

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	
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	71.6 ⁻⁴³ ₋₆	68.6 ⁻⁵⁴ ₋₆	64.8 ⁻⁶⁴ ₋₅	60.3 ⁻⁷⁴ ₋₅	55.1 ⁻⁸² ₋₄	49.4 ⁻⁸⁹ ₋₄	43.1 ⁻⁹⁵ ₋₃	36.5 ⁻⁹⁹ ₋₃	26.5 ⁻¹⁰³ ₋₂	

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
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 ⁻¹⁰⁰ ₂	-5.8 ⁻¹⁰³ ₁	-16.1
Feb 5	5	43.3 ⁻⁶ ₃	42.8 ⁻¹⁹ ₃	41.5 ⁻³¹ ₃	39.3 ⁻⁴³ ₃	36.3 ⁻⁵⁴ ₃	32.5 ⁻⁶⁵ ₃	28.0 ⁻⁷⁴ ₃	22.8 ⁻⁸³ ₂	17.1 ⁻⁹⁰ ₂	10.8 ⁻⁹⁵ ₂	4.1 ⁻¹⁰⁰ ₁	-5.9 ⁻¹⁰⁴ ₁	-16.2
Feb 6	6	43.5 ⁻⁶ ₂	43.1 ⁻¹⁹ ₂	41.7 ⁻³¹ ₂	39.5 ⁻⁴³ ₂	36.5 ⁻⁵⁵ ₂	32.7 ⁻⁶⁵ ₂	28.2 ⁻⁷⁵ ₁	22.9 ⁻⁸³ ₁	17.1 ⁻⁹⁰ ₁	10.9 ⁻⁹⁶ ₁	4.2 ⁻¹⁰¹ ₁	-5.9 ⁻¹⁰⁴ ₁	-16.3
Feb 7	7	43.6 ⁻⁶ ₀	43.2 ⁻¹⁹ ₀	41.9 ⁻³¹ ₀	39.7 ⁻⁴³ ₀	36.6 ⁻⁵⁵ ₀	32.8 ⁻⁶⁵ ₀	28.2 ⁻⁷⁵ ₀	23.0 ⁻⁸³ ₀	17.2 ⁻⁹⁰ ₀	10.9 ⁻⁹⁶ ₀	4.2 ⁻¹⁰¹ ₀	-5.9 ⁻¹⁰⁴ ₀	-16.3
Feb 8	8	43.6 ⁻⁶ ₋₂	43.2 ⁻¹⁹ ₋₂	41.9 ⁻³¹ ₋₂	39.7 ⁻⁴³ ₋₂	36.6 ⁻⁵⁵ ₋₂	32.8 ⁻⁶⁵ ₋₂	28.2 ⁻⁷⁵ ₋₂	23.0 ⁻⁸³ ₋₂	17.2 ⁻⁹⁰ ₋₁	10.9 ⁻⁹⁶ ₋₁	4.2 ⁻¹⁰¹ ₋₁	-5.9 ⁻¹⁰⁴ ₋₁	-16.3
Feb 9	9	43.5 ⁻⁶ ₋₄	43.1 ⁻¹⁹ ₋₄	41.7 ⁻³¹ ₋₄	39.5 ⁻⁴³ ₋₄	36.5 ⁻⁵⁴ ₋₄	32.7 ⁻⁶⁵ ₋₄	28.1 ⁻⁷⁴ ₋₃	22.9 ⁻⁸² ₋₃	17.1 ⁻⁹⁰ ₋₃	10.9 ⁻⁹⁵ ₋₂	4.2 ⁻¹⁰⁰ ₋₂	-5.9 ⁻¹⁰³ ₋₁	-16.3
Feb 10	10	43.2 ⁻⁶ ₋₆	42.8 ⁻¹⁹ ₋₆	41.4 ⁻³¹ ₋₆	39.3 ⁻⁴³ ₋₆	36.2 ⁻⁵⁴ ₋₆	32.5 ⁻⁶⁴ ₋₅	27.9 ⁻⁷⁴ ₋₅	22.8 ⁻⁸² ₋₄	17.0 ⁻⁸⁹ ₋₄	10.8 ⁻⁹⁵ ₋₃	4.1 ⁻⁹⁹ ₋₃	-5.9 ⁻¹⁰³ ₋₂	-16.2
Feb 11	11	42.8 ⁻⁶ ₋₈	42.3 ⁻¹⁹ ₋₈	41.0										

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
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											

