

2013

Moon Parallax and Semi-diameter

| | | Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------------------|----|-----|------|-----|-----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|------|----|------|------|----|------|---|---|---|---|---|
| | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Jan 1 | 1 | 70.7 | -6 | 5 | 70.2 | -18 | 5 | 69.0 | -29 | 5 | 67.0 | -40 | 5 | 64.2 | -51 | 5 | 60.6 | -61 | 4 | 56.4 | -69 | 4 | 51.6 | -77 | 4 | 46.2 | -84 | 3 | 40.3 | -89 | 3 | 34.1 | -94 | 2 | 24.8 | -97 | 2 | 15.1 | | | | | |
| Jan 2 | 2 | 71.3 | -6 | 6 | 70.9 | -18 | 6 | 69.6 | -30 | 6 | 67.6 | -41 | 6 | 64.8 | -51 | 6 | 61.2 | -61 | 5 | 56.9 | -70 | 5 | 52.0 | -78 | 4 | 46.6 | -85 | 4 | 40.7 | -90 | 3 | 34.4 | -95 | 3 | 25.0 | -98 | 2 | 15.3 | | | | | |
| Jan 3 | 3 | 72.1 | -6 | 7 | 71.6 | -18 | 7 | 70.4 | -30 | 7 | 68.3 | -41 | 7 | 65.4 | -52 | 6 | 61.8 | -62 | 6 | 57.5 | -71 | 5 | 52.6 | -79 | 5 | 47.1 | -86 | 4 | 41.1 | -91 | 4 | 34.8 | -96 | 3 | 25.3 | -99 | 2 | 15.4 | | | | | |
| Jan 4 | 4 | 72.9 | -6 | 8 | 72.5 | -18 | 8 | 71.2 | -30 | 7 | 69.1 | -42 | 7 | 66.2 | -53 | 7 | 62.5 | -63 | 6 | 58.2 | -72 | 6 | 53.2 | -80 | 5 | 47.6 | -87 | 5 | 41.6 | -92 | 4 | 35.2 | -97 | 3 | 25.6 | -100 | 2 | 15.6 | | | | | |
| Jan 5 | 5 | 73.8 | -6 | 8 | 73.4 | -19 | 8 | 72.1 | -31 | 8 | 70.0 | -42 | 7 | 67.0 | -53 | 7 | 63.3 | -63 | 7 | 58.9 | -73 | 6 | 53.9 | -81 | 5 | 48.2 | -88 | 5 | 42.1 | -93 | 4 | 35.6 | -98 | 3 | 25.9 | -101 | 2 | 15.8 | | | | | |
| Jan 6 | 6 | 74.8 | -6 | 8 | 74.3 | -19 | 8 | 73.0 | -31 | 7 | 70.9 | -43 | 7 | 67.9 | -54 | 7 | 64.1 | -64 | 6 | 59.7 | -74 | 6 | 54.6 | -82 | 5 | 48.9 | -89 | 5 | 42.7 | -95 | 4 | 36.1 | -100 | 3 | 26.2 | -103 | 2 | 16.0 | | | | | |
| Jan 7 | 7 | 75.7 | -6 | 7 | 75.3 | -19 | 7 | 73.9 | -31 | 7 | 71.7 | -43 | 6 | 68.7 | -55 | 6 | 64.9 | -65 | 6 | 60.4 | -74 | 5 | 55.2 | -83 | 5 | 49.5 | -90 | 4 | 43.2 | -96 | 4 | 36.6 | -101 | 3 | 26.5 | -104 | 2 | 16.2 | | | | | |
| Jan 8 | 8 | 76.5 | -6 | 5 | 76.1 | -19 | 5 | 74.7 | -32 | 5 | 72.5 | -44 | 5 | 69.5 | -55 | 5 | 65.6 | -66 | 4 | 61.1 | -75 | 4 | 55.8 | -84 | 4 | 50.0 | -91 | 3 | 43.7 | -97 | 3 | 37.0 | -102 | 2 | 26.8 | -105 | 1 | 16.4 | | | | | |
| Jan 9 | 9 | 77.1 | -6 | 3 | 76.7 | -19 | 3 | 75.3 | -32 | 3 | 73.1 | -44 | 3 | 70.0 | -55 | 2 | 66.2 | -66 | 2 | 61.6 | -76 | 2 | 56.3 | -84 | 2 | 50.4 | -91 | 2 | 44.0 | -97 | 1 | 37.2 | -102 | 1 | 27.0 | -105 | 1 | 16.5 | | | | | |
| Jan 10 | 10 | 77.5 | -6 | 0 | 77.0 | -19 | 0 | 75.7 | -32 | 0 | 73.4 | -44 | 0 | 70.3 | -55 | 0 | 66.5 | -66 | 0 | 61.8 | -76 | 0 | 56.5 | -84 | 0 | 50.6 | -91 | 0 | 44.2 | -97 | 0 | 37.4 | -102 | 0 | 27.2 | -106 | 0 | 16.6 | | | | | |
| Jan 11 | 11 | 77.4 | -6 | -3 | 77.0 | -19 | -3 | 75.6 | -32 | -3 | 73.4 | -44 | -3 | 70.3 | -55 | -3 | 66.4 | -66 | -3 | 61.8 | -76 | -3 | 56.5 | -84 | -2 | 50.6 | -91 | -2 | 44.2 | -97 | -2 | 37.4 | -102 | -1 | 27.1 | -105 | -1 | 16.6 | | | | | |
| Jan 12 | 12 | 77.0 | -6 | -6 | 76.6 | -19 | -6 | 75.2 | -32 | -6 | 73.0 | -44 | -6 | 70.0 | -55 | -5 | 66.1 | -65 | -5 | 61.5 | -75 | -5 | 56.2 | -83 | -4 | 50.4 | -91 | -4 | 44.0 | -96 | -3 | 37.2 | -101 | -3 | 27.0 | -105 | -2 | 16.5 | | | | | |
| Jan 13 | 13 | 76.3 | -6 | -8 | 75.9 | -19 | -8 | 74.5 | -31 | -8 | 72.3 | -43 | -8 | 69.3 | -54 | -7 | 65.5 | -65 | -7 | 60.9 | -74 | -6 | 55.7 | -82 | -6 | 49.9 | -90 | -5 | 43.6 | -95 | -4 | 36.8 | -100 | -3 | 26.8 | -103 | -2 | 16.3 | | | | | |
| Jan 14 | 14 | 75.3 | -6 | -10 | 74.9 | -19 | -9 | 73.6 | -31 | -9 | 71.4 | -42 | -9 | 68.4 | -54 | -8 | 64.6 | -64 | -8 | 60.1 | -73 | -7 | 55.0 | -81 | -7 | 49.2 | -88 | -6 | 43.0 | -94 | -5 | 36.4 | -99 | -4 | 26.4 | -102 | -3 | 16.1 | | | | | |
| Jan 15 | 15 | 74.2 | -6 | -10 | 73.7 | -18 | -10 | 72.4 | -30 | -9 | 70.3 | -42 | -9 | 67.3 | -53 | -9 | 63.6 | -63 | -8 | 59.2 | -72 | -8 | 54.1 | -80 | -7 | 48.5 | -87 | -6 | 42.3 | -92 | -5 | 35.8 | -97 | -4 | 26.0 | -100 | -3 | 15.9 | | | | | |
| Jan 16 | 16 | 73.0 | -6 | -9 | 72.6 | -18 | -9 | 71.3 | -30 | -9 | 69.2 | -41 | -9 | 66.3 | -52 | -8 | 62.6 | -62 | -8 | 58.2 | -71 | -7 | 53.3 | -79 | -6 | 47.7 | -86 | -6 | 41.7 | -91 | -5 | 35.2 | -96 | -4 | 25.6 | -99 | -3 | 15.6 | | | | | |
| Jan 17 | 17 | 71.9 | -6 | -8 | 71.4 | -18 | -8 | 70.2 | -29 | -8 | 68.1 | -41 | -8 | 65.2 | -51 | -7 | 61.6 | -61 | -7 | 57.3 | -70 | -6 | 52.4 | -78 | -6 | 47.0 | -84 | -5 | 41.0 | -90 | -4 | 34.7 | -94 | -3 | 25.2 | -97 | -2 | 15.4 | | | | | |
| Jan 18 | 18 | 70.9 | -6 | -7 | 70.4 | -18 | -7 | 69.2 | -29 | -7 | 67.2 | -40 | -6 | 64.3 | -50 | -6 | 60.8 | -60 | -6 | 56.6 | -69 | -5 | 51.7 | -77 | -5 | 46.3 | -83 | -4 | 40.5 | -89 | -4 | 34.2 | -93 | -3 | 24.8 | -96 | -2 | 15.2 | | | | | |
| Jan 19 | 19 | 70.0 | -6 | -5 | 69.6 | -17 | -5 | 68.4 | -29 | -5 | 66.4 | -40 | -5 | 63.6 | -50 | -4 | 60.1 | -60 | -4 | 55.9 | -68 | -4 | 51.1 | -76 | -4 | 45.8 | -82 | -3 | 40.0 | -88 | -3 | 33.8 | -92 | -2 | 24.6 | -95 | -1 | 15.0 | | | | | |
| Jan 20 | 20 | 69.4 | -6 | -3 | 69.0 | -17 | -3 | 67.8 | -29 | -3 | 65.8 | -39 | -3 | 63.0 | -50 | -3 | 59.6 | -59 | -3 | 55.4 | -68 | -3 | 50.7 | -75 | -2 | 45.4 | -82 | -2 | 39.6 | -87 | -2 | 33.5 | -92 | -1 | 24.3 | -94 | -1 | 14.9 | | | | | |
| Jan 21 | 21 | 69.0 | -6 | -2 | 68.6 | -17 | -2 | 67.4 | -28 | -1 | 65.4 | -39 | -1 | 62.7 | -49 | -1 | 59.2 | -59 | -1 | 55.1 | -67 | -1 | 50.4 | -75 | -1 | 45.1 | -81 | -1 | 39.4 | -87 | -1 | 33.3 | -91 | -1 | 24.2 | -94 | 0 | 14.8 | | | | | |
| Jan 22 | 22 | 68.9 | -6 | 0 | 68.5 | -17 | 0 | 67.2 | -28 | 0 | 65.3 | -39 | 0 | 62.5 | -49 | 0 | 59.1 | -59 | 0 | 55.0 | -67 | 0 | 50.2 | -75 | 0 | 45.0 | -81 | 0 | 39.3 | -87 | 0 | 33.3 | -91 | 0 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Jan 23 | 23 | 68.9 | -6 | 1 | 68.5 | -17 | 1 | 67.3 | -28 | 1 | 65.3 | -39 | 1 | 62.5 | -49 | 1 | 59.1 | -59 | 1 | 55.0 | -67 | 1 | 50.2 | -75 | 1 | 45.0 | -81 | 1 | 39.3 | -87 | 1 | 33.3 | -91 | 1 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Jan 24 | 24 | 69.0 | -6 | 3 | 68.6 | -17 | 3 | 67.4 | -29 | 3 | 65.4 | -39 | 2 | 62.7 | -50 | 2 | 59.2 | -59 | 2 | 55.1 | -68 | 2 | 50.4 | -75 | 2 | 45.1 | -82 | 2 | 39.4 | -87 | 1 | 33.3 | -92 | 1 | 24.2 | -94 | 1 | 14.8 | | | | | |
| Jan 25 | 25 | 69.4 | -6 | 4 | 69.0 | -17 | 3 | 67.7 | -29 | 3 | 65.7 | -40 | 3 | 63.0 | -50 | 3 | 59.5 | -59 | 3 | 55.4 | -68 | 3 | 50.6 | -76 | 2 | 45.3 | -82 | 2 | 39.6 | -87 | 2 | 33.5 | -92 | 1 | 24.3 | -95 | 1 | 14.9 | | | | | |
| Jan 26 | 26 | 69.8 | -6 | 4 | 69.4 | -17 | 4 | 68.2 | -29 | 4 | 66.1 | -40 | 4 | 63.4 | -50 | 4 | 59.9 | -60 | 3 | 55.7 | -68 | 3 | 50.9 | -76 | 3 | 45.6 | -83 | 3 | 39.8 | -88 | 2 | 33.7 | -93 | 2 | 24.5 | -96 | 1 | 14.9 | | | | | |
| Jan 27 | 27 | 70.3 | -6 | 5 | 69.9 | -18 | 5 | 68.6 | -29 | 4 | 66.6 | -40 | 4 | 63.8 | -51 | 4 | 60.3 | -60 | 4 | 56.1 | -69 | 4 | 51.3 | -77 | 3 | 45.9 | -83 | 3 | 40.1 | -89 | 2 | 33.9 | -93 | 2 | 24.6 | -96 | 1 | 15.1 | | | | | |
| Jan 28 | 28 | 70.8 | -6 | 5 | 70.4 | -18 | 5 | 69.2 | -29 | 5 | 67.1 | -40 | 5 | 64.3 | -51 | 4 | 60.8 | -61 | 4 | 56.5 | -70 | 4 | 51.7 | -77 | 3 | 46.3 | -84 | 3 | 40.4 | -89 | 3 | 34.2 | -94 | 2 | 24.8 | -97 | 1 | 15.2 | | | | | |
| Jan 29 | 29 | 71.4 | -6 | 5 | 71.0 | -18 | 5 | 69.8 | -30 | 5 | 67.7 | -41 | 5 | 64.9 | -51 | 5 | 61.3 | -61 | 4 | 57.0 | -70 | 4 | 52.1 | -78 | 4 | 46.7 | -85 | 3 | 40.8 | -90 | 3 | 34.5 | -95 | 2 | 25.0 | -98 | 1 | 15.3 | | | | | |
| Jan 30 | 30 | 72.0 | -6 | 5 | 71.6 | -18 | 5 | 70.4 | -30 | 5 | 68.3 | -41 | 5 | 65.4 | -52 | 5 | 61.8 | -62 | 4 | 57.5 | -71 | 4 | 52.6 | -79 | 4 | 47.1 | -85 | 3 | 41.1 | -91 | 3 | 34.8 | -96 | 2 | 25.3 | -99 | 1 | 15.4 | | | | | |
| Jan 31 | 31 | 72.7 | -6 | 5 | 72.2 | -18 | 5 | 71.0 | -30 | 5 | 68.9 | -41 | 5 | 66.0 | -52 | 5 | 62.3 | -62 | 4 | 58.0 | -71 | 4 | 53.0 | -79 | 4 | 47.5 | -86 | 3 | 41.5 | -92 | 3 | 35.1 | -97 | 2 | 25.5 | -100 | 1 | 15.6 | | | | | |
| Feb 1 | 1 | 73.3 | -6 | 5 | 72.9 | -18 | 5 | 71.6 | -30 | 5 | 69.5 | -42 | 5 | 66.6 | -53 | 5 | 62.9 | -63 | 4 | 58.5 | -72 | 4 | 53.5 | -80 | 4 | 47.9 | -87 | 3 | 41.9 | -93 | 3 | 35.4 | -97 | 2 | 25.7 | -100 | 2 | 15.7 | | | | | |
| Feb 2 | 2 | 74.0 | -6 | 5 | 73.5 | -19 | 5 | 72.2 | -31 | 5 | 70.1 | -42 | 5 | 67.1 | -53 | 5 | 63.4 | -63 | 4 | 59.0 | -73 | 4 | 54.0 | -81 | 4 | 48.3 | -88 | 3 | 42.2 | -93 | 3 | 35.7 | -98 | 2 | 25.9 | -101 | 1 | 15.8 | | | | | |
| Feb 3 | 3 | 74.6 | -6 | 5 | 74.1 | -19 | 5 | 72.8 | -31 | 5 | 70.7 | -43 | 5 | 67.7 | -54 | 4 | 64.0 | -64 | 4 | 59.5 | -73 | 4 | 54.4 | -81 | 3 | 48.7 | -88 | 3 | 42.6 | -94 | 3 | 36.0 | -99 | 2 | 26.1 | -102 | 1 | 16.0 | | | | | |
| Feb 4 | 4 | 75.2 | -6 | 4 | 74.7 | -19 | 4 | 73.4 | -31 | 4 | 71.3 | -43 | 4 | 68.3 | -54 | 4 | 64.5 | -64 | 4 | 60.0 | -74 | 3 | 54.9 | -82 | 3 | 49.1 | -89 | 3 | 42.9 | -95 | 2 | 36.3 | -100 | 2 | 26.4 | -103 | 1 | 16.1 | | | | | |
| Feb 5 | 5 | 75.7 | -6 | 3 | 75.3 | -19 | 3 | 73.9 | -31 | 3 | 71.8 | -43 | 3 | 68.7 | -54 | 3 | 65.0 | -65 | 3 | 60.4 | -74 | 3 | 55.2 | -83 | 2 | 49.5 | -90 | 2 | 43.2 | -95 | 2 | 36.6 | -100 | 1 | 26.5 | -104 | 1 | 16.2 | | | | | |
| Feb 6 | 6 | 76.1 | -6 | 2 | 75.7 | -19 | 2 | 74.3 | -31 | 2 | 72.1 | -43 | 2 | 69.1 | -55 | 2 | 65.3 | -65 | 2 | 60.8 | -75 | 1 | 55.5 | -83 | 1 | 49.8 | -90 | 1 | 43.5 | -96 | 1 | 36.8 | -101 | 1 | 26.7 | -104 | 1 | 16.3 | | | | | |
| Feb 7 | 7 | 76.4 | -6 | 0 | 75.9 | -19 | 0 | 74.6 | -31 | 0 | 72.4 | -43 | 0 | 69.3 | -55 | 0 | 65.5 | -65 | 0 | 60.9 | -75 | 0 | 55.7 | -83 | 0 | 49.9 | -90 | 0 | 43.6 | -96 | 0 | 36.9 | -101 | 0 | 26.8 | -104 | 0 | 16.3 | | | | | |
| Feb 8 | 8 | 76.4 | -6 | -2 | 75.9 | -19 | -2 | 74.6 | -31 | -2 | 72.4 | -43 | -2 | 69.3 | -55 | -2 | 65.5 | -65 | -2 | 60.9 | -75 | -2 | 55.7 | -83 | -2 | 49.9 | -90 | -1 | 43.6 | -96 | -1 | 36.9 | -101 | -1 | 26.8 | -104 | -1 | 16.3 | | | | | |
| Feb 9 | 9 | 76.1 | -6 | -4 | 75.6 | -19 | -4 | 74.3 | -31 | -4 | 72.1 | -43 | -4 | 69.1 | -54 | -4 | 65.3 | -65 | -4 | 60.7 | -74 | -3 | 55.5 | -82 | -3 | 49.7 | -90 | -3 | 43.4 | -95 | -2 | 36.7 | -100 | -2 | 26.7 | -103 | -1 | 16.3 | | | | | |
| Feb 10 | 10 | 75.6 | -6 | -6 | 75.1 | -19 | -6 | 73.8 | -31 | -6 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| | | Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------------------|------------------------------|------|-------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|-----|-------------------------------|------|-------------------------------|-------|---|---|----|---|---|----|---|---|----|---|---|----|---|---|---|---|---|
| | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Jan 1 | 1 | 40.4 | ⁻⁶ ₅ | 40.0 | ⁻¹⁸ ₅ | 38.7 | ⁻²⁹ ₅ | 36.7 | ⁻⁴⁰ ₅ | 33.9 | ⁻⁵¹ ₅ | 30.4 | ⁻⁶¹ ₄ | 26.1 | ⁻⁶⁹ ₄ | 21.3 | ⁻⁷⁷ ₄ | 15.9 | ⁻⁸⁴ ₃ | 10.1 | ⁻⁸⁹ ₃ | 3.9 | ⁻⁹⁴ ₂ | -5.5 | ⁻⁹⁷ ₂ | -15.1 | | | | | | | | | | | | | | | | | |
| Jan 2 | 2 | 40.8 | ⁻⁶ ₆ | 40.4 | ⁻¹⁸ ₆ | 39.1 | ⁻³⁰ ₆ | 37.0 | ⁻⁴¹ ₆ | 34.2 | ⁻⁵¹ ₆ | 30.6 | ⁻⁶¹ ₅ | 26.4 | ⁻⁷⁰ ₅ | 21.5 | ⁻⁷⁸ ₄ | 16.1 | ⁻⁸⁵ ₄ | 10.2 | ⁻⁹⁰ ₃ | 3.9 | ⁻⁹⁵ ₃ | -5.5 | ⁻⁹⁸ ₂ | -15.3 | | | | | | | | | | | | | | | | | |
| Jan 3 | 3 | 41.2 | ⁻⁶ ₇ | 40.8 | ⁻¹⁸ ₇ | 39.5 | ⁻³⁰ ₇ | 37.4 | ⁻⁴¹ ₇ | 34.6 | ⁻⁵² ₆ | 31.0 | ⁻⁶² ₆ | 26.7 | ⁻⁷¹ ₅ | 21.7 | ⁻⁷⁹ ₅ | 16.2 | ⁻⁸⁶ ₄ | 10.3 | ⁻⁹¹ ₄ | 3.9 | ⁻⁹⁶ ₃ | -5.6 | ⁻⁹⁹ ₂ | -15.4 | | | | | | | | | | | | | | | | | |
| Jan 4 | 4 | 41.7 | ⁻⁶ ₈ | 41.3 | ⁻¹⁸ ₈ | 40.0 | ⁻³⁰ ₇ | 37.9 | ⁻⁴² ₇ | 35.0 | ⁻⁵³ ₇ | 31.3 | ⁻⁶³ ₆ | 27.0 | ⁻⁷² ₆ | 22.0 | ⁻⁸⁰ ₅ | 16.4 | ⁻⁸⁷ ₅ | 10.4 | ⁻⁹² ₄ | 4.0 | ⁻⁹⁷ ₃ | -5.7 | ⁻¹⁰⁰ ₂ | -15.6 | | | | | | | | | | | | | | | | | |
| Jan 5 | 5 | 42.2 | ⁻⁶ ₈ | 41.8 | ⁻¹⁹ ₈ | 40.5 | ⁻³¹ ₈ | 38.3 | ⁻⁴² ₇ | 35.4 | ⁻⁵³ ₇ | 31.7 | ⁻⁶³ ₇ | 27.3 | ⁻⁷³ ₆ | 22.2 | ⁻⁸¹ ₅ | 16.6 | ⁻⁸⁸ ₅ | 10.5 | ⁻⁹³ ₄ | 4.0 | ⁻⁹⁸ ₃ | -5.7 | ⁻¹⁰¹ ₂ | -15.8 | | | | | | | | | | | | | | | | | |
| Jan 6 | 6 | 42.7 | ⁻⁶ ₈ | 42.3 | ⁻¹⁹ ₈ | 41.0 | ⁻³¹ ₇ | 38.8 | ⁻⁴³ ₇ | 35.9 | ⁻⁵⁴ ₇ | 32.1 | ⁻⁶⁴ ₆ | 27.7 | ⁻⁷⁴ ₆ | 22.5 | ⁻⁸² ₅ | 16.8 | ⁻⁸⁹ ₅ | 10.7 | ⁻⁹⁵ ₄ | 4.1 | ⁻¹⁰⁰ ₃ | -5.8 | ⁻¹⁰³ ₂ | -16.0 | | | | | | | | | | | | | | | | | |
| Jan 7 | 7 | 43.3 | ⁻⁶ ₇ | 42.8 | ⁻¹⁹ ₇ | 41.5 | ⁻³¹ ₇ | 39.3 | ⁻⁴³ ₆ | 36.3 | ⁻⁵⁵ ₆ | 32.5 | ⁻⁶⁵ ₆ | 28.0 | ⁻⁷⁴ ₅ | 22.8 | ⁻⁸³ ₅ | 17.1 | ⁻⁹⁰ ₄ | 10.8 | ⁻⁹⁶ ₄ | 4.1 | ⁻¹⁰¹ ₃ | -5.9 | ⁻¹⁰⁴ ₂ | -16.2 | | | | | | | | | | | | | | | | | |
| Jan 8 | 8 | 43.7 | ⁻⁶ ₅ | 43.3 | ⁻¹⁹ ₅ | 42.0 | ⁻³² ₅ | 39.8 | ⁻⁴⁴ ₅ | 36.7 | ⁻⁵⁵ ₅ | 32.9 | ⁻⁶⁶ ₄ | 28.3 | ⁻⁷⁵ ₄ | 23.1 | ⁻⁸⁴ ₄ | 17.2 | ⁻⁹¹ ₃ | 10.9 | ⁻⁹⁷ ₃ | 4.2 | ⁻¹⁰² ₂ | -5.9 | ⁻¹⁰⁵ ₁ | -16.4 | | | | | | | | | | | | | | | | | |
| Jan 9 | 9 | 44.1 | ⁻⁶ ₃ | 43.6 | ⁻¹⁹ ₃ | 42.3 | ⁻³² ₃ | 40.1 | ⁻⁴⁴ ₃ | 37.0 | ⁻⁵⁵ ₂ | 33.1 | ⁻⁶⁶ ₂ | 28.5 | ⁻⁷⁶ ₂ | 23.2 | ⁻⁸⁴ ₂ | 17.4 | ⁻⁹¹ ₂ | 11.0 | ⁻⁹⁷ ₁ | 4.2 | ⁻¹⁰² ₁ | -6.0 | ⁻¹⁰⁵ ₁ | -16.5 | | | | | | | | | | | | | | | | | |
| Jan 10 | 10 | 44.3 | ⁻⁶ ₀ | 43.8 | ⁻¹⁹ ₀ | 42.5 | ⁻³² ₀ | 40.2 | ⁻⁴⁴ ₀ | 37.2 | ⁻⁵⁵ ₀ | 33.3 | ⁻⁶⁶ ₀ | 28.6 | ⁻⁷⁶ ₀ | 23.3 | ⁻⁸⁴ ₀ | 17.5 | ⁻⁹¹ ₀ | 11.0 | ⁻⁹⁷ ₀ | 4.2 | ⁻¹⁰² ₀ | -6.0 | ⁻¹⁰⁶ ₀ | -16.6 | | | | | | | | | | | | | | | | | |
| Jan 11 | 11 | 44.3 | ⁻⁶ ₋₃ | 43.8 | ⁻¹⁹ ₋₃ | 42.5 | ⁻³² ₋₃ | 40.2 | ⁻⁴⁴ ₋₃ | 37.1 | ⁻⁵⁵ ₋₃ | 33.3 | ⁻⁶⁶ ₋₃ | 28.6 | ⁻⁷⁶ ₋₃ | 23.3 | ⁻⁸⁴ ₋₂ | 17.4 | ⁻⁹¹ ₋₂ | 11.0 | ⁻⁹⁷ ₋₂ | 4.2 | ⁻¹⁰² ₋₁ | -6.0 | ⁻¹⁰⁵ ₋₁ | -16.6 | | | | | | | | | | | | | | | | | |
| Jan 12 | 12 | 44.0 | ⁻⁶ ₋₆ | 43.6 | ⁻¹⁹ ₋₆ | 42.2 | ⁻³² ₋₆ | 40.0 | ⁻⁴⁴ ₋₆ | 37.0 | ⁻⁵⁵ ₋₅ | 33.1 | ⁻⁶⁵ ₋₅ | 28.5 | ⁻⁷⁵ ₋₅ | 23.2 | ⁻⁸³ ₋₄ | 17.4 | ⁻⁹¹ ₋₄ | 11.0 | ⁻⁹⁶ ₋₃ | 4.2 | ⁻¹⁰¹ ₋₃ | -6.0 | ⁻¹⁰⁵ ₋₂ | -16.5 | | | | | | | | | | | | | | | | | |
| Jan 13 | 13 | 43.6 | ⁻⁶ ₋₈ | 43.2 | ⁻¹⁹ ₋₈ | 41.8 | ⁻³¹ ₋₈ | 39.6 | ⁻⁴³ ₋₈ | 36.6 | ⁻⁵⁴ ₋₇ | 32.8 | ⁻⁶⁵ ₋₇ | 28.2 | ⁻⁷⁴ ₋₆ | 23.0 | ⁻⁸² ₋₆ | 17.2 | ⁻⁹⁰ ₋₅ | 10.9 | ⁻⁹⁵ ₋₄ | 4.2 | ⁻¹⁰⁰ ₋₃ | -5.9 | ⁻¹⁰³ ₋₂ | -16.3 | | | | | | | | | | | | | | | | | |
| Jan 14 | 14 | 43.1 | ⁻⁶ ₋₁₀ | 42.6 | ⁻¹⁹ ₋₉ | 41.3 | ⁻³¹ ₋₉ | 39.1 | ⁻⁴² ₋₉ | 36.1 | ⁻⁵⁴ ₋₈ | 32.3 | ⁻⁶⁴ ₋₈ | 27.9 | ⁻⁷³ ₋₇ | 22.7 | ⁻⁸¹ ₋₇ | 17.0 | ⁻⁸⁸ ₋₆ | 10.7 | ⁻⁹⁴ ₋₅ | 4.1 | ⁻⁹⁹ ₋₄ | -5.8 | ⁻¹⁰² ₋₃ | -16.1 | | | | | | | | | | | | | | | | | |
| Jan 15 | 15 | 42.4 | ⁻⁶ ₋₁₀ | 42.0 | ⁻¹⁸ ₋₁₀ | 40.7 | ⁻³⁰ ₋₉ | 38.5 | ⁻⁴² ₋₉ | 35.6 | ⁻⁵³ ₋₉ | 31.9 | ⁻⁶³ ₋₈ | 27.4 | ⁻⁷² ₋₈ | 22.4 | ⁻⁸⁰ ₋₇ | 16.7 | ⁻⁸⁷ ₋₆ | 10.6 | ⁻⁹² ₋₅ | 4.1 | ⁻⁹⁷ ₋₄ | -5.8 | ⁻¹⁰⁰ ₋₃ | -15.9 | | | | | | | | | | | | | | | | | |
| Jan 16 | 16 | 41.7 | ⁻⁶ ₋₉ | 41.3 | ⁻¹⁸ ₋₉ | 40.0 | ⁻³⁰ ₋₉ | 37.9 | ⁻⁴¹ ₋₉ | 35.0 | ⁻⁵² ₋₈ | 31.3 | ⁻⁶² ₋₈ | 27.0 | ⁻⁷¹ ₋₇ | 22.0 | ⁻⁷⁹ ₋₆ | 16.4 | ⁻⁸⁶ ₋₆ | 10.4 | ⁻⁹¹ ₋₅ | 4.0 | ⁻⁹⁶ ₋₄ | -5.7 | ⁻⁹⁹ ₋₃ | -15.6 | | | | | | | | | | | | | | | | | |
| Jan 17 | 17 | 41.1 | ⁻⁶ ₋₈ | 40.7 | ⁻¹⁸ ₋₈ | 39.4 | ⁻²⁹ ₋₈ | 37.3 | ⁻⁴¹ ₋₈ | 34.5 | ⁻⁵¹ ₋₇ | 30.9 | ⁻⁶¹ ₋₇ | 26.6 | ⁻⁷⁰ ₋₆ | 21.7 | ⁻⁷⁸ ₋₆ | 16.2 | ⁻⁸⁴ ₋₅ | 10.2 | ⁻⁹⁰ ₋₄ | 3.9 | ⁻⁹⁴ ₋₃ | -5.6 | ⁻⁹⁷ ₋₂ | -15.4 | | | | | | | | | | | | | | | | | |
| Jan 18 | 18 | 40.5 | ⁻⁶ ₋₇ | 40.1 | ⁻¹⁸ ₋₇ | 38.9 | ⁻²⁹ ₋₇ | 36.8 | ⁻⁴⁰ ₋₆ | 34.0 | ⁻⁵⁰ ₋₆ | 30.4 | ⁻⁶⁰ ₋₆ | 26.2 | ⁻⁶⁹ ₋₅ | 21.4 | ⁻⁷⁷ ₋₅ | 16.0 | ⁻⁸³ ₋₄ | 10.1 | ⁻⁸⁹ ₋₄ | 3.9 | ⁻⁹³ ₋₃ | -5.5 | ⁻⁹⁶ ₋₂ | -15.2 | | | | | | | | | | | | | | | | | |
| Jan 19 | 19 | 40.0 | ⁻⁶ ₋₅ | 39.6 | ⁻¹⁷ ₋₅ | 38.4 | ⁻²⁹ ₋₅ | 36.4 | ⁻⁴⁰ ₋₅ | 33.6 | ⁻⁵⁰ ₋₄ | 30.1 | ⁻⁶⁰ ₋₄ | 25.9 | ⁻⁶⁸ ₋₄ | 21.1 | ⁻⁷⁶ ₋₄ | 15.8 | ⁻⁸² ₋₃ | 10.0 | ⁻⁸⁸ ₋₃ | 3.8 | ⁻⁹² ₋₂ | -5.4 | ⁻⁹⁵ ₋₁ | -15.0 | | | | | | | | | | | | | | | | | |
| Jan 20 | 20 | 39.7 | ⁻⁶ ₋₃ | 39.3 | ⁻¹⁷ ₋₃ | 38.1 | ⁻²⁹ ₋₃ | 36.1 | ⁻³⁹ ₋₃ | 33.3 | ⁻⁵⁰ ₋₃ | 29.8 | ⁻⁵⁹ ₋₃ | 25.7 | ⁻⁶⁸ ₋₃ | 20.9 | ⁻⁷⁵ ₋₂ | 15.6 | ⁻⁸² ₋₂ | 9.9 | ⁻⁸⁷ ₋₂ | 3.8 | ⁻⁹² ₋₁ | -5.4 | ⁻⁹⁴ ₋₁ | -14.9 | | | | | | | | | | | | | | | | | |
| Jan 21 | 21 | 39.5 | ⁻⁶ ₋₂ | 39.1 | ⁻¹⁷ ₋₂ | 37.9 | ⁻²⁸ ₋₁ | 35.9 | ⁻³⁹ ₋₁ | 33.1 | ⁻⁴⁹ ₋₁ | 29.7 | ⁻⁵⁹ ₋₁ | 25.5 | ⁻⁶⁷ ₋₁ | 20.8 | ⁻⁷⁵ ₋₁ | 15.6 | ⁻⁸¹ ₋₁ | 9.8 | ⁻⁸⁷ ₋₁ | 3.8 | ⁻⁹¹ ₋₁ | -5.4 | ⁻⁹⁴ ₀ | -14.8 | | | | | | | | | | | | | | | | | |
| Jan 22 | 22 | 39.4 | ⁻⁶ ₀ | 39.0 | ⁻¹⁷ ₀ | 37.8 | ⁻²⁸ ₀ | 35.8 | ⁻³⁹ ₀ | 33.0 | ⁻⁴⁹ ₀ | 29.6 | ⁻⁵⁹ ₀ | 25.5 | ⁻⁶⁷ ₀ | 20.8 | ⁻⁷⁵ ₀ | 15.5 | ⁻⁸¹ ₀ | 9.8 | ⁻⁸⁷ ₀ | 3.8 | ⁻⁹¹ ₀ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jan 23 | 23 | 39.4 | ⁻⁶ ₁ | 39.0 | ⁻¹⁷ ₁ | 37.8 | ⁻²⁸ ₁ | 35.8 | ⁻³⁹ ₁ | 33.0 | ⁻⁴⁹ ₁ | 29.6 | ⁻⁵⁹ ₁ | 25.5 | ⁻⁶⁷ ₁ | 20.8 | ⁻⁷⁵ ₁ | 15.5 | ⁻⁸¹ ₁ | 9.8 | ⁻⁸⁷ ₁ | 3.8 | ⁻⁹¹ ₁ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jan 24 | 24 | 39.5 | ⁻⁶ ₃ | 39.1 | ⁻¹⁷ ₃ | 37.9 | ⁻²⁹ ₃ | 35.9 | ⁻³⁹ ₂ | 33.1 | ⁻⁵⁰ ₂ | 29.7 | ⁻⁵⁹ ₂ | 25.5 | ⁻⁶⁸ ₂ | 20.8 | ⁻⁷⁵ ₂ | 15.6 | ⁻⁸² ₂ | 9.8 | ⁻⁸⁷ ₁ | 3.8 | ⁻⁹² ₁ | -5.4 | ⁻⁹⁴ ₁ | -14.8 | | | | | | | | | | | | | | | | | |
| Jan 25 | 25 | 39.7 | ⁻⁶ ₄ | 39.2 | ⁻¹⁷ ₃ | 38.0 | ⁻²⁹ ₃ | 36.0 | ⁻⁴⁰ ₃ | 33.3 | ⁻⁵⁰ ₃ | 29.8 | ⁻⁵⁹ ₃ | 25.7 | ⁻⁶⁸ ₃ | 20.9 | ⁻⁷⁶ ₂ | 15.6 | ⁻⁸² ₂ | 9.9 | ⁻⁸⁷ ₂ | 3.8 | ⁻⁹² ₁ | -5.4 | ⁻⁹⁵ ₁ | -14.9 | | | | | | | | | | | | | | | | | |
| Jan 26 | 26 | 39.9 | ⁻⁶ ₄ | 39.5 | ⁻¹⁷ ₄ | 38.3 | ⁻²⁹ ₄ | 36.3 | ⁻⁴⁰ ₄ | 33.5 | ⁻⁵⁰ ₄ | 30.0 | ⁻⁶⁰ ₃ | 25.8 | ⁻⁶⁸ ₃ | 21.0 | ⁻⁷⁶ ₃ | 15.7 | ⁻⁸³ ₃ | 10.0 | ⁻⁸⁸ ₂ | 3.8 | ⁻⁹³ ₂ | -5.4 | ⁻⁹⁶ ₁ | -14.9 | | | | | | | | | | | | | | | | | |
| Jan 27 | 27 | 40.2 | ⁻⁶ ₅ | 39.8 | ⁻¹⁸ ₅ | 38.5 | ⁻²⁹ ₄ | 36.5 | ⁻⁴⁰ ₄ | 33.7 | ⁻⁵¹ ₄ | 30.2 | ⁻⁶⁰ ₄ | 26.0 | ⁻⁶⁹ ₄ | 21.2 | ⁻⁷⁷ ₃ | 15.8 | ⁻⁸³ ₃ | 10.0 | ⁻⁸⁹ ₂ | 3.8 | ⁻⁹³ ₂ | -5.5 | ⁻⁹⁶ ₁ | -15.1 | | | | | | | | | | | | | | | | | |
| Jan 28 | 28 | 40.5 | ⁻⁶ ₅ | 40.1 | ⁻¹⁸ ₅ | 38.8 | ⁻²⁹ ₅ | 36.8 | ⁻⁴⁰ ₅ | 34.0 | ⁻⁵¹ ₄ | 30.4 | ⁻⁶¹ ₄ | 26.2 | ⁻⁷⁰ ₄ | 21.4 | ⁻⁷⁷ ₃ | 16.0 | ⁻⁸⁴ ₃ | 10.1 | ⁻⁸⁹ ₃ | 3.9 | ⁻⁹⁴ ₂ | -5.5 | ⁻⁹⁷ ₁ | -15.2 | | | | | | | | | | | | | | | | | |
