

2011

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
Jan 1	1	73.6 ⁻⁶	73.1 ⁻¹⁸	71.8 ⁻³⁰	69.7 ⁻⁴²	66.8 ⁻⁵²	63.1 ⁻⁶³	58.7 ⁻⁷²	53.7 ⁻⁸⁰	48.1 ⁻⁸⁷	42.0 ⁻⁹²	35.5 ⁻⁹⁷	25.8 ⁻¹⁰⁰	15.8
Jan 2	2	73.0 ⁻⁶	72.6 ⁻¹⁸	71.3 ⁻³⁰	69.2 ⁻⁴¹	66.3 ⁻⁵²	62.6 ⁻⁶²	58.3 ⁻⁷¹	53.3 ⁻⁷⁹	47.7 ⁻⁸⁶	41.7 ⁻⁹¹	35.2 ⁻⁹⁶	25.6 ⁻⁹⁹	15.6
Jan 3	3	72.4 ⁻⁶	71.9 ⁻¹⁸	70.7 ⁻³⁰	68.6 ⁻⁴¹	65.7 ⁻⁵²	62.1 ⁻⁶¹	57.8 ⁻⁷⁰	52.8 ⁻⁷⁸	47.3 ⁻⁸⁵	41.3 ⁻⁹¹	34.9 ⁻⁹⁵	25.4 ⁻⁹⁸	15.5
Jan 4	4	71.7 ⁻⁶	71.3 ⁻¹⁸	70.0 ⁻²⁹	68.0 ⁻⁴¹	65.1 ⁻⁵¹	61.5 ⁻⁶¹	57.2 ⁻⁷⁰	52.3 ⁻⁷⁸	46.9 ⁻⁸⁴	40.9 ⁻⁹⁰	34.6 ⁻⁹⁴	25.1 ⁻⁹⁷	15.4
Jan 5	5	71.0 ⁻⁶	70.6 ⁻¹⁸	69.4 ⁻²⁹	67.3 ⁻⁴⁰	64.5 ⁻⁵¹	60.9 ⁻⁶⁰	56.7 ⁻⁶⁹	51.8 ⁻⁷⁷	46.4 ⁻⁸⁴	40.6 ⁻⁸⁹	34.3 ⁻⁹⁴	24.9 ⁻⁹⁷	15.2
Jan 6	6	70.4 ⁻⁶	70.0 ⁻¹⁸	68.8 ⁻²⁹	66.7 ⁻⁴⁰	63.9 ⁻⁵⁰	60.4 ⁻⁶⁰	56.2 ⁻⁶⁹	51.4 ⁻⁷⁶	46.0 ⁻⁸³	40.2 ⁻⁸⁸	34.0 ⁻⁹³	24.7 ⁻⁹⁶	15.1
Jan 7	7	69.8 ⁻⁶	69.4 ⁻¹⁷	68.2 ⁻²⁹	66.2 ⁻⁴⁰	63.4 ⁻⁵⁰	59.9 ⁻⁵⁹	55.7 ⁻⁶⁸	51.0 ⁻⁷⁶	45.6 ⁻⁸²	39.9 ⁻⁸⁷	33.7 ⁻⁹²	24.5 ⁻⁹⁵	15.0
Jan 8	8	69.4 ⁻⁶	69.0 ⁻¹⁷	67.7 ⁻²⁹	65.7 ⁻³⁹	63.0 ⁻⁵⁰	59.5 ⁻⁵⁹	55.4 ⁻⁶⁸	50.6 ⁻⁷⁵	45.3 ⁻⁸²	39.6 ⁻⁸⁷	33.5 ⁻⁹²	24.3 ⁻⁹⁴	14.9
Jan 9	9	69.0 ⁻⁶	68.6 ⁻¹⁷	67.4 ⁻²⁸	65.4 ⁻³⁹	62.7 ⁻⁴⁹	59.2 ⁻⁵⁹	55.1 ⁻⁶⁷	50.4 ⁻⁷⁵	45.1 ⁻⁸¹	39.4 ⁻⁸⁷	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Jan 10	10	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 ⁻⁸⁷	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Jan 11	11	69.0 ⁻⁶	68.6 ⁻¹⁷	67.3 ⁻²⁸	65.4 ⁻³⁹	62.6 ⁻⁴⁹	59.2 ⁻⁵⁹	55.0 ⁻⁶⁸	50.3 ⁻⁷⁵	45.1 ⁻⁸²	39.4 ⁻⁸⁷	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Jan 12	12	69.2 ⁻⁶	68.8 ⁻¹⁷	67.6 ⁻²⁹	65.6 ⁻³⁹	62.9 ⁻⁵⁰	59.4 ⁻⁵⁹	55.3 ⁻⁶⁸	50.5 ⁻⁷⁶	45.2 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹²	24.3 ⁻⁹⁵	14.8
Jan 13	13	69.7 ⁻⁶	69.3 ⁻¹⁸	68.1 ⁻²⁹	66.1 ⁻⁴⁰	63.3 ⁻⁵⁰	59.8 ⁻⁶⁰	55.7 ⁻⁶⁹	50.9 ⁻⁷⁶	45.6 ⁻⁸³	39.8 ⁻⁸⁸	33.7 ⁻⁹³	24.4 ⁻⁹⁶	14.9
Jan 14	14	70.4 ⁻⁶	70.0 ⁻¹⁸	68.8 ⁻²⁹	66.8 ⁻⁴⁰	64.0 ⁻⁵¹	60.4 ⁻⁶⁰	56.2 ⁻⁶⁹	51.4 ⁻⁷⁷	46.0 ⁻⁸⁴	40.2 ⁻⁸⁹	34.0 ⁻⁹⁴	24.7 ⁻⁹⁷	15.1
Jan 15	15	71.3 ⁻⁶	70.9 ⁻¹⁸	69.7 ⁻³⁰	67.6 ⁻⁴¹	64.8 ⁻⁵¹	61.2 ⁻⁶¹	56.9 ⁻⁷⁰	52.1 ⁻⁷⁸	46.6 ⁻⁸⁵	40.7 ⁻⁹⁰	34.4 ⁻⁹⁵	25.0 ⁻⁹⁸	15.3
Jan 16	16	72.4 ⁻⁶	71.9 ⁻¹⁸	70.7 ⁻³⁰	68.6 ⁻⁴¹	65.7 ⁻⁵²	62.1 ⁻⁶²	57.8 ⁻⁷¹	52.8 ⁻⁷⁹	47.3 ⁻⁸⁶	41.3 ⁻⁹²	34.9 ⁻⁹⁶	25.4 ⁻⁹⁹	15.5
Jan 17	17	73.5 ⁻⁶	73.0 ⁻¹⁸	71.8 ⁻³¹	69.6 ⁻⁴²	66.7 ⁻⁵³	63.0 ⁻⁶³	58.6 ⁻⁷²	53.6 ⁻⁸⁰	48.0 ⁻⁸⁷	41.9 ⁻⁹³	35.5 ⁻⁹⁸	25.8 ⁻¹⁰¹	15.7
Jan 18	18	74.5 ⁻⁶	74.1 ⁻¹⁹	72.8 ⁻³¹	70.7 ⁻⁴³	67.7 ⁻⁵⁴	64.0 ⁻⁶⁴	59.5 ⁻⁷³	54.4 ⁻⁸²	48.7 ⁻⁸⁹	42.6 ⁻⁹⁴	36.0 ⁻⁹⁹	26.1 ⁻¹⁰²	16.0
Jan 19	19	75.5 ⁻⁶	75.1 ⁻¹⁹	73.8 ⁻³¹	71.6 ⁻⁴³	68.6 ⁻⁵⁴	64.8 ⁻⁶⁵	60.3 ⁻⁷⁴	55.1 ⁻⁸³	49.4 ⁻⁹⁰	43.1 ⁻⁹⁵	36.5 ⁻¹⁰⁰	26.5 ⁻¹⁰⁴	16.2
Jan 20	20	76.3 ⁻⁶	75.8 ⁻¹⁹	74.5 ⁻³²	72.3 ⁻⁴³	69.3 ⁻⁵⁵	65.4 ⁻⁶⁵	60.9 ⁻⁷⁵	55.7 ⁻⁸³	49.9 ⁻⁹⁰	43.5 ⁻⁹⁶	36.8 ⁻¹⁰¹	26.7 ⁻¹⁰⁴	16.3
Jan 21	21	76.8 ⁻⁶	76.3 ⁻¹⁹	75.0 ⁻³²	72.7 ⁻⁴⁴	69.7 ⁻⁵⁵	65.8 ⁻⁶⁶	61.3 ⁻⁷⁵	56.0 ⁻⁸⁴	50.2 ⁻⁹¹	43.8 ⁻⁹⁷	37.1 ⁻¹⁰²	26.9 ⁻¹⁰⁵	16.4
Jan 22	22	76.9 ⁻⁶	76.5 ⁻¹⁹	75.1 ⁻³²	72.9 ⁻⁴⁴	69.8 ⁻⁵⁵	66.0 ⁻⁶⁶	61.4 ⁻⁷⁵	56.1 ⁻⁸⁴	50.3 ⁻⁹¹	43.9 ⁻⁹⁷	37.1 ⁻¹⁰²	27.0 ⁻¹⁰⁵	16.5
Jan 23	23	76.8 ⁻⁶	76.3 ⁻¹⁹	75.0 ⁻³²	72.8 ⁻⁴⁴	69.7 ⁻⁵⁵	65.9 ⁻⁶⁵	61.3 ⁻⁷⁵	56.0 ⁻⁸³	50.2 ⁻⁹⁰	43.8 ⁻⁹⁶	37.1 ⁻¹⁰¹	26.9 ⁻¹⁰⁴	16.4
Jan 24	24	76.4 ⁻⁶	75.9 ⁻¹⁹	74.6 ⁻³¹	72.4 ⁻⁴³	69.3 ⁻⁵⁴	65.5 ⁻⁶⁵	60.9 ⁻⁷⁴	55.7 ⁻⁸³	49.9 ⁻⁹⁰	43.6 ⁻⁹⁶	36.9 ⁻¹⁰¹	26.8 ⁻¹⁰⁴	16.4
Jan 25	25	75.8 ⁻⁶	75.3 ⁻¹⁹	74.0 ⁻³¹	71.8 ⁻⁴³	68.8 ⁻⁵⁴	65.0 ⁻⁶⁴	60.5 ⁻⁷⁴	55.3 ⁻⁸²	49.5 ⁻⁸⁹	43.3 ⁻⁹⁵	36.6 ⁻¹⁰⁰	26.6 ⁻¹⁰³	16.2
Jan 26	26	75.0 ⁻⁶	74.6 ⁻¹⁹	73.3 ⁻³¹	71.1 ⁻⁴²	68.1 ⁻⁵³	64.4 ⁻⁶⁴	59.9 ⁻⁷³	54.8 ⁻⁸¹	49.0 ⁻⁸⁸	42.8 ⁻⁹⁴	36.2 ⁻⁹⁹	26.3 ⁻¹⁰²	16.1
Jan 27	27	74.3 ⁻⁶	73.8 ⁻¹⁸	72.5 ⁻³⁰	70.4 ⁻⁴²	67.4 ⁻⁵³	63.7 ⁻⁶³	59.3 ⁻⁷²	54.2 ⁻⁸⁰	48.5 ⁻⁸⁷	42.4 ⁻⁹³	35.9 ⁻⁹⁸	26.0 ⁻¹⁰¹	15.9
Jan 28	28	73.5 ⁻⁶	73.1 ⁻¹⁸	71.8 ⁻³⁰	69.7 ⁻⁴²	66.7 ⁻⁵²	63.1 ⁻⁶²	58.7 ⁻⁷¹	53.6 ⁻⁸⁰	48.0 ⁻⁸⁶	42.0 ⁻⁹²	35.5 ⁻⁹⁷	25.8 ⁻¹⁰⁰	15.7
Jan 29	29	72.8 ⁻⁶	72.3 ⁻¹⁸	71.1 ⁻³⁰	69.0 ⁻⁴¹	66.1 ⁻⁵²	62.4 ⁻⁶²	58.1 ⁻⁷¹	53.1 ⁻⁷⁹	47.6 ⁻⁸⁶	41.5 ⁻⁹¹	35.1 ⁻⁹⁶	25.5 ⁻⁹⁹	15.6
Jan 30	30	72.1 ⁻⁶	71.6 ⁻¹⁸	70.4 ⁻³⁰	68.3 ⁻⁴¹	65.4 ⁻⁵¹	61.8 ⁻⁶¹	57.5 ⁻⁷⁰	52.6 ⁻⁷⁸	47.1 ⁻⁸⁵	41.1 ⁻⁹⁰	34.8 ⁻⁹⁵	25.3 ⁻⁹⁸	15.4
Jan 31	31	71.4 ⁻⁶	71.0 ⁻¹⁸	69.7 ⁻²⁹	67.7 ⁻⁴⁰	64.8 ⁻⁵¹	61.3 ⁻⁶¹	57.0 ⁻⁷⁰	52.1 ⁻⁷⁷	46.7 ⁻⁸⁴	40.8 ⁻⁸⁹	34.5 ⁻⁹⁴	25.0 ⁻⁹⁷	15.3
Feb 1	1	70.8 ⁻⁶	70.4 ⁻¹⁸	69.1 ⁻²⁹	67.1 ⁻⁴⁰	64.3 ⁻⁵¹	60.7 ⁻⁶⁰	56.5 ⁻⁶⁹	51.7 ⁻⁷⁷	46.3 ⁻⁸³	40.4 ⁻⁸⁹	34.2 ⁻⁹³	24.8 ⁻⁹⁶	15.2
Feb 2	2	70.3 ⁻⁶	69.8 ⁻¹⁷	68.6 ⁻²⁹	66.6 ⁻⁴⁰	63.8 ⁻⁵⁰	60.3 ⁻⁶⁰	56.1 ⁻⁶⁸	51.3 ⁻⁷⁶	45.9 ⁻⁸³	40.1 ⁻⁸⁸	33.9 ⁻⁹³	24.6 ⁻⁹⁶	15.0
Feb 3	3	69.8 ⁻⁶	69.4 ⁻¹⁷	68.1 ⁻²⁹	66.1 ⁻⁴⁰	63.3 ⁻⁵⁰	59.8 ⁻⁵⁹	55.7 ⁻⁶⁸	50.9 ⁻⁷⁶	45.6 ⁻⁸²	39.8 ⁻⁸⁷	33.7 ⁻⁹²	24.5 ⁻⁹⁵	14.9
Feb 4	4	69.3 ⁻⁶	68.9 ⁻¹⁷	67.7 ⁻²⁹	65.7 ⁻³⁹	63.0 ⁻⁵⁰	59.5 ⁻⁵⁹	55.3 ⁻⁶⁸	50.6 ⁻⁷⁵	45.3 ⁻⁸²	39.6 ⁻⁸⁷	33.5 ⁻⁹²	24.3 ⁻⁹⁴	14.8
Feb 5	5	69.0 ⁻⁶	68.6 ⁻¹⁷	67.4 ⁻²⁸	65.4 ⁻³⁹	62.7 ⁻⁴⁹	59.2 ⁻⁵⁹	55.1 ⁻⁶⁷	50.4 ⁻⁷⁵	45.1 ⁻⁸¹	39.4 ⁻⁸⁷	33.3 ⁻⁹¹	24.2 ⁻⁹⁴	14.8
Feb 6	6	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 ⁻⁸⁶	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Feb 7	7	68.7 ⁻⁶	68.3 ⁻¹⁷	67.1 ⁻²⁸	65.1 ⁻³⁹	62.4 ⁻⁴⁹	59.0 ⁻⁵⁹	54.9 ⁻⁶⁷	50.2 ⁻⁷⁵	44.9 ⁻⁸¹	39.2 ⁻⁸⁶	33.2 ⁻⁹¹	24.1 ⁻⁹⁴	14.7
Feb 8	8	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
Feb 9	9	69.1 ⁻⁶	68.7 ⁻¹⁷	67.5 ⁻²⁹	65.5 ⁻³⁹	62.7 ⁻⁵⁰	59.3 ⁻⁵⁹	55.2 ⁻⁶⁸	50.4 ⁻⁷⁵	45.2 ⁻⁸²	39.5 ⁻⁸⁷	33.4 ⁻⁹²	24.2 ⁻⁹⁵	14.8
Feb 10	10	69.6 ⁻⁶	69.2 ⁻¹⁷	68.0 ⁻²⁹	66.0 ⁻⁴⁰	63.2 ⁻⁵⁰	59.7 ⁻⁶⁰	55.5 ⁻⁶⁸	50.8 ⁻⁷⁶	45.5 ⁻⁸³	39.7 ⁻⁸⁸	33.6 ⁻⁹³	24.4 ⁻⁹⁵	14.9
Feb 11	11	70.3 ⁻⁶	69.9 ⁻¹⁸	68.6 ⁻²⁹	66.6 ⁻⁴⁰	63.8 ⁻⁵¹	60.3 ⁻⁶⁰	56.1 ⁻⁶⁹	51.3 ⁻⁷⁷	45.9 ⁻⁸⁴	40.1 ⁻⁸⁹	33.9 ⁻⁹⁴	24.6 ⁻⁹⁷	15.0
Feb 12	12	71.2 ⁻⁶	70.8 ⁻¹⁸	69.5 ⁻³⁰	67.5 ⁻⁴¹	64.6 ⁻⁵¹	61.1 ⁻⁶¹	56.8 ⁻⁷⁰	51.9 ⁻⁷⁸	46.5 ⁻⁸⁵	40.6 ⁻⁹⁰	34.4 ⁻⁹⁵	25.0 ⁻⁹⁸	15.2
Feb 13	13	72.2 ⁻⁶	71.8 ⁻¹⁸	70.6 ⁻³⁰	68.5 ⁻⁴¹	65.6 ⁻⁵²	62.0 ⁻⁶²	57.7 ⁻⁷¹	52.7 ⁻⁷⁹	47.2 ⁻⁸⁶	41.2 ⁻⁹²	34.9 ⁻⁹⁶	25.3 ⁻⁹⁹	15.5
Feb 14	14	73.4 ⁻⁶	73.0 ⁻¹⁸	71.7 ⁻³¹	69.6 ⁻⁴²	66.7 ⁻⁵³	63.0 ⁻⁶³	58.6 ⁻⁷²	53.6 ⁻⁸¹	48.0 ⁻⁸⁷	41.9 ⁻⁹³	35.5 ⁻⁹⁸	25.7 ⁻¹⁰¹	15.7
Feb 15	15	74.7 ⁻⁶	74.2 ⁻¹⁹	72.9 ⁻³¹	70.8 ⁻⁴³	67.8 ⁻⁵⁴	64.0 ⁻⁶⁴	59.6 ⁻⁷⁴	54.5 ⁻⁸²	48.8 ⁻⁸⁹	42.6 ⁻⁹⁵	36.1 ⁻¹⁰⁰	26.2 ⁻¹⁰³	16.0

2011

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
Jan 1	42.1 ⁻⁶	-5	41.6 ⁻¹⁸	-5	40.3 ⁻³⁰	-5	38.2 ⁻⁴²	-4	35.3 ⁻⁵²	-4	31.6 ⁻⁶³	-4	27.2 ⁻⁷²	-4	22.2 ⁻⁸⁰	-3	16.6 ⁻⁸⁷	-3	10.5 ⁻⁹²	-3	4.0 ⁻⁹⁷	-2	-5.7 ⁻¹⁰⁰	-1	-15.8																				
Jan 2	41.7 ⁻⁶	-5	41.3 ⁻¹⁸	-5	40.0 ⁻³⁰	-5	37.9 ⁻⁴¹	-5	35.0 ⁻⁵²	-5	31.4 ⁻⁶²	-4	27.0 ⁻⁷¹	-4	22.0 ⁻⁷⁹	-4	16.4 ⁻⁸⁶	-3	10.4 ⁻⁹¹	-3	4.0 ⁻⁹⁶	-2	-5.7 ⁻⁹⁹	-1	-15.6																				
Jan 3	41.4 ⁻⁶	-5	40.9 ⁻¹⁸	-5	39.7 ⁻³⁰	-5	37.6 ⁻⁴¹	-5	34.7 ⁻⁵²	-5	31.1 ⁻⁶¹	-5	26.8 ⁻⁷⁰	-4	21.8 ⁻⁷⁸	-4	16.3 ⁻⁸⁵	-3	10.3 ⁻⁹¹	-3	4.0 ⁻⁹⁵	-2	-5.6 ⁻⁹⁸	-2	-15.5																				
Jan 4	41.0 ⁻⁶	-5	40.6 ⁻¹⁸	-5	39.3 ⁻²⁹	-5	37.3 ⁻⁴¹	-5	34.4 ⁻⁵¹	-5	30.8 ⁻⁶¹	-5	26.5 ⁻⁷⁰	-4	21.6 ⁻⁷⁸	-4	16.2 ⁻⁸⁴	-3	10.2 ⁻⁹⁰	-3	3.9 ⁻⁹⁴	-2	-5.6 ⁻⁹⁷	-2	-15.4																				
Jan 5	40.6 ⁻⁶	-5	40.2 ⁻¹⁸	-5	39.0 ⁻²⁹	-5	36.9 ⁻⁴⁰	-5	34.1 ⁻⁵¹	-5	30.5 ⁻⁶⁰	-4	26.3 ⁻⁶⁹	-4	21.4 ⁻⁷⁷	-4	16.0 ⁻⁸⁴	-3	10.1 ⁻⁸⁹	-3	3.9 ⁻⁹⁴	-2	-5.5 ⁻⁹⁷	-1	-15.2																				
Jan 6	40.3 ⁻⁶	-5	39.8 ⁻¹⁸	-5	38.6 ⁻²⁹	-5	36.6 ⁻⁴⁰	-4	33.8 ⁻⁵⁰	-4	30.2 ⁻⁶⁰	-4	26.0 ⁻⁶⁹	-4	21.2 ⁻⁷⁶	-3	15.9 ⁻⁸³	-3	10.0 ⁻⁸⁸	-3	3.8 ⁻⁹³	-2	-5.5 ⁻⁹⁶	-1	-15.1																				
Jan 7	39.9 ⁻⁶	-4	39.5 ⁻¹⁷	-4	38.3 ⁻²⁹	-4	36.3 ⁻⁴⁰	-4	33.5 ⁻⁵⁰	-3	30.0 ⁻⁵⁹	-3	25.8 ⁻⁶⁸	-3	21.0 ⁻⁷⁶	-3	15.7 ⁻⁸²	-2	10.0 ⁻⁸⁷	-2	3.8 ⁻⁹²	-2	-5.4 ⁻⁹⁵	-1	-15.0																				
Jan 8	39.7 ⁻⁶	-3	39.3 ⁻¹⁷	-3	38.0 ⁻²⁹	-3	36.0 ⁻³⁹	-3	33.3 ⁻⁵⁰	-2	29.8 ⁻⁵⁹	-2	25.7 ⁻⁶⁸	-2	20.9 ⁻⁷⁵	-2	15.6 ⁻⁸²	-2	9.9 ⁻⁸⁷	-1	3.8 ⁻⁹²	-1	-5.4 ⁻⁹⁴	-1	-14.9																				
Jan 9	39.5 ⁻⁶	-1	39.1 ⁻¹⁷	-1	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 10	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 ⁻⁸¹	0	9.8 ⁻⁸⁷	0	3.8 ⁻⁹¹	0	-5.4 ⁻⁹⁴	0	-14.8																				
Jan 11	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																				
Jan 12	39.6 ⁻⁶	4	39.2 ⁻¹⁷	4	38.0 ⁻²⁹	4	36.0 ⁻³⁹	4	33.2 ⁻⁵⁰	4	29.7 ⁻⁵⁹	3	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																				
Jan 13	39.9 ⁻⁶	6	39.5 ⁻¹⁸	6	38.2 ⁻²⁹	6	36.2 ⁻⁴⁰	5	33.4 ⁻⁵⁰	5	30.0 ⁻⁶⁰	5	25.8 ⁻⁶⁹	5	21.0 ⁻⁷⁶	4	15.7 ⁻⁸³	4	9.9 ⁻⁸⁸	3	3.8 ⁻⁹³	2	-5.4 ⁻⁹⁶	2	-14.9																				
Jan 14	40.3 ⁻⁶	7	39.9 ⁻¹⁸	7	38.6 ⁻²⁹	7	36.6 ⁻⁴⁰	7	33.8 ⁻⁵¹	7	30.3 ⁻⁶⁰	6	26.1 ⁻⁶⁹	6	21.2 ⁻⁷⁷	5	15.9 ⁻⁸⁴	5	10.0 ⁻⁸⁹	4	3.8 ⁻⁹⁴	3	-5.5 ⁻⁹⁷	2	-15.1																				
Jan 15	40.8 ⁻⁶	9	40.4 ⁻¹⁸	8	39.1 ⁻³⁰	8	37.1 ⁻⁴¹	8	34.2 ⁻⁵¹	8	30.6 ⁻⁶¹	7	26.4 ⁻⁷⁰	7	21.5 ⁻⁷⁸	6	16.1 ⁻⁸⁵	5	10.2 ⁻⁹⁰	5	3.9 ⁻⁹⁵	4	-5.5 ⁻⁹⁸	2	-15.3																				
Jan 16	41.4 ⁻⁶	9	40.9 ⁻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	6	16.3 ⁻⁸⁶	6	10.3 ⁻⁹²	5	4.0 ⁻⁹⁶	4	-5.6 ⁻⁹⁹	3	-15.5																				
Jan 17	42.0 ⁻⁶	9	41.6 ⁻¹⁸	9	40.3 ⁻³¹	9	38.2 ⁻⁴²	8	35.2 ⁻⁵³	8	31.6 ⁻⁶³	7	27.2 ⁻⁷²	7	22.1 ⁻⁸⁰	6	16.6 ⁻⁸⁷	6	10.5 ⁻⁹³	5	4.0 ⁻⁹⁸	4	-5.7 ⁻¹⁰¹	3	-15.7																				
Jan 18	42.6 ⁻⁶	8	42.2 ⁻¹⁹	8	40.9 ⁻³¹	8	38.7 ⁻⁴³	7	35.8 ⁻⁵⁴	7	32.0 ⁻⁶⁴	7	27.6 ⁻⁷³	6	22.5 ⁻⁸²	6	16.8 ⁻⁸⁹	5	10.6 ⁻⁹⁴	4	4.1 ⁻⁹⁹	3	-5.8 ⁻¹⁰²	2	-16.0																				
Jan 19	43.2 ⁻⁶	6	42.7 ⁻¹⁹	6	41.4 ⁻³¹	6	39.2 ⁻⁴³	6	36.2 ⁻⁵⁴	6	32.4 ⁻⁶⁵	5	27.9 ⁻⁷⁴	5	22.8 ⁻⁸³	4	17.0 ⁻⁹⁰	4	10.8 ⁻⁹⁵	3	4.1 ⁻¹⁰⁰	3	-5.9 ⁻¹⁰⁴	2	-16.2																				
Jan 20	43.6 ⁻⁶	4	43.2 ⁻¹⁹	4	41.8 ⁻³²	4	39.6 ⁻⁴³	4	36.6 ⁻⁵⁵	4	32.8 ⁻⁶⁵	3	28.2 ⁻⁷⁵	3	23.0 ⁻⁸³	3	17.2 ⁻⁹⁰	2	10.9 ⁻⁹⁶	2	4.2 ⁻¹⁰¹	2	-5.9 ⁻¹⁰⁴	1	-16.3																				
Jan 21	43.9 ⁻⁶	1	43.4 ⁻¹⁹	1	42.1 ⁻³²	1	39.9 ⁻⁴⁴	1	36.8 ⁻⁵⁵	1	33.0 ⁻⁶⁶	1	28.4 ⁻⁷⁵	1	23.1 ⁻⁸⁴	1	17.3 ⁻⁹¹	1	10.9 ⁻⁹⁷	1	4.2 ⁻¹⁰²	1	-6.0 ⁻¹⁰⁵	0	-16.4																				
Jan 22	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	-1	4.2 ⁻¹⁰²	-1	-6.0 ⁻¹⁰⁵	0	-16.5																				
Jan 23	43.9 ⁻⁶	-3	43.4 ⁻¹⁹	-3	42.1 ⁻³²	-3	39.9 ⁻⁴⁴	-3	36.8 ⁻⁵⁵	-3	33.0 ⁻⁶⁵	-3	28.4 ⁻⁷⁵	-3	23.1 ⁻⁸³	-2	17.3 ⁻⁹⁰	-2	10.9 ⁻⁹⁶	-2	4.2 ⁻¹⁰¹	-1	-6.0 ⁻¹⁰⁴	-1	-16.4																				
Jan 24	43.7 ⁻⁶	-5	43.2 ⁻¹⁹	-5	41.9 ⁻³¹	-5	39.7 ⁻⁴³	-5	36.6 ⁻⁵⁴	-4	32.8 ⁻⁶⁵	-4	28.2 ⁻⁷⁴	-4	23.0 ⁻⁸³	-3	17.2 ⁻⁹⁰	-3	10.9 ⁻⁹⁶	-3	4.2 ⁻¹⁰¹	-2	-5.9 ⁻¹⁰⁴	-1	-16.4																				
Jan 25	43.3 ⁻⁶	-6	42.9 ⁻¹⁹	-6	41.5 ⁻³¹	-6	39.4 ⁻⁴³	-6	36.3 ⁻⁵⁴	-5	32.5 ⁻⁶⁴	-5	28.0 ⁻⁷⁴	-5	22.8 ⁻⁸²	-4	17.1 ⁻⁸⁹	-4	10.8 ⁻⁹⁵	-3	4.1 ⁻¹⁰⁰	-2	-5.9 ⁻¹⁰³	-2	-16.2																				
Jan 26	42.9 ⁻⁶	-6	42.5 ⁻¹⁹	-6	41.2 ⁻³¹	-6	39.0 ⁻⁴²	-6	36.0 ⁻⁵³	-6	32.2 ⁻⁶⁴	-5	27.8 ⁻⁷³	-5	22.6 ⁻⁸¹	-4	16.9 ⁻⁸⁸	-4	10.7 ⁻⁹⁴	-3	4.1 ⁻⁹⁹	-3	-5.8 ⁻¹⁰²	-2	-16.1																				
Jan 27	42.5 ⁻⁶	-6	42.0 ⁻¹⁸	-6	40.7 ⁻³⁰	-6	38.6 ⁻⁴²	-6	35.6 ⁻⁵³	-6	31.9 ⁻⁶³	-5	27.5 ⁻⁷²	-5	22.4 ⁻⁸⁰	-4	16.7 ⁻⁸⁷	-4	10.6 ⁻⁹³	-3	4.1 ⁻⁹⁸	-3	-5.8 ⁻¹⁰¹	-2	-15.9																				
Jan 28	42.0 ⁻⁶	-6	41.6 ⁻¹⁸	-6	40.3 ⁻³⁰	-6	38.2 ⁻⁴²	-6	35.3 ⁻⁵²	-5	31.6 ⁻⁶²	-5	27.2 ⁻⁷¹	-5	22.2 ⁻⁸⁰	-4	16.6 ⁻⁸⁶	-4	10.5 ⁻⁹²	-3	4.0 ⁻⁹⁷	-3	-5.7 ⁻¹⁰⁰	-2	-15.7																				
Jan 29	41.6 ⁻⁶	-6	41.2 ⁻¹⁸	-6	39.9 ⁻³⁰	-6	37.8 ⁻⁴¹	-5	34.9 ⁻⁵²	-5	31.3 ⁻⁶²	-5	26.9 ⁻⁷¹	-4	21.9 ⁻⁷⁹	-4	16.4 ⁻⁸⁶	-4	10.4 ⁻⁹¹	-3	4.0 ⁻⁹⁶	-2	-5.7 ⁻⁹⁹	-2	-15.6																				
Jan 30	41.2 ⁻⁶	-5	40.8 ⁻¹⁸	-5	39.5 ⁻³⁰	-5	37.4 ⁻⁴¹	-5	34.6 ⁻⁵¹	-5	31.0 ⁻⁶¹	-5	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																				
Jan 31	40.8 ⁻⁶	-5	40.4 ⁻¹⁸	-5	39.2 ⁻²⁹	-5	37.1 ⁻⁴⁰	-5	34.3 ⁻⁵¹	-4	30.7 ⁻⁶¹	-4	26.4 ⁻⁷⁰	-4	21.5 ⁻⁷⁷	-3	16.1 ⁻⁸⁴	-3	10.2 ⁻⁸⁹	-3	3.9 ⁻⁹⁴	-2	-5.5 ⁻⁹⁷	-1	-15.3																				
Feb 1	40.5 ⁻⁶	-5	40.1 ⁻¹⁸	-4	38.8 ⁻²⁹	-4	36.8 ⁻⁴⁰	-4	34.0 ⁻⁵¹	-4	30.4 ⁻⁶⁰	-4	26.2 ⁻⁶⁹	-3	21.3 ⁻⁷⁷	-3	16.0 ⁻⁸³	-3	10.1 ⁻⁸⁹	-2	3.9 ⁻⁹³	-2	-5.5 ⁻⁹⁶	-1	-15.2																				
Feb 2	40.2 ⁻⁶	-4	39.8 ⁻¹⁷	-4	38.5 ⁻²⁹	-4	36.5 ⁻⁴⁰	-4	33.7 ⁻⁵⁰	-4	30.2 ⁻⁶⁰	-3	26.0 ⁻⁶⁸	-3	21.2 ⁻⁷⁶	-3	15.8 ⁻⁸³	-2	10.0 ⁻⁸⁸	-2	3.8 ⁻⁹³	-2	-5.5 ⁻⁹⁶	-1	-15.0																				
Feb 3	39.9 ⁻⁶	-3	39.5 ⁻¹⁷	-3	38.3 ⁻²⁹	-3	36.2 ⁻⁴⁰	-3	33.5 ⁻⁵⁰	-3	30.0 ⁻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																				
Feb 4	39.6 ⁻⁶	-3	39.2 ⁻¹⁷	-3	38.0 ⁻²⁹	-3	36.0 ⁻³⁹	-3	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																				
Feb 5	39.5 ⁻⁶	-2	39.1 ⁻¹⁷	-2	37.8 ⁻²⁸	-2	35.9 ⁻³⁹	-2	33.1 ⁻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	-5.4 ⁻⁹⁴	-1	-14.8																				
Feb 6	39.3 ⁻⁶	-1	38.9 ⁻¹⁷	-1	37.7 ⁻²⁸	-1	35.7 ⁻³⁹	-1	33.0 ⁻⁴⁹	-1	29.6 ⁻⁵⁹	-1	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																				
Feb 7	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	0	9.8 ⁻⁸⁶	0	3.8 ⁻⁹¹	0	-5.3 ⁻⁹⁴	0	-14.7																				
Feb 8	39.3 ⁻⁶	2	38.9 ⁻¹⁷	2	37.7 ⁻²⁸	2	35.8 ⁻³⁹	2	33.0 ⁻⁴⁹	2	29.6 ⁻⁵⁹	2	25.5 ⁻⁶⁷	2	20.7 ⁻⁷⁵	2	15.5 ⁻⁸¹	1	9.8 ⁻⁸⁷	1	3.8 ⁻⁹¹	1	-5.3 ⁻⁹⁴	1	-14.7																				
Feb 9	39.5 ⁻⁶	4	39.1 ⁻¹⁷	4	37.9 ⁻²⁹	4	35.9 ⁻³⁹	4	33.1 ⁻⁴⁹	4	29.7 ⁻⁵⁹	3	25.6 ⁻⁶⁸	3	20.8 ⁻⁷⁵	3	15.6 ⁻⁸²	2	9.9 ⁻⁸⁷	2	3.8 ⁻⁹²	2	-5.4 ⁻⁹⁵	1	-14.8																				
Feb 10	39.8 ⁻⁶	6	39.4 ⁻¹⁷	6	38.2 ⁻²⁹	6	36.1 ⁻⁴⁰	5	33.4 ⁻⁵⁰	5	29.9 ⁻⁶⁰	5	25.7 ⁻⁶⁸	4	21.0 ⁻⁷⁶	4	15.7 ⁻⁸³	4	9.9 ⁻⁸⁸	3	3.8 ⁻⁹³	2	-5.4 ⁻⁹⁵	2	-14.9																				
Feb 11	40.2 ⁻⁶	7	39.8 ⁻¹⁸	7	38.5 ⁻²⁹	7	36.5 ⁻⁴⁰	7	33.7 ⁻⁵¹	7	30.2 ⁻⁶⁰	6	26.0 ⁻⁶⁹	6	21.2 ⁻⁷⁷																														

2011

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	75.8	⁻⁶ ₈	75.4	⁻¹⁹ ₈	74.1	⁻³¹ ₈	71.9	⁻⁴³ ₈	68.9	⁻⁵⁵ ₇	65.1	⁻⁶⁵ ₇	60.5	⁻⁷⁵ ₆	55.3	⁻⁸³ ₆	49.6	⁻⁹⁰ ₅	43.3	⁻⁹⁶ ₄	36.6	⁻¹⁰¹ ₃	26.6	⁻¹⁰⁴ ₂	16.2																				
Feb 17	76.8	⁻⁶ ₆	76.4	⁻¹⁹ ₆	75.0	⁻³² ₆	72.8	⁻⁴⁴ ₅	69.8	⁻⁵⁵ ₅	65.9	⁻⁶⁶ ₅	61.3	⁻⁷⁵ ₄	56.1	⁻⁸⁴ ₄	50.2	⁻⁹¹ ₄	43.9	⁻⁹⁷ ₃	37.1	⁻¹⁰² ₂	26.9	⁻¹⁰⁵ ₂	16.5																				
Feb 18	77.5	⁻⁷ ₃	77.1	⁻¹⁹ ₃	75.7	⁻³² ₃	73.5	⁻⁴⁴ ₃	70.4	⁻⁵⁶ ₂	66.5	⁻⁶⁶ ₂	61.9	⁻⁷⁶ ₂	56.6	⁻⁸⁵ ₂	50.7	⁻⁹² ₂	44.3	⁻⁹⁸ ₁	37.4	⁻¹⁰³ ₁	27.2	⁻¹⁰⁶ ₁	16.6																				
Feb 19	77.9	⁻⁷ ₋₁	77.4	⁻¹⁹ ₋₁	76.1	⁻³² ₋₁	73.8	⁻⁴⁴ ₋₁	70.7	⁻⁵⁶ ₋₁	66.8	⁻⁶⁶ ₋₁	62.1	⁻⁷⁶ ₀	56.8	⁻⁸⁵ ₀	50.9	⁻⁹² ₀	44.5	⁻⁹⁸ ₀	37.6	⁻¹⁰³ ₀	27.3	⁻¹⁰⁶ ₀	16.7																				
Feb 20	77.8	⁻⁶ ₋₄	77.3	⁻¹⁹ ₋₄	76.0	⁻³² ₋₄	73.7	⁻⁴⁴ ₋₄	70.6	⁻⁵⁶ ₋₃	66.7	⁻⁶⁶ ₋₃	62.1	⁻⁷⁶ ₋₃	56.8	⁻⁸⁴ ₋₃	50.8	⁻⁹² ₋₂	44.4	⁻⁹⁸ ₋₂	37.6	⁻¹⁰³ ₋₂	27.3	⁻¹⁰⁶ ₋₁	16.7																				
Feb 21	77.3	⁻⁶ ₋₆	76.9	⁻¹⁹ ₋₆	75.5	⁻³² ₋₆	73.3	⁻⁴⁴ ₋₆	70.2	⁻⁵⁵ ₋₆	66.3	⁻⁶⁶ ₋₅	61.7	⁻⁷⁵ ₋₅	56.4	⁻⁸⁴ ₋₄	50.5	⁻⁹¹ ₋₄	44.2	⁻⁹⁷ ₋₃	37.3	⁻¹⁰² ₋₃	27.1	⁻¹⁰⁵ ₋₂	16.6																				
Feb 22	76.6	⁻⁶ ₋₈	76.1	⁻¹⁹ ₋₈	74.8	⁻³¹ ₋₈	72.6	⁻⁴³ ₋₇	69.5	⁻⁵⁵ ₋₇	65.7	⁻⁶⁵ ₋₇	61.1	⁻⁷⁴ ₋₆	55.9	⁻⁸³ ₋₆	50.0	⁻⁹⁰ ₋₅	43.7	⁻⁹⁶ ₋₄	37.0	⁻¹⁰¹ ₋₃	26.8	⁻¹⁰⁴ ₋₂	16.4																				
Feb 23	75.6	⁻⁶ ₋₉	75.2	⁻¹⁹ ₋₉	73.9	⁻³¹ ₋₈	71.7	⁻⁴³ ₋₈	68.7	⁻⁵⁴ ₋₈	64.9	⁻⁶⁴ ₋₇	60.4	⁻⁷³ ₋₇	55.2	⁻⁸² ₋₆	49.4	⁻⁸⁹ ₋₅	43.2	⁻⁹⁴ ₋₅	36.5	⁻⁹⁹ ₋₄	26.5	⁻¹⁰² ₋₂	16.2																				
Feb 24	74.6	⁻⁶ ₋₉	74.1	⁻¹⁸ ₋₉	72.8	⁻³¹ ₋₉	70.7	⁻⁴² ₋₈	67.7	⁻⁵³ ₋₈	64.0	⁻⁶³ ₋₇	59.5	⁻⁷² ₋₇	54.4	⁻⁸¹ ₋₆	48.7	⁻⁸⁷ ₋₅	42.6	⁻⁹³ ₋₅	36.0	⁻⁹⁸ ₋₄	26.1	⁻¹⁰¹ ₋₂	16.0																				
Feb 25	73.5	⁻⁶ ₋₈	73.1	⁻¹⁸ ₋₈	71.8	⁻³⁰ ₋₈	69.7	⁻⁴² ₋₈	66.7	⁻⁵² ₋₇	63.1	⁻⁶² ₋₇	58.7	⁻⁷¹ ₋₆	53.6	⁻⁷⁹ ₋₆	48.0	⁻⁸⁶ ₋₅	42.0	⁻⁹² ₋₄	35.5	⁻⁹⁷ ₋₃	25.8	⁻¹⁰⁰ ₋₂	15.7																				
Feb 26	72.5	⁻⁶ ₋₇	72.1	⁻¹⁸ ₋₇	70.8	⁻³⁰ ₋₇	68.7	⁻⁴¹ ₋₇	65.8	⁻⁵² ₋₇	62.2	⁻⁶¹ ₋₆	57.9	⁻⁷⁰ ₋₆	52.9	⁻⁷⁸ ₋₅	47.4	⁻⁸⁵ ₋₅	41.4	⁻⁹¹ ₋₄	35.0	⁻⁹⁵ ₋₃	25.4	⁻⁹⁸ ₋₂	15.5																				
Feb 27	71.6	⁻⁶ ₋₆	71.2	⁻¹⁸ ₋₆	69.9	⁻²⁹ ₋₆	67.9	⁻⁴⁰ ₋₆	65.0	⁻⁵¹ ₋₆	61.4	⁻⁶¹ ₋₅	57.2	⁻⁷⁰ ₋₅	52.3	⁻⁷⁷ ₋₄	46.8	⁻⁸⁴ ₋₄	40.9	⁻⁹⁰ ₋₃	34.6	⁻⁹⁴ ₋₃	25.1	⁻⁹⁷ ₋₂	15.3																				
Feb 28	70.8	⁻⁶ ₋₅	70.4	⁻¹⁸ ₋₅	69.2	⁻²⁹ ₋₅	67.1	⁻⁴⁰ ₋₅	64.3	⁻⁵¹ ₋₅	60.8	⁻⁶⁰ ₋₄	56.5	⁻⁶⁹ ₋₄	51.7	⁻⁷⁷ ₋₄	46.3	⁻⁸³ ₋₃	40.4	⁻⁸⁹ ₋₃	34.2	⁻⁹³ ₋₂	24.8	⁻⁹⁶ ₋₂	15.2																				
Mar 1	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																				
Mar 2	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																				
Mar 3	69.2	⁻⁶ ₋₃	68.8	⁻¹⁷ ₋₃	67.6	⁻²⁸ ₋₂	65.6	⁻³⁹ ₋₂	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																				
Mar 4	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	39.4	⁻⁸⁷ ₋₁	33.3	⁻⁹¹ ₋₁	24.2	⁻⁹⁴ ₀	14.8																				
Mar 5	68.7	⁻⁶ ₋₁	68.3	⁻¹⁷ ₋₁	67.1	⁻²⁸ ₋₁	65.1	⁻³⁹ ₋₁	62.4	⁻⁴⁹ ₋₁	59.0	⁻⁵⁹ ₋₁	54.9	⁻⁶⁷ ₋₁	50.1	⁻⁷⁵ ₋₁	44.9	⁻⁸¹ ₀	39.2	⁻⁸⁶ ₀	33.2	⁻⁹¹ ₀	24.1	⁻⁹⁴ ₀	14.7																				
Mar 6	68.6	⁻⁶ ₀	68.2	⁻¹⁷ ₀	67.0	⁻²⁸ ₀	65.0	⁻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																				
Mar 7	68.7	⁻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 ₁	50.1	⁻⁷⁵ ₁	44.9	⁻⁸¹ ₁	39.2	⁻⁸⁶ ₁	33.2	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₀	14.7																				
Mar 8	68.8	⁻⁶ ₂	68.4	⁻¹⁷ ₂	67.2	⁻²⁸ ₂	65.2	⁻³⁹ ₂	62.5	⁻⁴⁹ ₂	59.0	⁻⁵⁹ ₂	54.9	⁻⁶⁷ ₂	50.2	⁻⁷⁵ ₂	45.0	⁻⁸¹ ₂	39.3	⁻⁸⁷ ₁	33.2	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₁	14.7																				
Mar 9	69.1	⁻⁶ ₄	68.7	⁻¹⁷ ₄	67.5	⁻²⁹ ₄	65.5	⁻³⁹ ₄	62.7	⁻⁵⁰ ₃	59.3	⁻⁵⁹ ₃	55.1	⁻⁶⁸ ₃	50.4	⁻⁷⁵ ₃	45.2	⁻⁸² ₂	39.4	⁻⁸⁷ ₂	33.4	⁻⁹² ₂	24.2	⁻⁹⁵ ₁	14.8																				
Mar 10	69.6	⁻⁶ ₅	69.1	⁻¹⁷ ₅	67.9	⁻²⁹ ₅	65.9	⁻⁴⁰ ₅	63.2	⁻⁵⁰ ₅	59.7	⁻⁶⁰ ₄	55.5	⁻⁶⁸ ₄	50.8	⁻⁷⁶ ₄	45.5	⁻⁸³ ₃	39.7	⁻⁸⁸ ₃	33.6	⁻⁹² ₂	24.4	⁻⁹⁵ ₁	14.9																				
Mar 11	70.2	⁻⁶ ₇	69.8	⁻¹⁸ ₇	68.5	⁻²⁹ ₇	66.5	⁻⁴⁰ ₆	63.7	⁻⁵¹ ₆	60.2	⁻⁶⁰ ₆	56.0	⁻⁶⁹ ₅	51.2	⁻⁷⁷ ₅	45.9	⁻⁸³ ₄	40.1	⁻⁸⁹ ₄	33.9	⁻⁹³ ₃	24.6	⁻⁹⁶ ₂	15.0																				
Mar 12	71.0	⁻⁶ ₈	70.6	⁻¹⁸ ₈	69.3	⁻²⁹ ₈	67.3	⁻⁴¹ ₈	64.5	⁻⁵¹ ₇	60.9	⁻⁶¹ ₇	56.7	⁻⁷⁰ ₆	51.8	⁻⁷⁸ ₆	46.4	⁻⁸⁴ ₅	40.5	⁻⁹⁰ ₄	34.3	⁻⁹⁵ ₃	24.9	⁻⁹⁸ ₂	15.2																				
Mar 13	72.0	⁻⁶ ₉	71.6	⁻¹⁸ ₉	70.3	⁻³⁰ ₉	68.2	⁻⁴¹ ₉	65.4	⁻⁵² ₈	61.8	⁻⁶² ₈	57.5	⁻⁷¹ ₇	52.5	⁻⁷⁹ ₆	47.0	⁻⁸⁶ ₆	41.1	⁻⁹¹ ₅	34.8	⁻⁹⁶ ₄	25.2	⁻⁹⁹ ₃	15.4																				
Mar 14	73.1	⁻⁶ ₁₀	72.7	⁻¹⁸ ₁₀	71.4	⁻³⁰ ₁₀	69.3	⁻⁴² ₉	66.4	⁻⁵³ ₉	62.7	⁻⁶³ ₈	58.4	⁻⁷² ₈	53.3	⁻⁸⁰ ₇	47.8	⁻⁸⁷ ₆	41.7	⁻⁹³ ₅	35.3	⁻⁹⁸ ₄	25.6	⁻¹⁰¹ ₃	15.7																				
Mar 15	74.3	⁻⁶ ₁₀	73.9	⁻¹⁹ ₁₀	72.6	⁻³¹ ₁₀	70.4	⁻⁴³ ₉	67.5	⁻⁵⁴ ₉	63.8	⁻⁶⁴ ₈	59.3	⁻⁷³ ₈	54.2	⁻⁸¹ ₇	48.6	⁻⁸⁹ ₆	42.4	⁻⁹⁴ ₅	35.9	⁻⁹⁹ ₄	26.1	⁻¹⁰² ₃	15.9																				
Mar 16	75.5	⁻⁶ ₉	75.1	⁻¹⁹ ₉	73.8	⁻³¹ ₉	71.6	⁻⁴³ ₉	68.6	⁻⁵⁵ ₈	64.8	⁻⁶⁵ ₈	60.3	⁻⁷⁴ ₇	55.1	⁻⁸³ ₆	49.4	⁻⁹⁰ ₆	43.1	⁻⁹⁶ ₅	36.5	⁻¹⁰¹ ₄	26.5	⁻¹⁰⁴ ₃	16.2																				
Mar 17	76.7	⁻⁶ ₇	76.2	⁻¹⁹ ₇	74.9	⁻³² ₇	72.7	⁻⁴⁴ ₇	69.6	⁻⁵⁵ ₇	65.8	⁻⁶⁶ ₆	61.2	⁻⁷⁵ ₆	55.9	⁻⁸⁴ ₅	50.1	⁻⁹¹ ₅	43.8	⁻⁹⁷ ₄	37.0	⁻¹⁰² ₃	26.9	⁻¹⁰⁵ ₂	16.4																				
Mar 18	77.6	⁻⁷ ₅	77.1	⁻¹⁹ ₅	75.7	⁻³² ₄	73.5	⁻⁴⁴ ₄	70.4	⁻⁵⁶ ₄	66.5	⁻⁶⁶ ₄	61.9	⁻⁷⁶ ₄	56.6	⁻⁸⁵ ₃	50.7	⁻⁹² ₃	44.3	⁻⁹⁸ ₂	37.5	⁻¹⁰³ ₂	27.2	⁻¹⁰⁶ ₁	16.6																				
Mar 19	78.1	⁻⁷ ₁	77.7	⁻²⁰ ₁	76.3	⁻³² ₁	74.0	⁻⁴⁴ ₁	70.9	⁻⁵⁶ ₁	67.0	⁻⁶⁷ ₁	62.3	⁻⁷⁶ ₁	57.0	⁻⁸⁵ ₁	51.1	⁻⁹² ₁	44.6	⁻⁹⁸ ₁	37.7	⁻¹⁰³ ₀	27.4	⁻¹⁰⁷ ₀	16.7																				
Mar 20	78.2	⁻⁷ ₋₃	77.8	⁻²⁰ ₋₃	76.4	⁻³² ₋₂	74.2	⁻⁴⁴ ₋₂	71.0	⁻⁵⁶ ₋₂	67.1	⁻⁶⁷ ₋₂	62.4	⁻⁷⁶ ₋₂	57.1	⁻⁸⁵ ₋₂	51.1	⁻⁹² ₋₂	44.7	⁻⁹⁸ ₋₁	37.8	⁻¹⁰³ ₋₁	27.4	⁻¹⁰⁷ ₋₁	16.8																				
Mar 21	77.9	⁻⁶ ₋₆	77.5	⁻¹⁹ ₋₆	76.1	⁻³² ₋₆	73.9	⁻⁴⁴ ₋₅	70.8	⁻⁵⁶ ₋₅	66.9	⁻⁶⁶ ₋₅	62.2	⁻⁷⁶ ₋₄	56.9	⁻⁸⁴ ₋₄	50.9	⁻⁹² ₋₄	44.5	⁻⁹⁸ ₋₃	37.6	⁻¹⁰³ ₋₂	27.3	⁻¹⁰⁶ ₋₂	16.7																				
Mar 22	77.2	⁻⁶ ₋₈	76.8	⁻¹⁹ ₋₈	75.4	⁻³² ₋₈	73.2	⁻⁴⁴ ₋₈	70.1	⁻⁵⁵ ₋₇	66.3	⁻⁶⁵ ₋₇	61.7	⁻⁷⁵ ₋₆	56.4	⁻⁸³ ₋₆	50.5	⁻⁹¹ ₋₅	44.1	⁻⁹⁶ ₋₄	37.3	⁻¹⁰² ₋₃	27.1	⁻¹⁰⁵ ₋₂	16.5																				
Mar 23	76.3	⁻⁶ ₋₁₀	75.8	⁻¹⁹ ₋₁₀	74.5	⁻³¹ ₋₉																																							

2011

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
Feb 16	43.4	⁻⁶	₈	42.9	⁻¹⁹	₈	41.6	⁻³¹	₈	39.4	⁻⁴³	₈	36.4	⁻⁵⁵	₇	32.6	⁻⁶⁵	₇	28.0	⁻⁷⁵	₆	22.9	⁻⁸³	₆	17.1	⁻⁹⁰	₅	10.8	⁻⁹⁶	₄	4.1	⁻¹⁰¹	₃	-5.9	⁻¹⁰⁴	₂	-16.2								
Feb 17	43.9	⁻⁶	₆	43.5	⁻¹⁹	₆	42.1	⁻³²	₆	39.9	⁻⁴⁴	₅	36.9	⁻⁵⁵	₅	33.0	⁻⁶⁶	₅	28.4	⁻⁷⁵	₄	23.2	⁻⁸⁴	₄	17.3	⁻⁹¹	₄	11.0	⁻⁹⁷	₃	4.2	⁻¹⁰²	₂	-6.0	⁻¹⁰⁵	₂	-16.5								
Feb 18	44.3	⁻⁷	₃	43.9	⁻¹⁹	₃	42.5	⁻³²	₃	40.3	⁻⁴⁴	₃	37.2	⁻⁵⁶	₂	33.3	⁻⁶⁶	₂	28.7	⁻⁷⁶	₂	23.4	⁻⁸⁵	₂	17.5	⁻⁹²	₂	11.1	⁻⁹⁸	₁	4.2	⁻¹⁰³	₁	-6.0	⁻¹⁰⁶	₁	-16.6								
Feb 19	44.5	⁻⁷	₁	44.1	⁻¹⁹	₁	42.7	⁻³²	₁	40.5	⁻⁴⁴	₁	37.4	⁻⁵⁶	₁	33.4	⁻⁶⁶	₁	28.8	⁻⁷⁶	₀	23.5	⁻⁸⁵	₀	17.5	⁻⁹²	₀	11.1	⁻⁹⁸	₀	4.3	⁻¹⁰³	₀	-6.0	⁻¹⁰⁶	₀	-16.7								
Feb 20	44.5	⁻⁶	₄	44.0	⁻¹⁹	₄	42.7	⁻³²	₄	40.4	⁻⁴⁴	₄	37.3	⁻⁵⁶	₃	33.4	⁻⁶⁶	₃	28.8	⁻⁷⁶	₃	23.4	⁻⁸⁴	₃	17.5	⁻⁹²	₂	11.1	⁻⁹⁸	₂	4.2	⁻¹⁰³	₂	-6.0	⁻¹⁰⁶	₁	-16.7								
Feb 21	44.2	⁻⁶	₆	43.8	⁻¹⁹	₆	42.4	⁻³²	₆	40.2	⁻⁴⁴	₆	37.1	⁻⁵⁵	₆	33.2	⁻⁶⁶	₅	28.6	⁻⁷⁵	₅	23.3	⁻⁸⁴	₄	17.4	⁻⁹¹	₄	11.0	⁻⁹⁷	₃	4.2	⁻¹⁰²	₃	-6.0	⁻¹⁰⁵	₂	-16.6								
Feb 22	43.8	⁻⁶	₈	43.3	⁻¹⁹	₈	42.0	⁻³¹	₈	39.8	⁻⁴³	₇	36.7	⁻⁵⁵	₇	32.9	⁻⁶⁵	₇	28.3	⁻⁷⁴	₆	23.1	⁻⁸³	₆	17.3	⁻⁹⁰	₅	10.9	⁻⁹⁶	₄	4.2	⁻¹⁰¹	₃	-5.9	⁻¹⁰⁴	₂	-16.4								
Feb 23	43.2	⁻⁶	₉	42.8	⁻¹⁹	₉	41.5	⁻³¹	₈	39.3	⁻⁴³	₈	36.3	⁻⁵⁴	₈	32.5	⁻⁶⁴	₇	28.0	⁻⁷³	₇	22.8	⁻⁸²	₆	17.0	⁻⁸⁹	₅	10.8	⁻⁹⁴	₅	4.1	⁻⁹⁹	₄	-5.9	⁻¹⁰²	₂	-16.2								
Feb 24	42.6	⁻⁶	₉	42.2	⁻¹⁸	₉	40.9	⁻³¹	₉	38.7	⁻⁴²	₈	35.8	⁻⁵³	₈	32.0	⁻⁶³	₇	27.6	⁻⁷²	₇	22.5	⁻⁸¹	₆	16.8	⁻⁸⁷	₅	10.6	⁻⁹³	₅	4.1	⁻⁹⁸	₄	-5.8	⁻¹⁰¹	₂	-16.0								
Feb 25	42.0	⁻⁶	₈	41.6	⁻¹⁸	₈	40.3	⁻³⁰	₈	38.2	⁻⁴²	₈	35.3	⁻⁵²	₇	31.6	⁻⁶²	₇	27.2	⁻⁷¹	₆	22.2	⁻⁷⁹	₆	16.6	⁻⁸⁶	₅	10.5	⁻⁹²	₄	4.0	⁻⁹⁷	₃	-5.7	⁻¹⁰⁰	₂	-15.7								
Feb 26	41.4	⁻⁶	₇	41.0	⁻¹⁸	₇	39.8	⁻³⁰	₇	37.7	⁻⁴¹	₇	34.8	⁻⁵²	₇	31.1	⁻⁶¹	₆	26.8	⁻⁷⁰	₆	21.9	⁻⁷⁸	₅	16.3	⁻⁸⁵	₅	10.3	⁻⁹¹	₄	4.0	⁻⁹⁵	₃	-5.6	⁻⁹⁸	₂	-15.5								
Feb 27	40.9	⁻⁶	₆	40.5	⁻¹⁸	₆	39.3	⁻²⁹	₆	37.2	⁻⁴⁰	₆	34.3	⁻⁵¹	₆	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								
Feb 28	40.5	⁻⁶	₅	40.1	⁻¹⁸	₅	38.8	⁻²⁹	₅	36.8	⁻⁴⁰	₅	34.0	⁻⁵¹	₅	30.4	⁻⁶⁰	₄	26.2	⁻⁶⁹	₄	21.3	⁻⁷⁷	₄	16.0	⁻⁸³	₃	10.1	⁻⁸⁹	₃	3.9	⁻⁹³	₂	-5.5	⁻⁹⁶	₂	-15.2								
Mar 1	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								
Mar 2	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								
Mar 3	39.6	⁻⁶	₃	39.2	⁻¹⁷	₃	38.0	⁻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	₂	9.9	⁻⁸⁷	₁	3.8	⁻⁹¹	₁	-5.4	⁻⁹⁴	₁	-14.8								
Mar 4	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	⁻⁸⁷	₁	3.8	⁻⁹¹	₁	-5.4	⁻⁹⁴	₀	-14.8								
Mar 5	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	₀	9.8	⁻⁸⁶	₀	3.8	⁻⁹¹	₀	-5.3	⁻⁹⁴	₀	-14.7								
Mar 6	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	3.7	⁻⁹¹	₀	-5.3	⁻⁹⁴	₀	-14.7								
Mar 7	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	₁	20.7	⁻⁷⁵	₁	15.5	⁻⁸¹	₁	9.8	⁻⁸⁶	₁	3.8	⁻⁹¹	₁	-5.3	⁻⁹⁴	₀	-14.7								
Mar 8	39.3	⁻⁶	₂	38.9	⁻¹⁷	₂	37.7	⁻²⁸	₂	35.7	⁻³⁹	₂	33.0	⁻⁴⁹	₂	29.6	⁻⁵⁹	₂	25.4	⁻⁶⁷	₂	20.7	⁻⁷⁵	₂	15.5	⁻⁸¹	₂	9.8	⁻⁸⁷	₁	3.8	⁻⁹¹	₁	-5.3	⁻⁹⁴	₁	-14.7								
Mar 9	39.5	⁻⁶	₄	39.1	⁻¹⁷	₄	37.9	⁻²⁹	₄	35.9	⁻³⁹	₄	33.1	⁻⁵⁰	₃	29.7	⁻⁵⁹	₃	25.6	⁻⁶⁸	₃	20.8	⁻⁷⁵	₃	15.6	⁻⁸²	₂	9.9	⁻⁸⁷	₂	3.8	⁻⁹²	₂	-5.4	⁻⁹⁵	₁	-14.8								
Mar 10	39.8	⁻⁶	₅	39.4	⁻¹⁷	₅	38.1	⁻²⁹	₅	36.1	⁻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	⁻⁹²	₂	-5.4	⁻⁹⁵	₁	-14.9								
Mar 11	40.1	⁻⁶	₇	39.7	⁻¹⁸	₇	38.5	⁻²⁹	₇	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								
Mar 12	40.6	⁻⁶	₈	40.2	⁻¹⁸	₈	38.9	⁻²⁹	₈	36.9	⁻⁴¹	₈	34.1	⁻⁵¹	₇	30.5	⁻⁶¹	₇	26.3	⁻⁷⁰	₆	21.4	⁻⁷⁸	₆	16.0	⁻⁸⁴	₅	10.1	⁻⁹⁰	₄	3.9	⁻⁹⁵	₃	-5.5	⁻⁹⁸	₂	-15.2								
Mar 13	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	₆	16.2	⁻⁸⁶	₆	10.3	⁻⁹¹	₅	3.9	⁻⁹⁶	₄	-5.6	⁻⁹⁹	₃	-15.4								
Mar 14	41.8	⁻⁶	₁₀	41.4	⁻¹⁸	₁₀	40.1	⁻³⁰	₁₀	38.0	⁻⁴²	₉	35.1	⁻⁵³	₉	31.4	⁻⁶³	₈	27.0	⁻⁷²	₈	22.0	⁻⁸⁰	₇	16.5	⁻⁸⁷	₆	10.4	⁻⁹³	₅	4.0	⁻⁹⁸	₄	-5.7	⁻¹⁰¹	₃	-15.7								
Mar 15	42.5	⁻⁶	₁₀	42.1	⁻¹⁹	₁₀	40.8	⁻³¹	₁₀	38.6	⁻⁴³	₉	35.7	⁻⁵⁴	₉	31.9	⁻⁶⁴	₈	27.5	⁻⁷³	₈	22.4	⁻⁸¹	₇	16.7	⁻⁸⁹	₆	10.6	⁻⁹⁴	₅	4.1	⁻⁹⁹	₄	-5.8	⁻¹⁰²	₃	-15.9								
Mar 16	43.2	⁻⁶	₉	42.7	⁻¹⁹	₉	41.4	⁻³¹	₉	39.2	⁻⁴³	₉	36.2	⁻⁵⁵	₈	32.5	⁻⁶⁵	₈	27.9	⁻⁷⁴	₇	22.8	⁻⁸³	₆	17.0	⁻⁹⁰	₆	10.8	⁻⁹⁶	₅	4.1	⁻¹⁰¹	₄	-5.9	⁻¹⁰⁴	₃	-16.2								
Mar 17	43.8	⁻⁶	₇	43.4	⁻¹⁹	₇	42.0	⁻³²	₇	39.8	⁻⁴⁴	₇	36.8	⁻⁵⁵	₇	32.9	⁻⁶⁶	₆	28.4	⁻⁷⁵	₆	23.1	⁻⁸⁴	₅	17.3	⁻⁹¹	₅	10.9	⁻⁹⁷	₄	4.2	⁻¹⁰²	₃	-6.0	⁻¹⁰⁵	₂	-16.4								
Mar 18	44.3	⁻⁷	₅	43.9	⁻¹⁹	₅	42.5	⁻³²	₄	40.3	⁻⁴⁴	₄	37.2	⁻⁵⁶	₄	33.3	⁻⁶⁶	₄	28.7	⁻⁷⁶	₄	23.4	⁻⁸⁵	₃	17.5	⁻⁹²	₃	11.1	⁻⁹⁸	₂	4.2	⁻¹⁰³	₂	-6.0	⁻¹⁰⁶	₁	-16.6								
Mar 19	44.7	⁻																																											

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
Apr 3	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 ₁	50.1	⁻⁷⁵ ₁	44.9	⁻⁸¹ ₁	39.2	⁻⁸⁶ ₁	33.1	⁻⁹¹ ₀	24.1	⁻⁹⁴ ₀	14.7														
Apr 4	68.8	⁻⁶ ₂	68.4	⁻¹⁷ ₂	67.2	⁻²⁸ ₂	65.2	⁻³⁹ ₂	62.4	⁻⁴⁹ ₂	59.0	⁻⁵⁹ ₂	54.9	⁻⁶⁷ ₁	50.2	⁻⁷⁵ ₁	44.9	⁻⁸¹ ₁	39.3	⁻⁸⁷ ₁	33.2	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₁	14.7														
Apr 5	69.0	⁻⁶ ₃	68.6	⁻¹⁷ ₃	67.4	⁻²⁹ ₃	65.4	⁻³⁹ ₃	62.7	⁻⁵⁰ ₃	59.2	⁻⁵⁹ ₂	55.1	⁻⁶⁸ ₂	50.3	⁻⁷⁵ ₂	45.1	⁻⁸² ₂	39.4	⁻⁸⁷ ₂	33.3	⁻⁹² ₁	24.2	⁻⁹⁴ ₁	14.8														
Apr 6	69.3	⁻⁶ ₄	68.9	⁻¹⁷ ₄	67.7	⁻²⁹ ₄	65.7	⁻⁴⁰ ₄	63.0	⁻⁵⁰ ₃	59.5	⁻⁵⁹ ₃	55.3	⁻⁶⁸ ₃	50.6	⁻⁷⁶ ₃	45.3	⁻⁸² ₂	39.6	⁻⁸⁷ ₂	33.5	⁻⁹² ₂	24.3	⁻⁹⁵ ₁	14.8														
Apr 7	69.8	⁻⁶ ₅	69.4	⁻¹⁸ ₅	68.2	⁻²⁹ ₅	66.2	⁻⁴⁰ ₅	63.4	⁻⁵⁰ ₄	59.9	⁻⁶⁰ ₄	55.7	⁻⁶⁹ ₄	50.9	⁻⁷⁶ ₃	45.6	⁻⁸³ ₃	39.9	⁻⁸⁸ ₃	33.7	⁻⁹³ ₂	24.5	⁻⁹⁶ ₁	14.9														
Apr 8	70.4	⁻⁶ ₆	70.0	⁻¹⁸ ₆	68.7	⁻²⁹ ₆	66.7	⁻⁴⁰ ₆	63.9	⁻⁵¹ ₅	60.4	⁻⁶⁰ ₅	56.2	⁻⁶⁹ ₅	51.4	⁻⁷⁷ ₄	46.0	⁻⁸⁴ ₄	40.2	⁻⁸⁹ ₃	34.0	⁻⁹⁴ ₂	24.7	⁻⁹⁷ ₂	15.1														
Apr 9	71.1	⁻⁶ ₇	70.7	⁻¹⁸ ₇	69.4	⁻²⁹ ₇	67.4	⁻⁴¹ ₇	64.6	⁻⁵¹ ₆	61.0	⁻⁶¹ ₆	56.7	⁻⁷⁰ ₅	51.9	⁻⁷⁸ ₅	46.5	⁻⁸⁴ ₄	40.6	⁻⁹⁰ ₄	34.3	⁻⁹⁵ ₃	24.9	⁻⁹⁸ ₂	15.2														
Apr 10	71.9	⁻⁶ ₈	71.5	⁻¹⁸ ₈	70.3	⁻³⁰ ₈	68.2	⁻⁴¹ ₇	65.3	⁻⁵² ₇	61.7	⁻⁶² ₇	57.4	⁻⁷¹ ₆	52.5	⁻⁷⁹ ₆	47.0	⁻⁸⁶ ₅	41.1	⁻⁹¹ ₄	34.7	⁻⁹⁶ ₃	25.2	⁻⁹⁹ ₂	15.4														
Apr 11	72.9	⁻⁶ ₉	72.5	⁻¹⁸ ₉	71.2	⁻³⁰ ₈	69.1	⁻⁴² ₈	66.2	⁻⁵³ ₈	62.5	⁻⁶³ ₇	58.2	⁻⁷² ₇	53.2	⁻⁸⁰ ₆	47.6	⁻⁸⁷ ₅	41.6	⁻⁹² ₅	35.2	⁻⁹⁷ ₄	25.6	⁻¹⁰⁰ ₂	15.6														
Apr 12	73.9	⁻⁶ ₉	73.5	⁻¹⁹ ₉	72.2	⁻³¹ ₉	70.1	⁻⁴² ₈	67.1	⁻⁵³ ₈	63.4	⁻⁶⁴ ₇	59.0	⁻⁷³ ₇	54.0	⁻⁸¹ ₆	48.3	⁻⁸⁸ ₆	42.2	⁻⁹⁴ ₅	35.7	⁻⁹⁹ ₄	25.9	⁻¹⁰² ₃	15.8														
Apr 13	75.0	⁻⁶ ₉	74.6	⁻¹⁹ ₉	73.3	⁻³¹ ₈	71.1	⁻⁴³ ₈	68.1	⁻⁵⁴ ₈	64.4	⁻⁶⁴ ₇	59.9	⁻⁷⁴ ₇	54.7	⁻⁸² ₆	49.0	⁻⁸⁹ ₅	42.8	⁻⁹⁵ ₅	36.2	⁻¹⁰⁰ ₄	26.3	⁻¹⁰³ ₂	16.1														
Apr 14	76.1	⁻⁶ ₇	75.6	⁻¹⁹ ₇	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														
Apr 15	77.0	⁻⁶ ₅	76.5	⁻¹⁹ ₅	75.2	⁻³² ₅	72.9	⁻⁴⁴ ₅	69.9	⁻⁵⁵ ₅	66.0	⁻⁶⁶ ₄	61.4	⁻⁷⁶ ₄	56.2	⁻⁸⁴ ₄	50.3	⁻⁹¹ ₃	43.9	⁻⁹⁷ ₃	37.2	⁻¹⁰² ₂	27.0	⁻¹⁰⁵ ₂	16.5														
Apr 16	77.6	⁻⁷ ₂	77.2	⁻¹⁹ ₂	75.8	⁻³² ₂	73.6	⁻⁴⁴ ₂	70.5	⁻⁵⁶ ₂	66.6	⁻⁶⁶ ₂	61.9	⁻⁷⁶ ₂	56.6	⁻⁸⁵ ₂	50.7	⁻⁹² ₂	44.3	⁻⁹⁸ ₁	37.5	⁻¹⁰³ ₁	27.2	⁻¹⁰⁶ ₁	16.6														
Apr 17	77.9	⁻⁷ ₋₁	77.5	⁻¹⁹ ₋₁	76.1	⁻³² ₋₁	73.8	⁻⁴⁴ ₋₁	70.7	⁻⁵⁶ ₋₁	66.8	⁻⁶⁶ ₋₁	62.2	⁻⁷⁶ ₋₁	56.8	⁻⁸⁵ ₋₁	50.9	⁻⁹² ₋₁	44.5	⁻⁹⁸ ₀	37.6	⁻¹⁰³ ₀	27.3	⁻¹⁰⁶ ₀	16.7														
Apr 18	77.8	⁻⁶ ₋₄	77.4	⁻¹⁹ ₋₄	76.0	⁻³² ₋₄	73.7	⁻⁴⁴ ₋₄	70.6	⁻⁵⁶ ₋₄	66.7	⁻⁶⁶ ₋₃	62.1	⁻⁷⁶ ₋₃	56.8	⁻⁸⁴ ₋₃	50.9	⁻⁹² ₋₃	44.4	⁻⁹⁷ ₋₂	37.6	⁻¹⁰³ ₋₂	27.3	⁻¹⁰⁶ ₋₁	16.7														
Apr 19	77.3	⁻⁶ ₋₇	76.9	⁻¹⁹ ₋₇	75.5	⁻³² ₋₇	73.3	⁻⁴⁴ ₋₇	70.2	⁻⁵⁵ ₋₆	66.3	⁻⁶⁶ ₋₆	61.7	⁻⁷⁵ ₋₅	56.4	⁻⁸⁴ ₋₅	50.5	⁻⁹¹ ₋₄	44.1	⁻⁹⁷ ₋₄	37.3	⁻¹⁰² ₋₃	27.1	⁻¹⁰⁵ ₋₂	16.6														
Apr 20	76.5	⁻⁶ ₋₉	76.0	⁻¹⁹ ₋₉	74.7	⁻³¹ ₋₉	72.5	⁻⁴³ ₋₈	69.4	⁻⁵⁴ ₋₈	65.6	⁻⁶⁵ ₋₇	61.0	⁻⁷⁴ ₋₇	55.8	⁻⁸³ ₋₆	50.0	⁻⁹⁰ ₋₆	43.7	⁻⁹⁵ ₋₅	36.9	⁻¹⁰⁰ ₋₄	26.8	⁻¹⁰⁴ ₋₃	16.4														
Apr 21	75.4	⁻⁶ ₋₁₀	74.9	⁻¹⁹ ₋₁₀	73.6	⁻³¹ ₋₁₀	71.4	⁻⁴³ ₋₉	68.4	⁻⁵⁴ ₋₉	64.7	⁻⁶⁴ ₋₈	60.2	⁻⁷³ ₋₈	55.0	⁻⁸¹ ₋₇	49.3	⁻⁸⁸ ₋₆	43.0	⁻⁹⁴ ₋₅	36.4	⁻⁹⁹ ₋₄	26.4	⁻¹⁰² ₋₃	16.1														
Apr 22	74.2	⁻⁶ ₋₁₀	73.7	⁻¹⁸ ₋₁₀	72.4	⁻³⁰ ₋₁₀	70.3	⁻⁴² ₋₉	67.4	⁻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														
Apr 23	73.0	⁻⁶ ₋₉	72.5	⁻¹⁸ ₋₉	71.3	⁻³⁰ ₋₉	69.2	⁻⁴¹ ₋₉	66.2	⁻⁵² ₋₈	62.6	⁻⁶² ₋₈	58.2	⁻⁷¹ ₋₇	53.2	⁻⁷⁹ ₋₇	47.7	⁻⁸⁵ ₋₆	41.7	⁻⁹¹ ₋₅	35.2	⁻⁹⁶ ₋₄	25.6	⁻⁹⁹ ₋₃	15.6														
Apr 24	71.8	⁻⁶ ₋₈	71.4	⁻¹⁸ ₋₈	70.1	⁻²⁹ ₋₈	68.1	⁻⁴¹ ₋₈	65.2	⁻⁵¹ ₋₇	61.6	⁻⁶¹ ₋₇	57.3	⁻⁷⁰ ₋₆	52.4	⁻⁷⁸ ₋₆	46.9	⁻⁸⁴ ₋₅	41.0	⁻⁹⁰ ₋₄	34.7	⁻⁹⁴ ₋₃	25.2	⁻⁹⁷ ₋₂	15.4														
Apr 25	70.8	⁻⁶ ₋₇	70.4	⁻¹⁸ ₋₇	69.2	⁻²⁹ ₋₇	67.1	⁻⁴⁰ ₋₆	64.3	⁻⁵⁰ ₋₆	60.8	⁻⁶⁰ ₋₆	56.5	⁻⁶⁹ ₋₅	51.7	⁻⁷⁷ ₋₅	46.3	⁻⁸³ ₋₄	40.4	⁻⁸⁹ ₋₄	34.2	⁻⁹³ ₋₃	24.8	⁻⁹⁶ ₋₂	15.2														
Apr 26	70.0	⁻⁶ ₋₅	69.6	⁻¹⁷ ₋₅	68.4	⁻²⁹ ₋₅	66.4	⁻⁴⁰ ₋₅	63.6	⁻⁵⁰ ₋₅	60.1	⁻⁵⁹ ₋₄	55.9	⁻⁶⁸ ₋₄	51.1	⁻⁷⁶ ₋₄	45.8	⁻⁸² ₋₃	40.0	⁻⁸⁸ ₋₃	33.8	⁻⁹² ₋₂	24.5	⁻⁹⁵ ₋₁	15.0														
Apr 27	69.4	⁻⁶ ₋₃	69.0	⁻¹⁷ ₋₃	67.8	⁻²⁹ ₋₃	65.8	⁻³⁹ ₋₃	63.0	⁻⁵⁰ ₋₃	59.5	⁻⁵⁹ ₋₃	55.4	⁻⁶⁸ ₋₃	50.6	⁻⁷⁵ ₋₂	45.4	⁻⁸² ₋₂	39.6	⁻⁸⁷ ₋₂	33.5	⁻⁹² ₋₁	24.3	⁻⁹⁴ ₋₁	14.9														
Apr 28	69.0	⁻⁶ ₋₂	68.6	⁻¹⁷ ₋₂	67.4	⁻²⁸ ₋₂	65.4	⁻³⁹ ₋₂	62.6	⁻⁴⁹ ₋₂	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 ₋₁	14.8														
Apr 29	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														
Apr 30	68.7	⁻⁶ ₁	68.3	⁻¹⁷ ₁	67.1	⁻²⁸ ₁	65.1	⁻³⁹ ₁	62.4	⁻⁴⁹ ₁	59.0	⁻⁵⁹ ₁	54.9	⁻⁶⁷ ₁	50.1	⁻⁷⁵ ₁	44.9	⁻⁸¹ ₁	39.2	⁻⁸⁶ ₀	33.2	⁻⁹¹ ₀	24.1	⁻⁹⁴ ₀	14.7														
May 1	68.8	⁻⁶ ₂	68.4	⁻¹⁷ ₂	67.2	⁻²⁸ ₂	65.2	⁻³⁹ ₂	62.5	⁻⁴⁹ ₂	59.1	⁻⁵⁹ ₂	54.9	⁻⁶⁷ ₂	50.2	⁻⁷⁵ ₁	45.0	⁻⁸¹ ₁	39.3	⁻⁸⁷ ₁	33.2	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₁	14.7														
May 2	69.1	⁻⁶ ₃	68.7	⁻¹⁷ ₃	67.5	⁻²⁹ ₃	65.5	⁻³⁹ ₃	62.7	⁻⁵⁰ ₃	59.3	⁻⁵⁹ ₂	55.1	⁻⁶⁸ ₂	50.4	⁻⁷⁵ ₂	45.1	⁻⁸² ₂	39.4	⁻⁸⁷ ₂	33.4	⁻⁹² ₁	24.2	⁻⁹⁴ ₁	14.8														
May 3	69.4	⁻⁶ ₄	69.0	⁻¹⁷ ₄	67.8	⁻²⁹ ₃	65.8	⁻⁴⁰ ₃	63.0	⁻⁵⁰ ₃	59.6	⁻⁵⁹ ₃	55.4	⁻⁶⁸ ₃	50.7	⁻⁷⁶ ₃	45.4	⁻⁸² ₂	39.6	⁻⁸⁸ ₂	33.5	⁻⁹² ₂	24.3	⁻⁹⁵ ₁	14.9														
May 4	69.9	⁻⁶ ₄	69.5	⁻¹⁸ ₄	68.2	⁻²⁹ ₄	66.2	⁻⁴⁰ ₄	63.4	⁻⁵⁰ ₄	59.9	⁻⁶⁰ ₄	55.8	⁻⁶⁹ ₃	51.0	⁻⁷⁶ ₃	45.7	⁻⁸³ ₃	39.9	⁻⁸⁸ ₂	33.7	⁻⁹³ ₂	24.5	⁻⁹⁶ ₁	15.0														
May 5	70.4	⁻⁶ ₅	70.0	⁻¹⁸ ₅	68.7	⁻²⁹ ₅	66.7	⁻⁴⁰ ₄	63.9	⁻⁵¹ ₄	60.4	⁻⁶⁰ ₄	56.2	⁻⁶⁹ ₄	51.4	⁻⁷⁷ ₃	46.0	⁻⁸³ ₃	40.2	⁻⁸⁹ ₃	34.0	⁻⁹⁴ ₂	24.7	⁻⁹⁷ ₁	15.1														
May 6	71.0	⁻⁶ ₅	70.5	⁻¹⁸ ₅	69.3	⁻²⁹ ₅	67.2	⁻⁴¹ ₅	64.4	⁻⁵¹ ₅	60.9	⁻⁶¹ ₄	56.6	⁻⁷⁰ ₄	51.8	⁻⁷⁸ ₄	46.4	⁻⁸⁴ ₃	40.5	⁻⁹⁰ ₃	34.3	⁻⁹⁴ ₂	24.9	⁻⁹⁷ ₂	15.2														
May 7	71.6	⁻⁶ ₆	71.2	⁻¹⁸ ₆	69.9	⁻³⁰ ₆	67.9	⁻⁴¹ ₅	65.0	⁻⁵² ₅	61.4	⁻⁶¹ ₅	57.1	⁻⁷⁰ ₅	52.2	⁻⁷⁸ ₄	46.8	⁻⁸⁵ ₄	40.9	⁻⁹⁰ ₃	34.6	⁻⁹⁵ ₂	25.1	⁻⁹⁸ ₂	15.3														
May 8	72.3	⁻⁶ ₆	71.9	⁻¹⁸ ₆	70.6	⁻³⁰ ₆	68.5	⁻⁴¹ ₆																															

2011

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
May 19	75.1	⁻⁶	₋₉	74.7	⁻¹⁹	₋₉	73.4	⁻³¹	₋₈	71.2	⁻⁴²	₋₈	68.2	⁻⁵³	₋₈	64.5	⁻⁶⁴	₋₇	60.0	⁻⁷³	₋₇	54.8	⁻⁸¹	₋₆	49.1	⁻⁸⁸	₋₅	42.9	⁻⁹⁴	₋₅	36.3	⁻⁹⁹	₋₄	26.3	⁻¹⁰²	₋₂	16.1								
May 20	74.1	⁻⁶	₋₉	73.7	⁻¹⁸	₋₉	72.4	⁻³⁰	₋₉	70.2	⁻⁴²	₋₉	67.3	⁻⁵³	₋₈	63.6	⁻⁶³	₋₈	59.1	⁻⁷²	₋₇	54.1	⁻⁸⁰	₋₆	48.4	⁻⁸⁷	₋₆	42.3	⁻⁹²	₋₅	35.8	⁻⁹⁷	₋₄	26.0	⁻¹⁰⁰	₋₃	15.9								
May 21	73.0	⁻⁶	₋₉	72.6	⁻¹⁸	₋₉	71.3	⁻³⁰	₋₉	69.2	⁻⁴¹	₋₈	66.3	⁻⁵²	₋₈	62.6	⁻⁶²	₋₇	58.3	⁻⁷¹	₋₇	53.3	⁻⁷⁹	₋₆	47.7	⁻⁸⁶	₋₆	41.7	⁻⁹¹	₋₅	35.2	⁻⁹⁶	₋₄	25.6	⁻⁹⁹	₋₃	15.6								
May 22	71.9	⁻⁶	₋₈	71.5	⁻¹⁸	₋₈	70.2	⁻²⁹	₋₈	68.2	⁻⁴¹	₋₈	65.3	⁻⁵¹	₋₇	61.7	⁻⁶¹	₋₇	57.4	⁻⁷⁰	₋₆	52.5	⁻⁷⁸	₋₆	47.0	⁻⁸⁴	₋₅	41.1	⁻⁹⁰	₋₄	34.7	⁻⁹⁵	₋₃	25.2	⁻⁹⁷	₋₂	15.4								
May 23	70.9	⁻⁶	₋₇	70.5	⁻¹⁸	₋₇	69.3	⁻²⁹	₋₇	67.2	⁻⁴⁰	₋₆	64.4	⁻⁵¹	₋₆	60.9	⁻⁶⁰	₋₆	56.6	⁻⁶⁹	₋₅	51.8	⁻⁷⁷	₋₅	46.4	⁻⁸³	₋₄	40.5	⁻⁸⁹	₋₄	34.3	⁻⁹³	₋₃	24.9	⁻⁹⁶	₋₂	15.2								
May 24	70.1	⁻⁶	₋₅	69.7	⁻¹⁷	₋₅	68.5	⁻²⁹	₋₅	66.5	⁻⁴⁰	₋₅	63.7	⁻⁵⁰	₋₅	60.2	⁻⁶⁰	₋₄	56.0	⁻⁶⁸	₋₄	51.2	⁻⁷⁶	₋₄	45.8	⁻⁸²	₋₃	40.0	⁻⁸⁸	₋₃	33.9	⁻⁹²	₋₂	24.6	⁻⁹⁵	₋₁	15.0								
May 25	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	₋₃	50.7	⁻⁷⁵	₋₂	45.4	⁻⁸²	₋₂	39.7	⁻⁸⁷	₋₂	33.6	⁻⁹²	₋₁	24.4	⁻⁹⁵	₋₁	14.9								
May 26	69.1	⁻⁶	₋₂	68.7	⁻¹⁷	₋₂	67.5	⁻²⁸	₋₂	65.5	⁻³⁹	₋₁	62.7	⁻⁴⁹	₋₁	59.3	⁻⁵⁹	₋₁	55.2	⁻⁶⁷	₋₁	50.4	⁻⁷⁵	₋₁	45.2	⁻⁸²	₋₁	39.5	⁻⁸⁷	₋₁	33.4	⁻⁹¹	₋₁	24.2	⁻⁹⁴	₀	14.8								
May 27	68.9	⁻⁶	₀	68.5	⁻¹⁷	₀	67.3	⁻²⁸	₀	65.3	⁻³⁹	₀	62.6	⁻⁴⁹	₀	59.1	⁻⁵⁹	₀	55.0	⁻⁶⁷	₀	50.3	⁻⁷⁵	₀	45.0	⁻⁸¹	₀	39.3	⁻⁸⁷	₀	33.3	⁻⁹¹	₀	24.2	⁻⁹⁴	₀	14.8								
May 28	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	45.1	⁻⁸²	₁	39.4	⁻⁸⁷	₁	33.3	⁻⁹¹	₁	24.2	⁻⁹⁴	₀	14.8								
May 29	69.1	⁻⁶	₃	68.7	⁻¹⁷	₃	67.5	⁻²⁹	₃	65.5	⁻³⁹	₃	62.8	⁻⁵⁰	₃	59.3	⁻⁵⁹	₂	55.2	⁻⁶⁸	₂	50.4	⁻⁷⁵	₂	45.2	⁻⁸²	₂	39.5	⁻⁸⁷	₂	33.4	⁻⁹²	₁	24.2	⁻⁹⁵	₁	14.8								
May 30	69.5	⁻⁶	₄	69.1	⁻¹⁷	₄	67.9	⁻²⁹	₄	65.9	⁻⁴⁰	₄	63.1	⁻⁵⁰	₄	59.6	⁻⁶⁰	₃	55.5	⁻⁶⁸	₃	50.7	⁻⁷⁶	₃	45.4	⁻⁸²	₂	39.7	⁻⁸⁸	₂	33.6	⁻⁹²	₂	24.4	⁻⁹⁵	₁	14.9								
May 31	70.0	⁻⁶	₅	69.6	⁻¹⁸	₅	68.3	⁻²⁹	₅	66.3	⁻⁴⁰	₄	63.5	⁻⁵⁰	₄	60.0	⁻⁶⁰	₄	55.8	⁻⁶⁹	₄	51.1	⁻⁷⁶	₃	45.7	⁻⁸³	₃	39.9	⁻⁸⁸	₃	33.8	⁻⁹³	₂	24.5	⁻⁹⁶	₁	15.0								
Jun 1	70.5	⁻⁶	₅	70.1	⁻¹⁸	₅	68.9	⁻²⁹	₅	66.9	⁻⁴⁰	₅	64.1	⁻⁵¹	₅	60.5	⁻⁶⁰	₄	56.3	⁻⁶⁹	₄	51.5	⁻⁷⁷	₄	46.1	⁻⁸⁴	₃	40.3	⁻⁸⁹	₃	34.1	⁻⁹⁴	₂	24.7	⁻⁹⁷	₁	15.1								
Jun 2	71.2	⁻⁶	₅	70.7	⁻¹⁸	₅	69.5	⁻²⁹	₅	67.5	⁻⁴¹	₅	64.6	⁻⁵¹	₅	61.1	⁻⁶¹	₄	56.8	⁻⁷⁰	₄	51.9	⁻⁷⁸	₄	46.5	⁻⁸⁴	₃	40.6	⁻⁹⁰	₃	34.4	⁻⁹⁵	₂	24.9	⁻⁹⁸	₂	15.2								
Jun 3	71.8	⁻⁶	₅	71.4	⁻¹⁸	₅	70.1	⁻³⁰	₅	68.1	⁻⁴¹	₅	65.2	⁻⁵²	₅	61.6	⁻⁶²	₄	57.3	⁻⁷¹	₄	52.4	⁻⁷⁸	₄	46.9	⁻⁸⁵	₃	41.0	⁻⁹¹	₃	34.7	⁻⁹⁵	₂	25.2	⁻⁹⁸	₂	15.4								
Jun 4	72.5	⁻⁶	₅	72.0	⁻¹⁸	₅	70.8	⁻³⁰	₅	68.7	⁻⁴¹	₅	65.8	⁻⁵²	₅	62.2	⁻⁶²	₄	57.8	⁻⁷¹	₄	52.9	⁻⁷⁹	₄	47.4	⁻⁸⁶	₃	41.4	⁻⁹¹	₃	35.0	⁻⁹⁶	₂	25.4	⁻⁹⁹	₁	15.5								
Jun 5	73.1	⁻⁶	₅	72.7	⁻¹⁸	₅	71.4	⁻³⁰	₅	69.3	⁻⁴²	₅	66.4	⁻⁵³	₄	62.7	⁻⁶³	₄	58.3	⁻⁷²	₄	53.3	⁻⁸⁰	₃	47.8	⁻⁸⁷	₃	41.7	⁻⁹²	₃	35.3	⁻⁹⁷	₂	25.6	⁻¹⁰⁰	₁	15.7								
Jun 6	73.7	⁻⁶	₅	73.3	⁻¹⁸	₅	72.0	⁻³⁰	₅	69.9	⁻⁴²	₄	66.9	⁻⁵³	₄	63.2	⁻⁶³	₄	58.8	⁻⁷²	₄	53.8	⁻⁸⁰	₃	48.2	⁻⁸⁷	₃	42.1	⁻⁹³	₂	35.6	⁻⁹⁸	₂	25.8	⁻¹⁰¹	₁	15.8								
Jun 7	74.3	⁻⁶	₄	73.8	⁻¹⁹	₄	72.5	⁻³¹	₄	70.4	⁻⁴²	₄	67.4	⁻⁵³	₄	63.7	⁻⁶⁴	₄	59.3	⁻⁷³	₃	54.2	⁻⁸¹	₃	48.5	⁻⁸⁸	₃	42.4	⁻⁹⁴	₂	35.9	⁻⁹⁹	₂	26.0	⁻¹⁰²	₁	15.9								
Jun 8	74.8	⁻⁶	₄	74.3	⁻¹⁹	₄	73.0	⁻³¹	₄	70.9	⁻⁴³	₄	67.9	⁻⁵⁴	₃	64.2	⁻⁶⁴	₃	59.7	⁻⁷³	₃	54.6	⁻⁸²	₃	48.9	⁻⁸⁹	₂	42.7	⁻⁹⁴	₂	36.1	⁻⁹⁹	₂	26.2	⁻¹⁰²	₁	16.0								
Jun 9	75.2	⁻⁶	₃	74.8	⁻¹⁹	₃	73.5	⁻³¹	₃	71.3	⁻⁴³	₃	68.3	⁻⁵⁴	₃	64.5	⁻⁶⁴	₃	60.1	⁻⁷⁴	₂	54.9	⁻⁸²	₂	49.2	⁻⁸⁹	₂	43.0	⁻⁹⁵	₂	36.3	⁻¹⁰⁰	₁	26.4	⁻¹⁰³	₁	16.1								
Jun 10	75.6	⁻⁶	₂	75.2	⁻¹⁹	₂	73.9	⁻³¹	₂	71.7	⁻⁴³	₂	68.7	⁻⁵⁴	₂	64.9	⁻⁶⁵	₂	60.4	⁻⁷⁴	₂	55.2	⁻⁸²	₁	49.4	⁻⁸⁹	₁	43.2	⁻⁹⁵	₁	36.5	⁻¹⁰⁰	₁	26.5	⁻¹⁰³	₁	16.2								
Jun 11	75.9	⁻⁶	₁	75.4	⁻¹⁹	₁	74.1	⁻³¹	₁	71.9	⁻⁴³	₁	68.9	⁻⁵⁴	₁	65.1	⁻⁶⁵	₁	60.6	⁻⁷⁴	₁	55.4	⁻⁸³	₁	49.6	⁻⁹⁰	₁	43.3	⁻⁹⁵	₀	36.6	⁻¹⁰⁰	₀	26.6	⁻¹⁰⁴	₀	16.2								
Jun 12	76.0	⁻⁶	₋₁	75.5	⁻¹⁹	₋₁	74.2	⁻³¹	₋₁	72.0	⁻⁴³	₋₁	69.0	⁻⁵⁴	₋₁	65.2	⁻⁶⁵	₋₁	60.6	⁻⁷⁴	₋₁	55.4	⁻⁸³	₀	49.7	⁻⁹⁰	₀	43.4	⁻⁹⁵	₀	36.7	⁻¹⁰⁰	₀	26.6	⁻¹⁰⁴	₀	16.3								
Jun 13	75.9	⁻⁶	₋₂	75.5	⁻¹⁹	₋₂	74.1	⁻³¹	₋₂	71.9	⁻⁴³	₋₂	68.9	⁻⁵⁴	₋₂	65.1	⁻⁶⁵	₋₂	60.6	⁻⁷⁴	₋₂	55.4	⁻⁸²	₋₂	49.6	⁻⁸⁹	₋₂	43.3	⁻⁹⁵	₋₁	36.7	⁻¹⁰⁰	₋₁	26.6	⁻¹⁰³	₋₁	16.3								
Jun 14	75.6	⁻⁶	₋₄	75.2	⁻¹⁹	₋₄	73.8	⁻³¹	₋₄	71.7	⁻⁴³	₋₄	68.6	⁻⁵⁴	₋₄	64.9	⁻⁶⁴	₋₄	60.3	⁻⁷⁴	₋₃	55.2	⁻⁸²	₋₃	49.4	⁻⁸⁹	₋₃	43.2	⁻⁹⁵	₋₂	36.5	⁻¹⁰⁰	₋₂	26.5	⁻¹⁰³	₋₁	16.2								
Jun 15	75.1	⁻⁶	₋₆	74.6	⁻¹⁹	₋₆	73.3	⁻³¹	₋₆	71.2	⁻⁴²	₋₅	68.2	⁻⁵⁴	₋₅	64.4	⁻⁶⁴	₋₅	59.9	⁻⁷³	₋₄	54.8	⁻⁸¹	₋₄	49.1	⁻⁸⁸	₋₄	42.9	⁻⁹⁴	₋₃	36.3	⁻⁹⁹	₋₂	26.3	⁻¹⁰²	₋₂	16.1								
Jun 16	74.4	⁻⁶	₋₇	73.9	⁻¹⁸	₋₇	72.6	⁻³⁰	₋₇	70.5	⁻⁴²	₋₇	67.5	⁻⁵³	₋₆	63.8	⁻⁶³	₋₆	59.4	⁻⁷²	₋₅	54.3	⁻⁸⁰	₋₅	48.6	⁻⁸⁷	₋₄	42.5	⁻⁹³	₋₄	35.9	⁻⁹⁸	₋₃	26.1	⁻¹⁰¹	₋₂	15.9								
Jun 17	73.5	⁻⁶	₋₈	73.1	⁻¹⁸	₋₈	71.8	⁻³⁰	₋₇	69.7	⁻⁴²	₋₇	66.8	⁻⁵²	₋₇	63.1	⁻⁶²	₋₆	58.7	⁻⁷¹	₋₆	53.7	⁻⁷⁹	₋₅	48.1	⁻⁸⁶	₋₅	42.0	⁻⁹²	₋₄	35.5	⁻⁹⁷	₋₃	25.8	⁻¹⁰⁰	₋₂	15.7								
Jun 18	72.6	⁻⁶	₋₈	72.2	⁻¹⁸	₋₈	70.9	⁻³⁰	₋₇	68.8	⁻⁴¹	₋₇	65.9	⁻⁵²	₋₇	62.3	⁻⁶²	₋₆	58.0	⁻⁷¹	₋₆	53.0	⁻⁷⁸	₋₅	47.5	⁻⁸⁵	₋₅	41.5	⁻⁹¹	₋₄	35.1	⁻⁹⁵	₋₃												

2011

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	43.0	⁻⁶	₋₉	42.5	⁻¹⁹	₋₉	41.2	⁻³¹	₋₈	39.0	⁻⁴²	₋₈	36.0	⁻⁵³	₋₈	32.3	⁻⁶⁴	₋₇	27.8	⁻⁷³	₋₇	22.7	⁻⁸¹	₋₆	16.9	⁻⁸⁸	₋₅	10.7	⁻⁹⁴	₋₅	4.1	⁻⁹⁹	₋₄	-5.8	⁻¹⁰²	₋₂	-16.1					
May 20	42.4	⁻⁶	₋₉	41.9	⁻¹⁸	₋₉	40.6	⁻³⁰	₋₉	38.5	⁻⁴²	₋₉	35.5	⁻⁵³	₋₈	31.8	⁻⁶³	₋₈	27.4	⁻⁷²	₋₇	22.3	⁻⁸⁰	₋₆	16.7	⁻⁸⁷	₋₆	10.6	⁻⁹²	₋₅	4.0	⁻⁹⁷	₋₄	-5.8	⁻¹⁰⁰	₋₃	-15.9					
May 21	41.7	⁻⁶	₋₉	41.3	⁻¹⁸	₋₉	40.0	⁻³⁰	₋₉	37.9	⁻⁴¹	₋₈	35.0	⁻⁵²	₋₈	31.4	⁻⁶²	₋₇	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					
May 22	41.1	⁻⁶	₋₈	40.7	⁻¹⁸	₋₈	39.4	⁻²⁹	₋₈	37.4	⁻⁴¹	₋₈	34.5	⁻⁵¹	₋₇	30.9	⁻⁶¹	₋₇	26.6	⁻⁷⁰	₋₆	21.7	⁻⁷⁸	₋₆	16.2	⁻⁸⁴	₋₅	10.3	⁻⁹⁰	₋₄	3.9	⁻⁹⁵	₋₃	-5.6	⁻⁹⁷	₋₂	-15.4					
May 23	40.6	⁻⁶	₋₇	40.1	⁻¹⁸	₋₇	38.9	⁻²⁹	₋₇	36.9	⁻⁴⁰	₋₆	34.0	⁻⁵¹	₋₆	30.5	⁻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					
May 24	40.1	⁻⁶	₋₅	39.7	⁻¹⁷	₋₅	38.5	⁻²⁹	₋₅	36.4	⁻⁴⁰	₋₅	33.6	⁻⁵⁰	₋₅	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					
May 25	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	₋₃	21.0	⁻⁷⁵	₋₂	15.7	⁻⁸²	₋₂	9.9	⁻⁸⁷	₋₂	3.8	⁻⁹²	₋₁	-5.4	⁻⁹⁵	₋₁	-14.9					
May 26	39.5	⁻⁶	₋₂	39.1	⁻¹⁷	₋₂	37.9	⁻²⁸	₋₂	35.9	⁻³⁹	₋₁	33.2	⁻⁴⁹	₋₁	29.7	⁻⁵⁹	₋₁	25.6	⁻⁶⁷	₋₁	20.8	⁻⁷⁵	₋₁	15.6	⁻⁸²	₋₁	9.9	⁻⁸⁷	₋₁	3.8	⁻⁹¹	₋₁	-5.4	⁻⁹⁴	₀	-14.8					
May 27	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	⁻⁸¹	₀	9.8	⁻⁸⁷	₀	3.8	⁻⁹¹	₀	-5.4	⁻⁹⁴	₀	-14.8					
May 28	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	⁻⁸²	₁	9.8	⁻⁸⁷	₁	3.8	⁻⁹¹	₁	-5.4	⁻⁹⁴	₀	-14.8					
May 29	39.5	⁻⁶	₃	39.1	⁻¹⁷	₃	37.9	⁻²⁹	₃	35.9	⁻³⁹	₃	33.2	⁻⁵⁰	₃	29.7	⁻⁵⁹	₂	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					
May 30	39.7	⁻⁶	₄	39.3	⁻¹⁷	₄	38.1	⁻²⁹	₄	36.1	⁻⁴⁰	₄	33.3	⁻⁵⁰	₄	29.9	⁻⁶⁰	₃	25.7	⁻⁶⁸	₃	20.9	⁻⁷⁶	₃	15.7	⁻⁸²	₂	9.9	⁻⁸⁸	₂	3.8	⁻⁹²	₂	-5.4	⁻⁹⁵	₁	-14.9					
May 31	40.0	⁻⁶	₅	39.6	⁻¹⁸	₅	38.4	⁻²⁹	₅	36.3	⁻⁴⁰	₄	33.6	⁻⁵⁰	₄	30.1	⁻⁶⁰	₄	25.9	⁻⁶⁹	₄	21.1	⁻⁷⁶	₃	15.8	⁻⁸³	₃	10.0	⁻⁸⁸	₃	3.8	⁻⁹³	₂	-5.4	⁻⁹⁶	₁	-15.0					
Jun 1	40.3	⁻⁶	₅	39.9	⁻¹⁸	₅	38.7	⁻²⁹	₅	36.6	⁻⁴⁰	₅	33.8	⁻⁵¹	₅	30.3	⁻⁶⁰	₄	26.1	⁻⁶⁹	₄	21.3	⁻⁷⁷	₄	15.9	⁻⁸⁴	₃	10.1	⁻⁸⁹	₃	3.9	⁻⁹⁴	₂	-5.5	⁻⁹⁷	₁	-15.1					
Jun 2	40.7	⁻⁶	₅	40.3	⁻¹⁸	₅	39.0	⁻²⁹	₅	37.0	⁻⁴¹	₅	34.1	⁻⁵¹	₅	30.6	⁻⁶¹	₄	26.3	⁻⁷⁰	₄	21.4	⁻⁷⁸	₄	16.0	⁻⁸⁴	₃	10.1	⁻⁹⁰	₃	3.9	⁻⁹⁵	₂	-5.5	⁻⁹⁸	₂	-15.2					
Jun 3	41.1	⁻⁶	₅	40.6	⁻¹⁸	₅	39.4	⁻³⁰	₅	37.3	⁻⁴¹	₅	34.4	⁻⁵²	₅	30.8	⁻⁶²	₄	26.6	⁻⁷¹	₄	21.6	⁻⁷⁸	₄	16.2	⁻⁸⁵	₃	10.2	⁻⁹¹	₃	3.9	⁻⁹⁵	₂	-5.6	⁻⁹⁸	₂	-15.4					
Jun 4	41.4	⁻⁶	₅	41.0	⁻¹⁸	₅	39.7	⁻³⁰	₅	37.6	⁻⁴¹	₅	34.8	⁻⁵²	₅	31.1	⁻⁶²	₄	26.8	⁻⁷¹	₄	21.8	⁻⁷⁹	₄	16.3	⁻⁸⁶	₃	10.3	⁻⁹¹	₃	4.0	⁻⁹⁶	₂	-5.6	⁻⁹⁹	₁	-15.5					
Jun 5	41.8	⁻⁶	₅	41.4	⁻¹⁸	₅	40.1	⁻³⁰	₅	38.0	⁻⁴²	₅	35.1	⁻⁵³	₄	31.4	⁻⁶³	₄	27.0	⁻⁷²	₄	22.0	⁻⁸⁰	₃	16.5	⁻⁸⁷	₃	10.4	⁻⁹²	₃	4.0	⁻⁹⁷	₂	-5.7	⁻¹⁰⁰	₁	-15.7					
Jun 6	42.1	⁻⁶	₅	41.7	⁻¹⁸	₅	40.4	⁻³⁰	₅	38.3	⁻⁴²	₄	35.4	⁻⁵³	₄	31.7	⁻⁶³	₄	27.3	⁻⁷²	₄	22.2	⁻⁸⁰	₃	16.6	⁻⁸⁷	₃	10.5	⁻⁹³	₂	4.0	⁻⁹⁸	₂	-5.7	⁻¹⁰¹	₁	-15.8					
Jun 7	42.5	⁻⁶	₄	42.0	⁻¹⁹	₄	40.7	⁻³¹	₄	38.6	⁻⁴²	₄	35.6	⁻⁵³	₄	31.9	⁻⁶⁴	₄	27.5	⁻⁷³	₃	22.4	⁻⁸¹	₃	16.7	⁻⁸⁸	₃	10.6	⁻⁹⁴	₂	4.1	⁻⁹⁹	₂	-5.8	⁻¹⁰²	₁	-15.9					
Jun 8	42.8	⁻⁶	₄	42.3	⁻¹⁹	₄	41.0	⁻³¹	₄	38.8	⁻⁴³	₄	35.9	⁻⁵⁴	₃	32.1	⁻⁶⁴	₃	27.7	⁻⁷³	₃	22.5	⁻⁸²	₃	16.8	⁻⁸⁹	₂	10.7	⁻⁹⁴	₂	4.1	⁻⁹⁹	₂	-5.8	⁻¹⁰²	₁	-16.0					
Jun 9	43.0	⁻⁶	₃	42.6	⁻¹⁹	₃	41.3	⁻³¹	₃	39.1	⁻⁴³	₃	36.1	⁻⁵⁴	₃	32.3	⁻⁶⁴	₃	27.8	⁻⁷⁴	₂	22.7	⁻⁸²	₂	17.0	⁻⁸⁹	₂	10.7	⁻⁹⁵	₂	4.1	⁻¹⁰⁰	₁	-5.8	⁻¹⁰³	₁	-16.1					
Jun 10	43.2	⁻⁶	₂	42.8	⁻¹⁹	₂	41.5	⁻³¹	₂	39.3	⁻⁴³	₂	36.3	⁻⁵⁴	₂	32.5	⁻⁶⁵	₂	28.0	⁻⁷⁴	₂	22.8	⁻⁸²	₁	17.0	⁻⁸⁹	₁	10.8	⁻⁹⁵	₁	4.1	⁻¹⁰⁰	₁	-5.9	⁻¹⁰³	₁	-16.2					
Jun 11	43.4	⁻⁶	₁	42.9	⁻¹⁹	₁	41.6	⁻³¹	₁	39.4	⁻⁴³	₁	36.4	⁻⁵⁴	₁	32.6	⁻⁶⁵	₁	28.1	⁻⁷⁴	₁	22.9	⁻⁸³	₁	17.1	⁻⁹⁰	₁	10.8	⁻⁹⁵	₀	4.1	⁻¹⁰⁰	₀	-5.9	⁻¹⁰⁴	₀	-16.2					
Jun 12	43.4	⁻⁶	₋₁	43.0	⁻¹⁹	₋₁	41.7	⁻³¹	₋₁	39.5	⁻⁴³	₋₁	36.4	⁻⁵⁴	₋₁	32.6	⁻⁶⁵	₋₁	28.1	⁻⁷⁴	₋₁	22.9	⁻⁸³	₀	17.1	⁻⁹⁰	₀	10.8	⁻⁹⁵	₀	4.2	⁻¹⁰⁰	₀	-5.9	⁻¹⁰⁴	₀	-16.3					
Jun 13	43.4	⁻⁶	₋₂	42.9	⁻¹⁹	₋₂	41.6	⁻³¹	₋₂	39.4	⁻⁴³	₋₂	36.4	⁻⁵⁴	₋₂	32.6	⁻⁶⁵	₋₂	28.1	⁻⁷⁴	₋₂	22.9	⁻⁸²	₋₂	17.1	⁻⁸⁹	₋₂	10.8	⁻⁹⁵	₋₁	4.1	⁻¹⁰⁰	₋₁	-5.9	⁻¹⁰³	₋₁	-16.3					
Jun 14	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					
Jun 15	42.9	⁻⁶	₋₆	42.5	⁻¹⁹	₋₆	41.2	⁻³¹	₋₆	39.0	⁻⁴²	₋₅	36.0	⁻⁵⁴	₋₅	32.3	⁻⁶⁴	₋₅	27.8	⁻⁷³	₋₄	22.6	⁻⁸¹	₋₄	16.9	⁻⁸⁸	₋₄	10.7	⁻⁹⁴	₋₃	4.1	⁻⁹⁹	₋₂	-5.8	⁻¹⁰²	₋₂	-16.1					
Jun 16	42.5	⁻⁶	₋₇	42.1	⁻¹⁸	₋₇	40.8	⁻³⁰	₋₇	38.6	⁻⁴²	₋₇	35.7	⁻⁵³	₋₆	32.0	⁻⁶³	₋₆	27.5	⁻⁷²	₋₅	22.4	⁻⁸⁰	₋₅	16.8	⁻⁸⁷	₋₄	10.6	⁻⁹³	₋₄	4.1	⁻⁹⁸	₋₃	-5.8	⁻¹⁰¹	₋₂	-15.9					
Jun 17	42.0	⁻⁶	₋₈	41.6	⁻¹⁸	₋₈	40.3	⁻³⁰	₋₇	38.2	⁻⁴²	₋₇	35.3	⁻⁵²	₋₇	31.6	⁻⁶²	₋₆	27.2	⁻⁷¹	₋₆	22.2	⁻⁷⁹	₋₅	16.6	⁻⁸⁶	₋₅	10.5	⁻⁹²	₋₄	4.0	⁻⁹⁷	₋₃	-5.7	⁻¹⁰⁰	₋₂	-15.7					
Jun 18	41.5	⁻⁶	₋₈	41.1	⁻¹⁸	₋₈	39.8	⁻³⁰	₋₇	37.7	⁻⁴¹	₋₇	34.8	⁻⁵²	₋₇	31.2	⁻⁶²	₋₆	26.9	⁻⁷¹	₋₆	21.9	⁻⁷⁸	₋₅	16.4	⁻⁸⁵	₋₅	10.4	⁻⁹¹	₋₄	4.0	⁻⁹⁵	₋₃	-5.6	⁻⁹⁸	₋₂	-15.6					
Jun 19	41.0	⁻⁶	₋₇																																							

2011

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	74.7	⁻⁶ ₃	74.3	⁻¹⁹ ₃	73.0	⁻³¹ ₃	70.8	⁻⁴³ ₃	67.8	⁻⁵⁴ ₃	64.1	⁻⁶⁴ ₃	59.6	⁻⁷³ ₂	54.5	⁻⁸¹ ₂	48.8	⁻⁸⁸ ₂	42.6	⁻⁹⁴ ₂	36.1	⁻⁹⁹ ₁	26.2	⁻¹⁰² ₁	16.0																	
Jul 5	5	75.1	⁻⁶ ₂	74.7	⁻¹⁹ ₂	73.3	⁻³¹ ₂	71.2	⁻⁴³ ₂	68.2	⁻⁵⁴ ₂	64.4	⁻⁶⁴ ₂	59.9	⁻⁷⁴ ₂	54.8	⁻⁸² ₁	49.1	⁻⁸⁹ ₁	42.9	⁻⁹⁵ ₁	36.3	⁻¹⁰⁰ ₁	26.3	⁻¹⁰³ ₁	16.1																	
Jul 6	6	75.4	⁻⁶ ₁	74.9	⁻¹⁹ ₁	73.6	⁻³¹ ₁	71.4	⁻⁴³ ₁	68.4	⁻⁵⁴ ₁	64.6	⁻⁶⁴ ₁	60.1	⁻⁷⁴ ₁	55.0	⁻⁸² ₁	49.2	⁻⁸⁹ ₁	43.0	⁻⁹⁵ ₁	36.4	⁻¹⁰⁰ ₀	26.4	⁻¹⁰³ ₀	16.1																	
Jul 7	7	75.5	⁻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	26.5	⁻¹⁰³ ₀	16.2																	
Jul 8	8	75.5	⁻⁶ ₋₁	75.0	⁻¹⁹ ₋₁	73.7	⁻³¹ ₋₁	71.5	⁻⁴³ ₋₁	68.5	⁻⁵⁴ ₋₁	64.8	⁻⁶⁴ ₋₁	60.2	⁻⁷⁴ ₋₁	55.1	⁻⁸² ₋₁	49.3	⁻⁸⁹ ₋₁	43.1	⁻⁹⁵ ₀	36.5	⁻¹⁰⁰ ₀	26.5	⁻¹⁰³ ₀	16.2																	
Jul 9	9	75.4	⁻⁶ ₋₂	74.9	⁻¹⁹ ₋₂	73.6	⁻³¹ ₋₂	71.5	⁻⁴³ ₋₂	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																	
Jul 10	10	75.2	⁻⁶ ₋₃	74.7	⁻¹⁹ ₋₃	73.4	⁻³¹ ₋₂	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																	
Jul 11	11	74.9	⁻⁶ ₋₃	74.4	⁻¹⁹ ₋₃	73.1	⁻³¹ ₋₃	71.0	⁻⁴² ₋₃	68.0	⁻⁵³ ₋₃	64.2	⁻⁶⁴ ₋₃	59.8	⁻⁷³ ₋₃	54.6	⁻⁸¹ ₋₂	48.9	⁻⁸⁸ ₋₂	42.7	⁻⁹⁴ ₋₂	36.2	⁻⁹⁹ ₋₁	26.3	⁻¹⁰² ₋₁	16.0																	
Jul 12	12	74.5	⁻⁶ ₋₄	74.0	⁻¹⁹ ₋₄	72.7	⁻³¹ ₋₄	70.6	⁻⁴² ₋₄	67.6	⁻⁵³ ₋₄	63.9	⁻⁶³ ₋₄	59.4	⁻⁷³ ₋₃	54.3	⁻⁸¹ ₋₃	48.7	⁻⁸⁸ ₋₃	42.5	⁻⁹³ ₋₂	36.0	⁻⁹⁸ ₋₂	26.1	⁻¹⁰¹ ₋₁	15.9																	
Jul 13	13	73.9	⁻⁶ ₋₅	73.5	⁻¹⁸ ₋₅	72.2	⁻³⁰ ₋₅	70.1	⁻⁴² ₋₅	67.1	⁻⁵³ ₋₅	63.4	⁻⁶³ ₋₄	59.0	⁻⁷² ₋₄	54.0	⁻⁸⁰ ₋₄	48.3	⁻⁸⁷ ₋₃	42.2	⁻⁹³ ₋₃	35.7	⁻⁹⁷ ₋₂	25.9	⁻¹⁰⁰ ₋₁	15.8																	
Jul 14	14	73.3	⁻⁶ ₋₆	72.9	⁻¹⁸ ₋₆	71.6	⁻³⁰ ₋₆	69.5	⁻⁴¹ ₋₅	66.6	⁻⁵² ₋₅	62.9	⁻⁶² ₋₅	58.5	⁻⁷¹ ₋₄	53.5	⁻⁷⁹ ₋₄	47.9	⁻⁸⁶ ₋₄	41.9	⁻⁹² ₋₃	35.4	⁻⁹⁷ ₋₂	25.7	⁻¹⁰⁰ ₋₂	15.7																	
Jul 15	15	72.6	⁻⁶ ₋₆	72.2	⁻¹⁸ ₋₆	70.9	⁻³⁰ ₋₆	68.8	⁻⁴¹ ₋₆	66.0	⁻⁵² ₋₅	62.3	⁻⁶² ₋₅	58.0	⁻⁷¹ ₋₅	53.0	⁻⁷⁹ ₋₄	47.5	⁻⁸⁵ ₋₄	41.5	⁻⁹¹ ₋₃	35.1	⁻⁹⁶ ₋₃	25.5	⁻⁹⁹ ₋₂	15.6																	
Jul 16	16	71.9	⁻⁶ ₋₆	71.5	⁻¹⁸ ₋₆	70.2	⁻²⁹ ₋₆	68.1	⁻⁴¹ ₋₆	65.3	⁻⁵¹ ₋₅	61.7	⁻⁶¹ ₋₅	57.4	⁻⁷⁰ ₋₅	52.5	⁻⁷⁸ ₋₄	47.0	⁻⁸⁴ ₋₄	41.0	⁻⁹⁰ ₋₃	34.7	⁻⁹⁵ ₋₃	25.2	⁻⁹⁸ ₋₂	15.4																	
Jul 17	17	71.2	⁻⁶ ₋₆	70.7	⁻¹⁸ ₋₆	69.5	⁻²⁹ ₋₆	67.4	⁻⁴⁰ ₋₅	64.6	⁻⁵¹ ₋₅	61.0	⁻⁶⁰ ₋₅	56.8	⁻⁶⁹ ₋₄	51.9	⁻⁷⁷ ₋₄	46.5	⁻⁸⁴ ₋₄	40.6	⁻⁸⁹ ₋₃	34.4	⁻⁹⁴ ₋₂	24.9	⁻⁹⁷ ₋₂	15.2																	
Jul 18	18	70.5	⁻⁶ ₋₅	70.1	⁻¹⁸ ₋₅	68.8	⁻²⁹ ₋₅	66.8	⁻⁴⁰ ₋₅	64.0	⁻⁵⁰ ₋₄	60.4	⁻⁶⁰ ₋₄	56.2	⁻⁶⁹ ₋₄	51.4	⁻⁷⁶ ₋₃	46.1	⁻⁸³ ₋₃	40.2	⁻⁸⁸ ₋₃	34.0	⁻⁹³ ₋₂	24.7	⁻⁹⁶ ₋₁	15.1																	
Jul 19	19	69.9	⁻⁶ ₋₄	69.5	⁻¹⁷ ₋₄	68.2	⁻²⁹ ₋₄	66.2	⁻⁴⁰ ₋₄	63.4	⁻⁵⁰ ₋₃	59.9	⁻⁵⁹ ₋₃	55.8	⁻⁶⁸ ₋₃	51.0	⁻⁷⁶ ₋₃	45.7	⁻⁸² ₋₂	39.9	⁻⁸⁸ ₋₂	33.7	⁻⁹² ₋₂	24.5	⁻⁹⁵ ₋₁	15.0																	
Jul 20	20	69.4	⁻⁶ ₋₂	69.0	⁻¹⁷ ₋₂	67.8	⁻²⁹ ₋₂	65.8	⁻³⁹ ₋₂	63.0	⁻⁵⁰ ₋₂	59.5	⁻⁵⁹ ₋₂	55.4	⁻⁶⁸ ₋₂	50.6	⁻⁷⁵ ₋₂	45.4	⁻⁸² ₋₁	39.6	⁻⁸⁷ ₋₁	33.5	⁻⁹² ₋₁	24.3	⁻⁹⁴ ₋₁	14.9																	
Jul 21	21	69.1	⁻⁶ ₋₁	68.7	⁻¹⁷ ₋₁	67.5	⁻²⁸ ₋₁	65.5	⁻³⁹ ₋₁	62.7	⁻⁴⁹ ₋₁	59.3	⁻⁵⁹ ₋₁	55.2	⁻⁶⁸ ₋₁	50.4	⁻⁷⁵ ₋₁	45.2	⁻⁸² ₀	39.5	⁻⁸⁷ ₀	33.4	⁻⁹¹ ₀	24.2	⁻⁹⁴ ₀	14.8																	
Jul 22	22	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	⁻⁶⁸ ₁	50.4	⁻⁷⁵ ₁	45.1	⁻⁸² ₁	39.4	⁻⁸⁷ ₁	33.3	⁻⁹¹ ₀	24.2	⁻⁹⁴ ₀	14.8																	
Jul 23	23	69.1	⁻⁶ ₃	68.7	⁻¹⁷ ₃	67.5	⁻²⁹ ₃	65.5	⁻³⁹ ₃	62.8	⁻⁵⁰ ₂	59.3	⁻⁵⁹ ₂	55.2	⁻⁶⁸ ₂	50.4	⁻⁷⁵ ₂	45.2	⁻⁸² ₂	39.5	⁻⁸⁷ ₁	33.4	⁻⁹² ₁	24.2	⁻⁹⁵ ₁	14.8																	
Jul 24	24	69.5	⁻⁶ ₅	69.1	⁻¹⁷ ₄	67.8	⁻²⁹ ₄	65.8	⁻⁴⁰ ₄	63.1	⁻⁵⁰ ₄	59.6	⁻⁶⁰ ₄	55.4	⁻⁶⁸ ₃	50.7	⁻⁷⁶ ₃	45.4	⁻⁸² ₃	39.7	⁻⁸⁸ ₂	33.5	⁻⁹² ₂	24.4	⁻⁹⁵ ₁	14.9																	
Jul 25	25	70.0	⁻⁶ ₆	69.6	⁻¹⁸ ₆	68.4	⁻²⁹ ₆	66.4	⁻⁴⁰ ₆	63.6	⁻⁵⁰ ₅	60.1	⁻⁶⁰ ₅	55.9	⁻⁶⁹ ₅	51.1	⁻⁷⁷ ₄	45.8	⁻⁸³ ₄	40.0	⁻⁸⁸ ₃	33.8	⁻⁹³ ₃	24.5	⁻⁹⁶ ₂	15.0																	
Jul 26	26	70.7	⁻⁶ ₇	70.3	⁻¹⁸ ₇	69.1	⁻²⁹ ₇	67.1	⁻⁴⁰ ₇	64.2	⁻⁵¹ ₆	60.7	⁻⁶¹ ₆	56.5	⁻⁷⁰ ₆	51.6	⁻⁷⁷ ₅	46.2	⁻⁸⁴ ₄	40.4	⁻⁸⁹ ₄	34.2	⁻⁹⁴ ₃	24.8	⁻⁹⁷ ₂	15.1																	
Jul 27	27	71.6	⁻⁶ ₈	71.2	⁻¹⁸ ₈	70.0	⁻³⁰ ₈	67.9	⁻⁴¹ ₇	65.0	⁻⁵² ₇	61.4	⁻⁶² ₇	57.2	⁻⁷¹ ₆	52.3	⁻⁷⁸ ₆	46.8	⁻⁸⁵ ₅	40.9	⁻⁹¹ ₄	34.6	⁻⁹⁵ ₃	25.1	⁻⁹⁸ ₂	15.3																	
Jul 28	28	72.6	⁻⁶ ₈	72.2	⁻¹⁸ ₈	70.9	⁻³⁰ ₈	68.8	⁻⁴² ₈	65.9	⁻⁵² ₇	62.3	⁻⁶² ₇	57.9	⁻⁷¹ ₆	53.0	⁻⁷⁹ ₆	47.4	⁻⁸⁶ ₅	41.4	⁻⁹² ₄	35.1	⁻⁹⁷ ₃	25.4	⁻¹⁰⁰ ₂	15.5																	
Jul 29	29	73.6	⁻⁶ ₈	73.1	⁻¹⁸ ₈	71.9	⁻³¹ ₇	69.7	⁻⁴² ₇	66.8	⁻⁵³ ₇	63.1	⁻⁶³ ₆	58.7	⁻⁷² ₆	53.7	⁻⁸¹ ₅	48.1	⁻⁸⁷ ₅	42.0	⁻⁹³ ₄	35.5	⁻⁹⁸ ₃	25.8	⁻¹⁰¹ ₂	15.8																	
Jul 30	30	74.5	⁻⁶ ₆	74.1	⁻¹⁹ ₆	72.8	⁻³¹ ₆	70.6	⁻⁴³ ₆	67.6	⁻⁵⁴ ₆	63.9	⁻⁶⁴ ₅	59.5	⁻⁷³ ₅	54.4	⁻⁸¹ ₅	48.7	⁻⁸⁸ ₄	42.5	⁻⁹⁴ ₃	36.0	⁻⁹⁹ ₃	26.1	⁻¹⁰² ₂	16.0																	
Jul 31	31	75.3	⁻⁶ ₅	74.8	⁻¹⁹ ₅	73.5	⁻³¹ ₅	71.3	⁻⁴³ ₄	68.3	⁻⁵⁴ ₄	64.6	⁻⁶⁴ ₄	60.1	⁻⁷⁴ ₄	54.9	⁻⁸² ₃	49.2	⁻⁸⁹ ₃	43.0	⁻⁹⁵ ₃	36.3	⁻¹⁰⁰ ₂	26.4	⁻¹⁰³ ₁	16.1																	
Aug 1	1	75.9	⁻⁶ ₃	75.4	⁻¹⁹ ₃	74.1	⁻³¹ ₃	71.9	⁻⁴³ ₃	68.9	⁻⁵⁴ ₂	65.1	⁻⁶⁵ ₂	60.5	⁻⁷⁴ ₂	55.3	⁻⁸³ ₂	49.6	⁻⁹⁰ ₂	43.3	⁻⁹⁶ ₁	36.6	⁻¹⁰¹ ₁	26.6	⁻¹⁰⁴ ₁	16.2																	
Aug 2	2	76.2	⁻⁶ ₁	75.7	⁻¹⁹ ₁	74.4	⁻³¹ ₁	72.2	⁻⁴³ ₁	69.2	⁻⁵⁵ ₁	65.4	⁻⁶⁵ ₁	60.8	⁻⁷⁵ ₁	55.6	⁻⁸³ ₁	49.8	⁻⁹⁰ ₀	43.5	⁻⁹⁶ ₀	36.8	⁻¹⁰¹ ₀	26.7	⁻¹⁰⁴ ₀	16.3																	
Aug 3	3	76.3	⁻⁶ ₋₁	75.8	⁻¹⁹ ₋₁	74.5	⁻³¹ ₋₁	72.3	⁻⁴³ ₋₁	69.3	⁻⁵⁵ ₋₁	65.4	⁻⁶⁵ ₋₁	60.9	⁻⁷⁵ ₋₁	55.7	⁻⁸³ ₋₁	49.9	⁻⁹⁰ ₋₁	43.5	⁻⁹⁶ ₋₁	36.8	⁻¹⁰¹ ₀	26.7	⁻¹⁰⁴ ₀	16.3																	
Aug 4	4	76.1	⁻⁶ ₋₃	75.7	⁻¹⁹ ₋₃	74.4	⁻³¹ ₋₃	72.2	⁻⁴³ ₋₂	69.1	⁻⁵⁴ ₋₂	65.3	⁻⁶⁵ ₋₂	60.8	⁻⁷⁴ ₋₂	55.6	⁻⁸³ ₋₂	49.8	⁻⁹⁰ ₋₂	43.5	⁻⁹⁶ ₋₁	36.8	⁻¹⁰¹ ₋₁	26.7	⁻¹⁰⁴ ₋₁	16.3																	
Aug 5	5	75.8	⁻⁶ ₋₄	75.4	⁻¹⁹ ₋₄	74.1	⁻³¹ ₋₄	71.9	⁻⁴³ ₋₄	68.8	⁻⁵⁴ ₋₃	65.0	⁻⁶⁵ ₋₃	60.5	⁻⁷⁴ ₋₃	55.3	⁻⁸² ₋₃	49.6	⁻⁸⁹ ₋₂	43.3	⁻⁹⁵ ₋₂	36.6	⁻¹⁰⁰ ₋₂	26.6	⁻¹⁰³ ₋₁	16.2																	
Aug 6	6	75.4	⁻⁶ ₋₅	74.9	⁻¹⁹ ₋₅	73.6	⁻³¹ ₋₄	71.4	⁻⁴³ ₋₄	68.4	⁻⁵⁴ ₋₄	64.6	⁻⁶⁴ ₋₄	60.1	⁻⁷³ ₋₃	55.0	⁻⁸² ₋₃	49.3	⁻⁸⁹ ₋₃	43.0	⁻⁹⁴ ₋₂	36.4	⁻⁹⁹ ₋₂	26.4	⁻¹⁰² ₋₁	16.1																	
Aug 7	7	74.8	⁻⁶ ₋₅	74.4	⁻¹⁹ ₋₅	73.1	⁻³¹ ₋₅	70.9	⁻⁴² ₋₅	67.9	⁻⁵³ ₋₄	64.2	⁻⁶⁴ ₋₄	59.7	⁻⁷³ ₋₄	54.6	<																										

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Moon Parallax and Semi-diameter

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Jul 4	4	42.7 ⁻⁶ ₃	42.3 ⁻¹⁹ ₃	41.0 ⁻³¹ ₃	38.8 ⁻⁴³ ₃	35.8 ⁻⁵⁴ ₃	32.1 ⁻⁶⁴ ₃	27.6 ⁻⁷³ ₂	22.5 ⁻⁸¹ ₂	16.8 ⁻⁸⁸ ₂	10.7 ⁻⁹⁴ ₂	4.1 ⁻⁹⁹ ₁	5.8 ⁻¹⁰² ₁	16.0	Jul 5	5	42.9 ⁻⁶ ₂	42.5 ⁻¹⁹ ₂	41.2 ⁻³¹ ₂	39.0 ⁻⁴³ ₂	36.0 ⁻⁵⁴ ₂	32.3 ⁻⁶⁴ ₂	27.8 ⁻⁷⁴ ₂	22.6 ⁻⁸² ₁	16.9 ⁻⁸⁹ ₁	10.7 ⁻⁹⁵ ₁	4.1 ⁻¹⁰⁰ ₁	5.8 ⁻¹⁰³ ₁	16.1	Jul 6	6	43.1 ⁻⁶ ₁	42.6 ⁻¹⁹ ₁	41.3 ⁻³¹ ₁	39.1 ⁻⁴³ ₁	36.1 ⁻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 ₀	5.9 ⁻¹⁰³ ₀	16.1	Jul 7	7	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	Jul 8	8	43.2 ⁻⁶ ₋₁	42.7 ⁻¹⁹ ₋₁	41.4 ⁻³¹ ₋₁	39.2 ⁻⁴³ ₋₁	36.2 ⁻⁵⁴ ₋₁	32.4 ⁻⁶⁴ ₋₁	27.9 ⁻⁷⁴ ₋₁	22.8 ⁻⁸² ₋₁	17.0 ⁻⁸⁹ ₋₁	10.8 ⁻⁹⁵ ₀	4.1 ⁻¹⁰⁰ ₀	5.9 ⁻¹⁰³ ₀	16.2	Jul 9	9	43.1 ⁻⁶ ₋₂	42.7 ⁻¹⁹ ₋₂	41.3 ⁻³¹ ₋₂	39.2 ⁻⁴³ ₋₂	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	Jul 10	10	43.0 ⁻⁶ ₋₃	42.5 ⁻¹⁹ ₋₃	41.2 ⁻³¹ ₋₂	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	Jul 11	11	42.8 ⁻⁶ ₋₃	42.4 ⁻¹⁹ ₋₃	41.1 ⁻³¹ ₋₃	38.9 ⁻⁴² ₋₃	35.9 ⁻⁵³ ₋₃	32.2 ⁻⁶⁴ ₋₃	27.7 ⁻⁷³ ₋₃	22.6 ⁻⁸¹ ₋₂	16.9 ⁻⁸⁸ ₋₂	10.7 ⁻⁹⁴ ₋₂	4.1 ⁻⁹⁹ ₋₁	5.8 ⁻¹⁰² ₋₁	16.0	Jul 12	12	42.6 ⁻⁶ ₋₄	42.1 ⁻¹⁹ ₋₄	40.8 ⁻³¹ ₋₄	38.7 ⁻⁴² ₋₄	35.7 ⁻⁵³ ₋₄	32.0 ⁻⁶³ ₋₄	27.5 ⁻⁷³ ₋₃	22.4 ⁻⁸¹ ₋₃	16.8 ⁻⁸⁸ ₋₃	10.6 ⁻⁹³ ₋₂	4.1 ⁻⁹⁸ ₋₂	5.8 ⁻¹⁰¹ ₋₁	15.9	Jul 13	13	42.3 ⁻⁶ ₋₅	41.8 ⁻¹⁸ ₋₅	40.5 ⁻³⁰ ₋₅	38.4 ⁻⁴² ₋₅	35.5 ⁻⁵³ ₋₅	31.8 ⁻⁶³ ₋₄	27.3 ⁻⁷² ₋₄	22.3 ⁻⁸⁰ ₋₄	16.7 ⁻⁸⁷ ₋₃	10.5 ⁻⁹³ ₋₃	4.0 ⁻⁹⁷ ₋₂	5.7 ⁻¹⁰⁰ ₋₁	15.8	Jul 14	14	41.9 ⁻⁶ ₋₆	41.5 ⁻¹⁸ ₋₆	40.2 ⁻³⁰ ₋₆	38.1 ⁻⁴¹ ₋₅	35.2 ⁻⁵² ₋₅	31.5 ⁻⁶² ₋₅	27.1 ⁻⁷¹ ₋₄	22.1 ⁻⁷⁹ ₋₄	16.5 ⁻⁸⁶ ₋₄	10.5 ⁻⁹² ₋₃	4.0 ⁻⁹⁷ ₋₂	5.7 ⁻¹⁰⁰ ₋₂	15.7	Jul 15	15	41.5 ⁻⁶ ₋₆	41.1 ⁻¹⁸ ₋₆	39.8 ⁻³⁰ ₋₆	37.7 ⁻⁴¹ ₋₆	34.8 ⁻⁵² ₋₅	31.2 ⁻⁶² ₋₅	26.9 ⁻⁷¹ ₋₅	21.9 ⁻⁷⁹ ₋₄	16.4 ⁻⁸⁵ ₋₄	10.4 ⁻⁹¹ ₋₃	4.0 ⁻⁹⁶ ₋₃	5.6 ⁻⁹⁹ ₋₂	15.6	Jul 16	16	41.1 ⁻⁶ ₋₆	40.7 ⁻¹⁸ ₋₆	39.4 ⁻²⁹ ₋₆	37.3 ⁻⁴¹ ₋₆	34.5 ⁻⁵¹ ₋₅	30.9 ⁻⁶¹ ₋₅	26.6 ⁻⁷⁰ ₋₅	21.7 ⁻⁷⁸ ₋₄	16.2 ⁻⁸⁴ ₋₄	10.3 ⁻⁹⁰ ₋₃	3.9 ⁻⁹⁵ ₋₃	5.6 ⁻⁹⁸ ₋₂	15.4	Jul 17	17	40.7 ⁻⁶ ₋₆	40.3 ⁻¹⁸ ₋₆	39.0 ⁻²⁹ ₋₆	37.0 ⁻⁴⁰ ₋₅	34.1 ⁻⁵¹ ₋₅	30.6 ⁻⁶⁰ ₋₅	26.3 ⁻⁶⁹ ₋₄	21.4 ⁻⁷⁷ ₋₄	16.0 ⁻⁸⁴ ₋₄	10.1 ⁻⁸⁹ ₋₃	3.9 ⁻⁹⁴ ₋₂	5.5 ⁻⁹⁷ ₋₂	15.2	Jul 18	18	40.3 ⁻⁶ ₋₅	39.9 ⁻¹⁸ ₋₅	38.6 ⁻²⁹ ₋₅	36.6 ⁻⁴⁰ ₋₅	33.8 ⁻⁵⁰ ₋₄	30.3 ⁻⁶⁰ ₋₄	26.1 ⁻⁶⁹ ₋₄	21.2 ⁻⁷⁶ ₋₃	15.9 ⁻⁸³ ₋₃	10.0 ⁻⁸⁸ ₋₃	3.8 ⁻⁹³ ₋₂	5.5 ⁻⁹⁶ ₋₁	15.1	Jul 19	19	39.9 ⁻⁶ ₋₄	39.5 ⁻¹⁷ ₋₄	38.3 ⁻²⁹ ₋₄	36.3 ⁻⁴⁰ ₋₄	33.5 ⁻⁵⁰ ₋₃	30.0 ⁻⁵⁹ ₋₃	25.8 ⁻⁶⁸ ₋₃	21.1 ⁻⁷⁶ ₋₃	15.7 ⁻⁸² ₋₂	10.0 ⁻⁸⁸ ₋₂	3.8 ⁻⁹² ₋₂	5.4 ⁻⁹⁵ ₋₁	15.0	Jul 20	20	39.7 ⁻⁶ ₋₂	39.3 ⁻¹⁷ ₋₂	38.1 ⁻²⁹ ₋₂	36.1 ⁻³⁹ ₋₂	33.3 ⁻⁵⁰ ₋₂	29.8 ⁻⁵⁹ ₋₂	25.7 ⁻⁶⁸ ₋₂	20.9 ⁻⁷⁵ ₋₂	15.6 ⁻⁸² ₋₁	9.9 ⁻⁸⁷ ₋₁	3.8 ⁻⁹² ₋₁	5.4 ⁻⁹⁴ ₋₁	14.9	Jul 21	21	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 ₀	9.9 ⁻⁸⁷ ₀	3.8 ⁻⁹¹ ₀	5.4 ⁻⁹⁴ ₀	14.8	Jul 22	22	39.5 ⁻⁶ ₁	39.0 ⁻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 ₁	15.5 ⁻⁸² ₁	9.8 ⁻⁸⁷ ₁	3.8 ⁻⁹¹ ₀	5.4 ⁻⁹⁴ ₀	14.8	Jul 23	23	39.5 ⁻⁶ ₃	39.1 ⁻¹⁷ ₃	37.9 ⁻²⁹ ₃	35.9 ⁻³⁹ ₃	33.2 ⁻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 ⁻⁹⁵ ₁	14.8	Jul 24	24	39.7 ⁻⁶ ₅	39.3 ⁻¹⁷ ₄	38.1 ⁻²⁹ ₄	36.1 ⁻⁴⁰ ₄	33.3 ⁻⁵⁰ ₄	29.8 ⁻⁶⁰ ₄	25.7 ⁻⁶⁸ ₃	20.9 ⁻⁷⁶ ₃	15.7 ⁻⁸² ₃	9.9 ⁻⁸⁸ ₂	3.8 ⁻⁹² ₂	5.4 ⁻⁹⁵ ₁	14.9	Jul 25	25	40.0 ⁻⁶ ₆	39.6 ⁻¹⁸ ₆	38.4 ⁻²⁹ ₆	36.4 ⁻⁴⁰ ₆	33.6 ⁻⁵⁰ ₅	30.1 ⁻⁶⁰ ₅	25.9 ⁻⁶⁹ ₅	21.1 ⁻⁷⁷ ₄	15.8 ⁻⁸³ ₄	10.0 ⁻⁸⁸ ₃	3.8 ⁻⁹³ ₃	5.4 ⁻⁹⁶ ₂	15.0	Jul 26	26	40.4 ⁻⁶ ₇	40.0 ⁻¹⁸ ₇	38.8 ⁻²⁹ ₇	36.8 ⁻⁴⁰ ₇	33.9 ⁻⁵¹ ₆	30.4 ⁻⁶¹ ₆	26.2 ⁻⁷⁰ ₆	21.3 ⁻⁷⁷ ₅	15.9 ⁻⁸⁴ ₄	10.1 ⁻⁸⁹ ₄	3.9 ⁻⁹⁴ ₃	5.5 ⁻⁹⁷ ₂	15.1	Jul 27	27	40.9 ⁻⁶ ₈	40.5 ⁻¹⁸ ₈	39.3 ⁻³⁰ ₈	37.2 ⁻⁴¹ ₇	34.4 ⁻⁵² ₇	30.8 ⁻⁶² ₇	26.5 ⁻⁷¹ ₆	21.6 ⁻⁷⁸ ₆	16.1 ⁻⁸⁵ ₅	10.2 ⁻⁹¹ ₄	3.9 ⁻⁹⁵ ₃	5.6 ⁻⁹⁸ ₂	15.3	Jul 28	28	41.5 ⁻⁶ ₈	41.1 ⁻¹⁸ ₈	39.8 ⁻³⁰ ₈	37.7 ⁻⁴² ₈	34.8 ⁻⁵² ₇	31.2 ⁻⁶² ₇	26.8 ⁻⁷¹ ₆	21.9 ⁻⁷⁹ ₆	16.4 ⁻⁸⁶ ₅	10.4 ⁻⁹² ₄	4.0 ⁻⁹⁷ ₃	5.6 ⁻¹⁰⁰ ₂	15.5	Jul 29	29	42.1 ⁻⁶ ₈	41.6 ⁻¹⁸ ₈	40.3 ⁻³¹ ₇	38.2 ⁻⁴² ₇	35.3 ⁻⁵³ ₇	31.6 ⁻⁶³ ₆	27.2 ⁻⁷² ₆	22.2 ⁻⁸¹ ₅	16.6 ⁻⁸⁷ ₅	10.5 ⁻⁹³ ₄	4.0 ⁻⁹⁸ ₃	5.7 ⁻¹⁰¹ ₂	15.8	Jul 30	30	42.6 ⁻⁶ ₆	42.1 ⁻¹⁹ ₆	40.8 ⁻³¹ ₆	38.7 ⁻⁴³ ₆	35.7 ⁻⁵⁴ ₆	32.0 ⁻⁶⁴ ₅	27.5 ⁻⁷³ ₅	22.5 ⁻⁸¹ ₅	16.8 ⁻⁸⁸ ₄	10.6 ⁻⁹⁴ ₃	4.1 ⁻⁹⁹ ₃	5.8 ⁻¹⁰² ₂	16.0	Jul 31	31	43.0 ⁻⁶ ₅	42.6 ⁻¹⁹ ₅	41.3 ⁻³¹ ₅	39.1 ⁻⁴³ ₄	36.1 ⁻⁵⁴ ₄	32.3 ⁻⁶⁴ ₄	27.8 ⁻⁷⁴ ₄	22.7 ⁻⁸² ₃	17.0 ⁻⁸⁹ ₃	10.7 ⁻⁹⁵ ₃	4.1 ⁻¹⁰⁰ ₂	5.8 ⁻¹⁰³ ₁	16.1	Aug 1	1	43.4 ⁻⁶ ₃	42.9 ⁻¹⁹ ₃	41.6 ⁻³¹ ₃	39.4 ⁻⁴³ ₃	36.4 ⁻⁵⁴ ₂	32.6 ⁻⁶⁵ ₂	28.1 ⁻⁷⁴ ₂	22.9 ⁻⁸³ ₂	17.1 ⁻⁹⁰ ₂	10.8 ⁻⁹⁶ ₁	4.1 ⁻¹⁰¹ ₁	5.9 ⁻¹⁰⁴ ₁	16.2	Aug 2	2	43.6 ⁻⁶ ₁	43.1 ⁻¹⁹ ₁	41.8 ⁻³¹ ₁	39.6 ⁻⁴³ ₁	36.5 ⁻⁵⁵ ₁	32.7 ⁻⁶⁵ ₁	28.2 ⁻⁷⁵ ₁	23.0 ⁻⁸³ ₁	17.2 ⁻⁹⁰ ₀	10.9 ⁻⁹⁶ ₀	4.2 ⁻¹⁰¹ ₀	5.9 ⁻¹⁰⁴ ₀	16.3	Aug 3	3	43.6 ⁻⁶ ₋₁	43.2 ⁻¹⁹ ₋₁	41.8 ⁻³¹ ₋₁	39.6 ⁻⁴³ ₋₁	36.6 ⁻⁵⁵ ₋₁	32.8 ⁻⁶⁵ ₋₁	28.2 ⁻⁷⁵ ₋₁	23.0 ⁻⁸³ ₋₁	17.2 ⁻⁹⁰ ₋₁	10.9 ⁻⁹⁶ ₋₁	4.2 ⁻¹⁰¹ ₀	5.9 ⁻¹⁰⁴ ₀	16.3	Aug 4	4	43.5 ⁻⁶ ₋₃	43.1 ⁻¹⁹ ₋₃	41.8 ⁻³¹ ₋₃	39.6 ⁻⁴³ ₋₂	36.5 ⁻⁵⁴ ₋₂	32.7 ⁻⁶⁵ ₋₂	28.2 ⁻⁷⁴ ₋₂	22.9 ⁻⁸³ ₋₂	17.2 ⁻⁹⁰ ₋₂	10.9 ⁻⁹⁶ ₋₁	4.2 ⁻¹⁰¹ ₋₁	5.9 ⁻¹⁰⁴ ₋₁	16.3	Aug 5	5	43.3 ⁻⁶ ₋₄	42.9 ⁻¹⁹ ₋₄	41.6 ⁻³¹ ₋₄	39.4 ⁻⁴³ ₋₄	36.4 ⁻⁵⁴ ₋₃	32.6 ⁻⁶⁵ ₋₃	28.0 ⁻⁷⁴ ₋₃	22.9 ⁻⁸² ₋₃	17.1 ⁻⁸⁹ ₋₂	10.8 ⁻⁹⁵ ₋₂	4.1 ⁻¹⁰⁰ ₋₂	5.9 ⁻¹⁰³ ₋₁	16.2	Aug 6	6	43.1 ⁻⁶ ₋₅	42.6 ⁻¹⁹ ₋₅	41.3 ⁻³¹ ₋₄	39.1 ⁻⁴³ ₋₄	36.2 ⁻⁵⁴ ₋₄	32.4 ⁻⁶⁴ ₋₄	27.9 ⁻⁷³ ₋₃	22.7 ⁻⁸² ₋₃	17.0 ⁻⁸⁹ ₋₃	10.7 ⁻⁹⁴ ₋₂	4.1 ⁻⁹⁹ ₋₂	5.9 ⁻¹⁰² ₋₁	16.1	Aug 7	7	42.8 ⁻⁶ ₋₅	42.3 ⁻¹⁹ ₋₅	41.0 ⁻³¹ ₋₅	38.9 ⁻⁴² ₋₅	35.9 ⁻⁵³ ₋₄	32.1 ⁻⁶⁴ ₋₄	27.7 ⁻⁷³ ₋₄	22.5 ⁻⁸¹ ₋₃	16.9 ⁻⁸⁸ ₋₃	10.7 ⁻⁹⁴ ₋₃	4.1 ⁻⁹⁹ ₋₂	5.8 ⁻¹⁰² ₋₁	16.0	Aug 8	8	42.4 ⁻⁶ ₋₅	42.0 ⁻¹⁸ ₋₅	40.7 ⁻³⁰ ₋₅	38.6 ⁻⁴² ₋₅	35.6 ⁻⁵³ ₋₅	31.9 ⁻⁶³ ₋₄	27.4 ⁻⁷² ₋₄	22.4 ⁻⁸⁰ ₋₄	16.7 ⁻⁸⁷ ₋₃	10.6 ⁻⁹³ ₋₃	4.1 ⁻⁹⁸ ₋₂	5.8 ⁻¹⁰¹ ₋₁	15.9	Aug 9	9	42.1 ⁻⁶ ₋₅	41.6 ⁻¹⁸ ₋₅	40.3 ⁻³⁰ ₋₅	38.2 ⁻⁴² ₋₅	35.3 ⁻⁵² ₋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 ₋₂	15.8	Aug 10	10	41.7 ⁻⁶ ₋₅	41.3 ⁻¹⁸ ₋₅	40.0 ⁻³⁰ ₋₅	37.9 ⁻⁴¹ ₋₅	35.0 ⁻⁵² ₋₅	31.3 ⁻⁶² ₋₄	27.0 ⁻⁷¹ ₋₄	22.0 ⁻⁷⁹ ₋₄	16.4 ⁻⁸⁶ ₋₃	10.4 ⁻⁹¹ ₋₃	4.0 ⁻⁹⁶ ₋₂	5.7 ⁻⁹⁹ ₋₂	15.6	Aug 11	11	41.3 ⁻⁶ ₋₅	40.9 ⁻¹⁸ ₋₅	39.6 ⁻³⁰ ₋₅	37.6 ⁻⁴¹ ₋₅	34.7 ⁻⁵² ₋₅	31.1 ⁻⁶¹ ₋₄	26.7 ⁻⁷⁰ ₋₄	21.8 ⁻⁷⁸ ₋₄	16.3 ⁻⁸⁵ ₋₃	10.3 ⁻⁹⁰ ₋₃	3.9 ⁻⁹⁵ ₋₂	5.6 ⁻⁹⁸ ₋₂	15.5	Aug 12	12	41.0 ⁻⁶ ₋₅	40.5 ⁻¹⁸ ₋₅	39.3 ⁻²⁹ ₋₅	37.2 ⁻⁴¹ ₋₅	34.4 ⁻⁵¹ ₋₅	30.8 ⁻⁶¹ ₋₄	26.5 ⁻⁷⁰ ₋₄	21.6 ⁻⁷⁸ ₋₄	16.1 ⁻⁸⁴ ₋₃	10.2 ⁻⁹⁰ ₋₃	3.9 ⁻⁹⁴ ₋₂	5.6 ⁻⁹⁷ ₋₁	15.3	Aug 13	13	40.6 ⁻⁶ ₋₅	40.2 ⁻¹⁸ ₋₅	39.0 ⁻²⁹ ₋₅	36.9 ⁻⁴⁰ ₋₅	34.1 ⁻⁵¹ ₋₄	30.5 ⁻⁶⁰ ₋₄	26.3 ⁻⁶⁹ ₋₄	21.4 ⁻⁷⁷ ₋₃	16.0 ⁻⁸⁴ ₋₃	10.1 ⁻⁸⁹ ₋₃	3.9 ⁻⁹⁴ ₋₂	5.5 ⁻⁹⁷ ₋₁	15.2	Aug 14	14	40.3 ⁻⁶ ₋₄	39.9 ⁻¹⁸ ₋₄	38.6 ⁻²⁹ ₋₄

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	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	50.3	⁻⁷⁵ ₁	45.0	⁻⁸¹ ₁	39.3	⁻⁸⁷ ₁	33.3	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₀	14.8																	
Aug 20	69.0	⁻⁶ ₃	68.6	⁻¹⁷ ₃	67.4	⁻²⁹ ₃	65.4	⁻³⁹ ₃	62.7	⁻⁵⁰ ₃	59.2	⁻⁵⁹ ₃	55.1	⁻⁶⁸ ₂	50.4	⁻⁷⁵ ₂	45.1	⁻⁸² ₂	39.4	⁻⁸⁷ ₂	33.3	⁻⁹² ₁	24.2	⁻⁹⁴ ₁	14.8																	
Aug 21	69.4	⁻⁶ ₅	69.0	⁻¹⁷ ₅	67.8	⁻²⁹ ₅	65.8	⁻⁴⁰ ₄	63.0	⁻⁵⁰ ₄	59.5	⁻⁵⁹ ₄	55.4	⁻⁶⁸ ₄	50.6	⁻⁷⁶ ₃	45.4	⁻⁸² ₃	39.6	⁻⁸⁸ ₃	33.5	⁻⁹² ₂	24.3	⁻⁹⁵ ₁	14.9																	
Aug 22	70.0	⁻⁶ ₆	69.6	⁻¹⁸ ₆	68.4	⁻²⁹ ₆	66.3	⁻⁴⁰ ₆	63.6	⁻⁵⁰ ₆	60.0	⁻⁶⁰ ₅	55.9	⁻⁶⁹ ₅	51.1	⁻⁷⁷ ₅	45.7	⁻⁸³ ₄	40.0	⁻⁸⁸ ₃	33.8	⁻⁹³ ₃	24.5	⁻⁹⁶ ₂	15.0																	
Aug 23	70.8	⁻⁶ ₈	70.4	⁻¹⁸ ₈	69.1	⁻²⁹ ₈	67.1	⁻⁴¹ ₇	64.3	⁻⁵¹ ₇	60.7	⁻⁶¹ ₇	56.5	⁻⁷⁰ ₆	51.6	⁻⁷⁷ ₆	46.3	⁻⁸⁴ ₅	40.4	⁻⁹⁰ ₄	34.2	⁻⁹⁴ ₃	24.8	⁻⁹⁷ ₂	15.2																	
Aug 24	71.7	⁻⁶ ₉	71.3	⁻¹⁸ ₉	70.1	⁻³⁰ ₉	68.0	⁻⁴¹ ₈	65.1	⁻⁵² ₈	61.5	⁻⁶² ₇	57.2	⁻⁷¹ ₇	52.3	⁻⁷⁹ ₆	46.9	⁻⁸⁵ ₆	40.9	⁻⁹¹ ₅	34.6	⁻⁹⁶ ₄	25.1	⁻⁹⁹ ₃	15.4																	
Aug 25	72.8	⁻⁶ ₁₀	72.4	⁻¹⁸ ₉	71.1	⁻³⁰ ₉	69.0	⁻⁴² ₉	66.1	⁻⁵³ ₈	62.5	⁻⁶³ ₈	58.1	⁻⁷² ₇	53.1	⁻⁸⁰ ₇	47.6	⁻⁸⁷ ₆	41.6	⁻⁹² ₅	35.2	⁻⁹⁷ ₄	25.5	⁻¹⁰⁰ ₃	15.6																	
Aug 26	74.0	⁻⁶ ₈	73.5	⁻¹⁹ ₉	72.2	⁻³¹ ₉	70.1	⁻⁴² ₉	67.2	⁻⁵³ ₈	63.4	⁻⁶⁴ ₈	59.0	⁻⁷³ ₇	54.0	⁻⁸¹ ₆	48.3	⁻⁸⁸ ₆	42.2	⁻⁹⁴ ₅	35.7	⁻⁹⁹ ₄	25.9	⁻¹⁰² ₃	15.8																	
Aug 27	75.1	⁻⁶ ₈	74.6	⁻¹⁹ ₈	73.3	⁻³¹ ₈	71.2	⁻⁴³ ₈	68.2	⁻⁵⁴ ₇	64.4	⁻⁶⁴ ₇	59.9	⁻⁷⁴ ₆	54.8	⁻⁸² ₆	49.1	⁻⁸⁹ ₅	42.9	⁻⁹⁵ ₄	36.3	⁻¹⁰⁰ ₃	26.3	⁻¹⁰³ ₂	16.1																	
Aug 28	76.1	⁻⁶ ₆	75.6	⁻¹⁹ ₆	74.3	⁻³² ₆	72.1	⁻⁴³ ₆	69.1	⁻⁵⁵ ₅	65.2	⁻⁶⁵ ₅	60.7	⁻⁷⁵ ₅	55.5	⁻⁸³ ₄	49.7	⁻⁹⁰ ₄	43.4	⁻⁹⁶ ₃	36.7	⁻¹⁰¹ ₃	26.7	⁻¹⁰⁴ ₂	16.3																	
Aug 29	76.8	⁻⁶ ₄	76.3	⁻¹⁹ ₄	75.0	⁻³² ₃	72.8	⁻⁴⁴ ₃	69.7	⁻⁵⁵ ₃	65.9	⁻⁶⁶ ₃	61.3	⁻⁷⁵ ₃	56.0	⁻⁸⁴ ₂	50.2	⁻⁹¹ ₂	43.8	⁻⁹⁷ ₂	37.1	⁻¹⁰² ₁	26.9	⁻¹⁰⁵ ₁	16.4																	
Aug 30	77.2	⁻⁶ ₁	76.8	⁻¹⁹ ₁	75.4	⁻³² ₁	73.2	⁻⁴⁴ ₁	70.1	⁻⁵⁵ ₁	66.3	⁻⁶⁶ ₁	61.6	⁻⁷⁶ ₁	56.4	⁻⁸⁴ ₀	50.5	⁻⁹¹ ₀	44.1	⁻⁹⁷ ₀	37.3	⁻¹⁰² ₀	27.1	⁻¹⁰⁵ ₀	16.5																	
Aug 31	77.3	⁻⁶ ₋₂	76.9	⁻¹⁹ ₋₂	75.5	⁻³² ₋₂	73.3	⁻⁴⁴ ₋₂	70.2	⁻⁵⁵ ₋₂	66.3	⁻⁶⁶ ₋₂	61.7	⁻⁷⁵ ₋₂	56.4	⁻⁸⁴ ₋₁	50.5	⁻⁹¹ ₋₁	44.1	⁻⁹⁷ ₋₁	37.3	⁻¹⁰² ₋₁	27.1	⁻¹⁰⁵ ₋₁	16.6																	
Sep 1	77.1	⁻⁶ ₋₄	76.6	⁻¹⁹ ₋₄	75.3	⁻³² ₋₄	73.0	⁻⁴⁴ ₋₄	70.0	⁻⁵⁵ ₋₄	66.1	⁻⁶⁶ ₋₄	61.5	⁻⁷⁵ ₋₃	56.2	⁻⁸⁴ ₋₃	50.4	⁻⁹¹ ₋₃	44.0	⁻⁹⁷ ₋₂	37.2	⁻¹⁰² ₋₂	27.0	⁻¹⁰⁵ ₋₁	16.5																	
Sep 2	76.5	⁻⁶ ₋₆	76.1	⁻¹⁹ ₋₆	74.7	⁻³¹ ₋₆	72.5	⁻⁴³ ₋₆	69.5	⁻⁵⁵ ₋₅	65.6	⁻⁶⁵ ₋₅	61.1	⁻⁷⁴ ₋₅	55.8	⁻⁸³ ₋₄	50.0	⁻⁹⁰ ₋₄	43.7	⁻⁹⁶ ₋₃	36.9	⁻¹⁰¹ ₋₃	26.8	⁻¹⁰⁴ ₋₂	16.4																	
Sep 3	75.8	⁻⁶ ₋₇	75.3	⁻¹⁹ ₋₇	74.0	⁻³¹ ₋₇	71.8	⁻⁴³ ₋₇	68.8	⁻⁵⁴ ₋₆	65.0	⁻⁶⁴ ₋₆	60.5	⁻⁷⁴ ₋₅	55.3	⁻⁸² ₋₅	49.5	⁻⁸⁹ ₋₄	43.3	⁻⁹⁵ ₋₄	36.6	⁻¹⁰⁰ ₋₃	26.6	⁻¹⁰³ ₋₂	16.2																	
Sep 4	74.9	⁻⁶ ₋₇	74.5	⁻¹⁹ ₋₇	73.2	⁻³¹ ₋₇	71.0	⁻⁴² ₋₇	68.0	⁻⁵³ ₋₇	64.3	⁻⁶⁴ ₋₆	59.8	⁻⁷³ ₋₆	54.7	⁻⁸¹ ₋₅	49.0	⁻⁸⁸ ₋₅	42.8	⁻⁹⁴ ₋₄	36.2	⁻⁹⁹ ₋₃	26.3	⁻¹⁰² ₋₂	16.0																	
Sep 5	74.0	⁻⁶ ₋₇	73.6	⁻¹⁸ ₋₇	72.3	⁻³⁰ ₋₇	70.1	⁻⁴² ₋₇	67.2	⁻⁵³ ₋₇	63.5	⁻⁶³ ₋₆	59.1	⁻⁷² ₋₆	54.0	⁻⁸⁰ ₋₅	48.4	⁻⁸⁷ ₋₅	42.2	⁻⁹² ₋₄	35.7	⁻⁹⁷ ₋₃	25.9	⁻¹⁰⁰ ₋₂	15.8																	
Sep 6	73.1	⁻⁶ ₋₇	72.7	⁻¹⁸ ₋₇	71.4	⁻³⁰ ₋₇	69.3	⁻⁴¹ ₋₆	66.4	⁻⁵² ₋₆	62.7	⁻⁶² ₋₆	58.4	⁻⁷¹ ₋₅	53.4	⁻⁷⁹ ₋₅	47.8	⁻⁸⁶ ₋₄	41.7	⁻⁹¹ ₋₄	35.3	⁻⁹⁶ ₋₃	25.6	⁻⁹⁹ ₋₂	15.7																	
Sep 7	72.3	⁻⁶ ₋₆	71.9	⁻¹⁸ ₋₆	70.6	⁻³⁰ ₋₆	68.5	⁻⁴¹ ₋₆	65.6	⁻⁵² ₋₆	62.0	⁻⁶¹ ₋₅	57.7	⁻⁷⁰ ₋₅	52.8	⁻⁷⁸ ₋₄	47.2	⁻⁸⁵ ₋₄	41.3	⁻⁹⁰ ₋₃	34.9	⁻⁹⁵ ₋₃	25.3	⁻⁹⁸ ₋₂	15.5																	
Sep 8	71.5	⁻⁶ ₋₆	71.1	⁻¹⁸ ₋₆	69.9	⁻²⁹ ₋₅	67.8	⁻⁴⁰ ₋₅	65.0	⁻⁵¹ ₋₅	61.4	⁻⁶¹ ₋₅	57.1	⁻⁷⁰ ₋₄	52.2	⁻⁷⁷ ₋₄	46.8	⁻⁸⁴ ₋₃	40.8	⁻⁹⁰ ₋₃	34.5	⁻⁹⁴ ₋₂	25.1	⁻⁹⁷ ₋₂	15.3																	
Sep 9	70.9	⁻⁶ ₋₅	70.5	⁻¹⁸ ₋₅	69.2	⁻²⁹ ₋₅	67.2	⁻⁴⁰ ₋₅	64.3	⁻⁵¹ ₋₄	60.8	⁻⁶⁰ ₋₄	56.6	⁻⁶⁹ ₋₄	51.7	⁻⁷⁷ ₋₃	46.3	⁻⁸³ ₋₃	40.5	⁻⁸⁹ ₋₃	34.2	⁻⁹³ ₋₂	24.8	⁻⁹⁶ ₋₁	15.2																	
Sep 10	70.3	⁻⁶ ₋₄	69.9	⁻¹⁷ ₋₄	68.6	⁻²⁹ ₋₄	66.6	⁻⁴⁰ ₋₄	63.8	⁻⁵⁰ ₋₄	60.3	⁻⁶⁰ ₋₃	56.1	⁻⁶⁸ ₋₃	51.3	⁻⁷⁶ ₋₃	45.9	⁻⁸³ ₋₃	40.1	⁻⁸⁸ ₋₂	33.9	⁻⁹³ ₋₂	24.6	⁻⁹⁶ ₋₁	15.0																	
Sep 11	69.8	⁻⁶ ₋₃	69.4	⁻¹⁷ ₋₃	68.2	⁻²⁹ ₋₃	66.1	⁻⁴⁰ ₋₃	63.4	⁻⁵⁰ ₋₃	59.9	⁻⁵⁹ ₋₃	55.7	⁻⁶⁸ ₋₃	50.9	⁻⁷⁶ ₋₂	45.6	⁻⁸² ₋₂	39.8	⁻⁸⁷ ₋₂	33.7	⁻⁹² ₋₁	24.5	⁻⁹⁵ ₋₁	14.9																	
Sep 12	69.4	⁻⁶ ₋₃	69.0	⁻¹⁷ ₋₃	67.7	⁻²⁹ ₋₃	65.7	⁻³⁹ ₋₂	63.0	⁻⁵⁰ ₋₂	59.5	⁻⁵⁹ ₋₂	55.4	⁻⁶⁸ ₋₂	50.6	⁻⁷⁵ ₋₂	45.3	⁻⁸² ₋₂	39.6	⁻⁸⁷ ₋₁	33.5	⁻⁹² ₋₁	24.3	⁻⁹⁴ ₋₁	14.9																	
Sep 13	69.0	⁻⁶ ₋₂	68.6	⁻¹⁷ ₋₂	67.4	⁻²⁸ ₋₂	65.4	⁻³⁹ ₋₂	62.7	⁻⁴⁹ ₋₂	59.2	⁻⁵⁹ ₋₂	55.1	⁻⁶⁷ ₋₁	50.4	⁻⁷⁵ ₋₁	45.1	⁻⁸¹ ₋₁	39.4	⁻⁸⁷ ₋₁	33.3	⁻⁹¹ ₋₁	24.2	⁻⁹⁴ ₋₁	14.8																	
Sep 14	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	⁻⁸⁶ ₀	33.2	⁻⁹¹ ₀	24.1	⁻⁹⁴ ₀	14.7																	
Sep 15	68.7	⁻⁶ ₀	68.3	⁻¹⁷ ₀	67.1	⁻²⁸ ₀	65.1	⁻³⁹ ₀	62.4	⁻⁴⁹ ₀	59.0	⁻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																	
Sep 16	68.8	⁻⁶ ₂	68.4	⁻¹⁷ ₂	67.2	⁻²⁸ ₂	65.2	⁻³⁹ ₂	62.4	⁻⁴⁹ ₁	59.0	⁻⁵⁹ ₁	54.9	⁻⁶⁷ ₁	50.2	⁻⁷⁵ ₁	44.9	⁻⁸¹ ₁	39.3	⁻⁸⁷ ₁	33.2	⁻⁹¹ ₁	24.1	⁻⁹⁴ ₀	14.7																	
Sep 17	69.0	⁻⁶ ₃	68.5	⁻¹⁷ ₃	67.3	⁻²⁸ ₃	65.4	⁻³⁹ ₃	62.6	⁻⁵⁰ ₃	59.2	⁻⁵⁹ ₃	55.0	⁻⁶⁸ ₂	50.3	⁻⁷⁵ ₂	45.1	⁻⁸² ₂	39.4	⁻⁸⁷ ₂	33.3	⁻⁹¹ ₁	24.2	⁻⁹⁴ ₁	14.8																	
Sep 18	69.3	⁻⁶ ₅	68.9	⁻¹⁷ ₅	67.7	⁻²⁹ ₅	65.7	⁻⁴⁰ ₄	62.9	⁻⁵⁰ ₄	59.5	⁻⁵⁹ ₄	55.3	⁻⁶⁸ ₄	50.6	⁻⁷⁶ ₃	45.3	⁻⁸² ₃	39.6	⁻⁸⁷ ₂	33.5	⁻⁹² ₂	24.3	⁻⁹⁵ ₁	14.8																	
Sep 19	69.9	⁻⁶ ₆	69.5	⁻¹⁸ ₆	68.3	⁻²⁹ ₆	66.2	⁻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	33.7	⁻⁹³ ₃	24.5	⁻⁹⁶ ₂	15.0																	
Sep 20	70.6	⁻⁶ ₈	70.2	⁻¹⁸ ₈	69.0	⁻²⁹ ₈	67.0	⁻⁴⁰ ₇	64.1	⁻⁵¹ ₇	60.6	⁻⁶¹ ₇	56.4	⁻⁷⁰ ₆	51.5	⁻⁷⁷ ₅	46.2	⁻⁸⁴ ₅	40.3	⁻⁸⁹ ₄	34.1	⁻⁹⁴ ₃	24.8	⁻⁹⁷ ₂	15.1																	
Sep 21	71.6	⁻⁶ ₉	71.2	⁻¹⁸ ₉	69.9	⁻³⁰ ₉	67.8	⁻⁴¹ ₈	65.0	⁻⁵² ₈	61.4	⁻⁶² ₈	57.1	⁻⁷¹ ₇	52.2	⁻⁷⁸ ₆	46.8	⁻⁸⁵ ₆	40.9	⁻⁹¹ ₅	34.6	⁻⁹⁵ ₄	25.1	⁻⁹⁸ ₃	15.3																	
Sep 22	72.7	⁻⁶ ₁₀	72.3	⁻¹⁸ ₁₀	71.0	⁻³⁰ ₁₀	68.9	⁻⁴² ₉	66.0	⁻⁵² ₉	62.4	⁻⁶³ ₈	58.0	⁻⁷² ₈	53.0	⁻⁸⁰ ₇	47.5	⁻⁸⁷ ₆	41.5	⁻⁹² ₅	35.1	⁻⁹⁷ ₄	25.5	⁻¹⁰⁰ ₃	15.6																	
Sep 23	73.9	⁻⁶ ₁₀	73.5	⁻¹⁹ ₁₀	72.2	⁻³¹ ₁₀	70.0	⁻⁴² ₉	6																																	

2011

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	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	-5.4	⁻⁹⁴ ₀	-14.8																	
Aug 20	39.5	⁻⁶ ₃	39.1	⁻¹⁷ ₃	37.9	⁻²⁹ ₃	35.9	⁻³⁹ ₃	33.1	⁻⁵⁰ ₃	29.7	⁻⁵⁹ ₃	25.5	⁻⁶⁸ ₂	20.8	⁻⁷⁵ ₂	15.6	⁻⁸² ₂	9.8	⁻⁸⁷ ₂	3.8	⁻⁹² ₁	-5.4	⁻⁹⁴ ₁	-14.8																	
Aug 21	39.7	⁻⁶ ₅	39.3	⁻¹⁷ ₅	38.1	⁻²⁹ ₅	36.1	⁻⁴⁰ ₄	33.3	⁻⁵⁰ ₄	29.8	⁻⁵⁹ ₄	25.7	⁻⁶⁸ ₄	20.9	⁻⁷⁶ ₃	15.6	⁻⁸² ₃	9.9	⁻⁸⁸ ₃	3.8	⁻⁹² ₂	-5.4	⁻⁹⁵ ₁	-14.9																	
Aug 22	40.0	⁻⁶ ₆	39.6	⁻¹⁸ ₆	38.4	⁻²⁹ ₆	36.4	⁻⁴⁰ ₆	33.6	⁻⁵⁰ ₆	30.1	⁻⁶⁰ ₅	25.9	⁻⁶⁹ ₅	21.1	⁻⁷⁷ ₅	15.8	⁻⁸³ ₄	10.0	⁻⁸⁸ ₃	3.8	⁻⁹³ ₃	-5.4	⁻⁹⁶ ₂	-15.0																	
Aug 23	40.5	⁻⁶ ₈	40.0	⁻¹⁸ ₈	38.8	⁻²⁹ ₈	36.8	⁻⁴¹ ₇	33.9	⁻⁵¹ ₇	30.4	⁻⁶¹ ₇	26.2	⁻⁷⁰ ₆	21.3	⁻⁷⁷ ₆	15.9	⁻⁸⁴ ₅	10.1	⁻⁹⁰ ₄	3.9	⁻⁹⁴ ₃	-5.5	⁻⁹⁷ ₂	-15.2																	
Aug 24	41.0	⁻⁶ ₉	40.6	⁻¹⁸ ₉	39.3	⁻³⁰ ₉	37.3	⁻⁴¹ ₈	34.4	⁻⁵² ₈	30.8	⁻⁶² ₇	26.5	⁻⁷¹ ₇	21.6	⁻⁷⁹ ₆	16.2	⁻⁸⁵ ₆	10.2	⁻⁹¹ ₅	3.9	⁻⁹⁶ ₄	-5.6	⁻⁹⁹ ₃	-15.4																	
Aug 25	41.6	⁻⁶ ₁₀	41.2	⁻¹⁸ ₉	39.9	⁻³⁰ ₉	37.8	⁻⁴² ₉	34.9	⁻⁵³ ₈	31.3	⁻⁶³ ₈	26.9	⁻⁷² ₇	21.9	⁻⁸⁰ ₇	16.4	⁻⁸⁷ ₆	10.4	⁻⁹² ₅	4.0	⁻⁹⁷ ₄	-5.7	⁻¹⁰⁰ ₃	-15.6																	
Aug 26	42.3	⁻⁶ ₉	41.8	⁻¹⁹ ₉	40.6	⁻³¹ ₉	38.4	⁻⁴² ₉	35.5	⁻⁵³ ₈	31.8	⁻⁶⁴ ₈	27.4	⁻⁷³ ₇	22.3	⁻⁸¹ ₆	16.7	⁻⁸⁸ ₆	10.5	⁻⁹⁴ ₅	4.0	⁻⁹⁹ ₄	-5.7	⁻¹⁰² ₃	-15.8																	
Aug 27	42.9	⁻⁶ ₈	42.5	⁻¹⁹ ₈	41.2	⁻³¹ ₈	39.0	⁻⁴³ ₈	36.0	⁻⁵⁴ ₇	32.2	⁻⁶⁴ ₇	27.8	⁻⁷⁴ ₆	22.6	⁻⁸² ₆	16.9	⁻⁸⁹ ₅	10.7	⁻⁹⁵ ₄	4.1	⁻¹⁰⁰ ₃	-5.8	⁻¹⁰³ ₂	-16.1																	
Aug 28	43.5	⁻⁶ ₆	43.0	⁻¹⁹ ₆	41.7	⁻³² ₆	39.5	⁻⁴³ ₆	36.5	⁻⁵⁵ ₅	32.7	⁻⁶⁵ ₅	28.1	⁻⁷⁵ ₅	22.9	⁻⁸³ ₄	17.1	⁻⁹⁰ ₄	10.8	⁻⁹⁶ ₃	4.2	⁻¹⁰¹ ₃	-5.9	⁻¹⁰⁴ ₂	-16.3																	
Aug 29	43.9	⁻⁶ ₄	43.5	⁻¹⁹ ₄	42.1	⁻³² ₃	39.9	⁻⁴⁴ ₃	36.8	⁻⁵⁵ ₃	33.0	⁻⁶⁶ ₃	28.4	⁻⁷⁵ ₃	23.1	⁻⁸⁴ ₂	17.3	⁻⁹¹ ₂	11.0	⁻⁹⁷ ₂	4.2	⁻¹⁰² ₁	-6.0	⁻¹⁰⁵ ₁	-16.4																	
Aug 30	44.1	⁻⁶ ₁	43.7	⁻¹⁹ ₁	42.3	⁻³² ₁	40.1	⁻⁴⁴ ₁	37.0	⁻⁵⁵ ₁	33.2	⁻⁶⁶ ₁	28.6	⁻⁷⁶ ₁	23.3	⁻⁸⁴ ₀	17.4	⁻⁹¹ ₀	11.0	⁻⁹⁷ ₀	4.2	⁻¹⁰² ₀	-6.0	⁻¹⁰⁵ ₀	-16.5																	
Aug 31	44.2	⁻⁶ ₋₂	43.7	⁻¹⁹ ₋₂	42.4	⁻³² ₋₂	40.2	⁻⁴⁴ ₋₂	37.1	⁻⁵⁵ ₋₂	33.2	⁻⁶⁶ ₋₂	28.6	⁻⁷⁵ ₋₂	23.3	⁻⁸⁴ ₋₁	17.4	⁻⁹¹ ₋₁	11.0	⁻⁹⁷ ₋₁	4.2	⁻¹⁰² ₋₁	-6.0	⁻¹⁰⁵ ₋₁	-16.6																	
Sep 1	44.0	⁻⁶ ₋₄	43.6	⁻¹⁹ ₋₄	42.3	⁻³² ₋₄	40.0	⁻⁴⁴ ₋₄	37.0	⁻⁵⁵ ₋₄	33.1	⁻⁶⁶ ₋₄	28.5	⁻⁷⁵ ₋₃	23.2	⁻⁸⁴ ₋₃	17.4	⁻⁹¹ ₋₃	11.0	⁻⁹⁷ ₋₂	4.2	⁻¹⁰² ₋₂	-6.0	⁻¹⁰⁵ ₋₁	-16.5																	
Sep 2	43.7	⁻⁶ ₋₆	43.3	⁻¹⁹ ₋₆	42.0	⁻³¹ ₋₆	39.7	⁻⁴³ ₋₆	36.7	⁻⁵⁵ ₋₅	32.9	⁻⁶⁵ ₋₅	28.3	⁻⁷⁴ ₋₅	23.1	⁻⁸³ ₋₄	17.2	⁻⁹⁰ ₋₄	10.9	⁻⁹⁶ ₋₃	4.2	⁻¹⁰¹ ₋₃	-5.9	⁻¹⁰⁴ ₋₂	-16.4																	
Sep 3	43.3	⁻⁶ ₋₇	42.9	⁻¹⁹ ₋₇	41.5	⁻³¹ ₋₇	39.4	⁻⁴³ ₋₇	36.3	⁻⁵⁴ ₋₆	32.5	⁻⁶⁴ ₋₆	28.0	⁻⁷⁴ ₋₅	22.8	⁻⁸² ₋₅	17.1	⁻⁸⁹ ₋₄	10.8	⁻⁹⁵ ₋₄	4.1	⁻¹⁰⁰ ₋₃	-5.9	⁻¹⁰³ ₋₂	-16.2																	
Sep 4	42.8	⁻⁶ ₋₇	42.4	⁻¹⁹ ₋₇	41.1	⁻³¹ ₋₇	38.9	⁻⁴² ₋₇	35.9	⁻⁵³ ₋₇	32.2	⁻⁶⁴ ₋₆	27.7	⁻⁷³ ₋₆	22.6	⁻⁸¹ ₋₅	16.9	⁻⁸⁸ ₋₅	10.7	⁻⁹⁴ ₋₄	4.1	⁻⁹⁹ ₋₃	-5.8	⁻¹⁰² ₋₂	-16.0																	
Sep 5	42.3	⁻⁶ ₋₇	41.9	⁻¹⁸ ₋₇	40.6	⁻³⁰ ₋₇	38.4	⁻⁴² ₋₇	35.5	⁻⁵³ ₋₇	31.8	⁻⁶³ ₋₆	27.4	⁻⁷² ₋₆	22.3	⁻⁸⁰ ₋₅	16.7	⁻⁸⁷ ₋₅	10.6	⁻⁹² ₋₄	4.0	⁻⁹⁷ ₋₃	-5.7	⁻¹⁰⁰ ₋₂	-15.8																	
Sep 6	41.8	⁻⁶ ₋₇	41.4	⁻¹⁸ ₋₇	40.1	⁻³⁰ ₋₇	38.0	⁻⁴¹ ₋₆	35.1	⁻⁵² ₋₆	31.4	⁻⁶² ₋₆	27.0	⁻⁷¹ ₋₅	22.0	⁻⁷⁹ ₋₅	16.5	⁻⁸⁶ ₋₄	10.4	⁻⁹¹ ₋₄	4.0	⁻⁹⁶ ₋₃	-5.7	⁻⁹⁹ ₋₂	-15.7																	
Sep 7	41.3	⁻⁶ ₋₆	40.9	⁻¹⁸ ₋₆	39.6	⁻³⁰ ₋₆	37.6	⁻⁴¹ ₋₆	34.7	⁻⁵² ₋₆	31.1	⁻⁶¹ ₋₅	26.7	⁻⁷⁰ ₋₅	21.8	⁻⁷⁸ ₋₄	16.3	⁻⁸⁵ ₋₄	10.3	⁻⁹⁰ ₋₃	3.9	⁻⁹⁵ ₋₃	-5.6	⁻⁹⁸ ₋₂	-15.5																	
Sep 8	40.9	⁻⁶ ₋₆	40.5	⁻¹⁸ ₋₆	39.2	⁻²⁹ ₋₅	37.2	⁻⁴⁰ ₋₅	34.3	⁻⁵¹ ₋₅	30.7	⁻⁶¹ ₋₅	26.5	⁻⁷⁰ ₋₄	21.6	⁻⁷⁷ ₋₄	16.1	⁻⁸⁴ ₋₃	10.2	⁻⁹⁰ ₋₃	3.9	⁻⁹⁴ ₋₂	-5.6	⁻⁹⁷ ₋₂	-15.3																	
Sep 9	40.5	⁻⁶ ₋₅	40.1	⁻¹⁸ ₋₅	38.9	⁻²⁹ ₋₅	36.8	⁻⁴⁰ ₋₅	34.0	⁻⁵¹ ₋₄	30.4	⁻⁶⁰ ₋₄	26.2	⁻⁶⁹ ₋₄	21.4	⁻⁷⁷ ₋₃	16.0	⁻⁸³ ₋₃	10.1	⁻⁸⁹ ₋₃	3.9	⁻⁹³ ₋₂	-5.5	⁻⁹⁶ ₋₁	-15.2																	
Sep 10	40.2	⁻⁶ ₋₄	39.8	⁻¹⁷ ₋₄	38.5	⁻²⁹ ₋₄	36.5	⁻⁴⁰ ₋₄	33.7	⁻⁵⁰ ₋₄	30.2	⁻⁶⁰ ₋₃	26.0	⁻⁶⁸ ₋₃	21.2	⁻⁷⁶ ₋₃	15.8	⁻⁸³ ₋₃	10.0	⁻⁸⁸ ₋₂	3.8	⁻⁹³ ₋₂	-5.5	⁻⁹⁶ ₋₁	-15.0																	
Sep 11	39.9	⁻⁶ ₋₃	39.5	⁻¹⁷ ₋₃	38.3	⁻²⁹ ₋₃	36.3	⁻⁴⁰ ₋₃	33.5	⁻⁵⁰ ₋₃	30.0	⁻⁵⁹ ₋₃	25.8	⁻⁶⁸ ₋₃	21.0	⁻⁷⁶ ₋₂	15.7	⁻⁸² ₋₂	10.0	⁻⁸⁷ ₋₂	3.8	⁻⁹² ₋₁	-5.4	⁻⁹⁵ ₋₁	-14.9																	
Sep 12	39.7	⁻⁶ ₋₃	39.3	⁻¹⁷ ₋₃	38.0	⁻²⁹ ₋₃	36.0	⁻³⁹ ₋₂	33.3	⁻⁵⁰ ₋₂	29.8	⁻⁵⁹ ₋₂	25.7	⁻⁶⁸ ₋₂	20.9	⁻⁷⁵ ₋₂	15.6	⁻⁸² ₋₂	9.9	⁻⁸⁷ ₋₁	3.8	⁻⁹² ₋₁	-5.4	⁻⁹⁴ ₋₁	-14.9																	
Sep 13	39.5	⁻⁶ ₋₂	39.1	⁻¹⁷ ₋₂	37.9	⁻²⁸ ₋₂	35.9	⁻³⁹ ₋₂	33.1	⁻⁴⁹ ₋₂	29.7	⁻⁵⁹ ₋₂	25.5	⁻⁶⁷ ₋₁	20.8	⁻⁷⁵ ₋₁	15.6	⁻⁸¹ ₋₁	9.8	⁻⁸⁷ ₋₁	3.8	⁻⁹¹ ₋₁	-5.4	⁻⁹⁴ ₋₁	-14.8																	
Sep 14	39.3	⁻⁶ ₋₁	38.9	⁻¹⁷ ₋₁	37.7	⁻²⁸ ₋₁	35.8	⁻³⁹ ₋₁	33.0	⁻⁴⁹ ₋₁	29.6	⁻⁵⁹ ₋₁	25.5	⁻⁶⁷ ₋₁	20.7	⁻⁷⁵ ₋₁	15.5	⁻⁸¹ ₋₁	9.8	⁻⁸⁶ ₀	3.8	⁻⁹¹ ₀	-5.3	⁻⁹⁴ ₀	-14.7																	
Sep 15	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																	
Sep 16	39.3	⁻⁶ ₂	38.9	⁻¹⁷ ₂	37.7	⁻²⁸ ₂	35.7	⁻³⁹ ₂	33.0	⁻⁴⁹ ₁	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																	
Sep 17	39.4	⁻⁶ ₃	39.0	⁻¹⁷ ₃	37.8	⁻²⁹ ₃	35.8	⁻³⁹ ₃	33.1	⁻⁵⁰ ₃	29.6	⁻⁵⁹ ₃	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																	
Sep 18	39.6	⁻⁶ ₅	39.2	⁻¹⁷ ₅	38.0	⁻²⁹ ₅	36.0	⁻⁴⁰ ₄	33.3	⁻⁵⁰ ₄	29.8	⁻⁵⁹ ₄	25.6	⁻⁶⁸ ₄	20.9	⁻⁷⁶ ₃	15.6	⁻⁸² ₃	9.9	⁻⁸⁷ ₂	3.8	⁻⁹² ₂	-5.4	⁻⁹⁵ ₁	-14.8																	
Sep 19	40.0	⁻⁶ ₆	39.5	⁻¹⁸ ₆	38.3	⁻²⁹ ₆	36.3	⁻⁴⁰ ₆	33.5	⁻⁵⁰ ₆	30.0	⁻⁶⁰ ₅	25.8	⁻⁶⁹ ₅	21.1	⁻⁷⁶ ₄	15.7	⁻⁸³ ₄	10.0	⁻⁸⁸ ₃	3.8	⁻⁹³ ₃	-5.4	⁻⁹⁶ ₂	-15.0																	
Sep 20	40.4	⁻⁶ ₈	40.0	⁻¹⁸ ₈	38.7	⁻²⁹ ₈	36.7	⁻⁴⁰ ₇	33.9	⁻⁵¹ ₇	30.3	⁻⁶¹ ₇	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																	
Sep 21	40.9	⁻⁶ ₉	40.5	⁻¹⁸ ₉	39.3	⁻³⁰ ₉	37.2	⁻⁴¹ ₈	34.3	⁻⁵² ₈	30.8	⁻⁶² ₈	26.5	⁻⁷¹ ₇	21.6	⁻⁷⁸ ₆	16.1	⁻⁸⁵ ₆	10.2	⁻⁹¹ ₅	3.9	⁻⁹⁵ ₄	-5.6	⁻⁹⁸ ₃	-15.3																	
Sep 22	41.6	⁻⁶ ₁₀	41.1	⁻¹⁸ ₁₀	39.9	⁻³⁰ ₁₀	37.8	⁻⁴² ₉	34.9	⁻⁵² ₉	31.2	⁻⁶³ ₈	26.9	⁻⁷² ₈	21.9	⁻⁸⁰ ₇	16.4	⁻⁸⁷ ₆	10.4	⁻⁹² ₅	4.0	⁻⁹⁷ ₄	-5.6	⁻¹⁰⁰ ₃	-15.6																	
Sep 23	42.2	⁻⁶ ₁₀	41.8	⁻¹⁹ ₁₀	40.5	⁻³¹ ₁₀	38.4	⁻⁴² ₉	35.4	⁻⁵³ ₉	31.7	⁻⁶⁴ ₈	27.3	⁻⁷³ ₈	22.3																											

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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	73.1	-6	-9	72.7	-18	-8	71.4	-30	-8	69.3	-41	-8	66.4	-52	-8	62.7	-62	-7	58.3	-71	-7	53.3	-79	-6	47.8	-86	-5	41.7	-91	-5	35.3	-96	-4	25.6	-99	-2	15.7			
Oct 5	72.1	-6	-8	71.7	-18	-7	70.4	-30	-7	68.3	-41	-7	65.4	-51	-7	61.8	-61	-6	57.5	-70	-6	52.6	-78	-5	47.1	-85	-5	41.2	-90	-4	34.8	-95	-3	25.3	-98	-2	15.4			
Oct 6	71.2	-6	-6	70.8	-18	-6	69.5	-29	-6	67.5	-40	-6	64.6	-51	-6	61.1	-60	-5	56.8	-69	-5	51.9	-77	-4	46.5	-84	-4	40.6	-89	-3	34.4	-94	-3	25.0	-97	-2	15.2			
Oct 7	70.4	-6	-5	70.0	-18	-5	68.8	-29	-5	66.7	-40	-5	63.9	-50	-5	60.4	-60	-4	56.2	-69	-4	51.4	-76	-4	46.0	-83	-3	40.2	-88	-3	34.0	-93	-2	24.7	-96	-1	15.1			
Oct 8	69.8	-6	-4	69.4	-17	-4	68.2	-29	-4	66.2	-40	-4	63.4	-50	-3	59.9	-59	-3	55.7	-68	-3	50.9	-76	-3	45.6	-82	-2	39.9	-87	-2	33.7	-92	-2	24.5	-95	-1	14.9			
Oct 9	69.3	-6	-3	68.9	-17	-3	67.7	-29	-3	65.7	-39	-3	63.0	-50	-3	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			
Oct 10	69.0	-6	-2	68.6	-17	-2	67.4	-28	-2	65.4	-39	-2	62.6	-49	-2	59.2	-59	-2	55.1	-67	-1	50.3	-75	-1	45.1	-81	-1	39.4	-87	-1	33.3	-91	-1	24.2	-94	-1	14.8			
Oct 11	68.8	-6	-1	68.4	-17	-1	67.2	-28	-1	65.2	-39	-1	62.4	-49	-1	59.0	-59	-1	54.9	-67	-1	50.2	-75	-1	44.9	-81	-1	39.3	-86	0	33.2	-91	0	24.1	-94	0	14.7			
Oct 12	68.7	-6	0	68.3	-17	0	67.1	-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	33.2	-91	0	24.1	-94	0	14.7			
Oct 13	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	0	24.1	-94	0	14.7			
Oct 14	68.8	-6	2	68.4	-17	2	67.2	-28	2	65.2	-39	2	62.5	-49	2	59.0	-59	2	54.9	-67	2	50.2	-75	1	45.0	-81	1	39.3	-87	1	33.2	-91	1	24.1	-94	1	14.7			
Oct 15	69.0	-6	3	68.6	-17	3	67.4	-29	3	65.4	-39	3	62.7	-50	3	59.2	-59	3	55.1	-68	2	50.4	-75	2	45.1	-82	2	39.4	-87	2	33.3	-92	1	24.2	-94	1	14.8			
Oct 16	69.4	-6	4	69.0	-17	4	67.8	-29	4	65.8	-40	4	63.0	-50	4	59.5	-59	4	55.4	-68	3	50.6	-76	3	45.4	-82	3	39.6	-88	2	33.5	-92	2	24.3	-95	1	14.9			
Oct 17	69.9	-6	6	69.5	-18	6	68.3	-29	5	66.3	-40	5	63.5	-50	5	60.0	-60	5	55.8	-69	4	51.0	-76	4	45.7	-83	3	39.9	-88	3	33.8	-93	2	24.5	-96	2	15.0			
Oct 18	70.6	-6	7	70.2	-18	7	69.0	-29	7	66.9	-40	6	64.1	-51	6	60.6	-61	6	56.3	-69	5	51.5	-77	5	46.1	-84	4	40.3	-89	4	34.1	-94	3	24.8	-97	2	15.1			
Oct 19	71.4	-6	8	71.0	-18	8	69.8	-30	8	67.7	-41	8	64.9	-52	7	61.3	-61	7	57.0	-70	6	52.1	-78	6	46.7	-85	5	40.8	-90	4	34.5	-95	3	25.0	-98	2	15.3			
Oct 20	72.4	-6	9	72.0	-18	9	70.7	-30	9	68.6	-41	9	65.8	-52	8	62.1	-62	8	57.8	-71	7	52.9	-79	6	47.3	-86	6	41.3	-92	5	35.0	-97	4	25.4	-100	3	15.5			
Oct 21	73.5	-6	10	73.1	-19	10	71.8	-31	9	69.7	-42	9	66.8	-53	9	63.1	-63	8	58.7	-72	7	53.7	-81	7	48.1	-88	6	42.0	-93	5	35.5	-98	4	25.8	-101	3	15.7			
Oct 22	74.7	-6	10	74.3	-19	9	73.0	-31	9	70.8	-43	9	67.8	-54	8	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			
Oct 23	75.9	-6	9	75.4	-19	8	74.1	-31	8	71.9	-43	8	68.9	-55	8	65.1	-65	7	60.5	-75	7	55.4	-83	6	49.6	-90	5	43.3	-96	4	36.6	-101	4	26.6	-104	2	16.2			
Oct 24	76.9	-6	6	76.4	-19	6	75.1	-32	6	72.9	-44	6	69.8	-55	6	66.0	-66	5	61.4	-76	5	56.1	-84	4	50.3	-91	4	43.9	-97	3	37.1	-102	3	27.0	-105	2	16.5			
Oct 25	77.7	-7	4	77.2	-19	3	75.9	-32	3	73.6	-44	3	70.5	-56	3	66.6	-66	3	62.0	-76	3	56.7	-85	2	50.8	-92	2	44.3	-98	2	37.5	-103	1	27.2	-106	1	16.6			
Oct 26	78.1	-7	0	77.6	-20	0	76.3	-32	0	74.0	-44	0	70.9	-56	0	67.0	-67	0	62.3	-76	0	57.0	-85	0	51.0	-92	0	44.6	-98	0	37.7	-103	0	27.4	-107	0	16.7			
Oct 27	78.1	-7	-3	77.6	-19	-3	76.3	-32	-3	74.0	-44	-3	70.9	-56	-3	67.0	-66	-3	62.3	-76	-3	57.0	-85	-2	51.0	-92	-2	44.6	-98	-2	37.7	-103	-1	27.4	-106	-1	16.7			
Oct 28	77.7	-6	-7	77.2	-19	-6	75.9	-32	-6	73.6	-44	-6	70.5	-55	-6	66.6	-66	-5	62.0	-76	-5	56.7	-84	-5	50.8	-91	-4	44.3	-97	-3	37.5	-102	-3	27.2	-105	-2	16.6			
Oct 29	76.9	-6	-9	76.4	-19	-9	75.1	-31	-8	72.9	-43	-8	69.8	-55	-8	66.0	-65	-7	61.4	-75	-7	56.1	-83	-6	50.2	-90	-5	43.9	-96	-5	37.1	-101	-4	27.0	-104	-2	16.5			
Oct 30	75.8	-6	-10	75.4	-19	-10	74.1	-31	-10	71.9	-43	-9	68.9	-54	-9	65.0	-64	-8	60.5	-74	-8	55.3	-82	-7	49.6	-89	-6	43.3	-95	-5	36.6	-100	-4	26.6	-103	-3	16.2			
Oct 31	74.6	-6	-10	74.2	-18	-10	72.9	-31	-10	70.7	-42	-10	67.8	-53	-9	64.0	-63	-9	59.6	-72	-8	54.5	-80	-7	48.8	-87	-6	42.6	-93	-5	36.0	-98	-4	26.2	-101	-3	16.0			
Nov 1	73.4	-6	-10	73.0	-18	-10	71.7	-30	-9	69.6	-41	-9	66.6	-52	-9	63.0	-62	-8	58.6	-71	-7	53.6	-79	-7	48.0	-86	-6	41.9	-92	-5	35.4	-96	-4	25.7	-99	-3	15.7			
Nov 2	72.2	-6	-9	71.8	-18	-8	70.5	-30	-8	68.5	-41	-8	65.6	-51	-8	62.0	-61	-7	57.6	-70	-7	52.7	-78	-6	47.2	-85	-5	41.2	-90	-5	34.9	-95	-4	25.3	-98	-2	15.5			
Nov 3	71.2	-6	-7	70.8	-18	-7	69.5	-29	-7	67.5	-40	-7	64.6	-51	-6	61.1	-60	-6	56.8	-69	-5	51.9	-77	-5	46.5	-84	-4	40.6	-89	-4	34.4	-94	-3	25.0	-97	-2	15.2			
Nov 4	70.3	-6	-6	69.9	-17	-6	68.7	-29	-5	66.7	-40	-5	63.9	-50	-5	60.3	-60	-5	56.1	-68	-4	51.3	-76	-4	46.0	-83	-3	40.2	-88	-3	34.0	-93	-2	24.7	-96	-2	15.1			
Nov 5	69.7	-6	-4	69.2	-17	-4	68.0	-29	-4	66.0	-39	-4	63.2	-50	-4	59.8	-59	-3	55.6	-68	-3	50.8	-75	-3	45.5	-82	-2	39.8	-87	-2	33.6	-92	-2	24.4	-95	-1	14.9			
Nov 6	69.2	-6	-3	68.8	-17	-3	67.6	-28	-2	65.6	-39	-2	62.8	-49	-2	59.3	-59	-2	55.2	-67	-2	50.5	-75	-2	45.2	-82	-2	39.5	-87	-1	33.4	-91	-1	24.2	-94	-1	14.8			
Nov 7	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	-86	-1	33.3	-91	-1	24.1	-94	0	14.7			
Nov 8	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			
Nov 9	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	0	24.1	-94	0	14.7			
Nov 10	68.8	-6	2	68.4	-17	2	67.2	-28	2	65.2	-39	2	62.5	-49	2	59.0	-59	2	54.9	-67	1	50.2	-75	1	45.0	-81	1	39.3	-87	1	33.2	-91	1	24.1	-94	1	14.7			
Nov 11	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			
Nov 12	69.4	-6	3	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			
Nov 13	69.8	-6	4	69.4	-17	4	68.1	-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			
Nov 14	70.3	-6	5	69.9	-18	5	68.6	-29	5	66.6	-40	5	63.8	-51																										

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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
Oct 4		41.8	⁻⁶	₋₉	41.4	⁻¹⁸	₋₈	40.1	⁻³⁰	₋₈	38.0	⁻⁴¹	₋₈	35.1	⁻⁵²	₋₈	31.4	⁻⁶²	₋₇	27.0	⁻⁷¹	₋₇	22.0	⁻⁷⁹	₋₆	16.5	⁻⁸⁶	₋₅	10.4	⁻⁹¹	₋₅	4.0	⁻⁹⁶	₋₄	-5.7	⁻⁹⁹	₋₂	-15.7					
Oct 5		41.2	⁻⁶	₋₈	40.8	⁻¹⁸	₋₇	39.5	⁻³⁰	₋₇	37.4	⁻⁴¹	₋₇	34.6	⁻⁵¹	₋₇	31.0	⁻⁶¹	₋₆	26.7	⁻⁷⁰	₋₆	21.7	⁻⁷⁸	₋₅	16.2	⁻⁸⁵	₋₅	10.3	⁻⁹⁰	₋₄	3.9	⁻⁹⁵	₋₃	-5.6	⁻⁹⁸	₋₂	-15.4					
Oct 6		40.7	⁻⁶	₋₆	40.3	⁻¹⁸	₋₆	39.0	⁻²⁹	₋₆	37.0	⁻⁴⁰	₋₆	34.1	⁻⁵¹	₋₆	30.6	⁻⁶⁰	₋₅	26.3	⁻⁶⁹	₋₅	21.5	⁻⁷⁷	₋₄	16.0	⁻⁸⁴	₋₄	10.2	⁻⁸⁹	₋₃	3.9	⁻⁹⁴	₋₃	-5.5	⁻⁹⁷	₋₂	-15.2					
Oct 7		40.3	⁻⁶	₋₅	39.8	⁻¹⁸	₋₅	38.6	⁻²⁹	₋₅	36.6	⁻⁴⁰	₋₅	33.8	⁻⁵⁰	₋₅	30.2	⁻⁶⁰	₋₄	26.0	⁻⁶⁹	₋₄	21.2	⁻⁷⁶	₋₄	15.9	⁻⁸³	₋₃	10.0	⁻⁸⁸	₋₃	3.8	⁻⁹³	₋₂	-5.5	⁻⁹⁶	₋₁	-15.1					
Oct 8		39.9	⁻⁶	₋₄	39.5	⁻¹⁷	₋₄	38.3	⁻²⁹	₋₄	36.3	⁻⁴⁰	₋₄	33.5	⁻⁵⁰	₋₃	30.0	⁻⁵⁹	₋₃	25.8	⁻⁶⁸	₋₃	21.0	⁻⁷⁶	₋₃	15.7	⁻⁸²	₋₂	10.0	⁻⁸⁷	₋₂	3.8	⁻⁹²	₋₂	-5.4	⁻⁹⁵	₋₁	-14.9					
Oct 9		39.6	⁻⁶	₋₃	39.2	⁻¹⁷	₋₃	38.0	⁻²⁹	₋₃	36.0	⁻³⁹	₋₃	33.3	⁻⁵⁰	₋₃	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					
Oct 10		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	⁻⁶⁷	₋₁	20.8	⁻⁷⁵	₋₁	15.5	⁻⁸¹	₋₁	9.8	⁻⁸⁷	₋₁	3.8	⁻⁹¹	₋₁	-5.4	⁻⁹⁴	₋₁	-14.8					
Oct 11		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	₀	3.8	⁻⁹¹	₀	-5.3	⁻⁹⁴	₀	-14.7					
Oct 12		39.3	⁻⁶	₀	38.9	⁻¹⁷	₀	37.7	⁻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					
Oct 13		39.3	⁻⁶	₁	38.9	⁻¹⁷	₁	37.7	⁻²⁸	₁	35.7	⁻³⁹	₁	32.9	⁻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	₀	-5.3	⁻⁹⁴	₀	-14.7					
Oct 14		39.3	⁻⁶	₂	38.9	⁻¹⁷	₂	37.7	⁻²⁸	₂	35.7	⁻³⁹	₂	33.0	⁻⁴⁹	₂	29.5	⁻⁵⁹	₂	25.4	⁻⁶⁷	₂	20.7	⁻⁷⁵	₁	15.5	⁻⁸¹	₁	9.8	⁻⁸⁷	₁	3.8	⁻⁹¹	₁	-5.3	⁻⁹⁴	₁	-14.7					
Oct 15		39.5	⁻⁶	₃	39.1	⁻¹⁷	₃	37.8	⁻²⁹	₃	35.9	⁻³⁹	₃	33.1	⁻⁵⁰	₃	29.7	⁻⁵⁹	₃	25.5	⁻⁶⁸	₂	20.8	⁻⁷⁵	₂	15.6	⁻⁸²	₂	9.8	⁻⁸⁷	₂	3.8	⁻⁹²	₁	-5.4	⁻⁹⁴	₁	-14.8					
Oct 16		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					
Oct 17		40.0	⁻⁶	₆	39.6	⁻¹⁸	₆	38.3	⁻²⁹	₅	36.3	⁻⁴⁰	₅	33.5	⁻⁵⁰	₅	30.0	⁻⁶⁰	₅	25.9	⁻⁶⁹	₄	21.1	⁻⁷⁶	₄	15.8	⁻⁸³	₃	10.0	⁻⁸⁸	₃	3.8	⁻⁹³	₂	-5.4	⁻⁹⁶	₂	-15.0					
Oct 18		40.4	⁻⁶	₇	39.9	⁻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					
Oct 19		40.8	⁻⁶	₈	40.4	⁻¹⁸	₈	39.2	⁻³⁰	₈	37.1	⁻⁴¹	₈	34.3	⁻⁵²	₇	30.7	⁻⁶¹	₇	26.4	⁻⁷⁰	₆	21.5	⁻⁷⁸	₆	16.1	⁻⁸⁵	₅	10.2	⁻⁹⁰	₄	3.9	⁻⁹⁵	₃	-5.5	⁻⁹⁸	₂	-15.3					
Oct 20		41.4	⁻⁶	₉	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	₆	16.3	⁻⁸⁶	₆	10.3	⁻⁹²	₅	4.0	⁻⁹⁷	₄	-5.6	⁻¹⁰⁰	₃	-15.5					
Oct 21		42.0	⁻⁶	₁₀	41.6	⁻¹⁹	₁₀	40.3	⁻³¹	₉	38.2	⁻⁴²	₉	35.3	⁻⁵³	₉	31.6	⁻⁶³	₈	27.2	⁻⁷²	₇	22.2	⁻⁸¹	₇	16.6	⁻⁸⁸	₆	10.5	⁻⁹³	₅	4.0	⁻⁹⁸	₄	-5.7	⁻¹⁰¹	₃	-15.7					
Oct 22		42.7	⁻⁶	₁₀	42.3	⁻¹⁹	₉	41.0	⁻³¹	₉	38.8	⁻⁴³	₉	35.8	⁻⁵⁴	₈	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					
Oct 23		43.4	⁻⁶	₉	42.9	⁻¹⁹	₈	41.6	⁻³¹	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	₄	4.1	⁻¹⁰¹	₄	-5.9	⁻¹⁰⁴	₂	-16.2					
Oct 24		44.0	⁻⁶	₆	43.5	⁻¹⁹	₆	42.2	⁻³²	₆	39.9	⁻⁴⁴	₆	36.9	⁻⁵⁵	₆	33.0	⁻⁶⁶	₅	28.4	⁻⁷⁶	₅	23.2	⁻⁸⁴	₄	17.3	⁻⁹¹	₄	11.0	⁻⁹⁷	₃	4.2	⁻¹⁰²	₃	-6.0	⁻¹⁰⁵	₂	-16.5					
Oct 25		44.4	⁻⁷	₄	43.9	⁻¹⁹	₃	42.6	⁻³²	₃	40.3	⁻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					
Oct 26		44.6	⁻⁷	₀	44.2	⁻²⁰	₀	42.8	⁻³²	₀	40.6	⁻⁴⁴	₀	37.5	⁻⁵⁶	₀	33.5	⁻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					
Oct 27		44.6	⁻⁷	₋₃	44.2	⁻¹⁹	₋₃	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					
Oct 28		44.4	⁻⁶	₋₇	44.0	⁻¹⁹	₋₆	42.6	⁻³²	₋₆	40.4	⁻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					
Oct 29		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					
Oct 30		43.3	⁻⁶	₋₁₀	42.9	⁻¹⁹	₋₁₀	41.6	⁻³¹	₋₁₀	39.4	⁻⁴³	₋₉	36.4	⁻⁵⁴	₋₉	32.6	⁻⁶⁴	₋₈	28.0	⁻⁷⁴	₋₈	22.9	⁻⁸²	₋₇	17.1	⁻⁸⁹	₋₆	10.8	⁻⁹⁵	₋₅	4.1	⁻¹⁰⁰	₋₄	-5.9	⁻¹⁰³	₋₃	-16.2					
Oct 31		42.7	⁻⁶	₋₁₀	42.2	⁻¹⁸	₋₁₀	40.9	⁻³¹	₋₁₀	38.8	⁻⁴²	₋₁₀	35.8	⁻⁵³	₋₉	32.1	⁻⁶³	₋₉	27.6	⁻⁷²	₋₈	22.5	⁻⁸⁰	₋₇	16.8	⁻⁸⁷	₋₆	10.6	⁻⁹³	₋₅	4.1	⁻⁹⁸	₋₄	-5.8	⁻¹⁰¹	₋₃	-16.0					
Nov 1		42.0	⁻⁶	₋₁₀	41.5	⁻¹⁸	₋₁₀	40.2	⁻³⁰	₋₉	38.1	⁻⁴¹	₋₉	35.2	⁻⁵²	₋₉	31.5	⁻⁶²	₋₈	27.1	⁻⁷¹	₋₇	22.1	⁻⁷⁹	₋₇	16.5	⁻⁸⁶	₋₆	10.5	⁻⁹²	₋₅	4.0	⁻⁹⁶	₋₄	-5.7	⁻⁹⁹	₋₃	-15.7					
Nov 2		41.3	⁻⁶	₋₉	40.9	⁻¹⁸	₋₈	39.6	⁻³⁰	₋₈	37.5	⁻⁴¹	₋₈	34.6	⁻⁵¹	₋₈	31.0	⁻⁶¹	₋₇	26.7	⁻⁷⁰	₋₇	21.8	⁻⁷⁸	₋₆	16.3	⁻⁸⁵	₋₅	10.3	⁻⁹⁰	₋₅	3.9	⁻⁹⁵	₋₄	-5.6	⁻⁹⁸	₋₂	-15.5					
Nov 3		40.7	⁻⁶	₋₇	40.3	⁻¹⁸	₋₇	39.0	⁻²⁹	₋₇	37.0	⁻⁴⁰	₋₇	34.2	⁻⁵¹	₋₆	30.6	⁻⁶⁰	₋₆	26.3	⁻⁶⁹	₋₅	21.5	⁻⁷⁷	₋₅	16.0	⁻⁸⁴	₋₄															

2011

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
Nov 19	74.3	⁻⁶ ₈	73.8	⁻¹⁹ ₈	72.5	⁻³¹ ₈	70.4	⁻⁴² ₈	67.4	⁻⁵⁴ ₇	63.7	⁻⁶⁴ ₇	59.3	⁻⁷³ ₆	54.2	⁻⁸¹ ₆	48.5	⁻⁸⁸ ₅	42.4	⁻⁹⁴ ₄	35.9	⁻⁹⁹ ₃	26.0	⁻¹⁰² ₂	15.9																	
Nov 20	75.2	⁻⁶ ₈	74.8	⁻¹⁹ ₇	73.5	⁻³¹ ₇	71.3	⁻⁴³ ₇	68.3	⁻⁵⁴ ₇	64.5	⁻⁶⁵ ₆	60.0	⁻⁷⁴ ₆	54.9	⁻⁸² ₅	49.2	⁻⁸⁹ ₅	42.9	⁻⁹⁵ ₄	36.3	⁻¹⁰⁰ ₃	26.4	⁻¹⁰³ ₂	16.1																	
Nov 21	76.1	⁻⁶ ₆	75.7	⁻¹⁹ ₆	74.4	⁻³² ₆	72.2	⁻⁴⁴ ₆	69.1	⁻⁵⁵ ₆	65.3	⁻⁶⁵ ₅	60.8	⁻⁷⁵ ₅	55.6	⁻⁸³ ₄	49.8	⁻⁹⁰ ₄	43.5	⁻⁹⁶ ₃	36.8	⁻¹⁰¹ ₃	26.7	⁻¹⁰⁴ ₂	16.3																	
Nov 22	76.9	⁻⁶ ₄	76.4	⁻¹⁹ ₄	75.1	⁻³² ₄	72.9	⁻⁴⁴ ₄	69.8	⁻⁵⁵ ₄	66.0	⁻⁶⁶ ₃	61.4	⁻⁷⁵ ₃	56.1	⁻⁸⁴ ₃	50.3	⁻⁹¹ ₃	43.9	⁻⁹⁷ ₂	37.1	⁻¹⁰² ₂	27.0	⁻¹⁰⁵ ₁	16.5																	
Nov 23	77.4	⁻⁶ ₁	77.0	⁻¹⁹ ₁	75.6	⁻³² ₁	73.4	⁻⁴⁴ ₁	70.3	⁻⁵⁶ ₁	66.4	⁻⁶⁶ ₁	61.8	⁻⁷⁶ ₁	56.5	⁻⁸⁴ ₁	50.6	⁻⁹² ₁	44.2	⁻⁹⁷ ₁	37.4	⁻¹⁰³ ₁	27.1	⁻¹⁰⁶ ₀	16.6																	
Nov 24	77.6	⁻⁶ ₋₂	77.1	⁻¹⁹ ₋₂	75.8	⁻³² ₋₂	73.5	⁻⁴⁴ ₋₂	70.4	⁻⁵⁵ ₋₁	66.6	⁻⁶⁶ ₋₁	61.9	⁻⁷⁶ ₋₁	56.6	⁻⁸⁴ ₋₁	50.7	⁻⁹² ₋₁	44.3	⁻⁹⁷ ₋₁	37.5	⁻¹⁰³ ₋₁	27.2	⁻¹⁰⁶ ₀	16.6																	
Nov 25	77.4	⁻⁶ ₋₅	76.9	⁻¹⁹ ₋₅	75.6	⁻³² ₋₅	73.3	⁻⁴⁴ ₋₄	70.3	⁻⁵⁵ ₋₄	66.4	⁻⁶⁶ ₋₄	61.8	⁻⁷⁵ ₋₄	56.5	⁻⁸⁴ ₋₃	50.6	⁻⁹¹ ₋₃	44.2	⁻⁹⁷ ₋₃	37.4	⁻¹⁰² ₋₂	27.1	⁻¹⁰⁵ ₋₁	16.6																	
Nov 26	76.8	⁻⁶ ₋₇	76.4	⁻¹⁹ ₋₇	75.0	⁻³¹ ₋₇	72.8	⁻⁴³ ₋₇	69.7	⁻⁵⁵ ₋₆	65.9	⁻⁶⁵ ₋₆	61.3	⁻⁷⁵ ₋₆	56.0	⁻⁸³ ₋₅	50.2	⁻⁹⁰ ₋₄	43.8	⁻⁹⁶ ₋₄	37.1	⁻¹⁰¹ ₋₃	26.9	⁻¹⁰⁴ ₋₂	16.4																	
Nov 27	75.9	⁻⁶ ₋₉	75.5	⁻¹⁹ ₋₉	74.1	⁻³¹ ₋₉	72.0	⁻⁴³ ₋₈	68.9	⁻⁵⁴ ₋₈	65.1	⁻⁶⁴ ₋₈	60.6	⁻⁷⁴ ₋₇	55.4	⁻⁸² ₋₆	49.6	⁻⁸⁹ ₋₆	43.3	⁻⁹⁵ ₋₅	36.7	⁻¹⁰⁰ ₋₄	26.6	⁻¹⁰³ ₋₃	16.3																	
Nov 28	74.8	⁻⁶ ₋₁₀	74.4	⁻¹⁹ ₋₁₀	73.1	⁻³¹ ₋₁₀	70.9	⁻⁴² ₋₉	67.9	⁻⁵³ ₋₉	64.2	⁻⁶³ ₋₈	59.7	⁻⁷³ ₋₈	54.6	⁻⁸¹ ₋₇	48.9	⁻⁸⁸ ₋₆	42.7	⁻⁹³ ₋₅	36.1	⁻⁹⁸ ₋₄	26.2	⁻¹⁰¹ ₋₃	16.0																	
Nov 29	73.6	⁻⁶ ₋₁₀	73.2	⁻¹⁸ ₋₁₀	71.9	⁻³⁰ ₋₉	69.8	⁻⁴² ₋₉	66.9	⁻⁵² ₋₉	63.2	⁻⁶² ₋₈	58.8	⁻⁷¹ ₋₇	53.7	⁻⁷⁹ ₋₇	48.1	⁻⁸⁶ ₋₆	42.0	⁻⁹² ₋₅	35.6	⁻⁹⁷ ₋₄	25.8	⁻¹⁰⁰ ₋₃	15.8																	
Nov 30	72.5	⁻⁶ ₋₉	72.0	⁻¹⁸ ₋₉	70.8	⁻³⁰ ₋₉	68.7	⁻⁴¹ ₋₈	65.8	⁻⁵² ₋₈	62.2	⁻⁶¹ ₋₇	57.8	⁻⁷⁰ ₋₇	52.9	⁻⁷⁸ ₋₆	47.4	⁻⁸⁵ ₋₆	41.4	⁻⁹⁰ ₋₅	35.0	⁻⁹⁵ ₋₄	25.4	⁻⁹⁸ ₋₃	15.5																	
Dec 1	71.4	⁻⁶ ₋₈	71.0	⁻¹⁸ ₋₈	69.7	⁻²⁹ ₋₇	67.7	⁻⁴⁰ ₋₇	64.8	⁻⁵¹ ₋₇	61.2	⁻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																	
Dec 2	70.5	⁻⁶ ₋₆	70.1	⁻¹⁸ ₋₆	68.8	⁻²⁹ ₋₆	66.8	⁻⁴⁰ ₋₆	64.0	⁻⁵⁰ ₋₅	60.5	⁻⁶⁰ ₋₅	56.2	⁻⁶⁹ ₋₅	51.4	⁻⁷⁶ ₋₄	46.1	⁻⁸³ ₋₄	40.2	⁻⁸⁸ ₋₃	34.0	⁻⁹³ ₋₃	24.7	⁻⁹⁶ ₋₂	15.1																	
Dec 3	69.7	⁻⁶ ₋₄	69.3	⁻¹⁷ ₋₄	68.1	⁻²⁹ ₋₄	66.1	⁻³⁹ ₋₄	63.3	⁻⁵⁰ ₋₄	59.8	⁻⁵⁹ ₋₄	55.7	⁻⁶⁸ ₋₃	50.9	⁻⁷⁶ ₋₃	45.6	⁻⁸² ₋₃	39.8	⁻⁸⁷ ₋₂	33.7	⁻⁹² ₋₂	24.4	⁻⁹⁵ ₋₁	14.9																	
Dec 4	69.2	⁻⁶ ₋₃	68.8	⁻¹⁷ ₋₂	67.6	⁻²⁸ ₋₂	65.6	⁻³⁹ ₋₂	62.9	⁻⁴⁹ ₋₂	59.4	⁻⁵⁹ ₋₂	55.3	⁻⁶⁸ ₋₂	50.5	⁻⁷⁵ ₋₂	45.2	⁻⁸² ₋₂	39.5	⁻⁸⁷ ₋₁	33.4	⁻⁹¹ ₋₁	24.3	⁻⁹⁴ ₋₁	14.8																	
Dec 5	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 ₀	33.3	⁻⁹¹ ₀	24.2	⁻⁹⁴ ₀	14.8																	
Dec 6	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 ₀	50.2	⁻⁷⁵ ₀	45.0	⁻⁸¹ ₀	39.3	⁻⁸⁷ ₀	33.2	⁻⁹¹ ₀	24.1	⁻⁹⁴ ₀	14.7																	
Dec 7	68.9	⁻⁶ ₂	68.5	⁻¹⁷ ₂	67.3	⁻²⁸ ₂	65.3	⁻³⁹ ₂	62.6	⁻⁴⁹ ₂	59.1	⁻⁵⁹ ₂	55.0	⁻⁶⁷ ₁	50.3	⁻⁷⁵ ₁	45.0	⁻⁸² ₁	39.3	⁻⁸⁷ ₁	33.3	⁻⁹¹ ₁	24.2	⁻⁹⁴ ₁	14.8																	
Dec 8	69.1	⁻⁶ ₃	68.7	⁻¹⁷ ₃	67.5	⁻²⁹ ₃	65.5	⁻³⁹ ₃	62.8	⁻⁵⁰ ₃	59.3	⁻⁵⁹ ₂	55.2	⁻⁶⁸ ₂	50.4	⁻⁷⁵ ₂	45.2	⁻⁸² ₂	39.5	⁻⁸⁷ ₂	33.4	⁻⁹² ₁	24.2	⁻⁹⁵ ₁	14.8																	
Dec 9	69.5	⁻⁶ ₄	69.1	⁻¹⁷ ₄	67.9	⁻²⁹ ₄	65.9	⁻⁴⁰ ₃	63.1	⁻⁵⁰ ₃	59.6	⁻⁵⁹ ₃	55.5	⁻⁶⁸ ₃	50.7	⁻⁷⁶ ₃	45.4	⁻⁸² ₂	39.7	⁻⁸⁸ ₂	33.6	⁻⁹² ₂	24.4	⁻⁹⁵ ₁	14.9																	
Dec 10	69.9	⁻⁶ ₄	69.5	⁻¹⁸ ₄	68.3	⁻²⁹ ₄	66.3	⁻⁴⁰ ₄	63.5	⁻⁵⁰ ₄	60.0	⁻⁶⁰ ₄	55.8	⁻⁶⁹ ₃	51.0	⁻⁷⁶ ₃	45.7	⁻⁸³ ₃	39.9	⁻⁸⁸ ₂	33.8	⁻⁹³ ₂	24.5	⁻⁹⁶ ₁	15.0																	
Dec 11	70.4	⁻⁶ ₅	70.0	⁻¹⁸ ₅	68.8	⁻²⁹ ₅	66.8	⁻⁴⁰ ₄	64.0	⁻⁵¹ ₄	60.4	⁻⁶⁰ ₄	56.2	⁻⁶⁹ ₄	51.4	⁻⁷⁷ ₃	46.0	⁻⁸⁴ ₃	40.2	⁻⁸⁹ ₂	34.0	⁻⁹⁴ ₂	24.7	⁻⁹⁷ ₁	15.1																	
Dec 12	71.0	⁻⁶ ₅	70.6	⁻¹⁸ ₅	69.4	⁻²⁹ ₅	67.3	⁻⁴¹ ₅	64.5	⁻⁵¹ ₄	60.9	⁻⁶¹ ₄	56.7	⁻⁷⁰ ₄	51.8	⁻⁷⁸ ₃	46.4	⁻⁸⁴ ₃	40.5	⁻⁹⁰ ₃	34.3	⁻⁹⁴ ₂	24.9	⁻⁹⁷ ₁	15.2																	
Dec 13	71.6	⁻⁶ ₅	71.2	⁻¹⁸ ₅	69.9	⁻³⁰ ₅	67.9	⁻⁴¹ ₅	65.0	⁻⁵² ₅	61.4	⁻⁶¹ ₄	57.1	⁻⁷⁰ ₄	52.2	⁻⁷⁸ ₄	46.8	⁻⁸⁵ ₃	40.9	⁻⁹⁰ ₃	34.6	⁻⁹⁵ ₂	25.1	⁻⁹⁸ ₁	15.3																	
Dec 14	72.2	⁻⁶ ₅	71.8	⁻¹⁸ ₅	70.5	⁻³⁰ ₅	68.5	⁻⁴¹ ₅	65.6	⁻⁵² ₅	62.0	⁻⁶² ₄	57.6	⁻⁷¹ ₄	52.7	⁻⁷⁹ ₄	47.2	⁻⁸⁶ ₃	41.2	⁻⁹¹ ₃	34.9	⁻⁹⁶ ₂	25.3	⁻⁹⁹ ₂	15.5																	
Dec 15	72.9	⁻⁶ ₅	72.4	⁻¹⁸ ₅	71.2	⁻³⁰ ₅	69.1	⁻⁴² ₅	66.2	⁻⁵² ₅	62.5	⁻⁶² ₅	58.2	⁻⁷² ₄	53.2	⁻⁸⁰ ₄	47.6	⁻⁸⁶ ₃	41.6	⁻⁹² ₃	35.2	⁻⁹⁷ ₂	25.5	⁻¹⁰⁰ ₂	15.6																	
Dec 16	73.5	⁻⁶ ₆	73.1	⁻¹⁸ ₅	71.8	⁻³⁰ ₅	69.7	⁻⁴² ₅	66.8	⁻⁵³ ₅	63.1	⁻⁶³ ₅	58.7	⁻⁷² ₄	53.6	⁻⁸⁰ ₄	48.1	⁻⁸⁷ ₃	42.0	⁻⁹³ ₃	35.5	⁻⁹⁸ ₂	25.8	⁻¹⁰¹ ₂	15.7																	
Dec 17	74.2	⁻⁶ ₅	73.8	⁻¹⁹ ₅	72.5	⁻³¹ ₅	70.3	⁻⁴² ₅	67.4	⁻⁵³ ₅	63.6	⁻⁶⁴ ₅	59.2	⁻⁷³ ₄	54.1	⁻⁸¹ ₄	48.5	⁻⁸⁸ ₃	42.4	⁻⁹⁴ ₃	35.8	⁻⁹⁹ ₂	26.0	⁻¹⁰² ₂	15.9																	
Dec 18	74.8	⁻⁶ ₅	74.4	⁻¹⁹ ₅	73.1	⁻³¹ ₅	70.9	⁻⁴³ ₅	68.0	⁻⁵⁴ ₄	64.2	⁻⁶⁴ ₄	59.7	⁻⁷³ ₄	54.6	⁻⁸² ₄	48.9	⁻⁸⁹ ₃	42.7	⁻⁹⁴ ₃	36.1	⁻⁹⁹ ₂	26.2	⁻¹⁰³ ₁	16.0																	
Dec 19	75.5	⁻⁶ ₄	75.0	⁻¹⁹ ₄	73.7	⁻³¹ ₄	71.5	⁻⁴³ ₄	68.5	⁻⁵⁴ ₄	64.7	⁻⁶⁵ ₄	60.2	⁻⁷⁴ ₃	55.1	⁻⁸² ₃	49.3	⁻⁸⁹ ₃	43.1	⁻⁹⁵ ₂	36.4	⁻¹⁰⁰ ₂	26.5	⁻¹⁰³ ₁	16.2																	
Dec 20	76.0	⁻⁶ ₃	75.5	⁻¹⁹ ₃	74.2	⁻³¹ ₃	72.0	⁻⁴³ ₃	69.0	⁻⁵⁵ ₃	65.2	⁻⁶⁵ ₃	60.6	⁻⁷⁴ ₂	55.4	⁻⁸³ ₂	49.7	⁻⁹⁰ ₂	43.4	⁻⁹⁶ ₂	36.7	⁻¹⁰¹ ₁	26.6	⁻¹⁰⁴ ₁	16.3																	
Dec 21	76.3	⁻⁶ ₁	75.9	⁻¹⁹ ₁	74.6	⁻³² ₁	72.4	⁻⁴³ ₁	69.3	⁻⁵⁵ ₁	65.5	⁻⁶⁵ ₁	60.9	⁻⁷⁵ ₁	55.7	⁻⁸³ ₁	49.9	⁻⁹⁰ ₁	43.6	⁻⁹⁶ ₁	36.9	⁻¹⁰¹ ₁	26.8	⁻¹⁰⁴ ₀	16.3																	
Dec 22	76.5	⁻⁶ ₋₁	76.0	⁻¹⁹ ₋₁	74.7	⁻³² ₋₁	72.5	⁻⁴³ ₋₁	69.5	⁻⁵⁵ ₋₁	65.6	⁻⁶⁵ ₋₁	61.0	⁻⁷⁵ ₋₁	55.8	⁻⁸³ ₋₁	50.0	⁻⁹⁰ ₋₁	43.7	⁻⁹⁶ ₀	36.9	⁻¹⁰¹ ₀	26.8	⁻¹⁰⁴ ₀	16.4																	
Dec 23	76.4	⁻⁶ ₋₃	75.9	⁻¹⁹ ₋₃	74.6	⁻³¹ ₋₃	72.4	⁻⁴³ ₋₃	69.4	⁻⁵⁵ ₋₃	65.5	⁻⁶⁵ ₋₃	61.0	⁻⁷⁴ ₋₂	55.7	⁻⁸³ ₋₂	49.9	⁻⁹⁰ ₋₂	43.6	⁻⁹⁶ ₋₂	36.9	⁻¹⁰¹ ₋₁	26.8	⁻¹⁰⁴ ₋₁	16.4																	
Dec 24	76.0	⁻⁶ ₋₅	75.6	⁻¹⁹ ₋₅	74.2	⁻³¹ ₋₅	72.0	⁻⁴³ ₋₅																																		

