 12 2h21.4m A23_11030 132 Aethra TYC 2338–00355–1 Diam = 47.0 m = 10.8 m = 12.8  Dur = 3.3s Dmag = 2.2 Sun: 160° Moon: 154°	2023 nov 12 4h33.6m A23_11123 949 Hel UCAC4 633–023137 Diam = 71.0 m = 12.5 m = 15.0  Dur = 6.2s Dmag = 2.6 Sun: 146° Moon: 134°	2023 nov 12 7h 8.9m A23_11133 1633 Chimay TYC 1308–00009–1 Diam = 40.3 m = 10.9 m = 15.6  Dur = 4.1s Dmag = 4.7 Sun: 148° Moon: 135°	2023 nov 13 5h49.8m A23_11071 347 Pariana TYC 1266–00228–1 Diam = 96.4 m = 10.8 m = 12.9  Dur = 8.7s Dmag = 2.2 Sun: 158° Moon: 156°
2023 nov 14 0h25.2m A23_11122 914 Palisana TYC 1115–01791–1 Diam = 79.0 m = 10.4 m = 12.8  Dur = 3.5s Dmag = 2.6 Sun: 91° Moon: 86°	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 15 6h59.2m A23_11131 1628 Strobel TYC 4721–00569–1 Diam = 59.1 m = 9.5 m = 14.3  Dur = 4.5s Dmag = 4.9 Sun: 156° Moon: 146°	2023 nov 16 6h57.4m A23_11052 231 Vindobona TYC 2405–00806–1 Diam = 85.1 m = 11.7 m = 14.5  Dur = 7.9s Dmag = 2.8 Sun: 145° Moon: 177°
2023 nov 16 8h46.5m A23_11067 329 Svea UCAC4 451–046096 Diam = 80.5 m = 11.9 m = 14.4  Dur = 6.8s Dmag = 2.6 Sun: 100° 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 5h42.5m A23_11032 132 Aethra UCAC5 630–008864 Diam = 47.0 m = 12.4 m = 12.7  Dur = 3.1s Dmag = 0.9 Sun: 160° Moon: 115°	2023 nov 18 9h31.8m A23_11009 12 Victoria TYC 4937–00390–1 Diam = 117.0 m = 9.5 m = 12.7  Dur = 3.5s Dmag = 3.2 Sun: 56° Moon: 118°
2023 nov 18 9h35.1m A23_11092 488 Kreusa PPMX 5016701 Diam = 158.0 m = 12.4 m = 12.6  Dur = 19.8s Dmag = 0.9 Sun: 143° Moon: 152°	2023 nov 18 9h58.4m A23_11035 139 Juewa UCAC4 607–008533 Diam = 164.0 m = 12.4 m = 11.9  Dur = 12.1s Dmag = 0.6 Sun: 166° Moon: 115°	2023 nov 20 5h37.1m A23_11150 5258 Rhoee TYC 1324–00730–1 Diam = 41.7 m = 11.3 m = 16.9  Dur = 3.5s Dmag = 5.6 Sun: 147° Moon: 125°	2023 nov 20 7h14.9m A23_11073 363 Padua TYC 1256–00804–1 Diam = 96.0 m = 11.0 m = 12.3  Dur = 8.2s Dmag = 1.6 Sun: 178° Moon: 93°