| Jan 29 | 29 | 40.8 | ⁻⁶ ₅ | 40.4 | ⁻¹⁸ ₅ | 39.2 | ⁻³⁰ ₅ | 37.1 | ⁻⁴¹ ₅ | 34.3 | ⁻⁵¹ ₅ | 30.7 | ⁻⁶¹ ₄ | 26.4 | ⁻⁷⁰ ₄ | 21.5 | ⁻⁷⁸ ₄ | 16.1 | ⁻⁸⁵ ₃ | 10.2 | ⁻⁹⁰ ₃ | 3.9 | ⁻⁹⁵ ₂ | -5.5 | ⁻⁹⁸ ₁ | -15.3 | | | | | | | | | | | | | | | | | |
| Jan 30 | 30 | 41.2 | ⁻⁶ ₅ | 40.8 | ⁻¹⁸ ₅ | 39.5 | ⁻³⁰ ₅ | 37.4 | ⁻⁴¹ ₅ | 34.6 | ⁻⁵² ₅ | 30.9 | ⁻⁶² ₄ | 26.6 | ⁻⁷¹ ₄ | 21.7 | ⁻⁷⁹ ₄ | 16.2 | ⁻⁸⁵ ₃ | 10.3 | ⁻⁹¹ ₃ | 3.9 | ⁻⁹⁶ ₂ | -5.6 | ⁻⁹⁹ ₁ | -15.4 | | | | | | | | | | | | | | | | | |
| Jan 31 | 31 | 41.5 | ⁻⁶ ₅ | 41.1 | ⁻¹⁸ ₅ | 39.9 | ⁻³⁰ ₅ | 37.8 | ⁻⁴¹ ₅ | 34.9 | ⁻⁵² ₅ | 31.2 | ⁻⁶² ₄ | 26.9 | ⁻⁷¹ ₄ | 21.9 | ⁻⁷⁹ ₄ | 16.4 | ⁻⁸⁶ ₃ | 10.4 | ⁻⁹² ₃ | 4.0 | ⁻⁹⁷ ₂ | -5.6 | ⁻¹⁰⁰ ₁ | -15.6 | | | | | | | | | | | | | | | | | |
| Feb 1 | 1 | 41.9 | ⁻⁶ ₅ | 41.5 | ⁻¹⁸ ₅ | 40.2 | ⁻³⁰ ₅ | 38.1 | ⁻⁴² ₅ | 35.2 | ⁻⁵³ ₅ | 31.5 | ⁻⁶³ ₄ | 27.1 | ⁻⁷² ₄ | 22.1 | ⁻⁸⁰ ₄ | 16.5 | ⁻⁸⁷ ₃ | 10.5 | ⁻⁹³ ₃ | 4.0 | ⁻⁹⁷ ₂ | -5.7 | ⁻¹⁰⁰ ₂ | -15.7 | | | | | | | | | | | | | | | | | |
| Feb 2 | 2 | 42.3 | ⁻⁶ ₅ | 41.8 | ⁻¹⁹ ₅ | 40.6 | ⁻³¹ ₅ | 38.4 | ⁻⁴² ₅ | 35.5 | ⁻⁵³ ₅ | 31.8 | ⁻⁶³ ₄ | 27.3 | ⁻⁷³ ₄ | 22.3 | ⁻⁸¹ ₄ | 16.7 | ⁻⁸⁸ ₃ | 10.5 | ⁻⁹³ ₃ | 4.0 | ⁻⁹⁸ ₂ | -5.7 | ⁻¹⁰¹ ₁ | -15.8 | | | | | | | | | | | | | | | | | |
| Feb 3 | 3 | 42.6 | ⁻⁶ ₅ | 42.2 | ⁻¹⁹ ₅ | 40.9 | ⁻³¹ ₅ | 38.7 | ⁻⁴³ ₅ | 35.8 | ⁻⁵⁴ ₄ | 32.0 | ⁻⁶⁴ ₄ | 27.6 | ⁻⁷³ ₄ | 22.5 | ⁻⁸¹ ₃ | 16.8 | ⁻⁸⁸ ₃ | 10.6 | ⁻⁹⁴ ₃ | 4.1 | ⁻⁹⁹ ₂ | -5.8 | ⁻¹⁰² ₁ | -16.0 | | | | | | | | | | | | | | | | | |
| Feb 4 | 4 | 43.0 | ⁻⁶ ₄ | 42.5 | ⁻¹⁹ ₄ | 41.2 | ⁻³¹ ₄ | 39.1 | ⁻⁴³ ₄ | 36.1 | ⁻⁵⁴ ₄ | 32.3 | ⁻⁶⁴ ₄ | 27.8 | ⁻⁷⁴ ₃ | 22.7 | ⁻⁸² ₃ | 16.9 | ⁻⁸⁹ ₃ | 10.7 | ⁻⁹⁵ ₂ | 4.1 | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|-----------------|---------------|------|-----------------|---------------|------|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Feb 16 | 70.2 | ⁻⁶ | ₋₅ | 69.7 | ⁻¹⁷ | ₋₅ | 68.5 | ⁻²⁹ | ₋₅ | 66.5 | ⁻⁴⁰ | ₋₅ | 63.7 | ⁻⁵⁰ | ₋₄ | 60.2 | ⁻⁶⁰ | ₋₄ | 56.0 | ⁻⁶⁸ | ₋₄ | 51.2 | ⁻⁷⁶ | ₋₃ | 45.9 | ⁻⁸² | ₋₃ | 40.1 | ⁻⁸⁸ | ₋₃ | 33.9 | ⁻⁹² | ₋₂ | 24.6 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | |
| Feb 17 | 69.5 | ⁻⁶ | ₋₃ | 69.1 | ⁻¹⁷ | ₋₃ | 67.9 | ⁻²⁹ | ₋₃ | 65.9 | ⁻³⁹ | ₋₃ | 63.2 | ⁻⁵⁰ | ₋₃ | 59.7 | ⁻⁵⁹ | ₋₃ | 55.5 | ⁻⁶⁸ | ₋₃ | 50.7 | ⁻⁷⁵ | ₋₂ | 45.5 | ⁻⁸² | ₋₂ | 39.7 | ⁻⁸⁷ | ₋₂ | 33.6 | ⁻⁹² | ₋₁ | 24.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | |
| Feb 18 | 69.2 | ⁻⁶ | ₋₁ | 68.8 | ⁻¹⁷ | ₋₁ | 67.5 | ⁻²⁸ | ₋₁ | 65.5 | ⁻³⁹ | ₋₁ | 62.8 | ⁻⁴⁹ | ₋₁ | 59.3 | ⁻⁵⁹ | ₋₁ | 55.2 | ⁻⁶⁸ | ₋₁ | 50.5 | ⁻⁷⁵ | ₋₁ | 45.2 | ⁻⁸² | ₋₁ | 39.5 | ⁻⁸⁷ | ₋₁ | 33.4 | ⁻⁹¹ | ₋₁ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | |
| Feb 19 | 69.0 | ⁻⁶ | ₀ | 68.6 | ⁻¹⁷ | ₀ | 67.4 | ⁻²⁸ | ₀ | 65.4 | ⁻³⁹ | ₀ | 62.6 | ⁻⁴⁹ | ₀ | 59.2 | ⁻⁵⁹ | ₀ | 55.1 | ⁻⁶⁷ | ₀ | 50.3 | ⁻⁷⁵ | ₀ | 45.1 | ⁻⁸² | ₀ | 39.4 | ⁻⁸⁷ | ₀ | 33.3 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | |
| Feb 20 | 69.0 | ⁻⁶ | ₂ | 68.6 | ⁻¹⁷ | ₂ | 67.4 | ⁻²⁹ | ₂ | 65.4 | ⁻³⁹ | ₂ | 62.7 | ⁻⁵⁰ | ₂ | 59.2 | ⁻⁵⁹ | ₂ | 55.1 | ⁻⁶⁸ | ₂ | 50.4 | ⁻⁷⁵ | ₁ | 45.1 | ⁻⁸² | ₁ | 39.4 | ⁻⁸⁷ | ₁ | 33.3 | ⁻⁹² | ₁ | 24.2 | ⁻⁹⁴ | ₁ | 14.8 | | | | | |
| Feb 21 | 69.3 | ⁻⁶ | ₄ | 68.9 | ⁻¹⁷ | ₄ | 67.7 | ⁻²⁹ | ₃ | 65.7 | ⁻⁴⁰ | ₃ | 62.9 | ⁻⁵⁰ | ₃ | 59.4 | ⁻⁵⁹ | ₃ | 55.3 | ⁻⁶⁸ | ₃ | 50.6 | ⁻⁷⁶ | ₂ | 45.3 | ⁻⁸² | ₂ | 39.6 | ⁻⁸⁷ | ₂ | 33.5 | ⁻⁹² | ₁ | 24.3 | ⁻⁹⁵ | ₁ | 14.8 | | | | | |
| Feb 22 | 69.7 | ⁻⁶ | ₅ | 69.3 | ⁻¹⁷ | ₅ | 68.1 | ⁻²⁹ | ₅ | 66.1 | ⁻⁴⁰ | ₄ | 63.3 | ⁻⁵⁰ | ₄ | 59.8 | ⁻⁶⁰ | ₄ | 55.6 | ⁻⁶⁸ | ₄ | 50.9 | ⁻⁷⁶ | ₃ | 45.6 | ⁻⁸³ | ₃ | 39.8 | ⁻⁸⁸ | ₃ | 33.7 | ⁻⁹³ | ₂ | 24.4 | ⁻⁹⁶ | ₁ | 14.9 | | | | | |
| Feb 23 | 70.3 | ⁻⁶ | ₆ | 69.9 | ⁻¹⁸ | ₆ | 68.7 | ⁻²⁹ | ₅ | 66.6 | ⁻⁴⁰ | ₅ | 63.8 | ⁻⁵¹ | ₅ | 60.3 | ⁻⁶⁰ | ₅ | 56.1 | ⁻⁶⁹ | ₄ | 51.3 | ⁻⁷⁷ | ₄ | 45.9 | ⁻⁸³ | ₃ | 40.1 | ⁻⁸⁹ | ₃ | 33.9 | ⁻⁹³ | ₂ | 24.6 | ⁻⁹⁶ | ₂ | 15.1 | | | | | |
| Feb 24 | 71.0 | ⁻⁶ | ₆ | 70.6 | ⁻¹⁸ | ₆ | 69.3 | ⁻²⁹ | ₆ | 67.3 | ⁻⁴¹ | ₆ | 64.4 | ⁻⁵¹ | ₅ | 60.9 | ⁻⁶¹ | ₅ | 56.6 | ⁻⁷⁰ | ₅ | 51.8 | ⁻⁷⁸ | ₄ | 46.4 | ⁻⁸⁴ | ₄ | 40.5 | ⁻⁹⁰ | ₃ | 34.3 | ⁻⁹⁴ | ₃ | 24.9 | ⁻⁹⁷ | ₂ | 15.2 | | | | | |
| Feb 25 | 71.7 | ⁻⁶ | ₆ | 71.3 | ⁻¹⁸ | ₆ | 70.0 | ⁻³⁰ | ₆ | 67.9 | ⁻⁴¹ | ₆ | 65.1 | ⁻⁵² | ₅ | 61.5 | ⁻⁶¹ | ₅ | 57.2 | ⁻⁷⁰ | ₅ | 52.3 | ⁻⁷⁸ | ₄ | 46.9 | ⁻⁸⁵ | ₄ | 40.9 | ⁻⁹¹ | ₃ | 34.6 | ⁻⁹⁵ | ₃ | 25.1 | ⁻⁹⁸ | ₂ | 15.4 | | | | | |
| Feb 26 | 72.4 | ⁻⁶ | ₆ | 72.0 | ⁻¹⁸ | ₆ | 70.7 | ⁻³⁰ | ₆ | 68.6 | ⁻⁴¹ | ₅ | 65.8 | ⁻⁵² | ₅ | 62.1 | ⁻⁶² | ₅ | 57.8 | ⁻⁷¹ | ₄ | 52.8 | ⁻⁷⁹ | ₄ | 47.3 | ⁻⁸⁶ | ₄ | 41.3 | ⁻⁹¹ | ₃ | 35.0 | ⁻⁹⁶ | ₂ | 25.4 | ⁻⁹⁹ | ₂ | 15.5 | | | | | |
| Feb 27 | 73.1 | ⁻⁶ | ₅ | 72.7 | ⁻¹⁸ | ₅ | 71.4 | ⁻³⁰ | ₅ | 69.3 | ⁻⁴² | ₅ | 66.4 | ⁻⁵³ | ₅ | 62.7 | ⁻⁶³ | ₄ | 58.3 | ⁻⁷² | ₄ | 53.3 | ⁻⁸⁰ | ₄ | 47.8 | ⁻⁸⁷ | ₃ | 41.7 | ⁻⁹² | ₃ | 35.3 | ⁻⁹⁷ | ₂ | 25.6 | ⁻¹⁰⁰ | ₁ | 15.7 | | | | | |
| Feb 28 | 73.7 | ⁻⁶ | ₄ | 73.3 | ⁻¹⁸ | ₄ | 72.0 | ⁻³¹ | ₄ | 69.9 | ⁻⁴² | ₄ | 66.9 | ⁻⁵³ | ₄ | 63.2 | ⁻⁶³ | ₄ | 58.8 | ⁻⁷² | ₃ | 53.8 | ⁻⁸⁰ | ₃ | 48.2 | ⁻⁸⁷ | ₃ | 42.1 | ⁻⁹³ | ₂ | 35.6 | ⁻⁹⁸ | ₂ | 25.8 | ⁻¹⁰¹ | ₁ | 15.8 | | | | | |
| Mar 1 | 74.3 | ⁻⁶ | ₄ | 73.8 | ⁻¹⁹ | ₃ | 72.5 | ⁻³¹ | ₃ | 70.4 | ⁻⁴² | ₃ | 67.4 | ⁻⁵³ | ₃ | 63.7 | ⁻⁶⁴ | ₃ | 59.3 | ⁻⁷³ | ₃ | 54.2 | ⁻⁸¹ | ₂ | 48.5 | ⁻⁸⁸ | ₂ | 42.4 | ⁻⁹⁴ | ₂ | 35.9 | ⁻⁹⁹ | ₁ | 26.0 | ⁻¹⁰² | ₁ | 15.9 | | | | | |
| Mar 2 | 74.7 | ⁻⁶ | ₃ | 74.2 | ⁻¹⁹ | ₃ | 72.9 | ⁻³¹ | ₃ | 70.8 | ⁻⁴³ | ₃ | 67.8 | ⁻⁵⁴ | ₂ | 64.1 | ⁻⁶⁴ | ₂ | 59.6 | ⁻⁷³ | ₂ | 54.5 | ⁻⁸¹ | ₂ | 48.8 | ⁻⁸⁸ | ₂ | 42.6 | ⁻⁹⁴ | ₁ | 36.1 | ⁻⁹⁹ | ₁ | 26.2 | ⁻¹⁰² | ₁ | 16.0 | | | | | |
| Mar 3 | 75.0 | ⁻⁶ | ₂ | 74.6 | ⁻¹⁹ | ₂ | 73.3 | ⁻³¹ | ₂ | 71.1 | ⁻⁴³ | ₂ | 68.1 | ⁻⁵⁴ | ₂ | 64.3 | ⁻⁶⁴ | ₂ | 59.9 | ⁻⁷³ | ₁ | 54.7 | ⁻⁸² | ₁ | 49.0 | ⁻⁸⁹ | ₁ | 42.8 | ⁻⁹⁴ | ₁ | 36.2 | ⁻⁹⁹ | ₁ | 26.3 | ⁻¹⁰³ | ₁ | 16.1 | | | | | |
| Mar 4 | 75.2 | ⁻⁶ | ₁ | 74.8 | ⁻¹⁹ | ₁ | 73.5 | ⁻³¹ | ₁ | 71.3 | ⁻⁴³ | ₁ | 68.3 | ⁻⁵⁴ | ₁ | 64.5 | ⁻⁶⁴ | ₁ | 60.0 | ⁻⁷⁴ | ₁ | 54.9 | ⁻⁸² | ₁ | 49.2 | ⁻⁸⁹ | ₁ | 43.0 | ⁻⁹⁵ | ₁ | 36.3 | ⁻¹⁰⁰ | ₀ | 26.4 | ⁻¹⁰³ | ₀ | 16.1 | | | | | |
| Mar 5 | 75.4 | ⁻⁶ | ₀ | 74.9 | ⁻¹⁹ | ₀ | 73.6 | ⁻³¹ | ₀ | 71.4 | ⁻⁴³ | ₀ | 68.4 | ⁻⁵⁴ | ₀ | 64.7 | ⁻⁶⁴ | ₀ | 60.2 | ⁻⁷⁴ | ₀ | 55.0 | ⁻⁸² | ₀ | 49.3 | ⁻⁸⁹ | ₀ | 43.0 | ⁻⁹⁵ | ₀ | 36.4 | ⁻¹⁰⁰ | ₀ | 26.4 | ⁻¹⁰³ | ₀ | 16.1 | | | | | |
| Mar 6 | 75.4 | ⁻⁶ | ₀ | 75.0 | ⁻¹⁹ | ₀ | 73.7 | ⁻³¹ | ₀ | 71.5 | ⁻⁴³ | ₀ | 68.5 | ⁻⁵⁴ | ₀ | 64.7 | ⁻⁶⁴ | ₀ | 60.2 | ⁻⁷⁴ | ₀ | 55.0 | ⁻⁸² | ₀ | 49.3 | ⁻⁸⁹ | ₀ | 43.1 | ⁻⁹⁵ | ₀ | 36.4 | ⁻¹⁰⁰ | ₀ | 26.4 | ⁻¹⁰³ | ₀ | 16.2 | | | | | |
| Mar 7 | 75.4 | ⁻⁶ | ₋₂ | 74.9 | ⁻¹⁹ | ₋₂ | 73.6 | ⁻³¹ | ₋₁ | 71.4 | ⁻⁴³ | ₋₁ | 68.4 | ⁻⁵⁴ | ₋₁ | 64.7 | ⁻⁶⁴ | ₋₁ | 60.2 | ⁻⁷⁴ | ₋₁ | 55.0 | ⁻⁸² | ₋₁ | 49.3 | ⁻⁸⁹ | ₋₁ | 43.0 | ⁻⁹⁵ | ₋₁ | 36.4 | ⁻¹⁰⁰ | ₋₁ | 26.4 | ⁻¹⁰³ | ₀ | 16.1 | | | | | |
| Mar 8 | 75.2 | ⁻⁶ | ₋₃ | 74.7 | ⁻¹⁹ | ₋₃ | 73.4 | ⁻³¹ | ₋₃ | 71.3 | ⁻⁴³ | ₋₂ | 68.3 | ⁻⁵⁴ | ₋₂ | 64.5 | ⁻⁶⁴ | ₋₂ | 60.0 | ⁻⁷³ | ₋₂ | 54.9 | ⁻⁸² | ₋₂ | 49.1 | ⁻⁸⁹ | ₋₂ | 42.9 | ⁻⁹⁴ | ₋₁ | 36.3 | ⁻⁹⁹ | ₋₁ | 26.4 | ⁻¹⁰² | ₋₁ | 16.1 | | | | | |
| Mar 9 | 74.9 | ⁻⁶ | ₋₄ | 74.4 | ⁻¹⁹ | ₋₄ | 73.1 | ⁻³¹ | ₋₄ | 71.0 | ⁻⁴² | ₋₄ | 68.0 | ⁻⁵³ | ₋₃ | 64.2 | ⁻⁶⁴ | ₋₃ | 59.8 | ⁻⁷³ | ₋₃ | 54.6 | ⁻⁸¹ | ₋₃ | 48.9 | ⁻⁸⁸ | ₋₂ | 42.7 | ⁻⁹⁴ | ₋₂ | 36.2 | ⁻⁹⁹ | ₋₂ | 26.2 | ⁻¹⁰² | ₋₁ | 16.0 | | | | | |
| Mar 10 | 74.4 | ⁻⁶ | ₋₅ | 74.0 | ⁻¹⁹ | ₋₅ | 72.7 | ⁻³¹ | ₋₅ | 70.5 | ⁻⁴² | ₋₅ | 67.6 | ⁻⁵³ | ₋₄ | 63.8 | ⁻⁶³ | ₋₄ | 59.4 | ⁻⁷² | ₋₄ | 54.3 | ⁻⁸¹ | ₋₃ | 48.6 | ⁻⁸⁸ | ₋₃ | 42.5 | ⁻⁹³ | ₋₃ | 35.9 | ⁻⁹⁸ | ₋₂ | 26.1 | ⁻¹⁰¹ | ₋₁ | 15.9 | | | | | |
| Mar 11 | 73.8 | ⁻⁶ | ₋₆ | 73.4 | ⁻¹⁸ | ₋₆ | 72.1 | ⁻³⁰ | ₋₆ | 69.9 | ⁻⁴² | ₋₆ | 67.0 | ⁻⁵³ | ₋₅ | 63.3 | ⁻⁶³ | ₋₅ | 58.9 | ⁻⁷² | ₋₅ | 53.8 | ⁻⁸⁰ | ₋₄ | 48.2 | ⁻⁸⁷ | ₋₄ | 42.1 | ⁻⁹² | ₋₃ | 35.6 | ⁻⁹⁷ | ₋₂ | 25.9 | ⁻¹⁰⁰ | ₋₂ | 15.8 | | | | | |
| Mar 12 | 73.1 | ⁻⁶ | ₋₇ | 72.6 | ⁻¹⁸ | ₋₆ | 71.4 | ⁻³⁰ | ₋₆ | 69.3 | ⁻⁴¹ | ₋₆ | 66.3 | ⁻⁵² | ₋₆ | 62.7 | ⁻⁶² | ₋₅ | 58.3 | ⁻⁷¹ | ₋₅ | 53.3 | ⁻⁷⁹ | ₋₅ | 47.8 | ⁻⁸⁶ | ₋₄ | 41.7 | ⁻⁹¹ | ₋₃ | 35.3 | ⁻⁹⁶ | ₋₃ | 25.6 | ⁻⁹⁹ | ₋₂ | 15.6 | | | | | |
| Mar 13 | 72.3 | ⁻⁶ | ₋₇ | 71.9 | ⁻¹⁸ | ₋₇ | 70.6 | ⁻³⁰ | ₋₆ | 68.5 | ⁻⁴¹ | ₋₆ | 65.6 | ⁻⁵¹ | ₋₆ | 62.0 | ⁻⁶¹ | ₋₆ | 57.7 | ⁻⁷⁰ | ₋₅ | 52.7 | ⁻⁷⁸ | ₋₅ | 47.2 | ⁻⁸⁵ | ₋₄ | 41.3 | ⁻⁹⁰ | ₋₄ | 34.9 | ⁻⁹⁵ | ₋₃ | 25.3 | ⁻⁹⁸ | ₋₂ | 15.5 | | | | | |
| Mar 14 | 71.5 | ⁻⁶ | ₋₆ | 71.1 | ⁻¹⁸ | ₋₆ | 69.8 | ⁻²⁹ | ₋₆ | 67.7 | ⁻⁴⁰ | ₋₆ | 64.9 | ⁻⁵¹ | ₋₆ | 61.3 | ⁻⁶¹ | ₋₅ | 57.0 | ⁻⁷⁰ | ₋₅ | 52.2 | ⁻⁷⁷ | ₋₄ | 46.7 | ⁻⁸⁴ | ₋₄ | 40.8 | ⁻⁸⁹ | ₋₃ | 34.5 | ⁻⁹⁴ | ₋₃ | 25.1 | ⁻⁹⁷ | ₋₂ | 15.3 | | | | | |
| Mar 15 | 70.7 | ⁻⁶ | ₋₆ | 70.3 | ⁻¹⁸ | ₋₆ | 69.1 | ⁻²⁹ | ₋₅ | 67.0 | ⁻⁴⁰ | ₋₅ | 64.2 | ⁻⁵⁰ | ₋₅ | 60.7 | ⁻⁶⁰ | ₋₅ | 56.4 | ⁻⁶⁹ | ₋₄ | 51.6 | ⁻⁷⁷ | ₋₄ | 46.2 | ⁻⁸³ | ₋₃ | 40.4 | ⁻⁸⁸ | ₋₃ | 34.1 | ⁻⁹³ | ₋₂ | 24.8 | ⁻⁹⁶ | ₋₂ | 15.1 | | | | | |
| Mar 16 | 70.0 | ⁻⁶ | ₋₄ | 69.6 | ⁻¹⁷ | ₋₄ | 68.4 | ⁻²⁹ | ₋₄ | 66.4 | ⁻⁴⁰ | ₋₄ | 63.6 | ⁻⁵⁰ | ₋₄ | 60.1 | ⁻⁶⁰ | ₋₄ | 55.9 | ⁻⁶⁸ | ₋₃ | 51.1 | ⁻⁷⁶ | ₋₃ | 45.8 | ⁻⁸² | ₋₃ | 40.0 | ⁻⁸⁸ | ₋₂ | 33.8 | ⁻⁹² | ₋₂ | 24.6 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | |
| Mar 17 | 69.5 | ⁻⁶ | ₋₃ | 69.1 | ⁻¹⁷ | ₋₃ | 67.9 | ⁻²⁹ | ₋₃ | 65.9 | ⁻³⁹ | ₋₃ | 63.1 | ⁻⁵⁰ | ₋₃ | 59.6 | ⁻⁵⁹ | ₋₂ | 55.5 | ⁻⁶⁸ | ₋₂ | 50.7 | ⁻⁷⁵ | ₋₂ | 45.4 | ⁻⁸² | ₋₂ | 39.7 | ⁻⁸⁷ | ₋₂ | 33.6 | ⁻⁹² | ₋₁ | 24.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | |
| Mar 18 | 69.2 | ⁻⁶ | ₋₁ | 68.8 | ⁻¹⁷ | ₋₁ | 67.5 | ⁻²⁸ | ₋₁ | 65.5 | ⁻³⁹ | ₋₁ | 62.8 | ⁻⁴⁹ | ₋₁ | 59.3 | ⁻⁵⁹ | ₋₁ | 55.2 | ⁻⁶⁸ | ₋₁ | 50.5 | ⁻⁷⁵ | ₋₁ | 45.2 | ⁻⁸² | ₋₁ | 39.5 | ⁻⁸⁷ | ₋₁ | 33.4 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|--------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|-----|-----------------|---------------|------|-----------------|---------------|-------|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Feb 16 | 40.1 | ⁻⁶ | ₋₅ | 39.7 | ⁻¹⁷ | ₋₅ | 38.5 | ⁻²⁹ | ₋₅ | 36.4 | ⁻⁴⁰ | ₋₅ | 33.7 | ⁻⁵⁰ | ₋₄ | 30.1 | ⁻⁶⁰ | ₋₄ | 25.9 | ⁻⁶⁸ | ₋₄ | 21.1 | ⁻⁷⁶ | ₋₃ | 15.8 | ⁻⁸² | ₋₃ | 10.0 | ⁻⁸⁸ | ₋₃ | 3.8 | ⁻⁹² | ₋₂ | -5.4 | ⁻⁹⁵ | ₋₁ | -15.0 | | | | | |
| Feb 17 | 39.8 | ⁻⁶ | ₋₃ | 39.4 | ⁻¹⁷ | ₋₃ | 38.1 | ⁻²⁹ | ₋₃ | 36.1 | ⁻³⁹ | ₋₃ | 33.4 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₃ | 25.7 | ⁻⁶⁸ | ₋₃ | 21.0 | ⁻⁷⁵ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁵ | ₋₁ | -14.9 | | | | | |
| Feb 18 | 39.5 | ⁻⁶ | ₋₁ | 39.1 | ⁻¹⁷ | ₋₁ | 37.9 | ⁻²⁸ | ₋₁ | 35.9 | ⁻³⁹ | ₋₁ | 33.2 | ⁻⁴⁹ | ₋₁ | 29.7 | ⁻⁵⁹ | ₋₁ | 25.6 | ⁻⁶⁸ | ₋₁ | 20.8 | ⁻⁷⁵ | ₋₁ | 15.6 | ⁻⁸² | ₋₁ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | |
| Feb 19 | 39.4 | ⁻⁶ | ₀ | 39.0 | ⁻¹⁷ | ₀ | 37.8 | ⁻²⁸ | ₀ | 35.8 | ⁻³⁹ | ₀ | 33.1 | ⁻⁴⁹ | ₀ | 29.6 | ⁻⁵⁹ | ₀ | 25.5 | ⁻⁶⁷ | ₀ | 20.8 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸² | ₀ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | |
| Feb 20 | 39.5 | ⁻⁶ | ₂ | 39.1 | ⁻¹⁷ | ₂ | 37.9 | ⁻²⁹ | ₂ | 35.9 | ⁻³⁹ | ₂ | 33.1 | ⁻⁵⁰ | ₂ | 29.7 | ⁻⁵⁹ | ₂ | 25.5 | ⁻⁶⁸ | ₂ | 20.8 | ⁻⁷⁵ | ₁ | 15.6 | ⁻⁸² | ₁ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹² | ₁ | -5.4 | ⁻⁹⁴ | ₁ | -14.8 | | | | | |
| Feb 21 | 39.6 | ⁻⁶ | ₄ | 39.2 | ⁻¹⁷ | ₄ | 38.0 | ⁻²⁹ | ₃ | 36.0 | ⁻⁴⁰ | ₃ | 33.2 | ⁻⁵⁰ | ₃ | 29.8 | ⁻⁵⁹ | ₃ | 25.6 | ⁻⁶⁸ | ₃ | 20.9 | ⁻⁷⁶ | ₂ | 15.6 | ⁻⁸² | ₂ | 9.9 | ⁻⁸⁷ | ₂ | 3.8 | ⁻⁹² | ₁ | -5.4 | ⁻⁹⁵ | ₁ | -14.8 | | | | | |
| Feb 22 | 39.9 | ⁻⁶ | ₅ | 39.5 | ⁻¹⁷ | ₅ | 38.2 | ⁻²⁹ | ₅ | 36.2 | ⁻⁴⁰ | ₄ | 33.4 | ⁻⁵⁰ | ₄ | 29.9 | ⁻⁶⁰ | ₄ | 25.8 | ⁻⁶⁸ | ₄ | 21.0 | ⁻⁷⁶ | ₃ | 15.7 | ⁻⁸³ | ₃ | 9.9 | ⁻⁸⁸ | ₃ | 3.8 | ⁻⁹³ | ₂ | -5.4 | ⁻⁹⁶ | ₁ | -14.9 | | | | | |
| Feb 23 | 40.2 | ⁻⁶ | ₆ | 39.8 | ⁻¹⁸ | ₆ | 38.5 | ⁻²⁹ | ₅ | 36.5 | ⁻⁴⁰ | ₅ | 33.7 | ⁻⁵¹ | ₅ | 30.2 | ⁻⁶⁰ | ₅ | 26.0 | ⁻⁶⁹ | ₄ | 21.2 | ⁻⁷⁷ | ₄ | 15.8 | ⁻⁸³ | ₃ | 10.0 | ⁻⁸⁹ | ₃ | 3.8 | ⁻⁹³ | ₂ | -5.5 | ⁻⁹⁶ | ₂ | -15.1 | | | | | |
| Feb 24 | 40.6 | ⁻⁶ | ₆ | 40.2 | ⁻¹⁸ | ₆ | 38.9 | ⁻²⁹ | ₆ | 36.9 | ⁻⁴¹ | ₆ | 34.0 | ⁻⁵¹ | ₅ | 30.5 | ⁻⁶¹ | ₅ | 26.2 | ⁻⁷⁰ | ₅ | 21.4 | ⁻⁷⁸ | ₄ | 16.0 | ⁻⁸⁴ | ₄ | 10.1 | ⁻⁹⁰ | ₃ | 3.9 | ⁻⁹⁴ | ₃ | -5.5 | ⁻⁹⁷ | ₂ | -15.2 | | | | | |
| Feb 25 | 41.0 | ⁻⁶ | ₆ | 40.6 | ⁻¹⁸ | ₆ | 39.3 | ⁻³⁰ | ₆ | 37.2 | ⁻⁴¹ | ₆ | 34.4 | ⁻⁵² | ₅ | 30.8 | ⁻⁶¹ | ₅ | 26.5 | ⁻⁷⁰ | ₅ | 21.6 | ⁻⁷⁸ | ₄ | 16.2 | ⁻⁸⁵ | ₄ | 10.2 | ⁻⁹¹ | ₃ | 3.9 | ⁻⁹⁵ | ₃ | -5.6 | ⁻⁹⁸ | ₂ | -15.4 | | | | | |
| Feb 26 | 41.4 | ⁻⁶ | ₆ | 41.0 | ⁻¹⁸ | ₆ | 39.7 | ⁻³⁰ | ₆ | 37.6 | ⁻⁴¹ | ₅ | 34.7 | ⁻⁵² | ₅ | 31.1 | ⁻⁶² | ₅ | 26.8 | ⁻⁷¹ | ₄ | 21.8 | ⁻⁷⁹ | ₄ | 16.3 | ⁻⁸⁶ | ₄ | 10.3 | ⁻⁹¹ | ₃ | 4.0 | ⁻⁹⁶ | ₂ | -5.6 | ⁻⁹⁹ | ₂ | -15.5 | | | | | |
| Feb 27 | 41.8 | ⁻⁶ | ₅ | 41.4 | ⁻¹⁸ | ₅ | 40.1 | ⁻³⁰ | ₅ | 38.0 | ⁻⁴² | ₅ | 35.1 | ⁻⁵³ | ₅ | 31.4 | ⁻⁶³ | ₄ | 27.0 | ⁻⁷² | ₄ | 22.0 | ⁻⁸⁰ | ₄ | 16.5 | ⁻⁸⁷ | ₃ | 10.4 | ⁻⁹² | ₃ | 4.0 | ⁻⁹⁷ | ₂ | -5.7 | ⁻¹⁰⁰ | ₁ | -15.7 | | | | | |
| Feb 28 | 42.1 | ⁻⁶ | ₄ | 41.7 | ⁻¹⁸ | ₄ | 40.4 | ⁻³¹ | ₄ | 38.3 | ⁻⁴² | ₄ | 35.4 | ⁻⁵³ | ₄ | 31.7 | ⁻⁶³ | ₄ | 27.3 | ⁻⁷² | ₃ | 22.2 | ⁻⁸⁰ | ₃ | 16.6 | ⁻⁸⁷ | ₃ | 10.5 | ⁻⁹³ | ₂ | 4.0 | ⁻⁹⁸ | ₂ | -5.7 | ⁻¹⁰¹ | ₁ | -15.8 | | | | | |
| Mar 1 | 42.4 | ⁻⁶ | ₄ | 42.0 | ⁻¹⁹ | ₃ | 40.7 | ⁻³¹ | ₃ | 38.6 | ⁻⁴² | ₃ | 35.6 | ⁻⁵³ | ₃ | 31.9 | ⁻⁶⁴ | ₃ | 27.5 | ⁻⁷³ | ₃ | 22.4 | ⁻⁸¹ | ₂ | 16.7 | ⁻⁸⁸ | ₂ | 10.6 | ⁻⁹⁴ | ₂ | 4.1 | ⁻⁹⁹ | ₁ | -5.8 | ⁻¹⁰² | ₁ | -15.9 | | | | | |
| Mar 2 | 42.7 | ⁻⁶ | ₃ | 42.3 | ⁻¹⁹ | ₃ | 40.9 | ⁻³¹ | ₃ | 38.8 | ⁻⁴³ | ₃ | 35.8 | ⁻⁵⁴ | ₂ | 32.1 | ⁻⁶⁴ | ₂ | 27.6 | ⁻⁷³ | ₂ | 22.5 | ⁻⁸¹ | ₂ | 16.8 | ⁻⁸⁸ | ₂ | 10.6 | ⁻⁹⁴ | ₁ | 4.1 | ⁻⁹⁹ | ₁ | -5.8 | ⁻¹⁰² | ₁ | -16.0 | | | | | |
| Mar 3 | 42.9 | ⁻⁶ | ₂ | 42.4 | ⁻¹⁹ | ₂ | 41.1 | ⁻³¹ | ₂ | 39.0 | ⁻⁴³ | ₂ | 36.0 | ⁻⁵⁴ | ₂ | 32.2 | ⁻⁶⁴ | ₂ | 27.7 | ⁻⁷³ | ₁ | 22.6 | ⁻⁸² | ₁ | 16.9 | ⁻⁸⁹ | ₁ | 10.7 | ⁻⁹⁴ | ₁ | 4.1 | ⁻⁹⁹ | ₁ | -5.8 | ⁻¹⁰³ | ₁ | -16.1 | | | | | |
| Mar 4 | 43.0 | ⁻⁶ | ₁ | 42.6 | ⁻¹⁹ | ₁ | 41.3 | ⁻³¹ | ₁ | 39.1 | ⁻⁴³ | ₁ | 36.1 | ⁻⁵⁴ | ₁ | 32.3 | ⁻⁶⁴ | ₁ | 27.8 | ⁻⁷⁴ | ₁ | 22.7 | ⁻⁸² | ₁ | 16.9 | ⁻⁸⁹ | ₁ | 10.7 | ⁻⁹⁵ | ₁ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.8 | ⁻¹⁰³ | ₀ | -16.1 | | | | | |
| Mar 5 | 43.1 | ⁻⁶ | ₀ | 42.7 | ⁻¹⁹ | ₀ | 41.3 | ⁻³¹ | ₀ | 39.2 | ⁻⁴³ | ₀ | 36.2 | ⁻⁵⁴ | ₀ | 32.4 | ⁻⁶⁴ | ₀ | 27.9 | ⁻⁷⁴ | ₀ | 22.7 | ⁻⁸² | ₀ | 17.0 | ⁻⁸⁹ | ₀ | 10.8 | ⁻⁹⁵ | ₀ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.9 | ⁻¹⁰³ | ₀ | -16.1 | | | | | |
| Mar 6 | 43.1 | ⁻⁶ | ₀ | 42.7 | ⁻¹⁹ | ₀ | 41.4 | ⁻³¹ | ₀ | 39.2 | ⁻⁴³ | ₀ | 36.2 | ⁻⁵⁴ | ₀ | 32.4 | ⁻⁶⁴ | ₀ | 27.9 | ⁻⁷⁴ | ₀ | 22.7 | ⁻⁸² | ₀ | 17.0 | ⁻⁸⁹ | ₀ | 10.8 | ⁻⁹⁵ | ₀ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.9 | ⁻¹⁰³ | ₀ | -16.2 | | | | | |
| Mar 7 | 43.1 | ⁻⁶ | ₋₂ | 42.6 | ⁻¹⁹ | ₋₂ | 41.3 | ⁻³¹ | ₋₁ | 39.2 | ⁻⁴³ | ₋₁ | 36.2 | ⁻⁵⁴ | ₋₁ | 32.4 | ⁻⁶⁴ | ₋₁ | 27.9 | ⁻⁷⁴ | ₋₁ | 22.7 | ⁻⁸² | ₋₁ | 17.0 | ⁻⁸⁹ | ₋₁ | 10.7 | ⁻⁹⁵ | ₋₁ | 4.1 | ⁻¹⁰⁰ | ₋₁ | -5.9 | ⁻¹⁰³ | ₀ | -16.1 | | | | | |
| Mar 8 | 43.0 | ⁻⁶ | ₋₃ | 42.5 | ⁻¹⁹ | ₋₃ | 41.2 | ⁻³¹ | ₋₃ | 39.1 | ⁻⁴³ | ₋₂ | 36.1 | ⁻⁵⁴ | ₋₂ | 32.3 | ⁻⁶⁴ | ₋₂ | 27.8 | ⁻⁷³ | ₋₂ | 22.7 | ⁻⁸² | ₋₂ | 16.9 | ⁻⁸⁹ | ₋₂ | 10.7 | ⁻⁹⁴ | ₋₁ | 4.1 | ⁻⁹⁹ | ₋₁ | -5.8 | ⁻¹⁰² | ₋₁ | -16.1 | | | | | |
| Mar 9 | 42.8 | ⁻⁶ | ₋₄ | 42.4 | ⁻¹⁹ | ₋₄ | 41.1 | ⁻³¹ | ₋₄ | 38.9 | ⁻⁴² | ₋₄ | 35.9 | ⁻⁵³ | ₋₃ | 32.2 | ⁻⁶⁴ | ₋₃ | 27.7 | ⁻⁷³ | ₋₃ | 22.6 | ⁻⁸¹ | ₋₃ | 16.9 | ⁻⁸⁸ | ₋₂ | 10.7 | ⁻⁹⁴ | ₋₂ | 4.1 | ⁻⁹⁹ | ₋₂ | -5.8 | ⁻¹⁰² | ₋₁ | -16.0 | | | | | |
| Mar 10 | 42.5 | ⁻⁶ | ₋₅ | 42.1 | ⁻¹⁹ | ₋₅ | 40.8 | ⁻³¹ | ₋₅ | 38.6 | ⁻⁴² | ₋₅ | 35.7 | ⁻⁵³ | ₋₄ | 32.0 | ⁻⁶³ | ₋₄ | 27.5 | ⁻⁷² | ₋₄ | 22.4 | ⁻⁸¹ | ₋₃ | 16.8 | ⁻⁸⁸ | ₋₃ | 10.6 | ⁻⁹³ | ₋₃ | 4.1 | ⁻⁹⁸ | ₋₂ | -5.8 | ⁻¹⁰¹ | ₋₁ | -15.9 | | | | | |
| Mar 11 | 42.2 | ⁻⁶ | ₋₆ | 41.8 | ⁻¹⁸ | ₋₆ | 40.5 | ⁻³⁰ | ₋₆ | 38.3 | ⁻⁴² | ₋₆ | 35.4 | ⁻⁵³ | ₋₅ | 31.7 | ⁻⁶³ | ₋₅ | 27.3 | ⁻⁷² | ₋₅ | 22.2 | ⁻⁸⁰ | ₋₄ | 16.6 | ⁻⁸⁷ | ₋₄ | 10.5 | ⁻⁹² | ₋₃ | 4.0 | ⁻⁹⁷ | ₋₂ | -5.7 | ⁻¹⁰⁰ | ₋₂ | -15.8 | | | | | |
| Mar 12 | 41.8 | ⁻⁶ | ₋₇ | 41.3 | ⁻¹⁸ | ₋₆ | 40.1 | ⁻³⁰ | ₋₆ | 38.0 | ⁻⁴¹ | ₋₆ | 35.1 | ⁻⁵² | ₋₆ | 31.4 | ⁻⁶² | ₋₅ | 27.0 | ⁻⁷¹ | ₋₅ | 22.0 | ⁻⁷⁹ | ₋₅ | 16.5 | ⁻⁸⁶ | ₋₄ | 10.4 | ⁻⁹¹ | ₋₃ | 4.0 | ⁻⁹⁶ | ₋₃ | -5.7 | ⁻⁹⁹ | ₋₂ | -15.6 | | | | | |
| Mar 13 | 41.3 | ⁻⁶ | ₋₇ | 40.9 | ⁻¹⁸ | ₋₇ | 39.6 | ⁻³⁰ | ₋₆ | 37.5 | ⁻⁴¹ | ₋₆ | 34.7 | ⁻⁵¹ | ₋₆ | 31.0 | ⁻⁶¹ | ₋₆ | 26.7 | ⁻⁷⁰ | ₋₅ | 21.8 | ⁻⁷⁸ | ₋₅ | 16.3 | ⁻⁸⁵ | ₋₄ | 10.3 | ⁻⁹⁰ | ₋₄ | 3.9 | ⁻⁹⁵ | ₋₃ | -5.6 | ⁻⁹⁸ | ₋₂ | -15.5 | | | | | |
| Mar 14 | 40.9 | ⁻⁶ | ₋₆ | 40.4 | ⁻¹⁸ | ₋₆ | 39.2 | ⁻²⁹ | ₋₆ | 37.1 | ⁻⁴⁰ | ₋₆ | 34.3 | ⁻⁵¹ | ₋₆ | 30.7 | ⁻⁶¹ | ₋₅ | 26.4 | ⁻⁷⁰ | ₋₅ | 21.5 | ⁻⁷⁷ | ₋₄ | 16.1 | ⁻⁸⁴ | ₋₄ | 10.2 | ⁻⁸⁹ | ₋₃ | 3.9 | ⁻⁹⁴ | ₋₃ | -5.6 | ⁻⁹⁷ | ₋₂ | -15.3 | | | | | |
| Mar 15 | 40.4 | ⁻⁶ | ₋₆ | 40.0 | ⁻¹⁸ | ₋₆ | 38.8 | ⁻²⁹ | ₋₅ | 36.7 | ⁻⁴⁰ | ₋₅ | 33.9 | ⁻⁵⁰ | ₋₅ | 30.4 | ⁻⁶⁰ | ₋₅ | 26.1 | ⁻⁶⁹ | ₋₄ | 21.3 | ⁻⁷⁷ | ₋₄ | 15.9 | ⁻⁸³ | ₋₃ | 10.1 | ⁻⁸⁸ | ₋₃ | 3.9 | ⁻⁹³ | ₋₂ | -5.5 | ⁻⁹⁶ | ₋₂ | -15.1 | | | | | |
| Mar 16 | 40.0 | ⁻⁶ | ₋₄ | 39.6 | ⁻¹⁷ | ₋₄ | 38.4 | ⁻²⁹ | ₋₄ | 36.4 | ⁻⁴⁰ | ₋₄ | 33.6 | ⁻⁵⁰ | ₋₄ | 30.1 | ⁻⁶⁰ | ₋₄ | 25.9 | ⁻⁶⁸ | ₋₃ | 21.1 | ⁻⁷⁶ | ₋₃ | 15.8 | ⁻⁸² | ₋₃ | 10.0 | ⁻⁸⁸ | ₋₂ | 3.8 | ⁻⁹² | ₋₂ | -5.4 | ⁻⁹⁵ | ₋₁ | -15.0 | | | | | |
| Mar 17 | 39.7 | ⁻⁶ | ₋₃ | 39.3 | ⁻¹⁷ | ₋₃ | 38.1 | ⁻²⁹ | ₋₃ | 36.1 | ⁻³⁹ | ₋₃ | 33.3 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₂ | 25.7 | ⁻⁶⁸ | ₋₂ | 20.9 | ⁻⁷⁵ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁵ | ₋₁ | -14.9 | | | | | |
| Mar 18 | 39.5 | ⁻⁶ | ₋₁ | 39.1 | ⁻¹⁷ | ₋₁ | 37.9 | ⁻²⁸ | ₋₁ | 35.9 | ⁻³⁹ | ₋₁ | 33.2 | ⁻⁴⁹ | ₋₁ | 29.7 | ⁻⁵⁹ | ₋₁ | 25.6 | ⁻⁶⁸ | ₋₁ | 20.8 | ⁻⁷⁵ | ₋₁ | 15.6 | ⁻⁸² | ₋₁ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₀ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | |
| Mar 19 | 39.5 | ⁻⁶ | ₁ | 39.1</ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|-----------------|------------------|------|-----------------|---------------|------|---|---|---|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Apr 3 | 75.3 | ⁻⁶ | ₋₄ | 74.9 | ⁻¹⁹ | ₋₄ | 73.5 | ⁻³¹ | ₋₃ | 71.4 | ⁻⁴³ | ₋₃ | 68.4 | ⁻⁵⁴ | ₋₃ | 64.6 | ⁻⁶⁴ | ₋₃ | 60.1 | ⁻⁷³ | ₋₃ | 55.0 | ⁻⁸² | ₋₂ | 49.2 | ⁻⁸⁹ | ₋₂ | 43.0 | ⁻⁹⁴ | ₋₂ | 36.4 | ⁻⁹⁹ | ₋₁ | 26.4 | ⁻¹⁰² | ₋₁ | 16.1 | | | | | | | | |
| Apr 4 | 74.9 | ⁻⁶ | ₋₄ | 74.4 | ⁻¹⁹ | ₋₄ | 73.1 | ⁻³¹ | ₋₄ | 71.0 | ⁻⁴² | ₋₄ | 68.0 | ⁻⁵³ | ₋₄ | 64.2 | ⁻⁶⁴ | ₋₃ | 59.8 | ⁻⁷³ | ₋₃ | 54.6 | ⁻⁸¹ | ₋₃ | 48.9 | ⁻⁸⁸ | ₋₂ | 42.7 | ⁻⁹⁴ | ₋₂ | 36.2 | ⁻⁹⁹ | ₋₂ | 26.3 | ⁻¹⁰² | ₋₁ | 16.0 | | | | | | | | |
| Apr 5 | 74.4 | ⁻⁶ | ₋₄ | 74.0 | ⁻¹⁹ | ₋₄ | 72.7 | ⁻³¹ | ₋₄ | 70.5 | ⁻⁴² | ₋₄ | 67.5 | ⁻⁵³ | ₋₄ | 63.8 | ⁻⁶³ | ₋₄ | 59.4 | ⁻⁷² | ₋₃ | 54.3 | ⁻⁸¹ | ₋₃ | 48.6 | ⁻⁸⁸ | ₋₃ | 42.5 | ⁻⁹³ | ₋₂ | 35.9 | ⁻⁹⁸ | ₋₂ | 26.1 | ⁻¹⁰¹ | ₋₁ | 15.9 | | | | | | | | |
| Apr 6 | 73.9 | ⁻⁶ | ₋₅ | 73.4 | ⁻¹⁸ | ₋₅ | 72.1 | ⁻³⁰ | ₋₅ | 70.0 | ⁻⁴² | ₋₄ | 67.1 | ⁻⁵³ | ₋₄ | 63.4 | ⁻⁶³ | ₋₄ | 58.9 | ⁻⁷² | ₋₄ | 53.9 | ⁻⁸⁰ | ₋₃ | 48.3 | ⁻⁸⁷ | ₋₃ | 42.2 | ⁻⁹² | ₋₃ | 35.7 | ⁻⁹⁷ | ₋₂ | 25.9 | ⁻¹⁰⁰ | ₋₁ | 15.8 | | | | | | | | |
| Apr 7 | 73.3 | ⁻⁶ | ₋₅ | 72.9 | ⁻¹⁸ | ₋₅ | 71.6 | ⁻³⁰ | ₋₅ | 69.5 | ⁻⁴¹ | ₋₅ | 66.5 | ⁻⁵² | ₋₄ | 62.9 | ⁻⁶² | ₋₄ | 58.5 | ⁻⁷¹ | ₋₄ | 53.5 | ⁻⁷⁹ | ₋₃ | 47.9 | ⁻⁸⁶ | ₋₃ | 41.8 | ⁻⁹² | ₋₃ | 35.4 | ⁻⁹⁷ | ₋₂ | 25.7 | ⁻¹⁰⁰ | ₋₁ | 15.7 | | | | | | | | |
| Apr 8 | 72.7 | ⁻⁶ | ₋₅ | 72.2 | ⁻¹⁸ | ₋₅ | 71.0 | ⁻³⁰ | ₋₅ | 68.9 | ⁻⁴¹ | ₋₅ | 66.0 | ⁻⁵² | ₋₅ | 62.3 | ⁻⁶² | ₋₄ | 58.0 | ⁻⁷¹ | ₋₄ | 53.0 | ⁻⁷⁹ | ₋₄ | 47.5 | ⁻⁸⁵ | ₋₃ | 41.5 | ⁻⁹¹ | ₋₃ | 35.1 | ⁻⁹⁶ | ₋₂ | 25.5 | ⁻⁹⁹ | ₋₁ | 15.6 | | | | | | | | |
| Apr 9 | 72.0 | ⁻⁶ | ₋₅ | 71.6 | ⁻¹⁸ | ₋₅ | 70.4 | ⁻³⁰ | ₋₅ | 68.3 | ⁻⁴¹ | ₋₅ | 65.4 | ⁻⁵¹ | ₋₅ | 61.8 | ⁻⁶¹ | ₋₄ | 57.5 | ⁻⁷⁰ | ₋₄ | 52.6 | ⁻⁷⁸ | ₋₄ | 47.1 | ⁻⁸⁵ | ₋₃ | 41.1 | ⁻⁹⁰ | ₋₃ | 34.8 | ⁻⁹⁵ | ₋₂ | 25.3 | ⁻⁹⁸ | ₋₂ | 15.4 | | | | | | | | |
| Apr 10 | 71.4 | ⁻⁶ | ₋₅ | 71.0 | ⁻¹⁸ | ₋₅ | 69.7 | ⁻²⁹ | ₋₅ | 67.7 | ⁻⁴⁰ | ₋₅ | 64.8 | ⁻⁵¹ | ₋₅ | 61.3 | ⁻⁶¹ | ₋₄ | 57.0 | ⁻⁷⁰ | ₋₄ | 52.1 | ⁻⁷⁷ | ₋₄ | 46.7 | ⁻⁸⁴ | ₋₃ | 40.8 | ⁻⁸⁹ | ₋₃ | 34.5 | ⁻⁹⁴ | ₋₂ | 25.0 | ⁻⁹⁷ | ₋₁ | 15.3 | | | | | | | | |
| Apr 11 | 70.8 | ⁻⁶ | ₋₅ | 70.4 | ⁻¹⁸ | ₋₅ | 69.1 | ⁻²⁹ | ₋₅ | 67.1 | ⁻⁴⁰ | ₋₅ | 64.3 | ⁻⁵⁰ | ₋₄ | 60.7 | ⁻⁶⁰ | ₋₄ | 56.5 | ⁻⁶⁹ | ₋₄ | 51.6 | ⁻⁷⁷ | ₋₃ | 46.3 | ⁻⁸³ | ₋₃ | 40.4 | ⁻⁸⁹ | ₋₃ | 34.2 | ⁻⁹³ | ₋₂ | 24.8 | ⁻⁹⁶ | ₋₁ | 15.2 | | | | | | | | |
| Apr 12 | 70.2 | ⁻⁶ | ₋₄ | 69.8 | ⁻¹⁷ | ₋₄ | 68.5 | ⁻²⁹ | ₋₄ | 66.5 | ⁻⁴⁰ | ₋₄ | 63.7 | ⁻⁵⁰ | ₋₄ | 60.2 | ⁻⁶⁰ | ₋₄ | 56.0 | ⁻⁶⁸ | ₋₃ | 51.2 | ⁻⁷⁶ | ₋₃ | 45.9 | ⁻⁸³ | ₋₃ | 40.1 | ⁻⁸⁸ | ₋₂ | 33.9 | ⁻⁹³ | ₋₂ | 24.6 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | | | | |
| Apr 13 | 69.7 | ⁻⁶ | ₋₃ | 69.3 | ⁻¹⁷ | ₋₃ | 68.0 | ⁻²⁹ | ₋₃ | 66.0 | ⁻³⁹ | ₋₃ | 63.3 | ⁻⁵⁰ | ₋₃ | 59.8 | ⁻⁵⁹ | ₋₃ | 55.6 | ⁻⁶⁸ | ₋₃ | 50.8 | ⁻⁷⁶ | ₋₂ | 45.5 | ⁻⁸² | ₋₂ | 39.8 | ⁻⁸⁷ | ₋₂ | 33.6 | ⁻⁹² | ₋₁ | 24.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | | | | |
| Apr 14 | 69.3 | ⁻⁶ | ₋₂ | 68.9 | ⁻¹⁷ | ₋₂ | 67.6 | ⁻²⁸ | ₋₂ | 65.6 | ⁻³⁹ | ₋₂ | 62.9 | ⁻⁵⁰ | ₋₂ | 59.4 | ⁻⁵⁹ | ₋₂ | 55.3 | ⁻⁶⁸ | ₋₂ | 50.5 | ⁻⁷⁵ | ₋₁ | 45.3 | ⁻⁸² | ₋₁ | 39.5 | ⁻⁸⁷ | ₋₁ | 33.4 | ⁻⁹¹ | ₋₁ | 24.3 | ⁻⁹⁴ | ₋₁ | 14.8 | | | | | | | | |
| Apr 15 | 69.0 | ⁻⁶ | ₋₁ | 68.6 | ⁻¹⁷ | ₋₁ | 67.4 | ⁻²⁸ | ₋₁ | 65.4 | ⁻³⁹ | ₋₁ | 62.6 | ⁻⁴⁹ | ₋₁ | 59.2 | ⁻⁵⁹ | ₋₁ | 55.1 | ⁻⁶⁷ | ₋₁ | 50.3 | ⁻⁷⁵ | ₀ | 45.1 | ⁻⁸¹ | ₀ | 39.4 | ⁻⁸⁷ | ₀ | 33.3 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Apr 16 | 68.9 | ⁻⁶ | ₁ | 68.5 | ⁻¹⁷ | ₁ | 67.3 | ⁻²⁸ | ₁ | 65.3 | ⁻³⁹ | ₁ | 62.6 | ⁻⁴⁹ | ₁ | 59.1 | ⁻⁵⁹ | ₁ | 55.0 | ⁻⁶⁷ | ₁ | 50.3 | ⁻⁷⁵ | ₁ | 45.0 | ⁻⁸¹ | ₁ | 39.3 | ⁻⁸⁷ | ₁ | 33.3 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Apr 17 | 69.0 | ⁻⁶ | ₃ | 68.6 | ⁻¹⁷ | ₃ | 67.4 | ⁻²⁹ | ₃ | 65.4 | ⁻³⁹ | ₃ | 62.7 | ⁻⁵⁰ | ₂ | 59.2 | ⁻⁵⁹ | ₂ | 55.1 | ⁻⁶⁸ | ₂ | 50.4 | ⁻⁷⁵ | ₂ | 45.1 | ⁻⁸² | ₂ | 39.4 | ⁻⁸⁷ | ₁ | 33.3 | ⁻⁹² | ₁ | 24.2 | ⁻⁹⁴ | ₁ | 14.8 | | | | | | | | |
| Apr 18 | 69.4 | ⁻⁶ | ₅ | 69.0 | ⁻¹⁷ | ₄ | 67.7 | ⁻²⁹ | ₄ | 65.7 | ⁻⁴⁰ | ₄ | 63.0 | ⁻⁵⁰ | ₄ | 59.5 | ⁻⁵⁹ | ₄ | 55.4 | ⁻⁶⁸ | ₃ | 50.6 | ⁻⁷⁶ | ₃ | 45.3 | ⁻⁸² | ₃ | 39.6 | ⁻⁸⁸ | ₂ | 33.5 | ⁻⁹² | ₂ | 24.3 | ⁻⁹⁵ | ₁ | 14.9 | | | | | | | | |
| Apr 19 | 69.9 | ⁻⁶ | ₆ | 69.5 | ⁻¹⁸ | ₆ | 68.3 | ⁻²⁹ | ₆ | 66.3 | ⁻⁴⁰ | ₆ | 63.5 | ⁻⁵⁰ | ₆ | 60.0 | ⁻⁶⁰ | ₅ | 55.8 | ⁻⁶⁹ | ₅ | 51.0 | ⁻⁷⁶ | ₄ | 45.7 | ⁻⁸³ | ₄ | 39.9 | ⁻⁸⁸ | ₃ | 33.8 | ⁻⁹³ | ₃ | 24.5 | ⁻⁹⁶ | ₂ | 15.0 | | | | | | | | |
| Apr 20 | 70.7 | ⁻⁶ | ₈ | 70.2 | ⁻¹⁸ | ₈ | 69.0 | ⁻²⁹ | ₇ | 67.0 | ⁻⁴⁰ | ₇ | 64.2 | ⁻⁵¹ | ₇ | 60.6 | ⁻⁶¹ | ₆ | 56.4 | ⁻⁷⁰ | ₆ | 51.6 | ⁻⁷⁷ | ₅ | 46.2 | ⁻⁸⁴ | ₅ | 40.3 | ⁻⁸⁹ | ₄ | 34.1 | ⁻⁹⁴ | ₃ | 24.8 | ⁻⁹⁷ | ₂ | 15.1 | | | | | | | | |
| Apr 21 | 71.6 | ⁻⁶ | ₉ | 71.2 | ⁻¹⁸ | ₉ | 69.9 | ⁻³⁰ | ₈ | 67.8 | ⁻⁴¹ | ₈ | 65.0 | ⁻⁵² | ₈ | 61.4 | ⁻⁶² | ₇ | 57.1 | ⁻⁷¹ | ₇ | 52.2 | ⁻⁷⁸ | ₆ | 46.8 | ⁻⁸⁵ | ₅ | 40.9 | ⁻⁹¹ | ₅ | 34.6 | ⁻⁹⁵ | ₄ | 25.1 | ⁻⁹⁸ | ₂ | 15.3 | | | | | | | | |
| Apr 22 | 72.6 | ⁻⁶ | ₉ | 72.2 | ⁻¹⁸ | ₉ | 70.9 | ⁻³⁰ | ₉ | 68.8 | ⁻⁴² | ₉ | 66.0 | ⁻⁵² | ₈ | 62.3 | ⁻⁶² | ₈ | 58.0 | ⁻⁷² | ₇ | 53.0 | ⁻⁸⁰ | ₆ | 47.5 | ⁻⁸⁶ | ₆ | 41.5 | ⁻⁹² | ₅ | 35.1 | ⁻⁹⁷ | ₄ | 25.5 | ⁻¹⁰⁰ | ₃ | 15.6 | | | | | | | | |
| Apr 23 | 73.7 | ⁻⁶ | ₉ | 73.3 | ⁻¹⁹ | ₉ | 72.0 | ⁻³¹ | ₉ | 69.9 | ⁻⁴² | ₈ | 67.0 | ⁻⁵³ | ₈ | 63.3 | ⁻⁶³ | ₇ | 58.9 | ⁻⁷³ | ₇ | 53.8 | ⁻⁸¹ | ₆ | 48.2 | ⁻⁸⁸ | ₅ | 42.1 | ⁻⁹³ | ₅ | 35.6 | ⁻⁹⁸ | ₄ | 25.9 | ⁻¹⁰¹ | ₃ | 15.8 | | | | | | | | |
| Apr 24 | 74.8 | ⁻⁶ | ₈ | 74.4 | ⁻¹⁹ | ₈ | 73.1 | ⁻³¹ | ₈ | 70.9 | ⁻⁴³ | ₇ | 67.9 | ⁻⁵⁴ | ₇ | 64.2 | ⁻⁶⁴ | ₇ | 59.7 | ⁻⁷⁴ | ₆ | 54.6 | ⁻⁸² | ₅ | 48.9 | ⁻⁸⁹ | ₅ | 42.7 | ⁻⁹⁵ | ₄ | 36.1 | ⁻¹⁰⁰ | ₃ | 26.2 | ⁻¹⁰³ | ₂ | 16.0 | | | | | | | | |
| Apr 25 | 75.8 | ⁻⁶ | ₆ | 75.3 | ⁻¹⁹ | ₆ | 74.0 | ⁻³¹ | ₆ | 71.8 | ⁻⁴³ | ₆ | 68.8 | ⁻⁵⁵ | ₅ | 65.0 | ⁻⁶⁵ | ₅ | 60.5 | ⁻⁷⁴ | ₅ | 55.3 | ⁻⁸³ | ₄ | 49.5 | ⁻⁹⁰ | ₄ | 43.3 | ⁻⁹⁶ | ₃ | 36.6 | ⁻¹⁰¹ | ₃ | 26.6 | ⁻¹⁰⁴ | ₂ | 16.2 | | | | | | | | |
| Apr 26 | 76.5 | ⁻⁶ | ₄ | 76.0 | ⁻¹⁹ | ₄ | 74.7 | ⁻³² | ₃ | 72.5 | ⁻⁴⁴ | ₃ | 69.4 | ⁻⁵⁵ | ₃ | 65.6 | ⁻⁶⁵ | ₃ | 61.0 | ⁻⁷⁵ | ₃ | 55.8 | ⁻⁸³ | ₂ | 50.0 | ⁻⁹¹ | ₂ | 43.7 | ⁻⁹⁶ | ₂ | 36.9 | ⁻¹⁰¹ | ₁ | 26.8 | ⁻¹⁰⁵ | ₁ | 16.4 | | | | | | | | |
| Apr 27 | 76.9 | ⁻⁶ | ₁ | 76.5 | ⁻¹⁹ | ₁ | 75.1 | ⁻³² | ₁ | 72.9 | ⁻⁴⁴ | ₁ | 69.8 | ⁻⁵⁵ | ₁ | 66.0 | ⁻⁶⁶ | ₁ | 61.4 | ⁻⁷⁵ | ₁ | 56.1 | ⁻⁸⁴ | ₁ | 50.3 | ⁻⁹¹ | ₁ | 43.9 | ⁻⁹⁷ | ₀ | 37.1 | ⁻¹⁰² | ₀ | 27.0 | ⁻¹⁰⁵ | ₀ | 16.5 | | | | | | | | |
| Apr 28 | 77.0 | ⁻⁶ | ₋₂ | 76.6 | ⁻¹⁹ | ₋₂ | 75.2 | ⁻³² | ₋₂ | 73.0 | ⁻⁴⁴ | ₋₂ | 69.9 | ⁻⁵⁵ | ₋₁ | 66.1 | ⁻⁶⁶ | ₋₁ | 61.5 | ⁻⁷⁵ | ₋₁ | 56.2 | ⁻⁸⁴ | ₋₁ | 50.3 | ⁻⁹¹ | ₋₁ | 44.0 | ⁻⁹⁷ | ₋₁ | 37.2 | ⁻¹⁰² | ₋₁ | 27.0 | ⁻¹⁰⁵ | ₀ | 16.5 | | | | | | | | |
| Apr 29 | 76.8 | ⁻⁶ | ₋₄ | 76.4 | ⁻¹⁹ | ₋₄ | 75.0 | ⁻³² | ₋₄ | 72.8 | ⁻⁴⁴ | ₋₄ | 69.8 | ⁻⁵⁵ | ₋₃ | 65.9 | ⁻⁶⁵ | ₋₃ | 61.3 | ⁻⁷⁵ | ₋₃ | 56.1 | ⁻⁸³ | ₋₃ | 50.2 | ⁻⁹⁰ | ₋₂ | 43.9 | ⁻⁹⁶ | ₋₂ | 37.1 | ⁻¹⁰¹ | ₋₂ | 26.9 | ⁻¹⁰⁵ | ₋₁ | 16.4 | | | | | | | | |
| Apr 30 | 76.4 | ⁻⁶ | ₋₅ | 75.9 | ⁻¹⁹ | ₋₅ | 74.6 | ⁻³¹ | ₋₅ | 72.4 | ⁻⁴³ | ₋₅ | 69.3 | ⁻⁵⁴ | ₋₅ | 65.5 | ⁻⁶⁵ | ₋₅ | 60.9 | ⁻⁷⁴ | ₋₄ | 55.7 | ⁻⁸³ | ₋₄ | 49.9 | ⁻⁹⁰ | ₋₃ | 43.6 | ⁻⁹⁶ | ₋₃ | 36.9 | ⁻¹⁰¹ | ₋₂ | 26.8 | ⁻¹⁰⁴ | ₋₂ | 16.4 | | | | | | | | |
| May 1 | 75.7 | ⁻⁶ | ₋₆ | 75.3 | ⁻¹⁹ | ₋₆ | 73.9 | ⁻³¹ | ₋₆ | 71.8 | ⁻⁴³ | ₋₆ | 68.7 | ⁻⁵⁴ | ₋₆ | 64.9 | ⁻⁶⁴ | ₋₅ | 60.4 | ⁻⁷⁴ | ₋₅ | 55.2 | ⁻⁸² | ₋₄ | 49.5 | ⁻⁸⁹ | ₋₄ | 43.2 | ⁻⁹⁵ | ₋₃ | 36.6 | ⁻¹⁰⁰ | ₋₃ | 26.5 | ⁻¹⁰³ | ₋₂ | 16.2 | | | | | | | | |
| May 2 | 74.9 | ⁻⁶ | ₋₇ | 74.5 | ⁻¹⁹ | ₋₇ | 73.2 | ⁻³¹ | ₋₇ | 71.0 | ⁻⁴² | ₋₆ | 68.0 | ⁻⁵³ | ₋₆ | 64.3 | ⁻⁶⁴ | ₋₆ | 59.8 | ⁻⁷³ | ₋₅ | 54.7 | ⁻⁸¹ | ₋₅ | 49.0 | ⁻⁸⁸ | ₋₄ | 42.8 | ⁻⁹⁴ | ₋₄ | 36.2 | ⁻⁹⁹ | ₋₃ | 26.3 | ⁻¹⁰² | ₋₂ | 16.0 | | | | | | | | |
| May 3 | 74.1 | ⁻⁶ | ₋₇ | 73.7 | ⁻¹⁸ | ₋₇ | 72.4 | ⁻³⁰ | ₋₆ | 70.3 | ⁻⁴² | ₋₆ | 67.3 | ⁻⁵³ | ₋₆ | 63.6 | ⁻⁶³ | ₋₆ | 59.2 | ⁻⁷² | ₋₅ | 54.1 | ⁻⁸⁰ | ₋₅ | 48.4 | ⁻⁸⁷ | ₋₄ | 42.3 | ⁻⁹³ | ₋₄ | 35.8 | ⁻⁹⁸ | ₋₃ </ | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|-----|-----------------|---------------|-----|-----------------|---------------|------|---|---|---|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Apr 3 | 43.1 | ⁻⁶ | ₋₄ | 42.6 | ⁻¹⁹ | ₋₄ | 41.3 | ⁻³¹ | ₋₃ | 39.1 | ⁻⁴³ | ₋₃ | 36.1 | ⁻⁵⁴ | ₋₃ | 32.3 | ⁻⁶⁴ | ₋₃ | 27.9 | ⁻⁷³ | ₋₃ | 22.7 | ⁻⁸² | ₋₂ | 17.0 | ⁻⁸⁹ | ₋₂ | 10.7 | ⁻⁹⁴ | ₋₂ | 4.1 | ⁻⁹⁹ | ₋₁ | 5.8 | ⁻¹⁰² | ₋₁ | 16.1 | | | | | | | | |
| Apr 4 | 42.8 | ⁻⁶ | ₋₄ | 42.4 | ⁻¹⁹ | ₋₄ | 41.1 | ⁻³¹ | ₋₄ | 38.9 | ⁻⁴² | ₋₄ | 35.9 | ⁻⁵³ | ₋₄ | 32.2 | ⁻⁶⁴ | ₋₃ | 27.7 | ⁻⁷³ | ₋₃ | 22.6 | ⁻⁸¹ | ₋₃ | 16.9 | ⁻⁸⁸ | ₋₂ | 10.7 | ⁻⁹⁴ | ₋₂ | 4.1 | ⁻⁹⁹ | ₋₂ | 5.8 | ⁻¹⁰² | ₋₁ | 16.0 | | | | | | | | |
| Apr 5 | 42.5 | ⁻⁶ | ₋₄ | 42.1 | ⁻¹⁹ | ₋₄ | 40.8 | ⁻³¹ | ₋₄ | 38.6 | ⁻⁴² | ₋₄ | 35.7 | ⁻⁵³ | ₋₄ | 32.0 | ⁻⁶³ | ₋₄ | 27.5 | ⁻⁷² | ₋₃ | 22.4 | ⁻⁸¹ | ₋₃ | 16.8 | ⁻⁸⁸ | ₋₃ | 10.6 | ⁻⁹³ | ₋₂ | 4.1 | ⁻⁹⁸ | ₋₂ | 5.8 | ⁻¹⁰¹ | ₋₁ | 15.9 | | | | | | | | |
| Apr 6 | 42.2 | ⁻⁶ | ₋₅ | 41.8 | ⁻¹⁸ | ₋₅ | 40.5 | ⁻³⁰ | ₋₅ | 38.4 | ⁻⁴² | ₋₄ | 35.4 | ⁻⁵³ | ₋₄ | 31.7 | ⁻⁶³ | ₋₄ | 27.3 | ⁻⁷² | ₋₄ | 22.3 | ⁻⁸⁰ | ₋₃ | 16.6 | ⁻⁸⁷ | ₋₃ | 10.5 | ⁻⁹² | ₋₃ | 4.0 | ⁻⁹⁷ | ₋₂ | 5.7 | ⁻¹⁰⁰ | ₋₁ | 15.8 | | | | | | | | |
| Apr 7 | 41.9 | ⁻⁶ | ₋₅ | 41.5 | ⁻¹⁸ | ₋₅ | 40.2 | ⁻³⁰ | ₋₅ | 38.1 | ⁻⁴¹ | ₋₅ | 35.2 | ⁻⁵² | ₋₄ | 31.5 | ⁻⁶² | ₋₄ | 27.1 | ⁻⁷¹ | ₋₄ | 22.1 | ⁻⁷⁹ | ₋₃ | 16.5 | ⁻⁸⁶ | ₋₃ | 10.5 | ⁻⁹² | ₋₃ | 4.0 | ⁻⁹⁷ | ₋₂ | 5.7 | ⁻¹⁰⁰ | ₋₁ | 15.7 | | | | | | | | |
| Apr 8 | 41.5 | ⁻⁶ | ₋₅ | 41.1 | ⁻¹⁸ | ₋₅ | 39.8 | ⁻³⁰ | ₋₅ | 37.8 | ⁻⁴¹ | ₋₅ | 34.9 | ⁻⁵² | ₋₅ | 31.2 | ⁻⁶² | ₋₄ | 26.9 | ⁻⁷¹ | ₋₄ | 21.9 | ⁻⁷⁹ | ₋₄ | 16.4 | ⁻⁸⁵ | ₋₃ | 10.4 | ⁻⁹¹ | ₋₃ | 4.0 | ⁻⁹⁶ | ₋₂ | 5.6 | ⁻⁹⁹ | ₋₁ | 15.6 | | | | | | | | |
| Apr 9 | 41.2 | ⁻⁶ | ₋₅ | 40.8 | ⁻¹⁸ | ₋₅ | 39.5 | ⁻³⁰ | ₋₅ | 37.4 | ⁻⁴¹ | ₋₅ | 34.6 | ⁻⁵¹ | ₋₅ | 30.9 | ⁻⁶¹ | ₋₄ | 26.6 | ⁻⁷⁰ | ₋₄ | 21.7 | ⁻⁷⁸ | ₋₄ | 16.2 | ⁻⁸⁵ | ₋₃ | 10.3 | ⁻⁹⁰ | ₋₃ | 3.9 | ⁻⁹⁵ | ₋₂ | 5.6 | ⁻⁹⁸ | ₋₂ | 15.4 | | | | | | | | |
| Apr 10 | 40.8 | ⁻⁶ | ₋₅ | 40.4 | ⁻¹⁸ | ₋₅ | 39.2 | ⁻²⁹ | ₋₅ | 37.1 | ⁻⁴⁰ | ₋₅ | 34.3 | ⁻⁵¹ | ₋₅ | 30.7 | ⁻⁶¹ | ₋₄ | 26.4 | ⁻⁷⁰ | ₋₄ | 21.5 | ⁻⁷⁷ | ₋₄ | 16.1 | ⁻⁸⁴ | ₋₃ | 10.2 | ⁻⁸⁹ | ₋₃ | 3.9 | ⁻⁹⁴ | ₋₂ | 5.5 | ⁻⁹⁷ | ₋₁ | 15.3 | | | | | | | | |
| Apr 11 | 40.5 | ⁻⁶ | ₋₅ | 40.0 | ⁻¹⁸ | ₋₅ | 38.8 | ⁻²⁹ | ₋₅ | 36.8 | ⁻⁴⁰ | ₋₅ | 33.9 | ⁻⁵⁰ | ₋₄ | 30.4 | ⁻⁶⁰ | ₋₄ | 26.2 | ⁻⁶⁹ | ₋₄ | 21.3 | ⁻⁷⁷ | ₋₃ | 15.9 | ⁻⁸³ | ₋₃ | 10.1 | ⁻⁸⁹ | ₋₃ | 3.9 | ⁻⁹³ | ₋₂ | 5.5 | ⁻⁹⁶ | ₋₁ | 15.2 | | | | | | | | |
| Apr 12 | 40.1 | ⁻⁶ | ₋₄ | 39.7 | ⁻¹⁷ | ₋₄ | 38.5 | ⁻²⁹ | ₋₄ | 36.5 | ⁻⁴⁰ | ₋₄ | 33.7 | ⁻⁵⁰ | ₋₄ | 30.1 | ⁻⁶⁰ | ₋₄ | 26.0 | ⁻⁶⁸ | ₋₃ | 21.2 | ⁻⁷⁶ | ₋₃ | 15.8 | ⁻⁸³ | ₋₃ | 10.0 | ⁻⁸⁸ | ₋₂ | 3.8 | ⁻⁹³ | ₋₂ | 5.5 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | | | | |
| Apr 13 | 39.8 | ⁻⁶ | ₋₃ | 39.4 | ⁻¹⁷ | ₋₃ | 38.2 | ⁻²⁹ | ₋₃ | 36.2 | ⁻³⁹ | ₋₃ | 33.4 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₃ | 25.8 | ⁻⁶⁸ | ₋₃ | 21.0 | ⁻⁷⁶ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | 5.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | | | | |
| Apr 14 | 39.6 | ⁻⁶ | ₋₂ | 39.2 | ⁻¹⁷ | ₋₂ | 38.0 | ⁻²⁸ | ₋₂ | 36.0 | ⁻³⁹ | ₋₂ | 33.2 | ⁻⁵⁰ | ₋₂ | 29.8 | ⁻⁵⁹ | ₋₂ | 25.6 | ⁻⁶⁸ | ₋₂ | 20.9 | ⁻⁷⁵ | ₋₁ | 15.6 | ⁻⁸² | ₋₁ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | 5.4 | ⁻⁹⁴ | ₋₁ | 14.8 | | | | | | | | |
| Apr 15 | 39.4 | ⁻⁶ | ₋₁ | 39.0 | ⁻¹⁷ | ₋₁ | 37.8 | ⁻²⁸ | ₋₁ | 35.8 | ⁻³⁹ | ₋₁ | 33.1 | ⁻⁴⁹ | ₋₁ | 29.6 | ⁻⁵⁹ | ₋₁ | 25.5 | ⁻⁶⁷ | ₋₁ | 20.8 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸¹ | ₀ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | 5.4 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Apr 16 | 39.4 | ⁻⁶ | ₁ | 39.0 | ⁻¹⁷ | ₁ | 37.8 | ⁻²⁸ | ₁ | 35.8 | ⁻³⁹ | ₁ | 33.1 | ⁻⁴⁹ | ₁ | 29.6 | ⁻⁵⁹ | ₁ | 25.5 | ⁻⁶⁷ | ₁ | 20.8 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸¹ | ₁ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹¹ | ₀ | 5.4 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Apr 17 | 39.5 | ⁻⁶ | ₃ | 39.1 | ⁻¹⁷ | ₃ | 37.9 | ⁻²⁹ | ₃ | 35.9 | ⁻³⁹ | ₃ | 33.1 | ⁻⁵⁰ | ₂ | 29.7 | ⁻⁵⁹ | ₂ | 25.5 | ⁻⁶⁸ | ₂ | 20.8 | ⁻⁷⁵ | ₂ | 15.6 | ⁻⁸² | ₂ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹² | ₁ | 5.4 | ⁻⁹⁴ | ₁ | 14.8 | | | | | | | | |
| Apr 18 | 39.7 | ⁻⁶ | ₅ | 39.2 | ⁻¹⁷ | ₄ | 38.0 | ⁻²⁹ | ₄ | 36.0 | ⁻⁴⁰ | ₄ | 33.3 | ⁻⁵⁰ | ₄ | 29.8 | ⁻⁵⁹ | ₄ | 25.7 | ⁻⁶⁸ | ₃ | 20.9 | ⁻⁷⁶ | ₃ | 15.6 | ⁻⁸² | ₃ | 9.9 | ⁻⁸⁸ | ₂ | 3.8 | ⁻⁹² | ₂ | 5.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | | | | |
| Apr 19 | 40.0 | ⁻⁶ | ₆ | 39.6 | ⁻¹⁸ | ₆ | 38.3 | ⁻²⁹ | ₆ | 36.3 | ⁻⁴⁰ | ₆ | 33.5 | ⁻⁵⁰ | ₆ | 30.0 | ⁻⁶⁰ | ₅ | 25.9 | ⁻⁶⁹ | ₅ | 21.1 | ⁻⁷⁶ | ₄ | 15.7 | ⁻⁸³ | ₄ | 10.0 | ⁻⁸⁸ | ₃ | 3.8 | ⁻⁹³ | ₃ | 5.4 | ⁻⁹⁶ | ₂ | 15.0 | | | | | | | | |
| Apr 20 | 40.4 | ⁻⁶ | ₈ | 40.0 | ⁻¹⁸ | ₈ | 38.7 | ⁻²⁹ | ₇ | 36.7 | ⁻⁴⁰ | ₇ | 33.9 | ⁻⁵¹ | ₇ | 30.4 | ⁻⁶¹ | ₆ | 26.1 | ⁻⁷⁰ | ₆ | 21.3 | ⁻⁷⁷ | ₅ | 15.9 | ⁻⁸⁴ | ₅ | 10.1 | ⁻⁸⁹ | ₄ | 3.9 | ⁻⁹⁴ | ₃ | 5.5 | ⁻⁹⁷ | ₂ | 15.1 | | | | | | | | |
| Apr 21 | 40.9 | ⁻⁶ | ₉ | 40.5 | ⁻¹⁸ | ₉ | 39.3 | ⁻³⁰ | ₈ | 37.2 | ⁻⁴¹ | ₈ | 34.3 | ⁻⁵² | ₈ | 30.7 | ⁻⁶² | ₇ | 26.5 | ⁻⁷¹ | ₇ | 21.6 | ⁻⁷⁸ | ₆ | 16.1 | ⁻⁸⁵ | ₅ | 10.2 | ⁻⁹¹ | ₅ | 3.9 | ⁻⁹⁵ | ₄ | 5.6 | ⁻⁹⁸ | ₂ | 15.3 | | | | | | | | |
| Apr 22 | 41.5 | ⁻⁶ | ₉ | 41.1 | ⁻¹⁸ | ₉ | 39.8 | ⁻³⁰ | ₉ | 37.7 | ⁻⁴² | ₉ | 34.8 | ⁻⁵² | ₈ | 31.2 | ⁻⁶² | ₈ | 26.9 | ⁻⁷² | ₇ | 21.9 | ⁻⁸⁰ | ₆ | 16.4 | ⁻⁸⁶ | ₆ | 10.4 | ⁻⁹² | ₅ | 4.0 | ⁻⁹⁷ | ₄ | 5.6 | ⁻¹⁰⁰ | ₃ | 15.6 | | | | | | | | |
| Apr 23 | 42.2 | ⁻⁶ | ₉ | 41.7 | ⁻¹⁹ | ₉ | 40.4 | ⁻³¹ | ₉ | 38.3 | ⁻⁴² | ₈ | 35.4 | ⁻⁵³ | ₈ | 31.7 | ⁻⁶³ | ₇ | 27.3 | ⁻⁷³ | ₇ | 22.2 | ⁻⁸¹ | ₆ | 16.6 | ⁻⁸⁸ | ₅ | 10.5 | ⁻⁹³ | ₅ | 4.0 | ⁻⁹⁸ | ₄ | 5.7 | ⁻¹⁰¹ | ₃ | 15.8 | | | | | | | | |
| Apr 24 | 42.8 | ⁻⁶ | ₈ | 42.3 | ⁻¹⁹ | ₈ | 41.0 | ⁻³¹ | ₈ | 38.9 | ⁻⁴³ | ₇ | 35.9 | ⁻⁵⁴ | ₇ | 32.1 | ⁻⁶⁴ | ₇ | 27.7 | ⁻⁷⁴ | ₆ | 22.5 | ⁻⁸² | ₅ | 16.9 | ⁻⁸⁹ | ₅ | 10.7 | ⁻⁹⁵ | ₄ | 4.1 | ⁻¹⁰⁰ | ₃ | 5.8 | ⁻¹⁰³ | ₂ | 16.0 | | | | | | | | |
| Apr 25 | 43.3 | ⁻⁶ | ₆ | 42.9 | ⁻¹⁹ | ₆ | 41.5 | ⁻³¹ | ₆ | 39.4 | ⁻⁴³ | ₆ | 36.3 | ⁻⁵⁵ | ₅ | 32.5 | ⁻⁶⁵ | ₅ | 28.0 | ⁻⁷⁴ | ₅ | 22.8 | ⁻⁸³ | ₄ | 17.1 | ⁻⁹⁰ | ₄ | 10.8 | ⁻⁹⁶ | ₃ | 4.1 | ⁻¹⁰¹ | ₃ | 5.9 | ⁻¹⁰⁴ | ₂ | 16.2 | | | | | | | | |
| Apr 26 | 43.7 | ⁻⁶ | ₄ | 43.3 | ⁻¹⁹ | ₄ | 41.9 | ⁻³² | ₃ | 39.7 | ⁻⁴⁴ | ₃ | 36.7 | ⁻⁵⁵ | ₃ | 32.9 | ⁻⁶⁵ | ₃ | 28.3 | ⁻⁷⁵ | ₃ | 23.1 | ⁻⁸³ | ₂ | 17.2 | ⁻⁹¹ | ₂ | 10.9 | ⁻⁹⁶ | ₂ | 4.2 | ⁻¹⁰¹ | ₁ | 5.9 | ⁻¹⁰⁵ | ₁ | 16.4 | | | | | | | | |
| Apr 27 | 44.0 | ⁻⁶ | ₁ | 43.5 | ⁻¹⁹ | ₁ | 42.2 | ⁻³² | ₁ | 40.0 | ⁻⁴⁴ | ₁ | 36.9 | ⁻⁵⁵ | ₁ | 33.0 | ⁻⁶⁶ | ₁ | 28.4 | ⁻⁷⁵ | ₁ | 23.2 | ⁻⁸⁴ | ₁ | 17.3 | ⁻⁹¹ | ₁ | 11.0 | ⁻⁹⁷ | ₀ | 4.2 | ⁻¹⁰² | ₀ | 6.0 | ⁻¹⁰⁵ | ₀ | 16.5 | | | | | | | | |
| Apr 28 | 44.0 | ⁻⁶ | ₋₂ | 43.6 | ⁻¹⁹ | ₋₂ | 42.2 | ⁻³² | ₋₂ | 40.0 | ⁻⁴⁴ | ₋₂ | 36.9 | ⁻⁵⁵ | ₋₁ | 33.1 | ⁻⁶⁶ | ₋₁ | 28.5 | ⁻⁷⁵ | ₋₁ | 23.2 | ⁻⁸⁴ | ₋₁ | 17.4 | ⁻⁹¹ | ₋₁ | 11.0 | ⁻⁹⁷ | ₋₁ | 4.2 | ⁻¹⁰² | ₋₁ | 6.0 | ⁻¹⁰⁵ | ₀ | 16.5 | | | | | | | | |
| Apr 29 | 43.9 | ⁻⁶ | ₋₄ | 43.5 | ⁻¹⁹ | ₋₄ | 42.1 | ⁻³² | ₋₄ | 39.9 | ⁻⁴⁴ | ₋₄ | 36.9 | ⁻⁵⁵ | ₋₃ | 33.0 | ⁻⁶⁵ | ₋₃ | 28.4 | ⁻⁷⁵ | ₋₃ | 23.2 | ⁻⁸³ | ₋₃ | 17.3 | ⁻⁹⁰ | ₋₂ | 11.0 | ⁻⁹⁶ | ₋₂ | 4.2 | ⁻¹⁰¹ | ₋₂ | 6.0 | ⁻¹⁰⁵ | ₋₁ | 16.4 | | | | | | | | |
| Apr 30 | 43.7 | ⁻⁶ | ₋₅ | 43.2 | ⁻¹⁹ | ₋₅ | 41.9 | ⁻³¹ | ₋₅ | 39.7 | ⁻⁴³ | ₋₅ | 36.6 | ⁻⁵⁴ | ₋₅ | 32.8 | ⁻⁶⁵ | ₋₅ | 28.2 | ⁻⁷⁴ | ₋₄ | 23.0 | ⁻⁸³ | ₋₄ | 17.2 | ⁻⁹⁰ | ₋₃ | 10.9 | ⁻⁹⁶ | ₋₃ | 4.2 | ⁻¹⁰¹ | ₋₂ | 5.9 | ⁻¹⁰⁴ | ₋₂ | 16.4 | | | | | | | | |
| May 1 | 43.3 | ⁻⁶ | ₋₆ | 42.8 | ⁻¹⁹ | ₋₆ | 41.5 | ⁻³¹ | ₋₆ | 39.3 | ⁻⁴³ | ₋₆ | 36.3 | ⁻⁵⁴ | ₋₆ | 32.5 | ⁻⁶⁴ | ₋₅ | 28.0 | ⁻⁷⁴ | ₋₅ | 22.8 | ⁻⁸² | ₋₄ | 17.1 | ⁻⁸⁹ | ₋₄ | 10.8 | ⁻⁹⁵ | ₋₃ | 4.1 | ⁻¹⁰⁰ | ₋₃ | 5.9 | ⁻¹⁰³ | ₋₂ | 16.2 | | | | | | | | |
| May 2 | 42.8 | ⁻⁶ | ₋₇ | 42.4 | ⁻¹⁹ | ₋₇ | 41.1 | ⁻³¹ | ₋₇ | 38.9 | ⁻⁴² | ₋₆ | 35.9 | ⁻⁵³ | ₋₆ | 32.2 | ⁻⁶⁴ | ₋₆ | 27.7 | ⁻⁷³ | ₋₅ | 22.6 | ⁻⁸¹ | ₋₅ | 16.9 | ⁻⁸⁸ | ₋₄ | 10.7 | ⁻⁹⁴ | ₋₄ | 4.1 | ⁻⁹⁹ | ₋₃ | 5.8 | ⁻¹⁰² | ₋₂ | 16.0 | | | | | | | | |
| May 3 | 42.4 | ⁻⁶ | ₋₇ | 41.9 | ⁻¹⁸ | ₋₇ | 40.6 | ⁻³⁰ | ₋₆ | 38.5 | ⁻⁴² | ₋₆ | 35.6 | ⁻⁵³ | ₋₆ | 31.8 | ⁻⁶³ | ₋₆ | 27.4 | ⁻⁷² | ₋₅ | 22.3 | ⁻⁸⁰ | ₋₅ | 16.7 | ⁻⁸⁷ | ₋₄ | 10.6 | ⁻⁹³ | ₋₄ | 4.0 | ⁻⁹⁸ | ₋₃ | 5.8 | ⁻¹⁰¹ | ₋₂ | 15.9 | | | | | | | | |
| May 4 | 41.9 | ⁻ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|-----------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|-------------------------------|------|-------------------------------|------|---|---|----|---|---|----|---|---|----|---|---|----|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| May 19 | 71.5 | ⁻⁶ ₉ | 71.1 | ⁻¹⁸ ₉ | 69.8 | ⁻³⁰ ₉ | 67.8 | ⁻⁴¹ ₈ | 64.9 | ⁻⁵² ₈ | 61.3 | ⁻⁶¹ ₈ | 57.1 | ⁻⁷⁰ ₇ | 52.2 | ⁻⁷⁸ ₆ | 46.7 | ⁻⁸⁵ ₆ | 40.8 | ⁻⁹¹ ₅ | 34.5 | ⁻⁹⁵ ₄ | 25.1 | ⁻⁹⁸ ₃ | 15.3 | | | | | | | | | | | | | | | | | |
| May 20 | 72.6 | ⁻⁶ ₁₀ | 72.1 | ⁻¹⁸ ₁₀ | 70.9 | ⁻³⁰ ₁₀ | 68.8 | ⁻⁴² ₉ | 65.9 | ⁻⁵² ₉ | 62.3 | ⁻⁶² ₈ | 57.9 | ⁻⁷² ₈ | 53.0 | ⁻⁸⁰ ₇ | 47.4 | ⁻⁸⁶ ₆ | 41.4 | ⁻⁹² ₅ | 35.0 | ⁻⁹⁷ ₄ | 25.4 | ⁻¹⁰⁰ ₃ | 15.5 | | | | | | | | | | | | | | | | | |
| May 21 | 73.8 | ⁻⁶ ₁₀ | 73.3 | ⁻¹⁹ ₁₀ | 72.0 | ⁻³¹ ₁₀ | 69.9 | ⁻⁴² ₉ | 67.0 | ⁻⁵³ ₉ | 63.3 | ⁻⁶³ ₈ | 58.9 | ⁻⁷³ ₈ | 53.8 | ⁻⁸¹ ₇ | 48.2 | ⁻⁸⁸ ₆ | 42.1 | ⁻⁹³ ₅ | 35.6 | ⁻⁹⁸ ₄ | 25.9 | ⁻¹⁰¹ ₃ | 15.8 | | | | | | | | | | | | | | | | | |
| May 22 | 75.0 | ⁻⁶ ₉ | 74.5 | ⁻¹⁹ ₉ | 73.2 | ⁻³¹ ₉ | 71.1 | ⁻⁴³ ₉ | 68.1 | ⁻⁵⁴ ₈ | 64.3 | ⁻⁶⁴ ₈ | 59.8 | ⁻⁷⁴ ₇ | 54.7 | ⁻⁸² ₆ | 49.0 | ⁻⁸⁹ ₆ | 42.8 | ⁻⁹⁵ ₅ | 36.2 | ⁻¹⁰⁰ ₄ | 26.3 | ⁻¹⁰³ ₃ | 16.1 | | | | | | | | | | | | | | | | | |