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	'
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 ⁻⁹⁵ ₋₁																												
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 ⁻⁹⁵ ₋₁																												
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 ⁻⁹⁴ ₀																												
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 ⁻⁹⁴ ₀																												
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 ⁻⁹⁴ ₁																												
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 ⁻⁹⁵ ₁																												
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 ⁻⁹⁶ ₁																												
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 ⁻⁹⁶ ₂																												
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 ⁻⁹⁷ 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 ⁻⁹⁸ ₂																												
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 ⁻⁹⁹ ₂																												
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 ⁻¹⁰⁰ ₁																												
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 ⁻¹⁰¹ ₁																												
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 ⁻¹⁰² ₁																												
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 ⁻¹⁰² ₁																												
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 ⁻¹⁰³ 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 ⁻¹⁰³ ₀																												
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 ⁻¹⁰³ ₀																												
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 ⁻¹⁰³ ₀																												
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 ⁻¹⁰³ ₀																												
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 ⁻¹⁰² ₋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 ⁻¹⁰² ₋₁																												
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 ⁻¹⁰¹ ₋₁																												
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 ⁻¹⁰⁰ ₋₂																												
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 ⁻¹⁰⁰ ₋₂																												
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 ⁻⁹⁹ ₋₂																												
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 ⁻⁹⁸ ₋₂																												
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 ⁻⁹⁷ ₋₂																												
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 ⁻⁹⁶ ₋₁																												
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 ⁻⁹⁵ ₋₁																												
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 ⁻⁹⁴ ₀																												
Mar 19	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 ⁻⁶⁸ ₁	20.8 ⁻⁷⁵ ₀	15.5 ⁻⁸² ₀	9.8 ⁻⁸⁷ ₀	3.8 ⁻⁹¹ ₀	5.4 ⁻⁹⁴ ₀	14.8 ⁻⁹⁴ ₀																												
Mar 20	39.5 ⁻⁶ ₃	39.1 ⁻¹⁷ ₂	37.9 ⁻²⁹ ₂	35.9 ⁻³⁹ ₂	33.1 ⁻⁵⁰ ₂	29.7 ⁻⁵⁹ ₂	25.6 ⁻⁶⁸ ₂	20.8 ⁻⁷⁵ ₂	15.6 ⁻⁸² ₂	9.9 ⁻⁸⁷ ₁	3.8 ⁻⁹² ₁	5.4 ⁻⁹⁴ ₁	14.8 ⁻⁹⁴ ₁																												
Mar 21	39.7 ⁻⁶ ₄	39.3 ⁻¹⁷ ₄	38.1 ⁻²⁹ ₄	36.1 ⁻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 ⁻⁹⁵ ₁																												
Mar 22	40.0 ⁻⁶ ₆	39.6 ⁻¹⁸ ₆	38.3 ⁻²⁹ ₆	36.3 ⁻⁴⁰ ₅	33.5 ⁻⁵⁰ ₅	30.0 ⁻⁶⁰ ₅	25.9 ⁻⁶⁹ ₄	21.1 ⁻⁷⁶ ₄	15.8 ⁻⁸³ ₄	10.0 ⁻⁸⁸ ₃	3.8 ⁻⁹³ ₂	5.4 ⁻⁹⁶ ₂	15.0 ⁻⁹⁶ ₂																												
Mar 23	40.4 ⁻⁶ ₇	40.0 ⁻¹⁸ ₇	38.7 ⁻²⁹ ₇	36.7 ⁻⁴⁰ ₆	33.9 ⁻⁵¹ ₆	30.3 ⁻⁶¹ ₆	26.1 ⁻⁶⁹ ₅	21.3 ⁻⁷⁷ ₅	15.9 ⁻⁸⁴ ₄	10.1 ⁻⁸⁹ ₄	3.9 ⁻⁹⁴ ₃	5.5 ⁻⁹⁷ ₂	15.1 ⁻⁹⁷ ₂																												
Mar 24	40.8 ⁻⁶ ₈	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 ⁻⁹⁸ ₂																												
Mar 25	41.4 ⁻⁶ ₈	40.9 ⁻¹⁸ ₈	39.7 ⁻³⁰ ₇	37.6 ⁻⁴¹ ₇	34.7 ⁻⁵² ₇	31.1 ⁻⁶² ₆	26.8 ⁻⁷¹ ₆	21.8 ⁻⁷⁹ ₅	16.3 ⁻⁸⁶ ₅	10.3 ⁻⁹² ₄	4.0 ⁻⁹⁶ ₃	5.6 ⁻⁹⁹ ₂	15.5 ⁻⁹⁹ ₂																												
Mar 26	41.9 ⁻⁶ ₇	41.5 ⁻¹⁸ ₇	40.2 ⁻³⁰ ₇	38.1 ⁻⁴² ₇	35.2 ⁻⁵³ ₆	31.5 ⁻⁶³ ₆	27.1 ⁻⁷² ₆	22.1 ⁻⁸⁰ ₅	16.5 ⁻⁸⁷ ₄	10.5 ⁻⁹³ ₄	4.0 ⁻⁹⁸ ₃	5.7 ⁻¹⁰¹ ₂	15.7 ⁻¹⁰¹ ₂																												
Mar 27	42.4 ⁻⁶ ₆	42.0 ⁻¹⁹ ₆	40.7 ⁻³¹ ₆	38.5 ⁻⁴² ₆	35.6 ⁻⁵³ ₅	31.8 ⁻⁶⁴ ₅	27.4 ⁻⁷³ ₅	22.3 ⁻⁸¹ ₄	16.7 ⁻⁸⁸ ₄	10.6 ⁻⁹⁴ ₃	4.1 ⁻⁹⁹ <																														