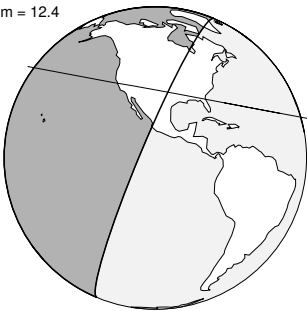
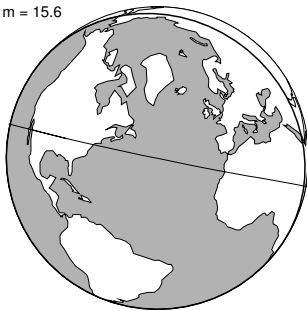
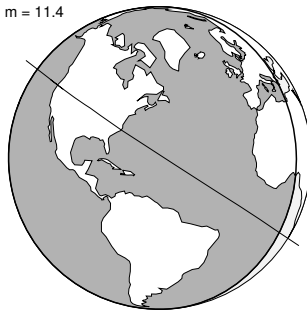
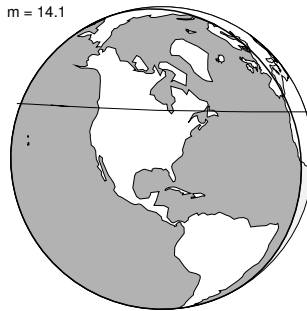
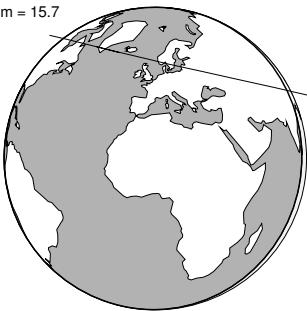
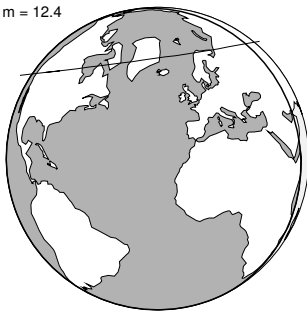
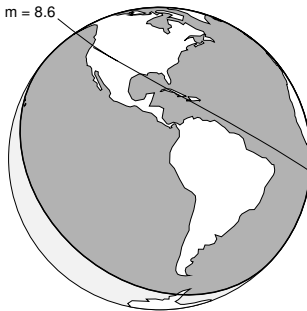
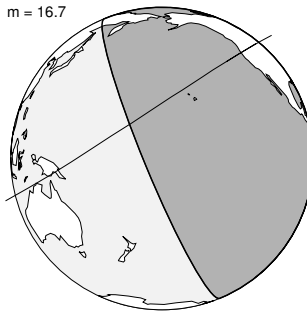
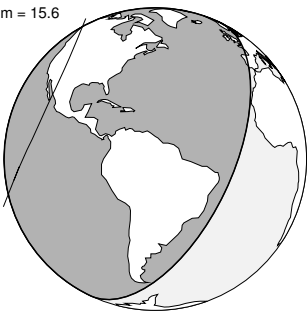
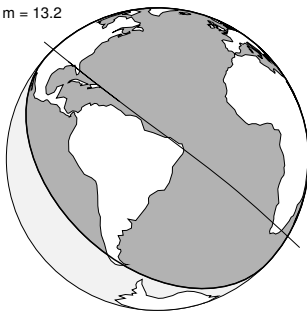
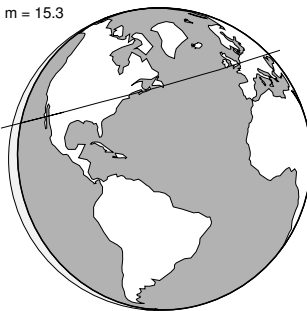
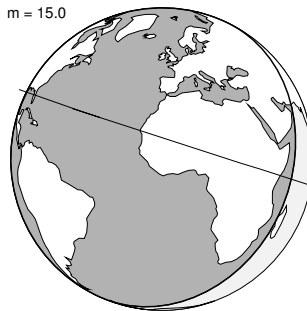
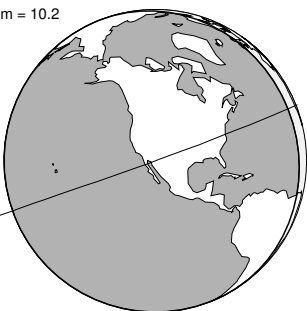
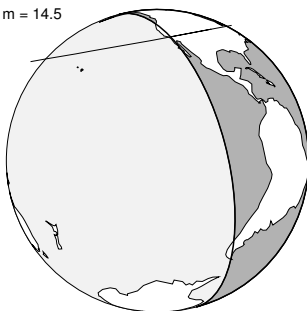
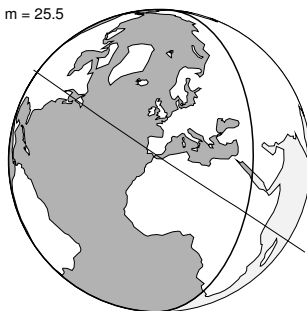
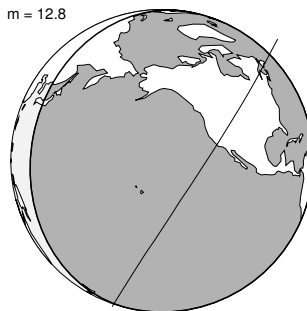
Occultations by major and minor planets – 2023

Region 1

2023 nov 21 3h33.0m A23_11018 37 Fides UCAC5 592–025923 Diam = 112.0 m = 12.5  Dur = 24.5s Dmag = 0.1 Sun: 146° Moon: 114°	2023 nov 21 5h42.9m A23_11148 5027 Androgeos TYC 2439–00575–1 Diam = 55.0 m = 11.9  Dur = 3.7s Dmag = 4.7 Sun: 138° Moon: 120°	2023 nov 21 11h20.5m B23_11015 2014TL95 UCAC4 484–003851 Diam = 113.2 m = 13.7  Dur = 4.8s Dmag = 9.7 Sun: 161° Moon: 60°	2023 nov 22 8h29.2m A23_11026 108 Hecuba UCAC4 595–031971 Diam = 67.0 m = 12.4  Dur = 7.9s Dmag = 1.3 Sun: 143° Moon: 102°
2023 nov 22 9h54.7m A23_11050 205 Martha TYC 0724–02578–1 Diam = 83.5 m = 11.3  Dur = 8.6s Dmag = 2.2 Sun: 148° Moon: 94°	2023 nov 22 23h50.8m A23_11111 731 Sorgia TYC 2390–00646–1 Diam = 46.6 m = 10.6  Dur = 3.7s Dmag = 3.5 Sun: 157° Moon: 78°	2023 nov 23 11h 1.7m A23_11086 466 Tisiphone UCAC4 638–026885 Diam = 121.0 m = 12.3  Dur = 9.6s Dmag = 1.6 Sun: 152° Moon: 76°	2023 nov 23 11h17.8m B23_11014 2011UP411 Gaia 109–0012715 Diam = 87.1 m = 13.8  Dur = 3.6s Dmag = 10.6 Sun: 171° Moon: 42°
2023 nov 24 7h 7.7m A23_11040 159 Aemilia TYC 1298–00522–1 Diam = 131.0 m = 9.1  Dur = 14.0s Dmag = 3.3 Sun: 154° Moon: 64°	2023 nov 25 8h15.1m A23_11136 1794 Finsen TYC 0731–01986–1 Diam = 43.1 m = 12.0  Dur = 3.7s Dmag = 4.2 Sun: 145° Moon: 59°	2023 nov 26 7h39.3m B23_11004 468861 2013LU28 UCAC4 695–050057 Diam = 85.1 m = 14.7  Dur = 3.6s Dmag = 3.6 Sun: 112° Moon: 78°	2023 nov 26 10h24.6m A23_11112 776 Berbericia TYC 1881–01156–1 Diam = 121.3 m = 11.8  Dur = 11.2s Dmag = 0.6 Sun: 150° Moon: 42°
2023 nov 26 11h29.8m A23_11109 704 Interamnia PPMX 4011172 Diam = 333.0 m = 10.3  Dur = 30.6s Dmag = 0.1 Sun: 152° Moon: 38°	2023 nov 28 9h 4.7m A23_11118 850 Altona UCAC4 515–033935 Diam = 84.5 m = 12.0  Dur = 8.9s Dmag = 3.0 Sun: 141° Moon: 29°	2023 nov 28 12h38.5m A23_11138 2759 Idomeneus UCAC4 442–036826 Diam = 73.3 m = 12.5  Dur = 7.8s Dmag = 4.7 Sun: 127° Moon: 44°	2023 nov 29 11h47.3m B23_11005 534161 2014RQ63 UCAC4 536–013986 Diam = 144.5 m = 14.7  Dur = 6.1s Dmag = 7.6 Sun: 164° Moon: 16°