| May 23 | 76.1 | ⁻⁶ ₈ | 75.6 | ⁻¹⁹ ₈ | 74.3 | ⁻³² ₇ | 72.1 | ⁻⁴⁴ ₇ | 69.1 | ⁻⁵⁵ ₇ | 65.3 | ⁻⁶⁵ ₆ | 60.7 | ⁻⁷⁵ ₆ | 55.5 | ⁻⁸³ ₅ | 49.7 | ⁻⁹⁰ ₅ | 43.4 | ⁻⁹⁶ ₄ | 36.7 | ⁻¹⁰¹ ₃ | 26.7 | ⁻¹⁰⁴ ₂ | 16.3 | | | | | | | | | | | | | | | | | |
| May 24 | 77.0 | ⁻⁶ ₅ | 76.6 | ⁻¹⁹ ₅ | 75.2 | ⁻³² ₅ | 73.0 | ⁻⁴⁴ ₅ | 69.9 | ⁻⁵⁵ ₅ | 66.1 | ⁻⁶⁶ ₄ | 61.5 | ⁻⁷⁶ ₄ | 56.2 | ⁻⁸⁴ ₄ | 50.3 | ⁻⁹¹ ₃ | 44.0 | ⁻⁹⁷ ₃ | 37.2 | ⁻¹⁰² ₂ | 27.0 | ⁻¹⁰⁶ ₁ | 16.5 | | | | | | | | | | | | | | | | | |
| May 25 | 77.6 | ⁻⁷ ₂ | 77.2 | ⁻¹⁹ ₂ | 75.8 | ⁻³² ₂ | 73.6 | ⁻⁴⁴ ₂ | 70.5 | ⁻⁵⁶ ₂ | 66.6 | ⁻⁶⁶ ₂ | 62.0 | ⁻⁷⁶ ₁ | 56.6 | ⁻⁸⁵ ₁ | 50.7 | ⁻⁹² ₁ | 44.3 | ⁻⁹⁸ ₁ | 37.5 | ⁻¹⁰³ ₁ | 27.2 | ⁻¹⁰⁶ ₁ | 16.6 | | | | | | | | | | | | | | | | | |
| May 26 | 77.9 | ⁻⁷ ₋₁ | 77.4 | ⁻¹⁹ ₋₁ | 76.0 | ⁻³² ₋₁ | 73.8 | ⁻⁴⁴ ₋₁ | 70.7 | ⁻⁵⁶ ₋₁ | 66.8 | ⁻⁶⁶ ₋₁ | 62.1 | ⁻⁷⁶ ₋₁ | 56.8 | ⁻⁸⁵ ₋₁ | 50.9 | ⁻⁹² ₋₁ | 44.4 | ⁻⁹⁸ ₋₁ | 37.6 | ⁻¹⁰³ ₋₁ | 27.3 | ⁻¹⁰⁶ ₀ | 16.7 | | | | | | | | | | | | | | | | | |
| May 27 | 77.7 | ⁻⁶ ₋₄ | 77.2 | ⁻¹⁹ ₋₄ | 75.9 | ⁻³² ₋₄ | 73.6 | ⁻⁴⁴ ₋₄ | 70.5 | ⁻⁵⁵ ₋₄ | 66.6 | ⁻⁶⁶ ₋₄ | 62.0 | ⁻⁷⁶ ₋₃ | 56.7 | ⁻⁸⁴ ₋₃ | 50.8 | ⁻⁹¹ ₋₃ | 44.4 | ⁻⁹⁷ ₋₂ | 37.5 | ⁻¹⁰² ₋₂ | 27.2 | ⁻¹⁰⁶ ₋₁ | 16.6 | | | | | | | | | | | | | | | | | |
| May 28 | 77.2 | ⁻⁶ ₋₇ | 76.7 | ⁻¹⁹ ₋₇ | 75.4 | ⁻³² ₋₆ | 73.1 | ⁻⁴⁴ ₋₆ | 70.1 | ⁻⁵⁵ ₋₆ | 66.2 | ⁻⁶⁶ ₋₆ | 61.6 | ⁻⁷⁵ ₋₅ | 56.3 | ⁻⁸³ ₋₅ | 50.4 | ⁻⁹¹ ₋₄ | 44.1 | ⁻⁹⁶ ₋₄ | 37.3 | ⁻¹⁰² ₋₃ | 27.1 | ⁻¹⁰⁵ ₋₂ | 16.5 | | | | | | | | | | | | | | | | | |
| May 29 | 76.4 | ⁻⁶ ₋₈ | 75.9 | ⁻¹⁹ ₋₈ | 74.6 | ⁻³¹ ₋₈ | 72.4 | ⁻⁴³ ₋₈ | 69.3 | ⁻⁵⁴ ₋₇ | 65.5 | ⁻⁶⁵ ₋₇ | 60.9 | ⁻⁷⁴ ₋₆ | 55.7 | ⁻⁸² ₋₆ | 49.9 | ⁻⁹⁰ ₋₅ | 43.6 | ⁻⁹⁵ ₋₄ | 36.9 | ⁻¹⁰⁰ ₋₃ | 26.8 | ⁻¹⁰⁴ ₋₂ | 16.3 | | | | | | | | | | | | | | | | | |
| May 30 | 75.4 | ⁻⁶ ₋₉ | 74.9 | ⁻¹⁹ ₋₉ | 73.6 | ⁻³¹ ₋₉ | 71.4 | ⁻⁴³ ₋₈ | 68.4 | ⁻⁵⁴ ₋₈ | 64.7 | ⁻⁶⁴ ₋₇ | 60.2 | ⁻⁷³ ₋₇ | 55.0 | ⁻⁸¹ ₋₆ | 49.3 | ⁻⁸⁸ ₋₅ | 43.0 | ⁻⁹⁴ ₋₅ | 36.4 | ⁻⁹⁹ ₋₄ | 26.4 | ⁻¹⁰² ₋₃ | 16.1 | | | | | | | | | | | | | | | | | |
| May 31 | 74.3 | ⁻⁶ ₋₉ | 73.9 | ⁻¹⁸ ₋₉ | 72.6 | ⁻³⁰ ₋₈ | 70.4 | ⁻⁴² ₋₈ | 67.5 | ⁻⁵³ ₋₈ | 63.7 | ⁻⁶³ ₋₇ | 59.3 | ⁻⁷² ₋₇ | 54.2 | ⁻⁸⁰ ₋₆ | 48.6 | ⁻⁸⁷ ₋₅ | 42.4 | ⁻⁹³ ₋₅ | 35.9 | ⁻⁹⁸ ₋₄ | 26.0 | ⁻¹⁰¹ ₋₂ | 15.9 | | | | | | | | | | | | | | | | | |
| Jun 1 | 73.2 | ⁻⁶ ₋₈ | 72.8 | ⁻¹⁸ ₋₈ | 71.5 | ⁻³⁰ ₋₈ | 69.4 | ⁻⁴¹ ₋₈ | 66.5 | ⁻⁵² ₋₇ | 62.8 | ⁻⁶² ₋₇ | 58.5 | ⁻⁷¹ ₋₆ | 53.4 | ⁻⁷⁹ ₋₆ | 47.9 | ⁻⁸⁶ ₋₅ | 41.8 | ⁻⁹¹ ₋₄ | 35.4 | ⁻⁹⁶ ₋₃ | 25.7 | ⁻⁹⁹ ₋₂ | 15.7 | | | | | | | | | | | | | | | | | |
| Jun 2 | 72.3 | ⁻⁶ ₋₇ | 71.8 | ⁻¹⁸ ₋₇ | 70.6 | ⁻³⁰ ₋₇ | 68.5 | ⁻⁴¹ ₋₇ | 65.6 | ⁻⁵¹ ₋₆ | 62.0 | ⁻⁶¹ ₋₆ | 57.7 | ⁻⁷⁰ ₋₆ | 52.7 | ⁻⁷⁸ ₋₅ | 47.2 | ⁻⁸⁵ ₋₄ | 41.3 | ⁻⁹⁰ ₋₄ | 34.9 | ⁻⁹⁵ ₋₃ | 25.3 | ⁻⁹⁸ ₋₂ | 15.5 | | | | | | | | | | | | | | | | | |
| Jun 3 | 71.4 | ⁻⁶ ₋₆ | 71.0 | ⁻¹⁸ ₋₆ | 69.7 | ⁻²⁹ ₋₆ | 67.7 | ⁻⁴⁰ ₋₆ | 64.8 | ⁻⁵¹ ₋₆ | 61.2 | ⁻⁶¹ ₋₅ | 57.0 | ⁻⁶⁹ ₋₅ | 52.1 | ⁻⁷⁷ ₋₄ | 46.7 | ⁻⁸⁴ ₋₄ | 40.8 | ⁻⁸⁹ ₋₃ | 34.5 | ⁻⁹⁴ ₋₃ | 25.0 | ⁻⁹⁷ ₋₂ | 15.3 | | | | | | | | | | | | | | | | | |
| Jun 4 | 70.6 | ⁻⁶ ₋₅ | 70.2 | ⁻¹⁸ ₋₅ | 69.0 | ⁻²⁹ ₋₅ | 66.9 | ⁻⁴⁰ ₋₅ | 64.1 | ⁻⁵⁰ ₋₅ | 60.6 | ⁻⁶⁰ ₋₄ | 56.4 | ⁻⁶⁹ ₋₄ | 51.5 | ⁻⁷⁶ ₋₄ | 46.2 | ⁻⁸³ ₋₃ | 40.3 | ⁻⁸⁸ ₋₃ | 34.1 | ⁻⁹³ ₋₂ | 24.8 | ⁻⁹⁶ ₋₁ | 15.1 | | | | | | | | | | | | | | | | | |
| Jun 5 | 70.0 | ⁻⁶ ₋₄ | 69.6 | ⁻¹⁷ ₋₄ | 68.4 | ⁻²⁹ ₋₄ | 66.4 | ⁻⁴⁰ ₋₄ | 63.6 | ⁻⁵⁰ ₋₄ | 60.1 | ⁻⁶⁰ ₋₃ | 55.9 | ⁻⁶⁸ ₋₃ | 51.1 | ⁻⁷⁶ ₋₃ | 45.8 | ⁻⁸² ₋₃ | 40.0 | ⁻⁸⁸ ₋₂ | 33.8 | ⁻⁹² ₋₂ | 24.5 | ⁻⁹⁵ ₋₁ | 15.0 | | | | | | | | | | | | | | | | | |
| Jun 6 | 69.5 | ⁻⁶ ₋₃ | 69.1 | ⁻¹⁷ ₋₃ | 67.9 | ⁻²⁹ ₋₃ | 65.9 | ⁻³⁹ ₋₃ | 63.1 | ⁻⁵⁰ ₋₃ | 59.6 | ⁻⁵⁹ ₋₃ | 55.5 | ⁻⁶⁸ ₋₂ | 50.7 | ⁻⁷⁵ ₋₂ | 45.4 | ⁻⁸² ₋₂ | 39.7 | ⁻⁸⁷ ₋₂ | 33.6 | ⁻⁹² ₋₁ | 24.4 | ⁻⁹⁵ ₋₁ | 14.9 | | | | | | | | | | | | | | | | | |
| Jun 7 | 69.1 | ⁻⁶ ₋₂ | 68.7 | ⁻¹⁷ ₋₂ | 67.5 | ⁻²⁸ ₋₂ | 65.5 | ⁻³⁹ ₋₂ | 62.8 | ⁻⁴⁹ ₋₂ | 59.3 | ⁻⁵⁹ ₋₂ | 55.2 | ⁻⁶⁷ ₋₂ | 50.4 | ⁻⁷⁵ ₋₂ | 45.2 | ⁻⁸¹ ₋₁ | 39.5 | ⁻⁸⁷ ₋₁ | 33.4 | ⁻⁹¹ ₋₁ | 24.2 | ⁻⁹⁴ ₋₁ | 14.8 | | | | | | | | | | | | | | | | | |
| Jun 8 | 68.9 | ⁻⁶ ₋₁ | 68.4 | ⁻¹⁷ ₋₁ | 67.2 | ⁻²⁸ ₋₁ | 65.3 | ⁻³⁹ ₋₁ | 62.5 | ⁻⁴⁹ ₋₁ | 59.1 | ⁻⁵⁹ ₋₁ | 55.0 | ⁻⁶⁷ ₋₁ | 50.2 | ⁻⁷⁵ ₋₁ | 45.0 | ⁻⁸¹ ₋₁ | 39.3 | ⁻⁸⁶ ₋₁ | 33.2 | ⁻⁹¹ ₋₁ | 24.1 | ⁻⁹⁴ ₀ | 14.7 | | | | | | | | | | | | | | | | | |
| Jun 9 | 68.7 | ⁻⁶ ₀ | 68.3 | ⁻¹⁷ ₀ | 67.1 | ⁻²⁸ ₀ | 65.1 | ⁻³⁹ ₀ | 62.4 | ⁻⁴⁹ ₀ | 58.9 | ⁻⁵⁹ ₀ | 54.8 | ⁻⁶⁷ ₀ | 50.1 | ⁻⁷⁵ ₀ | 44.9 | ⁻⁸¹ ₀ | 39.2 | ⁻⁸⁶ ₀ | 33.2 | ⁻⁹¹ ₀ | 24.1 | ⁻⁹⁴ ₀ | 14.7 | | | | | | | | | | | | | | | | | |
| Jun 10 | 68.6 | ⁻⁶ ₁ | 68.2 | ⁻¹⁷ ₁ | 67.0 | ⁻²⁸ ₁ | 65.1 | ⁻³⁹ ₁ | 62.3 | ⁻⁴⁹ ₁ | 58.9 | ⁻⁵⁹ ₁ | 54.8 | ⁻⁶⁷ ₀ | 50.1 | ⁻⁷⁵ ₀ | 44.9 | ⁻⁸¹ ₀ | 39.2 | ⁻⁸⁶ ₀ | 33.1 | ⁻⁹¹ ₀ | 24.1 | ⁻⁹⁴ ₀ | 14.7 | | | | | | | | | | | | | | | | | |
| Jun 11 | 68.7 | ⁻⁶ ₂ | 68.3 | ⁻¹⁷ ₂ | 67.1 | ⁻²⁸ ₂ | 65.1 | ⁻³⁹ ₂ | 62.4 | ⁻⁴⁹ ₂ | 58.9 | ⁻⁵⁹ ₁ | 54.8 | ⁻⁶⁷ ₁ | 50.1 | ⁻⁷⁵ ₁ | 44.9 | ⁻⁸¹ ₁ | 39.2 | ⁻⁸⁷ ₁ | 33.2 | ⁻⁹¹ ₁ | 24.1 | ⁻⁹⁴ ₀ | 14.7 | | | | | | | | | | | | | | | | | |
| Jun 12 | 68.9 | ⁻⁶ ₃ | 68.5 | ⁻¹⁷ ₃ | 67.3 | ⁻²⁸ ₃ | 65.3 | ⁻³⁹ ₃ | 62.6 | ⁻⁴⁹ ₃ | 59.1 | ⁻⁵⁹ ₂ | 55.0 | ⁻⁶⁸ ₂ | 50.3 | ⁻⁷⁵ ₂ | 45.0 | ⁻⁸² ₂ | 39.3 | ⁻⁸⁷ ₂ | 33.3 | ⁻⁹¹ ₁ | 24.2 | ⁻⁹⁴ ₁ | 14.8 | | | | | | | | | | | | | | | | | |
| Jun 13 | 69.3 | ⁻⁶ ₄ | 68.9 | ⁻¹⁷ ₄ | 67.7 | ⁻²⁹ ₄ | 65.7 | ⁻⁴⁰ ₄ | 62.9 | ⁻⁵⁰ ₄ | 59.4 | ⁻⁵⁹ ₄ | 55.3 | ⁻⁶⁸ ₃ | 50.6 | ⁻⁷⁶ ₃ | 45.3 | ⁻⁸² ₃ | 39.6 | ⁻⁸⁷ ₂ | 33.5 | ⁻⁹² ₂ | 24.3 | ⁻⁹⁵ ₁ | 14.8 | | | | | | | | | | | | | | | | | |
| Jun 14 | 69.8 | ⁻⁶ ₆ | 69.4 | ⁻¹⁸ ₆ | 68.2 | ⁻²⁹ ₆ | 66.2 | ⁻⁴⁰ ₅ | 63.4 | ⁻⁵⁰ ₅ | 59.9 | ⁻⁶⁰ ₅ | 55.7 | ⁻⁶⁹ ₄ | 50.9 | ⁻⁷⁶ ₄ | 45.6 | ⁻⁸³ ₄ | 39.8 | ⁻⁸⁸ ₃ | 33.7 | ⁻⁹³ ₂ | 24.5 | ⁻⁹⁶ ₂ | 14.9 | | | | | | | | | | | | | | | | | |
| Jun 15 | 70.5 | ⁻⁶ ₇ | 70.1 | ⁻¹⁸ ₇ | 68.9 | ⁻²⁹ ₇ | 66.8 | ⁻⁴⁰ ₇ | 64.0 | ⁻⁵¹ ₆ | 60.5 | ⁻⁶¹ ₆ | 56.3 | ⁻⁶⁹ ₆ | 51.4 | ⁻⁷⁷ ₅ | 46.1 | ⁻⁸⁴ ₄ | 40.2 | ⁻⁸⁹ ₄ | 34.0 | ⁻⁹⁴ ₃ | 24.7 | ⁻⁹⁷ ₂ | 15.1 | | | | | | | | | | | | | | | | | |
| Jun 16 | 71.4 | ⁻⁶ ₉ | 70.9 | ⁻¹⁸ ₈ | 69.7 | ⁻³⁰ ₈ | 67.6 | ⁻⁴¹ ₈ | 64.8 | ⁻⁵¹ ₈ | 61.2 | ⁻⁶¹ ₇ | 57.0 | ⁻⁷⁰ ₇ | 52.1 | ⁻⁷⁸ ₆ | 46.6 | ⁻⁸⁵ ₅ | 40.7 | ⁻⁹⁰ ₄ | 34.5 | ⁻⁹⁵ ₄ | 25.0 | ⁻⁹⁸ ₂ | 15.3 | | | | | | | | | | | | | | | | | |
| Jun 17 | 72.4 | ⁻⁶ ₁₀ | 72.0 | ⁻¹⁹ ₉ | 70.7 | ⁻³⁰ ₉ | 68.6 | ⁻⁴¹ ₉ | 65.7 | ⁻⁵² ₈ | 62.1 | ⁻⁶² ₈ | 57.8 | ⁻⁷¹ ₇ | 52.8 | ⁻⁷⁹ ₇ | 47.3 | ⁻⁸⁶ ₆ | 41.3 | ⁻⁹² ₅ | 35.0 | ⁻⁹⁷ ₄ | 25.4 | ⁻¹⁰⁰ ₃ | 15.5 | | | | | | | | | | | | | | | | | |
| Jun 18 | 73.5 | ⁻⁶ ₁₀ | 73.1 | ⁻¹⁹ ₁₀ | 71.8 | ⁻³¹ ₁₀ | 69.7 | ⁻⁴² ₉ | 66.8 | ⁻⁵³ ₉ | 63.1 | ⁻⁶³ ₈ | 58.7 | ⁻⁷² ₈ | 53.7 | ⁻⁸¹ ₇ | 48.1 | ⁻⁸⁸ ₆ | 42.0 | ⁻⁹³ ₅ | 35.5 | ⁻⁹⁸ ₄ | 25.8 | ⁻¹⁰¹ ₃ | 15.7 | | | | | | | | | | | | | | | | | |
| Jun 19 | 74.7 | ⁻⁶ ₁₀ | 74.3 | ⁻¹⁹ ₁₀ | 73.0 | ⁻³¹ ₉ | 70.8 | ⁻⁴³ ₉ | 67.9 | ⁻⁵⁴ ₉ | 64.1 | ⁻⁶⁴ ₈ | 59.6 | ⁻⁷⁴ ₇ | 54.5 | ⁻⁸² ₇ | 48.8 | ⁻⁸⁹ ₆ | 42.7 | ⁻⁹⁵ ₅ | 36.1 | ⁻¹⁰⁰ ₄ | 26.2 | ⁻¹⁰³ ₃ | 16.0 | | | | | | | | | | | | | | | | | |
| Jun 20 | 75.9 | ⁻⁶ ₉ | 75.5 | ⁻¹⁹ ₈ | 74.1 | ⁻³² ₈ | 71.9 | ⁻⁴³ ₈ | 68.9 | ⁻⁵⁵ ₈ | 65.1 | ⁻⁶⁵ ₇ | 60.6 | ⁻⁷⁵ ₇ | 55.4 | ⁻⁸³ ₆ | 49.6 | ⁻⁹⁰ ₅ | 43.3 | ⁻⁹⁶ ₅ | 36.7 | ⁻¹⁰¹ ₄ | 26.6 | ⁻¹⁰⁴ ₂ | 16.3 | | | | | | | | | | | | | | | | | |
| Jun 21 | 76.9 | ⁻⁶ ₆ | 76.5 | ⁻¹⁹ ₆ | 75.1 | ⁻³² ₆ | 72.9 | ⁻⁴⁴ ₆ | 69.9 | ⁻⁵⁵ ₆ | 66.0 | ⁻⁶⁶ ₅ | 61.4 | ⁻⁷⁶ ₅ | 56.1 | ⁻⁸⁴ ₄ | 50.3 | ⁻⁹¹ ₄ | 43.9 | ⁻⁹⁷ ₃ | 37.2 | ⁻¹⁰² ₃ | 27.0 | ⁻¹⁰⁶ ₂ | 16.5 | | | | | | | | | | | | | | | | | |
| Jun 22 | 77.7 | ⁻⁷ ₃ | 77.3 | ⁻¹⁹ ₃ | 75.9 | ⁻³² ₃ | 73.6 | ⁻⁴⁴ ₃ | 70.6 | ⁻⁵⁶ ₃ | 66.7 | ⁻⁶⁶ ₃ | 62.0 | ⁻⁷⁶ ₃ | 56.7 | ⁻⁸⁵ ₂ | 50.8 | ⁻⁹² ₂ | 44.4 | ⁻⁹⁸ ₂ | 37.5 | ⁻¹⁰³ ₁ | 27.2 | ⁻¹⁰⁶ ₁ | 16.6 | | | | | | | | | | | | | | | | | |
| Jun 23 | 78.1 | ⁻⁷ ₀ | 77.7 | ⁻²⁰ ₀ | 76.3 | ⁻³² ₀ | 74.0 | ^{-44</} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|-----------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|------|------------------------------|-----|-------------------------------|------|-------------------------------|-------|---|---|----|---|---|----|---|---|----|---|---|----|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| May 19 | 40.9 | ⁻⁶ ₉ | 40.4 | ⁻¹⁸ ₉ | 39.2 | ⁻³⁰ ₉ | 37.1 | ⁻⁴¹ ₈ | 34.3 | ⁻⁵² ₈ | 30.7 | ⁻⁶¹ ₈ | 26.4 | ⁻⁷⁰ ₇ | 21.5 | ⁻⁷⁸ ₆ | 16.1 | ⁻⁸⁵ ₆ | 10.2 | ⁻⁹¹ ₅ | 3.9 | ⁻⁹⁵ ₄ | -5.6 | ⁻⁹⁸ ₃ | -15.3 | | | | | | | | | | | | | | | | | |
| May 20 | 41.5 | ⁻⁶ ₁₀ | 41.1 | ⁻¹⁸ ₁₀ | 39.8 | ⁻³⁰ ₁₀ | 37.7 | ⁻⁴² ₉ | 34.8 | ⁻⁵² ₉ | 31.2 | ⁻⁶² ₈ | 26.8 | ⁻⁷² ₈ | 21.9 | ⁻⁸⁰ ₇ | 16.3 | ⁻⁸⁶ ₆ | 10.4 | ⁻⁹² ₅ | 4.0 | ⁻⁹⁷ ₄ | -5.6 | ⁻¹⁰⁰ ₃ | -15.5 | | | | | | | | | | | | | | | | | |
| May 21 | 42.2 | ⁻⁶ ₁₀ | 41.7 | ⁻¹⁹ ₁₀ | 40.4 | ⁻³¹ ₁₀ | 38.3 | ⁻⁴² ₉ | 35.4 | ⁻⁵³ ₉ | 31.7 | ⁻⁶³ ₈ | 27.3 | ⁻⁷³ ₈ | 22.2 | ⁻⁸¹ ₇ | 16.6 | ⁻⁸⁸ ₆ | 10.5 | ⁻⁹³ ₅ | 4.0 | ⁻⁹⁸ ₄ | -5.7 | ⁻¹⁰¹ ₃ | -15.8 | | | | | | | | | | | | | | | | | |
| May 22 | 42.9 | ⁻⁶ ₉ | 42.4 | ⁻¹⁹ ₉ | 41.1 | ⁻³¹ ₉ | 38.9 | ⁻⁴³ ₉ | 36.0 | ⁻⁵⁴ ₈ | 32.2 | ⁻⁶⁴ ₈ | 27.7 | ⁻⁷⁴ ₇ | 22.6 | ⁻⁸² ₆ | 16.9 | ⁻⁸⁹ ₆ | 10.7 | ⁻⁹⁵ ₅ | 4.1 | ⁻¹⁰⁰ ₄ | -5.8 | ⁻¹⁰³ ₃ | -16.1 | | | | | | | | | | | | | | | | | |
| May 23 | 43.5 | ⁻⁶ ₈ | 43.1 | ⁻¹⁹ ₈ | 41.7 | ⁻³² ₇ | 39.5 | ⁻⁴⁴ ₇ | 36.5 | ⁻⁵⁵ ₇ | 32.7 | ⁻⁶⁵ ₆ | 28.1 | ⁻⁷⁵ ₆ | 22.9 | ⁻⁸³ ₅ | 17.1 | ⁻⁹⁰ ₅ | 10.9 | ⁻⁹⁶ ₄ | 4.2 | ⁻¹⁰¹ ₃ | -5.9 | ⁻¹⁰⁴ ₂ | -16.3 | | | | | | | | | | | | | | | | | |
| May 24 | 44.0 | ⁻⁶ ₅ | 43.6 | ⁻¹⁹ ₅ | 42.2 | ⁻³² ₅ | 40.0 | ⁻⁴⁴ ₅ | 36.9 | ⁻⁵⁵ ₅ | 33.1 | ⁻⁶⁶ ₄ | 28.5 | ⁻⁷⁶ ₄ | 23.2 | ⁻⁸⁴ ₄ | 17.4 | ⁻⁹¹ ₃ | 11.0 | ⁻⁹⁷ ₃ | 4.2 | ⁻¹⁰² ₂ | -6.0 | ⁻¹⁰⁶ ₁ | -16.5 | | | | | | | | | | | | | | | | | |
| May 25 | 44.4 | ⁻⁷ ₂ | 43.9 | ⁻¹⁹ ₂ | 42.6 | ⁻³² ₂ | 40.3 | ⁻⁴⁴ ₂ | 37.2 | ⁻⁵⁶ ₂ | 33.3 | ⁻⁶⁶ ₂ | 28.7 | ⁻⁷⁶ ₁ | 23.4 | ⁻⁸⁵ ₁ | 17.5 | ⁻⁹² ₁ | 11.1 | ⁻⁹⁸ ₁ | 4.2 | ⁻¹⁰³ ₁ | -6.0 | ⁻¹⁰⁶ ₁ | -16.6 | | | | | | | | | | | | | | | | | |
| May 26 | 44.5 | ⁻⁷ ₋₁ | 44.1 | ⁻¹⁹ ₋₁ | 42.7 | ⁻³² ₋₁ | 40.4 | ⁻⁴⁴ ₋₁ | 37.3 | ⁻⁵⁶ ₋₁ | 33.4 | ⁻⁶⁶ ₋₁ | 28.8 | ⁻⁷⁶ ₋₁ | 23.5 | ⁻⁸⁵ ₋₁ | 17.5 | ⁻⁹² ₋₁ | 11.1 | ⁻⁹⁸ ₋₁ | 4.3 | ⁻¹⁰³ ₋₁ | -6.0 | ⁻¹⁰⁶ ₀ | -16.7 | | | | | | | | | | | | | | | | | |
| May 27 | 44.4 | ⁻⁶ ₋₄ | 44.0 | ⁻¹⁹ ₋₄ | 42.6 | ⁻³² ₋₄ | 40.4 | ⁻⁴⁴ ₋₄ | 37.3 | ⁻⁵⁵ ₋₄ | 33.4 | ⁻⁶⁶ ₋₄ | 28.7 | ⁻⁷⁶ ₋₃ | 23.4 | ⁻⁸⁴ ₋₃ | 17.5 | ⁻⁹¹ ₋₃ | 11.1 | ⁻⁹⁷ ₋₂ | 4.2 | ⁻¹⁰² ₋₂ | -6.0 | ⁻¹⁰⁶ ₋₁ | -16.6 | | | | | | | | | | | | | | | | | |
| May 28 | 44.1 | ⁻⁶ ₋₇ | 43.7 | ⁻¹⁹ ₋₇ | 42.3 | ⁻³² ₋₆ | 40.1 | ⁻⁴⁴ ₋₆ | 37.0 | ⁻⁵⁵ ₋₆ | 33.1 | ⁻⁶⁶ ₋₆ | 28.5 | ⁻⁷⁵ ₋₅ | 23.3 | ⁻⁸³ ₋₅ | 17.4 | ⁻⁹¹ ₋₄ | 11.0 | ⁻⁹⁶ ₋₄ | 4.2 | ⁻¹⁰² ₋₃ | -6.0 | ⁻¹⁰⁵ ₋₂ | -16.5 | | | | | | | | | | | | | | | | | |
| May 29 | 43.6 | ⁻⁶ ₋₈ | 43.2 | ⁻¹⁹ ₋₈ | 41.9 | ⁻³¹ ₋₈ | 39.7 | ⁻⁴³ ₋₈ | 36.6 | ⁻⁵⁴ ₋₇ | 32.8 | ⁻⁶⁵ ₋₇ | 28.2 | ⁻⁷⁴ ₋₆ | 23.0 | ⁻⁸² ₋₆ | 17.2 | ⁻⁹⁰ ₋₅ | 10.9 | ⁻⁹⁵ ₋₄ | 4.2 | ⁻¹⁰⁰ ₋₃ | -5.9 | ⁻¹⁰⁴ ₋₂ | -16.3 | | | | | | | | | | | | | | | | | |
| May 30 | 43.1 | ⁻⁶ ₋₉ | 42.6 | ⁻¹⁹ ₋₉ | 41.3 | ⁻³¹ ₋₉ | 39.2 | ⁻⁴³ ₋₈ | 36.2 | ⁻⁵⁴ ₋₈ | 32.4 | ⁻⁶⁴ ₋₇ | 27.9 | ⁻⁷³ ₋₇ | 22.7 | ⁻⁸¹ ₋₆ | 17.0 | ⁻⁸⁸ ₋₅ | 10.7 | ⁻⁹⁴ ₋₅ | 4.1 | ⁻⁹⁹ ₋₄ | -5.9 | ⁻¹⁰² ₋₃ | -16.1 | | | | | | | | | | | | | | | | | |
| May 31 | 42.5 | ⁻⁶ ₋₉ | 42.0 | ⁻¹⁸ ₋₉ | 40.7 | ⁻³⁰ ₋₈ | 38.6 | ⁻⁴² ₋₈ | 35.6 | ⁻⁵³ ₋₈ | 31.9 | ⁻⁶³ ₋₇ | 27.5 | ⁻⁷² ₋₇ | 22.4 | ⁻⁸⁰ ₋₆ | 16.7 | ⁻⁸⁷ ₋₅ | 10.6 | ⁻⁹³ ₋₅ | 4.1 | ⁻⁹⁸ ₋₄ | -5.8 | ⁻¹⁰¹ ₋₂ | -15.9 | | | | | | | | | | | | | | | | | |
| Jun 1 | 41.9 | ⁻⁶ ₋₈ | 41.4 | ⁻¹⁸ ₋₈ | 40.2 | ⁻³⁰ ₋₈ | 38.1 | ⁻⁴¹ ₋₈ | 35.1 | ⁻⁵² ₋₇ | 31.5 | ⁻⁶² ₋₇ | 27.1 | ⁻⁷¹ ₋₆ | 22.1 | ⁻⁷⁹ ₋₆ | 16.5 | ⁻⁸⁶ ₋₅ | 10.4 | ⁻⁹¹ ₋₄ | 4.0 | ⁻⁹⁶ ₋₃ | -5.7 | ⁻⁹⁹ ₋₂ | -15.7 | | | | | | | | | | | | | | | | | |
| Jun 2 | 41.3 | ⁻⁶ ₋₇ | 40.9 | ⁻¹⁸ ₋₇ | 39.6 | ⁻³⁰ ₋₇ | 37.5 | ⁻⁴¹ ₋₇ | 34.7 | ⁻⁵¹ ₋₆ | 31.0 | ⁻⁶¹ ₋₆ | 26.7 | ⁻⁷⁰ ₋₆ | 21.8 | ⁻⁷⁸ ₋₅ | 16.3 | ⁻⁸⁵ ₋₄ | 10.3 | ⁻⁹⁰ ₋₄ | 3.9 | ⁻⁹⁵ ₋₃ | -5.6 | ⁻⁹⁸ ₋₂ | -15.5 | | | | | | | | | | | | | | | | | |
| Jun 3 | 40.8 | ⁻⁶ ₋₆ | 40.4 | ⁻¹⁸ ₋₆ | 39.1 | ⁻²⁹ ₋₆ | 37.1 | ⁻⁴⁰ ₋₆ | 34.2 | ⁻⁵¹ ₋₆ | 30.7 | ⁻⁶¹ ₋₅ | 26.4 | ⁻⁶⁹ ₋₅ | 21.5 | ⁻⁷⁷ ₋₄ | 16.1 | ⁻⁸⁴ ₋₄ | 10.2 | ⁻⁸⁹ ₋₃ | 3.9 | ⁻⁹⁴ ₋₃ | -5.5 | ⁻⁹⁷ ₋₂ | -15.3 | | | | | | | | | | | | | | | | | |
| Jun 4 | 40.4 | ⁻⁶ ₋₅ | 40.0 | ⁻¹⁸ ₋₅ | 38.7 | ⁻²⁹ ₋₅ | 36.7 | ⁻⁴⁰ ₋₅ | 33.9 | ⁻⁵⁰ ₋₅ | 30.3 | ⁻⁶⁰ ₋₄ | 26.1 | ⁻⁶⁹ ₋₄ | 21.3 | ⁻⁷⁶ ₋₄ | 15.9 | ⁻⁸³ ₋₃ | 10.1 | ⁻⁸⁸ ₋₃ | 3.9 | ⁻⁹³ ₋₂ | -5.5 | ⁻⁹⁶ ₋₁ | -15.1 | | | | | | | | | | | | | | | | | |
| Jun 5 | 40.0 | ⁻⁶ ₋₄ | 39.6 | ⁻¹⁷ ₋₄ | 38.4 | ⁻²⁹ ₋₄ | 36.4 | ⁻⁴⁰ ₋₄ | 33.6 | ⁻⁵⁰ ₋₄ | 30.1 | ⁻⁶⁰ ₋₃ | 25.9 | ⁻⁶⁸ ₋₃ | 21.1 | ⁻⁷⁶ ₋₃ | 15.8 | ⁻⁸² ₋₃ | 10.0 | ⁻⁸⁸ ₋₂ | 3.8 | ⁻⁹² ₋₂ | -5.4 | ⁻⁹⁵ ₋₁ | -15.0 | | | | | | | | | | | | | | | | | |
| Jun 6 | 39.7 | ⁻⁶ ₋₃ | 39.3 | ⁻¹⁷ ₋₃ | 38.1 | ⁻²⁹ ₋₃ | 36.1 | ⁻³⁹ ₋₃ | 33.3 | ⁻⁵⁰ ₋₃ | 29.9 | ⁻⁵⁹ ₋₃ | 25.7 | ⁻⁶⁸ ₋₂ | 21.0 | ⁻⁷⁵ ₋₂ | 15.7 | ⁻⁸² ₋₂ | 9.9 | ⁻⁸⁷ ₋₂ | 3.8 | ⁻⁹² ₋₁ | -5.4 | ⁻⁹⁵ ₋₁ | -14.9 | | | | | | | | | | | | | | | | | |
| Jun 7 | 39.5 | ⁻⁶ ₋₂ | 39.1 | ⁻¹⁷ ₋₂ | 37.9 | ⁻²⁸ ₋₂ | 35.9 | ⁻³⁹ ₋₂ | 33.2 | ⁻⁴⁹ ₋₂ | 29.7 | ⁻⁵⁹ ₋₂ | 25.6 | ⁻⁶⁷ ₋₂ | 20.8 | ⁻⁷⁵ ₋₂ | 15.6 | ⁻⁸¹ ₋₁ | 9.9 | ⁻⁸⁷ ₋₁ | 3.8 | ⁻⁹¹ ₋₁ | -5.4 | ⁻⁹⁴ ₋₁ | -14.8 | | | | | | | | | | | | | | | | | |
| Jun 8 | 39.4 | ⁻⁶ ₋₁ | 39.0 | ⁻¹⁷ ₋₁ | 37.8 | ⁻²⁸ ₋₁ | 35.8 | ⁻³⁹ ₋₁ | 33.0 | ⁻⁴⁹ ₋₁ | 29.6 | ⁻⁵⁹ ₋₁ | 25.5 | ⁻⁶⁷ ₋₁ | 20.8 | ⁻⁷⁵ ₋₁ | 15.5 | ⁻⁸¹ ₋₁ | 9.8 | ⁻⁸⁶ ₋₁ | 3.8 | ⁻⁹¹ ₋₁ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jun 9 | 39.3 | ⁻⁶ ₀ | 38.9 | ⁻¹⁷ ₀ | 37.7 | ⁻²⁸ ₀ | 35.7 | ⁻³⁹ ₀ | 33.0 | ⁻⁴⁹ ₀ | 29.5 | ⁻⁵⁹ ₀ | 25.4 | ⁻⁶⁷ ₀ | 20.7 | ⁻⁷⁵ ₀ | 15.5 | ⁻⁸¹ ₀ | 9.8 | ⁻⁸⁶ ₀ | 3.8 | ⁻⁹¹ ₀ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jun 10 | 39.2 | ⁻⁶ ₁ | 38.8 | ⁻¹⁷ ₁ | 37.6 | ⁻²⁸ ₁ | 35.7 | ⁻³⁹ ₁ | 32.9 | ⁻⁴⁹ ₁ | 29.5 | ⁻⁵⁹ ₁ | 25.4 | ⁻⁶⁷ ₀ | 20.7 | ⁻⁷⁵ ₀ | 15.5 | ⁻⁸¹ ₀ | 9.8 | ⁻⁸⁶ ₀ | 3.7 | ⁻⁹¹ ₀ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jun 11 | 39.3 | ⁻⁶ ₂ | 38.9 | ⁻¹⁷ ₂ | 37.7 | ⁻²⁸ ₂ | 35.7 | ⁻³⁹ ₂ | 33.0 | ⁻⁴⁹ ₂ | 29.5 | ⁻⁵⁹ ₁ | 25.4 | ⁻⁶⁷ ₁ | 20.7 | ⁻⁷⁵ ₁ | 15.5 | ⁻⁸¹ ₁ | 9.8 | ⁻⁸⁷ ₁ | 3.8 | ⁻⁹¹ ₁ | -5.3 | ⁻⁹⁴ ₀ | -14.7 | | | | | | | | | | | | | | | | | |
| Jun 12 | 39.4 | ⁻⁶ ₃ | 39.0 | ⁻¹⁷ ₃ | 37.8 | ⁻²⁸ ₃ | 35.8 | ⁻³⁹ ₃ | 33.1 | ⁻⁴⁹ ₃ | 29.6 | ⁻⁵⁹ ₂ | 25.5 | ⁻⁶⁸ ₂ | 20.8 | ⁻⁷⁵ ₂ | 15.5 | ⁻⁸² ₂ | 9.8 | ⁻⁸⁷ ₂ | 3.8 | ⁻⁹¹ ₁ | -5.4 | ⁻⁹⁴ ₁ | -14.8 | | | | | | | | | | | | | | | | | |
| Jun 13 | 39.6 | ⁻⁶ ₄ | 39.2 | ⁻¹⁷ ₄ | 38.0 | ⁻²⁹ ₄ | 36.0 | ⁻⁴⁰ ₄ | 33.2 | ⁻⁵⁰ ₄ | 29.8 | ⁻⁵⁹ ₄ | 25.6 | ⁻⁶⁸ ₃ | 20.9 | ⁻⁷⁶ ₃ | 15.6 | ⁻⁸² ₃ | 9.9 | ⁻⁸⁷ ₂ | 3.8 | ⁻⁹² ₂ | -5.4 | ⁻⁹⁵ ₁ | -14.8 | | | | | | | | | | | | | | | | | |
| Jun 14 | 39.9 | ⁻⁶ ₆ | 39.5 | ⁻¹⁸ ₆ | 38.3 | ⁻²⁹ ₆ | 36.3 | ⁻⁴⁰ ₅ | 33.5 | ⁻⁵⁰ ₅ | 30.0 | ⁻⁶⁰ ₅ | 25.8 | ⁻⁶⁹ ₄ | 21.0 | ⁻⁷⁶ ₄ | 15.7 | ⁻⁸³ ₄ | 10.0 | ⁻⁸⁸ ₃ | 3.8 | ⁻⁹³ ₂ | -5.4 | ⁻⁹⁶ ₂ | -14.9 | | | | | | | | | | | | | | | | | |
| Jun 15 | 40.3 | ⁻⁶ ₇ | 39.9 | ⁻¹⁸ ₇ | 38.7 | ⁻²⁹ ₇ | 36.6 | ⁻⁴⁰ ₇ | 33.8 | ⁻⁵¹ ₆ | 30.3 | ⁻⁶¹ ₆ | 26.1 | ⁻⁶⁹ ₆ | 21.2 | ⁻⁷⁷ ₅ | 15.9 | ⁻⁸⁴ ₄ | 10.1 | ⁻⁸⁹ ₄ | 3.9 | ⁻⁹⁴ ₃ | -5.5 | ⁻⁹⁷ ₂ | -15.1 | | | | | | | | | | | | | | | | | |
| Jun 16 | 40.8 | ⁻⁶ ₉ | 40.4 | ⁻¹⁸ ₈ | 39.1 | ⁻³⁰ ₈ | 37.1 | ⁻⁴¹ ₈ | 34.2 | ⁻⁵¹ ₈ | 30.7 | ⁻⁶¹ ₇ | 26.4 | ⁻⁷⁰ ₇ | 21.5 | ⁻⁷⁸ ₆ | 16.1 | ⁻⁸⁵ ₅ | 10.2 | ⁻⁹⁰ ₄ | 3.9 | ⁻⁹⁵ ₄ | -5.5 | ⁻⁹⁸ ₂ | -15.3 | | | | | | | | | | | | | | | | | |
| Jun 17 | 41.4 | ⁻⁶ ₁₀ | 41.0 | ⁻¹⁸ ₉ | 39.7 | ⁻³⁰ ₉ | 37.6 | ⁻⁴¹ ₉ | 34.7 | ⁻⁵² ₈ | 31.1 | ⁻⁶² ₈ | 26.8 | ⁻⁷¹ ₇ | 21.8 | ⁻⁷⁹ ₇ | 16.3 | ⁻⁸⁶ ₆ | 10.3 | ⁻⁹² ₅ | 4.0 | ⁻⁹⁷ ₄ | -5.6 | ⁻¹⁰⁰ ₃ | -15.5 | | | | | | | | | | | | | | | | | |
| Jun 18 | 42.0 | ⁻⁶ ₁₀ | 41.6 | ⁻¹⁹ ₁₀ | 40.3 | ⁻³¹ ₁₀ | 38.2 | ⁻⁴² ₉ | 35.3 | ⁻⁵³ ₉ | 31.6 | ⁻⁶³ ₈ | 27.2 | ⁻⁷² ₈ | 22.2 | ⁻⁸¹ ₇ | 16.6 | ⁻⁸⁸ ₆ | 10.5 | ⁻⁹³ ₅ | 4.0 | ⁻⁹⁸ ₄ | -5.7 | ⁻¹⁰¹ ₃ | -15.7 | | | | | | | | | | | | | | | | | |
| Jun 19 | 42.7 | ⁻⁶ ₁₀ | 42.3 | ⁻¹⁹ ₁₀ | 41.0 | ⁻³¹ ₉ | 38.8 | ⁻⁴³ ₉ | 35.8 | ⁻⁵⁴ ₉ | 32.1 | ⁻⁶⁴ ₈ | 27.6 | ⁻⁷⁴ ₇ | 22.5 | ⁻⁸² ₇ | 16.8 | ⁻⁸⁹ ₆ | 10.7 | ⁻⁹⁵ ₅ | 4.1 | ⁻¹⁰⁰ ₄ | -5.8 | ⁻¹⁰³ ₃ | -16.0 | | | | | | | | | | | | | | | | | |
| Jun 20 | 43.4 | ⁻⁶ ₉ | 42.9 | ⁻¹⁹ ₈ | 41.6 | ⁻³² ₈ | 39.4 | ⁻⁴³ ₈ | 36.4 | ⁻⁵⁵ ₈ | 32.6 | ⁻⁶⁵ ₇ | 28.1 | ⁻⁷⁵ ₇ | 22.9 | ⁻⁸³ ₆ | 17.1 | ⁻⁹⁰ ₅ | 10.8 | ⁻⁹⁶ ₅ | 4.1 | ⁻¹⁰¹ ₄ | -5.9 | ⁻¹⁰⁴ ₂ | -16.3 | | | | | | | | | | | | | | | | | |
| Jun 21 | 44.0 | ⁻⁶ ₆ | 43.5 | ⁻¹⁹ ₆ | 42.2 | ⁻³² ₆ | 40.0 | ⁻⁴⁴ ₆ | 36.9 | ⁻⁵⁵ ₆ | 33.0 | ⁻⁶⁶ ₅ | 28.5 | ⁻⁷⁶ ₅ | 23.2 | ⁻⁸⁴ ₄ | 17.3 | ⁻⁹¹ ₄ | 11.0 | ⁻⁹⁷ ₃ | 4.2 | ⁻¹⁰² ₃ | -6.0 | ⁻¹⁰⁶ ₂ | -16.5 | | | | | | | | | | | | | | | | | |
| Jun 22 | 44.4 | ⁻⁷ ₃ | 44.0 | ⁻¹⁹ ₃ | 42.6 | ⁻³² ₃ | 40.4 | ⁻⁴⁴ ₃ | 37.3 | ⁻⁵⁶ ₃ | 33.4 | ⁻⁶⁶ ₃ | 28.7 | ⁻⁷⁶ ₃ | 23.4 | ⁻⁸⁵ ₂ | 17.5 | ⁻⁹² ₂ | 11.1 | ⁻⁹⁸ ₂ | 4.2 | ⁻¹⁰³ ₁ | -6.0 | ⁻¹⁰⁶ ₁ | -16.6 | | | | | | | | | | | | | | | | | |
| Jun 23 | 44.7 | ⁻⁷ ₀ | 44.2 | ⁻²⁰ ₀ | 42.8 | ⁻³² ₀ | 40.6 | ⁻⁴⁴ ₀ | 37.5 | ⁻⁵⁶ ₀ | 33.6 | ⁻⁶⁷ ₀ | 28.9 | ^{-76</} | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| | | Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------------------|----|-----|------|-----|-----|------|-----|-----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|------|----|------|------|----|------|---|---|---|---|---|
| | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Jul 4 | 4 | 69.3 | -6 | -3 | 68.9 | -17 | -3 | 67.6 | -28 | -3 | 65.6 | -39 | -3 | 62.9 | -49 | -3 | 59.4 | -59 | -2 | 55.3 | -68 | -2 | 50.5 | -75 | -2 | 45.3 | -82 | -2 | 39.5 | -87 | -2 | 33.4 | -91 | -1 | 24.3 | -94 | -1 | 14.8 | | | | | |
| Jul 5 | 5 | 68.9 | -6 | -2 | 68.5 | -17 | -2 | 67.3 | -28 | -2 | 65.3 | -39 | -2 | 62.6 | -49 | -1 | 59.1 | -59 | -1 | 55.0 | -67 | -1 | 50.3 | -75 | -1 | 45.0 | -81 | -1 | 39.3 | -86 | -1 | 33.3 | -91 | -1 | 24.2 | -94 | 0 | 14.8 | | | | | |