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	2											

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 ₋₇		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	⁻¹⁸ 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																				

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	0	23.5	-85	0	17.6	-92	0	11.1	-98	0	4.3	-103	0	-6.1	-107	0	-16.7					
Jun 24	44.6	-7	-4	44.2	-19	-4	42.8	-32	-3	40.6	-44	-3	37.5	-56	-3	33.5	-66	-3	28.9	-76	-3	23.5	-85	-2	17.6	-92	-2	11.1	-98	-2	4.3	-103	-1	-6.1	-106	-1	-16.7					
Jun 25	44.4	-6	-7	43.9	-19	-6	42.6	-32	-6	40.3	-44	-6	37.3	-55	-6	33.4	-66	-5	28.7	-76	-5	23.4	-84	-5	17.5	-91	-4	11.1	-97	-3	4.2	-102	-3	-6.0	-105	-2	-16.6					
Jun 26	44.0	-6	-9	43.5	-19	-9	42.2	-31	-8	39.9	-43	-8	36.9	-55	-8	33.0	-65	-7	28.4	-75	-7	23.2	-83	-6	17.3	-90	-5	11.0	-96	-5	4.2	-101	-4	-6.0	-104	-2	-16.5					
Jun 27	43.4	-6	-10	42.9	-19	-10	41.6	-31	-9	39.4	-43	-9	36.4	-54	-9	32.6	-64	-8	28.0	-74	-7	22.9	-82	-7	17.1	-89	-6	10.8	-95	-5	4.1	-100	-4	-5.9	-103	-3	-16.2					
Jun 28	42.7	-6	-10	42.2	-19	-10	40.9	-31	-10	38.8	-42	-9	35.8	-53	-9	32.1	-63	-8	27.6	-72	-8	22.5	-81	-7	16.8	-87	-6	10.6	-93	-5	4.1	-98	-4	-5.8	-101	-3	-16.0					
Jun 29	42.0	-6	-9	41.6	-18	-9	40.3	-30	-9	38.2	-41	-9	35.2	-52	-8	31.6	-62	-8																								