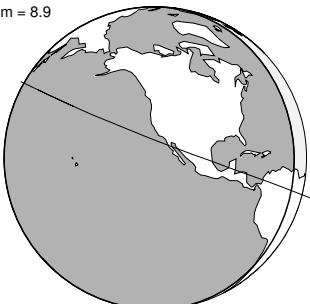
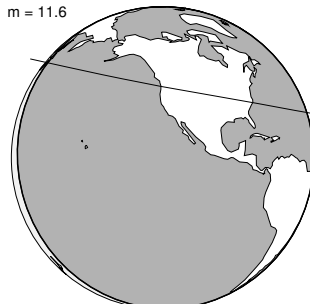
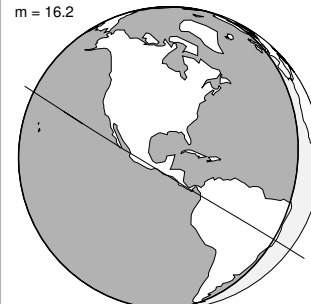
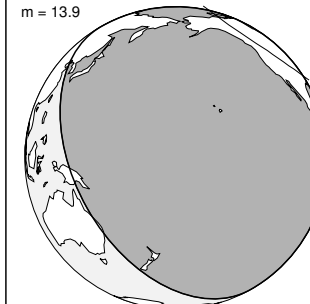
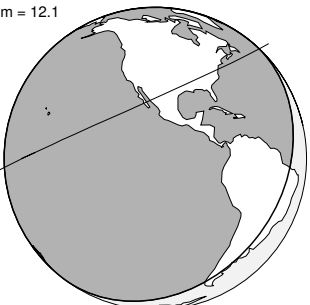
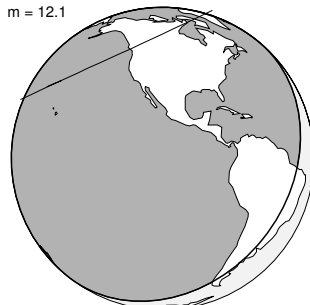
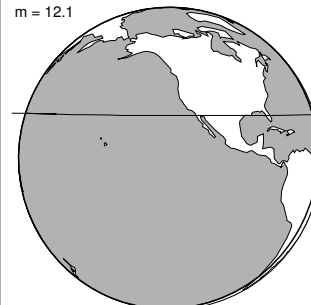
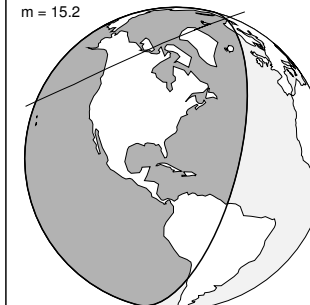
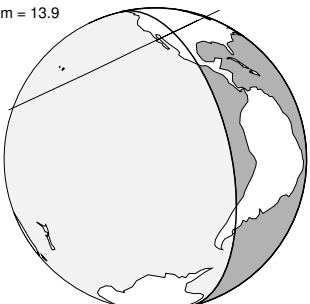
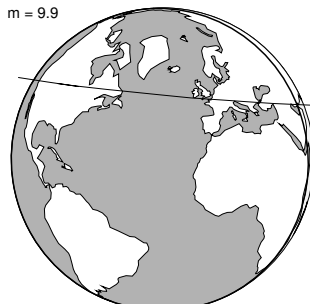
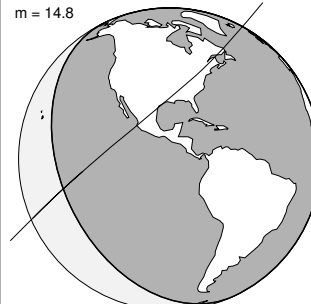
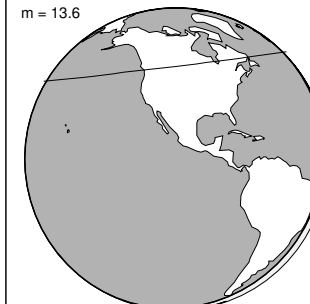
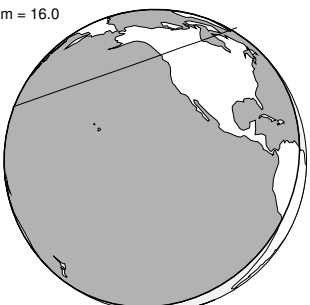
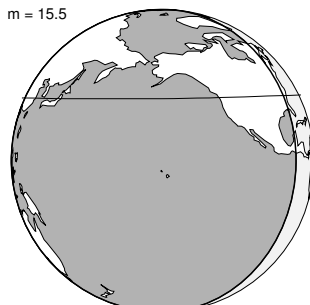
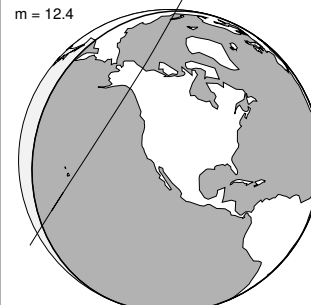
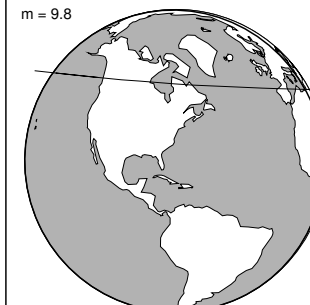
Occultations by major and minor planets – 2023

Region 1

2023 nov 29 13h23.0m A23_11029 129 Antigone TYC 0847–00916–1 Diam = 113.0 m = 11.7 m = 12.4  Dur = 5.6s Dmag = 1.2 Sun: 84° Moon: 69°	2023 nov 30 3h26.3m A23_11135 1637 Swings TYC 2900–01430–1 Diam = 49.7 m = 12.3 m = 15.6  Dur = 3.6s Dmag = 3.4 Sun: 158° Moon: 22°	2023 nov 30 5h30.9m A23_11114 776 Berbericia UCAC5 577–023784 Diam = 121.3 m = 12.5 m = 11.4  Dur = 10.4s Dmag = 0.3 Sun: 154° Moon: 9°	2023 nov 30 7h10.6m A23_11124 987 Wallia TYC 2427–00046–1 Diam = 44.6 m = 10.5 m = 14.1  Dur = 3.6s Dmag = 3.6 Sun: 154° Moon: 13°
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 1 3h50.4m A23_12019 18 Melpomene UCAC4 428–003543 Diam = 135.0 m = 12.2 m = 8.6  Dur = 34.7s Dmag = 0.0 Sun: 144° Moon: 78°	2023 dec 1 5h39.4m A23_12164 1678 Hveen HIP 113718 Diam = 45.2 m = 7.2 m = 16.7  Dur = 3.9s Dmag = 9.5 Sun: 96° Moon: 129°
2023 dec 1 7h35.9m A23_12165 1712 Angola PPMX 9330595 Diam = 66.2 m = 12.3 m = 15.6  Dur = 6.4s Dmag = 3.4 Sun: 120° Moon: 27°	2023 dec 2 0h40.3m A23_12083 304 Olga TYC 5282–02012–1 Diam = 68.5 m = 10.4 m = 13.2  Dur = 15.3s Dmag = 2.8 Sun: 134° Moon: 96°	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 2h23.1m A23_12159 1428 Mombasa UCAC4 504–027734 Diam = 60.0 m = 12.5 m = 15.0  Dur = 6.0s Dmag = 2.6 Sun: 148° Moon: 32°
2023 dec 3 8h32.6m A23_12122 704 Interamnia PPMX 4005591 Diam = 333.0 m = 12.3 m = 10.2  Dur = 26.8s Dmag = 0.1 Sun: 160° Moon: 51°	2023 dec 4 0h35.6m A23_12129 739 Mandeville UCAC4 345–199923 Diam = 110.0 m = 11.8 m = 14.5  Dur = 3.8s Dmag = 2.8 Sun: 62° Moon: 166°	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 4 7h31.8m A23_12054 132 Aethra UCAC4 609–007161 Diam = 47.0 m = 11.9 m = 12.8  Dur = 3.2s Dmag = 1.3 Sun: 150° Moon: 104°

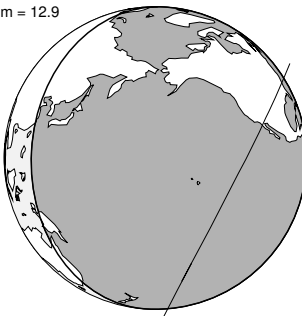
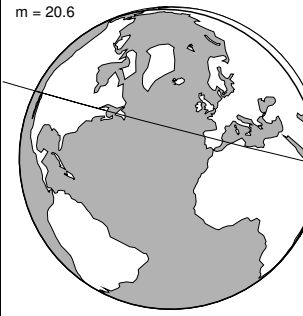
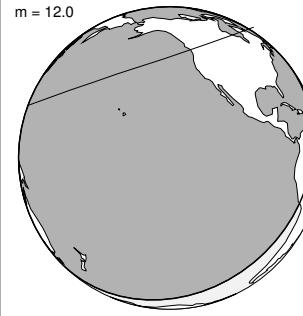
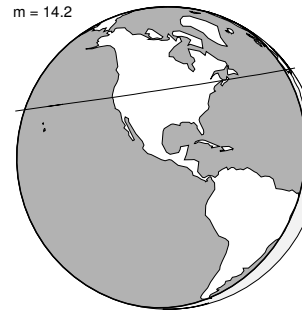
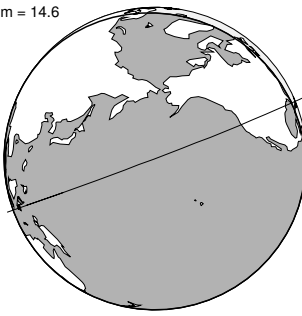
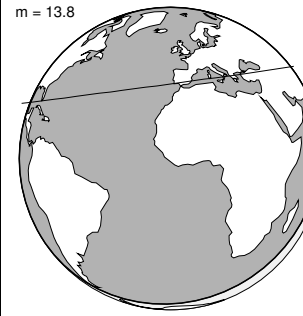
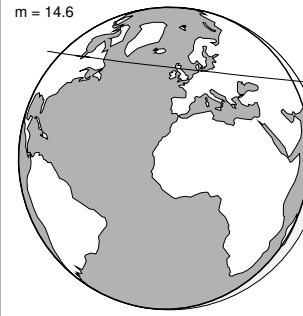
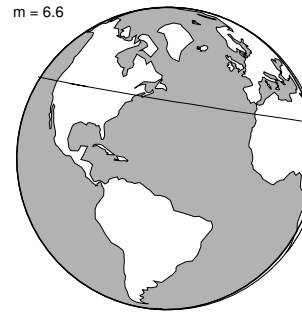
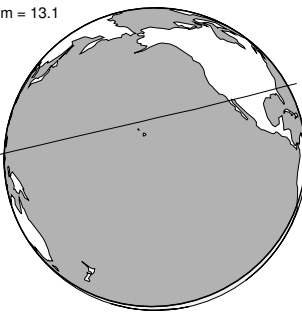
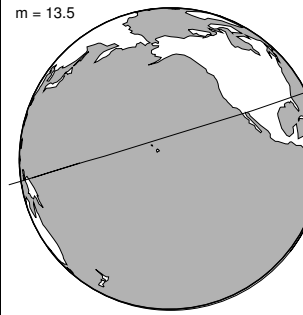
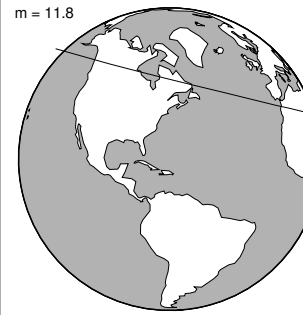
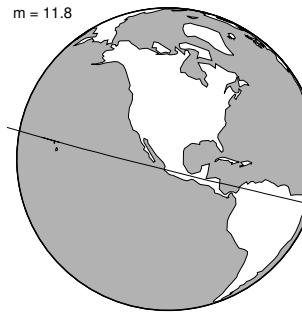
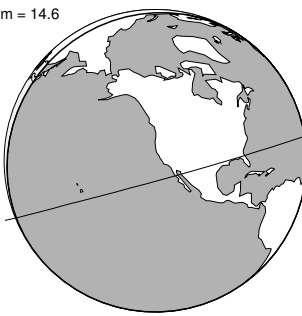
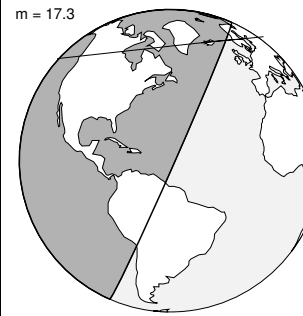
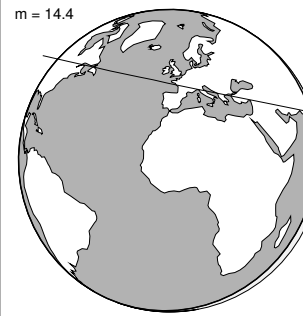
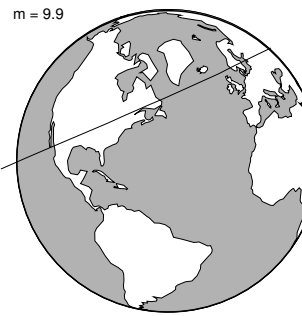
Occultations by major and minor planets – 2023