| Jul 6 | 6 | 68.7 | -6 | -1 | 68.3 | -17 | -1 | 67.1 | -28 | -1 | 65.1 | -39 | -1 | 62.4 | -49 | 0 | 58.9 | -59 | 0 | 54.8 | -67 | 0 | 50.1 | -75 | 0 | 44.9 | -81 | 0 | 39.2 | -86 | 0 | 33.2 | -91 | 0 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Jul 7 | 7 | 68.6 | -6 | 0 | 68.2 | -17 | 0 | 67.0 | -28 | 0 | 65.1 | -39 | 0 | 62.3 | -49 | 0 | 58.9 | -59 | 0 | 54.8 | -67 | 0 | 50.1 | -75 | 0 | 44.9 | -81 | 0 | 39.2 | -86 | 0 | 33.1 | -91 | 0 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Jul 8 | 8 | 68.7 | -6 | 1 | 68.3 | -17 | 1 | 67.1 | -28 | 1 | 65.1 | -39 | 1 | 62.4 | -49 | 1 | 58.9 | -59 | 1 | 54.8 | -67 | 1 | 50.1 | -75 | 1 | 44.9 | -81 | 1 | 39.2 | -86 | 1 | 33.2 | -91 | 1 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Jul 9 | 9 | 68.9 | -6 | 2 | 68.5 | -17 | 2 | 67.3 | -28 | 2 | 65.3 | -39 | 2 | 62.5 | -49 | 2 | 59.1 | -59 | 2 | 55.0 | -67 | 2 | 50.3 | -75 | 2 | 45.0 | -82 | 1 | 39.3 | -87 | 1 | 33.3 | -91 | 1 | 24.1 | -94 | 1 | 14.7 | | | | | |
| Jul 10 | 10 | 69.1 | -6 | 3 | 68.7 | -17 | 3 | 67.5 | -29 | 3 | 65.5 | -39 | 3 | 62.8 | -50 | 3 | 59.3 | -59 | 3 | 55.2 | -68 | 2 | 50.5 | -75 | 2 | 45.2 | -82 | 2 | 39.5 | -87 | 2 | 33.4 | -92 | 1 | 24.2 | -95 | 1 | 14.8 | | | | | |
| Jul 11 | 11 | 69.5 | -6 | 4 | 69.1 | -17 | 4 | 67.9 | -29 | 4 | 65.9 | -40 | 4 | 63.1 | -50 | 4 | 59.7 | -60 | 4 | 55.5 | -68 | 3 | 50.7 | -76 | 3 | 45.4 | -82 | 3 | 39.7 | -88 | 2 | 33.6 | -92 | 2 | 24.4 | -95 | 1 | 14.9 | | | | | |
| Jul 12 | 12 | 70.0 | -6 | 5 | 69.6 | -18 | 5 | 68.4 | -29 | 5 | 66.4 | -40 | 5 | 63.6 | -50 | 5 | 60.1 | -60 | 4 | 55.9 | -69 | 4 | 51.1 | -77 | 4 | 45.8 | -83 | 3 | 40.0 | -88 | 3 | 33.8 | -93 | 2 | 24.6 | -96 | 1 | 15.0 | | | | | |
| Jul 13 | 13 | 70.7 | -6 | 6 | 70.3 | -18 | 6 | 69.0 | -29 | 6 | 67.0 | -40 | 6 | 64.2 | -51 | 6 | 60.6 | -61 | 5 | 56.4 | -69 | 5 | 51.6 | -77 | 4 | 46.2 | -84 | 4 | 40.4 | -89 | 3 | 34.1 | -94 | 3 | 24.8 | -97 | 2 | 15.1 | | | | | |
| Jul 14 | 14 | 71.4 | -6 | 7 | 71.0 | -18 | 7 | 69.8 | -30 | 7 | 67.7 | -41 | 7 | 64.9 | -51 | 7 | 61.3 | -61 | 6 | 57.0 | -70 | 6 | 52.1 | -78 | 5 | 46.7 | -85 | 5 | 40.8 | -90 | 4 | 34.5 | -95 | 3 | 25.0 | -98 | 2 | 15.3 | | | | | |
| Jul 15 | 15 | 72.3 | -6 | 8 | 71.9 | -18 | 8 | 70.6 | -30 | 8 | 68.6 | -41 | 8 | 65.7 | -52 | 7 | 62.1 | -62 | 7 | 57.7 | -71 | 6 | 52.8 | -79 | 6 | 47.3 | -86 | 5 | 41.3 | -92 | 4 | 34.9 | -96 | 3 | 25.4 | -99 | 2 | 15.5 | | | | | |
| Jul 16 | 16 | 73.3 | -6 | 9 | 72.9 | -18 | 9 | 71.6 | -30 | 8 | 69.5 | -42 | 8 | 66.6 | -53 | 8 | 62.9 | -63 | 7 | 58.5 | -72 | 7 | 53.5 | -80 | 6 | 47.9 | -87 | 5 | 41.9 | -93 | 5 | 35.4 | -98 | 4 | 25.7 | -101 | 2 | 15.7 | | | | | |
| Jul 17 | 17 | 74.4 | -6 | 9 | 73.9 | -19 | 9 | 72.6 | -31 | 8 | 70.5 | -43 | 8 | 67.5 | -54 | 8 | 63.8 | -64 | 7 | 59.4 | -73 | 7 | 54.3 | -81 | 6 | 48.6 | -88 | 5 | 42.5 | -94 | 5 | 35.9 | -99 | 4 | 26.1 | -102 | 2 | 15.9 | | | | | |
| Jul 18 | 18 | 75.4 | -6 | 8 | 75.0 | -19 | 8 | 73.7 | -31 | 8 | 71.5 | -43 | 8 | 68.5 | -54 | 7 | 64.7 | -65 | 7 | 60.2 | -74 | 6 | 55.0 | -83 | 6 | 49.3 | -90 | 5 | 43.1 | -95 | 4 | 36.4 | -100 | 3 | 26.4 | -104 | 2 | 16.2 | | | | | |
| Jul 19 | 19 | 76.4 | -6 | 7 | 76.0 | -19 | 6 | 74.6 | -32 | 6 | 72.4 | -44 | 6 | 69.4 | -55 | 6 | 65.6 | -66 | 5 | 61.0 | -75 | 5 | 55.8 | -84 | 5 | 49.9 | -91 | 4 | 43.6 | -97 | 3 | 36.9 | -102 | 3 | 26.8 | -105 | 2 | 16.4 | | | | | |
| Jul 20 | 20 | 77.2 | -6 | 4 | 76.8 | -19 | 4 | 75.4 | -32 | 4 | 73.2 | -44 | 4 | 70.1 | -55 | 4 | 66.2 | -66 | 3 | 61.6 | -76 | 3 | 56.3 | -84 | 3 | 50.5 | -91 | 3 | 44.1 | -97 | 2 | 37.3 | -102 | 2 | 27.1 | -106 | 1 | 16.5 | | | | | |
| Jul 21 | 21 | 77.7 | -7 | 1 | 77.3 | -19 | 1 | 75.9 | -32 | 1 | 73.7 | -44 | 1 | 70.6 | -56 | 1 | 66.7 | -66 | 1 | 62.0 | -76 | 1 | 56.7 | -85 | 1 | 50.8 | -92 | 1 | 44.4 | -98 | 1 | 37.5 | -103 | 0 | 27.2 | -106 | 0 | 16.6 | | | | | |
| Jul 22 | 22 | 77.8 | -7 | -2 | 77.4 | -19 | -2 | 76.0 | -32 | -2 | 73.8 | -44 | -2 | 70.7 | -56 | -2 | 66.8 | -66 | -2 | 62.1 | -76 | -2 | 56.8 | -85 | -1 | 50.9 | -92 | -1 | 44.4 | -98 | -1 | 37.6 | -103 | -1 | 27.3 | -106 | -1 | 16.7 | | | | | |
| Jul 23 | 23 | 77.6 | -6 | -5 | 77.1 | -19 | -5 | 75.8 | -32 | -5 | 73.5 | -44 | -5 | 70.5 | -55 | -5 | 66.6 | -66 | -4 | 61.9 | -76 | -4 | 56.6 | -84 | -4 | 50.7 | -91 | -3 | 44.3 | -97 | -3 | 37.5 | -102 | -2 | 27.2 | -105 | -1 | 16.6 | | | | | |
| Jul 24 | 24 | 77.0 | -6 | -8 | 76.5 | -19 | -8 | 75.2 | -32 | -7 | 72.9 | -43 | -7 | 69.9 | -55 | -7 | 66.0 | -65 | -6 | 61.4 | -75 | -6 | 56.2 | -83 | -5 | 50.3 | -90 | -5 | 43.9 | -96 | -4 | 37.2 | -101 | -3 | 27.0 | -104 | -2 | 16.5 | | | | | |
| Jul 25 | 25 | 76.0 | -6 | -9 | 75.6 | -19 | -9 | 74.2 | -31 | -9 | 72.1 | -43 | -9 | 69.0 | -54 | -8 | 65.2 | -64 | -8 | 60.7 | -74 | -7 | 55.5 | -82 | -6 | 49.7 | -89 | -6 | 43.4 | -95 | -5 | 36.7 | -100 | -4 | 26.7 | -103 | -3 | 16.3 | | | | | |
| Jul 26 | 26 | 74.9 | -6 | -10 | 74.5 | -19 | -10 | 73.1 | -31 | -10 | 71.0 | -42 | -9 | 68.0 | -53 | -9 | 64.2 | -63 | -8 | 59.8 | -73 | -8 | 54.6 | -81 | -7 | 48.9 | -88 | -6 | 42.8 | -93 | -5 | 36.2 | -98 | -4 | 26.3 | -101 | -3 | 16.0 | | | | | |
| Jul 27 | 27 | 73.7 | -6 | -10 | 73.3 | -18 | -10 | 72.0 | -30 | -9 | 69.8 | -42 | -9 | 66.9 | -52 | -9 | 63.2 | -62 | -8 | 58.8 | -71 | -8 | 53.8 | -79 | -7 | 48.2 | -86 | -6 | 42.1 | -92 | -5 | 35.6 | -97 | -4 | 25.8 | -100 | -3 | 15.8 | | | | | |
| Jul 28 | 28 | 72.5 | -6 | -9 | 72.1 | -18 | -9 | 70.8 | -30 | -9 | 68.7 | -41 | -8 | 65.8 | -52 | -8 | 62.2 | -61 | -7 | 57.9 | -70 | -7 | 52.9 | -78 | -6 | 47.4 | -85 | -5 | 41.4 | -90 | -5 | 35.0 | -95 | -4 | 25.4 | -98 | -3 | 15.5 | | | | | |
| Jul 29 | 29 | 71.4 | -6 | -8 | 71.0 | -18 | -8 | 69.8 | -29 | -7 | 67.7 | -40 | -7 | 64.9 | -51 | -7 | 61.3 | -61 | -6 | 57.0 | -69 | -6 | 52.1 | -77 | -5 | 46.7 | -84 | -5 | 40.8 | -89 | -4 | 34.5 | -94 | -3 | 25.0 | -97 | -2 | 15.3 | | | | | |
| Jul 30 | 30 | 70.5 | -6 | -6 | 70.1 | -18 | -6 | 68.9 | -29 | -6 | 66.8 | -40 | -6 | 64.0 | -50 | -5 | 60.5 | -60 | -5 | 56.3 | -69 | -5 | 51.4 | -76 | -4 | 46.1 | -83 | -4 | 40.3 | -88 | -3 | 34.0 | -93 | -3 | 24.7 | -96 | -2 | 15.1 | | | | | |
| Jul 31 | 31 | 69.8 | -6 | -4 | 69.4 | -17 | -4 | 68.1 | -29 | -4 | 66.1 | -40 | -4 | 63.4 | -50 | -4 | 59.9 | -59 | -4 | 55.7 | -68 | -3 | 50.9 | -76 | -3 | 45.6 | -82 | -3 | 39.8 | -87 | -2 | 33.7 | -92 | -2 | 24.5 | -95 | -1 | 14.9 | | | | | |
| Aug 1 | 1 | 69.2 | -6 | -3 | 68.8 | -17 | -3 | 67.6 | -28 | -3 | 65.6 | -39 | -3 | 62.9 | -49 | -2 | 59.4 | -59 | -2 | 55.3 | -68 | -2 | 50.5 | -75 | -2 | 45.3 | -82 | -2 | 39.5 | -87 | -1 | 33.4 | -91 | -1 | 24.3 | -94 | -1 | 14.8 | | | | | |
| Aug 2 | 2 | 68.9 | -6 | -1 | 68.5 | -17 | -1 | 67.3 | -28 | -1 | 65.3 | -39 | -1 | 62.6 | -49 | -1 | 59.1 | -59 | -1 | 55.0 | -67 | -1 | 50.3 | -75 | -1 | 45.0 | -81 | -1 | 39.3 | -86 | -1 | 33.3 | -91 | -1 | 24.2 | -94 | 0 | 14.8 | | | | | |
| Aug 3 | 3 | 68.8 | -6 | 0 | 68.4 | -17 | 0 | 67.2 | -28 | 0 | 65.2 | -39 | 0 | 62.4 | -49 | 0 | 59.0 | -59 | 0 | 54.9 | -67 | 0 | 50.2 | -75 | 0 | 44.9 | -81 | 0 | 39.3 | -86 | 0 | 33.2 | -91 | 0 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Aug 4 | 4 | 68.8 | -6 | 1 | 68.4 | -17 | 1 | 67.2 | -28 | 1 | 65.2 | -39 | 1 | 62.5 | -49 | 1 | 59.0 | -59 | 1 | 54.9 | -67 | 1 | 50.2 | -75 | 1 | 45.0 | -81 | 1 | 39.3 | -87 | 1 | 33.2 | -91 | 1 | 24.1 | -94 | 0 | 14.7 | | | | | |
| Aug 5 | 5 | 68.9 | -6 | 2 | 68.5 | -17 | 2 | 67.3 | -28 | 2 | 65.4 | -39 | 2 | 62.6 | -49 | 2 | 59.1 | -59 | 2 | 55.0 | -68 | 2 | 50.3 | -75 | 2 | 45.1 | -82 | 1 | 39.4 | -87 | 1 | 33.3 | -91 | 1 | 24.2 | -94 | 1 | 14.8 | | | | | |
| Aug 6 | 6 | 69.2 | -6 | 3 | 68.8 | -17 | 3 | 67.6 | -29 | 3 | 65.6 | -39 | 3 | 62.9 | -50 | 3 | 59.4 | -59 | 3 | 55.3 | -68 | 2 | 50.5 | -75 | 2 | 45.2 | -82 | 2 | 39.5 | -87 | 2 | 33.4 | -92 | 1 | 24.3 | -95 | 1 | 14.8 | | | | | |
| Aug 7 | 7 | 69.6 | -6 | 4 | 69.2 | -17 | 4 | 68.0 | -29 | 4 | 66.0 | -40 | 4 | 63.2 | -50 | 3 | 59.7 | -60 | 3 | 55.6 | -68 | 3 | 50.8 | -76 | 3 | 45.5 | -82 | 2 | 39.7 | -88 | 2 | 33.6 | -92 | 2 | 24.4 | -95 | 1 | 14.9 | | | | | |
| Aug 8 | 8 | 70.1 | -6 | 4 | 69.7 | -18 | 4 | 68.4 | -29 | 4 | 66.4 | -40 | 4 | 63.6 | -50 | 4 | 60.1 | -60 | 4 | 55.9 | -69 | 3 | 51.1 | -77 | 3 | 45.8 | -83 | 3 | 40.0 | -88 | 2 | 33.8 | -93 | 2 | 24.6 | -96 | 1 | 15.0 | | | | | |
| Aug 9 | 9 | 70.6 | -6 | 5 | 70.2 | -18 | 5 | 69.0 | -29 | 5 | 66.9 | -40 | 5 | 64.1 | -51 | 4 | 60.6 | -61 | 4 | 56.4 | -69 | 4 | 51.5 | -77 | 3 | 46.2 | -84 | 3 | 40.3 | -89 | 3 | 34.1 | -94 | 2 | 24.8 | -97 | 1 | 15.1 | | | | | |
| Aug 10 | 10 | 71.2 | -6 | 6 | 70.8 | -18 | 5 | 69.6 | -29 | 5 | 67.5 | -41 | 5 | 64.7 | -51 | 5 | 61.1 | -61 | 5 | 56.8 | -70 | 4 | 52.0 | -78 | 4 | 46.5 | -85 | 3 | 40.7 | -90 | 3 | 34.4 | -95 | 2 | 25.0 | -98 | 2 | 15.3 | | | | | |
| Aug 11 | 11 | 71.9 | -6 | 6 | 71.5 | -18 | 6 | 70.2 | -30 | 6 | 68.1 | -41 | 6 | 65.3 | -52 | 5 | 61.7 | -62 | 5 | 57.4 | -71 | 5 | 52.5 | -79 | 4 | 47.0 | -85 | 4 | 41.0 | -91 | 3 | 34.7 | -96 | 3 | 25.2 | -99 | 2 | 15.4 | | | | | |
| Aug 12 | 12 | 72.6 | -6 | 6 | 72.2 | -18 | 6 | 70.9 | -30 | 6 | 68.8 | -42 | 6 | 65.9 | -52 | 6 | 62.3 | -62 | 5 | 58.0 | -71 | 5 | 53.0 | -79 | 4 | 47.5 | -86 | 4 | 41.5 | -92 | 3 | 35.1 | -97 | 3 | 25.5 | -100 | 2 | 15.6 | | | | | |
| Aug 13 | 13 | 73.4 | -6 | 7 | 73.0 | -18 | 7 | 71.7 | -30 | 7 | 69.6 | -42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| | | Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|--------------------|-----|---------------------|-----|---------------------|-----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|----------------------|----|-------|---|---|----|---|---|----|---|---|----|---|---|----|---|---|---|---|---|
| | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Jul 4 | 4 | 39.6 ⁻⁶ | -3 | 39.2 ⁻¹⁷ | -3 | 38.0 ⁻²⁸ | -3 | 36.0 ⁻³⁹ | -3 | 33.2 ⁻⁴⁹ | -3 | 29.8 ⁻⁵⁹ | -2 | 25.6 ⁻⁶⁸ | -2 | 20.9 ⁻⁷⁵ | -2 | 15.6 ⁻⁸² | -2 | 9.9 ⁻⁸⁷ | -2 | 3.8 ⁻⁹¹ | -1 | -5.4 ⁻⁹⁴ | -1 | -14.8 | | | | | | | | | | | | | | | | | |
| Jul 5 | 5 | 39.4 ⁻⁶ | -2 | 39.0 ⁻¹⁷ | -2 | 37.8 ⁻²⁸ | -2 | 35.8 ⁻³⁹ | -2 | 33.1 ⁻⁴⁹ | -1 | 29.6 ⁻⁵⁹ | -1 | 25.5 ⁻⁶⁷ | -1 | 20.8 ⁻⁷⁵ | -1 | 15.5 ⁻⁸¹ | -1 | 9.8 ⁻⁸⁶ | -1 | 3.8 ⁻⁹¹ | -1 | -5.4 ⁻⁹⁴ | 0 | -14.8 | | | | | | | | | | | | | | | | | |
| Jul 6 | 6 | 39.3 ⁻⁶ | -1 | 38.9 ⁻¹⁷ | -1 | 37.7 ⁻²⁸ | -1 | 35.7 ⁻³⁹ | -1 | 33.0 ⁻⁴⁹ | 0 | 29.5 ⁻⁵⁹ | 0 | 25.4 ⁻⁶⁷ | 0 | 20.7 ⁻⁷⁵ | 0 | 15.5 ⁻⁸¹ | 0 | 9.8 ⁻⁸⁶ | 0 | 3.8 ⁻⁹¹ | 0 | -5.3 ⁻⁹⁴ | 0 | -14.7 | | | | | | | | | | | | | | | | | |
| Jul 7 | 7 | 39.2 ⁻⁶ | 0 | 38.8 ⁻¹⁷ | 0 | 37.6 ⁻²⁸ | 0 | 35.7 ⁻³⁹ | 0 | 32.9 ⁻⁴⁹ | 0 | 29.5 ⁻⁵⁹ | 0 | 25.4 ⁻⁶⁷ | 0 | 20.7 ⁻⁷⁵ | 0 | 15.5 ⁻⁸¹ | 0 | 9.8 ⁻⁸⁶ | 0 | 3.8 ⁻⁹¹ | 0 | -5.3 ⁻⁹⁴ | 0 | -14.7 | | | | | | | | | | | | | | | | | |
| Jul 8 | 8 | 39.3 ⁻⁶ | 1 | 38.9 ⁻¹⁷ | 1 | 37.7 ⁻²⁸ | 1 | 35.7 ⁻³⁹ | 1 | 33.0 ⁻⁴⁹ | 1 | 29.5 ⁻⁵⁹ | 1 | 25.4 ⁻⁶⁷ | 1 | 20.7 ⁻⁷⁵ | 1 | 15.5 ⁻⁸¹ | 1 | 9.8 ⁻⁸⁶ | 1 | 3.8 ⁻⁹¹ | 1 | -5.3 ⁻⁹⁴ | 0 | -14.7 | | | | | | | | | | | | | | | | | |
| Jul 9 | 9 | 39.4 ⁻⁶ | 2 | 39.0 ⁻¹⁷ | 2 | 37.8 ⁻²⁸ | 2 | 35.8 ⁻³⁹ | 2 | 33.0 ⁻⁴⁹ | 2 | 29.6 ⁻⁵⁹ | 2 | 25.5 ⁻⁶⁷ | 2 | 20.8 ⁻⁷⁵ | 2 | 15.5 ⁻⁸² | 1 | 9.8 ⁻⁸⁷ | 1 | 3.8 ⁻⁹¹ | 1 | -5.3 ⁻⁹⁴ | 1 | -14.7 | | | | | | | | | | | | | | | | | |
| Jul 10 | 10 | 39.5 ⁻⁶ | 3 | 39.1 ⁻¹⁷ | 3 | 37.9 ⁻²⁹ | 3 | 35.9 ⁻³⁹ | 3 | 33.2 ⁻⁵⁰ | 3 | 29.7 ⁻⁵⁹ | 3 | 25.6 ⁻⁶⁸ | 2 | 20.8 ⁻⁷⁵ | 2 | 15.6 ⁻⁸² | 2 | 9.9 ⁻⁸⁷ | 2 | 3.8 ⁻⁹² | 1 | -5.4 ⁻⁹⁵ | 1 | -14.8 | | | | | | | | | | | | | | | | | |
| Jul 11 | 11 | 39.8 ⁻⁶ | 4 | 39.3 ⁻¹⁷ | 4 | 38.1 ⁻²⁹ | 4 | 36.1 ⁻⁴⁰ | 4 | 33.4 ⁻⁵⁰ | 4 | 29.9 ⁻⁶⁰ | 4 | 25.7 ⁻⁶⁸ | 3 | 21.0 ⁻⁷⁶ | 3 | 15.7 ⁻⁸² | 3 | 9.9 ⁻⁸⁸ | 2 | 3.8 ⁻⁹² | 2 | -5.4 ⁻⁹⁵ | 1 | -14.9 | | | | | | | | | | | | | | | | | |
| Jul 12 | 12 | 40.0 ⁻⁶ | 5 | 39.6 ⁻¹⁸ | 5 | 38.4 ⁻²⁹ | 5 | 36.4 ⁻⁴⁰ | 5 | 33.6 ⁻⁵⁰ | 5 | 30.1 ⁻⁶⁰ | 4 | 25.9 ⁻⁶⁹ | 4 | 21.1 ⁻⁷⁷ | 4 | 15.8 ⁻⁸³ | 3 | 10.0 ⁻⁸⁸ | 3 | 3.8 ⁻⁹³ | 2 | -5.4 ⁻⁹⁶ | 1 | -15.0 | | | | | | | | | | | | | | | | | |
| Jul 13 | 13 | 40.4 ⁻⁶ | 6 | 40.0 ⁻¹⁸ | 6 | 38.8 ⁻²⁹ | 6 | 36.7 ⁻⁴⁰ | 6 | 33.9 ⁻⁵¹ | 6 | 30.4 ⁻⁶¹ | 5 | 26.1 ⁻⁶⁹ | 5 | 21.3 ⁻⁷⁷ | 4 | 15.9 ⁻⁸⁴ | 4 | 10.1 ⁻⁸⁹ | 3 | 3.9 ⁻⁹⁴ | 3 | -5.5 ⁻⁹⁷ | 2 | -15.1 | | | | | | | | | | | | | | | | | |
| Jul 14 | 14 | 40.8 ⁻⁶ | 7 | 40.4 ⁻¹⁸ | 7 | 39.2 ⁻³⁰ | 7 | 37.1 ⁻⁴¹ | 7 | 34.3 ⁻⁵¹ | 7 | 30.7 ⁻⁶¹ | 6 | 26.4 ⁻⁷⁰ | 6 | 21.5 ⁻⁷⁸ | 5 | 16.1 ⁻⁸⁵ | 5 | 10.2 ⁻⁹⁰ | 4 | 3.9 ⁻⁹⁵ | 3 | -5.5 ⁻⁹⁸ | 2 | -15.3 | | | | | | | | | | | | | | | | | |
| Jul 15 | 15 | 41.4 ⁻⁶ | 8 | 40.9 ⁻¹⁸ | 8 | 39.7 ⁻³⁰ | 8 | 37.6 ⁻⁴¹ | 8 | 34.7 ⁻⁵² | 7 | 31.1 ⁻⁶² | 7 | 26.8 ⁻⁷¹ | 6 | 21.8 ⁻⁷⁹ | 6 | 16.3 ⁻⁸⁶ | 5 | 10.3 ⁻⁹² | 4 | 4.0 ⁻⁹⁶ | 3 | -5.6 ⁻⁹⁹ | 2 | -15.5 | | | | | | | | | | | | | | | | | |
| Jul 16 | 16 | 41.9 ⁻⁶ | 9 | 41.5 ⁻¹⁸ | 9 | 40.2 ⁻³⁰ | 8 | 38.1 ⁻⁴² | 8 | 35.2 ⁻⁵³ | 8 | 31.5 ⁻⁶³ | 7 | 27.1 ⁻⁷² | 7 | 22.1 ⁻⁸⁰ | 6 | 16.5 ⁻⁸⁷ | 5 | 10.5 ⁻⁹³ | 5 | 4.0 ⁻⁹⁸ | 4 | -5.7 ⁻¹⁰¹ | 2 | -15.7 | | | | | | | | | | | | | | | | | |
| Jul 17 | 17 | 42.5 ⁻⁶ | 9 | 42.1 ⁻¹⁹ | 9 | 40.8 ⁻³¹ | 8 | 38.6 ⁻⁴³ | 8 | 35.7 ⁻⁵⁴ | 8 | 32.0 ⁻⁶⁴ | 7 | 27.5 ⁻⁷³ | 7 | 22.4 ⁻⁸¹ | 6 | 16.8 ⁻⁸⁸ | 5 | 10.6 ⁻⁹⁴ | 5 | 4.1 ⁻⁹⁹ | 4 | -5.8 ⁻¹⁰² | 2 | -15.9 | | | | | | | | | | | | | | | | | |
| Jul 18 | 18 | 43.1 ⁻⁶ | 8 | 42.7 ⁻¹⁹ | 8 | 41.4 ⁻³¹ | 8 | 39.2 ⁻⁴³ | 8 | 36.2 ⁻⁵⁴ | 7 | 32.4 ⁻⁶⁵ | 7 | 27.9 ⁻⁷⁴ | 6 | 22.7 ⁻⁸³ | 6 | 17.0 ⁻⁹⁰ | 5 | 10.8 ⁻⁹⁵ | 4 | 4.1 ⁻¹⁰⁰ | 3 | -5.9 ⁻¹⁰⁴ | 2 | -16.2 | | | | | | | | | | | | | | | | | |
| Jul 19 | 19 | 43.7 ⁻⁶ | 7 | 43.2 ⁻¹⁹ | 6 | 41.9 ⁻³² | 6 | 39.7 ⁻⁴⁴ | 6 | 36.7 ⁻⁵⁵ | 6 | 32.8 ⁻⁶⁶ | 5 | 28.3 ⁻⁷⁵ | 5 | 23.0 ⁻⁸⁴ | 5 | 17.2 ⁻⁹¹ | 4 | 10.9 ⁻⁹⁷ | 3 | 4.2 ⁻¹⁰² | 3 | -5.9 ⁻¹⁰⁵ | 2 | -16.4 | | | | | | | | | | | | | | | | | |
| Jul 20 | 20 | 44.1 ⁻⁶ | 4 | 43.7 ⁻¹⁹ | 4 | 42.3 ⁻³² | 4 | 40.1 ⁻⁴⁴ | 4 | 37.0 ⁻⁵⁵ | 4 | 33.2 ⁻⁶⁶ | 3 | 28.6 ⁻⁷⁶ | 3 | 23.3 ⁻⁸⁴ | 3 | 17.4 ⁻⁹¹ | 3 | 11.0 ⁻⁹⁷ | 2 | 4.2 ⁻¹⁰² | 2 | -6.0 ⁻¹⁰⁶ | 1 | -16.5 | | | | | | | | | | | | | | | | | |
| Jul 21 | 21 | 44.4 ⁻⁷ | 1 | 44.0 ⁻¹⁹ | 1 | 42.6 ⁻³² | 1 | 40.4 ⁻⁴⁴ | 1 | 37.3 ⁻⁵⁶ | 1 | 33.4 ⁻⁶⁶ | 1 | 28.7 ⁻⁷⁶ | 1 | 23.4 ⁻⁸⁵ | 1 | 17.5 ⁻⁹² | 1 | 11.1 ⁻⁹⁸ | 1 | 4.2 ⁻¹⁰³ | 0 | -6.0 ⁻¹⁰⁶ | 0 | -16.6 | | | | | | | | | | | | | | | | | |
| Jul 22 | 22 | 44.5 ⁻⁷ | -2 | 44.0 ⁻¹⁹ | -2 | 42.7 ⁻³² | -2 | 40.4 ⁻⁴⁴ | -2 | 37.3 ⁻⁵⁶ | -2 | 33.4 ⁻⁶⁶ | -2 | 28.8 ⁻⁷⁶ | -2 | 23.5 ⁻⁸⁵ | -1 | 17.5 ⁻⁹² | -1 | 11.1 ⁻⁹⁸ | -1 | 4.3 ⁻¹⁰³ | -1 | -6.0 ⁻¹⁰⁶ | -1 | -16.7 | | | | | | | | | | | | | | | | | |
| Jul 23 | 23 | 44.4 ⁻⁶ | -5 | 43.9 ⁻¹⁹ | -5 | 42.5 ⁻³² | -5 | 40.3 ⁻⁴⁴ | -5 | 37.2 ⁻⁵⁵ | -5 | 33.3 ⁻⁶⁶ | -4 | 28.7 ⁻⁷⁶ | -4 | 23.4 ⁻⁸⁴ | -4 | 17.5 ⁻⁹¹ | -3 | 11.1 ⁻⁹⁷ | -3 | 4.2 ⁻¹⁰² | -2 | -6.0 ⁻¹⁰⁵ | -1 | -16.6 | | | | | | | | | | | | | | | | | |
| Jul 24 | 24 | 44.0 ⁻⁶ | -8 | 43.5 ⁻¹⁹ | -8 | 42.2 ⁻³² | -7 | 40.0 ⁻⁴³ | -7 | 36.9 ⁻⁵⁵ | -7 | 33.1 ⁻⁶⁵ | -6 | 28.5 ⁻⁷⁵ | -6 | 23.2 ⁻⁸³ | -5 | 17.3 ⁻⁹⁰ | -5 | 11.0 ⁻⁹⁶ | -4 | 4.2 ⁻¹⁰¹ | -3 | -6.0 ⁻¹⁰⁴ | -2 | -16.5 | | | | | | | | | | | | | | | | | |
| Jul 25 | 25 | 43.5 ⁻⁶ | -9 | 43.0 ⁻¹⁹ | -9 | 41.7 ⁻³¹ | -9 | 39.5 ⁻⁴³ | -9 | 36.5 ⁻⁵⁴ | -8 | 32.7 ⁻⁶⁴ | -8 | 28.1 ⁻⁷⁴ | -7 | 22.9 ⁻⁸² | -6 | 17.1 ⁻⁸⁹ | -6 | 10.8 ⁻⁹⁵ | -5 | 4.2 ⁻¹⁰⁰ | -4 | -5.9 ⁻¹⁰³ | -3 | -16.3 | | | | | | | | | | | | | | | | | |
| Jul 26 | 26 | 42.8 ⁻⁶ | -10 | 42.4 ⁻¹⁹ | -10 | 41.1 ⁻³¹ | -10 | 38.9 ⁻⁴² | -9 | 35.9 ⁻⁵³ | -9 | 32.2 ⁻⁶³ | -8 | 27.7 ⁻⁷³ | -8 | 22.6 ⁻⁸¹ | -7 | 16.9 ⁻⁸⁸ | -6 | 10.7 ⁻⁹³ | -5 | 4.1 ⁻⁹⁸ | -4 | -5.8 ⁻¹⁰¹ | -3 | -16.0 | | | | | | | | | | | | | | | | | |
| Jul 27 | 27 | 42.1 ⁻⁶ | -10 | 41.7 ⁻¹⁸ | -10 | 40.4 ⁻³⁰ | -9 | 38.3 ⁻⁴² | -9 | 35.3 ⁻⁵² | -9 | 31.7 ⁻⁶² | -8 | 27.3 ⁻⁷¹ | -8 | 22.2 ⁻⁷⁹ | -7 | 16.6 ⁻⁸⁶ | -6 | 10.5 ⁻⁹² | -5 | 4.0 ⁻⁹⁷ | -4 | -5.7 ⁻¹⁰⁰ | -3 | -15.8 | | | | | | | | | | | | | | | | | |
| Jul 28 | 28 | 41.5 ⁻⁶ | -9 | 41.0 ⁻¹⁸ | -9 | 39.8 ⁻³⁰ | -9 | 37.7 ⁻⁴¹ | -8 | 34.8 ⁻⁵² | -8 | 31.1 ⁻⁶¹ | -7 | 26.8 ⁻⁷⁰ | -7 | 21.9 ⁻⁷⁸ | -6 | 16.3 ⁻⁸⁵ | -5 | 10.3 ⁻⁹⁰ | -5 | 4.0 ⁻⁹⁵ | -4 | -5.6 ⁻⁹⁸ | -3 | -15.5 | | | | | | | | | | | | | | | | | |
| Jul 29 | 29 | 40.8 ⁻⁶ | -8 | 40.4 ⁻¹⁸ | -8 | 39.2 ⁻²⁹ | -7 | 37.1 ⁻⁴⁰ | -7 | 34.3 ⁻⁵¹ | -7 | 30.7 ⁻⁶¹ | -6 | 26.4 ⁻⁶⁹ | -6 | 21.5 ⁻⁷⁷ | -5 | 16.1 ⁻⁸⁴ | -5 | 10.2 ⁻⁸⁹ | -4 | 3.9 ⁻⁹⁴ | -3 | -5.5 ⁻⁹⁷ | -2 | -15.3 | | | | | | | | | | | | | | | | | |
| Jul 30 | 30 | 40.3 ⁻⁶ | -6 | 39.9 ⁻¹⁸ | -6 | 38.7 ⁻²⁹ | -6 | 36.6 ⁻⁴⁰ | -6 | 33.8 ⁻⁵⁰ | -5 | 30.3 ⁻⁶⁰ | -5 | 26.1 ⁻⁶⁹ | -5 | 21.3 ⁻⁷⁶ | -4 | 15.9 ⁻⁸³ | -4 | 10.1 ⁻⁸⁸ | -3 | 3.9 ⁻⁹³ | -3 | -5.5 ⁻⁹⁶ | -2 | -15.1 | | | | | | | | | | | | | | | | | |
| Jul 31 | 31 | 39.9 ⁻⁶ | -4 | 39.5 ⁻¹⁷ | -4 | 38.3 ⁻²⁹ | -4 | 36.2 ⁻⁴⁰ | -4 | 33.5 ⁻⁵⁰ | -4 | 30.0 ⁻⁵⁹ | -4 | 25.8 ⁻⁶⁸ | -3 | 21.0 ⁻⁷⁶ | -3 | 15.7 ⁻⁸² | -3 | 10.0 ⁻⁸⁷ | -2 | 3.8 ⁻⁹² | -2 | -5.4 ⁻⁹⁵ | -1 | -14.9 | | | | | | | | | | | | | | | | | |
| Aug 1 | 1 | 39.6 ⁻⁶ | -3 | 39.2 ⁻¹⁷ | -3 | 38.0 ⁻²⁸ | -3 | 36.0 ⁻³⁹ | -3 | 33.2 ⁻⁴⁹ | -2 | 29.7 ⁻⁵⁹ | -2 | 25.6 ⁻⁶⁸ | -2 | 20.9 ⁻⁷⁵ | -2 | 15.6 ⁻⁸² | -2 | 9.9 ⁻⁸⁷ | -1 | 3.8 ⁻⁹¹ | -1 | -5.4 ⁻⁹⁴ | -1 | -14.8 | | | | | | | | | | | | | | | | | |
| Aug 2 | 2 | 39.4 ⁻⁶ | -1 | 39.0 ⁻¹⁷ | -1 | 37.8 ⁻²⁸ | -1 | 35.8 ⁻³⁹ | -1 | 33.1 ⁻⁴⁹ | -1 | 29.6 ⁻⁵⁹ | -1 | 25.5 ⁻⁶⁷ | -1 | 20.8 ⁻⁷⁵ | -1 | 15.5 ⁻⁸¹ | -1 | 9.8 ⁻⁸⁶ | -1 | 3.8 ⁻⁹¹ | -1 | -5.4 ⁻⁹⁴ | 0 | -14.8 | | | | | | | | | | | | | | | | | |
| Aug 3 | 3 | 39.3 ⁻⁶ | 0 | 38.9 ⁻¹⁷ | 0 | 37.7 ⁻²⁸ | 0 | 35.7 ⁻³⁹ | 0 | 33.0 ⁻⁴⁹ | 0 | 29.5 ⁻⁵⁹ | 0 | 25.4 ⁻⁶⁷ | 0 | 20.7 ⁻⁷⁵ | 0 | 15.5 ⁻⁸¹ | 0 | 9.8 ⁻⁸⁶ | 0 | 3.8 ⁻⁹¹ | 0 | -5.3 ⁻⁹⁴ | 0 | -14.7 | | | | | | | | | | | | | | | | | |