2013

Moon Parallax and Semi-diameter

		Lower Limb												
		Altitude degrees												
		0	7	14	21	28	35	42	49	56	63	70	80	90
		'	'	'	'	'	'	'	'	'	'	'	'	
		a	a	a	a	a	a	a	a	a	a	a	t	
		t	t	t	t	t	t	t	t	t	t	t	'	
Jul 4	4	69.3 ⁻⁶	68.9 ⁻¹⁷	67.6 ⁻²⁸	65.6 ⁻³⁹	62.9 ⁻⁴⁹	59.4 ⁻⁵⁹	55.3 ⁻⁶⁸	50.5 ⁻⁷⁵	45.3 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹¹	24.3 ⁻⁹⁴	14.8
Jul 5	5	68.9 ⁻⁶	68.5 ⁻¹⁷	67.3 ⁻²⁸	65.3 ⁻³⁹	62.6 ⁻⁴⁹	59.1 ⁻⁵⁹	55.0 ⁻⁶⁷	50.3 ⁻⁷⁵	45.0 ⁻⁸¹	39.3 ⁻⁸⁶	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Jul 6	6	68.7 ⁻⁶	68.3 ⁻¹⁷	67.1 ⁻²⁸	65.1 ⁻³⁹	62.4 ⁻⁴⁹	58.9 ⁻⁵⁹	54.8 ⁻⁶⁷	50.1 ⁻⁷⁵	44.9 ⁻⁸¹	39.2 ⁻⁸⁶	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Jul 7	7	68.6 ⁻⁶	68.2 ⁻¹⁷	67.0 ⁻²⁸	65.1 ⁻³⁹	62.3 ⁻⁴⁹	58.9 ⁻⁵⁹	54.8 ⁻⁶⁷	50.1 ⁻⁷⁵	44.9 ⁻⁸¹	39.2 ⁻⁸⁶	33.1 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Jul 8	8	68.7 ⁻⁶	68.3 ⁻¹⁷	67.1 ⁻²⁸	65.1 ⁻³⁹	62.4 ⁻⁴⁹	58.9 ⁻⁵⁹	54.8 ⁻⁶⁷	50.1 ⁻⁷⁵	44.9 ⁻⁸¹	39.2 ⁻⁸⁶	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Jul 9	9	68.9 ⁻⁶	68.5 ⁻¹⁷	67.3 ⁻²⁸	65.3 ⁻³⁹	62.5 ⁻⁴⁹	59.1 ⁻⁵⁹	55.0 ⁻⁶⁷	50.3 ⁻⁷⁵	45.0 ⁻⁸²	39.3 ⁻⁸⁷	33.3 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Jul 10	10	69.1 ⁻⁶	68.7 ⁻¹⁷	67.5 ⁻²⁹	65.5 ⁻³⁹	62.8 ⁻⁵⁰	59.3 ⁻⁵⁹	55.2 ⁻⁶⁸	50.5 ⁻⁷⁵	45.2 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹²	24.2 ⁻⁹⁵	14.8
Jul 11	11	69.5 ⁻⁶	69.1 ⁻¹⁷	67.9 ⁻²⁹	65.9 ⁻⁴⁰	63.1 ⁻⁵⁰	59.7 ⁻⁶⁰	55.5 ⁻⁶⁸	50.7 ⁻⁷⁶	45.4 ⁻⁸²	39.7 ⁻⁸⁸	33.6 ⁻⁹²	24.4 ⁻⁹⁵	14.9
Jul 12	12	70.0 ⁻⁶	69.6 ⁻¹⁸	68.4 ⁻²⁹	66.4 ⁻⁴⁰	63.6 ⁻⁵⁰	60.1 ⁻⁶⁰	55.9 ⁻⁶⁹	51.1 ⁻⁷⁷	45.8 ⁻⁸³	40.0 ⁻⁸⁸	33.8 ⁻⁹³	24.6 ⁻⁹⁶	15.0