Region 1

2023 dec 4 9h38.9m A23_12011 9 Metis UCAC4 581-027141 Diam = 231.2 m = 11.9  Dur = 32.9s Dmag = 0.1 Sun: 156° Moon: 58°	2023 dec 5 6h52.4m A23_12102 481 Erita TYC 1238-01170-1 Diam = 116.0 m = 11.6  Dur = 12.9s Dmag = 1.1 Sun: 162° Moon: 108°	2023 dec 5 8h 6.1m A23_12184 4833 Meges TYC 1352-00889-1 Diam = 63.1 m = 9.5  Dur = 3.8s Dmag = 6.7 Sun: 147° Moon: 59°	2023 dec 5 8h29.5m A23_12071 237 Coelestina FK6 4165 Diam = 44.0 m = 7.3  Dur = 7.2s Dmag = 6.6 Sun: 132° Moon: 138°
2023 dec 5 8h44.1m A23_12075 258 Tyche TYC 0137-00417-1 Diam = 67.7 m = 10.6  Dur = 6.4s Dmag = 1.8 Sun: 148° Moon: 69°	2023 dec 5 8h44.2m A23_12076 258 Tyche TYC 0137-00417-2 Diam = 67.7 m = 10.7  Dur = 6.4s Dmag = 1.6 Sun: 148° Moon: 69°	2023 dec 5 9h13.1m A23_12056 159 Aemilia UCAC4 529-014138 Diam = 131.0 m = 11.7  Dur = 11.6s Dmag = 1.0 Sun: 166° Moon: 81°	2023 dec 5 9h45.8m A23_12147 1072 Malva TYC 1962-00744-1 Diam = 46.5 m = 15.2  Dur = 7.9s Dmag = 3.5 Sun: 114° Moon: 27°
2023 dec 5 23h55.4m A23_12063 187 Lambertia UCAC4 331-209341 Diam = 135.0 m = 13.9  Dur = 4.1s Dmag = 2.4 Sun: 60° Moon: 142°	2023 dec 6 2h55.9m A23_12026 37 Fides TYC 1875-01044-1 Diam = 112.0 m = 9.9  Dur = 14.6s Dmag = 0.1 Sun: 163° Moon: 84°	2023 dec 6 3h10.3m A23_12156 1309 Hyperborea UCAC4 487-002842 Diam = 59.8 m = 11.7  Dur = 12.1s Dmag = 3.2 Sun: 136° Moon: 143°	2023 dec 6 7h51.1m A23_12072 239 Adrastea TYC 0726-01012-1 Diam = 43.0 m = 10.6  Dur = 4.5s Dmag = 3.1 Sun: 164° Moon: 90°
2023 dec 7 9h56.1m A23_12168 1794 Finsen UCAC4 492-019806 Diam = 43.1 m = 16.0  Dur = 3.1s Dmag = 3.8 Sun: 156° Moon: 96°	2023 dec 7 12h24.0m A23_12154 1280 Baillauda TYC 1898-00857-1 Diam = 55.3 m = 10.9  Dur = 5.1s Dmag = 4.6 Sun: 151° Moon: 87°	2023 dec 9 5h26.0m A23_12141 895 Helio UCAC4 621-010188 Diam = 147.0 m = 12.2  Dur = 10.0s Dmag = 0.9 Sun: 154° Moon: 151°	2023 dec 9 5h43.0m A23_12025 37 Fides PPMX 4998171 Diam = 112.0 m = 12.4  Dur = 13.9s Dmag = 0.1 Sun: 167° Moon: 122°

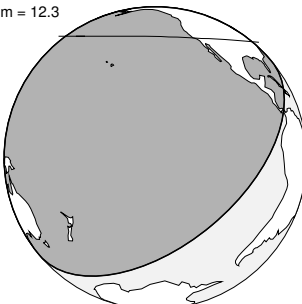
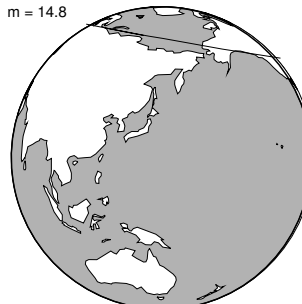
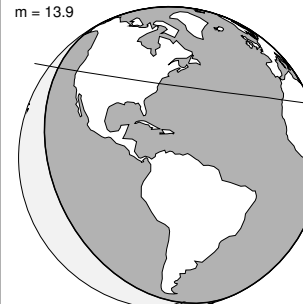
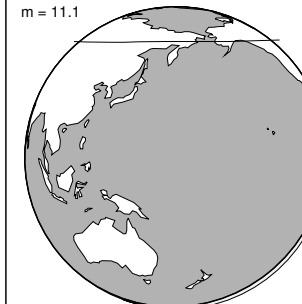
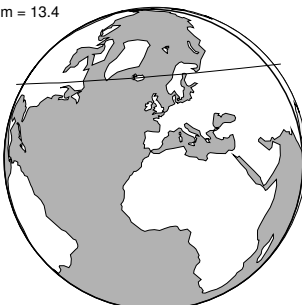
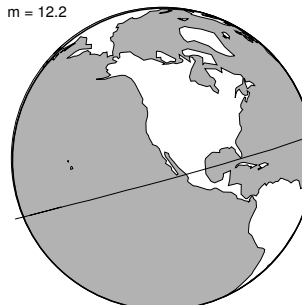
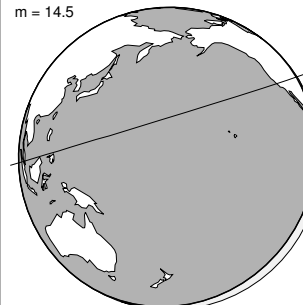
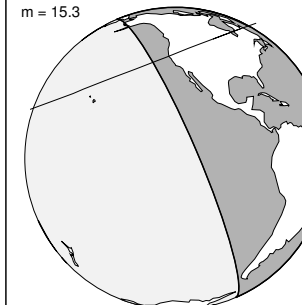
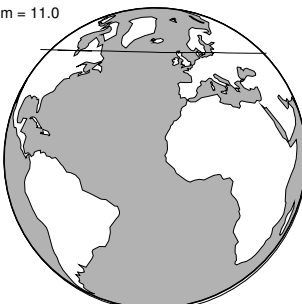
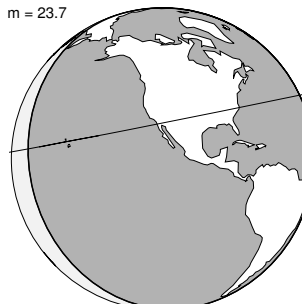
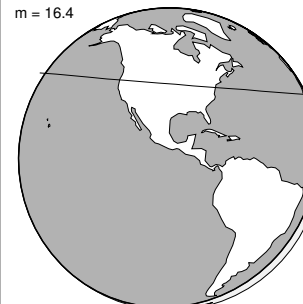
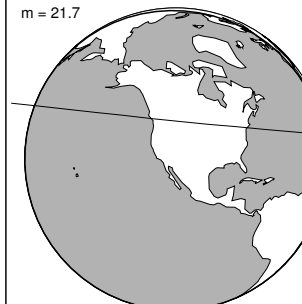
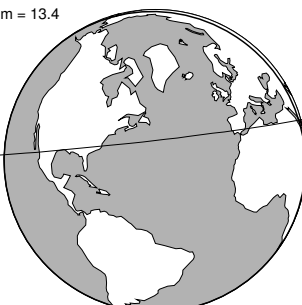
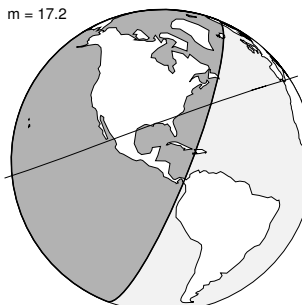
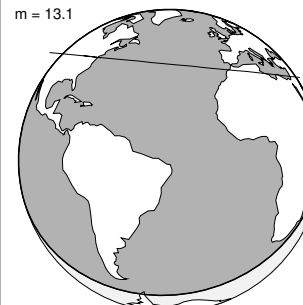
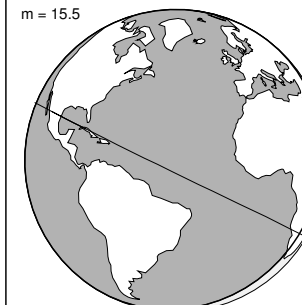
Occultations by major and minor planets – 2023

Region 1

2023 dec 9 8h51.2m A23_12055 132 Aethra TYC 2323–01573–1 Diam = 47.0 m = 11.5 m = 12.9  Dur = 3.3s Dmag = 1.6 Sun: 145° Moon: 162°	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°	2023 dec 10 10h18.7m A23_12077 258 Tyche TYC 0137–01149–1 Diam = 67.7 m = 10.9 m = 12.0  Dur = 6.1s Dmag = 1.5 Sun: 152° Moon: 125°	2023 dec 11 8h 0.4m A23_12143 976 Benjamina TYC 1344–00867–1 Diam = 86.6 m = 12.0 m = 14.2  Dur = 7.4s Dmag = 2.3 Sun: 154° Moon: 133°
2023 dec 11 12h 5.1m A23_12174 3025 Higson HIP 27154 Diam = 52.1 m = 9.5 m = 14.6  Dur = 3.7s Dmag = 5.0 Sun: 162° Moon: 151°	2023 dec 12 1h16.8m A23_12084 319 Leona HIP 27989 Diam = 73.3 m = 13.8 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 4h14.8m A23_12003 4 Vesta TYC 1321–00891–1 Diam = 523.2 m = 11.3 m = 6.6  Dur = 43.0s Dmag = 0.0 Sun: 167° Moon: 156°
2023 dec 12 10h23.8m A23_12064 205 Martha UCAC4 502–014080 Diam = 83.5 m = 12.1 m = 13.1  Dur = 6.8s Dmag = 1.4 Sun: 165° Moon: 159°	2023 dec 14 10h20.6m A23_12136 790 Pretoria TYC 1299–00730–1 Diam = 176.0 m = 10.8 m = 13.5  Dur = 9.9s Dmag = 2.8 Sun: 171° Moon: 162°	2023 dec 15 4h52.7m A23_12106 488 Kreusa TYC 1862–01820–1 Diam = 158.0 m = 11.5 m = 11.8  Dur = 11.9s Dmag = 0.9 Sun: 175° Moon: 155°	2023 dec 15 7h 9.4m A23_12105 488 Kreusa UCAC4 571–019855 Diam = 158.0 m = 11.5 m = 11.8  Dur = 11.9s Dmag = 0.9 Sun: 175° Moon: 153°
2023 dec 15 7h22.6m A23_12142 949 Hel UCAC4 629–017797 Diam = 71.0 m = 11.5 m = 14.6  Dur = 4.7s Dmag = 3.2 Sun: 163° Moon: 140°	2023 dec 16 10h 1.9m A23_12157 1357 Khama HIP 58012 Diam = 45.1 m = 8.8 m = 17.3  Dur = 3.1s Dmag = 8.5 Sun: 91° Moon: 137°	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°

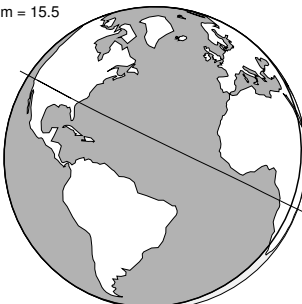
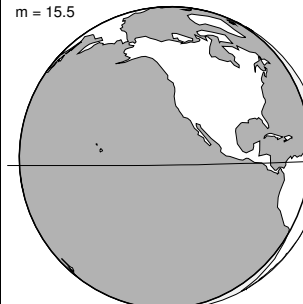
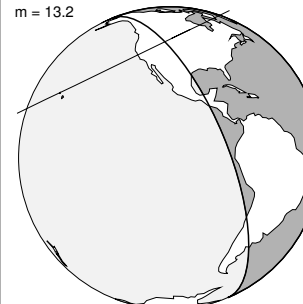
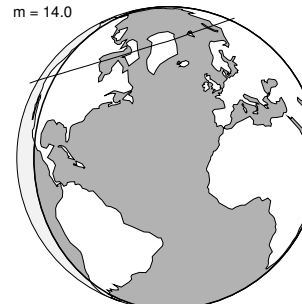
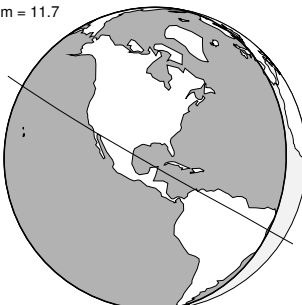
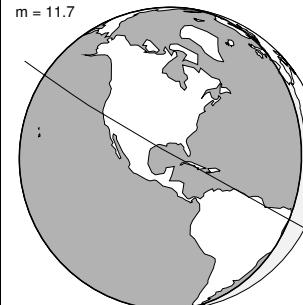
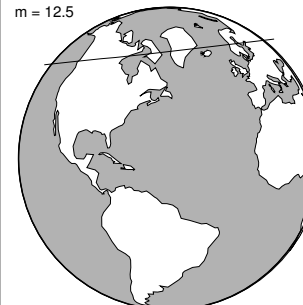
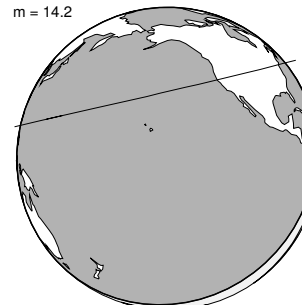
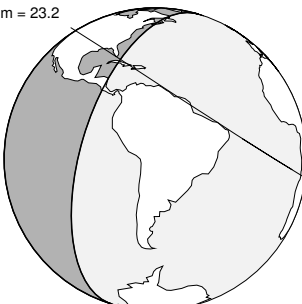
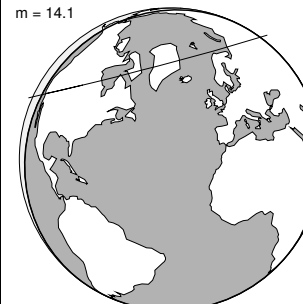
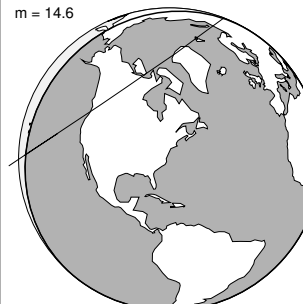
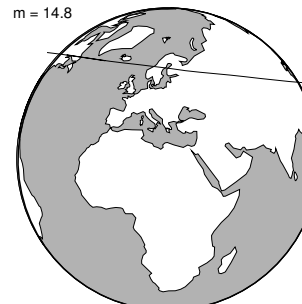
Occultations by major and minor planets – 2023

Region 1

2023 dec 17 11h26.0m A23_12116 582 Olympia UCAC4 354–039734 Diam = 47.0 m = 12.1 m = 12.3  Dur = 13.9s Dmag = 0.9 Sun: 125° Moon: 133°	2023 dec 17 14h51.0m A23_12078 267 Tirza TYC 1882–00021–1 Diam = 53.6 m = 10.8 m = 14.8  Dur = 3.9s Dmag = 4.1 Sun: 169° Moon: 129°	2023 dec 19 2h 6.6m A23_12096 442 Eichsfeldia HIP 15099 Diam = 67.5 m = 7.6 m = 13.9  Dur = 9.9s Dmag = 6.3 Sun: 141° Moon: 61°	2023 dec 19 13h47.1m A23_12031 48 Doris UCAC4 518–024576 Diam = 219.0 m = 12.2 m = 11.1  Dur = 18.2s Dmag = 0.3 Sun: 167° Moon: 101°
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 21 7h11.4m A23_12093 407 Arachne TYC 1859–00894–1 Diam = 97.0 m = 9.6 m = 12.2  Dur = 8.4s Dmag = 2.7 Sun: 171° Moon: 64°	2023 dec 21 13h13.2m A23_12171 2152 Hannibal TYC 0756–00795–1 Diam = 49.0 m = 10.7 m = 14.5  Dur = 4.0s Dmag = 3.8 Sun: 161° Moon: 83°	2023 dec 23 1h29.9m A23_12139 834 Burnhamia TYC 5254–00417–1 Diam = 69.2 m = 12.3 m = 15.3  Dur = 3.2s Dmag = 3.0 Sun: 81° Moon: 50°
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 23 5h37.1m B23_12009 2015VR166 UCAC4 544–008324 Diam = 104.7 m = 14.8 m = 23.7  Dur = 4.9s Dmag = 8.8 Sun: 151° Moon: 18°	2023 dec 23 7h24.0m A23_12190 4902 Thessandrus UCAC4 512–032477 Diam = 50.1 m = 12.1 m = 16.4  Dur = 3.2s Dmag = 4.3 Sun: 162° Moon: 60°	2023 dec 23 7h51.5m A23_12192 78799 2002XW93 TYC 2430–00735–1 Diam = 416.9 m = 11.9 m = 21.7  Dur = 15.8s Dmag = 9.8 Sun: 167° Moon: 51°
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 26 11h26.0m A23_12158 1357 Khama UCAC4 531–052329 Diam = 45.1 m = 12.1 m = 17.2  Dur = 4.1s Dmag = 5.2 Sun: 100° Moon: 85°	2023 dec 27 2h47.7m A23_12110 491 Carina TYC 4804–02408–1 Diam = 101.0 m = 10.8 m = 13.1  Dur = 8.0s Dmag = 2.5 Sun: 152° Moon: 32°	2023 dec 27 3h50.3m A23_12188 4835 Asaeus PPMX 7096244 Diam = 45.7 m = 11.9 m = 15.5  Dur = 3.3s Dmag = 3.6 Sun: 161° Moon: 20°

Occultations by major and minor planets – 2023

Region 1

2023 dec 27 3h59.9m A23_12187 4835 Asaeus UCAC4 518–041620 Diam = 45.7 m = 12.5 m = 15.5  Dur = 3.3s Dmag = 3.1 Sun: 161° Moon: 20°	2023 dec 27 10h 4.2m A23_12176 3063 Makhaon PPMX 6133558 Diam = 125.0 m = 12.5 m = 15.5  Dur = 8.5s Dmag = 3.0 Sun: 156° Moon: 20°	2023 dec 27 23h40.8m A23_12030 47 Aglaja HIP 113379 Diam = 137.0 m = 8.4 m = 13.2  Dur = 4.5s Dmag = 4.8 Sun: 67° Moon: 124°	2023 dec 28 0h11.9m A23_12081 271 Penthesilea TYC 1824–00070–1 Diam = 61.2 m = 10.6 m = 14.0  Dur = 7.2s Dmag = 3.4 Sun: 152° Moon: 38°
2023 dec 28 8h 5.7m A23_12053 128 Nemesis Gaia 115–0074009 Diam = 194.0 m = 12.1 m = 11.7  Dur = 20.2s Dmag = 0.6 Sun: 149° Moon: 14°	2023 dec 28 8h 7.1m A23_12052 128 Nemesis UCAC4 573–044851 Diam = 194.0 m = 12.1 m = 11.7  Dur = 20.2s Dmag = 0.6 Sun: 149° Moon: 14°	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 30 10h50.7m A23_12162 1596 Itzigsohn PPMX 7097833 Diam = 51.1 m = 12.5 m = 14.2  Dur = 4.3s Dmag = 2.0 Sun: 160° Moon: 30°
2023 dec 30 12h 0.9m B23_12008 2015GC56 UCAC4 358–069123 Diam = 151.4 m = 15.0 m = 23.2  Dur = 7.3s Dmag = 8.2 Sun: 60° Moon: 81°	2023 dec 31 1h 7.6m A23_12145 987 Wallia PPMX 3988611 Diam = 44.6 m = 12.2 m = 14.1  Dur = 3.3s Dmag = 2.1 Sun: 162° Moon: 60°	2023 dec 31 3h46.2m A23_12175 3025 Higson PPMX 3982426 Diam = 52.1 m = 11.7 m = 14.6  Dur = 3.7s Dmag = 3.0 Sun: 159° Moon: 63°	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°