| Aug 4 | 4 | 39.3 ⁻⁶ | 1 | 38.9 ⁻¹⁷ | 1 | 37.7 ⁻²⁸ | 1 | 35.7 ⁻³⁹ | 1 | 33.0 ⁻⁴⁹ | 1 | 29.5 ⁻⁵⁹ | 1 | 25.4 ⁻⁶⁷ | 1 | 20.7 ⁻⁷⁵ | 1 | 15.5 ⁻⁸¹ | 1 | 9.8 ⁻⁸⁶ | 1 | 3.8 ⁻⁹¹ | 1 | -5.3 ⁻⁹⁴ | 0 | -14.7 | | | | | | | | | | | | | | | | | |
| Aug 5 | 5 | 39.4 ⁻⁶ | 2 | 39.0 ⁻¹⁷ | 2 | 37.8 ⁻²⁸ | 2 | 35.8 ⁻³⁹ | 2 | 33.1 ⁻⁴⁹ | 2 | 29.6 ⁻⁵⁹ | 2 | 25.5 ⁻⁶⁸ | 2 | 20.8 ⁻⁷⁵ | 2 | 15.5 ⁻⁸² | 1 | 9.8 ⁻⁸⁷ | 1 | 3.8 ⁻⁹¹ | 1 | -5.4 ⁻⁹⁴ | 1 | -14.8 | | | | | | | | | | | | | | | | | |
| Aug 6 | 6 | 39.6 ⁻⁶ | 3 | 39.2 ⁻¹⁷ | 3 | 38.0 ⁻²⁹ | 3 | 36.0 ⁻³⁹ | 3 | 33.2 ⁻⁵⁰ | 3 | 29.7 ⁻⁵⁹ | 3 | 25.6 ⁻⁶⁸ | 2 | 20.9 ⁻⁷⁵ | 2 | 15.6 ⁻⁸² | 2 | 9.9 ⁻⁸⁷ | 2 | 3.8 ⁻⁹² | 1 | -5.4 ⁻⁹⁵ | 1 | -14.8 | | | | | | | | | | | | | | | | | |
| Aug 7 | 7 | 39.8 ⁻⁶ | 4 | 39.4 ⁻¹⁷ | 4 | 38.2 ⁻²⁹ | 4 | 36.2 ⁻⁴⁰ | 4 | 33.4 ⁻⁵⁰ | 3 | 29.9 ⁻⁶⁰ | 3 | 25.7 ⁻⁶⁸ | 3 | 21.0 ⁻⁷⁶ | 3 | 15.7 ⁻⁸² | 2 | 9.9 ⁻⁸⁸ | 2 | 3.8 ⁻⁹² | 2 | -5.4 ⁻⁹⁵ | 1 | -14.9 | | | | | | | | | | | | | | | | | |
| Aug 8 | 8 | 40.1 ⁻⁶ | 4 | 39.7 ⁻¹⁸ | 4 | 38.4 ⁻²⁹ | 4 | 36.4 ⁻⁴⁰ | 4 | 33.6 ⁻⁵⁰ | 4 | 30.1 ⁻⁶⁰ | 4 | 25.9 ⁻⁶⁹ | 3 | 21.1 ⁻⁷⁷ | 3 | 15.8 ⁻⁸³ | 3 | 10.0 ⁻⁸⁸ | 2 | 3.8 ⁻⁹³ | 2 | -5.4 ⁻⁹⁶ | 1 | -15.0 | | | | | | | | | | | | | | | | | |
| Aug 9 | 9 | 40.4 ⁻⁶ | 5 | 40.0 ⁻¹⁸ | 5 | 38.7 ⁻²⁹ | 5 | 36.7 ⁻⁴⁰ | 5 | 33.9 ⁻⁵¹ | 4 | 30.3 ⁻⁶¹ | 4 | 26.1 ⁻⁶⁹ | 4 | 21.3 ⁻⁷⁷ | 3 | 15.9 ⁻⁸⁴ | 3 | 10.1 ⁻⁸⁹ | 3 | 3.9 ⁻⁹⁴ | 2 | -5.5 ⁻⁹⁷ | 1 | -15.1 | | | | | | | | | | | | | | | | | |
| Aug 10 | 10 | 40.7 ⁻⁶ | 6 | 40.3 ⁻¹⁸ | 5 | 39.1 ⁻²⁹ | 5 | 37.0 ⁻⁴¹ | 5 | 34.2 ⁻⁵¹ | 5 | 30.6 ⁻⁶¹ | 5 | 26.3 ⁻⁷⁰ | 4 | 21.5 ⁻⁷⁸ | 4 | 16.0 ⁻⁸⁵ | 3 | 10.2 ⁻⁹⁰ | 3 | 3.9 ⁻⁹⁵ | 2 | -5.5 ⁻⁹⁸ | 2 | -15.3 | | | | | | | | | | | | | | | | | |
| Aug 11 | 11 | 41.1 ⁻⁶ | 6 | 40.7 ⁻¹⁸ | 6 | 39.4 ⁻³⁰ | 6 | 37.3 ⁻⁴¹ | 6 | 34.5 ⁻⁵² | 5 | 30.9 ⁻⁶² | 5 | 26.6 ⁻⁷¹ | 5 | 21.7 ⁻⁷⁹ | 4 | 16.2 ⁻⁸⁵ | 4 | 10.3 ⁻⁹¹ | 3 | 3.9 ⁻⁹⁶ | 3 | -5.6 ⁻⁹⁹ | 2 | -15.4 | | | | | | | | | | | | | | | | | |
| Aug 12 | 12 | 41.5 ⁻⁶ | 6 | 41.1 ⁻¹⁸ | 6 | 39.8 ⁻³⁰ | 6 | 37.7 ⁻⁴² | 6 | 34.8 ⁻⁵² | 6 | 31.2 ⁻⁶² | 5 | 26.9 ⁻⁷¹ | 5 | 21.9 ⁻⁷⁹ | 4 | 16.4 ⁻⁸⁶ | 4 | 10.4 ⁻⁹² | 3 | 4.0 ⁻⁹⁷ | 3 | -5.6 ⁻¹⁰⁰ | 2 | -15.6 | | | | | | | | | | | | | | | | | |
| Aug 13 | 13 | 42.0 ⁻⁶ | 7 | 41.5 ⁻¹⁸ | 7 | 40.2 ⁻³⁰ | 7 | 38.1 ⁻⁴² | 6 | 35.2 ⁻⁵³ | 6 | 31.5 ⁻⁶³ | 6 | 27.1 ⁻⁷² | 5 | 22.1 ⁻⁸⁰ | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|-----------------|---------------|------|-----------------|---------------|------|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Aug 19 | 77.0 | ⁻⁶ | ₋₁ | 76.6 | ⁻¹⁹ | ₋₁ | 75.2 | ⁻³² | ₋₁ | 73.0 | ⁻⁴⁴ | ₋₁ | 69.9 | ⁻⁵⁵ | ₋₁ | 66.1 | ⁻⁶⁶ | ₋₁ | 61.5 | ⁻⁷⁵ | ₋₁ | 56.2 | ⁻⁸⁴ | ₋₁ | 50.3 | ⁻⁹¹ | ₋₁ | 44.0 | ⁻⁹⁷ | ₋₁ | 37.2 | ⁻¹⁰² | ₀ | 27.0 | ⁻¹⁰⁵ | ₀ | 16.5 | | | | | |
| Aug 20 | 76.9 | ⁻⁶ | ₋₄ | 76.4 | ⁻¹⁹ | ₋₄ | 75.1 | ⁻³² | ₋₄ | 72.9 | ⁻⁴⁴ | ₋₄ | 69.8 | ⁻⁵⁵ | ₋₃ | 66.0 | ⁻⁶⁵ | ₋₃ | 61.4 | ⁻⁷⁵ | ₋₃ | 56.1 | ⁻⁸³ | ₋₃ | 50.2 | ⁻⁹¹ | ₋₂ | 43.9 | ⁻⁹⁶ | ₋₂ | 37.1 | ⁻¹⁰¹ | ₋₂ | 27.0 | ⁻¹⁰⁵ | ₋₁ | 16.5 | | | | | |
| Aug 21 | 76.4 | ⁻⁶ | ₋₆ | 76.0 | ⁻¹⁹ | ₋₆ | 74.6 | ⁻³¹ | ₋₆ | 72.4 | ⁻⁴³ | ₋₆ | 69.4 | ⁻⁵⁴ | ₋₅ | 65.6 | ⁻⁶⁵ | ₋₅ | 61.0 | ⁻⁷⁴ | ₋₅ | 55.8 | ⁻⁸³ | ₋₄ | 49.9 | ⁻⁹⁰ | ₋₄ | 43.6 | ⁻⁹⁶ | ₋₃ | 36.9 | ⁻¹⁰¹ | ₋₃ | 26.8 | ⁻¹⁰⁴ | ₋₂ | 16.4 | | | | | |
| Aug 22 | 75.7 | ⁻⁶ | ₋₈ | 75.2 | ⁻¹⁹ | ₋₈ | 73.9 | ⁻³¹ | ₋₈ | 71.7 | ⁻⁴³ | ₋₇ | 68.7 | ⁻⁵⁴ | ₋₇ | 64.9 | ⁻⁶⁴ | ₋₇ | 60.4 | ⁻⁷⁴ | ₋₆ | 55.2 | ⁻⁸² | ₋₆ | 49.5 | ⁻⁸⁹ | ₋₅ | 43.2 | ⁻⁹⁵ | ₋₄ | 36.5 | ⁻⁹⁹ | ₋₃ | 26.5 | ⁻¹⁰³ | ₋₂ | 16.2 | | | | | |
| Aug 23 | 74.7 | ⁻⁶ | ₋₉ | 74.3 | ⁻¹⁹ | ₋₉ | 73.0 | ⁻³¹ | ₋₉ | 70.8 | ⁻⁴² | ₋₈ | 67.8 | ⁻⁵³ | ₋₈ | 64.1 | ⁻⁶³ | ₋₇ | 59.6 | ⁻⁷³ | ₋₇ | 54.5 | ⁻⁸¹ | ₋₆ | 48.8 | ⁻⁸⁸ | ₋₅ | 42.7 | ⁻⁹³ | ₋₅ | 36.1 | ⁻⁹⁸ | ₋₄ | 26.2 | ⁻¹⁰¹ | ₋₃ | 16.0 | | | | | |
| Aug 24 | 73.6 | ⁻⁶ | ₋₉ | 73.2 | ⁻¹⁸ | ₋₉ | 71.9 | ⁻³⁰ | ₋₉ | 69.8 | ⁻⁴² | ₋₉ | 66.9 | ⁻⁵² | ₋₈ | 63.2 | ⁻⁶² | ₋₈ | 58.8 | ⁻⁷¹ | ₋₇ | 53.7 | ⁻⁷⁹ | ₋₆ | 48.1 | ⁻⁸⁶ | ₋₆ | 42.0 | ⁻⁹² | ₋₅ | 35.6 | ⁻⁹⁷ | ₋₄ | 25.8 | ⁻¹⁰⁰ | ₋₃ | 15.8 | | | | | |
| Aug 25 | 72.5 | ⁻⁶ | ₋₉ | 72.1 | ⁻¹⁸ | ₋₉ | 70.8 | ⁻³⁰ | ₋₈ | 68.8 | ⁻⁴¹ | ₋₈ | 65.9 | ⁻⁵² | ₋₈ | 62.2 | ⁻⁶¹ | ₋₇ | 57.9 | ⁻⁷⁰ | ₋₇ | 52.9 | ⁻⁷⁸ | ₋₆ | 47.4 | ⁻⁸⁵ | ₋₅ | 41.4 | ⁻⁹¹ | ₋₅ | 35.0 | ⁻⁹⁵ | ₋₄ | 25.4 | ⁻⁹⁸ | ₋₂ | 15.5 | | | | | |
| Aug 26 | 71.5 | ⁻⁶ | ₋₈ | 71.1 | ⁻¹⁸ | ₋₇ | 69.8 | ⁻²⁹ | ₋₇ | 67.8 | ⁻⁴⁰ | ₋₇ | 64.9 | ⁻⁵¹ | ₋₇ | 61.3 | ⁻⁶¹ | ₋₆ | 57.1 | ⁻⁶⁹ | ₋₆ | 52.2 | ⁻⁷⁷ | ₋₅ | 46.7 | ⁻⁸⁴ | ₋₅ | 40.8 | ⁻⁸⁹ | ₋₄ | 34.5 | ⁻⁹⁴ | ₋₃ | 25.1 | ⁻⁹⁷ | ₋₂ | 15.3 | | | | | |
| Aug 27 | 70.6 | ⁻⁶ | ₋₆ | 70.2 | ⁻¹⁸ | ₋₆ | 68.9 | ⁻²⁹ | ₋₆ | 66.9 | ⁻⁴⁰ | ₋₆ | 64.1 | ⁻⁵⁰ | ₋₅ | 60.6 | ⁻⁶⁰ | ₋₅ | 56.3 | ⁻⁶⁹ | ₋₅ | 51.5 | ⁻⁷⁶ | ₋₄ | 46.1 | ⁻⁸³ | ₋₄ | 40.3 | ⁻⁸⁸ | ₋₃ | 34.1 | ⁻⁹³ | ₋₃ | 24.7 | ⁻⁹⁶ | ₋₂ | 15.1 | | | | | |
| Aug 28 | 69.9 | ⁻⁶ | ₋₄ | 69.5 | ⁻¹⁷ | ₋₄ | 68.2 | ⁻²⁹ | ₋₄ | 66.2 | ⁻⁴⁰ | ₋₄ | 63.4 | ⁻⁵⁰ | ₋₄ | 59.9 | ⁻⁵⁹ | ₋₄ | 55.8 | ⁻⁶⁸ | ₋₃ | 51.0 | ⁻⁷⁶ | ₋₃ | 45.7 | ⁻⁸² | ₋₃ | 39.9 | ⁻⁸⁷ | ₋₂ | 33.7 | ⁻⁹² | ₋₂ | 24.5 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | |
| Aug 29 | 69.3 | ⁻⁶ | ₋₃ | 68.9 | ⁻¹⁷ | ₋₃ | 67.7 | ⁻²⁹ | ₋₃ | 65.7 | ⁻³⁹ | ₋₂ | 63.0 | ⁻⁵⁰ | ₋₂ | 59.5 | ⁻⁵⁹ | ₋₂ | 55.3 | ⁻⁶⁸ | ₋₂ | 50.6 | ⁻⁷⁵ | ₋₂ | 45.3 | ⁻⁸² | ₋₂ | 39.6 | ⁻⁸⁷ | ₋₁ | 33.5 | ⁻⁹² | ₋₁ | 24.3 | ⁻⁹⁴ | ₋₁ | 14.8 | | | | | |
| Aug 30 | 69.0 | ⁻⁶ | ₋₁ | 68.6 | ⁻¹⁷ | ₋₁ | 67.4 | ⁻²⁸ | ₋₁ | 65.4 | ⁻³⁹ | ₋₁ | 62.7 | ⁻⁴⁹ | ₋₁ | 59.2 | ⁻⁵⁹ | ₋₁ | 55.1 | ⁻⁶⁷ | ₋₁ | 50.4 | ⁻⁷⁵ | ₋₁ | 45.1 | ⁻⁸¹ | ₋₁ | 39.4 | ⁻⁸⁷ | ₀ | 33.3 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | |
| Aug 31 | 68.9 | ⁻⁶ | ₁ | 68.5 | ⁻¹⁷ | ₁ | 67.3 | ⁻²⁸ | ₁ | 65.3 | ⁻³⁹ | ₁ | 62.6 | ⁻⁴⁹ | ₁ | 59.1 | ⁻⁵⁹ | ₁ | 55.0 | ⁻⁶⁷ | ₁ | 50.3 | ⁻⁷⁵ | ₁ | 45.0 | ⁻⁸¹ | ₀ | 39.3 | ⁻⁸⁷ | ₀ | 33.3 | ⁻⁹¹ | ₀ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | |
| Sep 1 | 69.0 | ⁻⁶ | ₂ | 68.6 | ⁻¹⁷ | ₂ | 67.4 | ⁻²⁹ | ₂ | 65.4 | ⁻³⁹ | ₂ | 62.7 | ⁻⁵⁰ | ₂ | 59.2 | ⁻⁵⁹ | ₂ | 55.1 | ⁻⁶⁸ | ₂ | 50.4 | ⁻⁷⁵ | ₂ | 45.1 | ⁻⁸² | ₁ | 39.4 | ⁻⁸⁷ | ₁ | 33.3 | ⁻⁹¹ | ₁ | 24.2 | ⁻⁹⁴ | ₁ | 14.8 | | | | | |
| Sep 2 | 69.3 | ⁻⁶ | ₃ | 68.9 | ⁻¹⁷ | ₃ | 67.7 | ⁻²⁹ | ₃ | 65.7 | ⁻⁴⁰ | ₃ | 62.9 | ⁻⁵⁰ | ₃ | 59.4 | ⁻⁵⁹ | ₃ | 55.3 | ⁻⁶⁸ | ₃ | 50.6 | ⁻⁷⁶ | ₂ | 45.3 | ⁻⁸² | ₂ | 39.6 | ⁻⁸⁷ | ₂ | 33.5 | ⁻⁹² | ₁ | 24.3 | ⁻⁹⁵ | ₁ | 14.8 | | | | | |
| Sep 3 | 69.7 | ⁻⁶ | ₄ | 69.3 | ⁻¹⁷ | ₄ | 68.1 | ⁻²⁹ | ₄ | 66.1 | ⁻⁴⁰ | ₄ | 63.3 | ⁻⁵⁰ | ₄ | 59.8 | ⁻⁶⁰ | ₄ | 55.6 | ⁻⁶⁸ | ₃ | 50.9 | ⁻⁷⁶ | ₃ | 45.6 | ⁻⁸³ | ₃ | 39.8 | ⁻⁸⁸ | ₂ | 33.7 | ⁻⁹³ | ₂ | 24.4 | ⁻⁹⁵ | ₁ | 14.9 | | | | | |
| Sep 4 | 70.2 | ⁻⁶ | ₅ | 69.8 | ⁻¹⁸ | ₅ | 68.6 | ⁻²⁹ | ₅ | 66.6 | ⁻⁴⁰ | ₅ | 63.8 | ⁻⁵¹ | ₄ | 60.2 | ⁻⁶⁰ | ₄ | 56.0 | ⁻⁶⁹ | ₄ | 51.2 | ⁻⁷⁷ | ₃ | 45.9 | ⁻⁸³ | ₃ | 40.1 | ⁻⁸⁹ | ₃ | 33.9 | ⁻⁹³ | ₂ | 24.6 | ⁻⁹⁶ | ₁ | 15.0 | | | | | |
| Sep 5 | 70.8 | ⁻⁶ | ₅ | 70.4 | ⁻¹⁸ | ₅ | 69.2 | ⁻²⁹ | ₅ | 67.1 | ⁻⁴⁰ | ₅ | 64.3 | ⁻⁵¹ | ₅ | 60.8 | ⁻⁶¹ | ₄ | 56.5 | ⁻⁷⁰ | ₄ | 51.7 | ⁻⁷⁷ | ₄ | 46.3 | ⁻⁸⁴ | ₃ | 40.4 | ⁻⁸⁹ | ₃ | 34.2 | ⁻⁹⁴ | ₂ | 24.8 | ⁻⁹⁷ | ₁ | 15.2 | | | | | |
| Sep 6 | 71.5 | ⁻⁶ | ₅ | 71.0 | ⁻¹⁸ | ₅ | 69.8 | ⁻³⁰ | ₅ | 67.7 | ⁻⁴¹ | ₅ | 64.9 | ⁻⁵¹ | ₅ | 61.3 | ⁻⁶¹ | ₄ | 57.0 | ⁻⁷⁰ | ₄ | 52.1 | ⁻⁷⁸ | ₄ | 46.7 | ⁻⁸⁵ | ₃ | 40.8 | ⁻⁹⁰ | ₃ | 34.5 | ⁻⁹⁵ | ₂ | 25.1 | ⁻⁹⁸ | ₂ | 15.3 | | | | | |
| Sep 7 | 72.1 | ⁻⁶ | ₅ | 71.7 | ⁻¹⁸ | ₅ | 70.4 | ⁻³⁰ | ₅ | 68.3 | ⁻⁴¹ | ₅ | 65.5 | ⁻⁵² | ₅ | 61.9 | ⁻⁶² | ₄ | 57.5 | ⁻⁷¹ | ₄ | 52.6 | ⁻⁷⁹ | ₄ | 47.1 | ⁻⁸⁶ | ₃ | 41.2 | ⁻⁹¹ | ₃ | 34.8 | ⁻⁹⁶ | ₂ | 25.3 | ⁻⁹⁹ | ₁ | 15.4 | | | | | |
| Sep 8 | 72.7 | ⁻⁶ | ₅ | 72.3 | ⁻¹⁸ | ₅ | 71.0 | ⁻³⁰ | ₅ | 68.9 | ⁻⁴² | ₅ | 66.0 | ⁻⁵² | ₄ | 62.4 | ⁻⁶² | ₄ | 58.1 | ⁻⁷¹ | ₄ | 53.1 | ⁻⁷⁹ | ₄ | 47.5 | ⁻⁸⁶ | ₃ | 41.5 | ⁻⁹² | ₃ | 35.1 | ⁻⁹⁷ | ₂ | 25.5 | ⁻¹⁰⁰ | ₁ | 15.6 | | | | | |
| Sep 9 | 73.4 | ⁻⁶ | ₅ | 72.9 | ⁻¹⁸ | ₅ | 71.6 | ⁻³⁰ | ₅ | 69.5 | ⁻⁴² | ₄ | 66.6 | ⁻⁵³ | ₄ | 62.9 | ⁻⁶³ | ₄ | 58.5 | ⁻⁷² | ₄ | 53.5 | ⁻⁸⁰ | ₃ | 47.9 | ⁻⁸⁷ | ₃ | 41.9 | ⁻⁹³ | ₃ | 35.4 | ⁻⁹⁷ | ₂ | 25.7 | ⁻¹⁰⁰ | ₁ | 15.7 | | | | | |
| Sep 10 | 73.9 | ⁻⁶ | ₄ | 73.5 | ⁻¹⁹ | ₄ | 72.2 | ⁻³¹ | ₄ | 70.1 | ⁻⁴² | ₄ | 67.1 | ⁻⁵³ | ₄ | 63.4 | ⁻⁶³ | ₄ | 59.0 | ⁻⁷³ | ₄ | 53.9 | ⁻⁸¹ | ₃ | 48.3 | ⁻⁸⁸ | ₃ | 42.2 | ⁻⁹³ | ₂ | 35.7 | ⁻⁹⁸ | ₂ | 25.9 | ⁻¹⁰¹ | ₁ | 15.8 | | | | | |
| Sep 11 | 74.5 | ⁻⁶ | ₄ | 74.0 | ⁻¹⁹ | ₄ | 72.7 | ⁻³¹ | ₄ | 70.6 | ⁻⁴² | ₄ | 67.6 | ⁻⁵⁴ | ₄ | 63.9 | ⁻⁶⁴ | ₃ | 59.4 | ⁻⁷³ | ₃ | 54.3 | ⁻⁸¹ | ₃ | 48.7 | ⁻⁸⁸ | ₂ | 42.5 | ⁻⁹⁴ | ₂ | 36.0 | ⁻⁹⁹ | ₂ | 26.1 | ⁻¹⁰² | ₁ | 15.9 | | | | | |
| Sep 12 | 75.0 | ⁻⁶ | ₃ | 74.5 | ⁻¹⁹ | ₃ | 73.2 | ⁻³¹ | ₃ | 71.0 | ⁻⁴³ | ₃ | 68.1 | ⁻⁵⁴ | ₃ | 64.3 | ⁻⁶⁴ | ₃ | 59.8 | ⁻⁷³ | ₃ | 54.7 | ⁻⁸² | ₂ | 49.0 | ⁻⁸⁹ | ₂ | 42.8 | ⁻⁹⁴ | ₂ | 36.2 | ⁻⁹⁹ | ₁ | 26.3 | ⁻¹⁰³ | ₁ | 16.0 | | | | | |
| Sep 13 | 75.4 | ⁻⁶ | ₃ | 74.9 | ⁻¹⁹ | ₃ | 73.6 | ⁻³¹ | ₃ | 71.4 | ⁻⁴³ | ₃ | 68.4 | ⁻⁵⁴ | ₂ | 64.7 | ⁻⁶⁴ | ₂ | 60.2 | ⁻⁷⁴ | ₂ | 55.0 | ⁻⁸² | ₂ | 49.3 | ⁻⁸⁹ | ₂ | 43.0 | ⁻⁹⁵ | ₁ | 36.4 | ⁻¹⁰⁰ | ₁ | 26.4 | ⁻¹⁰³ | ₁ | 16.1 | | | | | |
| Sep 14 | 75.7 | ⁻⁶ | ₂ | 75.3 | ⁻¹⁹ | ₂ | 73.9 | ⁻³¹ | ₂ | 71.7 | ⁻⁴³ | ₂ | 68.7 | ⁻⁵⁴ | ₁ | 64.9 | ⁻⁶⁵ | ₁ | 60.4 | ⁻⁷⁴ | ₁ | 55.2 | ⁻⁸² | ₁ | 49.5 | ⁻⁹⁰ | ₁ | 43.2 | ⁻⁹⁵ | ₁ | 36.6 | ⁻¹⁰⁰ | ₁ | 26.5 | ⁻¹⁰³ | ₀ | 16.2 | | | | | |
| Sep 15 | 75.9 | ⁻⁶ | ₀ | 75.5 | ⁻¹⁹ | ₀ | 74.1 | ⁻³¹ | ₀ | 71.9 | ⁻⁴³ | ₀ | 68.9 | ⁻⁵⁴ | ₀ | 65.1 | ⁻⁶⁵ | ₀ | 60.6 | ⁻⁷⁴ | ₀ | 55.4 | ⁻⁸³ | ₀ | 49.6 | ⁻⁹⁰ | ₀ | 43.3 | ⁻⁹⁵ | ₀ | 36.7 | ⁻¹⁰⁰ | ₀ | 26.6 | ⁻¹⁰⁴ | ₀ | 16.3 | | | | | |
| Sep 16 | 75.9 | ⁻⁶ | ₋₁ | 75.5 | ⁻¹⁹ | ₋₁ | 74.2 | ⁻³¹ | ₋₁ | 72.0 | ⁻⁴³ | ₋₁ | 68.9 | ⁻⁵⁴ | ₋₁ | 65.1 | ⁻⁶⁵ | ₋₁ | 60.6 | ⁻⁷⁴ | ₋₁ | 55.4 | ⁻⁸² | ₋₁ | 49.6 | ⁻⁹⁰ | ₋₁ | 43.3 | ⁻⁹⁵ | ₋₁ | 36.7 | ⁻¹⁰⁰ | ₋₁ | 26.6 | ⁻¹⁰⁴ | ₀ | 16.3 | | | | | |
| Sep 17 | 75.8 | ⁻⁶ | ₋₃ | 75.3 | ⁻¹⁹ | ₋₃ | 74.0 | ⁻³¹ | ₋₃ | 71.8 | ⁻⁴³ | ₋₃ | 68.8 | ⁻⁵⁴ | ₋₃ | 65.0 | ⁻⁶⁴ | ₋₃ | 60.5 | ⁻⁷⁴ | ₋₂ | 55.3 | ⁻⁸² | ₋₂ | 49.5 | ⁻⁸⁹ | ₋₂ | 43.3 | ⁻⁹⁵ | ₋₂ | 36.6 | ⁻¹⁰⁰ | ₋₁ | 26.6 | ⁻¹⁰³ | ₋₁ | 16.2 | | | | | |
| Sep 18 | 75.4 | ⁻⁶ | ₋₅ | 75.0 | ⁻¹⁹ | ₋₅ | 73.6 | ⁻³¹ | ₋₅ | 71.5 | ⁻⁴³ | ₋₅ | 68.5 | ⁻⁵⁴ | ₋₄ | 64.7 | ⁻⁶⁴ | ₋₄ | 60.2 | ⁻⁷³ | ₋₄ | 55.0 | ⁻⁸² | ₋₃ | 49.3 | ⁻⁸⁹ | ₋₃ | 43.0 | ⁻⁹⁴ | ₋₃ | 36.4 | ⁻⁹⁹ | ₋₂ | 26.4 | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|-----|-----------------|---------------|------|-----------------|---------------|-------|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Aug 19 | 44.0 | ⁻⁶ | ₋₁ | 43.6 | ⁻¹⁹ | ₋₁ | 42.2 | ⁻³² | ₋₁ | 40.0 | ⁻⁴⁴ | ₋₁ | 36.9 | ⁻⁵⁵ | ₋₁ | 33.1 | ⁻⁶⁶ | ₋₁ | 28.5 | ⁻⁷⁵ | ₋₁ | 23.2 | ⁻⁸⁴ | ₋₁ | 17.4 | ⁻⁹¹ | ₋₁ | 11.0 | ⁻⁹⁷ | ₋₁ | 4.2 | ⁻¹⁰² | ₀ | -6.0 | ⁻¹⁰⁵ | ₀ | -16.5 | | | | | |
| Aug 20 | 44.0 | ⁻⁶ | ₋₄ | 43.5 | ⁻¹⁹ | ₋₄ | 42.2 | ⁻³² | ₋₄ | 39.9 | ⁻⁴⁴ | ₋₄ | 36.9 | ⁻⁵⁵ | ₋₃ | 33.0 | ⁻⁶⁵ | ₋₃ | 28.4 | ⁻⁷⁵ | ₋₃ | 23.2 | ⁻⁸³ | ₋₃ | 17.3 | ⁻⁹¹ | ₋₂ | 11.0 | ⁻⁹⁶ | ₋₂ | 4.2 | ⁻¹⁰¹ | ₋₂ | -6.0 | ⁻¹⁰⁵ | ₋₁ | -16.5 | | | | | |
| Aug 21 | 43.7 | ⁻⁶ | ₋₆ | 43.2 | ⁻¹⁹ | ₋₆ | 41.9 | ⁻³¹ | ₋₆ | 39.7 | ⁻⁴³ | ₋₆ | 36.7 | ⁻⁵⁴ | ₋₅ | 32.8 | ⁻⁶⁵ | ₋₅ | 28.3 | ⁻⁷⁴ | ₋₅ | 23.0 | ⁻⁸³ | ₋₄ | 17.2 | ⁻⁹⁰ | ₋₄ | 10.9 | ⁻⁹⁶ | ₋₃ | 4.2 | ⁻¹⁰¹ | ₋₃ | -5.9 | ⁻¹⁰⁴ | ₋₂ | -16.4 | | | | | |
| Aug 22 | 43.3 | ⁻⁶ | ₋₈ | 42.8 | ⁻¹⁹ | ₋₈ | 41.5 | ⁻³¹ | ₋₈ | 39.3 | ⁻⁴³ | ₋₇ | 36.3 | ⁻⁵⁴ | ₋₇ | 32.5 | ⁻⁶⁴ | ₋₇ | 28.0 | ⁻⁷⁴ | ₋₆ | 22.8 | ⁻⁸² | ₋₆ | 17.0 | ⁻⁸⁹ | ₋₅ | 10.8 | ⁻⁹⁵ | ₋₄ | 4.1 | ⁻⁹⁹ | ₋₃ | -5.9 | ⁻¹⁰³ | ₋₂ | -16.2 | | | | | |
| Aug 23 | 42.7 | ⁻⁶ | ₋₉ | 42.3 | ⁻¹⁹ | ₋₉ | 41.0 | ⁻³¹ | ₋₉ | 38.8 | ⁻⁴² | ₋₈ | 35.8 | ⁻⁵³ | ₋₈ | 32.1 | ⁻⁶³ | ₋₇ | 27.6 | ⁻⁷³ | ₋₇ | 22.5 | ⁻⁸¹ | ₋₆ | 16.8 | ⁻⁸⁸ | ₋₅ | 10.7 | ⁻⁹³ | ₋₅ | 4.1 | ⁻⁹⁸ | ₋₄ | -5.8 | ⁻¹⁰¹ | ₋₃ | -16.0 | | | | | |
| Aug 24 | 42.1 | ⁻⁶ | ₋₉ | 41.7 | ⁻¹⁸ | ₋₉ | 40.4 | ⁻³⁰ | ₋₉ | 38.3 | ⁻⁴² | ₋₉ | 35.3 | ⁻⁵² | ₋₈ | 31.6 | ⁻⁶² | ₋₈ | 27.2 | ⁻⁷¹ | ₋₇ | 22.2 | ⁻⁷⁹ | ₋₆ | 16.6 | ⁻⁸⁶ | ₋₆ | 10.5 | ⁻⁹² | ₋₅ | 4.0 | ⁻⁹⁷ | ₋₄ | -5.7 | ⁻¹⁰⁰ | ₋₃ | -15.8 | | | | | |
| Aug 25 | 41.5 | ⁻⁶ | ₋₉ | 41.0 | ⁻¹⁸ | ₋₉ | 39.8 | ⁻³⁰ | ₋₈ | 37.7 | ⁻⁴¹ | ₋₈ | 34.8 | ⁻⁵² | ₋₈ | 31.2 | ⁻⁶¹ | ₋₇ | 26.8 | ⁻⁷⁰ | ₋₇ | 21.9 | ⁻⁷⁸ | ₋₆ | 16.3 | ⁻⁸⁵ | ₋₅ | 10.3 | ⁻⁹¹ | ₋₅ | 4.0 | ⁻⁹⁵ | ₋₄ | -5.6 | ⁻⁹⁸ | ₋₂ | -15.5 | | | | | |
| Aug 26 | 40.9 | ⁻⁶ | ₋₈ | 40.5 | ⁻¹⁸ | ₋₇ | 39.2 | ⁻²⁹ | ₋₇ | 37.1 | ⁻⁴⁰ | ₋₇ | 34.3 | ⁻⁵¹ | ₋₇ | 30.7 | ⁻⁶¹ | ₋₆ | 26.4 | ⁻⁶⁹ | ₋₆ | 21.6 | ⁻⁷⁷ | ₋₅ | 16.1 | ⁻⁸⁴ | ₋₅ | 10.2 | ⁻⁸⁹ | ₋₄ | 3.9 | ⁻⁹⁴ | ₋₃ | -5.6 | ⁻⁹⁷ | ₋₂ | -15.3 | | | | | |
| Aug 27 | 40.4 | ⁻⁶ | ₋₆ | 39.9 | ⁻¹⁸ | ₋₆ | 38.7 | ⁻²⁹ | ₋₆ | 36.7 | ⁻⁴⁰ | ₋₆ | 33.9 | ⁻⁵⁰ | ₋₅ | 30.3 | ⁻⁶⁰ | ₋₅ | 26.1 | ⁻⁶⁹ | ₋₅ | 21.3 | ⁻⁷⁶ | ₋₄ | 15.9 | ⁻⁸³ | ₋₄ | 10.1 | ⁻⁸⁸ | ₋₃ | 3.9 | ⁻⁹³ | ₋₃ | -5.5 | ⁻⁹⁶ | ₋₂ | -15.1 | | | | | |
| Aug 28 | 39.9 | ⁻⁶ | ₋₄ | 39.5 | ⁻¹⁷ | ₋₄ | 38.3 | ⁻²⁹ | ₋₄ | 36.3 | ⁻⁴⁰ | ₋₄ | 33.5 | ⁻⁵⁰ | ₋₄ | 30.0 | ⁻⁵⁹ | ₋₄ | 25.8 | ⁻⁶⁸ | ₋₃ | 21.1 | ⁻⁷⁶ | ₋₃ | 15.7 | ⁻⁸² | ₋₃ | 10.0 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₂ | -5.4 | ⁻⁹⁵ | ₋₁ | -15.0 | | | | | |
| Aug 29 | 39.6 | ⁻⁶ | ₋₃ | 39.2 | ⁻¹⁷ | ₋₃ | 38.0 | ⁻²⁹ | ₋₃ | 36.0 | ⁻³⁹ | ₋₂ | 33.3 | ⁻⁵⁰ | ₋₂ | 29.8 | ⁻⁵⁹ | ₋₂ | 25.6 | ⁻⁶⁸ | ₋₂ | 20.9 | ⁻⁷⁵ | ₋₂ | 15.6 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁴ | ₋₁ | -14.8 | | | | | |
| Aug 30 | 39.5 | ⁻⁶ | ₋₁ | 39.1 | ⁻¹⁷ | ₋₁ | 37.8 | ⁻²⁸ | ₋₁ | 35.9 | ⁻³⁹ | ₋₁ | 33.1 | ⁻⁴⁹ | ₋₁ | 29.6 | ⁻⁵⁹ | ₋₁ | 25.5 | ⁻⁶⁷ | ₋₁ | 20.8 | ⁻⁷⁵ | ₋₁ | 15.5 | ⁻⁸¹ | ₋₁ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | |
| Aug 31 | 39.4 | ⁻⁶ | ₁ | 39.0 | ⁻¹⁷ | ₁ | 37.8 | ⁻²⁸ | ₁ | 35.8 | ⁻³⁹ | ₁ | 33.1 | ⁻⁴⁹ | ₁ | 29.6 | ⁻⁵⁹ | ₁ | 25.5 | ⁻⁶⁷ | ₁ | 20.8 | ⁻⁷⁵ | ₁ | 15.5 | ⁻⁸¹ | ₀ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | |
| Sep 1 | 39.5 | ⁻⁶ | ₂ | 39.1 | ⁻¹⁷ | ₂ | 37.8 | ⁻²⁹ | ₂ | 35.9 | ⁻³⁹ | ₂ | 33.1 | ⁻⁵⁰ | ₂ | 29.6 | ⁻⁵⁹ | ₂ | 25.5 | ⁻⁶⁸ | ₂ | 20.8 | ⁻⁷⁵ | ₂ | 15.5 | ⁻⁸² | ₁ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹¹ | ₁ | -5.4 | ⁻⁹⁴ | ₁ | -14.8 | | | | | |
| Sep 2 | 39.6 | ⁻⁶ | ₃ | 39.2 | ⁻¹⁷ | ₃ | 38.0 | ⁻²⁹ | ₃ | 36.0 | ⁻⁴⁰ | ₃ | 33.2 | ⁻⁵⁰ | ₃ | 29.8 | ⁻⁵⁹ | ₃ | 25.6 | ⁻⁶⁸ | ₃ | 20.9 | ⁻⁷⁶ | ₂ | 15.6 | ⁻⁸² | ₂ | 9.9 | ⁻⁸⁷ | ₂ | 3.8 | ⁻⁹² | ₁ | -5.4 | ⁻⁹⁵ | ₁ | -14.8 | | | | | |
| Sep 3 | 39.8 | ⁻⁶ | ₄ | 39.4 | ⁻¹⁷ | ₄ | 38.2 | ⁻²⁹ | ₄ | 36.2 | ⁻⁴⁰ | ₄ | 33.4 | ⁻⁵⁰ | ₄ | 29.9 | ⁻⁶⁰ | ₄ | 25.8 | ⁻⁶⁸ | ₃ | 21.0 | ⁻⁷⁶ | ₃ | 15.7 | ⁻⁸³ | ₃ | 9.9 | ⁻⁸⁸ | ₂ | 3.8 | ⁻⁹³ | ₂ | -5.4 | ⁻⁹⁵ | ₁ | -14.9 | | | | | |
| Sep 4 | 40.1 | ⁻⁶ | ₅ | 39.7 | ⁻¹⁸ | ₅ | 38.5 | ⁻²⁹ | ₅ | 36.5 | ⁻⁴⁰ | ₅ | 33.7 | ⁻⁵¹ | ₄ | 30.2 | ⁻⁶⁰ | ₄ | 26.0 | ⁻⁶⁹ | ₄ | 21.2 | ⁻⁷⁷ | ₃ | 15.8 | ⁻⁸³ | ₃ | 10.0 | ⁻⁸⁹ | ₃ | 3.8 | ⁻⁹³ | ₂ | -5.5 | ⁻⁹⁶ | ₁ | -15.0 | | | | | |
| Sep 5 | 40.5 | ⁻⁶ | ₅ | 40.1 | ⁻¹⁸ | ₅ | 38.8 | ⁻²⁹ | ₅ | 36.8 | ⁻⁴⁰ | ₅ | 34.0 | ⁻⁵¹ | ₅ | 30.4 | ⁻⁶¹ | ₄ | 26.2 | ⁻⁷⁰ | ₄ | 21.3 | ⁻⁷⁷ | ₄ | 16.0 | ⁻⁸⁴ | ₃ | 10.1 | ⁻⁸⁹ | ₃ | 3.9 | ⁻⁹⁴ | ₂ | -5.5 | ⁻⁹⁷ | ₁ | -15.2 | | | | | |
| Sep 6 | 40.9 | ⁻⁶ | ₅ | 40.4 | ⁻¹⁸ | ₅ | 39.2 | ⁻³⁰ | ₅ | 37.1 | ⁻⁴¹ | ₅ | 34.3 | ⁻⁵¹ | ₅ | 30.7 | ⁻⁶¹ | ₄ | 26.4 | ⁻⁷⁰ | ₄ | 21.5 | ⁻⁷⁸ | ₄ | 16.1 | ⁻⁸⁵ | ₃ | 10.2 | ⁻⁹⁰ | ₃ | 3.9 | ⁻⁹⁵ | ₂ | -5.6 | ⁻⁹⁸ | ₂ | -15.3 | | | | | |
| Sep 7 | 41.2 | ⁻⁶ | ₅ | 40.8 | ⁻¹⁸ | ₅ | 39.5 | ⁻³⁰ | ₅ | 37.5 | ⁻⁴¹ | ₅ | 34.6 | ⁻⁵² | ₅ | 31.0 | ⁻⁶² | ₄ | 26.7 | ⁻⁷¹ | ₄ | 21.7 | ⁻⁷⁹ | ₄ | 16.2 | ⁻⁸⁶ | ₃ | 10.3 | ⁻⁹¹ | ₃ | 3.9 | ⁻⁹⁶ | ₂ | -5.6 | ⁻⁹⁹ | ₁ | -15.4 | | | | | |
| Sep 8 | 41.6 | ⁻⁶ | ₅ | 41.2 | ⁻¹⁸ | ₅ | 39.9 | ⁻³⁰ | ₅ | 37.8 | ⁻⁴² | ₅ | 34.9 | ⁻⁵² | ₄ | 31.2 | ⁻⁶² | ₄ | 26.9 | ⁻⁷¹ | ₄ | 21.9 | ⁻⁷⁹ | ₄ | 16.4 | ⁻⁸⁶ | ₃ | 10.4 | ⁻⁹² | ₃ | 4.0 | ⁻⁹⁷ | ₂ | -5.7 | ⁻¹⁰⁰ | ₁ | -15.6 | | | | | |
| Sep 9 | 41.9 | ⁻⁶ | ₅ | 41.5 | ⁻¹⁸ | ₅ | 40.2 | ⁻³⁰ | ₅ | 38.1 | ⁻⁴² | ₄ | 35.2 | ⁻⁵³ | ₄ | 31.5 | ⁻⁶³ | ₄ | 27.1 | ⁻⁷² | ₄ | 22.1 | ⁻⁸⁰ | ₃ | 16.5 | ⁻⁸⁷ | ₃ | 10.5 | ⁻⁹³ | ₃ | 4.0 | ⁻⁹⁷ | ₂ | -5.7 | ⁻¹⁰⁰ | ₁ | -15.7 | | | | | |
| Sep 10 | 42.3 | ⁻⁶ | ₄ | 41.8 | ⁻¹⁹ | ₄ | 40.5 | ⁻³¹ | ₄ | 38.4 | ⁻⁴² | ₄ | 35.5 | ⁻⁵³ | ₄ | 31.8 | ⁻⁶³ | ₄ | 27.3 | ⁻⁷³ | ₄ | 22.3 | ⁻⁸¹ | ₃ | 16.7 | ⁻⁸⁸ | ₃ | 10.5 | ⁻⁹³ | ₂ | 4.0 | ⁻⁹⁸ | ₂ | -5.7 | ⁻¹⁰¹ | ₁ | -15.8 | | | | | |
| Sep 11 | 42.6 | ⁻⁶ | ₄ | 42.1 | ⁻¹⁹ | ₄ | 40.8 | ⁻³¹ | ₄ | 38.7 | ⁻⁴² | ₄ | 35.7 | ⁻⁵⁴ | ₄ | 32.0 | ⁻⁶⁴ | ₃ | 27.5 | ⁻⁷³ | ₃ | 22.4 | ⁻⁸¹ | ₃ | 16.8 | ⁻⁸⁸ | ₂ | 10.6 | ⁻⁹⁴ | ₂ | 4.1 | ⁻⁹⁹ | ₂ | -5.8 | ⁻¹⁰² | ₁ | -15.9 | | | | | |
| Sep 12 | 42.8 | ⁻⁶ | ₃ | 42.4 | ⁻¹⁹ | ₃ | 41.1 | ⁻³¹ | ₃ | 38.9 | ⁻⁴³ | ₃ | 36.0 | ⁻⁵⁴ | ₃ | 32.2 | ⁻⁶⁴ | ₃ | 27.7 | ⁻⁷³ | ₃ | 22.6 | ⁻⁸² | ₂ | 16.9 | ⁻⁸⁹ | ₂ | 10.7 | ⁻⁹⁴ | ₂ | 4.1 | ⁻⁹⁹ | ₁ | -5.8 | ⁻¹⁰³ | ₁ | -16.0 | | | | | |
| Sep 13 | 43.1 | ⁻⁶ | ₃ | 42.6 | ⁻¹⁹ | ₃ | 41.3 | ⁻³¹ | ₃ | 39.2 | ⁻⁴³ | ₃ | 36.2 | ⁻⁵⁴ | ₂ | 32.4 | ⁻⁶⁴ | ₂ | 27.9 | ⁻⁷⁴ | ₂ | 22.7 | ⁻⁸² | ₂ | 17.0 | ⁻⁸⁹ | ₂ | 10.7 | ⁻⁹⁵ | ₁ | 4.1 | ⁻¹⁰⁰ | ₁ | -5.9 | ⁻¹⁰³ | ₁ | -16.1 | | | | | |
| Sep 14 | 43.3 | ⁻⁶ | ₂ | 42.8 | ⁻¹⁹ | ₂ | 41.5 | ⁻³¹ | ₂ | 39.3 | ⁻⁴³ | ₂ | 36.3 | ⁻⁵⁴ | ₁ | 32.5 | ⁻⁶⁵ | ₁ | 28.0 | ⁻⁷⁴ | ₁ | 22.8 | ⁻⁸² | ₁ | 17.1 | ⁻⁹⁰ | ₁ | 10.8 | ⁻⁹⁵ | ₁ | 4.1 | ⁻¹⁰⁰ | ₁ | -5.9 | ⁻¹⁰³ | ₀ | -16.2 | | | | | |
| Sep 15 | 43.4 | ⁻⁶ | ₀ | 42.9 | ⁻¹⁹ | ₀ | 41.6 | ⁻³¹ | ₀ | 39.4 | ⁻⁴³ | ₀ | 36.4 | ⁻⁵⁴ | ₀ | 32.6 | ⁻⁶⁵ | ₀ | 28.1 | ⁻⁷⁴ | ₀ | 22.9 | ⁻⁸³ | ₀ | 17.1 | ⁻⁹⁰ | ₀ | 10.8 | ⁻⁹⁵ | ₀ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.9 | ⁻¹⁰⁴ | ₀ | -16.3 | | | | | |
| Sep 16 | 43.4 | ⁻⁶ | ₋₁ | 43.0 | ⁻¹⁹ | ₋₁ | 41.6 | ⁻³¹ | ₋₁ | 39.4 | ⁻⁴³ | ₋₁ | 36.4 | ⁻⁵⁴ | ₋₁ | 32.6 | ⁻⁶⁵ | ₋₁ | 28.1 | ⁻⁷⁴ | ₋₁ | 22.9 | ⁻⁸² | ₋₁ | 17.1 | ⁻⁹⁰ | ₋₁ | 10.8 | ⁻⁹⁵ | ₋₁ | 4.1 | ⁻¹⁰⁰ | ₋₁ | -5.9 | ⁻¹⁰⁴ | ₀ | -16.3 | | | | | |