Jul 13	13	70.7 ⁻⁶	70.3 ⁻¹⁸	69.0 ⁻²⁹	67.0 ⁻⁴⁰	64.2 ⁻⁵¹	60.6 ⁻⁶¹	56.4 ⁻⁶⁹	51.6 ⁻⁷⁷	46.2 ⁻⁸⁴	40.4 ⁻⁸⁹	34.1 ⁻⁹⁴	24.8 ⁻⁹⁷	15.1
Jul 14	14	71.4 ⁻⁶	71.0 ⁻¹⁸	69.8 ⁻³⁰	67.7 ⁻⁴¹	64.9 ⁻⁵¹	61.3 ⁻⁶¹	57.0 ⁻⁷⁰	52.1 ⁻⁷⁸	46.7 ⁻⁸⁵	40.8 ⁻⁹⁰	34.5 ⁻⁹⁵	25.0 ⁻⁹⁸	15.3
Jul 15	15	72.3 ⁻⁶	71.9 ⁻¹⁸	70.6 ⁻³⁰	68.6 ⁻⁴¹	65.7 ⁻⁵²	62.1 ⁻⁶²	57.7 ⁻⁷¹	52.8 ⁻⁷⁹	47.3 ⁻⁸⁶	41.3 ⁻⁹²	34.9 ⁻⁹⁶	25.4 ⁻⁹⁹	15.5
Jul 16	16	73.3 ⁻⁶	72.9 ⁻¹⁸	71.6 ⁻³⁰	69.5 ⁻⁴²	66.6 ⁻⁵³	62.9 ⁻⁶³	58.5 ⁻⁷²	53.5 ⁻⁸⁰	47.9 ⁻⁸⁷	41.9 ⁻⁹³	35.4 ⁻⁹⁸	25.7 ⁻¹⁰¹	15.7
Jul 17	17	74.4 ⁻⁶	73.9 ⁻¹⁹	72.6 ⁻³¹	70.5 ⁻⁴³	67.5 ⁻⁵⁴	63.8 ⁻⁶⁴	59.4 ⁻⁷³	54.3 ⁻⁸¹	48.6 ⁻⁸⁸	42.5 ⁻⁹⁴	35.9 ⁻⁹⁹	26.1 ⁻¹⁰²	15.9
Jul 18	18	75.4 ⁻⁶	75.0 ⁻¹⁹	73.7 ⁻³¹	71.5 ⁻⁴³	68.5 ⁻⁵⁴	64.7 ⁻⁶⁵	60.2 ⁻⁷⁴	55.0 ⁻⁸³	49.3 ⁻⁹⁰	43.1 ⁻⁹⁵	36.4 ⁻¹⁰⁰	26.4 ⁻¹⁰⁴	16.2
Jul 19	19	76.4 ⁻⁶	76.0 ⁻¹⁹	74.6 ⁻³²	72.4 ⁻⁴⁴	69.4 ⁻⁵⁵	65.6 ⁻⁶⁶	61.0 ⁻⁷⁵	55.8 ⁻⁸⁴	49.9 ⁻⁹¹	43.6 ⁻⁹⁷	36.9 ⁻¹⁰²	26.8 ⁻¹⁰⁵	16.4
Jul 20	20	77.2 ⁻⁶	76.8 ⁻¹⁹	75.4 ⁻³²	73.2 ⁻⁴⁴	70.1 ⁻⁵⁵	66.2 ⁻⁶⁶	61.6 ⁻⁷⁶	56.3 ⁻⁸⁴	50.5 ⁻⁹¹	44.1 ⁻⁹⁷	37.3 ⁻¹⁰²	27.1 ⁻¹⁰⁶	16.5
Jul 21	21	77.7 ⁻⁷	77.3 ⁻¹⁹	75.9 ⁻³²	73.7 ⁻⁴⁴	70.6 ⁻⁵⁶	66.7 ⁻⁶⁶	62.0 ⁻⁷⁶	56.7 ⁻⁸⁵	50.8 ⁻⁹²	44.4 ⁻⁹⁸	37.5 ⁻¹⁰³	27.2 ⁻¹⁰⁶	16.6
Jul 22	22	77.8 ⁻⁷	77.4 ⁻¹⁹	76.0 ⁻³²	73.8 ⁻⁴⁴	70.7 ⁻⁵⁶	66.8 ⁻⁶⁶	62.1 ⁻⁷⁶	56.8 ⁻⁸⁵	50.9 ⁻⁹²	44.4 ⁻⁹⁸	37.6 ⁻¹⁰³	27.3 ⁻¹⁰⁶	16.7
Jul 23	23	77.6 ⁻⁶	77.1 ⁻¹⁹	75.8 ⁻³²	73.5 ⁻⁴⁴	70.5 ⁻⁵⁵	66.6 ⁻⁶⁶	61.9 ⁻⁷⁶	56.6 ⁻⁸⁴	50.7 ⁻⁹¹	44.3 ⁻⁹⁷	37.5 ⁻¹⁰²	27.2 ⁻¹⁰⁵	16.6
Jul 24	24	77.0 ⁻⁶	76.5 ⁻¹⁹	75.2 ⁻³²	72.9 ⁻⁴³	69.9 ⁻⁵⁵	66.0 ⁻⁶⁵	61.4 ⁻⁷⁵	56.2 ⁻⁸³	50.3 ⁻⁹⁰	43.9 ⁻⁹⁶	37.2 ⁻¹⁰¹	27.0 ⁻¹⁰⁴	16.5
Jul 25	25	76.0 ⁻⁶	75.6 ⁻¹⁹	74.2 ⁻³¹	72.1 ⁻⁴³	69.0 ⁻⁵⁴	65.2 ⁻⁶⁴	60.7 ⁻⁷⁴	55.5 ⁻⁸²	49.7 ⁻⁸⁹	43.4 ⁻⁹⁵	36.7 ⁻¹⁰⁰	26.7 ⁻¹⁰³	16.3
Jul 26	26	74.9 ⁻⁶	74.5 ⁻¹⁹	73.1 ⁻³¹	71.0 ⁻⁴²	68.0 ⁻⁵³	64.2 ⁻⁶³	59.8 ⁻⁷³	54.6 ⁻⁸¹	48.9 ⁻⁸⁸	42.8 ⁻⁹³	36.2 ⁻⁹⁸	26.3 ⁻¹⁰¹	16.0
Jul 27	27	73.7 ⁻⁶	73.3 ⁻¹⁸	72.0 ⁻³⁰	69.8 ⁻⁴²	66.9 ⁻⁵²	63.2 ⁻⁶²	58.8 ⁻⁷¹	53.8 ⁻⁷⁹	48.2 ⁻⁸⁶	42.1 ⁻⁹²	35.6 ⁻⁹⁷	25.8 ⁻¹⁰⁰	15.8
Jul 28	28	72.5 ⁻⁶	72.1 ⁻¹⁸	70.8 ⁻³⁰	68.7 ⁻⁴¹	65.8 ⁻⁵²	62.2 ⁻⁶¹	57.9 ⁻⁷⁰	52.9 ⁻⁷⁸	47.4 ⁻⁸⁵	41.4 ⁻⁹⁰	35.0 ⁻⁹⁵	25.4 ⁻⁹⁸	15.5
Jul 29	29	71.4 ⁻⁶	71.0 ⁻¹⁸	69.8 ⁻²⁹	67.7 ⁻⁴⁰	64.9 ⁻⁵¹	61.3 ⁻⁶¹	57.0 ⁻⁶⁹	52.1 ⁻⁷⁷	46.7 ⁻⁸⁴	40.8 ⁻⁸⁹	34.5 ⁻⁹⁴	25.0 ⁻⁹⁷	15.3
Jul 30	30	70.5 ⁻⁶	70.1 ⁻¹⁸	68.9 ⁻²⁹	66.8 ⁻⁴⁰	64.0 ⁻⁵⁰	60.5 ⁻⁶⁰	56.3 ⁻⁶⁹	51.4 ⁻⁷⁶	46.1 ⁻⁸³	40.3 ⁻⁸⁸	34.0 ⁻⁹³	24.7 ⁻⁹⁶	15.1
Jul 31	31	69.8 ⁻⁶	69.4 ⁻¹⁷	68.1 ⁻²⁹	66.1 ⁻⁴⁰	63.4 ⁻⁵⁰	59.9 ⁻⁵⁹	55.7 ⁻⁶⁸	50.9 ⁻⁷⁶	45.6 ⁻⁸²	39.8 ⁻⁸⁷	33.7 ⁻⁹²	24.5 ⁻⁹⁵	14.9
Aug 1	1	69.2 ⁻⁶	68.8 ⁻¹⁷	67.6 ⁻²⁸	65.6 ⁻³⁹	62.9 ⁻⁴⁹	59.4 ⁻⁵⁹	55.3 ⁻⁶⁸	50.5 ⁻⁷⁵	45.3 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹¹	24.3 ⁻⁹⁴	14.8
Aug 2	2	68.9 ⁻⁶	68.5 ⁻¹⁷	67.3 ⁻²⁸	65.3 ⁻³⁹	62.6 ⁻⁴⁹	59.1 ⁻⁵⁹	55.0 ⁻⁶⁷	50.3 ⁻⁷⁵	45.0 ⁻⁸¹	39.3 ⁻⁸⁶	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Aug 3	3	68.8 ⁻⁶	68.4 ⁻¹⁷	67.2 ⁻²⁸	65.2 ⁻³⁹	62.4 ⁻⁴⁹	59.0 ⁻⁵⁹	54.9 ⁻⁶⁷	50.2 ⁻⁷⁵	44.9 ⁻⁸¹	39.3 ⁻⁸⁶	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Aug 4	4	68.8 ⁻⁶	68.4 ⁻¹⁷	67.2 ⁻²⁸	65.2 ⁻³⁹	62.5 ⁻⁴⁹	59.0 ⁻⁵⁹	54.9 ⁻⁶⁷	50.2 ⁻⁷⁵	45.0 ⁻⁸¹	39.3 ⁻⁸⁷	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Aug 5	5	68.9 ⁻⁶	68.5 ⁻¹⁷	67.3 ⁻²⁸	65.4 ⁻³⁹	62.6 ⁻⁴⁹	59.1 ⁻⁵⁹	55.0 ⁻⁶⁸	50.3 ⁻⁷⁵	45.1 ⁻⁸²	39.4 ⁻⁸⁷	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Aug 6	6	69.2 ⁻⁶	68.8 ⁻¹⁷	67.6 ⁻²⁹	65.6 ⁻³⁹	62.9 ⁻⁵⁰	59.4 ⁻⁵⁹	55.3 ⁻⁶⁸	50.5 ⁻⁷⁵	45.2 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹²	24.3 ⁻⁹⁵	14.8
Aug 7	7	69.6 ⁻⁶	69.2 ⁻¹⁷	68.0 ⁻²⁹	66.0 ⁻⁴⁰	63.2 ⁻⁵⁰	59.7 ⁻⁶⁰	55.6 ⁻⁶⁸	50.8 ⁻⁷⁶	45.5 ⁻⁸²	39.7 ⁻⁸⁸	33.6 ⁻⁹²	24.4 ⁻⁹⁵	14.9
Aug 8	8	70.1 ⁻⁶	69.7 ⁻¹⁸	68.4 ⁻²⁹	66.4 ⁻⁴⁰	63.6 ⁻⁵⁰	60.1 ⁻⁶⁰	55.9 ⁻⁶⁹	51.1 ⁻⁷⁷	45.8 ⁻⁸³	40.0 ⁻⁸⁸	33.8 ⁻⁹³	24.6 ⁻⁹⁶	15.0
Aug 9	9	70.6 ⁻⁶	70.2 ⁻¹⁸	69.0 ⁻²⁹	66.9 ⁻⁴⁰	64.1 ⁻⁵¹	60.6 ⁻⁶¹	56.4 ⁻⁶⁹	51.5 ⁻⁷⁷	46.2 ⁻⁸⁴	40.3 ⁻⁸⁹	34.1 ⁻⁹⁴	24.8 ⁻⁹⁷	15.1
Aug 10	10	71.2 ⁻⁶	70.8 ⁻¹⁸	69.6 ⁻²⁹	67.5 ⁻⁴¹	64.7 ⁻⁵¹	61.1 ⁻⁶¹	56.8 ⁻⁷⁰	52.0 ⁻⁷⁸	46.5 ⁻⁸⁵	40.7 ⁻⁹⁰	34.4 ⁻⁹⁵	25.0 ⁻⁹⁸	15.3
Aug 11	11	71.9 ⁻⁶	71.5 ⁻¹⁸	70.2 ⁻³⁰	68.1 ⁻⁴¹	65.3 ⁻⁵²	61.7 ⁻⁶²	57.4 ⁻⁷¹	52.5 ⁻⁷⁹	47.0 ⁻⁸⁵	41.0 ⁻⁹¹	34.7 ⁻⁹⁶	25.2 ⁻⁹⁹	15.4
Aug 12	12	72.6 ⁻⁶	72.2 ⁻¹⁸	70.9 ⁻³⁰	68.8 ⁻⁴²	65.9 ⁻⁵²	62.3 ⁻⁶²	58.0 ⁻⁷¹	53.0 ⁻⁷⁹	47.5 ⁻⁸⁶	41.5 ⁻⁹²	35.1 ⁻⁹⁷	25.5 ⁻¹⁰⁰	15.6
Aug 13	13	73.4 ⁻⁶	73.0 ⁻¹⁸	71.7 ⁻³⁰	69.6 ⁻⁴²	66.6 ⁻⁵³	63.0 ⁻⁶³	58.6 ⁻⁷²	53.6 ⁻⁸⁰	48.0 ⁻⁸⁷	41.9 ⁻⁹³	35.4 ⁻⁹⁸	25.7 ⁻¹⁰¹	15.7
Aug 14	14	74.2 ⁻⁶	73.8 ⁻¹⁹	72.5 ⁻³¹	70.3 ⁻⁴²	67.4 ⁻⁵³	63.7 ⁻⁶⁴	59.2 ⁻⁷³	54.2 ⁻⁸¹	48.5 ⁻⁸⁸	42.4 ⁻⁹⁴	35.8 ⁻⁹⁹	26.0 ⁻¹⁰²	15.9
Aug 15	15	75.0 ⁻⁶	74.6 ⁻¹⁹	73.3 ⁻³¹	71.1 ⁻⁴³	68.1 ⁻⁵⁴	64.4 ⁻⁶⁴	59.9 ⁻⁷⁴	54.7 ⁻⁸²	49.0 ⁻⁸⁹	42.8 ⁻⁹⁵	36.2 ⁻¹⁰⁰	26.3 ⁻¹⁰³	16.1
Aug 16	16	75.8 ⁻⁶	75.3 ⁻¹⁹	74.0 ⁻³¹	71.8 ⁻⁴³	68.8 ⁻⁵⁵	65.0 ⁻⁶⁵	60.5 ⁻⁷⁴	55.3 ⁻⁸³	49.5 ⁻⁹⁰	43.3 ⁻⁹⁶	36.6 ⁻¹⁰¹	26.6 ⁻¹⁰⁴	16.2
Aug 17	17	76.4 ⁻⁶	76.0 ⁻¹⁹	74.6 ⁻³²	72.4 ⁻⁴⁴	69.4 ⁻⁵⁵	65.6 ⁻⁶⁵	61.0 ⁻⁷⁵	55.8 ⁻⁸³	49.9 ⁻⁹¹	43.6 ⁻⁹⁶	36.9 ⁻¹⁰¹	26.8 ⁻¹⁰⁵	16.4
Aug 18	18	76.8 ⁻⁶	76.4 ⁻¹⁹	75.1 ⁻³²	72.8 ⁻⁴⁴	69.8 ⁻⁵⁵	65.9 ⁻⁶⁶	61.3 ⁻⁷⁵	56.1 ⁻⁸⁴	50.2 ⁻⁹¹	43.9 ⁻⁹⁷	37.1 ⁻¹⁰²	26.9 ⁻¹⁰⁵	16.5