| Sep 17 | 43.3 | ⁻⁶ | ₋₃ | 42.9 | ⁻¹⁹ | ₋₃ | 41.5 | ⁻³¹ | ₋₃ | 39.4 | ⁻⁴³ | ₋₃ | 36.3 | ⁻⁵⁴ | ₋₃ | 32.5 | ⁻⁶⁴ | ₋₃ | 28.0 | ⁻⁷⁴ | ₋₂ | 22.8 | ⁻⁸² | ₋₂ | 17.1 | ⁻⁸⁹ | ₋₂ | 10.8 | ⁻⁹⁵ | ₋₂ | 4.1 | ⁻¹⁰⁰ | ₋₁ | -5.9 | ⁻¹⁰³ | ₋₁ | -16.2 | | | | | |
| Sep 18 | 43.1 | ⁻⁶ | ₋₅ | 42.7 | ⁻¹⁹ | ₋₅ | 41.3 | ⁻³¹ | ₋₅ | 39.2 | ⁻⁴³ | ₋₅ | 36.2 | ⁻⁵⁴ | ₋₄ | 32.4 | ⁻⁶⁴ | ₋₄ | 27.9 | ⁻⁷³ | ₋₄ | 22.7 | ⁻⁸² | ₋₃ | 17.0 | ⁻⁸⁹ | ₋₃ | 10.8 | ⁻⁹⁴ | ₋₃ | 4.1 | ⁻⁹⁹ | ₋₂ | -5.9 | ⁻¹⁰² | ₋₁ | -16.1 | | | | | |
| Sep 19 | 42.8 | ⁻⁶ | ₋₆ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| | | Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|----|------------------|----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|------|-----|------|------|----|------|
| | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 |
| | | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | ' | '' | ''' | | | | |
| Oct 4 | 4 | 72.4 | -6 | 7 | 71.9 | -18 | 6 | 70.7 | -30 | 6 | 68.6 | -41 | 6 | 65.7 | -52 | 6 | 62.1 | -62 | 5 | 57.7 | -71 | 5 | 52.8 | -79 | 5 | 47.3 | -86 | 4 | 41.3 | -91 | 3 | 34.9 | -96 | 3 | 25.4 | -99 | 2 | 15.5 |
| Oct 5 | 5 | 73.1 | -6 | 6 | 72.7 | -18 | 6 | 71.4 | -30 | 6 | 69.3 | -42 | 5 | 66.4 | -53 | 5 | 62.7 | -63 | 5 | 58.4 | -72 | 5 | 53.4 | -80 | 4 | 47.8 | -87 | 4 | 41.8 | -92 | 3 | 35.3 | -97 | 2 | 25.6 | -100 | 2 | 15.7 |
| Oct 6 | 6 | 73.9 | -6 | 5 | 73.4 | -19 | 5 | 72.1 | -31 | 5 | 70.0 | -42 | 5 | 67.1 | -53 | 4 | 63.4 | -63 | 4 | 58.9 | -72 | 4 | 53.9 | -81 | 3 | 48.3 | -88 | 3 | 42.2 | -93 | 3 | 35.7 | -98 | 2 | 25.9 | -101 | 1 | 15.8 |
| Oct 7 | 7 | 74.4 | -6 | 4 | 74.0 | -19 | 4 | 72.7 | -31 | 4 | 70.6 | -42 | 4 | 67.6 | -53 | 3 | 63.9 | -64 | 3 | 59.4 | -73 | 3 | 54.3 | -81 | 3 | 48.7 | -88 | 2 | 42.5 | -94 | 2 | 35.9 | -99 | 2 | 26.1 | -102 | 1 | 15.9 |
| Oct 8 | 8 | 74.9 | -6 | 3 | 74.5 | -19 | 3 | 73.2 | -31 | 3 | 71.0 | -43 | 2 | 68.0 | -54 | 2 | 64.3 | -64 | 2 | 59.8 | -73 | 2 | 54.7 | -82 | 2 | 49.0 | -89 | 2 | 42.8 | -94 | 1 | 36.2 | -99 | 1 | 26.3 | -102 | 1 | 16.0 |
| Oct 9 | 9 | 75.2 | -6 | 1 | 74.8 | -19 | 1 | 73.5 | -31 | 1 | 71.3 | -43 | 1 | 68.3 | -54 | 1 | 64.5 | -64 | 1 | 60.0 | -74 | 1 | 54.9 | -82 | 1 | 49.2 | -89 | 1 | 42.9 | -95 | 1 | 36.3 | -100 | 1 | 26.4 | -103 | 0 | 16.1 |
| Oct 10 | 10 | 75.4 | -6 | 0 | 75.0 | -19 | 0 | 73.6 | -31 | 0 | 71.5 | -43 | 0 | 68.5 | -54 | 0 | 64.7 | -64 | 0 | 60.2 | -74 | 0 | 55.0 | -82 | 0 | 49.3 | -89 | 0 | 43.0 | -95 | 0 | 36.4 | -100 | 0 | 26.4 | -103 | 0 | 16.1 |
| Oct 11 | 11 | 75.4 | -6 | 0 | 75.0 | -19 | 0 | 73.7 | -31 | 0 | 71.5 | -43 | 0 | 68.5 | -54 | 0 | 64.7 | -64 | 0 | 60.2 | -74 | 0 | 55.1 | -82 | 0 | 49.3 | -89 | 0 | 43.1 | -95 | 0 | 36.4 | -100 | 0 | 26.4 | -103 | 0 | 16.2 |
| Oct 12 | 12 | 75.4 | -6 | -1 | 74.9 | -19 | -1 | 73.6 | -31 | -1 | 71.5 | -43 | -1 | 68.5 | -54 | -1 | 64.7 | -64 | -1 | 60.2 | -74 | -1 | 55.0 | -82 | -1 | 49.3 | -89 | -1 | 43.0 | -95 | -1 | 36.4 | -100 | -1 | 26.4 | -103 | 0 | 16.1 |
| Oct 13 | 13 | 75.2 | -6 | -2 | 74.8 | -19 | -2 | 73.5 | -31 | -2 | 71.3 | -43 | -2 | 68.3 | -54 | -2 | 64.5 | -64 | -2 | 60.0 | -73 | -2 | 54.9 | -82 | -1 | 49.2 | -89 | -1 | 43.0 | -94 | -1 | 36.3 | -99 | -1 | 26.4 | -102 | -1 | 16.1 |
| Oct 14 | 14 | 75.0 | -6 | -3 | 74.6 | -19 | -3 | 73.2 | -31 | -3 | 71.1 | -43 | -3 | 68.1 | -54 | -3 | 64.3 | -64 | -2 | 59.9 | -73 | -2 | 54.7 | -81 | -2 | 49.0 | -88 | -2 | 42.8 | -94 | -2 | 36.2 | -99 | -1 | 26.3 | -102 | -1 | 16.1 |
| Oct 15 | 15 | 74.6 | -6 | -4 | 74.2 | -19 | -4 | 72.9 | -31 | -4 | 70.8 | -42 | -3 | 67.8 | -53 | -3 | 64.0 | -64 | -3 | 59.6 | -73 | -3 | 54.5 | -81 | -3 | 48.8 | -88 | -2 | 42.6 | -94 | -2 | 36.0 | -98 | -2 | 26.2 | -102 | -1 | 16.0 |
| Oct 16 | 16 | 74.2 | -6 | -5 | 73.8 | -18 | -4 | 72.5 | -30 | -4 | 70.3 | -42 | -4 | 67.4 | -53 | -4 | 63.7 | -63 | -4 | 59.2 | -72 | -3 | 54.1 | -80 | -3 | 48.5 | -87 | -3 | 42.4 | -93 | -2 | 35.8 | -98 | -2 | 26.0 | -101 | -1 | 15.9 |
| Oct 17 | 17 | 73.7 | -6 | -5 | 73.2 | -18 | -5 | 71.9 | -30 | -5 | 69.8 | -42 | -5 | 66.9 | -53 | -5 | 63.2 | -63 | -4 | 58.8 | -72 | -4 | 53.8 | -80 | -4 | 48.1 | -87 | -3 | 42.1 | -92 | -3 | 35.6 | -97 | -2 | 25.8 | -100 | -1 | 15.8 |
| Oct 18 | 18 | 73.0 | -6 | -6 | 72.6 | -18 | -6 | 71.3 | -30 | -6 | 69.2 | -41 | -5 | 66.3 | -52 | -5 | 62.7 | -62 | -5 | 58.3 | -71 | -4 | 53.3 | -79 | -4 | 47.7 | -86 | -4 | 41.7 | -91 | -3 | 35.3 | -96 | -2 | 25.6 | -99 | -2 | 15.6 |
| Oct 19 | 19 | 72.3 | -6 | -6 | 71.9 | -18 | -6 | 70.6 | -30 | -6 | 68.6 | -41 | -6 | 65.7 | -52 | -5 | 62.1 | -61 | -5 | 57.7 | -70 | -5 | 52.8 | -78 | -4 | 47.3 | -85 | -4 | 41.3 | -90 | -3 | 34.9 | -95 | -3 | 25.4 | -98 | -2 | 15.5 |
| Oct 20 | 20 | 71.6 | -6 | -6 | 71.2 | -18 | -6 | 69.9 | -29 | -6 | 67.9 | -40 | -6 | 65.0 | -51 | -5 | 61.4 | -61 | -5 | 57.1 | -70 | -5 | 52.2 | -77 | -4 | 46.8 | -84 | -4 | 40.9 | -90 | -3 | 34.6 | -94 | -3 | 25.1 | -97 | -2 | 15.3 |
| Oct 21 | 21 | 70.9 | -6 | -6 | 70.5 | -18 | -5 | 69.2 | -29 | -5 | 67.2 | -40 | -5 | 64.4 | -51 | -5 | 60.8 | -60 | -5 | 56.6 | -69 | -4 | 51.7 | -77 | -4 | 46.3 | -83 | -3 | 40.5 | -89 | -3 | 34.2 | -93 | -2 | 24.8 | -96 | -2 | 15.2 |
| Oct 22 | 22 | 70.2 | -6 | -5 | 69.8 | -17 | -5 | 68.6 | -29 | -4 | 66.5 | -40 | -4 | 63.8 | -50 | -4 | 60.2 | -60 | -4 | 56.0 | -68 | -4 | 51.2 | -76 | -3 | 45.9 | -83 | -3 | 40.1 | -88 | -2 | 33.9 | -93 | -2 | 24.6 | -95 | -1 | 15.0 |
| Oct 23 | 23 | 69.7 | -6 | -3 | 69.2 | -17 | -3 | 68.0 | -29 | -3 | 66.0 | -39 | -3 | 63.2 | -50 | -3 | 59.8 | -59 | -3 | 55.6 | -68 | -3 | 50.8 | -76 | -2 | 45.5 | -82 | -2 | 39.8 | -87 | -2 | 33.6 | -92 | -1 | 24.4 | -95 | -1 | 14.9 |
| Oct 24 | 24 | 69.2 | -6 | -2 | 68.8 | -17 | -2 | 67.6 | -28 | -2 | 65.6 | -39 | -2 | 62.9 | -50 | -2 | 59.4 | -59 | -2 | 55.3 | -68 | -1 | 50.5 | -75 | -1 | 45.3 | -82 | -1 | 39.5 | -87 | -1 | 33.4 | -91 | -1 | 24.3 | -94 | -1 | 14.8 |
| Oct 25 | 25 | 69.0 | -6 | 0 | 68.6 | -17 | 0 | 67.4 | -28 | 0 | 65.4 | -39 | 0 | 62.7 | -49 | 0 | 59.2 | -59 | 0 | 55.1 | -67 | 0 | 50.4 | -75 | 0 | 45.1 | -81 | 0 | 39.4 | -87 | 0 | 33.3 | -91 | 0 | 24.2 | -94 | 0 | 14.8 |
| Oct 26 | 26 | 69.0 | -6 | 2 | 68.6 | -17 | 2 | 67.4 | -28 | 2 | 65.4 | -39 | 2 | 62.6 | -49 | 1 | 59.2 | -59 | 1 | 55.1 | -68 | 1 | 50.3 | -75 | 1 | 45.1 | -82 | 1 | 39.4 | -87 | 1 | 33.3 | -91 | 1 | 24.2 | -94 | 0 | 14.8 |
| Oct 27 | 27 | 69.2 | -6 | 3 | 68.8 | -17 | 3 | 67.6 | -29 | 3 | 65.6 | -39 | 3 | 62.8 | -50 | 3 | 59.4 | -59 | 3 | 55.2 | -68 | 3 | 50.5 | -75 | 2 | 45.2 | -82 | 2 | 39.5 | -87 | 2 | 33.4 | -92 | 1 | 24.3 | -95 | 1 | 14.8 |
| Oct 28 | 28 | 69.6 | -6 | 5 | 69.2 | -17 | 5 | 68.0 | -29 | 5 | 66.0 | -40 | 5 | 63.2 | -50 | 5 | 59.7 | -60 | 4 | 55.6 | -68 | 4 | 50.8 | -76 | 4 | 45.5 | -83 | 3 | 39.7 | -88 | 3 | 33.6 | -93 | 2 | 24.4 | -95 | 1 | 14.9 |
| Oct 29 | 29 | 70.2 | -6 | 7 | 69.8 | -18 | 7 | 68.6 | -29 | 6 | 66.6 | -40 | 6 | 63.8 | -51 | 6 | 60.3 | -60 | 6 | 56.1 | -69 | 5 | 51.3 | -77 | 5 | 45.9 | -83 | 4 | 40.1 | -89 | 4 | 33.9 | -93 | 3 | 24.6 | -96 | 2 | 15.0 |
| Oct 30 | 30 | 71.1 | -6 | 8 | 70.6 | -18 | 8 | 69.4 | -29 | 8 | 67.3 | -41 | 7 | 64.5 | -51 | 7 | 61.0 | -61 | 6 | 56.7 | -70 | 6 | 51.8 | -78 | 5 | 46.4 | -84 | 5 | 40.6 | -90 | 4 | 34.3 | -95 | 3 | 24.9 | -98 | 2 | 15.2 |
| Oct 31 | 31 | 72.0 | -6 | 8 | 71.6 | -18 | 8 | 70.3 | -30 | 8 | 68.2 | -41 | 8 | 65.4 | -52 | 7 | 61.8 | -62 | 7 | 57.5 | -71 | 6 | 52.5 | -79 | 6 | 47.1 | -86 | 5 | 41.1 | -91 | 4 | 34.8 | -96 | 3 | 25.2 | -99 | 2 | 15.4 |
| Nov 1 | 1 | 73.0 | -6 | 8 | 72.6 | -18 | 8 | 71.3 | -30 | 8 | 69.2 | -42 | 8 | 66.3 | -53 | 7 | 62.6 | -63 | 7 | 58.3 | -72 | 6 | 53.3 | -80 | 6 | 47.7 | -87 | 5 | 41.7 | -92 | 4 | 35.3 | -97 | 3 | 25.6 | -100 | 2 | 15.6 |
| Nov 2 | 2 | 74.0 | -6 | 7 | 73.6 | -19 | 7 | 72.3 | -31 | 7 | 70.1 | -42 | 7 | 67.2 | -53 | 7 | 63.5 | -64 | 6 | 59.1 | -73 | 6 | 54.0 | -81 | 5 | 48.4 | -88 | 5 | 42.2 | -94 | 4 | 35.7 | -99 | 3 | 25.9 | -102 | 2 | 15.8 |
| Nov 3 | 3 | 74.9 | -6 | 6 | 74.5 | -19 | 6 | 73.1 | -31 | 6 | 71.0 | -43 | 6 | 68.0 | -54 | 5 | 64.3 | -64 | 5 | 59.8 | -74 | 5 | 54.7 | -82 | 4 | 48.9 | -89 | 4 | 42.8 | -95 | 3 | 36.2 | -100 | 3 | 26.3 | -103 | 2 | 16.0 |
| Nov 4 | 4 | 75.6 | -6 | 4 | 75.2 | -19 | 4 | 73.9 | -31 | 4 | 71.7 | -43 | 4 | 68.7 | -54 | 4 | 64.9 | -65 | 3 | 60.4 | -74 | 3 | 55.2 | -83 | 3 | 49.4 | -90 | 3 | 43.2 | -95 | 2 | 36.5 | -100 | 2 | 26.5 | -104 | 1 | 16.2 |
| Nov 5 | 5 | 76.1 | -6 | 2 | 75.7 | -19 | 2 | 74.3 | -31 | 2 | 72.1 | -43 | 2 | 69.1 | -55 | 2 | 65.3 | -65 | 2 | 60.8 | -75 | 1 | 55.5 | -83 | 1 | 49.7 | -90 | 1 | 43.5 | -96 | 1 | 36.8 | -101 | 1 | 26.7 | -104 | 1 | 16.3 |
| Nov 6 | 6 | 76.3 | -6 | 0 | 75.9 | -19 | 0 | 74.6 | -31 | 0 | 72.4 | -43 | 0 | 69.3 | -55 | 0 | 65.5 | -65 | 0 | 60.9 | -75 | 0 | 55.7 | -83 | 0 | 49.9 | -90 | 0 | 43.6 | -96 | 0 | 36.9 | -101 | 0 | 26.8 | -104 | 0 | 16.3 |
| Nov 7 | 7 | 76.3 | -6 | -2 | 75.9 | -19 | -2 | 74.5 | -31 | -2 | 72.3 | -43 | -2 | 69.3 | -55 | -2 | 65.5 | -65 | -2 | 60.9 | -74 | -2 | 55.7 | -83 | -1 | 49.9 | -90 | -1 | 43.6 | -96 | -1 | 36.9 | -101 | -1 | 26.8 | -104 | -1 | 16.3 |
| Nov 8 | 8 | 76.1 | -6 | -3 | 75.6 | -19 | -3 | 74.3 | -31 | -3 | 72.1 | -43 | -3 | 69.1 | -54 | -3 | 65.3 | -65 | -3 | 60.7 | -74 | -3 | 55.5 | -82 | -2 | 49.7 | -90 | -2 | 43.4 | -95 | -2 | 36.7 | -100 | -1 | 26.7 | -104 | -1 | 16.3 |
| Nov 9 | 9 | 75.7 | -6 | -4 | 75.2 | -19 | -4 | 73.9 | -31 | -4 | 71.7 | -43 | -4 | 68.7 | -54 | -4 | 64.9 | -64 | -4 | 60.4 | -74 | -3 | 55.2 | -82 | -3 | 49.4 | -89 | -3 | 43.2 | -95 | -2 | 36.5 | -100 | -2 | 26.5 | -103 | -1 | 16.2 |
| Nov 10 | 10 | 75.1 | -6 | -5 | 74.7 | -19 | -5 | 73.4 | -31 | -5 | 71.2 | -43 | -5 | 68.2 | -54 | -4 | 64.4 | -64 | -4 | 60.0 | -73 | -4 | 54.8 | -81 | -3 | 49.1 | -88 | -3 | 42.9 | -94 | -3 | 36.3 | -99 | -2 | 26.3 | -102 | -1 | 16.1 |
| Nov 11 | 11 | 74.5 | -6 | -5 | 74.1 | -19 | -5 | 72.8 | -31 | -5 | 70.6 | -42 | -5 | 67.7 | -53 | -5 | 63.9 | -63 | -4 | 59.5 | -73 | -4 | 54.4 | -81 | -4 | 48.7 | -88 | -3 | 42.5 | -93 | -3 | 36.0 | -98 | -2 | 26.1 | -101 | -1 | 16.0 |
| Nov 12 | 12 | 73.9 | -6 | -5 | 73.5 | -18 | -5 | 72.2 | -30 | -5 | 70.0 | -42 | -5 | 67.1 | -53 | -5 | 63.4 | -63 | -4 | 59.0 | -72 | -4 | 53.9 | -80 | -4 | 48.3 | -87 | -3 | 42.2 | -92 | -3 | 35.7 | -97 | -2 | 25.9 | -100 | -2 | 15.8 |
| Nov 13 | 13 | 73.2 | -6 | -5 | 72.8 | -18 | -5 | 71.5 | -30 | -5 | 69.4 | -4 | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------|------------------|---------------|------|---------------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|-----|-----------------|---------------|------|-----------------|---------------|-------|----|---|---|---|
| | | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | |
| | | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' |
| Oct 4 | 41.4 | ⁻⁶ | ₇ | 40.9 | ⁻¹⁸ | ₆ | 39.7 | ⁻³⁰ | ₆ | 37.6 | ⁻⁴¹ | ₆ | 34.7 | ⁻⁵² | ₆ | 31.1 | ⁻⁶² | ₅ | 26.8 | ⁻⁷¹ | ₅ | 21.8 | ⁻⁷⁹ | ₅ | 16.3 | ⁻⁸⁶ | ₄ | 10.3 | ⁻⁹¹ | ₃ | 4.0 | ⁻⁹⁶ | ₃ | -5.6 | ⁻⁹⁹ | ₂ | -15.5 | | | | |
| Oct 5 | 41.8 | ⁻⁶ | ₆ | 41.4 | ⁻¹⁸ | ₆ | 40.1 | ⁻³⁰ | ₆ | 38.0 | ⁻⁴² | ₅ | 35.1 | ⁻⁵³ | ₅ | 31.4 | ⁻⁶³ | ₅ | 27.0 | ⁻⁷² | ₅ | 22.0 | ⁻⁸⁰ | ₄ | 16.5 | ⁻⁸⁷ | ₄ | 10.4 | ⁻⁹² | ₃ | 4.0 | ⁻⁹⁷ | ₂ | -5.7 | ⁻¹⁰⁰ | ₂ | -15.7 | | | | |
| Oct 6 | 42.2 | ⁻⁶ | ₅ | 41.8 | ⁻¹⁹ | ₅ | 40.5 | ⁻³¹ | ₅ | 38.4 | ⁻⁴² | ₅ | 35.4 | ⁻⁵³ | ₄ | 31.7 | ⁻⁶³ | ₄ | 27.3 | ⁻⁷² | ₄ | 22.3 | ⁻⁸¹ | ₃ | 16.6 | ⁻⁸⁸ | ₃ | 10.5 | ⁻⁹³ | ₃ | 4.0 | ⁻⁹⁸ | ₂ | -5.7 | ⁻¹⁰¹ | ₁ | -15.8 | | | | |
| Oct 7 | 42.6 | ⁻⁶ | ₄ | 42.1 | ⁻¹⁹ | ₄ | 40.8 | ⁻³¹ | ₄ | 38.7 | ⁻⁴² | ₄ | 35.7 | ⁻⁵³ | ₃ | 32.0 | ⁻⁶⁴ | ₃ | 27.5 | ⁻⁷³ | ₃ | 22.4 | ⁻⁸¹ | ₃ | 16.8 | ⁻⁸⁸ | ₂ | 10.6 | ⁻⁹⁴ | ₂ | 4.1 | ⁻⁹⁹ | ₂ | -5.8 | ⁻¹⁰² | ₁ | -15.9 | | | | |
| Oct 8 | 42.8 | ⁻⁶ | ₃ | 42.4 | ⁻¹⁹ | ₃ | 41.1 | ⁻³¹ | ₃ | 38.9 | ⁻⁴³ | ₂ | 35.9 | ⁻⁵⁴ | ₂ | 32.2 | ⁻⁶⁴ | ₂ | 27.7 | ⁻⁷³ | ₂ | 22.6 | ⁻⁸² | ₂ | 16.9 | ⁻⁸⁹ | ₂ | 10.7 | ⁻⁹⁴ | ₁ | 4.1 | ⁻⁹⁹ | ₁ | -5.8 | ⁻¹⁰² | ₁ | -16.0 | | | | |
| Oct 9 | 43.0 | ⁻⁶ | ₁ | 42.6 | ⁻¹⁹ | ₁ | 41.2 | ⁻³¹ | ₁ | 39.1 | ⁻⁴³ | ₁ | 36.1 | ⁻⁵⁴ | ₁ | 32.3 | ⁻⁶⁴ | ₁ | 27.8 | ⁻⁷⁴ | ₁ | 22.7 | ⁻⁸² | ₁ | 16.9 | ⁻⁸⁹ | ₁ | 10.7 | ⁻⁹⁵ | ₁ | 4.1 | ⁻¹⁰⁰ | ₁ | -5.8 | ⁻¹⁰³ | ₀ | -16.1 | | | | |
| Oct 10 | 43.1 | ⁻⁶ | ₀ | 42.7 | ⁻¹⁹ | ₀ | 41.3 | ⁻³¹ | ₀ | 39.2 | ⁻⁴³ | ₀ | 36.2 | ⁻⁵⁴ | ₀ | 32.4 | ⁻⁶⁴ | ₀ | 27.9 | ⁻⁷⁴ | ₀ | 22.7 | ⁻⁸² | ₀ | 17.0 | ⁻⁸⁹ | ₀ | 10.8 | ⁻⁹⁵ | ₀ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.9 | ⁻¹⁰³ | ₀ | -16.1 | | | | |
| Oct 11 | 43.1 | ⁻⁶ | ₀ | 42.7 | ⁻¹⁹ | ₀ | 41.4 | ⁻³¹ | ₀ | 39.2 | ⁻⁴³ | ₀ | 36.2 | ⁻⁵⁴ | ₀ | 32.4 | ⁻⁶⁴ | ₀ | 27.9 | ⁻⁷⁴ | ₀ | 22.7 | ⁻⁸² | ₀ | 17.0 | ⁻⁸⁹ | ₀ | 10.8 | ⁻⁹⁵ | ₀ | 4.1 | ⁻¹⁰⁰ | ₀ | -5.9 | ⁻¹⁰³ | ₀ | -16.2 | | | | |
| Oct 12 | 43.1 | ⁻⁶ | ₋₁ | 42.7 | ⁻¹⁹ | ₋₁ | 41.3 | ⁻³¹ | ₋₁ | 39.2 | ⁻⁴³ | ₋₁ | 36.2 | ⁻⁵⁴ | ₋₁ | 32.4 | ⁻⁶⁴ | ₋₁ | 27.9 | ⁻⁷⁴ | ₋₁ | 22.7 | ⁻⁸² | ₋₁ | 17.0 | ⁻⁸⁹ | ₋₁ | 10.8 | ⁻⁹⁵ | ₋₁ | 4.1 | ⁻¹⁰⁰ | ₋₁ | -5.9 | ⁻¹⁰³ | ₀ | -16.1 | | | | |
| Oct 13 | 43.0 | ⁻⁶ | ₋₂ | 42.6 | ⁻¹⁹ | ₋₂ | 41.3 | ⁻³¹ | ₋₂ | 39.1 | ⁻⁴³ | ₋₂ | 36.1 | ⁻⁵⁴ | ₋₂ | 32.3 | ⁻⁶⁴ | ₋₂ | 27.8 | ⁻⁷³ | ₋₂ | 22.7 | ⁻⁸² | ₋₁ | 16.9 | ⁻⁸⁹ | ₋₁ | 10.7 | ⁻⁹⁴ | ₋₁ | 4.1 | ⁻⁹⁹ | ₋₁ | -5.8 | ⁻¹⁰² | ₋₁ | -16.1 | | | | |
| Oct 14 | 42.9 | ⁻⁶ | ₋₃ | 42.4 | ⁻¹⁹ | ₋₃ | 41.1 | ⁻³¹ | ₋₃ | 39.0 | ⁻⁴³ | ₋₃ | 36.0 | ⁻⁵⁴ | ₋₃ | 32.2 | ⁻⁶⁴ | ₋₂ | 27.7 | ⁻⁷³ | ₋₂ | 22.6 | ⁻⁸¹ | ₋₂ | 16.9 | ⁻⁸⁸ | ₋₂ | 10.7 | ⁻⁹⁴ | ₋₂ | 4.1 | ⁻⁹⁹ | ₋₁ | -5.8 | ⁻¹⁰² | ₋₁ | -16.1 | | | | |
| Oct 15 | 42.7 | ⁻⁶ | ₋₄ | 42.2 | ⁻¹⁹ | ₋₄ | 40.9 | ⁻³¹ | ₋₄ | 38.8 | ⁻⁴² | ₋₃ | 35.8 | ⁻⁵³ | ₋₃ | 32.1 | ⁻⁶⁴ | ₋₃ | 27.6 | ⁻⁷³ | ₋₃ | 22.5 | ⁻⁸¹ | ₋₃ | 16.8 | ⁻⁸⁸ | ₋₂ | 10.6 | ⁻⁹⁴ | ₋₂ | 4.1 | ⁻⁹⁸ | ₋₂ | -5.8 | ⁻¹⁰² | ₋₁ | -16.0 | | | | |
| Oct 16 | 42.4 | ⁻⁶ | ₋₅ | 42.0 | ⁻¹⁸ | ₋₄ | 40.7 | ⁻³⁰ | ₋₄ | 38.5 | ⁻⁴² | ₋₄ | 35.6 | ⁻⁵³ | ₋₄ | 31.9 | ⁻⁶³ | ₋₄ | 27.4 | ⁻⁷² | ₋₃ | 22.4 | ⁻⁸⁰ | ₋₃ | 16.7 | ⁻⁸⁷ | ₋₃ | 10.6 | ⁻⁹³ | ₋₂ | 4.1 | ⁻⁹⁸ | ₋₂ | -5.8 | ⁻¹⁰¹ | ₋₁ | -15.9 | | | | |
| Oct 17 | 42.1 | ⁻⁶ | ₋₅ | 41.7 | ⁻¹⁸ | ₋₅ | 40.4 | ⁻³⁰ | ₋₅ | 38.3 | ⁻⁴² | ₋₅ | 35.3 | ⁻⁵³ | ₋₅ | 31.6 | ⁻⁶³ | ₋₄ | 27.2 | ⁻⁷² | ₋₄ | 22.2 | ⁻⁸⁰ | ₋₄ | 16.6 | ⁻⁸⁷ | ₋₃ | 10.5 | ⁻⁹² | ₋₃ | 4.0 | ⁻⁹⁷ | ₋₂ | -5.7 | ⁻¹⁰⁰ | ₋₁ | -15.8 | | | | |
| Oct 18 | 41.8 | ⁻⁶ | ₋₆ | 41.3 | ⁻¹⁸ | ₋₆ | 40.0 | ⁻³⁰ | ₋₆ | 37.9 | ⁻⁴¹ | ₋₅ | 35.0 | ⁻⁵² | ₋₅ | 31.4 | ⁻⁶² | ₋₅ | 27.0 | ⁻⁷¹ | ₋₄ | 22.0 | ⁻⁷⁹ | ₋₄ | 16.5 | ⁻⁸⁶ | ₋₄ | 10.4 | ⁻⁹¹ | ₋₃ | 4.0 | ⁻⁹⁶ | ₋₂ | -5.7 | ⁻⁹⁹ | ₋₂ | -15.6 | | | | |
| Oct 19 | 41.4 | ⁻⁶ | ₋₆ | 40.9 | ⁻¹⁸ | ₋₆ | 39.7 | ⁻³⁰ | ₋₆ | 37.6 | ⁻⁴¹ | ₋₆ | 34.7 | ⁻⁵² | ₋₅ | 31.1 | ⁻⁶¹ | ₋₅ | 26.8 | ⁻⁷⁰ | ₋₅ | 21.8 | ⁻⁷⁸ | ₋₄ | 16.3 | ⁻⁸⁵ | ₋₄ | 10.3 | ⁻⁹⁰ | ₋₃ | 4.0 | ⁻⁹⁵ | ₋₃ | -5.6 | ⁻⁹⁸ | ₋₂ | -15.5 | | | | |
| Oct 20 | 40.9 | ⁻⁶ | ₋₆ | 40.5 | ⁻¹⁸ | ₋₆ | 39.3 | ⁻²⁹ | ₋₆ | 37.2 | ⁻⁴⁰ | ₋₆ | 34.3 | ⁻⁵¹ | ₋₅ | 30.8 | ⁻⁶¹ | ₋₅ | 26.5 | ⁻⁷⁰ | ₋₅ | 21.6 | ⁻⁷⁷ | ₋₄ | 16.1 | ⁻⁸⁴ | ₋₄ | 10.2 | ⁻⁹⁰ | ₋₃ | 3.9 | ⁻⁹⁴ | ₋₃ | -5.6 | ⁻⁹⁷ | ₋₂ | -15.3 | | | | |
| Oct 21 | 40.5 | ⁻⁶ | ₋₆ | 40.1 | ⁻¹⁸ | ₋₅ | 38.9 | ⁻²⁹ | ₋₅ | 36.8 | ⁻⁴⁰ | ₋₅ | 34.0 | ⁻⁵¹ | ₋₅ | 30.4 | ⁻⁶⁰ | ₋₅ | 26.2 | ⁻⁶⁹ | ₋₄ | 21.4 | ⁻⁷⁷ | ₋₄ | 16.0 | ⁻⁸³ | ₋₃ | 10.1 | ⁻⁸⁹ | ₋₃ | 3.9 | ⁻⁹³ | ₋₂ | -5.5 | ⁻⁹⁶ | ₋₂ | -15.2 | | | | |
| Oct 22 | 40.1 | ⁻⁶ | ₋₅ | 39.7 | ⁻¹⁷ | ₋₅ | 38.5 | ⁻²⁹ | ₋₄ | 36.5 | ⁻⁴⁰ | ₋₄ | 33.7 | ⁻⁵⁰ | ₋₄ | 30.2 | ⁻⁶⁰ | ₋₄ | 26.0 | ⁻⁶⁸ | ₋₄ | 21.2 | ⁻⁷⁶ | ₋₃ | 15.8 | ⁻⁸³ | ₋₃ | 10.0 | ⁻⁸⁸ | ₋₂ | 3.8 | ⁻⁹³ | ₋₂ | -5.5 | ⁻⁹⁵ | ₋₁ | -15.0 | | | | |
| Oct 23 | 39.8 | ⁻⁶ | ₋₃ | 39.4 | ⁻¹⁷ | ₋₃ | 38.2 | ⁻²⁹ | ₋₃ | 36.2 | ⁻³⁹ | ₋₃ | 33.4 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₃ | 25.8 | ⁻⁶⁸ | ₋₃ | 21.0 | ⁻⁷⁶ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁵ | ₋₁ | -14.9 | | | | |
| Oct 24 | 39.6 | ⁻⁶ | ₋₂ | 39.2 | ⁻¹⁷ | ₋₂ | 38.0 | ⁻²⁸ | ₋₂ | 36.0 | ⁻³⁹ | ₋₂ | 33.2 | ⁻⁵⁰ | ₋₂ | 29.7 | ⁻⁵⁹ | ₋₂ | 25.6 | ⁻⁶⁸ | ₋₁ | 20.9 | ⁻⁷⁵ | ₋₁ | 15.6 | ⁻⁸² | ₋₁ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₋₁ | -14.8 | | | | |
| Oct 25 | 39.5 | ⁻⁶ | ₀ | 39.1 | ⁻¹⁷ | ₀ | 37.8 | ⁻²⁸ | ₀ | 35.9 | ⁻³⁹ | ₀ | 33.1 | ⁻⁴⁹ | ₀ | 29.6 | ⁻⁵⁹ | ₀ | 25.5 | ⁻⁶⁷ | ₀ | 20.8 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸¹ | ₀ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | |
| Oct 26 | 39.4 | ⁻⁶ | ₂ | 39.0 | ⁻¹⁷ | ₂ | 37.8 | ⁻²⁸ | ₂ | 35.8 | ⁻³⁹ | ₂ | 33.1 | ⁻⁴⁹ | ₁ | 29.6 | ⁻⁵⁹ | ₁ | 25.5 | ⁻⁶⁸ | ₁ | 20.8 | ⁻⁷⁵ | ₁ | 15.5 | ⁻⁸² | ₁ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹¹ | ₁ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | |
| Oct 27 | 39.6 | ⁻⁶ | ₃ | 39.2 | ⁻¹⁷ | ₃ | 37.9 | ⁻²⁹ | ₃ | 35.9 | ⁻³⁹ | ₃ | 33.2 | ⁻⁵⁰ | ₃ | 29.7 | ⁻⁵⁹ | ₃ | 25.6 | ⁻⁶⁸ | ₃ | 20.9 | ⁻⁷⁵ | ₂ | 15.6 | ⁻⁸² | ₂ | 9.9 | ⁻⁸⁷ | ₂ | 3.8 | ⁻⁹² | ₁ | -5.4 | ⁻⁹⁵ | ₁ | -14.8 | | | | |
| Oct 28 | 39.8 | ⁻⁶ | ₅ | 39.4 | ⁻¹⁷ | ₅ | 38.2 | ⁻²⁹ | ₅ | 36.2 | ⁻⁴⁰ | ₅ | 33.4 | ⁻⁵⁰ | ₅ | 29.9 | ⁻⁶⁰ | ₄ | 25.7 | ⁻⁶⁸ | ₄ | 21.0 | ⁻⁷⁶ | ₄ | 15.7 | ⁻⁸³ | ₃ | 9.9 | ⁻⁸⁸ | ₃ | 3.8 | ⁻⁹³ | ₂ | -5.4 | ⁻⁹⁵ | ₁ | -14.9 | | | | |
| Oct 29 | 40.2 | ⁻⁶ | ₇ | 39.7 | ⁻¹⁸ | ₇ | 38.5 | ⁻²⁹ | ₆ | 36.5 | ⁻⁴⁰ | ₆ | 33.7 | ⁻⁵¹ | ₆ | 30.2 | ⁻⁶⁰ | ₆ | 26.0 | ⁻⁶⁹ | ₅ | 21.2 | ⁻⁷⁷ | ₅ | 15.8 | ⁻⁸³ | ₄ | 10.0 | ⁻⁸⁹ | ₄ | 3.8 | ⁻⁹³ | ₃ | -5.5 | ⁻⁹⁶ | ₂ | -15.0 | | | | |
| Oct 30 | 40.6 | ⁻⁶ | ₈ | 40.2 | ⁻¹⁸ | ₈ | 39.0 | ⁻²⁹ | ₈ | 36.9 | ⁻⁴¹ | ₇ | 34.1 | ⁻⁵¹ | ₇ | 30.5 | ⁻⁶¹ | ₆ | 26.3 | ⁻⁷⁰ | ₆ | 21.4 | ⁻⁷⁸ | ₅ | 16.0 | ⁻⁸⁴ | ₅ | 10.1 | ⁻⁹⁰ | ₄ | 3.9 | ⁻⁹⁵ | ₃ | -5.5 | ⁻⁹⁸ | ₂ | -15.2 | | | | |