2013

Moon Parallax and Semi-diameter

		Upper Limb																																						
		Altitude degrees																																						
		0			7			14			21			28			35			42			49			56			63			70			80			90		
		'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'			
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁵														
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 ⁻⁹⁶														
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 ⁻⁹⁷														
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 ⁻⁹⁸														
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 ⁻⁹⁹														
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 ⁻¹⁰¹														
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 ⁻¹⁰²														
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 ⁻¹⁰⁴														
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 ⁻¹⁰⁵														
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 ⁻¹⁰⁶														
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 ⁻¹⁰⁶														
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 ⁻¹⁰⁶														
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 ⁻¹⁰⁵														
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 ⁻¹⁰⁴														
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 ⁻¹⁰³														
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 ⁻¹⁰¹														
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 ⁻¹⁰⁰														
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 ⁻⁹⁸														
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 ⁻⁹⁷														
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 ⁻⁹⁶														
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 ⁻⁹⁵														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁴														
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 ⁻⁹⁵														
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 ⁻⁹⁶														
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 ⁻⁹⁷														
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 ⁻⁹⁸														
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 ⁻⁹⁹														
Aug 12	12	41.5 ⁻⁶	6	41.1 ⁻¹⁸	6	39.8 ⁻³⁰																																		

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
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	₃	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	⁻¹⁰²	₋₁	16.1		
Sep 19	74.8	⁻⁶	₋₆	74.4	⁻¹⁹	₋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			
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	42.3	⁻¹⁹	⁻⁶	41.0	⁻³¹	⁻⁶	38.9	⁻⁴²	⁻⁶	35.9	⁻⁵³	⁻⁶																								

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			
Oct 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	74.9	⁻⁶																																								

2013

Moon Parallax and Semi-diameter

Upper Limb		Altitude degrees																																									
		0			7			14			21			28			35			42			49			56			63			70			80			90					
		'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'	'	°	'
Oct 4	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	4	43.2	-6	4	42.8	-19	4	41.5	-31	4	39.3	-43	4	36.3	-54	4	32.5	-65	3	28.0	-74	3	22.8	-83	3	17.0	-90	3	10.8	-95	2	4.1	-100	2	-5.9	-104	1	-16.2					
Nov 5	5	43.5	-6	2	43.1	-19	2	41.7	-31	2	39.5	-43	2	36.5	-55	2	32.7	-65	2	28.2	-75	1	22.9	-83	1	17.1	-90	1	10.9	-96	1	4.2	-101	1	-5.9	-104	1	-16.3					
Nov 6	6	43.6	-6	0	43.2	-19	0	41.9	-31	0	39.7	-43	0	36.6	-55	0	32.8	-65	0	28.2	-75	0	23.0	-83	0	17.2	-90	0	10.9	-96	0	4.2	-101	0	-5.9	-104	0	-16.3					
Nov 7	7	43.6	-6	-2	43.2	-19	-2	41.8	-31	-2	39.6	-43	-2	36.6	-55	-2	32.8	-65	-2	28.2	-74	-2	23.0	-83	-1	17.2	-90	-1	10.9	-96	-1	4.2	-101	-1	-5.9	-104	-1	-16.3					
Nov 8	8	43.5	-6	-3	43.0	-19	-3	41.7	-31	-3	39.5	-43	-3	36.5	-54	-3	32.7	-65	-3	28.1	-74	-3	22.9	-82	-2	17.1	-90	-2	10.8	-95	-2	4.2	-100	-1	-5.9	-104	-1	-16.3					
Nov 9	9	43.2	-6	-4	42.8	-19	-4	41.5	-31	-4	39.3	-43	-4	36.3	-54	-4	32.5	-64	-4	28.0	-74	-3	22.8	-82	-3	17.0	-89	-3	10.8	-95	-2	4.1	-100	-2	-5.9	-103	-1	-16.2					
Nov 10	10	42.9	-6	-5	42.5	-19	-5	41.2	-31	-5	39.0	-43	-5	36.0	-54	-4	32.3	-64	-4	27.8	-73	-4	22.6	-81	-3	16.9	-88	-3	10.7	-94	-3	4.1	-99	-2	-5.8	-102	-1	-16.1					
Nov 11	11	42.6	-6	-5	42.2	-19	-5	40.9	-31	-5	38.7	-42	-5	35.7	-53	-5	32.0	-63	-4	27.6	-73	-4	22.5	-81	-4	16.8	-88	-3	10.6	-93	-3	4.1	-98	-2	-5.8	-101	-1	-16.0					
Nov 12	12	42.2	-6	-5	41.8	-18	-5	40.5	-30	-5	38.4	-42	-5	35.4	-53	-5	31.7	-63	-4	27.3	-72	-4	22.3	-80	-4	16.6	-87	-3	10.5	-92	-3	4.0	-97	-2	-5.7	-100	-2	-15.8					
Nov 13	13	41.9	-6	-5	41.4	-18	-5	40.2	-30	-5	38.1	-41	-5	35.1	-52	-5	31.5	-62	-4	27.1	-71	-4	22.																				

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
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	₋																		

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																																											