| Oct 31 | 41.2 | ⁻⁶ | ₈ | 40.7 | ⁻¹⁸ | ₈ | 39.5 | ⁻³⁰ | ₈ | 37.4 | ⁻⁴¹ | ₈ | 34.5 | ⁻⁵² | ₇ | 30.9 | ⁻⁶² | ₇ | 26.6 | ⁻⁷¹ | ₆ | 21.7 | ⁻⁷⁹ | ₆ | 16.2 | ⁻⁸⁶ | ₅ | 10.3 | ⁻⁹¹ | ₄ | 3.9 | ⁻⁹⁶ | ₃ | -5.6 | ⁻⁹⁹ | ₂ | -15.4 | | | | |
| Nov 1 | 41.7 | ⁻⁶ | ₈ | 41.3 | ⁻¹⁸ | ₈ | 40.0 | ⁻³⁰ | ₈ | 37.9 | ⁻⁴² | ₈ | 35.0 | ⁻⁵³ | ₇ | 31.4 | ⁻⁶³ | ₇ | 27.0 | ⁻⁷² | ₆ | 22.0 | ⁻⁸⁰ | ₆ | 16.4 | ⁻⁸⁷ | ₅ | 10.4 | ⁻⁹² | ₄ | 4.0 | ⁻⁹⁷ | ₃ | -5.7 | ⁻¹⁰⁰ | ₂ | -15.6 | | | | |
| Nov 2 | 42.3 | ⁻⁶ | ₇ | 41.9 | ⁻¹⁹ | ₇ | 40.6 | ⁻³¹ | ₇ | 38.4 | ⁻⁴² | ₇ | 35.5 | ⁻⁵³ | ₇ | 31.8 | ⁻⁶⁴ | ₆ | 27.4 | ⁻⁷³ | ₆ | 22.3 | ⁻⁸¹ | ₅ | 16.7 | ⁻⁸⁸ | ₅ | 10.6 | ⁻⁹⁴ | ₄ | 4.0 | ⁻⁹⁹ | ₃ | -5.7 | ⁻¹⁰² | ₂ | -15.8 | | | | |
| Nov 3 | 42.8 | ⁻⁶ | ₆ | 42.4 | ⁻¹⁹ | ₆ | 41.1 | ⁻³¹ | ₆ | 38.9 | ⁻⁴³ | ₆ | 35.9 | ⁻⁵⁴ | ₅ | 32.2 | ⁻⁶⁴ | ₅ | 27.7 | ⁻⁷⁴ | ₅ | 22.6 | ⁻⁸² | ₄ | 16.9 | ⁻⁸⁹ | ₄ | 10.7 | ⁻⁹⁵ | ₃ | 4.1 | ⁻¹⁰⁰ | ₃ | -5.8 | ⁻¹⁰³ | ₂ | -16.0 | | | | |
| Nov 4 | 43.2 | ⁻⁶ | ₄ | 42.8 | ^{-19</} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Lower Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|-----------------|---------------|------|-----------------|---------------|------|---|---|---|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Nov 19 | 69.7 | ⁻⁶ | ₋₃ | 69.3 | ⁻¹⁷ | ₋₃ | 68.1 | ⁻²⁹ | ₋₃ | 66.1 | ⁻⁴⁰ | ₋₃ | 63.3 | ⁻⁵⁰ | ₋₃ | 59.8 | ⁻⁵⁹ | ₋₃ | 55.6 | ⁻⁶⁸ | ₋₃ | 50.9 | ⁻⁷⁶ | ₋₂ | 45.6 | ⁻⁸² | ₋₂ | 39.8 | ⁻⁸⁷ | ₋₂ | 33.7 | ⁻⁹² | ₋₁ | 24.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | | | | |
| Nov 20 | 69.3 | ⁻⁶ | ₋₃ | 68.9 | ⁻¹⁷ | ₋₂ | 67.7 | ⁻²⁹ | ₋₂ | 65.7 | ⁻³⁹ | ₋₂ | 62.9 | ⁻⁵⁰ | ₋₂ | 59.4 | ⁻⁵⁹ | ₋₂ | 55.3 | ⁻⁶⁸ | ₋₂ | 50.6 | ⁻⁷⁵ | ₋₂ | 45.3 | ⁻⁸² | ₋₂ | 39.6 | ⁻⁸⁷ | ₋₁ | 33.5 | ⁻⁹¹ | ₋₁ | 24.3 | ⁻⁹⁴ | ₋₁ | 14.8 | | | | | | | | |
| Nov 21 | 69.0 | ⁻⁶ | ₋₁ | 68.6 | ⁻¹⁷ | ₋₁ | 67.4 | ⁻²⁸ | ₋₁ | 65.4 | ⁻³⁹ | ₋₁ | 62.6 | ⁻⁴⁹ | ₋₁ | 59.2 | ⁻⁵⁹ | ₋₁ | 55.1 | ⁻⁶⁷ | ₋₁ | 50.3 | ⁻⁷⁵ | ₋₁ | 45.1 | ⁻⁸¹ | ₋₁ | 39.4 | ⁻⁸⁷ | ₋₁ | 33.3 | ⁻⁹¹ | ₋₁ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Nov 22 | 68.8 | ⁻⁶ | ₀ | 68.4 | ⁻¹⁷ | ₀ | 67.2 | ⁻²⁸ | ₀ | 65.2 | ⁻³⁹ | ₀ | 62.5 | ⁻⁴⁹ | ₀ | 59.1 | ⁻⁵⁹ | ₀ | 54.9 | ⁻⁶⁷ | ₀ | 50.2 | ⁻⁷⁵ | ₀ | 45.0 | ⁻⁸¹ | ₀ | 39.3 | ⁻⁸⁷ | ₀ | 33.2 | ⁻⁹¹ | ₀ | 24.1 | ⁻⁹⁴ | ₀ | 14.7 | | | | | | | | |
| Nov 23 | 68.9 | ⁻⁶ | ₂ | 68.5 | ⁻¹⁷ | ₂ | 67.3 | ⁻²⁸ | ₂ | 65.3 | ⁻³⁹ | ₂ | 62.5 | ⁻⁴⁹ | ₂ | 59.1 | ⁻⁵⁹ | ₁ | 55.0 | ⁻⁶⁷ | ₁ | 50.2 | ⁻⁷⁵ | ₁ | 45.0 | ⁻⁸¹ | ₁ | 39.3 | ⁻⁸⁷ | ₁ | 33.3 | ⁻⁹¹ | ₁ | 24.1 | ⁻⁹⁴ | ₁ | 14.7 | | | | | | | | |
| Nov 24 | 69.1 | ⁻⁶ | ₄ | 68.7 | ⁻¹⁷ | ₄ | 67.5 | ⁻²⁹ | ₃ | 65.5 | ⁻³⁹ | ₃ | 62.7 | ⁻⁵⁰ | ₃ | 59.3 | ⁻⁵⁹ | ₃ | 55.1 | ⁻⁶⁸ | ₃ | 50.4 | ⁻⁷⁵ | ₂ | 45.1 | ⁻⁸² | ₂ | 39.4 | ⁻⁸⁷ | ₂ | 33.4 | ⁻⁹² | ₁ | 24.2 | ⁻⁹⁵ | ₁ | 14.8 | | | | | | | | |
| Nov 25 | 69.5 | ⁻⁶ | ₅ | 69.1 | ⁻¹⁷ | ₅ | 67.9 | ⁻²⁹ | ₅ | 65.9 | ⁻⁴⁰ | ₅ | 63.1 | ⁻⁵⁰ | ₅ | 59.6 | ⁻⁶⁰ | ₄ | 55.5 | ⁻⁶⁸ | ₄ | 50.7 | ⁻⁷⁶ | ₄ | 45.4 | ⁻⁸² | ₃ | 39.7 | ⁻⁸⁸ | ₃ | 33.6 | ⁻⁹² | ₂ | 24.4 | ⁻⁹⁵ | ₂ | 14.9 | | | | | | | | |
| Nov 26 | 70.1 | ⁻⁶ | ₇ | 69.7 | ⁻¹⁸ | ₇ | 68.5 | ⁻²⁹ | ₇ | 66.5 | ⁻⁴⁰ | ₇ | 63.7 | ⁻⁵¹ | ₆ | 60.2 | ⁻⁶⁰ | ₆ | 56.0 | ⁻⁶⁹ | ₅ | 51.2 | ⁻⁷⁷ | ₅ | 45.8 | ⁻⁸³ | ₄ | 40.0 | ⁻⁸⁹ | ₄ | 33.9 | ⁻⁹³ | ₃ | 24.6 | ⁻⁹⁶ | ₂ | 15.0 | | | | | | | | |
| Nov 27 | 71.0 | ⁻⁶ | ₈ | 70.6 | ⁻¹⁸ | ₈ | 69.3 | ⁻²⁹ | ₈ | 67.3 | ⁻⁴¹ | ₈ | 64.5 | ⁻⁵¹ | ₈ | 60.9 | ⁻⁶¹ | ₇ | 56.7 | ⁻⁷⁰ | ₇ | 51.8 | ⁻⁷⁸ | ₆ | 46.4 | ⁻⁸⁴ | ₅ | 40.5 | ⁻⁹⁰ | ₄ | 34.3 | ⁻⁹⁵ | ₄ | 24.9 | ⁻⁹⁸ | ₂ | 15.2 | | | | | | | | |
| Nov 28 | 72.0 | ⁻⁶ | ₉ | 71.6 | ⁻¹⁸ | ₉ | 70.3 | ⁻³⁰ | ₉ | 68.3 | ⁻⁴¹ | ₉ | 65.4 | ⁻⁵² | ₈ | 61.8 | ⁻⁶² | ₈ | 57.5 | ⁻⁷¹ | ₇ | 52.5 | ⁻⁷⁹ | ₇ | 47.1 | ⁻⁸⁶ | ₆ | 41.1 | ⁻⁹¹ | ₅ | 34.8 | ⁻⁹⁶ | ₄ | 25.2 | ⁻⁹⁹ | ₃ | 15.4 | | | | | | | | |
| Nov 29 | 73.2 | ⁻⁶ | ₁₀ | 72.7 | ⁻¹⁸ | ₁₀ | 71.4 | ⁻³⁰ | ₉ | 69.3 | ⁻⁴² | ₉ | 66.4 | ⁻⁵³ | ₉ | 62.8 | ⁻⁶³ | ₈ | 58.4 | ⁻⁷² | ₈ | 53.4 | ⁻⁸⁰ | ₇ | 47.8 | ⁻⁸⁷ | ₆ | 41.8 | ⁻⁹³ | ₅ | 35.3 | ⁻⁹⁸ | ₄ | 25.6 | ⁻¹⁰¹ | ₃ | 15.7 | | | | | | | | |
| Nov 30 | 74.3 | ⁻⁶ | ₉ | 73.9 | ⁻¹⁹ | ₉ | 72.6 | ⁻³¹ | ₉ | 70.5 | ⁻⁴³ | ₉ | 67.5 | ⁻⁵⁴ | ₈ | 63.8 | ⁻⁶⁴ | ₈ | 59.3 | ⁻⁷³ | ₇ | 54.2 | ⁻⁸¹ | ₆ | 48.6 | ⁻⁸⁸ | ₆ | 42.4 | ⁻⁹⁴ | ₅ | 35.9 | ⁻⁹⁹ | ₄ | 26.1 | ⁻¹⁰² | ₃ | 15.9 | | | | | | | | |
| Dec 1 | 75.5 | ⁻⁶ | ₈ | 75.0 | ⁻¹⁹ | ₈ | 73.7 | ⁻³¹ | ₈ | 71.5 | ⁻⁴³ | ₇ | 68.5 | ⁻⁵⁴ | ₇ | 64.7 | ⁻⁶⁵ | ₇ | 60.2 | ⁻⁷⁴ | ₆ | 55.1 | ⁻⁸³ | ₆ | 49.3 | ⁻⁹⁰ | ₅ | 43.1 | ⁻⁹⁵ | ₄ | 36.4 | ⁻¹⁰⁰ | ₃ | 26.5 | ⁻¹⁰⁴ | ₂ | 16.2 | | | | | | | | |
| Dec 2 | 76.4 | ⁻⁶ | ₆ | 76.0 | ⁻¹⁹ | ₆ | 74.6 | ⁻³² | ₆ | 72.4 | ⁻⁴⁴ | ₅ | 69.4 | ⁻⁵⁵ | ₅ | 65.6 | ⁻⁶⁶ | ₅ | 61.0 | ⁻⁷⁵ | ₄ | 55.8 | ⁻⁸³ | ₄ | 49.9 | ⁻⁹¹ | ₄ | 43.6 | ⁻⁹⁷ | ₃ | 36.9 | ⁻¹⁰² | ₂ | 26.8 | ⁻¹⁰⁵ | ₂ | 16.4 | | | | | | | | |
| Dec 3 | 77.1 | ⁻⁶ | ₃ | 76.7 | ⁻¹⁹ | ₃ | 75.3 | ⁻³² | ₃ | 73.1 | ⁻⁴⁴ | ₃ | 70.0 | ⁻⁵⁵ | ₃ | 66.2 | ⁻⁶⁶ | ₂ | 61.5 | ⁻⁷⁶ | ₂ | 56.3 | ⁻⁸⁴ | ₂ | 50.4 | ⁻⁹¹ | ₂ | 44.0 | ⁻⁹⁷ | ₂ | 37.2 | ⁻¹⁰² | ₁ | 27.0 | ⁻¹⁰⁵ | ₁ | 16.5 | | | | | | | | |
| Dec 4 | 77.5 | ⁻⁶ | ₀ | 77.0 | ⁻¹⁹ | ₀ | 75.7 | ⁻³² | ₀ | 73.4 | ⁻⁴⁴ | ₀ | 70.3 | ⁻⁵⁵ | ₀ | 66.4 | ⁻⁶⁶ | ₀ | 61.8 | ⁻⁷⁶ | ₀ | 56.5 | ⁻⁸⁴ | ₀ | 50.6 | ⁻⁹¹ | ₀ | 44.2 | ⁻⁹⁷ | ₀ | 37.4 | ⁻¹⁰² | ₀ | 27.2 | ⁻¹⁰⁶ | ₀ | 16.6 | | | | | | | | |
| Dec 5 | 77.4 | ⁻⁶ | ₋₃ | 77.0 | ⁻¹⁹ | ₋₃ | 75.6 | ⁻³² | ₋₃ | 73.4 | ⁻⁴⁴ | ₋₃ | 70.3 | ⁻⁵⁵ | ₋₃ | 66.4 | ⁻⁶⁶ | ₋₃ | 61.8 | ⁻⁷⁶ | ₋₂ | 56.5 | ⁻⁸⁴ | ₋₂ | 50.6 | ⁻⁹¹ | ₋₂ | 44.2 | ⁻⁹⁷ | ₋₂ | 37.4 | ⁻¹⁰² | ₋₁ | 27.1 | ⁻¹⁰⁵ | ₋₁ | 16.6 | | | | | | | | |
| Dec 6 | 77.1 | ⁻⁶ | ₋₅ | 76.6 | ⁻¹⁹ | ₋₅ | 75.3 | ⁻³² | ₋₅ | 73.0 | ⁻⁴⁴ | ₋₅ | 70.0 | ⁻⁵⁵ | ₋₅ | 66.1 | ⁻⁶⁵ | ₋₄ | 61.5 | ⁻⁷⁵ | ₋₄ | 56.2 | ⁻⁸³ | ₋₄ | 50.4 | ⁻⁹¹ | ₋₃ | 44.0 | ⁻⁹⁶ | ₋₃ | 37.2 | ⁻¹⁰² | ₋₂ | 27.0 | ⁻¹⁰⁵ | ₋₂ | 16.5 | | | | | | | | |
| Dec 7 | 76.4 | ⁻⁶ | ₋₇ | 76.0 | ⁻¹⁹ | ₋₇ | 74.6 | ⁻³¹ | ₋₇ | 72.4 | ⁻⁴³ | ₋₆ | 69.4 | ⁻⁵⁴ | ₋₆ | 65.5 | ⁻⁶⁵ | ₋₆ | 61.0 | ⁻⁷⁴ | ₋₅ | 55.7 | ⁻⁸³ | ₋₅ | 49.9 | ⁻⁹⁰ | ₋₄ | 43.6 | ⁻⁹⁶ | ₋₄ | 36.9 | ⁻¹⁰¹ | ₋₃ | 26.8 | ⁻¹⁰⁴ | ₋₂ | 16.4 | | | | | | | | |
| Dec 8 | 75.6 | ⁻⁶ | ₋₈ | 75.1 | ⁻¹⁹ | ₋₈ | 73.8 | ⁻³¹ | ₋₇ | 71.6 | ⁻⁴³ | ₋₇ | 68.6 | ⁻⁵⁴ | ₋₇ | 64.8 | ⁻⁶⁴ | ₋₆ | 60.3 | ⁻⁷³ | ₋₆ | 55.1 | ⁻⁸² | ₋₅ | 49.4 | ⁻⁸⁹ | ₋₅ | 43.1 | ⁻⁹⁴ | ₋₄ | 36.5 | ⁻⁹⁹ | ₋₃ | 26.5 | ⁻¹⁰² | ₋₂ | 16.2 | | | | | | | | |
| Dec 9 | 74.6 | ⁻⁶ | ₋₈ | 74.2 | ⁻¹⁹ | ₋₈ | 72.9 | ⁻³¹ | ₋₈ | 70.7 | ⁻⁴² | ₋₇ | 67.8 | ⁻⁵³ | ₋₇ | 64.0 | ⁻⁶³ | ₋₇ | 59.6 | ⁻⁷³ | ₋₆ | 54.5 | ⁻⁸¹ | ₋₅ | 48.8 | ⁻⁸⁸ | ₋₅ | 42.6 | ⁻⁹³ | ₋₄ | 36.0 | ⁻⁹⁸ | ₋₃ | 26.2 | ⁻¹⁰¹ | ₋₂ | 16.0 | | | | | | | | |
| Dec 10 | 73.7 | ⁻⁶ | ₋₈ | 73.3 | ⁻¹⁸ | ₋₇ | 72.0 | ⁻³⁰ | ₋₇ | 69.8 | ⁻⁴² | ₋₇ | 66.9 | ⁻⁵² | ₋₇ | 63.2 | ⁻⁶² | ₋₆ | 58.8 | ⁻⁷² | ₋₆ | 53.8 | ⁻⁸⁰ | ₋₅ | 48.2 | ⁻⁸⁶ | ₋₅ | 42.1 | ⁻⁹² | ₋₄ | 35.6 | ⁻⁹⁷ | ₋₃ | 25.8 | ⁻¹⁰⁰ | ₋₂ | 15.8 | | | | | | | | |
| Dec 11 | 72.8 | ⁻⁶ | ₋₇ | 72.4 | ⁻¹⁸ | ₋₇ | 71.1 | ⁻³⁰ | ₋₇ | 69.0 | ⁻⁴¹ | ₋₆ | 66.1 | ⁻⁵² | ₋₆ | 62.4 | ⁻⁶² | ₋₆ | 58.1 | ⁻⁷¹ | ₋₅ | 53.1 | ⁻⁷⁹ | ₋₅ | 47.6 | ⁻⁸⁵ | ₋₄ | 41.6 | ⁻⁹¹ | ₋₄ | 35.1 | ⁻⁹⁶ | ₋₃ | 25.5 | ⁻⁹⁹ | ₋₂ | 15.6 | | | | | | | | |
| Dec 12 | 72.0 | ⁻⁶ | ₋₆ | 71.5 | ⁻¹⁸ | ₋₆ | 70.3 | ⁻³⁰ | ₋₆ | 68.2 | ⁻⁴¹ | ₋₆ | 65.3 | ⁻⁵¹ | ₋₅ | 61.7 | ⁻⁶¹ | ₋₅ | 57.4 | ⁻⁷⁰ | ₋₅ | 52.5 | ⁻⁷⁸ | ₋₄ | 47.0 | ⁻⁸⁵ | ₋₄ | 41.1 | ⁻⁹⁰ | ₋₃ | 34.7 | ⁻⁹⁵ | ₋₃ | 25.2 | ⁻⁹⁸ | ₋₂ | 15.4 | | | | | | | | |
| Dec 13 | 71.2 | ⁻⁶ | ₋₅ | 70.8 | ⁻¹⁸ | ₋₅ | 69.6 | ⁻²⁹ | ₋₅ | 67.5 | ⁻⁴⁰ | ₋₅ | 64.7 | ⁻⁵¹ | ₋₅ | 61.1 | ⁻⁶¹ | ₋₄ | 56.8 | ⁻⁶⁹ | ₋₄ | 52.0 | ⁻⁷⁷ | ₋₄ | 46.5 | ⁻⁸⁴ | ₋₃ | 40.7 | ⁻⁸⁹ | ₋₃ | 34.4 | ⁻⁹⁴ | ₋₂ | 25.0 | ⁻⁹⁷ | ₋₂ | 15.3 | | | | | | | | |
| Dec 14 | 70.6 | ⁻⁶ | ₋₅ | 70.2 | ⁻¹⁸ | ₋₄ | 68.9 | ⁻²⁹ | ₋₄ | 66.9 | ⁻⁴⁰ | ₋₄ | 64.1 | ⁻⁵⁰ | ₋₄ | 60.5 | ⁻⁶⁰ | ₋₄ | 56.3 | ⁻⁶⁹ | ₋₃ | 51.5 | ⁻⁷⁶ | ₋₃ | 46.1 | ⁻⁸³ | ₋₃ | 40.3 | ⁻⁸⁸ | ₋₂ | 34.1 | ⁻⁹³ | ₋₂ | 24.7 | ⁻⁹⁶ | ₋₁ | 15.1 | | | | | | | | |
| Dec 15 | 70.0 | ⁻⁶ | ₋₄ | 69.6 | ⁻¹⁷ | ₋₄ | 68.4 | ⁻²⁹ | ₋₄ | 66.4 | ⁻⁴⁰ | ₋₄ | 63.6 | ⁻⁵⁰ | ₋₃ | 60.1 | ⁻⁶⁰ | ₋₃ | 55.9 | ⁻⁶⁸ | ₋₃ | 51.1 | ⁻⁷⁶ | ₋₃ | 45.8 | ⁻⁸² | ₋₂ | 40.0 | ⁻⁸⁸ | ₋₂ | 33.8 | ⁻⁹² | ₋₂ | 24.6 | ⁻⁹⁵ | ₋₁ | 15.0 | | | | | | | | |
| Dec 16 | 69.6 | ⁻⁶ | ₋₃ | 69.2 | ⁻¹⁷ | ₋₃ | 68.0 | ⁻²⁹ | ₋₃ | 65.9 | ⁻³⁹ | ₋₃ | 63.2 | ⁻⁵⁰ | ₋₃ | 59.7 | ⁻⁵⁹ | ₋₃ | 55.5 | ⁻⁶⁸ | ₋₂ | 50.8 | ⁻⁷⁵ | ₋₂ | 45.5 | ⁻⁸² | ₋₂ | 39.7 | ⁻⁸⁷ | ₋₂ | 33.6 | ⁻⁹² | ₋₁ | 24.4 | ⁻⁹⁵ | ₋₁ | 14.9 | | | | | | | | |
| Dec 17 | 69.2 | ⁻⁶ | ₋₂ | 68.8 | ⁻¹⁷ | ₋₂ | 67.6 | ⁻²⁸ | ₋₂ | 65.6 | ⁻³⁹ | ₋₂ | 62.8 | ⁻⁴⁹ | ₋₂ | 59.4 | ⁻⁵⁹ | ₋₂ | 55.2 | ⁻⁶⁸ | ₋₂ | 50.5 | ⁻⁷⁵ | ₋₂ | 45.2 | ⁻⁸² | ₋₁ | 39.5 | ⁻⁸⁷ | ₋₁ | 33.4 | ⁻⁹¹ | ₋₁ | 24.3 | ⁻⁹⁴ | ₋₁ | 14.8 | | | | | | | | |
| Dec 18 | 68.9 | ⁻⁶ | ₋₁ | 68.5 | ⁻¹⁷ | ₋₁ | 67.3 | ⁻²⁸ | ₋₁ | 65.3 | ⁻³⁹ | ₋₁ | 62.6 | ⁻⁴⁹ | ₋₁ | 59.1 | ⁻⁵⁹ | ₋₁ | 55.0 | ⁻⁶⁷ | ₋₁ | 50.3 | ⁻⁷⁵ | ₋₁ | 45.0 | ⁻⁸¹ | ₋₁ | 39.3 | ⁻⁸⁷ | ₋₁ | 33.3 | ⁻⁹¹ | ₋₁ | 24.2 | ⁻⁹⁴ | ₀ | 14.8 | | | | | | | | |
| Dec 19 | 68.7 | ⁻⁶ | ₋₁ | 68.3 | ⁻¹⁷ | ₋₁ | 67.1 | ⁻²⁸ | ₀ | 65.2 | ⁻³⁹ | ₀ | 62.4 | ⁻⁴⁹ | ₀ | 59.0 | ⁻⁵⁹ | ₀ | 54.9 | ⁻⁶⁷ | ₀ | 50.2 | ⁻⁷⁵ | ₀ | 44.9 | ⁻⁸¹ | ₀ | 39.2 | ⁻⁸⁶ | ₀ | 33.2 | ⁻⁹¹ | ₀ | | | | | | | | | | | | |

2013

Moon Parallax and Semi-diameter

| Upper Limb | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------|---------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|------|----------------|---------------|-----|-----------------|---------------|------|-----------------|---------------|-------|---|---|---|---|---|---|---|---|
| Altitude degrees | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | 7 | | | 14 | | | 21 | | | 28 | | | 35 | | | 42 | | | 49 | | | 56 | | | 63 | | | 70 | | | 80 | | | 90 | | | | | | | | |
| | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t | ' | a | t |
| Nov 19 | 39.9 | ⁻⁶ | ₋₃ | 39.4 | ⁻¹⁷ | ₋₃ | 38.2 | ⁻²⁹ | ₋₃ | 36.2 | ⁻⁴⁰ | ₋₃ | 33.4 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₃ | 25.8 | ⁻⁶⁸ | ₋₃ | 21.0 | ⁻⁷⁶ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁵ | ₋₁ | -14.9 | | | | | | | | |
| Nov 20 | 39.6 | ⁻⁶ | ₋₃ | 39.2 | ⁻¹⁷ | ₋₂ | 38.0 | ⁻²⁹ | ₋₂ | 36.0 | ⁻³⁹ | ₋₂ | 33.2 | ⁻⁵⁰ | ₋₂ | 29.8 | ⁻⁵⁹ | ₋₂ | 25.6 | ⁻⁶⁸ | ₋₂ | 20.9 | ⁻⁷⁵ | ₋₂ | 15.6 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₋₁ | -14.8 | | | | | | | | |
| Nov 21 | 39.4 | ⁻⁶ | ₋₁ | 39.0 | ⁻¹⁷ | ₋₁ | 37.8 | ⁻²⁸ | ₋₁ | 35.8 | ⁻³⁹ | ₋₁ | 33.1 | ⁻⁴⁹ | ₋₁ | 29.6 | ⁻⁵⁹ | ₋₁ | 25.5 | ⁻⁶⁷ | ₋₁ | 20.8 | ⁻⁷⁵ | ₋₁ | 15.5 | ⁻⁸¹ | ₋₁ | 9.8 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | | | | |
| Nov 22 | 39.4 | ⁻⁶ | ₀ | 39.0 | ⁻¹⁷ | ₀ | 37.7 | ⁻²⁸ | ₀ | 35.8 | ⁻³⁹ | ₀ | 33.0 | ⁻⁴⁹ | ₀ | 29.6 | ⁻⁵⁹ | ₀ | 25.5 | ⁻⁶⁷ | ₀ | 20.7 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸¹ | ₀ | 9.8 | ⁻⁸⁷ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.3 | ⁻⁹⁴ | ₀ | -14.7 | | | | | | | | |
| Nov 23 | 39.4 | ⁻⁶ | ₂ | 39.0 | ⁻¹⁷ | ₂ | 37.8 | ⁻²⁸ | ₂ | 35.8 | ⁻³⁹ | ₂ | 33.0 | ⁻⁴⁹ | ₂ | 29.6 | ⁻⁵⁹ | ₁ | 25.5 | ⁻⁶⁷ | ₁ | 20.8 | ⁻⁷⁵ | ₁ | 15.5 | ⁻⁸¹ | ₁ | 9.8 | ⁻⁸⁷ | ₁ | 3.8 | ⁻⁹¹ | ₁ | -5.3 | ⁻⁹⁴ | ₁ | -14.7 | | | | | | | | |
| Nov 24 | 39.5 | ⁻⁶ | ₄ | 39.1 | ⁻¹⁷ | ₄ | 37.9 | ⁻²⁹ | ₃ | 35.9 | ⁻³⁹ | ₃ | 33.1 | ⁻⁵⁰ | ₃ | 29.7 | ⁻⁵⁹ | ₃ | 25.5 | ⁻⁶⁸ | ₃ | 20.8 | ⁻⁷⁵ | ₂ | 15.6 | ⁻⁸² | ₂ | 9.9 | ⁻⁸⁷ | ₂ | 3.8 | ⁻⁹² | ₁ | -5.4 | ⁻⁹⁵ | ₁ | -14.8 | | | | | | | | |
| Nov 25 | 39.7 | ⁻⁶ | ₅ | 39.3 | ⁻¹⁷ | ₅ | 38.1 | ⁻²⁹ | ₅ | 36.1 | ⁻⁴⁰ | ₅ | 33.3 | ⁻⁵⁰ | ₅ | 29.9 | ⁻⁶⁰ | ₄ | 25.7 | ⁻⁶⁸ | ₄ | 20.9 | ⁻⁷⁶ | ₄ | 15.7 | ⁻⁸² | ₃ | 9.9 | ⁻⁸⁸ | ₃ | 3.8 | ⁻⁹² | ₂ | -5.4 | ⁻⁹⁵ | ₂ | -14.9 | | | | | | | | |
| Nov 26 | 40.1 | ⁻⁶ | ₇ | 39.7 | ⁻¹⁸ | ₇ | 38.5 | ⁻²⁹ | ₇ | 36.4 | ⁻⁴⁰ | ₇ | 33.6 | ⁻⁵¹ | ₆ | 30.1 | ⁻⁶⁰ | ₆ | 25.9 | ⁻⁶⁹ | ₅ | 21.1 | ⁻⁷⁷ | ₅ | 15.8 | ⁻⁸³ | ₄ | 10.0 | ⁻⁸⁹ | ₄ | 3.8 | ⁻⁹³ | ₃ | -5.4 | ⁻⁹⁶ | ₂ | -15.0 | | | | | | | | |
| Nov 27 | 40.6 | ⁻⁶ | ₈ | 40.2 | ⁻¹⁸ | ₈ | 38.9 | ⁻²⁹ | ₈ | 36.9 | ⁻⁴¹ | ₈ | 34.1 | ⁻⁵¹ | ₈ | 30.5 | ⁻⁶¹ | ₇ | 26.3 | ⁻⁷⁰ | ₇ | 21.4 | ⁻⁷⁸ | ₆ | 16.0 | ⁻⁸⁴ | ₅ | 10.1 | ⁻⁹⁰ | ₄ | 3.9 | ⁻⁹⁵ | ₄ | -5.5 | ⁻⁹⁸ | ₂ | -15.2 | | | | | | | | |
| Nov 28 | 41.2 | ⁻⁶ | ₉ | 40.7 | ⁻¹⁸ | ₉ | 39.5 | ⁻³⁰ | ₉ | 37.4 | ⁻⁴¹ | ₉ | 34.5 | ⁻⁵² | ₈ | 30.9 | ⁻⁶² | ₈ | 26.6 | ⁻⁷¹ | ₇ | 21.7 | ⁻⁷⁹ | ₇ | 16.2 | ⁻⁸⁶ | ₆ | 10.3 | ⁻⁹¹ | ₅ | 3.9 | ⁻⁹⁶ | ₄ | -5.6 | ⁻⁹⁹ | ₃ | -15.4 | | | | | | | | |
| Nov 29 | 41.8 | ⁻⁶ | ₁₀ | 41.4 | ⁻¹⁸ | ₁₀ | 40.1 | ⁻³⁰ | ₉ | 38.0 | ⁻⁴² | ₉ | 35.1 | ⁻⁵³ | ₉ | 31.4 | ⁻⁶³ | ₈ | 27.1 | ⁻⁷² | ₈ | 22.0 | ⁻⁸⁰ | ₇ | 16.5 | ⁻⁸⁷ | ₆ | 10.4 | ⁻⁹³ | ₅ | 4.0 | ⁻⁹⁸ | ₄ | -5.7 | ⁻¹⁰¹ | ₃ | -15.7 | | | | | | | | |
| Nov 30 | 42.5 | ⁻⁶ | ₉ | 42.1 | ⁻¹⁹ | ₉ | 40.8 | ⁻³¹ | ₉ | 38.6 | ⁻⁴³ | ₉ | 35.7 | ⁻⁵⁴ | ₈ | 31.9 | ⁻⁶⁴ | ₈ | 27.5 | ⁻⁷³ | ₇ | 22.4 | ⁻⁸¹ | ₆ | 16.7 | ⁻⁸⁸ | ₆ | 10.6 | ⁻⁹⁴ | ₅ | 4.1 | ⁻⁹⁹ | ₄ | -5.8 | ⁻¹⁰² | ₃ | -15.9 | | | | | | | | |
| Dec 1 | 43.1 | ⁻⁶ | ₈ | 42.7 | ⁻¹⁹ | ₈ | 41.4 | ⁻³¹ | ₈ | 39.2 | ⁻⁴³ | ₇ | 36.2 | ⁻⁵⁴ | ₇ | 32.4 | ⁻⁶⁵ | ₇ | 27.9 | ⁻⁷⁴ | ₆ | 22.7 | ⁻⁸³ | ₆ | 17.0 | ⁻⁹⁰ | ₅ | 10.8 | ⁻⁹⁵ | ₄ | 4.1 | ⁻¹⁰⁰ | ₃ | -5.9 | ⁻¹⁰⁴ | ₂ | -16.2 | | | | | | | | |
| Dec 2 | 43.7 | ⁻⁶ | ₆ | 43.2 | ⁻¹⁹ | ₆ | 41.9 | ⁻³² | ₆ | 39.7 | ⁻⁴⁴ | ₅ | 36.7 | ⁻⁵⁵ | ₅ | 32.8 | ⁻⁶⁶ | ₅ | 28.3 | ⁻⁷⁵ | ₄ | 23.0 | ⁻⁸³ | ₄ | 17.2 | ⁻⁹¹ | ₄ | 10.9 | ⁻⁹⁷ | ₃ | 4.2 | ⁻¹⁰² | ₂ | -5.9 | ⁻¹⁰⁵ | ₂ | -16.4 | | | | | | | | |
| Dec 3 | 44.1 | ⁻⁶ | ₃ | 43.6 | ⁻¹⁹ | ₃ | 42.3 | ⁻³² | ₃ | 40.1 | ⁻⁴⁴ | ₃ | 37.0 | ⁻⁵⁵ | ₃ | 33.1 | ⁻⁶⁶ | ₂ | 28.5 | ⁻⁷⁶ | ₂ | 23.2 | ⁻⁸⁴ | ₂ | 17.4 | ⁻⁹¹ | ₂ | 11.0 | ⁻⁹⁷ | ₂ | 4.2 | ⁻¹⁰² | ₁ | -6.0 | ⁻¹⁰⁵ | ₁ | -16.5 | | | | | | | | |
| Dec 4 | 44.3 | ⁻⁶ | ₀ | 43.8 | ⁻¹⁹ | ₀ | 42.5 | ⁻³² | ₀ | 40.2 | ⁻⁴⁴ | ₀ | 37.2 | ⁻⁵⁵ | ₀ | 33.3 | ⁻⁶⁶ | ₀ | 28.6 | ⁻⁷⁶ | ₀ | 23.3 | ⁻⁸⁴ | ₀ | 17.5 | ⁻⁹¹ | ₀ | 11.0 | ⁻⁹⁷ | ₀ | 4.2 | ⁻¹⁰² | ₀ | -6.0 | ⁻¹⁰⁶ | ₀ | -16.6 | | | | | | | | |
| Dec 5 | 44.3 | ⁻⁶ | ₋₃ | 43.8 | ⁻¹⁹ | ₋₃ | 42.5 | ⁻³² | ₋₃ | 40.2 | ⁻⁴⁴ | ₋₃ | 37.1 | ⁻⁵⁵ | ₋₃ | 33.3 | ⁻⁶⁶ | ₋₃ | 28.6 | ⁻⁷⁶ | ₋₂ | 23.3 | ⁻⁸⁴ | ₋₂ | 17.4 | ⁻⁹¹ | ₋₂ | 11.0 | ⁻⁹⁷ | ₋₂ | 4.2 | ⁻¹⁰² | ₋₁ | -6.0 | ⁻¹⁰⁵ | ₋₁ | -16.6 | | | | | | | | |
| Dec 6 | 44.1 | ⁻⁶ | ₋₅ | 43.6 | ⁻¹⁹ | ₋₅ | 42.3 | ⁻³² | ₋₅ | 40.0 | ⁻⁴⁴ | ₋₅ | 37.0 | ⁻⁵⁵ | ₋₅ | 33.1 | ⁻⁶⁵ | ₋₄ | 28.5 | ⁻⁷⁵ | ₋₄ | 23.2 | ⁻⁸³ | ₋₄ | 17.4 | ⁻⁹¹ | ₋₃ | 11.0 | ⁻⁹⁶ | ₋₃ | 4.2 | ⁻¹⁰² | ₋₂ | -6.0 | ⁻¹⁰⁵ | ₋₂ | -16.5 | | | | | | | | |
| Dec 7 | 43.7 | ⁻⁶ | ₋₇ | 43.2 | ⁻¹⁹ | ₋₇ | 41.9 | ⁻³¹ | ₋₇ | 39.7 | ⁻⁴³ | ₋₆ | 36.6 | ⁻⁵⁴ | ₋₆ | 32.8 | ⁻⁶⁵ | ₋₆ | 28.3 | ⁻⁷⁴ | ₋₅ | 23.0 | ⁻⁸³ | ₋₅ | 17.2 | ⁻⁹⁰ | ₋₄ | 10.9 | ⁻⁹⁶ | ₋₄ | 4.2 | ⁻¹⁰¹ | ₋₃ | -5.9 | ⁻¹⁰⁴ | ₋₂ | -16.4 | | | | | | | | |
| Dec 8 | 43.2 | ⁻⁶ | ₋₈ | 42.8 | ⁻¹⁹ | ₋₈ | 41.4 | ⁻³¹ | ₋₇ | 39.3 | ⁻⁴³ | ₋₇ | 36.2 | ⁻⁵⁴ | ₋₇ | 32.5 | ⁻⁶⁴ | ₋₆ | 27.9 | ⁻⁷³ | ₋₆ | 22.8 | ⁻⁸² | ₋₅ | 17.0 | ⁻⁸⁹ | ₋₅ | 10.8 | ⁻⁹⁴ | ₋₄ | 4.1 | ⁻⁹⁹ | ₋₃ | -5.9 | ⁻¹⁰² | ₋₂ | -16.2 | | | | | | | | |
| Dec 9 | 42.7 | ⁻⁶ | ₋₈ | 42.2 | ⁻¹⁹ | ₋₈ | 40.9 | ⁻³¹ | ₋₈ | 38.8 | ⁻⁴² | ₋₇ | 35.8 | ⁻⁵³ | ₋₇ | 32.1 | ⁻⁶³ | ₋₇ | 27.6 | ⁻⁷³ | ₋₆ | 22.5 | ⁻⁸¹ | ₋₅ | 16.8 | ⁻⁸⁸ | ₋₅ | 10.6 | ⁻⁹³ | ₋₄ | 4.1 | ⁻⁹⁸ | ₋₃ | -5.8 | ⁻¹⁰¹ | ₋₂ | -16.0 | | | | | | | | |
| Dec 10 | 42.1 | ⁻⁶ | ₋₈ | 41.7 | ⁻¹⁸ | ₋₇ | 40.4 | ⁻³⁰ | ₋₇ | 38.3 | ⁻⁴² | ₋₇ | 35.3 | ⁻⁵² | ₋₇ | 31.7 | ⁻⁶² | ₋₆ | 27.3 | ⁻⁷² | ₋₆ | 22.2 | ⁻⁸⁰ | ₋₅ | 16.6 | ⁻⁸⁶ | ₋₅ | 10.5 | ⁻⁹² | ₋₄ | 4.0 | ⁻⁹⁷ | ₋₃ | -5.7 | ⁻¹⁰⁰ | ₋₂ | -15.8 | | | | | | | | |
| Dec 11 | 41.6 | ⁻⁶ | ₋₇ | 41.2 | ⁻¹⁸ | ₋₇ | 39.9 | ⁻³⁰ | ₋₇ | 37.8 | ⁻⁴¹ | ₋₆ | 34.9 | ⁻⁵² | ₋₆ | 31.3 | ⁻⁶² | ₋₆ | 26.9 | ⁻⁷¹ | ₋₅ | 21.9 | ⁻⁷⁹ | ₋₅ | 16.4 | ⁻⁸⁵ | ₋₄ | 10.4 | ⁻⁹¹ | ₋₄ | 4.0 | ⁻⁹⁶ | ₋₃ | -5.7 | ⁻⁹⁹ | ₋₂ | -15.6 | | | | | | | | |
| Dec 12 | 41.1 | ⁻⁶ | ₋₆ | 40.7 | ⁻¹⁸ | ₋₆ | 39.5 | ⁻³⁰ | ₋₆ | 37.4 | ⁻⁴¹ | ₋₆ | 34.5 | ⁻⁵¹ | ₋₅ | 30.9 | ⁻⁶¹ | ₋₅ | 26.6 | ⁻⁷⁰ | ₋₅ | 21.7 | ⁻⁷⁸ | ₋₄ | 16.2 | ⁻⁸⁵ | ₋₄ | 10.3 | ⁻⁹⁰ | ₋₃ | 3.9 | ⁻⁹⁵ | ₋₃ | -5.6 | ⁻⁹⁸ | ₋₂ | -15.4 | | | | | | | | |
| Dec 13 | 40.7 | ⁻⁶ | ₋₅ | 40.3 | ⁻¹⁸ | ₋₅ | 39.1 | ⁻²⁹ | ₋₅ | 37.0 | ⁻⁴⁰ | ₋₅ | 34.2 | ⁻⁵¹ | ₋₅ | 30.6 | ⁻⁶¹ | ₋₄ | 26.3 | ⁻⁶⁹ | ₋₄ | 21.5 | ⁻⁷⁷ | ₋₄ | 16.0 | ⁻⁸⁴ | ₋₃ | 10.2 | ⁻⁸⁹ | ₋₃ | 3.9 | ⁻⁹⁴ | ₋₂ | -5.5 | ⁻⁹⁷ | ₋₂ | -15.3 | | | | | | | | |
| Dec 14 | 40.4 | ⁻⁶ | ₋₅ | 39.9 | ⁻¹⁸ | ₋₄ | 38.7 | ⁻²⁹ | ₋₄ | 36.7 | ⁻⁴⁰ | ₋₄ | 33.9 | ⁻⁵⁰ | ₋₄ | 30.3 | ⁻⁶⁰ | ₋₄ | 26.1 | ⁻⁶⁹ | ₋₃ | 21.3 | ⁻⁷⁶ | ₋₃ | 15.9 | ⁻⁸³ | ₋₃ | 10.1 | ⁻⁸⁸ | ₋₂ | 3.9 | ⁻⁹³ | ₋₂ | -5.5 | ⁻⁹⁶ | ₋₁ | -15.1 | | | | | | | | |
| Dec 15 | 40.0 | ⁻⁶ | ₋₄ | 39.6 | ⁻¹⁷ | ₋₄ | 38.4 | ⁻²⁹ | ₋₄ | 36.4 | ⁻⁴⁰ | ₋₄ | 33.6 | ⁻⁵⁰ | ₋₃ | 30.1 | ⁻⁶⁰ | ₋₃ | 25.9 | ⁻⁶⁸ | ₋₃ | 21.1 | ⁻⁷⁶ | ₋₃ | 15.8 | ⁻⁸² | ₋₂ | 10.0 | ⁻⁸⁸ | ₋₂ | 3.8 | ⁻⁹² | ₋₂ | -5.4 | ⁻⁹⁵ | ₋₁ | -15.0 | | | | | | | | |
| Dec 16 | 39.8 | ⁻⁶ | ₋₃ | 39.4 | ⁻¹⁷ | ₋₃ | 38.2 | ⁻²⁹ | ₋₃ | 36.1 | ⁻³⁹ | ₋₃ | 33.4 | ⁻⁵⁰ | ₋₃ | 29.9 | ⁻⁵⁹ | ₋₃ | 25.7 | ⁻⁶⁸ | ₋₂ | 21.0 | ⁻⁷⁵ | ₋₂ | 15.7 | ⁻⁸² | ₋₂ | 9.9 | ⁻⁸⁷ | ₋₂ | 3.8 | ⁻⁹² | ₋₁ | -5.4 | ⁻⁹⁵ | ₋₁ | -14.9 | | | | | | | | |
| Dec 17 | 39.6 | ⁻⁶ | ₋₂ | 39.2 | ⁻¹⁷ | ₋₂ | 37.9 | ⁻²⁸ | ₋₂ | 36.0 | ⁻³⁹ | ₋₂ | 33.2 | ⁻⁴⁹ | ₋₂ | 29.7 | ⁻⁵⁹ | ₋₂ | 25.6 | ⁻⁶⁸ | ₋₂ | 20.9 | ⁻⁷⁵ | ₋₂ | 15.6 | ⁻⁸² | ₋₁ | 9.9 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₋₁ | -14.8 | | | | | | | | |
| Dec 18 | 39.4 | ⁻⁶ | ₋₁ | 39.0 | ⁻¹⁷ | ₋₁ | 37.8 | ⁻²⁸ | ₋₁ | 35.8 | ⁻³⁹ | ₋₁ | 33.1 | ⁻⁴⁹ | ₋₁ | 29.6 | ⁻⁵⁹ | ₋₁ | 25.5 | ⁻⁶⁷ | ₋₁ | 20.8 | ⁻⁷⁵ | ₋₁ | 15.5 | ⁻⁸¹ | ₋₁ | 9.8 | ⁻⁸⁷ | ₋₁ | 3.8 | ⁻⁹¹ | ₋₁ | -5.4 | ⁻⁹⁴ | ₀ | -14.8 | | | | | | | | |
| Dec 19 | 39.3 | ⁻⁶ | ₋₁ | 38.9 | ⁻¹⁷ | ₋₁ | 37.7 | ⁻²⁸ | ₀ | 35.7 | ⁻³⁹ | ₀ | 33.0 | ⁻⁴⁹ | ₀ | 29.5 | ⁻⁵⁹ | ₀ | 25.4 | ⁻⁶⁷ | ₀ | 20.7 | ⁻⁷⁵ | ₀ | 15.5 | ⁻⁸¹ | ₀ | 9.8 | ⁻⁸⁶ | ₀ | 3.8 | ⁻⁹¹ | ₀ | -5.3 | ⁻⁹⁴ | ₀ | -14.7 | | | | | | | | |
| Dec 20 | 39.3 | ⁻⁶ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |