

ASTRONOMICAL EPHEMERIS
OF
Geocentric Places of Planets
FOR
1958

(Indian Standard Time observed throughout)

Published by

Shree Jiwaji Observatory, Ujjain
with the sanction of the Department of Public
Instruction, Madhya Pradesh

Price Rupee One and Annas Four Only

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PREFACE

The heliocentric places of Jupiter, Saturn, Uranus and Neptune were obtained from Newcomb and Hill's Tables and these were later converted into geocentric longitudes and latitudes. The geocentric places of Mercury, Venus and Mars were computed *directly* from their respective elements and this is why [their heliocentric co-ordinates have now been omitted from the following pages.

Owing to the uncertainty in the elements of Pluto, the positions of this planet cannot be taken as strictly correct. It is estimated that the maximum error in its longitude will hardly exceed five minutes of arc.

As a precaution against accidental errors, the final results were differenced and all the doubtful cases were carefully scrutinised.

Manuscript of [the Hindi edition of this Ephemeris was prepared but, owing to unavoidable circumstances the Press could not undertake to finish its printing within Time. I am, therefore, obliged to postpone its publication to next year.

The timings of Lunar and Solar eclipses (visible in India) as well as those of Moonrise for each day of the year and for the Latitudes 10° , 20° and 30°N have also been given. Full elements of the eclipses will be given from next year.

UJJAIN,
1st December 1957

}

PURSHOTTAM JOSHI,
Superintendent,
S. J. Observatory.

Mean Places of Principal Stars on 1st January 1958

Names	Stars	Mag	R.	A.	Decl.	Long.	Lat.
			H.	M.	°	°	°
♄ Andromeda	U. Bhadra.	2.1	0	6	+ 28 51	13 41	+ 25 41
♄ Pegasi	U. Bhadra.	2.9	0	11	+ 14 57	8 43	+ 12 36
♄ Piscium	Revati.	5.6	1	12	+ 7 21	19 16	- 0 13
♄ Eridani	Achernar.	0.6	1	36	- 57 27	344 40	- 59 23
♄ Polaris	Dhruva.	2.1	1	54	+ 89 4	87 58	+ 66 5
♄ Arietis	Ashvini.	2.7	1	52	+ 20 36	33 22	+ 8 29
♄ Arietis	Ashvini.	2.2	2	5	+ 23 16	37 3	+ 9 58
♄ Arietis	Bharani.	3.7	2	47	+ 27 5	47 36	+ 10 26
♄ Persei	Algol.	Var	3	5	+ 40 47	45 32	+ 22 25
♄ Tauri	Krittika.	3.0	3	45	+ 23 58	59 23	+ 4 2
♄ Tauri	Rohini.	1.1	4	33	+ 16 25	69 11	- 5 28
♄ Orionis	Rigel.	0.3	5	12	- 8 15	76 12	- 31 8
♄ Aurigae	Capella.	0.2	5	13	+ 45 57	81 15	+ 22 52
♄ Orionis	Mrigashirsh	4.5	5	32	+ 9 28	83 6	- 13 23
♄ Orionis	Ardra.	0.9	5	53	+ 7 24	88 9	- 16 2
♄ Carinae	Agastya.	0.9	6	23	- 52 40	104 23	- 75 50
♄ Canis Majoris	Vyadha.	1.6	6	43	- 16 39	103 30	- 39 35
♄ Geminorum	Punarvasu	1.6	7	32	+ 31 59	109 36	+ 10 57
♄ Canis Minor	Prashva.	0.5	7	37	+ 5 20	115 10	- 16 54
♄ Geminorum	Punarvasu	1.2	7	43	+ 28 8	112 38	+ 6 41
♄ Cancri	Pushya.	4.2	8	42	+ 18 19	128 7	+ 0 4
♄ Cancri	Aslesha.	4.5	8	56	+ 12 2	133 2	- 5 5
♄ Leonis	Magha.	1.3	10	6	+ 12 11	149 14	+ 0 28
♄ Leonis	Purva.	2.6	11	12	+ 20 46	160 41	+ 14 20
♄ Leonis	Uttara.	2.2	11	47	+ 14 49	171 2	+ 12 16
♄ Corvi	Hasta.	3.1	12	28	- 16 17	192 51	- 12 12
♄ Virginis	Chitra.	1.2	13	23	- 10 56	203 14	- 2 3
♄ Bootes	Swati.	0.2	14	14	+ 19 24	203 38	+ 30 50
♄ Libra	Vishakha.	2.9	14	48	- 15 52	224 27	+ 0 20
♄ Scorpii	Anuradha.	2.5	15	58	- 22 30	241 58	- 1 58
♄ Scorpii	Jyeshtha.	1.2	16	27	- 26 20	249 10	- 4 33
♄ Scorpii	Mool.	1.7	17	31	- 37 4	263 57	- 13 47
♄ Sagittarus.	P. Shadha.	2.8	18	18	- 29 51	273 59	- 6 27
♄ Sagittarus.	P. Shadha.	1.9	18	21	- 34 24	274 27	- 11 2
♄ Sagittarus.	U. Shadha	2.1	18	53	- 26 21	281 45	- 3 26
♄ Lyrae	Abhijit.	0.1	18	35	+ 38 45	284 42	+ 61 44
♄ Aquillae	Shravana.	0.9	19	49	+ 8 45	301 9	+ 29 18
♄ Delphini	Dhanistha.	3.7	20	36	+ 14 27	315 42	+ 31 55
♄ Delphini	Dhanistha.	3.9	23	38	+ 15 46	316 47	+ 33 2
♄ Cygni	Deneb.	1.3	20	40	+ 45 8	334 42	+ 59 55
♄ Aquarii	Shatabhij.	3.8	22	50	- 7 49	340 58	- 0 23
♄ Pegasi As.T.	Fomal hant	1.3	22	55	- 29 51	333 13	- 21 8
♄ Pegasi	P. Bhadra.	2.6	23	2	+ 27 50	358 44	+ 31 8
♄ Pegasi	P. Bhadra.	2.6	23	3	+ 14 58	353 56	+ 19 23

EPHEMERIS

OF

Planets' Places for 1958

INTRODUCTION

THE places of the Sun, Moon and the Planets given in the following pages are *Sayan* and are true for the true equinox of each day. They are given for 12 o'clock noon Indian Standard Time (I.S.T.) which is 5½ hours in advance of Greenwich Mean Time, but for convenience, the *Sidereal Time* is given for the *Mean Noon, Ujjain Local Time*.

Nirayana places are obtained by subtracting the *Ayanamshas* from the *Sayan* places.

It should be noted that the *Tithis* and *Aspects* are the same both in the *Sayan* and the *Nirayana* systems.

EXPLANATION OF SYMBOLS

Planets.	Signs.	Aspects.
☉ Sun.	♈ Aries.	♌ Conjunction = 0°
☾ Moon.	♉ Taurus.	♊ Semi-Sextile = 30°
♇ Pluto.	♊ Gemini.	♎ Semi-Quintile = 36°
♆ Neptune.	♋ Cancer.	♋ Semi-Square = 45°
♅ Herschel (Uranus).	♌ Leo.	♎ Sextile = 60°
♄ Saturn.	♍ Virgo.	♎ Quintile = 72°
♃ Jupiter.	♋ Libra.	♎ Square = 90°
♂ Mars.	♌ Scorpio.	♎ Trine = 120°
♀ Venus.	♊ Sagittarus.	♎ Sesqui-quadrato = 135°
☿ Mercury.	♊ Capricornus.	♎ Bi-quintile = 144°
♁ Earth.	♊ Aquarius.	♎ Quincunx = 150°
♂ Rahu.	♊ Pisces.	♎ Opposition = 180°

2		JANUARY 1958										S. J. O. UJJAIN									
Date	Day	Sidereal Time			⊙		♂			♂			Midnight		ψ						
					Long.	Decl.	Long.	Lat.	Decl.	♂	♂										
1	W.	18	41	42	10	20	52	23 S	2	14	15	0 S	30	15 N	39	20	8	31	4	m	27
2	Th.		45	38	11	22	2	22	58	26	52	1	35	17	55	3	11	19			28
3	F.		49	35	12	23	11		52	9	51	2	38	19	20	16	30				29
4	S.		53	31	13	24	21		46	23	14	3	34		43	0	5				30
5	Su.		57	28	14	25	30		40	7	1	4	19	18	57	14	2				31
6	M.	19	1	24	15	26	29		33	21	8		50	17	2	28	17				32
7	Tu.		5	21	16	27	49		26	5	30	5	2	14	1	12	44				33
8	W.		9	17	17	28	58		18	20	0	4	55	10	9	27	17				34
9	Th.		13	14	18	30	6		10	4	33	30	5	40	11	48					35
10	F.		17	10	19	31	16		1	19	1	3	47	0	52	26	12				36
11	S.		21	7	20	32	24	21	52	3	21	2	50	3	S	56	10	27			37
12	Su.		25	3	21	33	32		43	17	29	1	44	8	28	24	29				38
13	M.		29	0	22	34	40		33	1	25	0	33	12	29	8	m	19			39
14	Tu.		32	56	23	35	47		23	15	9	0	N	41	15	44	21	57			39
15	W.		36	53	24	36	54		12	28	42	1	50	18	5	5	24				40
16	Th.		40	49	25	38	1		1	12	4	2	52	19	24	18	41				41
17	F.		44	46	26	39	6	20	50	25	15	3	44		38	1	47				41
18	S.		48	42	27	40	2		38	8	16	4	24	18	48	14	42				42
19	Su.		52	39	28	41	17		6	21	6		49	17	2	27	26				43
20	M.		56	35	29	42	21		13	3	44	5	0	14	28	9	58				43
21	Tu.	20	0	32	0	43	25		0	16	10	4	46	11	17	22	18				44
22	W.		4	29	1	44	28	19	47	28	23		38	7	41	4	26				44
23	Th.		8	25	2	45	30		33	10	24		8	3	49	16	24				45
24	F.		12	22	3	46	32		19	22	20	3	28	0	N	9	28	15			45
25	S.		16	18	4	47	32		4	4	2	2	39	4	5	10	3				45
26	Su.		20	15	5	48	32	18	49	15	57	1	42	7	51	21	51				46
27	M.		24	12	6	49	31		34	27	48	0	42	11	20	3	46				46
28	Tu.		28	9	7	50	30		19	9	47	0	S	22	14	25	15	52			46
29	W.		32	5	8	50	1		3	22	2	1	26	16	54	28	16				47
30	Th.		36	2	9	52	23	17	47	4	36	2	27	18	40	11	3				47
31	F.		39	59	10	53	18		30	17	35	3	22	19	30	24	15				47

Date.	ψ		μ		η		ζ		δ	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1N44	11S23	0N40	18N10	1N20	21S41	1N14	9 S50	0 N5	21S18
3				11		42		55	3	32
5		24		12		43	15	59	1	46
7				13		44		10	4	0
9		25		15		45	16	8	1	14
11	45			16		46		12	2	26
13		26		18		47		16	3	37
15				19		48		20	5	48
17				21		49	17	23	6	57
19		27		22		50		26	7	23
21				23		51	18	29	8	14
23			41	25		52		32	10	22
25				26		53	19	34	11	28
27				28				36	13	34
29	46			29		54	20	38	14	38
31				30				40	16	42

EPHEMERIS		JANUARY 1958										3									
Date	Day	Longitudes										Lunar Aspects									
		μ	η	ζ	δ	ϵ	ϕ	χ	ψ	ω	ν	θ	ι	κ	λ	σ	τ	υ	π	ρ	ϕ
1	10	49	19	28	28	37	6	22	15	24	26	35	Δ	$\square$	π	π	π	π	π	π	π
2	R	47		35	45	7	3	39	R	0		35	Δ	$\square$	π	π	π	π	π	π	π
3		45		42	52	45		52	25	35		20	Δ	$\square$	π	π	π	π	π	π	π
4		43		48	29	0	8	27	16	2		20	Δ	$\square$	π	π	π	π	π	π	π
5		41		55	7	9	9	10	14			14	Δ	$\square$	π	π	π	π	π	π	π
6		39	20	2	14	51	16	D	18	8		30	Δ	$\square$	π	π	π	π	π	π	π
7		37		8	21	10	33	20	30			49	Δ	$\square$	π	π	π	π	π	π	π
8		35		15	27	11	15	21	49			16	Δ	$\square$	π	π	π	π	π	π	π
9		33		22	34	57	R	19	26	16		49	Δ	$\square$	π	π	π	π	π	π	π
10		30		28	40	12	39	16	49			49	Δ	$\square$	π	π	π	π	π	π	π
11		27		35	46	13	21	9	27	28		11	Δ	$\square$	π	π	π	π	π	π	π
12		25		41	52	14	3	0	28	11		0	Δ	$\square$	π	π	π	π	π	π	π
13		22		48	58		45	15	49	29		0	Δ	$\square$	π	π	π	π	π	π	π
14		19		54	0	4	15	27	35	52		0	Δ	$\square$	π	π	π	π	π	π	π
15		17	21	0	10	16	9	18	0	48		0	Δ	$\square$	π	π	π	π	π	π	π
16		14		6	15	52	14	59	2	47		0	Δ	$\square$	π	π	π	π	π	π	π
17		12		13	21	17	34	38	2	50		0	Δ	$\square$	π	π	π	π	π	π	π
18		9		19	27	18	16	15	3	55		0	Δ	$\square$	π	π	π	π	π	π	π
19		6		25	32	58	13	49	5	2		0	Δ	$\square$	π	π	π	π	π	π	π
20		4		31	36	19	41	22	6	12		0	Δ	$\square$	π	π	π	π	π	π	π
21		1		37	40	20	23	12	7	23		0	Δ	$\square$	π	π	π	π	π	π	π
22	9	58		43	45	21	5	21	8	37		0	Δ	$\square$	π	π	π	π	π	π	π
23		55		49	49		48	11	48	9		52	Δ	$\square$	π	π	π	π	π	π	π
24		53		55	53	22	30	14	11	8		8	Δ	$\square$	π	π	π	π	π	π	π
25		50	22	1	57	23	13	10	39	12		26	Δ	$\square$	π	π	π	π	π	π	π
26		48		6	1	55	3	13	46			0	Δ	$\square$	π	π	π	π	π	π	π
27		45		12	5	24	37	9	26	15		6	Δ	$\square$	π	π	π	π	π	π	π
28		43		18	8	25	20	8	49	16		28	Δ	$\square$	π	π	π	π	π	π	π
29		40		24	11	26	3	12	17	50		0	Δ	$\square$	π	π	π	π	π	π	π
30		38		29	14	46	7	35	19	14		0	Δ	$\square$	π	π	π	π	π	π	π
31		35		35	17	27	28	6	58	20		39	Δ	$\square$	π	π	π	π	π	π	π

Date.	η		ζ		Mean
-------	--------	--	---------	--	------

		FEBRUARY 1958										S. J. O. UJJAIN	
Date	Day	Sidereal Time		☉		☽		Midnight		ψ			
		H.	M.	S.	Long.	Decl.	Long.	Lat.	Decl.	☽	ψ		
1	S.	20	43	55	11 54	13 17 S	13 1 52	4 S 8 19 N	18 7 57	4 m 47			
2	Su.		47	52	12 55	16 56	14 59	42 17 5	22 5				
3	M.		51	49	13 55	58 3	29 19	59 15 25	6 38				
4	Tu.		55	45	14 56	49 21	14 1	56 11 53	21 28				
5	W.		59	42	15 57	39 3	28 57	34 7 33	6 27				
6	Th.	21	3	39	16 58	27 15	45 13 m 57	3 53 2 44	21 25				
7	F.		7	35	17 59	15 27	28 50	2 56 2 S 13	6 12				
8	S.		11	32	19 0	1 8	13 31	1 48 6 59	20 45				
9	Su.		15	29	20 0	46 14	49 27 54	0 33 11 14	4 m 58				
10	M.		19	25	21 1	30 30	11 m 5	0 N 40 14 47	18 51				
11	Tu.		23	22	22 2	12 10	25 40	1 51 17 23	2 25				
12	W.		27	19	23 2	54 13	50 9 5	2 53 18 58	15 41				
13	Th.		31	5	24 3	33 30	22 13	3 46 19 28	28 42	R 46			
14	F.		35	12	25 4	11 10	5 7	4 25 18 57	11 30				
15	S.		39	9	26 4	48 12	50 17 49	51 17 24	24 6				
16	Su.		43	5	27 5	23 20	0 20	5 2 15 10	6 32				
17	M.		47	2	28 5	57 8	12 41	4 59 12 17	18 48				
18	Tu.		50	58	29 6	29 11	47 24 53	42 8 48	0 56				
19	W.		54	54	0 7	0 26	6 57	13 5 4	12 55				
20	Th.		58	50	1 7	29 5	18 53	3 32 1 9	24 49				
21	F.	22	2	47	2 7	57 10	43 0 7 43	2 43 2 N 46	6 37				
22	S.		6	43	3 8	23 21	12 31	1 46 6 35	18 24				
23	Su.		10	40	4 8	47 0	24 18	0 45 10 7	0 12				
24	M.		14	37	5 9	10 9	37 6 8	0 S 18 13	17 12				
25	T.		18	33	6 9	31 15	18 7	1 21 15 58	24 11				
26	W.		22	30	7 9	50 8	53 0 19	2 22 17 54	6 32				
27	Th.		26	26	8 10	8 31	12 50	3 18 19 4	19 13				
28	F.		30	23	9 10	24 8	25 43	4 5 19 17	2 20				

Date	ψ		♈		♉		♊		♋		♌	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
2	1 N 46	11 S 27	0 N 41	18 N 3	1 N 21	21 S 55	1 N 21	10 S 41	0 S 18	23 S 44		
6				33				42	20		46	
8				35			22	43	21		47	
10				36		56		44	23			
12				37			23	45	24		48	
14	47	26		39			24		26		44	
16				40					28		41	
18				41		57		44	29		38	
20		25		43				31	31		33	
22				44				43	33		27	
24		24	40	45		22	58	25	42	34	20	
26				46				26	40	36	14	
28		23		47					37	37	6	
				48					38	22	56	

EPHEMERIS										FEBRUARY 1958										5	
Date	Longitudes										Lunar Aspects										
	♈	♉	♊	♋	♌	♍	♎	♏	♐	☉	☽	♈	♉	♊	♋	♌	♍	♎	♏	♐	
1	9	32	22	40	1	20	28	11	6	23	22	5	5	☉	☽	☉	☽	☉	☽	☉	☽
2	R	30		45		23		53	5	R	48	23	31	☉	☽	☉	☽	☉	☽	☉	☽
3		27		51		25	29	36			14	24	59	☉	☽	☉	☽	☉	☽	☉	☽
4		25		56		28	0	19	4		41	26	27	☉	☽	☉	☽	☉	☽	☉	☽
5		22	23	1		30	1	2			10	27	56	☉	☽	☉	☽	☉	☽	☉	☽
6		20		6		31		45	3		41	29	27	☉	☽	☉	☽	☉	☽	☉	☽
7		17		11		33	2	28			13	0	57	☉	☽	☉	☽	☉	☽	☉	☽
8		14		16		35	3	11	2		48	2	29	☉	☽	☉	☽	☉	☽	☉	☽
9		12		21		36		54			25	4	2	☉	☽	☉	☽	☉	☽	☉	☽
10		9		26		37	4	37			4	5	35	☉	☽	☉	☽	☉	☽	☉	☽
11		7		31		38	5	20	1		45	7	9	☉	☽	☉	☽	☉	☽	☉	☽
12		4		36		39	6	2			29	8	44	☉	☽	☉	☽	☉	☽	☉	☽
13		2		40				45			16	10	20	☉	☽	☉	☽	☉	☽	☉	☽
14	8	59		45		7	29				4	11	57	☉	☽	☉	☽	☉	☽	☉	☽
15		57		49		8	12	0			56	13	34	☉	☽	☉	☽	☉	☽	☉	☽
16		54		54		8	55				49	15	13	☉	☽	☉	☽	☉	☽	☉	☽
17		52		58		9	38				45	16	52	☉	☽	☉	☽	☉	☽	☉	☽
18		49	24	2		10	21				44	18	32	☉	☽	☉	☽	☉	☽	☉	☽
19		47		6		38	11	5	D		45	20	13	☉	☽	☉	☽	☉	☽	☉	☽
20		45		11		37		48			48	21	55	☉	☽	☉	☽	☉	☽	☉	☽
21		43		15		36	12	31			54	23	38	☉	☽	☉	☽	☉	☽	☉	☽
22		40		19		35	13	15	1		2	25	22	☉	☽	☉	☽	☉	☽	☉	☽
23		38		22		4		58			13	27	7	☉	☽	☉	☽	☉	☽	☉	☽
24		36		26		33	14	41			25	28	53	☉	☽	☉	☽	☉	☽	☉	☽
25		34		30		31	15	25			40	0	39	☉	☽	☉	☽	☉	☽	☉	☽
26		32		34		29	16	8			56	2	27	☉	☽	☉	☽	☉	☽	☉	☽
27		29		37		27		52	2		15	4	16	☉	☽	☉	☽	☉	☽	☉	☽
28		27		41		25	17	35			35	6	5	☉	☽	☉	☽	☉	☽	☉	☽

Date	☉		☽		Mean	Date	Time	Phenomena.
	Lat.	Decl.	Lat.	Decl.	☉		H. M.	
2	7 N 41	11 S 22	0 S 56	22 S 19	5 m 40	4	13 37	Full Moon, Decl. 11° N 33'
4	50	29	1 9	21 59	34	5	23 0	☉ at Perigee.
6	54	37	20	33	28	7	1 15	☉ on Equator
8	56	47	31	5	21	9	22 51	☉ at ☉
10	55	58	40	20 30	15	11	7 1	☉ at Last Quarter.
12	51	12 19	49	19 50	9	14		Half setting of ☉ in East
14	43	22 55	3		2	18	21 10	New Moon Decl. 7° S 27'
16	34	34 2	0	18 11	4	56	19 15	☉ enters ☉
18	23	46	4	17 15	50	20	19 3	☉ on Equator.
20	11	57	6	16 12	43	21	15 0	☉ at Perigee.
22	6	57 13	8	7 15 4	37	24	5 9	☉ at ☉
24	43	17	6	13 50	31	27	2 17	☉ at First Quarter.
26	27	26	3	12 31	24			
28	11	33	1	58 11 7	18			

MARCH 1958												S. J. O. UJJAIN											
Date	Day	Sidereal Time			☉		☽			☿			♂			♂			ψ				
		H.	M.	S.	Long.	Decl.	Long.	Lat.	Decl.	Long.	Lat.	Decl.	Long.	Lat.	Decl.								
1	S.	22	34	20	10	38	7	S	45	9	4	4	S	41	18	N	28	15	56	4	m	38	
2	Su.	38	16	11	10	49		22	22	55	5	2	16	32		0	1	2			R	37	
3	M.	42	13	12	11	0	6	0	7	15	5	13	32	14	35							36	
4	Tu.	46	9	13	11	9		37	22	1	4	49	9	37	29	31						35	
5	W.	50	6	14	11	6		13	7	25	12	5	0	14	42							34	
6	Th.	54	3	15	11	20	5	50	22	21	3	17	0	1	29	57						33	
7	F.	58	0	16	11	24		27	23	32	2	8	4	S	57	15	4					32	
8	S.	23	1	56	17	11	25		4	22	33	0	51	9	34	29	57					32	
9	Su.	5	53	18	11	25	4	40	7	16	0	N	28	13	30	14	m	28				31	
10	M.	9	49	19	11	22		17	21	35	1	44	16	29	28	35						30	
11	Tu.	13	46	20	11	18	3	53	5	29	2	52	18	25	12	17						28	
12	W.	17	42	21	11	11		30	18	59	3	47	19	13	25	35						27	
13	Th.	21	39	22	11	3		6	2	6	4	30	18	56	8	33						26	
14	F.	25	35	23	10	52	2	42	14	54	57	17	41	21	12							25	
15	S.	29	32	24	10	40		19	27	26	5	11	15	36	3	37						24	
16	Su.	33	28	25	10	26	1	55	9	45		8	12	51	15	51						23	
17	M.	37	25	26	10	10		31	21	53	4	52	9	36	27	54						22	
18	Tu.	41	21	27	9	52		8	3	54	24	5	59	9	52							21	
19	W.	45	18	28	9	32	0	44	15	48	3	40	2	13	21	44						19	
20	Th.	59	15	29	9	9		20	27	39	2	54	1	N	44	3	37					18	
21	F.	53	11	0	8	45	0	N	3	9	27	1	57	5	33	15	21					17	
22	S.	57	7	1	8	19		27	21	15	0	55	9	9	27	10						15	
23	Su.	0	1	4	2	7	51		51	3	5	0	S	9	12	24	9	2				14	
24	M.	5	0	3	7	20	1	15	15	0	1	14	15	10	21	0						13	
25	Tu.	8	57	4	6	48		38	27	3	2	14	17	19	3	9						11	
26	W.	12	54	5	6	13	2	2	9	18	3	13	18	40	15	31						10	
27	Th.	16	50	6	5	37		25	21	49	4	3	19	9	28	11						8	
28	F.	20	47	7	4	58		49	4	39		41	18	39	11	13						7	
29	S.	24	43	8	4	18	3	12	17	54	5	6	17	11	24	41						5	
30	Su.	28	40	9	3	35		35	1	35		15	14	42	8	36						4	
31	M.	32	36	10	2	51		59	15	43		5	11	16	22	57						2	
Date	ψ		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	
2	1N	47	11S	22	0N	40	18N	49	1N	22	21S	58	1N	27	10S	35	0S	39	22S	46			
4		48					50				59				33		43			35			
6			21				52							28	30		45			23			
8			20												27		46			11			
10							53							29	23		48	21		57			
12			19				54	25							20		50			42			
14			18				55								17		52			27			
16			17				56								13		54			11			
18			16				57							30	9		55	20		55			
20			15												5		57			36			
22			14				58								1		59			17			
24			13				59							31	9	56	1	1	19	58			
26	49		12												51		3			39			
28			11			19	0	24							47		5			19			
30			10												42		7	18	57	57			

EPHEMERIS										MARCH 1958										7		
Date	Longitudes										Lunar Aspects											
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	☉	☽	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑
1	8	25	24	44	1	22	18	18	2	58	7	56	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
2	R	23	47	R	19	19	2	3	22	9	48	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
3		21	50		16	46	48	11	41	15	13	34	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
4		19	54		13	20	29	4	15	13	34	34	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
5		17	57		10	21	13	44	15	29	8	56	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
6		15	25	0	7	56	5	15	17	24	15	17	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
7		13	2		3	22	40	47	19	20	15	17	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
8		11	5		0	23	24	6	21	21	16	16	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
9		9	8	0	56	24	7	56	23	14	14	14	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
10		7	10		51	51	7	32	25	11	11	11	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
11		5	13		47	25	35	8	9	27	9	27	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
12		4	15		43	26	18	9	48	29	6	0	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
13		2	17		39	27	2	9	28	1	4	1	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
14		0	19		34	28	10	9	3	1	1	1	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
15	7	59	21		29	28	30	51	4	57	51	4	57	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
16		57	23		24	29	14	11	34	6	52	34	6	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
17		56	25		19	58	12	18	8	45	45	18	8	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
18		54	27		14	0	41	13	3	10	36	3	10	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
19		53	29		8	1	25	49	12	25	25	49	12	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
20		52	31		3	2	9	14	36	14	12	36	14	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
21		50	33	29	57	53	15	24	15	54	53	15	24	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
22		49	34		52	3	37	16	12	17	33	37	16	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
23		47	35		45	4	21	17	1	19	8	21	17	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
24		46	36		39	5	5	51	20	39	51	20	39	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
25		44	37		33		49	18	42	22	4	42	22	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
26		43	38		26	6	53	19	34	23	23	34	23	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
27		42	39		19	7	17	20	26	24	38	26	24	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
28		40	40		13	8	1	21	18	25	45	18	25	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
29		39	40		7		45	22	12	26	47	12	26	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
30		38	41		0	9	29	23	6	27	42	6	27	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
31		38	41	28	53	10	13	24	0	28	31	13	24	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Date	♀		♂		Mean		Date	Time		Phenomena												
	Lat.	Decl.	Lat.	Decl.	Ω		H.	M.														
2	5 N	54	13 S	39	1 S	53	9 S	37	4	11	5	23	57	Full Moon Decl. 2° N 30'								
4		37		43		43	8	3	5	6	9	0		☽ at Perigee.								
6		20		46		32	6	23	3	59	6	12	5	☽ on Equator								
8		3		48		18	4	40		52	9	3	30	☽ at ♌								
10	4	46		47		2	2	52		46	12	16	20	☽ at Last Quarter.								
12		28		44	0	44	1	2		40	13	14	34	☽ on Equator.								
14		11		41		24	0 N	50		33	16	16	10	☽ at ♈								
16	3	54		34		2	2	42		27	19			Heli. rising of ♈ in West.								
18		37		26	0	N	21	4	32	21	20	1	28	☽ on Equator.								
20		21		16		46	6	18		14	15	20		New Moon, Decl. 2° N 12'								
22		4		3	1	11	7	59		8	19	0		☽ at Apogee.								
24	2	48	12	49		36	9	33		2	21	8	24	☉ enters ♏								
26		32		33		59	10	56	2	55	23	8	37	☽ at ♏								
28		17		14	2	21	12	9		49	28	16	46	☽ at First Quarter.								
30		3	11	54		40	13	9		42												

Date	Day	Sidereal Time		☉		♂			♂		Midnight		ψ						
				Long.	Decl.	Long.	Lat.	Decl.	♂	♂									
1	Tu.	0	36	32	11	2	4	4	N 22	0	18	4	S 36	7	N 4	7	43	4	m 1
2	W.	46	29	12	1	15		45	15	13	3	47	2	20	22	46		R	0
3	Th.	44	26	13	0	24	5	8	0	23	2	42	2	S 38	8	4	0	3	58
4	F.	48	22	13	59	32		31	15	37	1	25	7	28	23	12		5	57
5	S.	52	19	14	58	37		54	0	m 46	0	3	11	47	8	m 15		55	
6	Su.	56	15	15	57	40	6	17	15	40	1	N 19	15	17	23	0		54	
7	M.	1	0	12	16	56	41	40	0	14	2	34	17	42	7	2	21	52	
8	Tu.	4	8	17	55	40	7	2	14	21	3	37	18	56	2	15		51	
9	W.	8	5	18	54	37		25	28	2	4	26	19	0	4	43		49	
10	Th.	12	1	19	53	32		47	11	17	17	59	18	0	17	45		48	
11	F.	15	58	20	52	24	8	9	24	8	5	15	16	7	0	26		46	
12	S.	19	54	21	51	15		31	6	38		16	13	31	12	48		45	
13	Su.	23	51	22	50	4		53	18	53		3	10	22	24	56		43	
14	M.	27	47	23	48	51	9	15	0	56	4	36	6	50	6	54		41	
15	Tu.	31	43	24	47	36		36	12	50	3	58	3	5	18	45		40	
16	W.	35	40	25	46	18		57	24	39		10	0	N 47	0	33		38	
17	Th.	39	37	26	44	59	10	19	6	27	2	14	4	37	12	21		37	
18	F.	43	33	27	43	39		41	18	15	1	12	8	16	24	11		35	
19	S.	47	30	28	42	15	11	1	0	8	7	0	6	11	37	6	5		33
20	Su.	51	26	29	40	51		22	12	4	1	S 0	14	31	18	5		32	
21	M.	55	23	0	39	24		42	24	8	2	4	16	49	0	14		30	
22	Tu.	59	20	1	37	56	12	3	6	22	3	3	18	23	12	33		28	
23	W.	2	3	16	2	36	25	23	18	48		53	19	6	25	5		27	
24	Th.	7	12	3	34	53		43	1	27	4	35	18	51	7	53		25	
25	F.	11	9	4	33	18	13	3	14	25	5	4	17	38	2	58		23	
26	S.	15	6	5	32	42		22	27	38		17	15	28	4	23		22	
27	Su.	19	2	6	30	4		41	11	13	13	12	12	24	18	9		20	
28	M.	22	59	7	23	25	14	1	25	10	4	50	8	35	2	16		19	
29	Tu.	26	55	8	26	43		20	9	28		10	4	7	16	44		17	
30	W.	30	52	9	25	0		38	24	4	3	12	0	S 38	1	29		15	

Date.	ψ		θ		ζ		η		δ					
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.				
1	1N49	11 S	9	0 N40	19 N	1	1 N25	21 S	59	1 N32	9 S37	1 S	8	18 S35
3			8								32	10		12
5			7								28	12	17	48
7			6								23	14		24
9			5						58		16	16		0
11			4	39							10	18	16	35
13			3								5	19		8
15			2								0	21	15	42
17			1			26	57			8	54	23		14
19			0								49	25	14	47
21		10	59								43	27		18
23			57		0						38	29	13	51
25			56				56		31		33	30		2
27			55								28	32	12	52
29			54						30		22	34		22

Date	Longitudes										Lunar Aspects									
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	☉	☽	♁	♂	♂	♂	♂	♂	♂	♂
1	7 ^h 37	25 ^r 42	28 ^h 46	10 ^h 57	24 ^h 55	29 ^h 11	☾	*	Δ	*	Δ	*	Δ	*	Δ	*	Δ	*	Δ	*
2	R 37	42	R 39	11 ^h 42	25 ^h 51	45	☾	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
3	36	42	32	12 ^h 26	26 ^h 47	0 ^h 12	☾	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
4	36	42	25	13 ^h 10	27 ^h 43	28 ^h 32	☾	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
5	36	42	18	54	28 ^h 40	45	☾	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
6	36	42	10	14 ^h 38	29 ^h 38	51	☾	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
7	35	R 42	3	15 ^h 22	0 ^h 36	R 50	☾	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
8	35	42	27	56	16 ^h 6	34	☾	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
9	35	42	48	51	2 ^h 33	28	☾	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
10	34	41	41	17 ^h 35	3 ^h 32	9	☾	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
11	34	41	33	18 ^h 19	4 ^h 31	29 ^h 44	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
12	34	40	25	19 ^h 3	5 ^h 31	14	☐	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽
13	34	39	18	47	6 ^h 31	28 ^h 40	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	34	38	10	20 ^h 32	7 ^h 32	2	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
15	D 34	36	3	21 ^h 16	2 ^h 33	27 ^h 22	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
16	34	34	26	55	22 ^h 0	9 ^h 34	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
17	34	32	47	44	10 ^h 36	25 ^h 56	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
18	34	30	39	23 ^h 28	11 ^h 37	13	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
19	34	28	32	24 ^h 13	12 ^h 38	24 ^h 30	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽
20	3+	27	24	57	13 ^h 42	23 ^h 28	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
21	35	25	16	25 ^h 41	14 ^h 44	9	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
22	35	24	9	26 ^h 25	15 ^h 47	22 ^h 32	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
23	35	22	2	27 ^h 9	16 ^h 50	21 ^h 58	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
24	36	21	25	55	54	17 ^h 54	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
25	36	20	48	28 ^h 38	18 ^h 57	2	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
26	37	18	41	29 ^h 22	20 ^h 1	20 ^h 40	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
27	37	17	33	0 ^h 6	21 ^h 5	23	☐	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽	☽
28	38	15	25	50	22 ^h 10	11	☐	*	*	☐	*	*	☐	*	☐	*	☐	*	☐	*
29	39	13	17	1 ^h 35	23 ^h 14	4	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
30	40	11	9	2 ^h 19	24 ^h 19	1	☐	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ

Date	☿		♂		Mean Ω	Date	Time H. M.		Phenomena		
	Lat.	Decl.	Lat.	Decl.							
1	1N	48	11S	31	2	N55	13	N55	2 m 36	2 23 16	☿ on Equator.
3		33		7	3	6 14	27		30	3 21 0	☿ at Perigee.
5		19	10	42		12	44		23	4 9 16	Full Moon, Decl. 6°S55'
7		6		14		13	47		17	5 12 53	☿ at Ω
9	0	53	9	45		8	34		11 7	...	Heli. setting of ☿ in West
11		40		13	2	56	7		4	11 5 24	☿ at Last Quarter.
13		28	8	41		38	13	28	1	58 16 7	☿ on Equator.
15		16		7		15	12	38		52 23 0	☿ at Apogee.
17		6	7	31	1	47	11	41		45 18 14	☿ at Ω
19	0S	5	6	54		16	10	40		39 19 8	New Moon, D. 11° N 13'
21		16		14	0	43	9	39		32 14 11	☿ at ☿
23		26	5	35		6	8	39		26 20 19	☿ enters ☿
25		36	4	55	0S	25	7	50		20 23 21	☿ at ☿
27		44		13		56		6		14 27 3	☿ at First Quarter.
29		53	3	30	1	25	6	32		7 30 8	☿ on Equator.

10		MAY 1958										S. J. O. UJJAIN									
Date	Day	Sidereal Time			☉		☾						Midnight		ψ						
					Long.	Decl.	Long.	Lat.	Decl.												
		H.	M.	S.						Long.	Decl.	Long.	Lat.	Decl.		Long.	Lat.				
1	Th.	2	34	49	10	23	14	14	N 56	8	25	56	2	S 1	5	S 24	16	25	3 m	14	
2	F.		28	45	11	21	28	15	15	23	55	0	41	9	57	1	m	25	R	12	
3	S.		42	41	12	19	39		32	8	m	54	0	N 42	13	48	16	21		10	
4	Su.		46	38	13	17	48		50	23	45	2	2	16	45	1	2	5		9	
5	M.		50	35	14	15	56	16	8	S	2	20	3	11	15	33	15	30		7	
6	Tu.		54	31	15	14	2		25	22	33	4	8	19	7	29	31		6		
7	W.		58	27	16	12	7		41	6	22	2	48	18	30	13	3	6		4	
8	Th.	3	2	24	17	10	10		58	19	43	5	11	16	52	15	26		3		
9	F.		6	21	18	8	11	17	14	2	40		8	14	34	9	0		1		
10	S.		10	17	19	6	11		30	15	14		3	11	26	21	24	2	59		
11	Su.		14	14	20	4	9		46	27	31	4	44	7	53	3	33		58		
12	M.		18	10	21	2	5	18	1	9	32		4	4	14	15	29		56		
13	Tu.		22	7	22	0	0		16	21	25	3	23	0	18	27	19		55		
14	W.		26	4	22	57	54		31	3	13	2	29	3	N 33	9	6		53		
15	Th.		30	1	23	55	46		46	15	1	1	28	7	16	20	55		52		
16	F.		33	57	24	53	37	19	0	26	52	0	24	10	44	2	49		50		
17	S.		37	54	25	51	25		14	8	49	0	S 42	13	44	14	51		49		
18	Su.		41	51	26	49	13		27	20	56	1	46	16	18	27	4		47		
19	M.		45	47	27	46	59		40	3	14	2	47	18	5	9	27		46		
20	Tu.		49	44	28	44	44		53	15	44	3	40	19	2	22	4		44		
21	W.		53	40	29	42	28	20	6	28	28	4	24		2	4	54		43		
22	Th.		57	37	0	40	10		18	11	24	5	54	18	4	17	58		42		
23	F.	4	1	34	1	37	51		30	24	35	5	10	16	7	1	16		40		
24	S.		5	30	2	35	32		41	8	0	4	10	13	17	14	47		39		
25	Su.		9	27	3	33	9		52	21	39	4	52	9	41	28	33		37		
26	M.		13	24	4	30	46	21	3	5	m	31	3	17	5	30	12	m	33	36	
27	Tu.		17	20	5	28	21		13	19	38	3	26	0	57	26	46		35		
28	W.		21	17	6	25	56		23	3	56	2	20	3	S 43	11	10		34		
29	Th.		25	14	7	23	29		33	18	25	1	7	8	16	25	42		32		
30	F.		29	10	8	21	2		42	3	m	0	0	N 12	12	20	10	m	19	31	
31	S.		33	6	9	18	33		51	17	38	1	30	15	39	24	55		30		

Date	ψ		♈		♉		♊		♋	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1 N 49	10 S 53	0 N 39	19 N 0	1 N 26	21 S 55	1 N 30	8 S 17	1 S 36	11 S 52
3		52		18 59				12	38	22
5		51		58				7	39	51
7		50		57		54	29	2	41	20
9		49		56			7 58	43		49
11		48					28	54	45	17
13		47		55				50	46	8
15		46	38	54		53		46	48	13
17		45		53			27	42	50	7
19		44		52				38	51	8
21		43		51				35	53	6
23		42		50		52	26	32	54	2
25		41		49				29	56	5
27		40		48				26	57	4
29	48	39		47				24	58	24
31				46		51	25	22	0	3

EPHEMERIS														MAY 1958														11													
Date	Longitudes														Lunar Aspects																										
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	☉	☽	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓															
1	7	40	25	7	8	25	2	3	3	25	24	20	3	π	*	*				π	π			Δ	*																
2		41		R	6	24	R	53			47	26	29	D	10			*	♌	□	π	♏			*																
3		42			3		48	4			31	27	34	22		♏	□	Δ	♌	Δ	π	Δ			*																
4		43	25	0			41	5			15	28	40	39					♌	Δ	π	Δ			*	□															
5		44	24	58			34				59	29	45	21	0	π	π	Δ	Δ	□					□																
6		45			55		27	6	44	0	7	51		25		Δ	□	♌	*				Δ																		
7		46			52		20	7	28	1	57		55			Δ	*	π		*	□		Δ		Δ																
8		48			50		14	8	12	3	3	22	28			Δ	*		♌	□	Δ	□		□	Δ																
9		49			46		7		56	4	9	23	5			□		♏			*				π																
10		50			43		1	9	40	5	16		47			□		Δ	Δ	♌	♌	*																			
11		52			40	23	54	10	24	6	22	24	23			Δ		*		Δ		*		*	♏																
12		53			36		48	11	8	7	29	25	21				π	□	π	□	♌	♌	*																		
13		55			3		42		52	8	36	26	13		*	Δ	□	□	π			♌	♌	*																	
14		56			30		36	12	3	9	42	27	8			Δ	*			□					π	□															
15		58			27		30	13	19	10	50	28	7							♌	♌	♌				□															
16		59			24		25	14	3	11	57	29	8			♌	♏	Δ	♏	Δ	♌		♌		Δ																
17	8	1			20		19		47	13	4	0	13				□	□	π			♌		♌																	
18		2			16		14	15	31	14	12	1	20					□	π		*	♌		♌																	
19		4			12		8	16	15	15	19	2	30			♏	□	*		□		Δ	♌	♌		□															
20		6			8		3		58	16	27	3	43			□	□			□	*		Δ	♌																	
21		8			4	22	58	17	42	17	35	4	59			*	Δ	♏	Δ				*	Δ	♌																
22		10			1		53	18	26	18	42	6	17			Δ	Δ					*		Δ	♌																
23		11	23		58		49	19	10	9	50	7	33				*	□	□		□			*	Δ																
24		13			54		44		53	20	58	8	58		*	□	□	□	π	□	□	□			*	Δ															
25		15			49		40	20	37	22	7	10	27					Δ	*	π	Δ		Δ																		
26		18			45		36	21	20	23	15	11	55			□	*	Δ	♌	□	Δ		□		Δ	♏															
27		20			41		32	22	4	24	23	13	26					□	♌		♏	π	Δ		Δ																
28		22			37		28		47	25	32	14	59			Δ	Δ	*	*	Δ			Δ		Δ																
29		24			3		24	23	3	26	40	16	35			□	□		♌	□	π		Δ	Δ	Δ																
30		26			29		20	24	14	27	49	18	13			π			Δ		♏			*	*																
31		29			25		17		57	28	58	19	53						Δ	Δ	Δ				*	*															

Date	♈		♉		Mean		Date	Time		Phenomena
	Lat.	Decl.	Lat.	Decl.	Δ	H.		M.		
1	1 S	1	2 S 46	1 S 51	6 N 8	1 m	1	2 6 0	☾ at Perigee.	
3		8		1 2	13 5	54	54	23 51	☾ at ☉	
5		15	1 16		32		51	48	Heli. rising of ♄ in East	
7		22	0 30		48		57	42	3 17 56 Full Moon, D. 14° S 44'	
9		28	0 N 17	3 0	6 12		3	8 19 0	☽ on Equator.	
11		34	1 5		8	35	29	10 20 12	☾ at Last Quarter.	
13		39		53	14 7	6	23	13 13 52	☾ on Equator.	
15		44	2 41		17	44	16	14 11 0	☾ at Apogee.	
17		49	3 29		16 8	29	10	16 20 44	☾ at ☉	
19		53	4 18		13 9	16	4	19 0 23	New Moon, D. 17° N 12'	
21		56	5 6		8	10 14	29	17 21 19	☉ enters ♏	
23		59		55	0 11	12	51	26 10 8	☾ at First Quarter.	
25	2	1	6 44	2	49	12 17	45	27 16 53	☾ on Equator.	
27		4	7 32		37	13 23	38	30 7 0	☾ at Perigee.	
29		6	8 20		22	14 31	32	8 21	☾ at ☉	
31		7	9 8		6	15 42	26			

12		JUNE 1958										S. J. O. UJJAIN									
Date	Day	Sidereal Time		⊙		♂		♂		♂		Midnight		♂		♂		♂		♂	
				Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.	Long.	Decl.
1	Su.	4	37	3	10	16	4	21	N59	2	11	2	N42	17	S57	9	23	2	m	29	
2	M.		41	0	11	13	33	22	8	16	33	3	43	19	4	23	38	R		27	
3	Tu.		44	56	12	11	2		16	0	32	4	29	18	58	7	34			26	
4	W.		48	53	13	8	28		23	14	24		58	17	44	21	8			25	
5	Th.		52	50	14	5	55		30	27	46	5	9	15	33	4	19			24	
6	F.		56	46	15	3	20		37	10	45		5	12	39	17	6			23	
7	S.	5	0	43	16	0	45		43	23	22	4	28	9	30	29	32			22	
8	Su.		4	39	16	58	8		48	5	39		12	5	32	11	42			21	
9	M.		8	36	17	55	31		54	17	42	3	30	1	39	23	40			20	
10	Tu.		12	32	18	52	53		59	29	35	2	38	2	N15	5	30			19	
11	W.		16	29	19	50	15	23	3	11	24	1	40	6	2	17	18			18	
12	Th.		20	25	20	47	35		8	23	13	0	38	9	33	29	9			17	
13	F.		24	22	21	44	55		12	5	8	0	S27	12	49	11	8			16	
14	S.		28	19	22	42	14		15	17	11	1	30	15	32	23	18			15	
15	Su.		32	16	23	39	32		18	29	28	2	31	17	35	5	43			14	
16	M.		36	12	24	36	50		20	12	1	3	25	18	51	18	23			13	
17	Tu.		40	9	25	34	8		22	24	49	4	10	19	11	1	20			12	
18	W.		44	6	26	31	24		24	7	54		43	19	6	14	32			11	
19	Th.		48	2	27	28	40		25	21	14	5	1	16	48	27	59			11	
20	F.		51	58	28	25	56		26	4	47		3	14	10	11	38			10	
21	S.		55	55	29	23	11		27	18	31	4	48	10	43	25	26			9	
22	Su.		59	51	0	20	26		27	2	m	24	15	e	39	9	m	23		9	
23	M.	6	3	47	1	17	41		26	16	23	3	27	2	11	23	25			8	
24	Tu.		7	44	2	14	55		26	0	28	2	27	2	S26	7	32			7	
25	W.		11	40	3	12	8		24	14	37	1	17	6	57	21	42			7	
26	Th.		15	37	4	9	22		23	28	49	0	2	11	5	5	m	55		6	
27	F.		19	34	5	6	35		21	13	m	2	1	N13	14	35	20	8		6	
28	S.		23	30	6	3	48		18	27	14	2	24	17	13	4	18			5	
29	Su.		27	27	7	1	0		16	11	21	3	25	18	48	18	23			5	
30	M.		31	23	7	58	13		12	25	21	4	12	19	9	2	17			4	

Date	♂		♂		♂		♂		♂	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
2	1N48	10S38	0N38	18N44	1N26	21S51	1N25	4S20	2S2	3S18
4		37		43		50	24	18	4	244
6				42				17	6	11
8		36		40			23	16	7	138
10		35		39	25	49		15	8	5
12				37			22	14	10	033
14		34		36					11	1
16				34			21		12	ON31
18		33		33	24	48			13	13
20				31			20	15	14	35
22	47	32		29			19	16	15	28
24				28			18	17	15	39
26		31		26	23	47		18	17	310
28				24			17	20	18	41
30				23		46		22	19	411

13		JUNE 1958										EPHEMERIS									
Date	Day	Longitudes.										Lunar Aspects.									
		♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
1		8	31	23	21	22	14	25	41	0	8	7	21	8	36						
2		33		R	16	R	11	26	24	1	15	23	21								
3		36			12			8	27	7	2	24	25	9							
4		38			8			5	50	3	33	26	59								
5		41			3			2	28	33	4	43	28	51							
6		44		0				0	29	16	5	52	0	46							
7		46	22	54	21			58		59	7	1	2	43							
8		49		50				56	0	42	8	11	4	42							
9		51		45				54	1	25	9	20	6	43							
10		54		41				52	2	7	10	33	8	46							
11		56		37				51		50	11	39	10	51							
12		59		32				49	3	33	12	49	12	48							
13	9	2		28				48	4	15	13	59	15	6							
14		4		23				47		58	15	8	17	15							
15		7		19				47	5	40	16	18	19	25							
16		10		14				46	6	22	17	28	21	36							
17		13		9				45	7	5	18	38	23	48							
18		16		5				45		47	19	48	26	0							
19		19		1				45	8	29	20	58	28	11							
20		22	21	57				45	9	11	22	8	0	23							
21		2		52				46		53	23	19	2	34							
22		28		48				46	10	35	24	29	4	48							
23		31		44				47	11	16	25	39	6	53							
24		34		40				48		58	26	49	9	0							
25		37		36				49	12	39	28	0	11	7							
26		41		31				50	13	21	29	11	13	12							
27		44		27				51	14	2	0	21	15	15							
28		47		23				53		43	1	32	17	16							
29		50		19				55	15	25	2	42	19	15							
30		54		15				56	16	6	3	53	21	13							

Date	☿		♂		Mean Ω	Date	Time H. M.	Phenomena	
	Lat.	Decl.	Lat.	Decl.					
2	2S	7	9N55	1S48	16N53	29	19	2 2 29	Full Moon D. 18° S 37'
4		8	10 42	28	18 4		13	9 12 31	☿ at Last Quarter.
6			11 28	7	19 13		6	22 9	☿ on Equator.
8			12 13	0	46 20	20	0	11 5 0	☿ at Apogee.
10			57	24	21 23	28	54	3 2 2	☿ at ☿
12		7	13 41		2 22 20		47	14 13 30	☿ on Equator.
14		5	14 23	0N20	23 10		41	15 4 0	☿ at ♄
16		3	15 4	40	50		55	17 13 29	New Moon, D. 19° N 11'
18		1	45 58	24	21		28	22 3 35	☿ enters ☾
20	1	59	16 23	1	15 41		22	23 23 21	☿ on Equator.
22		56	17 1	28	50		16	24 15 16	☿ at First Quarter.
24		54	35	39	50		9	26 9 0	☿ at Perigee.
26		51	18 11	47	47		3	12 38	☿ at ♄
28		47	43	52	19	27	56		
30		43	19 14	54	11		50		

14 JULY 1958 S. J. O. UJJAIN													
Date	Day	Sidereal Time			☉			☽			Midnight		
		H.	M.	S.	Long.	Decl.	Long.	Lat.	Decl.	Long.	Lat.	Decl.	ψ
1	Tu.	6	35	20	8 55	25	23N	9 9 8	4 N45	18 S23	15 55	2m	4
2	W.		39	17	9 52	37		6 22	39	5	16 36	29	19
3	Th.		43	13	10 49	50		0 5 53		0	13 57	12 22	3
4	F.		47	10	11 47	22	22	55 18	46	4	43 10	43	25
5	S.		51	7	12 44	14		50 1 19		14	7 3	7 29	2
6	Su.		55	3	13 41	26		45 13 35		3	32 3	11 19	38
7	M.		59	0	14 38	39		38 25 38		2	42 0N	45	1 35
8	Tu.	7	2	57	15 35	51		32 7 31		1	46 4	36 13	25
9	W.		6	53	16 33	4		25 19 20		0	46 8	16 25	14
10	Th.		10	49	17 30	16		18 1 10		0	5 17	11 37	7
11	F.		14	46	18 27	29		10 13 6		1	20 14	30 19	9
12	S.		18	42	19 24	41		2 25 14		2	20 16	49 1 24	
13	Su.		22	39	20 21	55	21	54 7 39		3	14 18	24 13	58
14	M.		26	36	21 19	8		45 20 22		4	0 19	6 26	51
15	Tu.		30	32	22 16	22		36 3 26		35	18 49	10 6	6
16	W.		34	28	23 13	36		27 16 51		49	17 36	23 40	
17	Th.		38	25	24 10	51		17 0 34		5	0 15	9 7	32
18	F.		42	22	25 8	5		7 14 33		4	46 11	54 21	26
19	S.		46	18	26 5	20	20	56 28 42		15	7 56	5 49	
20	Su.		50	14	27 2	36		45 12 57		3	28 3	30 20	5
21	M.		54	11	27 59	51		34 27 13		2	28 0 S35	4 20	
22	Tu.		58	8	28 57	9		22 11 27		1	19 5	16 18	32
23	W.		2	4	29 54	26		10 25 37		0	3 9	57 2 40	
24	Th.	8	6	1	0 51	44	19	58 9 42		1N	10 13	37 16	42
25	F.		9	58	1	49	2	46 23 40		2	19 16	26 0 37	
26	S.		13	54	2	46	21	33 7 32		3	19 18	18 14	25
27	Su.		17	51	3	43	41	19 21 17		4	7 19	3 28	5
28	M.		21	47	4	41	2	6 4 51		41	18 41	11 35	
29	Tu.		25	43	5	38	23	52 18 15		59	17 16	24 52	
30	W.		29	40	6	35	45	38 1 26		5	0 14	58 7 56	
31	Th.		33	36	7	33	8	23 14 22		4	45 11	58 20	44
Date	ψ		♈		♉		♊		♋		♌		Decl.
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	
2	1N47	10S31	0N37	18N21	1N23	21S45	1N16	7S24	2S19	4N41			
4				19				27	20	5	11		
6				17				15	29	21	42		
8				15					32	23	6	11	
10	46			13	22	44	14	35					
12				11				38					
14				9			13	41	24	7	7		
16				8				45		8	36		
18				6	21		12	49	25	32	4		
20				4				54		59			
22		32		2			11	58		9	24		
24			17	59			8	2		50			
26				57	20	43	10	8	26	10	17		
28	45	33		55				13		41			
30				53			9	18		11	4		

EPHEMERIS														JULY 1958														15
Date	Longitudes.														Lunar Aspects.													
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	☉	☽	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓		
1	9 57	21 7	11 21	50 16	47 5	4 23	8 2	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
2	10 0	R	6 22	1 17	27 6	15 25	2 8	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
3	4		2	3 18	8 7	26 26	53	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
4	7 20		58	6	48 8	37 28	43	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
5	10		54	9 19	29 9	48 0	30	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
6	14		50	12 20	9 10	59 2	15	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
7	17		46	15	49 12	10 3	59	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
8	21		43	18 21	29 13	21 5	40	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
9	24		39	21 22	9 14	32 7	19	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
10	27		35	25	49 15	44 8	56	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
11	31		32	29 23	29 16	55 10	31	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
12	34		28	33 24	8 18	9 12	4	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
13	38		25	37	47 19	18 13	35	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
14	41		21	41 25	27 20	29 15	4	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
15	45		17	45 26	6 21	41 16	30	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
16	48		14	50	45 22	52 17	55	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
17	52		11	55 27	24 24	4 19	17	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
18	56		8 23	0 28	2 25	15 20	37	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
19	59		5	5	41 26	27 21	55	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
20	11 3		1	10 29	19 27	39 23	10	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
21	7 19		58	15	57 28	51 24	24	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
22	10		55	21 0 8	35 0 35	3 25	34	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
23	14		53	26 1	13 1	15 26	43	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
24	18		50	32	50 2	27 27	48	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
25	21		47	38 2	28 3	38 28	51	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
26	25		44	44 3	5 4	50 29	51	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
27	29		42	50	42 6	3 0 49	49	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
28	33		40	57 4	18 7	15 1	43	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
29	36		37 24	3	55 8	27 2	34	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
30	40		35	10 5	31 9	39 3	21	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
31	44		32	16 6	8 10	52 4	6	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	
Date	☉		☽		Mean		Date	Time		Phenomena																		
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.		H.	M.																			
2	1 S 39	19 N 43	1 N 53	22 N 59	27 44		1	11	35	Heli. rising of ♈ in West.																		
4	35 20	10	50	13	37		11	7	25	Full Moon D. 18° S 23°.																		
6	31	35	44 21	21	31		7	7	25	☽ on Equator.																		
8	27	59	36 20	24	25		8	23	0	☽ at Apogee.																		
10	22 21	20	25 19	24	18		9	5	51	☽ at Last Quarter.																		
12	17	38	13 18	21	12		10	5	31	☽ at ☿																		
14	12	54	0 58	17 15	6		17	0	0	New Moon D. 16° N 23																		
16	6 22	8	42 16	8 26	59		21	8	34	☽ on Equator.																		
18	1	20	24 15	0	53		11	0	0	☽ at Perigee.																		
20	0 56	29	5 13	52	47		23	12	59	☽ at ♀																		
22	51	36	0 S 16	12 45	40		14	29	0	☉ enters ♈																		
24	45	40	37 11	39	34		19	50	0	☽ at First Quarter.																		
26	39	42	1 0	10 35	28		30	22	21	Full Moon D. 13° S 15'																		
28	34	41	24 9	34	21																							
30	28	38	48 8	36	15																							

Date	Day	Sidereal Time.				☉		♂			Midnight		Ψ											
						Long.	Decl.	Long.	Lat.	Decl.	♂													
1	F.	8	H.	M.	S.	8	30	32	18	N	8	27	2	4	N	17	8	S	28	3	16	2	m	6
2	S.		37	33	9	27	56	17	53	9	27	3	37	4	40	15	34						7	
3	Su.		45	26	10	25	22		38	21	37	2	48	0	45	27	38						8	
4	M.		49	22	11	22	48		22	3	37	1	49	3	N	11	9	33					8	
5	Tu.		53	19	12	20	15		6	15	28	0	51	6	42	21	22						9	
6	W.	9		57	16	13	17	43	16	50	27	16	0	S	12	10	19	3	10				10	
7	Th.		1	12	14	15	13		34	9	5	1	14	13	21	15	2					10		
8	F.		5	9	15	12	44		17	21	2	2	14	15	52	27	4					11		
9	S.		9	5	16	10	15		0	3	11	3	9	17	43	9	21					12		
10	Su.		13	1	17	7	48	15	42	15	37	3	56	18	46	21	58					13		
11	M.		16	58	18	5	21		25	28	25	4	32		54	4	58					14		
12	Tu.		20	55	19	2	56		7	11	37		56		2	18	23					15		
13	W.		24	57	20	0	32	14	49	25	14	5	3	16	7	2	12					16		
14	Th.		28	48	20	58	8		31	9	15	4	53	13	14	16	23					17		
15	F.		32	44	21	55	47		12	23	34		25	9	30	0	50					18		
16	S.		36	41	22	53	27	13	53	8	37	3	39	5	8	15	28					19		
17	Su.		40	38	23	51	8		34	22	48	2	38	0	26	0	8					20		
18	M.		44	34	24	48	50		15	7	27	1	27	4	S	17	14	44					21	
19	Tu.		48	31	25	46	34	12	56	22	0	0	10	8	30	29	12					22		
20	W.		52	27	26	44	19		36	6	22	1	N	7	12	36	13	28					23	
21	Th.	10	56	24	27	42	5		16	20	31	2	18	15	40	27	31					24		
22	F.		0	20	28	39	53	11	57	4	26	3	20	17	34	11	18					25		
23	S.		4	17	29	37	42		36	18	8	4	10	18	46	24	53					27		
24	Su.		8	14	0	35	32		16	1	36		44		42	8	15					28		
25	M.		12	10	1	33	24	10	55	14	50	5	3	17	35	21	23					29		
26	Tu.		16	7	2	31	18		35	27	52		6	15	35	4	18					30		
27	W.		20	3	3	29	13		14	10	41	4	54	12	51	17	1					32		
28	Th.		24	0	4	27	10	9	53	23	18	26	9	33	29	32					33			
29	F.		27	56	5	25	8		32	5	43	3	47	5	54	11	50					34		
30	S.		31	53	6	23	8		10	17	55	2	58	2	3	23	58					36		
31	Su.		35	50	7	21	9	8	49	29	58	2	1	N	50	5	56					37		

Date.	ψ		μ		ζ		γ		δ	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1 N 45	10 S 34	0 N 37	17 N 51	1 N 20	21 S 43	1 N 9	8 S 23	2 S 26	11 N 28
3				49				29	25	51
5		35		47	19		8	35		12 13
7				45				42		35
9		36		43	18			49		56
11			37		41			54	24	13 17
13					39		7	59		37
15	44	38			37			6	23	57
17		39			35	17	44	13		14 27
19		40			33			20	22	34
21		41	38	31	16		5	27	21	52
23		42		29				34	20	15 9
25		43		27	15	45	4	41	19	26
27		44		25				48	18	42
29		45		23				56	17	58
31		46		21			3 10	3	16 16	13

[illegible]

Date.	☿		♂		Mean.	Date.	Time. H. M.	Phenomena.
	Lat.	Decl.	Lat.	Decl.	☿			
1	0 S 22	22 N 31	2 S 12	7 N 43	26 8	3 16	35	☿ on Equator.
3	17	22	37	6 53	2	5 18	0	☿ at Apogee.
5	0 11	11	3	2 11	25	56	6 7	☿ at ☿
7	0 6 21	58	25	5 36	49	7	..	Heli. setting of ☿ in W.
9	0 N 0	41	47	10	43	23	17	☿ at Last Quarter.
11	0 5	22	4	7 4	54	37	9 12	0 ☿ at ☿
13	10	1	24	48	30	15	9	4 New Moon Dec. 9° N 57°
15	1 20	37	36	54	24	17 14	12	☿ on Equator.
17	21	11	43	5 13	18	15	0	☿ at Perigee.
19	26 19	42	44	43	11	19 15	7	☿ at ☿
21	31	11	38	6 25	5	22	1	19 ☿ at First Quarter.
23	35 18	38	24	7 15	24	59	23 21	6 ☿ enters ♀
25	40	3	2	8 11	52	29	11	22 Full Moon D. 5° S 58°.
27	45 17	26	3	35 9	8	46		
29	49 16	47	2	10 5	39			
31	53	6	2	25	55	33		

18		SEPTEMBER 1958										S. J. O. UJJAIN	
Date	Day	Sidereal Time		☉		☽		Midnight		ψ			
		H.	M.	S.	Long.	Decl.	Long.	Lat.	Decl.	ψ			
1 M.	10	39	46	8	19 12	8 N 27	11 52	1 N 0	5 N 36	17 46	2 m 39		
2 Tu.		43	42	9	17 17		5 23	40	0 S 4	9 10	29 34		
3 W.		47	39	10	15 23	7 43	5 27	1 8	12 17	11 21	42		
4 Th.		51	36	11	13 31		21 17	16	2 8	14 56	23 13		
5 F.		55	33	12	11 41	6 59	29 12	3 4	16 59	5 14	45		
6 S.		59	29	13	9 52		37 11	19	53 18	17 29	46		
7 Su.	11	3	25	14	8 5		15 23	44	4 32	46 0	48		
8 M.		7	22	15	6 21	5 52	6 30		59 19	13 3	50		
9 Tu.		11	18	16	4 37		30 19	43	5 11	16 52	26 29		
10 W.		15	15	17	2 56		7 3	20	6 14	27 10	20 53		
11 Th.		19	11	18	1 16	4 44	17 26	4 43	11 7	24 38	55		
12 F.		23	8	18	59 38		21 1	56	2 7	2 9	19 56		
13 S.		27	4	19	58 2	3 58	16 44	3 2	2 25	24 13	58		
14 Su.		31	1	20	56 28		36 1	45	1 51	2 S 24	9 16	3	0
15 M.		34	57	21	54 56		12 16	45	0 31	7 4	24 13		
16 Tu.		38	5	22	53 25	2 49	1 m 39	0 N 50	10 55	9 m 2	4		
17 W.		42	50	23	51 5		26 16	20	2 7	14 42	23 34		
18 Th.		46	47	24	50 30		3 0	44	3 15	17 4	7 48		
19 F.		50	44	25	49 6	1 40	14 47	4 9	18 27	21 40	9		
20 S.		54	40	26	47 43		16 28	29	30	56	5 12		
21 Su.		58	3	27	46 22	0 53	11 50	5 10	17 47	18 24	13		
22 M.	12	2	33	28	45 4		29 24	53	15 15	59 1	18		
23 Tu.		6	30	29	43 46		6 7	40	4 13	27 13	57		
24 W.		10	27	0	42 32	0 S 17	20 12	4 39	10 20	26 23	19		
25 Th.		14	23	1	41 19		40 2	32	1 6	49 8	38		
26 F.		18	19	2	40 8	1 4	14 4	3 13	3 4	20 43	23		
27 S.		22	16	3	38 59		27 26	42	2 17	0 N 47	2 40		
28 Su.		26	13	4	37 52		50 8	37	1 15	4 34	14 32		
29 M.		30	9	5	36 47	2 14	20 26	0 10	8 9	26 20	29		
30 Tu.		34	5	6	35 45		37 2	8	14	0 S 55	11 24		

Date.	ψ		♈		♉		♊		♋	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
2	1 N 44	10 S 47	0 N 38	17 N 19	1 N 14	21 S 46	1 N 2	10 S 11	2 S 15	16 N 20
4		48		17				19	14	40
6	43	49		15		47		27	12	52
8		50		13				35	10	17 4
10		51		11	13	48		42	8	17
12		53		9			1	50	6	30
14		54		8		49		58	4	40
16		55		6		50	0 11	7	2	50
18		57		4	12	51		15	0	18 0
20		58		2				23	1 58	10
22		59		1		52		31	55	19
24	11	1		0			0 59	40	52	27
26		2	16	59	11	53		48	49	35
28		3				54		57	46	43
30		5		58	10	55		12 6	42	50

E P H E M E R I S		SEPTEMBER 1958												19												
Date	Longitudes												Lunar Aspects													
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	☉	☽	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
1	13	40	19	10	28	56	22	58	19	49	24	46	π	Δ					Δ				Δ	Δ	Δ	Δ
2		43	D	11	29	6	23	24	21	3	R	41	Δ	Δ				Δ	♌			Δ	Δ	Δ	Δ	Δ
3		47		12		16		49	22	17	D	45	Δ	♌				Δ	♌						Δ	Δ
4		50		13		27	24	14	23	31		58	Δ	♌				Δ	♌							Δ
5		54		14		38		39	24	44	25	19	π	Δ				Δ	♌							Δ
6		57		15		48	25	22	25	59	48	0	Δ	Δ				Δ	♌							Δ
7	14	0		16		59		26	27	13	26	26	Δ	Δ				Δ	♌							Δ
8		4		17	0 m	10		49	28	27	27	12	Δ	Δ				Δ	♌							Δ
9		7		19		21	26	11	29	41	28	6	Δ	Δ				Δ	♌							Δ
10		10		20		32		33	0 m	55	29	8	Δ	Δ				Δ	♌							Δ
11		13		22		43		54	2	9	0 m	16	Δ	Δ				Δ	♌							Δ
12		17		24		54	27	15	3	23	1	31	Δ	Δ				Δ	♌							Δ
13		20		26	1	6		35	4	37	2	51	Δ	Δ				Δ	♌							Δ
14		23		28		17		55	5	52	4	8	Δ	Δ				Δ	♌							Δ
15		26		30		28	28	14	7	6	5	47	Δ	Δ				Δ	♌							Δ
16		29		32		40		32	8	20	7	22	Δ	Δ				Δ	♌							Δ
17		32		34		51		50	9	34	9	0	Δ	Δ				Δ	♌							Δ
18		35		36	2	3	29	8	10	51	10	41	Δ	Δ				Δ	♌							Δ
19		38		38		15		24	12	3	12	25	Δ	Δ				Δ	♌							Δ
20		41		41		26		40	13	14	14	11	Δ	Δ				Δ	♌							Δ
21		44		44		38		55	14	32	15	58	Δ	Δ				Δ	♌							Δ
22		47		48		50	0 n	9	15	47	17	47	Δ	Δ				Δ	♌							Δ
23		50		51	5	2		23	17	1	19	37	Δ	Δ				Δ	♌							Δ
24		53		54		14		37	18	16	21	25	Δ	Δ				Δ	♌							Δ
25		56		57		26		50	19	30	23	16	Δ	Δ				Δ	♌							Δ
26		59	20	0		38	1	2	20	45	25	6	Δ	Δ				Δ	♌							Δ
27	15	2		3		50		13	21	59	26	56	Δ	Δ				Δ	♌							Δ
28		4		6	4	2		23	23	14	28	46	Δ	Δ				Δ	♌							Δ
29		7		9		14		33	24	29	0	35	Δ	Δ				Δ	♌							Δ
30		10		12		27		42	25	43	2	24	Δ	Δ				Δ	♌							Δ

Date	♀		♂		Mean Ω	Date	Time H. M.	Phenomena		
	Lat.	Decl.	Lat.	Decl.						
2	0 N 57	15 N 23	1 S 48	11 N 36	24	27	2	..	Heli. rising of ♀ in East	
4	1	14	38	19	12	6	20	2 10 31	♂ at ♀	
6	5	13	51	0	35	23	14	2 11 0	♂ at Apogee.	
8	8		4			25	8	6 15 53	♂ at Last Quarter.	
10	10	12	15	0 N 27	12		1	8 15 19	♀ at ♀	
12	14	11	24	52	11	45	23	55 13 17	31 New Moon, Decl. 1° N 19'	
14	16	10	32	1	12	4		49 14 0	3 ♂ on Equator.	
16	18	9	39	28	10	10		42 17 0	0 ♂ at Perigee.	
18	20	8	44	40	9	6		36 15 21	11 ♂ at ♀	
20	22	7	49	47	7	52	30	17	..	Heli setting of ♀ in East
22	23	6	53	51	6	32	23	20	8 59	♂ at First Quarter.
24	24	5	56	5	5	6	17	23	18 31	☉ enters ♄
26	25	4	59	49	3	37	11	27	7 7	♂ on Equator.
28	26		1	44	2	5	4	28	3 15	Full Moon Decl. 3° N 18'
30	27	3	2	37	0	31	22	58	29 15 42	♂ at ♀
								12	0	♂ at Apogee.

OCTOBER 1958													S. J. O. UJJAIN	
Date	Day	Sidereal Time			☉		☽			Midnight	☿			
		H.	M.	S.	Long.	Decl.	Long.	Lat.	Decl.	☽				
1 W.	12	38	2	7	34	43	3 S 0	14 8	1	1 S 58	14 N 11	19 8	56	3 m 33
2 Th.		41	59	8	33	45	24 25	52	2	56 16	23	1 49		35
3 F.		45	56	9	32	48	47	7 49	3	46 17	54	13 52		37
4 S.		49	53	10	31	53	4	10 19	57	4	28 18	37	26 7	39
5 Su.		53	49	11	31	0	33	2 21	58	28	8 39			41
6 M.		57	45	12	30	10	56 15	4	5	1 17	36	21 33		43
7 Tu.	13	1	42	13	29	21	5	20 28	9	15 15	23	4 51		45
8 W.		5	38	14	28	35	42 11	40	4	59 12	30	18 36		47
9 Th.		9	35	15	27	50	6	5 25	39	25	8 49	2 48		50
10 F.		13	32	16	27	8	28 1	40	3	34 4	30	17 25		52
11 S.		17	28	17	26	27	51 24	51	2	26 0	12	2 22		54
12 Su.		21	25	18	25	49	7	14 9	55	1	8 4	59 17	31	56
13 M.		25	22	19	25	12	36 25	7	0 N 16	9	29	2 43		58
14 Tu.		29	18	20	24	39	58 10	18	1	38 13	22	17 49		0
15 W.		33	15	21	24	6	8	21 25	17	2	54 16	17	2 40	3
16 Th.		37	12	22	23	36	43	9 7	58	3	56 18	4	17 9	5
17 F.		41	8	23	23	8	9	5 24	15	4	41	38	1 13	7
18 S.		45	4	24	22	42	27	8 3	6	5	9	4	14 51	9
19 Su.		49	1	25	22	17	49	21 31		18	16 30	28	4	12
20 M.		52	48	26	21	55	10	4 32		11	14	6	10 19	14
21 Tu.		56	54	27	21	35	32 17	12	4	49 11	5	23 25		16
22 W.	14	0	50	28	21	17	54 29	35	3	14 7	40	5 41		18
23 Th.		4	47	29	21	1	15 11	44	3	27 3	53	17 45		20
24 F.		8	44	0	20	47	36 23	43	2	33 0	9	29 40		23
25 S.		12	40	1	20	35	57	5 7	36	1	32 5	N 38	11 31	25
26 Su.		16	36	2	20	25	12	17 17	25	0	27 7	15	23 18	27
27 M.		20	33	3	20	17	38 29	12	0 S 38	10	36	5 6		29
28 Tu.		24	30	4	20	10	58 11	8	1	58 13	16	16 56		32
29 W.		28	27	5	20	5	18 22	53	2	43 15	52	28 50		34
30 Th.		32	24	6	20	3	58	4 50	3	34 17	26	10 51		36
31 F.		36	20	7	20	2	14	17 16	55	4	21 18	28	23 1	38
Date	☿		♊		♋		♌		♍		♎		♏	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
2	1 N 43	11 S 6	0 N 39	16 N 56	1 N 9	21 S 56	0 N 58	12 S 16	1 S 39		18 N 56			
4		8		53		57		24	35		19			
6		9		51		58		31	32					
8		11		49		59		39	28					
10		12		47		6		47	23					
12		14		46		1		56	19					
14	42	15		45		2	57 13	4	15					
16		17		44		3		13	9					
18		18		43		4		21	4					
20		20		42		5		30	0 59					
22		21		41		6		38	53					
24		23		40		7		47	48					
26		24		39		8		55	44					
28		26	40	38		9		3	36					
30		27		38		10		12	30					

EPHEMERIS.														OCTOBER 1958														21
Date	Longitudes.												Lunar Aspects.															
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	☾	☿	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓		
1	15	12	20	15	4	39	1	50	26	58	4	13																
2		15		19		51		57	28	13	6	0	☾				♐					☾						
3		17		23	5	4	2	4	29	28	7	47	☾	☿	♐							☾						
4		20		27		16		9	0	43	9	34	☾	☿	♐	♑						☾						
5		22		30		29		14	1	57	11	19	☾	☿	♐	♑	♒					☾				♓		
6		25		34		41		18	3	12	13	4	☾	☿	♐	♑	♒	♓				☾				♓		
7		27		38		54		21	4	27	14	48		☾					♓			☾				♓		
8		29		43	6	7		23	5	42	16	31	♓	☿	♐	☾				♓		☾				♓		
9		31		47		19		25	6	57	18	14	☾			☾				♓		☾				♓		
10		34		51		32		25	8	12	19	55	♓	☿	♐					♓		☾				♓		
11		36		56		45		24	9	27	21	37	♓	☿	♐	☾				♓		☾				♓		
12		38	20	0		57	R	23	10	42	23	17	♓	☿	♐					♓		☾				♓		
13		40		4	7	10		21	11	57	24	56	☿							♓		☾				♓		
14		42		9		23		18	13	12	26	35	☿	☿	♐	☾				♓		☾				♓		
15		44		13		36		14	14	27	28	13	♓							♓		☾				♓		
16		46		17		49		9	15	43	29	50	☾	☿	♐	☾				♓		☾				☾		
17		48		21	8	2		3	16	57	1	27	♓	☿	♐	☾				♓		☾				☾		
18		50		26		15	1	56	18	12	3	3	♓	☿	♐					♓		☾				☾		
19		52		32		27		49	19	27	4	38	☿		♐					♓		☾				☾		
20		54		37		40		40	20	42	6	13	☾			☾				♓		☾				☾		
21		56		42		53		31	21	57	7	47	☾	☿	♐	☾				♓		☾				☾		
22		57		47	9	6		21	23	13	9	21	☾	☿	♐					♓		☾				☾		
23		59		52		20		10	24	28	10	54	☾	☿	♐					♓		☾				☾		
24	16	0		58		33	0	58	25	43	12	27	☾	☿	♐	☾				♓		☾				☾		
25		2	22	3		46		45	26	58	13	58	☾	☿	♐					♓		☾				☾		
26		3		9		59		32	28	13	15	30	☾	☿	♐	☾				♓		☾				☾		
27		5		14	10	12		17	29	29	17	1	☿	☿						♓		☾				☾		
28		6		20		25		2	0	44	18	31				☾				♓		☾				☾		
29		7		25		39	29	47	1	59	20	1				☾				♓		☾				☾		
30		9		31		52		30	3	14	21	30	☾	☿	♐	☾				♓		☾				☾		
31		10		37	11	5		13	4	30	22	59	☾	☿	♐	☾				♓		☾				☾		
Date	☿		♈		Mean.		☾		Time.		Phenomena.																	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	H.	M.																		
2	1 N 27	2 N 3	1 N 28	1 S 2	22 2	51	1	4	0		☽ on Equator.																	
4		1 3	18 2	35	45	6	6	45			☽ at Last Quarter.																	
6		0 3	7 4	8	39	14	24				☽ on Equator.																	
8	26 0	S 57	0 56	5 38	32	11	10	59			☽ on Equator.																	
10	25 1	57	43 7	8	26	13	2				☽ at Perigee.																	
12	24 2	57	30 8	35	20	2	23				New Moon D. 7° S 45'																	
14	23 3	57	17 10	0	13	7	26				☽ at ☿																	
16	21 4	55	3 11	22	7	23	4				☽ at ☿																	
18	19 5	55	0 S 10	12 42	1	19	19	41			☽ at First Quarter.																	
20	17 6	53	24 13	59 21	54	24	3	36			☾ enters ♍																	
22	15 7	52	38 15	13	48	12	59				☽ on Equator.																	
24	12 8	49	51 16	23	42	25					Heli. setting of ♍ in West.																	
26	10 9	46	1 4	17 31	35	26	22	0			☽ at ☿																	
28	7 10	41	17 18	35	29	27	0				☽ at Apogee.																	
30	3 11	36	29 19	35	23	21	10				Full Moon Decl. 11° N 40'																	
											Heli. rising of ♍ in West																	

22		NOVEMBER 1958										S. J. O. UJJAIN									
Date	Day	Sidereal Time		☉		☽		Midnight		ψ											
				Long.	Decl.	Long.	Lat.	Decl.	ψ												
1	S.	14	40	16	8	20	4	14	S 36	29	9	4	S 50	18	N 36	5	21	4	m 41		
2	Su.	44	13	9	2	7	55	11	37	5	10	17	44	17	56			43			
3	M.	48	10	10	20	12	15	14	24	19		15	16	5	0	47		45			
4	Tu.	52	6	11	20	19	33	7	21	21		4	13	32	13	59		47			
5	W.	56	3	12	20	28	51	20	43	4	37	10	12	27	33		50				
6	Th.	15	0	0	13	20	38	16	9	4	m 29	3	53	6	15	11	m 31	52			
7	F.	3	56	14	20	51	27	18	39	2	54	1	49	25	53		54				
8	S.	7	53	15	21	5	44	3	12	1	43	2	S 51	10	36		56				
9	Su.	11	50	18	21	21	17	1	18	4	0	23	7	26	25	36	58				
10	M.	15	46	17	21	3	18	3	m 9	1	N 0	11	38	10	m 44	5	1				
11	Tu.	19	43	18	21	58	35	18	20	2	19	15	4	25	53		3				
12	W.	23	39	19	22	19	51	3	24	3	28	17	26	10	52		5				
13	Th.	27	35	20	22	42	18	7	18	15	4	21	18	35	25	33	7				
14	F.	31	22	21	23	6	22	2	44		56	14	9	49			9				
15	S.	35	28	22	23	33	38	16	47	5	12	17	13	23	37		12				
16	Su.	39	24	23	24	0	53	0	m 21		10	15	2	6	m 57	14					
17	M.	43	21	24	24	30	19	7	13	27	4	51	12	8	19	50	16				
18	Tu.	47	18	25	25	0	22	26	8		19	8	45	2	21	18					
19	W.	51	14	26	25	33	16	8	29	3	39	5	0	14	33	20					
20	Th.	55	10	27	26	7	49	20	35	2	43	1	14	26	33	22					
21	F.	59	7	28	26	42	20	2	2	29	1	56	2	N 46	8	24	24				
22	S.	16	3	4	29	27	19	15	14	18		42	6	16	20	11	16				
23	Su.	7	0	0	27	57	28	26	4		S 26	9	40	1	58	28					
24	M.	10	57	1	28	37	40	7	52	1	26	12	47	13	48	30					
25	Tu.	14	53	2	29	18	52	19	45	2	25	15	21	25	44	32					
26	W.	18	50	3	30	0	21	3	1	45	3	19	17	16	7	48	34				
27	Th.	22	46	4	30	44	14	13	54	4	4	18	26	20	1	36					
28	F.	26	42	5	31	29	24	26	12		39	45	2	25	38						
29	S.	30	39	6	32	16	34	8	41	5	0	10	14	59	40						
30	Su.	34	35	7	33	3	44	21	21		8	16	41	27	45	43					

Date	ψ	♈	♉	♊	♋	♌	♍	♎	♏
Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1 N 42	11 S 29	0 N 40	16 N 37	1 N	4 22 S 10	0 N 56	14 S 20	0 S 23
3	30				3	11		28	17
5	32				12			36	10
7	33				13			44	4
9	34				14			52	0 N 3
11	36				2			15	0
13	37				1			8	15
15	39				16			16	22
17	40				17			24	28
19	41				1			31	34
21	43				18			39	40
23	44							47	46
25	45				35			54	52
27	47				0			16	1
29	48				21			9	1

23		NOVEMBER 1958										EPHEMERIS									
Date	Day	Sidereal Time		☉		☽		Midnight		ψ											
				Long.	Decl.	Long.	Lat.	Decl.	ψ												
1	16	11	22	42	11	m 18	28	55	5	m 45	24	m 27									
2	12	D	48	31	R	37	7	0	25	55	Δ										
3	13		54	44		18	8	15	27	22											
4	14		59	57	27	59	9	31	28	48	□	□									
5	16	23	5	12	10	39	10	46	0	14											
6	17		11	23		18	12	1	1	39											
7	18		17	37	26	58	13	17	3	3	*										
8	19		23	50		36	14	32	4	27	Δ										
9	19		29	13	3	15	15	47	5	50											
10	20		35	16	25	53	17	2	7	11											
11	20		41	29		32	18	18	8	32	σ										
12	21		47	42		10	19	33	9	52											
13	21		54	55	24	48	20	49	11	10											
14	22	24	0	14	9	26	22	4	12	28	Δ										
15	22		6	22		4	23	9	13	43	*										
16	23		13	35	23	42	24	35	14	57	□										
17	23		19	48		20	25	50	16	9											
18	23		25	15	1	22	58	27	5	17	18	□									
19	23		32	14		37	28	21	18	25											
20	23		39	27		16	29	35	19	30	□										
21	24		45	40	21	55	0	52	20	31	Δ										
22	24		52	53		34	2	7	21	28	Δ										
23	24		59	16	6	14	3	22	22	21											
24	R 23	25	5	19	20	55	4	3	23	10	σ										
25	23		12	32		35	5	53	53												
26	23		19	45		17	7	9	24	30	σ										
27	23		25	58	19	59	8	24	25	0											
28	23		32	17	11	41	9	39	23												
29	22		39	24		24	10	55	37												
30	22		46	37		8	12	10	43												

Date	ψ	♈	♉	♊	♋	♌	♍	♎	♏
Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1 N 42	11 S 29	0 N 40	16 N 37	1 N	4 22 S 10	0 N 56	14 S 20	0 S 23
3	30				3	11		28	17
5	32				12			36	10
7	33				13			44	4
9	34				14			52	0 N 3
11	36				2			15	0
13	37				1			8	15
15	39				16			16	22
17	40				17			24	28
19	41				1			31	34
21	43				18			39	40
23	44							47	46
25	45				35			54	52
27	47				0			16	1
29	48				21			9	1

Date.	♈		♉		Mean. ♊	Date	Time. H. M.	Phenomena.
	Lat.	Decl.	Lat.	Decl.				
1	1 N 0	12 S 30	1 S 41	20 S 31	21 16	4 19	56	☾ at Last Quarter.
3	0	56 13	22	52 21	23	10	7 21	21 ☾ on Equator.
5	53 14	13	2	22	11	3	8 15	30 ☽ at ☿
7	49 15	2	11	55	20	58	9 18	39 ☾ at ☿
9	45	51	19	23	34	51	10 14	0 ☾ at Perigee.
11	41 16	38	26	24	8	44	11 12	3 New Moon Decl. 15° S 4'
13	36 17	23	31	37	38	18	10 32	☾ at First Quarter.
15	32 18	5	35	25	1	32	20 19	24 ☾ on Equator.
17	28	46	36	19	25	21	..	Heli. rising of ♃ in East
19	23 19	25	35	31	19	23	2 49	☾ at ☿
21	19 20	2	32	42	13	5	0	☾ at Apogee.
23	14	36	25	41	6	25	0 59	☿ enters ♈
25	9 21	8	14	32	0	26	15 46	Full Moon D. 17° N 28'
27	4	39	1	58	19	19	54 29	2 24 ☽ at ☿
29	0 S 1	22	6	38	0	47		

Date	Day	Sidereal Time			☉		♂			Midnight		Ψ							
					Long.	Decl.	Long.	Lat.	Decl.	♂									
1 M.	16	38	32	8	33	52	21	55	4	13	5	0	14	N	21	10	44	5	45
2 Tu.		42	29	9	34	42	22	3	17	19	4	30	11	21		23	58		47
3 W.		46	26	10	35	33		11	0	40	3	57	7	32		7	27		49
4 Th.		50	22	11	36	25		19	14	18	4	3	21	21		21	14		51
5 F.		54	18	12	37	19		27	28	14	1	59	1	S	7	5	19		52
6 S.		58	15	13	38	13		34	12	28	0	46	5	37		19	41		54
7 Su.	17	2	24	39		9		40	26	59	0	N	32	9	54		4	19	56
8 M.		6	8	45	40			47	11	42	1	49	13	37		19	7		58
9 Tu.		10	4	16	41	2		53	26	34	2	59	16	44		4	1	6	0
10 W.		14	1	17	42	0		58	11	27	3	56	18	15		18	50		2
11 Th.		17	58	18	42	59	23	3	26	10	4	38		46		3	25		3
12 F.		21	54	19	43	58		7	10	38	5	2		1		17	45		5
13 S.		25	51	20	45	0		11	24	45		4	16	12		1	38		7
14 Su.		29	47	21	46	2		15	8	24	4	50	13	30		15	4		9
15 M.		33	44	22	47	4		18	21	36		20	10	12		28	2		10
16 Tu.		37	41	23	48	7		21	4	22	3	39	6	31		10	37		12
17 W.		41	37	24	49	11		23	16	46	2	48	2	39		22	51		14
18 Th.		45	34	25	50	15		24	28	52	1	50	1	N	14		4	51	15
19 F.		49	31	26	51	20		26	10	47	0	49	5	1		16	41		17
20 S.		53	27	27	52	25		26	22	35	0	S	14	8	34		28	28	18
21 Su.		57	23	28	53	32		27	4	21	1	16	11	47		10	16		20
22 M.	18	1	20	29	54	38		27	16	12	2	15	14	32		22	10		21
23 Tu.		5	17	0	55	45		26	28	10	3	8	16	42		4	13		23
24 W.		9	13	1	56	52		25	10	19		54	18	9		16	28		24
25 Th.		13	10	2	58	0		23	22	40	4	29		46		28	56		26
26 F.		17	6	3	59	8		21	5	15		52		29		1	37		27
27 S.		21	3	5	0	17		19	18	3	5	0	17	16		24	32		29
28 Su.		24	59	6	1	26		17	1	4	4	54	15	9		7	39		30
29 M.		28	56	7	2	35		14	14	16		31	12	13		20	56		31
30 Tu.		32	52	8	3	44		11	27	39	3	54	8	38		4	24		32
31 W.		36	48	9	4	52		8	11	12		3	4	33		18	2		34

Date	ψ		μ		ζ		η		δ	
	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.	Lat.	Decl.
1	1N 43	11 S 49	0 N 41	16 N 35	1 N 0	22 S 22	0 N 55	16 S 16	1 N 7	18 N 31
3		51		36				23	11	28
5		52		37		23		30	16	25
7		53			0 59	24		37	20	22
9		54						43	24	20
11		55		38		25	56	50	27	19
13		56		39				56	31	18
15		57		40		26		17 3	33	19
17	44	58	42					9	36	20
19		59		41		27		15	39	21
21	12	0		42				21	42	23
23		1		43	58	28		27	44	26
25		2		44				33	46	30
27		3		45		29		39	48	35
29				47	57			44	49	40
31		4		48				50	51	45

Date	Longitudes												Lunar Aspects											
	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	☉	☽	♁	♂	♀	♄	♅	♆	♇	♈		
1	16	21	25	53	17	50	18	56	13	26	25	38	Δ	□	♂	☐						☐	♂	
2		R	21	26	D	0	18	2	R	38	14	41	R	23				□	□	Δ				
3			20			5		15		24	15	56	24	56	□	♂	Δ		□	Δ	Δ	Δ	♂	
4			20		11		28		10	17	12				□	♂	♂	♂	Δ	□			♂	
5			19		17		41	17	58	18	27	23	31			♂	♂	♂	Δ	□	□	♂		
6			18		24		53		46	19	43	22	32	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	
7			17		32	19		5	35	20	58	21	24	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	
8			16		40		18		25	22	13	20	9	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	
9			15		47		30		16	23	29	18	48	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	
10			14		55		43		7	24	44	17	25	♂	♂	Δ		♂	♂	♂	♂	♂	□	
11			13	27		21		55	16	59	26	0	16	3	♂	☐	♂	♂	☐	♂				
12			12			20		8		54	27	15	14	43	♂	♂	♂	♂	Δ		♂	Δ	♂	
13			11		17		20		47	28	30	13	30		♂	♂	♂	♂	♂	♂	♂	♂	Δ	
14			10		23		32		42	29	46	12	24		♂	♂	♂	♂	♂	♂	♂	♂	☐	
15			9		31		44		37	1	1	11	27	♂	♂	♂	♂	♂	♂	♂	♂	♂	☐	
16			8		38		56		33	2	17	10	41		Δ	♂	♂	♂	♂	♂	♂	♂	♂	
17			6		45	21		8		31	3	32	6		Δ	♂	♂	♂	♂	♂	♂	♂	♂	
18			5		52		20		29	4	47	9	41		□	♂	♂	♂	♂	♂	♂	♂	♂	
19			4		59		32		28	6	3		28		□	♂	♂	♂	♂	♂	♂	♂	♂	
20			2	28	7		44		27	7	18		25	Δ		♂	♂	♂	♂	♂	♂	♂	☐	
21			0		14		56		D	28	8	34	D	36		♂	♂	♂	♂	♂	♂	♂	Δ	
22	15		59		22	22		8		29	9	49	48		☐	♂	♂	♂	♂	♂	♂	♂	Δ	
23			57		29		20		31	11	4	10	11			♂	♂	♂	♂	♂	♂	♂	□	
24			55		35		31		34	12	20		42		♂	♂	♂	♂	♂	♂	♂	♂	□	
25			53		42		43		38	13	35	11	20		☐	♂	♂	♂	♂	♂	♂	♂	□	
26			52		48		54		42	14	50	12	3	♂	Δ	♂	♂	♂	♂	♂	♂	♂	♂	
27			51		55	23		6		47	16	6	52		Δ	♂	♂	♂	♂	♂	♂	♂	♂	
28			49	29	3		17		53	17	21	13	45	♂	□	♂	♂	♂	♂	♂	♂	♂	♂	
29			47		10		28		59	18	36	14	43		♂	♂	♂	♂	♂	♂	♂	♂	♂	
30			45		17		39	17	6	19	52	15	43	☐	♂	♂	♂	♂	♂	♂	♂	♂	♂	
31			43		24		51		14	21	7	16	48	Δ	♂	♂	♂	♂	♂	♂	♂	♂	♂	

Date	☿		♂		Mean Ω	Date	Time H. M.	Phenomena
	Lat.	Decl.	Lat.	Decl.				
1	0 S	5 22 S	30 1 S	11 24 S	33 19	41 4	6 52	☿ at Last Quarter.
3	10	52	0 39	0	0	34 5	..	Heli. setting of ☿ in W.
5	15 23	11	2 23	19	28 5	6 0	0	☿ on Equator.
7	20	28	0 N	34 22	36 22	14 39	☿	☿ at Ω
9	24	41	1 10	21 49	15 6	..	..	Heli. rising of ☿ in E.
11	29	52	4 7	20 57	9 7	2 9	☿	☿ at Ω
13	34 24	0	2 23	3	3 9	0 0	0	☿ at Perigee.
15	38	4	4 3	19 25	18 56	10 22	57	New Moon. D. 18° S 29'
17	43	6	5 3	7	50 16	..	..	Heli. rising of ☿ in East.
19	47	5	5 5	18 59	45 18	4 23	☿	☿ on Equator.
21	51	1	5 2	19 4	38 32	5 26	☿	☿ at First Quarter.
23	55 23	54	4 3	18	32 20	..	..	Heli. rising of ☿ in West
25	59	43	3 1	38	26 6	40	☿	☿ at ☿
27	1 3	30	1 7	20 5	18 21	0	0	☿ at Apogee.
29	6	15	1	34	12 22	13 58	☿	☿ enters ♊
31	9 22	56	1 44	21 4	6 26	9 22	Full Moon. Decl. 18° N 31'	

SUNRISE IN 1958											
Months and Dates.	Latitudes										
	+5°	+8°	+11°	+14°	+17°	+19°	+23°	+26°	+29°	+32°	+35°
Jan. 5	6	9	6	14	6	21	6	25	6	31	6
12	12	17	22	27	33	36	44	49	55	7	9
19	15	19	24	28	33	36	44	49	55	2	9
26	16	20	24	28	33	36	44	49	54	0	7
Feb. 2	16	20	23	28	32	35	40	44	49	54	6
9	16	20	23	28	30	32	37	41	45	49	53
16	16	18	21	24	26	28	32	36	39	42	46
23	15	16	18	20	23	24	28	30	33	36	38
Mar. 2	12	13	15	16	18	19	22	24	25	28	30
9	9	10	11	12	13	14	15	16	18	19	20
16	6	7	8	9	9	9	10	10	11	11	12
23	4	3	3	3	2	2	2	2	2	2	1
30	1	0	5	5	5	5	5	5	5	5	5
Apr. 6	5	5	5	5	5	5	5	5	5	5	5
13	54	52	50	49	47	46	43	40	38	35	32
20	52	50	47	44	42	40	36	33	30	27	23
27	49	47	44	41	37	35	30	27	23	19	15
May 4	47	41	41	37	34	31	26	22	17	13	7
11	46	43	39	34	31	29	24	18	12	6	5
18	45	41	37	32	29	24	18	12	7	1	4
25	45	41	36	31	26	23	15	10	4	4	55
June 1	46	41	36	31	25	22	14	7	1	54	50
8	46	41	36	31	25	22	14	7	0	53	47
15	47	42	37	31	26	22	14	7	0	53	46
22	49	44	38	32	27	23	15	8	1	54	46
29	50	45	40	34	29	25	16	10	3	56	48
July 6	52	47	42	36	31	27	19	12	6	59	51
13	53	48	43	38	33	30	22	15	9	5	55
20	54	50	45	40	35	32	25	19	13	6	5
27	55	51	47	42	37	34	28	22	17	11	5
Aug. 3	56	53	49	44	40	37	31	23	21	15	10
10	56	53	50	45	42	39	34	30	25	20	15
17	56	53	50	47	44	41	37	33	29	25	20
24	55	53	50	48	45	43	39	36	33	30	26
Sep. 1	54	52	50	48	46	45	42	39	37	34	31
7	53	51	50	48	46	45	43	42	40	38	36
14	52	51	50	49	48	47	46	45	43	42	41
21	50	49	49	49	48	48	48	48	46	47	4
Oct. 28	48	49	49	49	50	50	50	50	51	51	51
5	46	48	48	48	49	50	51	52	53	55	56
12	46	47	49	50	52	53	56	57	59	6	2
19	46	48	50	52	54	55	58	6	16	2	6
26	46	48	51	54	56	58	6	5	8	11	14
Nov. 2	46	48	52	55	59	6	1	6	9	13	17
9	46	50	53	57	6	1	4	9	12	18	23
16	43	52	56	6	1	5	8	14	18	23	28
23	51	55	6	4	9	12	18	24	29	35	41
30	53	58	3	8	13	16	24	29	35	41	48
Dec. 7	56	6	1	6	11	17	20	28	34	40	47
14	6	0	5	10	15	21	24	32	39	45	52
21	3	8	14	19	25	28	36	43	49	56	7
28	8	12	17	22	28	31	40	46	53	7	0

SUNSET IN 1958											
Months and Dates	Latitudes										
	+5°	+8°	+11°	+14°	+17°	+19°	+23°	+26°	+29°	+32°	+35°
Jan. 5	18	1	17	55	17	50	17	45	17	39	17
12	4	59	54	49	44	41	33	28	21	15	8
19	7	18	57	53	48	45	38	33	27	21	15
26	9	5	58	57	52	49	43	38	34	27	22
Feb. 2	11	7	4	18	0	56	53	47	43	38	33
9	12	9	6	3	59	57	51	46	42	40	36
16	13	11	8	5	18	2	56	53	50	46	43
23	13	11	9	7	5	4	58	55	52	49	46
Mar. 2	13	11	10	9	7	6	3	18	1	18	0
9	12	11	11	10	9	8	7	6	4	18	3
16	12	11	11	11	10	10	9	9	8	8	8
23	10	11	11	11	11	12	12	12	13	13	13
30	10	11	11	12	13	14	15	16	17	18	19
Apr. 6	8	9	11	12	14	15	17	19	20	22	24
13	7	9	11	13	15	17	19	22	24	27	30
20	7	9	12	14	17	19	22	26	29	32	36
27	6	9	12	15	19	21	25	30	33	37	41
May 4	6	10	13	17	21	23	28	33	37	42	47
11	7	11	14	19	23	25	32	37	41	47	53
18	7	11	16	21	25	28	35	41	46	52	58
25	8	13	18	23	27	31	38	44	50	56	19
June 1	10	15	20	25	30	34	41	47	53	19	1
8	11	16	22	27	33	36	44	50	57	5	12
15	13	18	23	29	34	38	47	53	19	0	7
22	14	19	25	31	36	40	49	55	2	9	17
29	16	21	26	32	37	41	50	56	3	10	18
July 6	17	22	27	32	38	43	50	56	3	10	17
13	17	22	27	32	38	43	49	55	1	8	16
20	17	22	27	32	37	40	48	53	1	5	12
27	17	21	26	30	35	38	44	50	18	55	1
Aug. 3	16	20	23	28	32	35	41	46	50	18	56
10	15	18	21	25	28	31	37	41	46	50	18
17	13	15	18	22	24	27	32	35	39	43	47
24	18	10	18	12	18	15	18	18	20	18	22
Sep. 1	7	9	11	13	15	16	19	22	24	27	30
7	4	5	7	8	10	11	13	14	16	18	20
14	1	1	2	3	3	4	5	6	8	9	10
21	17	56	17	57	17	57	17	58	17	58	17
Oct. 28	54	53	53	53	52	52	52	51	50	50	50
5	52	49	49	48	47	46	45	43	42	41	40
12	47	46	44	43	41	40	38	36	34	32	30
19	45	43	41	39	36	35	31	27	23	20	17
26	43	40	38	35	33	31	27	22	18	14	11
Nov. 2	42	39	36	33	28	27	22	18	14	9	5
9	41	37	34	30	26	23	18	14	10	6	0
16	41	37	33	29	24	21	15	10	6	0	16
23	42	38	33	29	24	21	14	8	3	16	57
30	44	39	34	29	24	21	13	7	2	55	49
Dec. 7	46	41	36	31	25	22	14	8	2	55	48
14	49	44	39	33	28	24	16	10	4	57	49
21	53	48	42	37	31	28	19	13	6	59	52
28	57	52	45	41	34	32	23	17	9	17	3

Timings of Moonrise in 1958

Date.	January						February						March						April					
	10°			20°			30°			10°			20°			30°			10°			20°		
	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.
1	16	23	13	13	58	41	13	41	15	28	15	12	14	55	8	13	53	13	38	15	44	15	40	36
2	17	22	14	14	59	43	14	28	16	26	16	11	15	58	5	14	54	14	40	16	43	16	42	16
3	18	24	15	15	36	15	16	17	17	25	17	13	17	1	15	15	55	15	44	17	44	17	47	17
4	16	46	16	16	36	16	14	18	15	17	18	17	18	9	17	4	16	59	16	52	18	43	18	51
5	17	45	17	17	30	17	15	19	26	19	19	19	19	16	18	3	18	1	17	59	19	44	19	55
6	18	45	18	18	32	18	16	20	22	20	20	20	20	22	20	2	20	9	20	16	21	44	20	59
7	19	44	19	19	31	19	21	21	20	21	21	21	21	29	21	2	21	12	21	23	22	42	22	58
8	20	40	20	20	33	20	28	22	17	22	23	22	23	28	22	3	22	14	22	30	23	36	23	50
9	21	37	21	21	33	21	33	23	14	23	24	23	24	23	23	0	23	12	23	32	23	36	23	50
10	22	32	22	22	33	22	36	23	9	23	26	23	26	23	23	0	23	12	23	32	23	36	23	50
11	23	28	23	23	33	23	39	24	1	23	26	24	23	28	23	0	23	12	23	32	23	36	23	50
12	0	23	0	32	0	44	24	1	2	1	2	22	2	36	0	12	0	12	0	31	1	11	1	35
13	1	18	1	32	1	45	25	2	53	3	10	3	27	4	14	1	5	1	55	2	12	2	6	14
14	2	16	2	29	2	46	26	3	43	4	30	4	36	5	15	2	12	2	12	2	12	2	6	14
15	3	11	3	25	3	44	27	4	30	4	44	4	44	6	16	3	14	3	31	3	16	3	20	16
16	4	6	4	21	4	39	28	5	15	5	25	5	36	7	17	4	14	4	4	4	12	4	30	16
17	4	57	5	13	5	30	29	6	37	6	36	6	42	8	18	5	19	5	19	5	14	5	9	16
18	5	46	6	1	6	16	30	7	17	7	55	7	52	9	19	6	20	6	20	6	14	6	20	16
19	6	34	6	45	7	59	31	8	3	8	30	8	24	10	20	7	21	7	21	7	10	7	10	16
20	7	18	7	26	8	12	32	9	16	9	16	9	8	11	21	8	22	8	22	8	10	8	10	16
21	8	1	8	5	9	19	33	10	42	10	29	10	15	12	22	9	10	9	10	9	10	10	10	16
22	8	40	8	41	9	19	34	11	30	11	15	11	10	13	23	10	11	10	10	10	11	11	11	15
23	9	18	9	19	9	50	35	12	20	12	4	11	46	14	24	11	12	11	11	11	12	12	12	16
24	9	58	9	54	10	22	36	13	13	13	13	12	56	15	25	12	13	12	12	12	13	13	13	16
25	10	37	10	30	10	22	37	14	20	14	12	12	56	16	26	13	14	13	13	13	14	14	14	16
26	11	20	11	9	11	0	38	15	27	15	11	11	38	17	27	14	15	14	14	14	15	15	15	16
27	12	2	12	35	12	18	39	16	28	16	10	10	38	18	28	15	16	15	15	15	16	16	16	16
28	12	48	12	35	13	5	40	17	29	17	11	11	39	19	29	16	17	16	16	16	17	17	17	16
29	13	38	13	23	13	5	41	18	30	18	12	12	40	20	30	17	18	17	17	17	18	18	18	16
30	14	26	14	15	14	50	42	19	31	19	13	13	41	21	31	18	19	18	18	18	19	19	19	16
31	15	15	15	15	15	51	43	20	32	20	14	14	42	22	32	19	20	19	19	19	20	20	20	16

Timings of Moonrise in 1958

29

Date.	May						June						July						August					
	10°			20°			30°			10°			20°			30°			10°			20°		
	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.	H.	M.	M.
1	16	23	16	30	16	35	16	30	17	44	18	23	18	40	18	43	18	58	19	15	19	44	19	48
2	17	22	17	30	17	44	17	19	22	19	40	19	22	19	40	19	35	19	45	20	0	20	25	20
3	18	24	18	37	18	50	20	4	20	20	35	20	21	20	31	20	21	20	41	21	4	21	4	21
4	19	26	19	40	19	56	20	55	20	10	21	25	21	5	21	12	21	20	41	21	44	21	41	21
5	20	25	20	41	21	0	21	45	21	55	22	8	21	50	21	50	21	50	22	5	22	26	22	20
6	21	20	21	36	21	54	22	30	22	36	22	45	22	28	22	28	22	30	23	0	23	5	22	22
7	22	15	22	30	22	45	23	10	23	10	23	22	23	7	23	3	23	3	23	0	23	50	23	38
8	23	6	23	17	23	31	23	52	23	55	23	55	23	47	23	40	23	35	0	35	0	20	23	38
9	23	50	23	12	23	19	24	1	24	1	24	1	24	0	20	0	20	0	45	1	23	0	20	0
10	0	1	0	40	0	50	25	0	1	10	1	2	1	10	1	0	0	45	1	23	1	10	1	10
11	0	35	0	40	1	24	26	1	15	1	50	1	45	1	42	1	26	1	26	2	15	2	0	1
12	1	15	1	56	1	56	27	2	35	2	35	2	35	2	44	2	30	2	10	3	8	3	55	2
13	1	54	1	56	2	30	28	3	15	3	15	3	5	3	33	3	30	3	0	4	4	3	50	3
14	2	34	2	30	3	8	29	4	2	4	2	3	48	4	26	4	12	3	54	5	1	4	51	4
15	3	13	3	45	3	35	30	5	4	50	4	34	5	20	5	7	5	50	6	54	5	50	5	41
16	3	54	3	45	4	25	31	6	4	54	5	27	6	18	6	18	6	5	50	6	54	6	51	4
17	4	35	4	25	4	14	32	7	6	36	6	20	7	14	7	14	7	5	50	7	53	7	54	4
18	5	21	5	5	5	54	33	8	7	30	7	19	8	10	8	10	8	5	53	8	50	8	54	4
19	6	8	6	42	6	25	34	9	8	25	8	15	9	6	9	9	5	56	9	47	9	56	10	4
20	6	57	6	42	6	25	35	10	9	21	9	14	10	2	10	3	10	5	10	10	44	10	56	11
21	7	50	7	34	7	15	36	11	10	16	10	10	10	5	11	57	11	3	11	10	44	10	56	11
22	8	42	8	28	8	10	37	12	11	17	11	9	11	9	11	53	12	2	12	12	40	12	56	13
23	9	35	9	25	9	10	38	13	12	18	12	10	12	10	12	13	13	0	13	13	40	12	56	13
24	10	30	10	20	10	11	39	14	13	19	13	7	13	11	14	14	14	1	14	14	40	13	56	14
25	11	25	11	18	11	11	40	15	14	20	14	7	14	12	15	15	15	1	15	15	40	14	46	15
26	12	20	12	15	12	12	41	16	15	21	15	10	15	13	16	16	16	1	16	16	40	15	36	16
27	13	14	13	13	13	13	42	17	16	22	16	11	16	14	17	17	17	1	17	17	40	16	21	17
28	14	10	14	14	14	14	43	18	17	23	17	12	17	15	18	18	18	1	18	18	40	17	16	18
29	15	8	15	15	15	15	44	19	18	24	18	13	18	16	19	19	19	1	19	19	40	18	16	19
30	16	7	16	16	16	16	45	20	19	25	19	14	19	17	20	20	20	1	20	20	40	19	16	20
31	17	6	17	17	17	17	46	21	20	26	20	15	20	18	21	21	21	1	21	21	40	19	16	21

Date.	September			October			November			December		
	10°	20°	30°	10°	20°	30°	10°	20°	30°	10°	20°	30°
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
2	20 21	20 15	20 10	20 13	20 07	20 02	21 35	21 20	21 05	22 58	22 51	22 44
3	21 22	20 55	20 44	21 11	20 57	20 40	22 24	22 12	21 55	23 51	23 48	23 44
4	22 23	21 16	21 02	22 47	22 32	22 15	23 17	23 06	22 53	0 45	0 45	0 45
5	23 24	22 00	21 45	23 39	23 24	23 08	0 10	0 02	23 52	1 40	1 40	1 40
6	24 25	23 00	22 45	24 40	24 25	24 10	1 10	1 02	0 52	2 40	2 40	2 40
7	25 26	24 00	23 45	25 40	25 25	25 10	2 10	2 02	1 52	3 40	3 40	3 40
8	26 27	25 00	24 45	26 40	26 25	26 10	3 10	3 02	2 52	4 40	4 40	4 40
9	27 28	26 00	25 45	27 40	27 25	27 10	4 10	4 02	3 52	5 40	5 40	5 40
10	28 29	27 00	26 45	28 40	28 25	28 10	5 10	5 02	4 52	6 40	6 40	6 40
11	29 30	28 00	27 45	29 40	29 25	29 10	6 10	6 02	5 52	7 40	7 40	7 40
12	30 31	29 00	28 45	30 40	30 25	30 10	7 10	7 02	6 52	8 40	8 40	8 40
13	31 32	30 00	29 45	31 40	31 25	31 10	8 10	8 02	7 52	9 40	9 40	9 40
14	32 33	31 00	30 45	32 40	32 25	32 10	9 10	9 02	8 52	10 40	10 40	10 40
15	33 34	32 00	31 45	33 40	33 25	33 10	10 10	10 02	9 52	11 40	11 40	11 40
16	34 35	33 00	32 45	34 40	34 25	34 10	11 10	11 02	10 52	12 40	12 40	12 40
17	35 36	34 00	33 45	35 40	35 25	35 10	12 10	12 02	11 52	1 40	1 40	1 40
18	36 37	35 00	34 45	36 40	36 25	36 10	1 10	1 02	1 52	2 40	2 40	2 40
19	37 38	36 00	35 45	37 40	37 25	37 10	2 10	2 02	2 52	3 40	3 40	3 40
20	38 39	37 00	36 45	38 40	38 25	38 10	3 10	3 02	3 52	4 40	4 40	4 40
21	39 40	38 00	37 45	39 40	39 25	39 10	4 10	4 02	4 52	5 40	5 40	5 40
22	40 41	39 00	38 45	40 40	40 25	40 10	5 10	5 02	5 52	6 40	6 40	6 40
23	41 42	40 00	39 45	41 40	41 25	41 10	6 10	6 02	6 52	7 40	7 40	7 40
24	42 43	41 00	40 45	42 40	42 25	42 10	7 10	7 02	7 52	8 40	8 40	8 40
25	43 44	42 00	41 45	43 40	43 25	43 10	8 10	8 02	8 52	9 40	9 40	9 40
26	44 45	43 00	42 45	44 40	44 25	44 10	9 10	9 02	9 52	10 40	10 40	10 40
27	45 46	44 00	43 45	45 40	45 25	45 10	10 10	10 02	10 52	11 40	11 40	11 40
28	46 47	45 00	44 45	46 40	46 25	46 10	11 10	11 02	11 52	12 40	12 40	12 40
29	47 48	46 00	45 45	47 40	47 25	47 10	12 10	12 02	12 52	1 40	1 40	1 40
30	48 49	47 00	46 45	48 40	48 25	48 10	1 10	1 02	1 52	2 40	2 40	2 40
31	49 50	48 00	47 45	49 40	49 25	49 10	2 10	2 02	2 52	3 40	3 40	3 40

Geocentric position of Pluto and Mean Longitudes of the Sun and the Moon in 1958 31

Month and Date.	Pluto			Sun			Moon		
	Long.	Lat.	Decl.	Mean Long.	Mean Long.	Hor. Par.	Semi Dia.		
Jan. 1	20° R 11N 40	21° N 36	280 24 35	49 22 57	55 5	15 1			
11	1 R 52	43	290 15 58	181 8 47	59 5	16 2			
21	40	46	300 7 21	312 54 37	55 0	15 0			
31	29	49	309 58 45	84 40 27	57 1	15 5			
Feb. 10	13	50	319 50 7	216 26 18	58 9	16 0			
20	57	50	329 41 30	348 12 8	54 1	14 7			
Mar. 2	43	51	339 32 54	119 57 58	58 8	16 0			
12	28	51	349 24 17	2 1 43 49	57 6	15 7			
22	14	50	359 15 40	23 29 39	54 0	14 7			
Apr. 1	1	48	9 7 4	155 15 29	60 2	16 4			
11	29 a 53	46	30 18 58 27	287 1 19	56 1	15 3			
21	46	45	31 28 49 50	53 47 10	54 8	14 9			
May 1	41	43	38 41 14	190 33 0	60 8	16 6			
11	46	40	48 32 37	322 18 50	54 9	15 0			
21	D 41	37	58 24 0	94 4 40	56 1	15 3			
31	45	34	68 15 23	225 50 31	60 1	16 4			
June 10	52	32	78 6 47	357 36 21	54 3	14 8			
20	2	29	87 58 10 12 2	12 2 11	57 9	15 8			
30	15	27	97 49 33	261 5 2	58 5	15 9			
July 10	28	25 21	107 40 57	32 53 52	54 4	14 8			
20	44	24	117 32 20	164 39 42	59 4	16 2			
30	1 2	23	127 23 43	296 25 32	56 6	15 4			
August 9	22	23	137 15 7	68 11 23	55 2	15 0			
19	40	23	147 6 30	199 57 13	60 0	16 6			
29	2 1	23	156 57 53	331 43 3	55 1	15 0			
Sep. 8	20	24	166 49 16	103 25 54	58 5	15 4			
18	40	26	176 40 40	235 14 44	59 5	16 2			
28	58	28	186 32 3	7 0 34	54 1	14 7			
Oct. 8	3 15	31	196 23 26	138 46 24	58 2	15 8			
18	30	34 20	206 14 50	270 32 14	58 2	15 8			
28	43	33	216 6 13	42 18 5	54 1	14 7			
Nov. 7	3a 53 11N 41	20 N 55	225 57 36	174 8 55	59 6	16 2			
17	4 1	45	235 49 6	305 49 46	56 6	15 4			
27	5	50	245 40 23	77 35 36	54 7	14 9			
Dec. 7	6	54 21	255 31 46	209 21 26	60 2	16 4			
17	R 4	58	265 23 9	341 7 17	55 3	15 1			
27	0 12	2	275 14 33	112 53 7	56 2	15 3			
31	3 57	3	279 11 6	165 35 27	58 1	15 8			

32 Ending Moments of *Tithis* for each date in 1958
(Calculated in I. S. T.)

Date.	January.		February.		March.		April.		May.		June.	
	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.
1	10	H. M. 3 42	12	H. M. 21 2	10	H. M. 14 5	12	H. M. 20 9	12	H. M. 4 9	14	H. M. 5 5
2	11	4 46	13	19 5	11	12 29	13	16 44	13	0 45	15	2 29
3	12	5 3	14	16 35	12	10 5	14	13 2	15	17 56	16	0 12
4	13	4 34	15	13 37	13	7 4	15	9 16	16	14 44	17	22 15
5	14	3 23	16	10 18	14	3 38	16	5 35	17	11 53	18	21 10
6	15	1 33	17	6 53	15	23 57	17	2 10	18	9 37	19	20 39
7	16	23 19	18	3 36	16	20 11	18	23 8	19	7 57	20	20 52
8	17	20 50	19	0 36	17	16 32	19	20 37	20	7 3	21	21 51
9	18	18 11	20	21 51	18	13 7	20	18 46	21	6 56	22	23 31
10	19	15 29	21	19 35	19	10 6	21	17 39	22	..	23	..
11	20	12 54	22	17 49	20	7 41	22	17 17	23	7 35	24	1 41
12	21	10 32	23	16 35	21	5 52	23	17 42	24	8 55	25	4 7
13	22	8 29	24	15 54	22	4 42	24	18 51	25	10 55	26	6 39
14	23	6 44	25	15 44	23	4 14	25	20 34	26	13 18	27	9 0
15	24	5 18	26	16 0	24	4 26	26	22 44	27	15 53	28	10 58
16	25	4 11	27	16 44	25	5 14	27	..	28	18 26	29	12 25
17	26	3 23	28	17 49	26	6 31	28	1 11	29	20 48	30	13 13
18	27	2 55	29	19 19	27	8 18	29	3 47	30	22 50	1	13 29
19	28	2 58	30	21 10	28	10 24	30	6 25	1	..	2	13 12
20	29	3 2	1	23 21	29	12 48	30	8 53	2	0 28	3	12 29
21	30	3 40	2	..	30	15 20	1	11 10	3	1 38	4	11 20
22	1	4 45	2	1 50	1	18 0	2	13 6	4	2 16	5	9 52
23	2	6 19	3	4 29	2	20 38	3	14 39	5	2 30	6	8 10
24	3	8 20	4	7 12	3	3 7	4	15 42	6	2 16	7	6 19
25	4	10 47	5	9 49	4	..	5	16 17	7	1 35	8	4 18
26	5	13 27	6	12 7	5	1 17	6	16 15	8	0 28	9	2 9
27	6	16 8	7	13 46	6	3 5	7	15 38	9	22 59	10	23 55
28	7	18 38	8	14 41	7	4 15	8	14 22	10	21 7	11	21 40
29	8	20 41	9	14 49	8	4 46	9	12 32	11	18 54	12	17 10
30	9	21 58			9	4 30	10	10 10	12	16 26	13	15 4
31	10	22 34			10	3 27	11	7 20	13	10 51	14	13 9
	11	22 14			11	1 39			13	7 56		
					11	23 11						

Ending Moments of *Tithis* for each date in 1958
(Calculated in I. S. T.)—(concl'd.)

33

Date.	July.		August.		September.		October.		November.		December.	
	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.	Ti.	Time.
1	15	H. M. 11 35	17	H. M. 23 29	18	H. M. 17 26	18	H. M. 11 2	19	H. M. 5 59	20	H. M. 20 38
2	16	10 32	18	..	19	20 1	19	13 32	20	7 13	21	20 18
3	17	9 57	18	0 53	20	22 38	20	15 44	21	7 56	22	19 28
4	18	10 1	19	2 47	21	..	21	17 26	22	7 59	23	18 8
5	19	10 47	20	5 6	21	1 4	22	18 29	23	7 22	24	16 23
6	20	12 13	21	7 39	22	3 4	23	18 49	24	6 6	25	14 4
7	21	14 14	22	10 9	23	4 27	24	18 24	25	4 10	26	11 24
8	22	16 36	23	12 24	24	5 55	25	17 12	26	1 38	27	8 26
9	23	19 5	24	14 4	25	4 53	26	15 15	27	19 18	28	5 19
10	24	21 28	25	15 4	26	3 53	27	12 40	28	15 44	29	2 3
11	25	23 30	26	15 16	27	2 6	28	9 32	29	12 3	30	22 57
12	26	..	27	14 43	28	23 41	29	6 3	30	8 32	1	120 7
13	27	0 57	28	13 26	29	20 47	30	2 23	1	5 17	2	17 41
14	28	1 42	29	11 29	30	17 31	1	22 40	2	5 17	3	15 48
15	29	1 46	30	9 4	1	14 2	2	19 3	3	2 29	4	14 22
16	30	1 10	1	6 16	2	10 34	3	15 43	4	0 15	5	14 25
17	1	0 0	2	3 19	3	7 14	4	12 47	5	22 44	6	15 1
18	2	20 19	3	0 22	4	4 10	5	10 26	6	22 2	7	16 26
19	3	18 7	4	21 29	5	18 46	6	9 1	7	22 12	8	18 32
20	4	15 47	5	16 19	6	20 22	7	7 51	8	23 11	9	21 3
21	5	13 25	6	14 12	7	19 49	8	7 40	9	0 52	10	23 48
22	6	11 6	7	12 27	8	19 52	9	8 14	10	3 6	11	..
23	7	8 53	8	11 3	9	20 27	10	9 24	11	5 41	12	2 31
24	8	6 49	9	10 5	10	21 32	11	11 11	12	8 26	13	4 55
25	9	4 54	10	10 5	11	21 32	12	13 24	13	11 9	14	6 54
26	10	3 8	11	9 30	12	23 4	13	15 53	14	13 36	15	8 24
27	11	1 35	12	9 31	13	..	14	18 52	15	15 46	16	9 22
28	12	0 16	13	9 34	14	0 51	15	21 10	16	17 33	17	9 52
29	13	23 15	14	10 15	15	3 15	16	23 44	17	18 57	18	9 54
30	14	22 35	15	11 22	16	5 46	17	..	18	19 56	19	9 36
31	15	22 21	16	3 1	17	8 23	18	2 8	19	20 30	20	8 56
	16	21 49	17	15 2			19	4 14	20	7 57	21	8 42

34 Time when the Moon enters the Zodiacal Signs in 1958

January			February			March			April			May			June		
Sign.	Date.	Time.	Sign.	Date.	Time.	Sign.	Date.	Time.	Sign.	Date.	Time.	Sign.	Date.	Time.	Sign.	Date.	Time.
		H. M.			H. M.			H. M.			H. M.			H. M.			H. M.
♈	2 17	47	♈	1 10	9	♈	2 23	57	♈	1 11	3	♈	2 21	45	♈	1 8	24
♉	4 23	47	♉	3 13	7	♉	5 0	43	♉	3 11	23	♉	4 22	32	♉	3 10	54
♊	7 2	48	♊	5 13	41	♊	7 0	5	♊	5 10	47	♊	7 0	56	♊	5 16	8
♋	9 4	36	♋	7 13	54	♋	9 0	0	♋	7 11	37	♋	9 7	3	♋	8 0	58
♌	11 0	48	♌	9 15	55	♌	10 2	32	♌	9 15	34	♌	11 16	57	♌	10 12	51
♍	13 9	34	♍	11 19	45	♍	13 8	10	♍	11 23	16	♍	14 5	27	♍	13 1	39
♎	15 14	20	♎	14 2	29	♎	15 17	0	♎	14 10	9	♎	16 18	18	♎	15 13	1
♏	17 22	46	♏	16 11	22	♏	18 4	12	♏	16 22	53	♏	19 5	43	♏	17 21	30
♐	20 4	55	♐	18 22	10	♐	20 16	47	♐	19 11	46	♐	21 14	51	♐	20 3	32
♑	22 15	13	♑	21 10	35	♑	23 5	45	♑	21 23	31	♑	23 21	41	♑	22 7	51
♒	25 3	34	♒	23 23	4	♒	25 17	47	♒	24 9	31	♒	26 1	51	♒	24 11	12
♓	27 16	24	♓	26 11	22	♓	28 3	13	♓	26 16	11	♓	28 7	5	♓	26 14	0
♈	30 3	13	♈	28 19	31	♈	30 9	13	♈	28 20	7	♈	30 7	4	♈	28 16	42

July			August			September			October			November			December		
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♈	3 1	20	♈	1 17	44	♈	3 0	54	♈	2 20	18	♈	1 13	38	♈	1 4	8
♉	5 9	29	♉	4 5	33	♉	5 13	35	♉	5 7	37	♉	5 22	28	♉	5 10	48
♊	7 20	49	♊	6 17	33	♊	7 23	46	♊	7 15	17	♊	7 6	4	♊	7 16	55
♋	10 9	38	♋	9 5	42	♋	10 6	8	♋	9 19	15	♋	8 6	43	♋	9 17	32
♌	12 21	13	♌	11 14	53	♌	12 8	48	♌	11 20	12	♌	10 6	59	♌	11 18	22
♍	15 5	4	♍	13 20	10	♍	14 9	12	♍	13 19	43	♍	14 7	28	♍	13 21	14
♎	17 11	0	♎	15 12	56	♎	16 9	21	♎	15 19	43	♎	16 11	23	♎	15 3	48
♏	19 14	11	♏	17 23	48	♏	18 10	47	♏	17 21	58	♏	18 18	14	♏	17 17	17
♐	21 16	42	♐	20 1	20	♐	21 4	44	♐	20 3	39	♐	21 7	0	♐	21 3	3
♑	23 19	2	♑	22 4	9	♑	23 7	4	♑	22 12	49	♑	23 20	0	♑	23 15	37
♒	25 25	58	♒	24 9	21	♒	25 7	4	♒	25 0	41	♒	26 8	30	♒	25 23	15
♓	28 3	35	♓	26 16	0	♓	27 18	39	♓	27 13	37	♓	28 19	19	♓	28 10	10
♈	30 9	24	♈	29 0	57	♈	30 7	27	♈	30 2	16	♈	30 19	19	♈	30 16	16

Distances apart of all ♄s and ♅s in 1958

35

Date.	Aspect	Time.	Dis- tance.	Date.	Aspect	Time.	Dis- tance.	Date.	Aspect.	Time.	Dis- tance.
January				March				May			
3	D	H. M. °		2	D	H. M. °		24	⊙	H. M. °	
4	♄	7 54 1 57		3	♄	4 50 6 1		27	♄	8 4 1 42	
6	♄	5 48 2 5		4	♄	6 3 0 36		28	♄	5 38 5 39	
7	♄	15 38 0 39		5	♄	13 47 5 31		30	♄	19 36 14 12	
8	♄	1 33 5 10		6	♄	22 25 6 12			♄	22 2 5 47	
9	♄	20 27 5 34		7	♄	23 57 3 31			♄	12 26 2 36	
13	♄	5 57 9 24		8	♄	3 6 4 48		June			
16	♄	7 38 15 12		9	♄	1 43 1 23		2	♄	5 57 2 56	
17	♄	9 29 1 30		10	♄	7 31 1 25		3	♄	13 36 1 51	
18	♄	17 16 1 45		11	♄	9 32 5 8		6	♄	3 2 1 27	
20	♄	21 14 3 24		12	♄	23 30 2 54		9	♄	17 56 1 6	
21	♄	4 35 2 15		13	♄	14 13 5 57		10	♄	16 6 2 54	
22	♄	3 15 3 21		14	♄	8 30 5 41		11	♄	21 51 13 19	
23	♄	3 40 5 1		15	♄	15 49 1 13		12	♄	18 20 1 29	
24	♄	5 53 0 32		16	♄	4 49 7 4		13	♄	16 17 15 13	
25	♄	18 30 15 9		17	♄	15 20 1 59		14	♄	15 27 5 20	
26	♄	12 40 1 30		18	♄	3 15 0 13		15	♄	2 35 3 19	
27	♄	22 35 7 10		19	♄	5 18 1 32		16	♄	5 4 1 57	
28	♄	18 36 1 32		20	♄	14 19 1 19		17	♄	17 0 3 9	
29	♄	1 57 1 38		21	♄	9 46 2 53		18	♄	23 58 1 29	
30	♄	2 30 6 56		22	♄	1 2 0 24		19	♄	0 29 2 22	
31	♄	6 45 0 37		23	♄	23 15 2 37		20	♄	17 7 1 21	
		20 59 2 28		24	♄	22 16 5 40		21	♄	3 45 2 20	
				25	♄	2 9 6 4		22	♄	12 23 5 37	
				26	♄			23	♄	23 0 0 34	
				27	♄			24	♄	1 58 15 13	
				28	♄			25	♄	16 18 4 50	
				29	♄			26	♄	18 32 1 57	
				30	♄			27	♄	2 44 2 13	
				31	♄			28	♄	11 12 1 34	
								29	♄	16 13 0 1	
								30			
								31			

Date.	Aspect	Time.	Distance.	Date.	Aspect	Time.	Distance.	Date.	Aspect	Time.	Distance.
		H. M. °				H. M. °		October			
16	δ ϵ ψ	18 39 1	57	5	δ ψ	3 51 9	37				
17	δ ϵ ψ	7 2 2	43	6	δ ψ	7 20 1	3				
	δ ϵ ψ	9 42 4	55		δ ψ	21 57 0	59				
	δ ϵ ψ	13 29 4	11	7	δ ψ	14 26 1	0				
18	δ ϵ ψ	1 49 0	51	10	δ ψ	18 54 2	56				
20	δ ϵ ψ	20 2 5	46	13	δ ψ	14 34 5	10				
22	δ ϵ ψ	7 58 14	50	14	δ ψ	17 37 4	48				
25	δ ϵ ψ	8 30 3	26	15	δ ψ	9 4 4	17				
26	δ ϵ ψ	0 11 1	39	16	δ ψ	1 13 14	24				
	δ ϵ ψ	17 33 1	22		δ ψ	8 19 0	49				
28	δ ϵ ψ	19 58 1	4	19	δ ψ	20 8 0	30				
30	δ ϵ ψ	5 0 2	44	20	δ ψ	5 20 0	52				
July				21	δ ψ	7 13 0	14				
1	δ ϵ ψ	11 36 4	45	23	δ ψ	13 43 3	8				
2	δ ϵ ψ	17 2 6	53	27	δ ψ	5 23 0	6				
3	δ ϵ ψ	19 50 5	27		δ ψ	17 8 5	9				
5	δ ϵ ψ	10 9 14	39	28	δ ψ	18 20 5	14				
9	δ ϵ ψ	18 3 2	38	29	δ ψ	4 54 14	24				
	δ ϵ ψ	18 9 1	32		δ ψ	11 22 3	30				
9	δ ϵ ψ	18 33 1	7	September							
10	δ ϵ ψ	13 42 1	30	2	δ ψ	23 13 0	16				
11	δ ϵ ψ	12 0 0	39	3	δ ψ	6 23 0	51				
14	δ ϵ ψ	9 26 0	9	6	δ ψ	2 31 0	34				
	δ ϵ ψ	11 58 2	38	7	δ ψ	4 40 1	37				
17	δ ϵ ψ	12 14 2	48	11	δ ψ	3 21 3	9				
18	δ ϵ ψ	0 0 5	0	12	δ ψ	6 30 5	19				
19	δ ϵ ψ	5 46 5	22		δ ψ	11 15 4	36				
23	δ ϵ ψ	23 20 4	44	13	δ ψ	12 52 14	16				
	δ ϵ ψ	15 23 14	30	16	δ ψ	14 34 4	49				
24	δ ϵ ψ	8 17 1	9		δ ψ	17 31 2	34				
	δ ϵ ψ	21 59 3	41	18	δ ψ	12 2 0	12				
27	δ ϵ ψ	23 47 1	15		δ ψ	14 19 0	27				
28	δ ϵ ψ	20 13 0	38	19	δ ψ	9 17 1	12				
30	δ ϵ ψ	9 14 2	46	24	δ ψ	20 32 3	13				
31	δ ϵ ψ	16 43 4	14	25	δ ψ	1 47 5	20				
August				27	δ ψ	0 0 0	43				
1	δ ϵ ψ	19 49 14	21	28	δ ψ	12 44 14	26				
2	δ ϵ ψ	3 46 1	35	30	δ ψ	1 30 3	58				
	δ ϵ ψ				δ ψ	12 33 1	55				
	δ ϵ ψ				δ ψ	3 15 1	34				
	δ ϵ ψ				δ ψ	14 37 0	36				
	δ ϵ ψ				δ ψ	16 36 0	12				

Date.	Aspect	Time.	Distance.	Date.	Aspect	Time.	Distance.	Date.	Aspect	Time.	Distance.
December						H. M. °				H. M. °	
				10	δ ψ	22 57 4	37	23	δ ψ	0 6 1	30
				11	δ ψ	11 42 5	7	24	δ ψ	12 47 1	17
2	δ ψ	10 14 5	2	12	δ ψ	13 27 3	43	25	δ ψ	23 36 3	50
3	δ ψ	18 0 14	29	15	δ ψ	10 13 1	30	26	δ ψ	9 23 4	50
5	δ ψ	4 0 4	44	16	δ ψ	2 6 5	8	27	δ ψ	7 50 6	3
8	δ ψ	2 38 0	19	17	δ ψ	11 26 14	25	29	δ ψ	14 43 4	58
	δ ψ	21 8 3	32	20	δ ψ	18 47 0	59	30	δ ψ	2 34 11	12
9	δ ψ	0 28 1	32	21	δ ψ	16 1 0	27				
10	δ ψ	0 0 4	35	22	δ ψ	11 37 4	47				
	δ ψ	20 54 2	48		δ ψ	12 34 3	48				

Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time
January											
		H. M.			H. M.			H. M.			H. M.
1	☉ ☌ ☿	21 24	25	☿ ☌ ☽	9 15	17	☉ ☌ ☿	12 42	7	☿ ☌ ☽	7 44
7	☿ ☌ ☽	9 3	26	☽ ☌ ☿	14 24	18	☿ ☌ ☽	16 37	8	☽ ☌ ☿	6 58
11	☽ ☌ ☿	13 19	27	☿ ☌ ☽	23 21	19	☽ ☌ ☿	2 42	9	☽ ☌ ☿	5 11
14	☽ ☌ ☿	15 15		☽ ☌ ☿	1 38	21	☽ ☌ ☿	3 39	10	☽ ☌ ☿	1 37
16	☽ ☌ ☿	17 46		☽ ☌ ☿	3 55	22	☽ ☌ ☿	4 28	12	☽ ☌ ☿	5 27
19	☽ ☌ ☿	5 18	March			24	☽ ☌ ☿	8 4	13	☽ ☌ ☿	8 13
21	☽ ☌ ☿	10 44		☽ ☌ ☿	18 6	26	☽ ☌ ☿	23 33	14	☽ ☌ ☿	13 15
22	☽ ☌ ☿	10 51		☽ ☌ ☿	22 25	27	☽ ☌ ☿	1 0	15	☽ ☌ ☿	12 0
23	☽ ☌ ☿	12 40		☽ ☌ ☿	11 0	28	☽ ☌ ☿	16 8	16	☽ ☌ ☿	13 48
24	☽ ☌ ☿	12 56		☽ ☌ ☿	5 26	30	☽ ☌ ☿	4 0	17	☽ ☌ ☿	18 39
25	☽ ☌ ☿	13 16		☽ ☌ ☿	11 48	May			18	☽ ☌ ☿	1 49
26	☽ ☌ ☿	10 49		☽ ☌ ☿	19 14				19	☽ ☌ ☿	4 7
27	☽ ☌ ☿	22 35		☽ ☌ ☿	23 7				20	☽ ☌ ☿	8 9
28	☽ ☌ ☿	1 58		☽ ☌ ☿	9 32				21	☽ ☌ ☿	18 46
29	☽ ☌ ☿	5 55		☽ ☌ ☿	7 5				22	☽ ☌ ☿	7 27
30	☽ ☌ ☿	2 30		☽ ☌ ☿	19 26				23	☽ ☌ ☿	2 24
February											
		H. M.			H. M.			H. M.			H. M.
1	☿ ☌ ☽	22 22		☽ ☌ ☿	17 23				24	☽ ☌ ☿	5 9
4	☿ ☌ ☽	6 55		☽ ☌ ☿	1 41				25	☽ ☌ ☿	8 41
6	☽ ☌ ☿	4 0		☽ ☌ ☿	0 17				26	☽ ☌ ☿	18 35
7	☽ ☌ ☿	10 37		☽ ☌ ☿	22 40				27	☽ ☌ ☿	11 13
8	☽ ☌ ☿	15 56		☽ ☌ ☿	8 0				28	☽ ☌ ☿	23 19
9	☽ ☌ ☿	8 10		☽ ☌ ☿	13 36				29	☽ ☌ ☿	6 17
10	☽ ☌ ☿	23 37		☽ ☌ ☿	5 17				30	☽ ☌ ☿	12 24
11	☽ ☌ ☿	21 53		☽ ☌ ☿	13 36				July		
12	☽ ☌ ☿	9 52		☽ ☌ ☿	1 2						
13	☽ ☌ ☿	16 54		☽ ☌ ☿	10 14						
14	☽ ☌ ☿	1 54		☽ ☌ ☿	23 15						
16	☽ ☌ ☿	11 24		☽ ☌ ☿	2 0						
20	☽ ☌ ☿	4 1		☽ ☌ ☿	8 0						
21	☽ ☌ ☿	8 4		☽ ☌ ☿	13 36						
23	☽ ☌ ☿	23 48		☽ ☌ ☿	5 17						
24	☽ ☌ ☿	17 20		☽ ☌ ☿	13 36						
		20 53		☽ ☌ ☿	1 2						
		0 59		☽ ☌ ☿	10 14						
April											
		H. M.			H. M.			H. M.			H. M.
1	☉ ☌ ☿	3 26		☽ ☌ ☿	23 15						
2	☉ ☌ ☿	9 9		☽ ☌ ☿	2 0						
3	☉ ☌ ☿	1 51		☽ ☌ ☿	8 0						
5	☉ ☌ ☿	3 12		☽ ☌ ☿	13 36						
6	☉ ☌ ☿	19 51		☽ ☌ ☿	5 17						
7	☉ ☌ ☿	17 5		☽ ☌ ☿	1 2						
10	☉ ☌ ☿	17 5		☽ ☌ ☿	10 14						
11	☉ ☌ ☿	17 44		☽ ☌ ☿	23 15						
14	☉ ☌ ☿	12 47		☽ ☌ ☿	2 0						
16	☉ ☌ ☿	0 42		☽ ☌ ☿	8 0						
		7 12		☽ ☌ ☿	13 36						
June											
		H. M.			H. M.			H. M.			H. M.
1	☉ ☌ ☿	20 27		☽ ☌ ☿	23 15						
2	☉ ☌ ☿	10 55		☽ ☌ ☿	2 0						
3	☉ ☌ ☿	12 41		☽ ☌ ☿	8 0						
5	☉ ☌ ☿	5 44		☽ ☌ ☿	13 36						
6	☉ ☌ ☿	23 47		☽ ☌ ☿	1 2						

Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time
September											
		H. M.			H. M.			H. M.			H. M.
16	☉ ☌ ☿	1 8		☽ ☌ ☿	10 21						
18	☉ ☌ ☿	3 37		☽ ☌ ☿	7 12						
19	☉ ☌ ☿	2 16		☽ ☌ ☿	13 0						
20	☉ ☌ ☿	12 0		☽ ☌ ☿	13 45						
22	☉ ☌ ☿	20 0		☽ ☌ ☿	17 50						
23	☉ ☌ ☿	10 35		☽ ☌ ☿	18 54						
24	☉ ☌ ☿	3 53		☽ ☌ ☿	17 4						
		11 34		☽ ☌ ☿	0 48						
25	☉ ☌ ☿	20 13		☽ ☌ ☿	7 2						
27	☉ ☌ ☿	15 14		☽ ☌ ☿	9 35						
28	☉ ☌ ☿	22 5		☽ ☌ ☿	14 40						
October											
		H. M.			H. M.			H. M.			H. M.
4	☉ ☌ ☿	21 48		☽ ☌ ☿	4 42						
5	☉ ☌ ☿	3 51		☽ ☌ ☿	6 54						
7	☉ ☌ ☿	12 0		☽ ☌ ☿	16 15						
11	☉ ☌ ☿	7 12		☽ ☌ ☿	20 31						
12	☉ ☌ ☿	16 8		☽ ☌ ☿	0 58						
17	☉ ☌ ☿	21 14		☽ ☌ ☿	11 12						
18	☉ ☌ ☿	15 23		☽ ☌ ☿	22 23						
19	☉ ☌ ☿	5 20		☽ ☌ ☿	16 48						
20	☉ ☌ ☿	10 10		☽ ☌ ☿	10 17						
21	☉ ☌ ☿	16 32		☽ ☌ ☿	0 27						
22	☉ ☌ ☿	18 52		☽ ☌ ☿	5 19						
24	☉ ☌ ☿	20 17		☽ ☌ ☿	17 16						
25	☉ ☌ ☿	2 54		☽ ☌ ☿	9 49						
26	☉ ☌ ☿	11 35		☽ ☌ ☿	1 16						
27	☉ ☌ ☿	5 23		☽ ☌ ☿	19 23						
November											
		H. M.			H. M.			H. M.			H. M.
3	☉ ☌ ☿	4 42		☽ ☌ ☿	11 12						
5	☉ ☌ ☿	6 54		☽ ☌ ☿	22 23						
6	☉ ☌ ☿	16 15		☽ ☌ ☿	16 48						
8	☉ ☌ ☿	20 31		☽ ☌ ☿	10 17						
9	☉ ☌ ☿	0 58		☽ ☌ ☿	0 27						
11	☉ ☌ ☿	11 12		☽ ☌ ☿	5 19						
15	☉ ☌ ☿	16 48		☽ ☌ ☿	17 16						
16	☉ ☌ ☿	0 27		☽ ☌ ☿	9 49						
17	☉ ☌ ☿	5 19		☽ ☌ ☿	1 16						
24	☉ ☌ ☿	19 23		☽ ☌ ☿	19 23						
25	☉ ☌ ☿	5 6		☽ ☌ ☿	14 51						
27	☉ ☌ ☿	1 46		☽ ☌ ☿							
28	☉ ☌ ☿	14 51		☽ ☌ ☿							

(For the latitude 23° 11' N)

*Rises.**Sets***Mercury**

1st January, in East.
19th March, in West.
2nd May, in East.
1st July, in West.
2nd September, in East.
28th October, in West.
16th December, in East.

14th February, in East.
7th April, in West.
3rd June, in East.
7th August, in West.
17th September, in East.
5th December, in West.

Venus

30th January, in East.
20th December, in West.

22nd January, in West.
26th September, in East.

Jupiter

21st November

25th October

Mars

Visible throughout the year.

Saturn

6th December.

A Partial Eclipse of the Sun, April 19, 1958.

	H.	M.	S.
Conjunction in Longitude	8	53	24
Sun and Moon's Longitude	28°	34'	33"
Sun's Declination	+10°	58'	7"
Moon's Declination	+11	12	1
Sun's True Semidiameter	15"	56.9"	
Moon's True Semi-diameter	14'	45.8"	
Moon's Equatorial Horizontal Parallax	54'	11.4"	

Local Prediction

Place.	Mag.	Eclipse Begins.		Greatest Phase.		Eclipse Ends.	
		H.	M.	H.	M.	H.	M.
Ujjain.	0.55	6	30	7	31	8	45
Bombay.	0.56	6	21	7	23	8	33
Madras.	0.75	6	9	7	18	8	33

Elements of the Planetary Orbits for 12 o'clock Noon (L. S. T.) on 1st January 1958

Planet.	Mean Long.	Mean. Daily Motion.	Per. of Revolution (Sid.)	Long. of Asc. Node.	Long. of Perihelion or Perigee.	Eccentricity.	Mean Distance from the Sun.	Inclination of the Orbit.	
	° ' "	° ' "	Days.	° ' "	° ' "			° ' "	
Mercury	114 14 55	4 5 32	87.9693	47 49 58	76 48 6	0.205626	0.3870984	7	0 14
Venus	84 20 38	1 36 8	224.701	76 18 5	130 58 47	0.006794	0.7233302	3	23 30
Earth	280 24 35	0 59 8	365.256	..	282 13 4	0.016728	1.0000000	..	..
Mars	236 3 46	0 31 26	686.980	49 14 1	355 17 9	0.093364	1.523678	1	51 0
Jupiter	119 7 37	0 4 59	4332.59	100 1 46	13 39 17	0.048427	5.202561	1	18 21
Saturn	256 12 32	0 2 0	10759.2	113 17 50	92 14 3	0.055699	9.554747	2	29 26
Uranus	133 31 18	0 0 42	30688.5	73 47 49	172 24 0	0.046330	19.21824	0	46 22
Neptune	211 59 31	0 0 21.6	60181.3	131 19 50	47 33 13	0.009001	30.10957	1	46 28
Moon	49 22 57	13 10 35	27.3216	217 22 2	174 23 46	0.05490	..	5	8 13

Daily Motion of Moon's Node -0 3 10.62.
Perigee +0 6 41.05.

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
January					H. M.			H. M.			H. M.
1	☉	3 42	10	☽	21 55	19	☽	15 32	30	☽	20 8
	☽	5 19		☽	0 4 54		☽	22 49		☽	5 33
	☽	7 6		☽	4 44		☽	3 47		☽	6 6
	☽	14 14		☽	7 27		☽	7 47		☽	11 13
2	☽	22 1		☽	12 54		☽	12 36		☽	12 20
	☽	10 58		☽	12 59		☽	3 40		☽	17 16
	☽	11 29		☽	14 27		☽	6 8		☽	21 16
	☽	15 31		☽	22 49		☽	8 1		☽	22 34
	☽	21 29		☽	1 41		☽	13 54		☽	9 35
3	☽	2 4		☽	5 57		☽	13 57		☽	15 56
	☽	7 54		☽	8 21		☽	17 16		☽	18 8
	☽	13 37		☽	9 31		☽	17 25		☽	19 30
	☽	16 55		☽	14 9		☽	20 47		☽	20 59
	☽	19 17		☽	0 2		☽	20 47		☽	
	☽	22 55		☽	5 52		☽	1 35		☽	
4	☽	5 18		☽	9 31		☽	16 44		☽	
	☽	5 48		☽	10 55		☽	18 30		☽	
	☽	15 38		☽	17 33		☽	19 17		☽	
	☽	16 19		☽	19 35		☽	0 19		☽	
	☽	22 8		☽	7 35		☽	10 58		☽	
5	☽	1 43		☽	8 59		☽	10 55		☽	
	☽	4 56		☽	9 29		☽	14 38		☽	
	☽	7 38		☽	12 44		☽	22 55		☽	
	☽	15 49		☽	17 16		☽	4 10		☽	
6	☽	18 13		☽	19 43		☽	6 47		☽	
	☽	1 33		☽	3 35		☽	11 9		☽	
	☽	3 40		☽	11 28		☽	12 22		☽	
	☽	6 34		☽	12 34		☽	17 9		☽	
	☽	10 7		☽	12 45		☽	19 33		☽	
	☽	18 32		☽	22 16		☽	5 28		☽	
	☽	19 3		☽	4 11		☽	6 50		☽	
7	☽	1 38		☽	14 39		☽	13 13		☽	
	☽	6 1		☽	16 4		☽	13 27		☽	
	☽	10 25		☽	17 32		☽	23 32		☽	
	☽	11 23		☽	22 44		☽	0 35		☽	
	☽	20 27		☽	8 43		☽	7 0		☽	
	☽	20 28		☽	9 13		☽	13 17		☽	
	☽	20 47		☽	17 10		☽	0 34		☽	
	☽	5 57		☽	21 14		☽	5 36		☽	
8	☽	7 31		☽	1 51		☽	19 32		☽	
	☽	12 25		☽	4 35		☽	1 57		☽	
	☽	21 54		☽	11 55		☽	6 59		☽	
	☽	3 43		☽	14 48		☽	7 46		☽	
	☽	7 35		☽	19 51		☽	10 9		☽	
9	☽	10 8		☽	23 57		☽	11 52		☽	
	☽	2 3		☽	3 5		☽	2 44		☽	
	☽			☽	5 25		☽	12 43		☽	

February

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
March					H. M.			H. M.			H. M.
7	☽	2 50	17	☽	13 23	27	☽	2 17	7	☽	0 59
	☽	4 43		☽	13 56		☽	3 42		☽	1 51
	☽	15 52		☽	20 35		☽	18 43		☽	7 16
	☽	16 0		☽	4 36		☽	19 57		☽	9 8
	☽	18 27		☽	4 44		☽	20 27		☽	13 5
	☽	18 58		☽	5 42		☽	0 40		☽	0 47
	☽	19 17		☽	10 19		☽	7 47		☽	2 49
	☽	21 43		☽	12 59		☽	10 4		☽	9 39
	☽	5 1		☽	21 10		☽	21 1		☽	13 27
	☽	16 35		☽	23 39		☽	22 13		☽	16 9
	☽	21 51		☽	1 25		☽			☽	0 58
	☽	4 22		☽	2 8		☽			☽	1 43
	☽	17 41		☽	7 36		☽			☽	4 51
	☽	18 20		☽	15 41		☽			☽	7 31
	☽	19 32		☽	20 51		☽			☽	11 26
	☽	22 48		☽	5 46		☽			☽	13 22
	☽	23 46		☽	7 27		☽			☽	13 53
	☽	23 47		☽	13 41		☽			☽	16 49
10	☽	5 57		☽	19 12		☽			☽	7 41
	☽	7 14		☽	21 50		☽			☽	17 57
	☽	2 9		☽	22 49		☽			☽	18 13
	☽	8 13		☽	12 23		☽			☽	19 14
	☽	21 51		☽	12 27		☽			☽	3 16
	☽	22 9		☽	13 48		☽			☽	3 55
	☽	22 40		☽	15 9		☽			☽	10 15
	☽	4 18		☽	20 8		☽			☽	16 31
	☽	6 15		☽	4 12		☽			☽	16 59
	☽	11 18		☽	6 53		☽			☽	21 35
	☽	11 58		☽	13 36		☽			☽	6 13
	☽	1 18		☽	18 53		☽			☽	12 51
	☽	1 50		☽	0 31		☽			☽	16 20
	☽	7 31		☽	12 8		☽			☽	19 27
	☽	14 43		☽	18 43		☽			☽	21 10
	☽	15 22		☽	1 19		☽			☽	23 30
	☽	15 44		☽	2 16		☽			☽	2 11
	☽	18 38		☽	2 43		☽			☽	8 50
	☽	4 32		☽	9 4		☽			☽	9 22
	☽	4 35		☽	9 49		☽			☽	9 47
	☽	5 33		☽	16 55		☽			☽	16 22
	☽	11 10		☽	18 39		☽			☽	23 6
	☽	16 44		☽	6 14		☽			☽	2 35
	☽	19 17		☽	0 38		☽			☽	12 52
	☽	22 10		☽	12 56		☽			☽	5 12
	☽	2 47		☽	13 40		☽			☽	8 0
	☽	8 42		☽	14 14		☽			☽	14 13
	☽	23 35		☽	15 11		☽			☽	17 39
	☽	5 14		☽	16 47		☽			☽	17 54
	☽	12 56		☽	20 20		☽			☽	1 33
	☽			☽			☽			☽	5 21

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.			H. M.			H. M.			H. M.
17	♂ ♀	8 30	27	♂ ♀	6 52		♂ ♀	11 42	13	♂ ♀	13 55
	♂ ♀	12 54		♂ ♀	9 9		♂ ♀	17 38	14	♂ ♀	20 34
	♂ ♀	13 15		♂ ♀	9 46	4	♂ ♀	23 22		♂ ♀	21 27
	♂ ♀	15 49		♂ ♀	12 56		♂ ♀	7 8		♂ ♀	4 35
	♂ ♀	16 24		♂ ♀	13 39		♂ ♀	9 16		♂ ♀	6 31
	♂ ♀	19 5		♂ ♀	17 46		♂ ♀	10 59		♂ ♀	9 51
	♂ ♀	21 20	28	♂ ♀	1 55	5	♂ ♀	3 58	15	♂ ♀	1 22
18	♂ ♀	4 44		♂ ♀	3 30		♂ ♀	8 8		♂ ♀	2 33
	♂ ♀	4 49		♂ ♀	11 0		♂ ♀	8 27		♂ ♀	5 20
	♂ ♀	5 10		♂ ♀	15 12		♂ ♀	10 42		♂ ♀	10 26
	♂ ♀	12 54		♂ ♀	16 46		♂ ♀	11 58		♂ ♀	11 7
	♂ ♀	20 3		♂ ♀	17 27		♂ ♀	17 4		♂ ♀	23 49
19	♂ ♀	3 57		♂ ♀	18 27	6	♂ ♀	23 0	16	♂ ♀	6 16
	♂ ♀	7 43		♂ ♀	6 53		♂ ♀	4 4		♂ ♀	7 46
	♂ ♀	10 40	29	♂ ♀	20 4	6	♂ ♀	10 15		♂ ♀	13 52
	♂ ♀	13 20	30	♂ ♀	1 38	7	♂ ♀	12 32		♂ ♀	14 29
	♂ ♀	19 7		♂ ♀	4 42		♂ ♀	4 32		♂ ♀	15 52
20	♂ ♀	2 20		♂ ♀	7 30		♂ ♀	8 26		♂ ♀	16 34
	♂ ♀	7 40		♂ ♀	9 19		♂ ♀	11 30		♂ ♀	22 30
	♂ ♀	15 20		♂ ♀	16 12		♂ ♀	12 40	17	♂ ♀	6 15
	♂ ♀	16 15		♂ ♀	20 4		♂ ♀	13 1		♂ ♀	14 16
	♂ ♀	16 51		♂ ♀	22 16		♂ ♀	15 8		♂ ♀	14 47
	♂ ♀	17 19	31	♂ ♀	1 39	8	♂ ♀	18 10	18	♂ ♀	21 14
	♂ ♀	21 46		♂ ♀	2 3		♂ ♀	0 30		♂ ♀	4 54
21	♂ ♀	1 30		♂ ♀	3 27		♂ ♀	9 32	19	♂ ♀	23 16
	♂ ♀	8 43		♂ ♀			♂ ♀	14 20		♂ ♀	1 18
	♂ ♀	23 47		♂ ♀			♂ ♀	15 15		♂ ♀	2 37
22	♂ ♀	0 59		♂ ♀			♂ ♀	18 46		♂ ♀	4 49
	♂ ♀	3 15		♂ ♀			♂ ♀	19 52		♂ ♀	6 30
	♂ ♀	20 46		♂ ♀			♂ ♀	2 27		♂ ♀	8 53
23	♂ ♀	5 18		♂ ♀			♂ ♀	7 54		♂ ♀	11 20
	♂ ♀	6 11		♂ ♀			♂ ♀	10 32		♂ ♀	18 53
	♂ ♀	9 54		♂ ♀			♂ ♀	15 23	20	♂ ♀	2 58
	♂ ♀	14 19		♂ ♀			♂ ♀	16 18		♂ ♀	8 45
	♂ ♀	14 43		♂ ♀			♂ ♀	19 19		♂ ♀	15 33
	♂ ♀	21 27		♂ ♀			♂ ♀	20 50	21	♂ ♀	10 9
24	♂ ♀	3 13		♂ ♀			♂ ♀	22 28		♂ ♀	14 31
	♂ ♀	18 6		♂ ♀			♂ ♀	5 17		♂ ♀	15 14
	♂ ♀	18 46		♂ ♀			♂ ♀	18 43		♂ ♀	16 9
25	♂ ♀	0 45		♂ ♀			♂ ♀	0 29		♂ ♀	23 2
	♂ ♀	9 9		♂ ♀			♂ ♀	2 40		♂ ♀	1 54
	♂ ♀	16 51		♂ ♀			♂ ♀	5 24		♂ ♀	6 19
	♂ ♀	18 5		♂ ♀			♂ ♀	14 58		♂ ♀	14 9
26	♂ ♀	1 57		♂ ♀			♂ ♀	18 30		♂ ♀	14 21
	♂ ♀	3 5		♂ ♀			♂ ♀	22 20		♂ ♀	21 9
	♂ ♀	6 16		♂ ♀			♂ ♀	23 2		♂ ♀	7 51
	♂ ♀	9 1		♂ ♀			♂ ♀	6 28		♂ ♀	11 20
	♂ ♀	10 21		♂ ♀			♂ ♀	13 50		♂ ♀	17 47
	♂ ♀	21 45		♂ ♀			♂ ♀	19 53		♂ ♀	19 29

April

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.			H. M.			H. M.			H. M.
24	♂ ♀	0 26		♂ ♀	13 53		♂ ♀	21 51		♂ ♀	6 0
	♂ ♀	1 36		♂ ♀	16 26	12	♂ ♀	7 52		♂ ♀	17 59
	♂ ♀	4 50		♂ ♀	21 14		♂ ♀	8 42	23	♂ ♀	20 23
	♂ ♀	8 45		♂ ♀	3 2		♂ ♀	10 33		♂ ♀	1 34
	♂ ♀	15 38		♂ ♀	4 37		♂ ♀	13 47		♂ ♀	2 32
	♂ ♀	16 17		♂ ♀	10 5	13	♂ ♀	15 27		♂ ♀	8 48
	♂ ♀	23 25		♂ ♀	13 51		♂ ♀	17 56		♂ ♀	10 53
25	♂ ♀	10 32		♂ ♀	18 24		♂ ♀	16 37		♂ ♀	21 9
	♂ ♀	12 36		♂ ♀	20 24		♂ ♀	15 3		♂ ♀	1 43
	♂ ♀	21 0		♂ ♀	22 43		♂ ♀	16 37		♂ ♀	2 26
	♂ ♀	23 43		♂ ♀	14 3		♂ ♀	18 21		♂ ♀	6 7
26	♂ ♀	7 47		♂ ♀	13 31		♂ ♀	22 35		♂ ♀	12 23
	♂ ♀	8 30		♂ ♀	20 44		♂ ♀	22 31		♂ ♀	13 34
	♂ ♀	15 14		♂ ♀	21 46		♂ ♀	21 37		♂ ♀	13 54
	♂ ♀	15 40		♂ ♀	3 26		♂ ♀	22 31		♂ ♀	10 5
	♂ ♀	22 6		♂ ♀	7 56		♂ ♀	2 35		♂ ♀	12 53
27	♂ ♀	2 10		♂ ♀	8 4		♂ ♀	8 19		♂ ♀	13 45
	♂ ♀	3 2		♂ ♀	11 1		♂ ♀	11 17		♂ ♀	15 44
	♂ ♀	5 38		♂ ♀	14 4		♂ ♀	15 4		♂ ♀	1 58
28	♂ ♀	10 21		♂ ♀	22 45		♂ ♀	7 2		♂ ♀	6 57
	♂ ♀	13 33		♂ ♀	10 2		♂ ♀	16 40		♂ ♀	10 8
	♂ ♀	16 24		♂ ♀	12 9		♂ ♀	17 0		♂ ♀	15 32
	♂ ♀	12 9		♂ ♀	14 47		♂ ♀	17 0		♂ ♀	16 45
	♂ ♀	12 25		♂ ♀	21 16		♂ ♀	17 38		♂ ♀	17 3
	♂ ♀	19 36		♂ ♀	16 6		♂ ♀	23 57		♂ ♀	0 11
29	♂ ♀	22 2		♂ ♀	15 16		♂ ♀	10 23		♂ ♀	8 31
	♂ ♀	4 41		♂ ♀	2 21		♂ ♀	13 1		♂ ♀	16 18
	♂ ♀	8 57		♂ ♀	3 40		♂ ♀	11 17		♂ ♀	16 51
	♂ ♀	10 10		♂ ♀	6 47		♂ ♀	16 27		♂ ♀	18 14
	♂ ♀	13 20		♂ ♀	14 6		♂ ♀	18 28		♂ ♀	18 46
30	♂ ♀	2 27		♂ ♀	14 31		♂ ♀	18 28		♂ ♀	20 40
	♂ ♀	5 22		♂ ♀	2 57		♂ ♀	10 23		♂ ♀	4 34
	♂ ♀	9 42		♂ ♀	7 4		♂ ♀	13 1		♂ ♀	4 57
	♂ ♀	12 26		♂ ♀	17 21		♂ ♀	5 45		♂ ♀	9 42
	♂ ♀	13 36		♂ ♀	18 51		♂ ♀	10 25		♂ ♀	16 26
	♂ ♀	13 44		♂ ♀	20 18		♂ ♀	11 5		♂ ♀	19 22
	♂ ♀	13 48		♂ ♀	21 26		♂ ♀	21 18		♂ ♀	5 54
	♂ ♀	21 3		♂ ♀	6 28		♂ ♀	21 21		♂ ♀	8 35
	♂ ♀			♂ ♀	12 40		♂ ♀	13 29		♂ ♀	18 32
	♂ ♀			♂ ♀	15 6		♂ ♀	14 28		♂ ♀	18 59
	♂ ♀			♂ ♀	21 51		♂ ♀	15 46		♂ ♀	20 25
	♂ ♀			♂ ♀	0 42		♂ ♀	18 15		♂ ♀	20 49
	♂ ♀			♂ ♀	1 30		♂ ♀	1 42		♂ ♀	2 44
	♂ ♀			♂ ♀	20 12		♂ ♀	1 55		♂ ♀	6 37
	♂ ♀			♂ ♀	22 48		♂ ♀	3 45		♂ ♀	11 12
	♂ ♀			♂ ♀	5 0		♂ ♀	14 15		♂ ♀	20 57
	♂ ♀			♂ ♀	5 49		♂ ♀	14 28		♂ ♀	21 24
	♂ ♀			♂ ♀	6 27		♂ ♀	19 52		♂ ♀	22 45
	♂ ♀			♂ ♀	16 17		♂ ♀	1 27		♂ ♀	16 13
	♂ ♀			♂ ♀			♂ ♀			♂ ♀	19 39
	♂ ♀			♂ ♀			♂ ♀			♂ ♀	21 30

May

Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time
June											
		H. M.			H. M.			H. M.			H. M.
1	♂	0 43		♂	12 35		♂	20 2	30	♂	19 20
	♂	7 59		♂	17 29		♂	20 6		♂	21 49
	♂	8 18		♂	17 33		♂	1 14		♂	3 45
	♂	12 30		♂	6 59		♂	10 1		♂	5 0
	♂	20 24		♂	10 39		♂	17 37		♂	6 8
	♂	22 36		♂	12 34		♂	17 46		♂	11 14
2	♂	2 29		♂	19 5		♂	21 4		♂	20 33
	♂	11 28		♂	6 39		♂	23 36		♂	23 42
	♂	13 32		♂	9 10		♂	7 58		♂	
	♂	21 33		♂	10 37		♂	8 10		♂	
	♂	23 23		♂	23 40		♂	11 34		♂	
	♂	23 58		♂	1 30		♂	16 10		♂	
3	♂	1 16		♂	6 16		♂	19 30		♂	
	♂	5 40		♂	10 8		♂	0 10		♂	
	♂	10 30		♂	15 32		♂	2 46		♂	
	♂	15 7		♂	16 39		♂	13 16		♂	
	♂	15 20		♂	19 49		♂	21 5		♂	
4	♂	1 55		♂	7 30		♂	21 13		♂	
	♂	7 8		♂	12 10		♂	1 55		♂	
	♂	9 38		♂	17 46		♂	5 13		♂	
	♂	12 41		♂	20 59		♂	11 24		♂	
5	♂	1 45		♂	22 6		♂	14 48		♂	
	♂	3 35		♂	23 42		♂	15 15		♂	
	♂	13 32		♂	12 56		♂	3 29		♂	
	♂	14 21		♂	18 17		♂	5 1		♂	
	♂	14 40		♂	0 37		♂	8 30		♂	
	♂	15 46		♂	1 58		♂	9 0		♂	
6	♂	20 33		♂	6 32		♂	12 54		♂	
	♂	2 6		♂	21 44		♂	23 44		♂	
	♂	6 56		♂	23 15		♂	0 11		♂	
	♂	8 15		♂	6 15		♂	12 40		♂	
	♂	19 5		♂	7 2		♂	14 17		♂	
7	♂	20 52		♂	9 42		♂	17 33		♂	
	♂	9 21		♂	10 52		♂	21 40		♂	
	♂	11 7		♂	13 29		♂	0 56		♂	
8	♂	0 37		♂	21 29		♂	6 25		♂	
	♂	5 34		♂	21 32		♂	13 46		♂	
	♂	9 47		♂	5 45		♂	16 22		♂	
	♂	11 44		♂	11 46		♂	0 51		♂	
	♂	14 33		♂	14 28		♂	2 10		♂	
	♂	17 35		♂	0 48		♂	2 56		♂	
9	♂	18 20		♂	11 28		♂	16 27		♂	
	♂	11 16		♂	12 55		♂	17 5		♂	
	♂	12 31		♂	13 23		♂	19 58		♂	
	♂	20 28		♂	23 54		♂	20 15		♂	
	♂	22 8		♂	2 42		♂	21 57		♂	
10	♂	0 28		♂	3 35		♂	4 6		♂	
	♂	2 56		♂	7 22		♂	4 27		♂	
	♂			♂	15 46		♂	9 25		♂	

July

1	♂	4 15		♂	11 36		♂	22 57		♂	22 57
	♂	11 27		♂	13 27		♂	2 17		♂	2 17
	♂	22 54		♂	22 54		♂	9 16		♂	9 16
2	♂	2 17		♂	9 16		♂	9 16		♂	9 16
	♂	10 52		♂	10 52		♂	10 52		♂	10 52
	♂	16 15		♂	16 15		♂	16 15		♂	16 15
3	♂	5 3		♂	5 3		♂	5 3		♂	5 3
	♂	12 17		♂	12 17		♂	12 17		♂	12 17
	♂	15 11		♂	15 11		♂	15 11		♂	15 11
4	♂	12 4		♂	12 4		♂	12 4		♂	12 4
	♂	16 11		♂	16 11		♂	16 11		♂	16 11
	♂	18 24		♂	18 24		♂	18 24		♂	18 24
5	♂	4 35		♂	4 35		♂	4 35		♂	4 35
	♂	10 9		♂	10 9		♂	10 9		♂	10 9
	♂	13 24		♂	13 24		♂	13 24		♂	13 24
6	♂	5 25		♂	5 25		♂	5 25		♂	5 25
	♂	6 22		♂	6 22		♂	6 22		♂	6 22
	♂	12 12		♂	12 12		♂	12 12		♂	12 12
	♂	18 52		♂	18 52		♂	18 52		♂	18 52
7	♂	1 50		♂	1 50		♂	1 50		♂	1 50
	♂	2 22		♂	2 22		♂	2 22		♂	2 22
	♂	5 14		♂	5 14		♂	5 14		♂	5 14
	♂	11 18		♂	11 18		♂	11 18		♂	11 18
8	♂	0 56		♂	0 56		♂	0 56		♂	0 56
	♂	7 39		♂	7 39		♂	7 39		♂	7 39
9	♂	1 10		♂	1 10		♂	1 10		♂	1 10

Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time	Date	Aspect	Time
		H. M.			H. M.			H. M.			H. M.
10	♂	4 6		♂	7 15		♂	7 15		♂	7 15
	♂	5 51		♂	7 50		♂	7 50		♂	7 50
	♂	14 39		♂	11 58		♂	11 58		♂	11 58
	♂	18 3		♂	15 23		♂	15 23		♂	15 23
	♂	18 9		♂	17 37		♂	17 37		♂	17 37
	♂	18 35		♂	3 54		♂	3 54		♂	3 54
	♂	13 16		♂	8 47		♂	8 47		♂	8 47
	♂	13 42		♂	10 22		♂	10 22		♂	10 22
	♂	20 51		♂	14 25		♂	14 25		♂	14 25
	♂	6 24		♂	18 52		♂	18 52		♂	18 52
	♂	6 47		♂	23 51		♂	23 51		♂	23 51
	♂	20 24		♂	5 17		♂	5 17		♂	5 17
	♂	23 30		♂	6 48		♂	6 48		♂	6 48
12	♂	2 37		♂	10 9		♂	10 9		♂	10 9
	♂	6 40		♂	13 25		♂	13 25		♂	13 25
	♂	9 42		♂	15 0		♂	15 0		♂	15 0
	♂	22 13		♂	17 12		♂	17 12		♂	17 12
	♂	1 7		♂	17 58		♂	17 58		♂	17 58
13	♂	4 47		♂	20 7		♂	20 7		♂	20 7
	♂	11 56		♂	10 23		♂	10 23		♂	10 23
	♂	16 15		♂	11 31		♂	11 31		♂	11 31
	♂	17 39		♂	19 21		♂	19 21		♂	19 21
	♂	0 41		♂	2 19		♂	2 19		♂	2 19
	♂	5 41		♂	8 17		♂	8 17		♂	8 17
	♂	11 58		♂	14 2		♂	14 2		♂	14 2
	♂	12 14		♂	19 50		♂	19 50		♂	19 50
	♂	13 53		♂	20 52		♂	20 52		♂	20 52
	♂	16 17		♂	21 59		♂	21 59		♂	21 59
	♂	21 48		♂	22 30		♂	22 30		♂	22 30
	♂	21 50		♂	23 47		♂	23 47		♂	23 47
15	♂	6 46		♂	3 44		♂	3 44		♂	3 44
	♂	8 1		♂	14 45		♂	14 45		♂	14 45
	♂	9 24		♂	2 33		♂	2 33		♂	2 33
	♂	1 8		♂	5 21		♂	5 21		♂	5 21
	♂	9 47		♂	11 56		♂	11 56		♂	11 56
	♂	14 4		♂	20 44		♂	20 44		♂	20 44
	♂	17 54		♂	0 29		♂	0 29		♂	0 29
	♂	22 32		♂	2 31		♂	2 31		♂	2 31
	♂	32 32		♂	3 9		♂	3 9		♂	3 9
17	♂	0 0		♂	3 56		♂	3 56		♂	3 56
	♂	5 42		♂	6 56		♂	6 56		♂	6 56
	♂	12 10		♂	14 7		♂	14 7		♂	14 7
	♂	14 29		♂	18 49		♂	18 49		♂	18 49
	♂	19 54		♂	4 38		♂	4 38		♂	4 38
	♂	3 56		♂	7 13		♂	7 13		♂	7 13
	♂	5 46		♂	9 14		♂	9 14		♂	9 14
	♂	21 26		♂	16 33		♂	16 33		♂	16 33
	♂	23 20		♂	21 15		♂	21 15		♂	21 15
19	♂	2 25		♂			♂			♂	

August

1	♂	♂	6	56	12	♂	♂	10	5
	♂	♂	12	4		♂	♂	10	12
	♂	♂	19	49		♂	♂	17	30
	♂	♂	21	48		♂	♂	18	57
2	♂	♂	3	46	13	♂	♂	21	9
	♂	♂	7	40		♂	♂	4	30
	♂	♂	12	2		♂	♂	13	33
	♂	♂	12	6		♂	♂	14	38
3	♂	♂	16	46	14	♂	♂	20	34
	♂	♂	20	21		♂	♂	1	23
	♂	♂	3	8		♂	♂	2	6
	♂	♂	7	42		♂	♂	6	42
4	♂	♂	14	44	15	♂	♂	13	13
	♂	♂	18	6		♂	♂	14	34
	♂	♂	22	39		♂	♂	22	45
	♂	♂	20	14		♂	♂	0	5
5	♂	♂	7	5		♂	♂	3	3
	♂	♂	9	2		♂	♂	7	55
	♂	♂	17	55		♂	♂	17	37
	♂	♂	22	24		♂	♂	20	31
	♂	♂	5	0		♂	♂	4	38
	♂	♂	5	6		♂	♂	9	4
	♂	♂	13	30		♂	♂	16	25
	♂	♂	15	15		♂	♂	21	50

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.			H. M.			H. M.			H. M.
16	P1	1 13	24	⊙	10 5	2	☿	6 3	12	P1	12 52
	♂	2 24		△	12 29		⊙	11 26		☿	13 38
	♂	8 19		♂	13 34		♂	13 22		♂	14 34
	♂	17 21	25	♂	17 3	3	♂	14 5	13	♂	8 4
	♂	19 32		♂	9 5		P1	23 13		♂	10 58
17	♂	0 1		♂	9 52		♂	5 18		♂	13 58
	♂	0 42		♂	15 25		♂	6 23		♂	16 20
	♂	3 3		♂	15 49		♂	9 27		♂	17 31
	♂	6 0		♂	19 51	4	♂	22 38	14	♂	5 44
	♂	13 51	26	♂	21 17		♂	2 0		♂	8 12
	♂	18 9		♂	11 50	5	♂	15 56		♂	11 15
	♂	20 10		♂	12 6		♂	2 31		♂	13 15
18	P1	1 29		♂	12 19		♂	3 57		♂	14 0
	☿	2 30		♂	19 38		♂	12 52		♂	16 32
	♂	3 29		♂	20 42		P1	18 1	15	♂	19 10
	♂	3 38		♂	21 25		♂	19 2		♂	6 15
	♂	7 23	27	♂	23 43	6	♂	15 53		P1	8 17
	♂	16 11		♂	17 8		♂	17 7		♂	13 19
	♂	20 55	28	♂	18 20		♂	18 50		♂	16 26
19	♂	3 5		♂	4 3	7	♂	0 30		♂	19 16
	P1	3 14		♂	7 49		♂	3 21		♂	20 54
	♂	6 54		♂	17 40		♂	15 18	16	♂	21 24
	♂	7 16	29	P1	21 42		♂	17 24		♂	6 53
	♂	18 46		♂	4 54		♂	19 15		♂	12 2
	♂	20 8		♂	5 54		♂	21 57		P1	13 33
20	P1	4 14	30	♂	11 22		♂	23 55		♂	14 19
	♂	5 20		♂	3 22	8	♂	4 9		♂	16 43
	♂	6 33		♂	3 22		♂	5 5		♂	22 31
	♂	8 15		♂	10 48		♂	20 4		♂	22 55
	♂	9 43		♂	11 22		♂	23 6	17	♂	23 55
21	♂	23 13		♂	14 28	9	♂	1 48		♂	9 3
	♂	7 13	31	♂	20 37		♂	1 55	18	♂	9 24
	♂	9 38		♂	2 21		♂	4 52		♂	1 17
	♂	23 30		♂	9 16		P1	7 40		♂	9 17
22	♂	1 19		♂	9 32		♂	11 16		P1	14 17
	♂	6 46		♂	16 21		♂	23 43		♂	15 18
	P1	7 27		P1	17 2	10	♂	4 0	19	♂	16 5
	♂	8 31		♂	19 59		♂	7 0		♂	6 53
23	♂	18 1	September				♂	7 19		♂	7 23
	♂	1 53					♂	9 34		♂	11 45
	♂	3 11					P1	10 2		♂	16 23
	♂	10 48					♂	11 12		♂	18 12
	♂	13 14					♂	13 42	20	♂	20 32
	♂	13 43	1	♂	3 51	11	♂	6 30		♂	8 58
	♂	23 5		♂	4 13		♂	13 2		♂	14 10
24	♂	4 57		♂	7 50		♂	15 12		♂	14 10
	♂	5 48		♂	15 41	12	♂	4 3		P1	19 39
	♂	8 23		♂	22 40		♂	10 16		♂	20 28
	♂		2	♂	2 52		♂	11 15	21	♂	17 21

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.	October					H. M.			H. M.
			1	☿	7 20	11	♂	6 55	☿	15 38	
21	♂	17 30		♂	14 24		♂	21 11	♂	15 58	
	♂	17 46		♂	0 24	12	♂	0 0	♂	19 58	
	♂	20 50		♂	0 42		♂	1 27	♂	9 34	
	P1	22 56	2	♂	6 55		♂	2 27	♂	20 47	
22	♂	2 36		♂	0 20		♂	7 13	♂	22 15	
	♂	19 52	3	P1	2 22		♂	13 20	♂	9 24	
	♂	22 4		♂	3 33		♂	21 3	♂	15 26	
23	♂	0 16		♂	6 24	13	P1	2 3	P1	19 52	
	P1	2 54		♂	11 13		♂	5 2	♂	21 20	
	♂	3 10		♂	15 44		♂	5 35	♂	19 52	
	♂	3 45	4	♂	2 50		♂	11 41	♂	17 1	
	♂	5 19		♂	9 25		♂	23 23	♂	7 10	
	♂	6 41		♂	12 37	14	P1	2 2	♂	10 7	
24	♂	1 47		♂	12 58		♂	2 24	♂	17 43	
	♂	2 41	5	♂	6 0		♂	5 25	♂	18 31	
	♂	7 53		♂	8 10		♂	5 43	♂	3 18	
	♂	11 25		♂	9 44		♂	17 4	♂	8 28	
	♂	14 47		♂	11 9		♂	20 40	♂	11 40	
25	♂	8 38		P1	13 32	15	♂	5 21	♂	16 31	
	♂	10 12		♂	14 31		♂	5 28	♂	20 38	
	P1	12 44	6	♂	6 45		♂	17 23	♂	2 23	
	♂	13 37		♂	7 38		♂	19 27	♂	2 38	
	♂	13 48		♂	12 38		♂	23 17	♂	6 12	
26	♂	12 37		♂	16 7	16	P1	1 20	P1	9 37	
	♂	19 25		P1	17 45		♂	2 21	♂	7 32	
	♂	20 1		♂	22 8		♂	7 28	♂	8 15	
	♂	22 40	7	♂	19 28		♂	8 26	P1	9 14	
27	♂	1 36		P1	21 2		♂	21 13	♂	14 29	
	♂	12 33		♂	21 58		♂	21 46	♂	21 42	
	♂	18 44	8	♂	0 20		♂	22 34	♂	12 38	
	♂	21 14		♂	1 22		♂	3 5	♂	14 9	
28	P1	0 36		♂	1 59	17	♂	7 6	P1	21 9	
	♂	1 34		♂	17 10		♂	9 56	♂	21 10	
	♂	2 37		♂	18 34		♂	10 26	♂	22 47	
	♂	3 15		♂	21 29		♂	13 24	♂	4 28	
29	♂	1 9	9	♂	3 37	18	♂	2 2	♂	10 46	
	♂	4 0		♂	5 2		♂	4 1	♂	22 18	
	P1	7 7		♂	20 37		P1	5 8	♂	5 28	
	♂	11 25	10	♂	23 16	19	♂	12 16	♂	11 4	
30	♂	21 12		♂	0 44		♂	1 52	P1	1 33	
	♂	10 45		♂	2 18		♂	3 40	♂	8 25	
	♂	12 24		♂	6 3		♂	6 38	♂	11 32	
	P1	13 38		♂	8 19		P1	7 56	♂	15 15	
	♂	14 37		♂	20 57		♂	12 1	♂	0 13	
	♂	16 36		♂	23 6		♂	19 41	♂	7 21	
	♂	18 4	11	♂	2 19	20	♂	6 47	♂	10 31	
	♂	21 42		♂	5 37		P1	10 10	♂	17 20	
				♂	6 5		♂	11 27	♂	23 16	
									♂	23 34	

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
November					H. M.			H. M.			H. M.
1	♂ ♀	1 32	9	♂ ♀	11 11	18	♂ ♀	10 32	29	♂ ♀	3 57
2	♂ ♀	6 19	10	♂ ♀	13 19	19	♂ ♀	14 3	30	♂ ♀	6 7
3	♂ ♀	11 34	11	♂ ♀	16 50	20	♂ ♀	15 22		♂ ♀	16 42
4	♂ ♀	15 55	12	♂ ♀	20 40	21	♂ ♀	16 34		♂ ♀	2 34
5	♂ ♀	20 53	13	♂ ♀	0 43	22	♂ ♀	1 38		♂ ♀	4 49
6	♂ ♀	22 40	14	♂ ♀	13 12	23	♂ ♀	3 41		♂ ♀	7 43
7	♂ ♀	2 8	15	♂ ♀	14 57	24	♂ ♀	9 39		♂ ♀	9 35
8	♂ ♀	7 14	16	♂ ♀	20 38	25	♂ ♀	15 18		♂ ♀	20 5
9	♂ ♀	10 3	17	♂ ♀	4 14	26	♂ ♀	20 16		♂ ♀	20 18
10	♂ ♀	10 29	18	♂ ♀	8 51	27	♂ ♀	3 7		♂ ♀	22 55
11	♂ ♀	15 41	19	♂ ♀	11 16	28	♂ ♀	8 16			
12	♂ ♀	20 47	20	♂ ♀	12 3	29	♂ ♀	8 51			
13	♂ ♀	1 34	21	♂ ♀	20 34	30	♂ ♀	9 49			
14	♂ ♀	9 18	22	♂ ♀	23 11		♂ ♀	11 38			
15	♂ ♀	18 16	23	♂ ♀	12 53		♂ ♀	17 56			
16	♂ ♀	19 9	24	♂ ♀	14 43		♂ ♀	20 44			
17	♂ ♀	5 30	25	♂ ♀	23 27		♂ ♀	11 40			
18	♂ ♀	7 16	26	♂ ♀	4 54		♂ ♀	16 17			
19	♂ ♀	13 8	27	♂ ♀	8 56		♂ ♀	18 25			
20	♂ ♀	16 17	28	♂ ♀	15 6		♂ ♀	21 4			
21	♂ ♀	19 56	29	♂ ♀	15 42		♂ ♀	2 25			
22	♂ ♀	20 23	30	♂ ♀	16 39		♂ ♀	3 49			
23	♂ ♀	4 0		♂ ♀	21 19		♂ ♀	9 46			
24	♂ ♀	9 9		♂ ♀	22 35		♂ ♀	21 47			
25	♂ ♀	16 9		♂ ♀	6 43		♂ ♀	4 17			
26	♂ ♀	23 47		♂ ♀	9 45		♂ ♀	4 39			
27	♂ ♀	23 27		♂ ♀	14 8		♂ ♀	7 11			
28	♂ ♀	6 30		♂ ♀	16 8		♂ ♀	12 38			
29	♂ ♀	10 56		♂ ♀	18 43		♂ ♀	16 31			
30	♂ ♀	12 39		♂ ♀	20 7		♂ ♀	16 3			
31	♂ ♀	1 37		♂ ♀	22 52		♂ ♀	5 12			
32	♂ ♀	2 1		♂ ♀	6 15		♂ ♀	5 23			
33	♂ ♀	8 1		♂ ♀	7 49		♂ ♀	13 37			
34	♂ ♀	13 38		♂ ♀	11 18		♂ ♀	20 42			
35	♂ ♀	19 37		♂ ♀	15 53		♂ ♀	23 0			
36	♂ ♀	19 41		♂ ♀	22 43		♂ ♀	10 42			
37	♂ ♀	1 32		♂ ♀	0 33		♂ ♀	15 46			
38	♂ ♀	3 1		♂ ♀	0 45		♂ ♀	16 36			
39	♂ ♀	5 18		♂ ♀	1 4		♂ ♀	19 33			
40	♂ ♀	6 57		♂ ♀	11 4		♂ ♀	23 53			
41	♂ ♀	8 54		♂ ♀	18 41		♂ ♀	16 50			
42	♂ ♀	13 8		♂ ♀	20 58		♂ ♀	18 5			
43	♂ ♀	14 13		♂ ♀	5 56		♂ ♀	23 35			
44	♂ ♀	14 48		♂ ♀	9 30		♂ ♀	1 7			
45	♂ ♀	1 15		♂ ♀	17 33		♂ ♀	10 22			
46	♂ ♀	3 47		♂ ♀	17 37		♂ ♀	21 58			
47	♂ ♀	7 59		♂ ♀	6 11		♂ ♀	23 42			
48	♂ ♀	9 2		♂ ♀	8 44		♂ ♀	3 10			

December

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.			H. M.			H. H.			H. M.
7	♂ ♀	1 8	13	♂ ♀	2 22	19	♂ ♀	22 43	26	♂ ♀	1 33
8	♂ ♀	3 27	14	♂ ♀	4 23	20	♂ ♀	23 33	27	♂ ♀	7 50
9	♂ ♀	11 15	15	♂ ♀	4 40	21	♂ ♀	0 14	28	♂ ♀	7 53
10	♂ ♀	17 2	16	♂ ♀	16 29	22	♂ ♀	4 50	29	♂ ♀	9 37
11	♂ ♀	23 36	17	♂ ♀	18 6	23	♂ ♀	10 15	30	♂ ♀	13 38
12	♂ ♀	2 10	18	♂ ♀	19 16	31	♂ ♀	15 48		♂ ♀	21 26
13	♂ ♀	2 38	19	♂ ♀	4 23		♂ ♀	23 24		♂ ♀	7 24
14	♂ ♀	4 1	20	♂ ♀	8 2		♂ ♀	11 22		♂ ♀	8 15
15	♂ ♀	11 57	21	♂ ♀	8 54		♂ ♀	16 1		♂ ♀	17 18
16	♂ ♀	18 52	22	♂ ♀	18 47		♂ ♀	21 33		♂ ♀	21 45
17	♂ ♀	19 22	23	♂ ♀	19 19		♂ ♀	22 49		♂ ♀	21 53
18	♂ ♀	21 8	24	♂ ♀	0 48		♂ ♀	6 12		♂ ♀	7 5
19	♂ ♀	0 28	25	♂ ♀	2 6		♂ ♀	9 7		♂ ♀	11 4
20	♂ ♀	0 42	26	♂ ♀	3 0		♂ ♀	11 34		♂ ♀	12 52
21	♂ ♀	6 34	27	♂ ♀	10 24		♂ ♀	12 34		♂ ♀	14 43
22	♂ ♀	12 21	28	♂ ♀	14 25		♂ ♀	0 6		♂ ♀	20 35
23	♂ ♀	0 40	29	♂ ♀	23 13		♂ ♀	7 18		♂ ♀	2 34
24	♂ ♀	3 15	30	♂ ♀	7 39		♂ ♀	12 38		♂ ♀	3 4
25	♂ ♀	19 47	31	♂ ♀	11 26		♂ ♀	17 56		♂ ♀	4 44
26	♂ ♀	20 54		♂ ♀	15 33		♂ ♀	23 35		♂ ♀	14 55
27	♂ ♀	21 9		♂ ♀	23 40		♂ ♀	4 16		♂ ♀	2 5
28	♂ ♀	22 57		♂ ♀	10 43		♂ ♀	12 47		♂ ♀	3 7
29	♂ ♀	1 40		♂ ♀	11 31		♂ ♀	16 21		♂ ♀	7 57
30	♂ ♀	3 39		♂ ♀	20 48		♂ ♀	22 51		♂ ♀	19 53
31	♂ ♀	11 42		♂ ♀	20 52		♂ ♀	0 13		♂ ♀	22 40
32	♂ ♀	13 27		♂ ♀	5 26		♂ ♀	9 36		♂ ♀	40
33	♂ ♀	20 22		♂ ♀	10 0		♂ ♀	17 5			
34	♂ ♀	21 34		♂ ♀	16 27		♂ ♀	23 36			
35	♂ ♀	1 9		♂ ♀	17 16		♂ ♀	3 39			
36	♂ ♀	2 44		♂ ♀	22 28		♂ ♀	5 12			
37	♂ ♀	4 31		♂ ♀	1 20		♂ ♀	9 23			
38	♂ ♀	8 23		♂ ♀	2 55		♂ ♀	9 37			
39	♂ ♀	21 27		♂ ♀	3 18		♂ ♀	14 15			
40	♂ ♀	22 32		♂ ♀	9 24		♂ ♀	17 3			

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
January											
2	L	M. 16 14	17	D	H 13 9	31	D	H. 11 26	2	D	H. 11 26
4	P	5 5	18	⊙	Ψ 17 51		Ψ	8 40	5	⊙	Ψ 12 0
5	⊙	3 0	19	⊙	Ψ 12 0		Ψ	15 25	6	⊙	Ψ 12 0
7	⊙	21 23	21	⊙	Ψ 12 0	April			8	⊙	Ψ 10 35
8	⊙	13 12	23	⊙	Ψ 11 17				10	⊙	Ψ 16 10
12	⊙	4 15	24	⊙	Ψ 16 17				11	⊙	Ψ 9 40
13	⊙	22 16	27	⊙	Ψ 12 0	2	⊙	0 45	13	⊙	Ψ 21 53
15	⊙	0 0	28	⊙	Ψ 16 0	3	⊙	10 0	14	⊙	Ψ 7 14
18	⊙	38 38				4	⊙	43 13	15	⊙	Ψ 5 11
21	⊙	12 42				5	⊙	5 45	16	⊙	Ψ 15 36
23	⊙	9 20	March			6	⊙	8 28	17	⊙	Ψ 18 6
27	⊙	16 15	1	⊙	1 43	7	⊙	9 15	18	⊙	Ψ 1 43
30	⊙	18 12	3	⊙	10 49	9	⊙	12 0	19	⊙	Ψ 12 8
		10 45	4	⊙	0 17	11	⊙	16 0	20	⊙	Ψ 11 3
		23 23	5	⊙	1 17	12	⊙	9 7	21	⊙	Ψ 12 0
		0 56	6	⊙	1 17	13	⊙	13 11	22	⊙	Ψ 16 12
		12 19	7	⊙	5 5			21 21	23	⊙	Ψ 20 56
		34 36	8	⊙	12 0			22 9	24	⊙	Ψ 5 25
		1 8	9	⊙	14 24			22 49	25	⊙	Ψ 4 7
			10	⊙	15 43	17	⊙	5 37	26	⊙	Ψ 4 5
			11	⊙	17 23	18	⊙	17 47	27	⊙	Ψ 13 32
			12	⊙	22 46	19	⊙	3 36	28	⊙	Ψ 16 44
			13	⊙	14 16			6 6	29	⊙	Ψ 2 4
			14	⊙	5 9			7 30	30	⊙	Ψ 7 57
			15	⊙	2 0			10 24			Ψ 18 48
			16	⊙	12 19	20	⊙	0 18			Ψ 12 0
			17	⊙	5 45	23	⊙	11 36			Ψ 12 42
			18	⊙	7 42	24	⊙	21 36	June		
			19	⊙	11 29	25	⊙	1 25			
			20	⊙	21 50	26	⊙	2 54			
			21	⊙	4 17	27	⊙	2 1			
			22	⊙	5 43	28	⊙	21 19			
			23	⊙	8 29	29	⊙	0 54			
			24	⊙	13 23			5 28			
			25	⊙	16 49			12 17			
			26	⊙	0 32	May					
			27	⊙	22 40						
			28	⊙	3 44						
			29	⊙	20 0						
			30	⊙	15 0	1	⊙	16 7			
					2	⊙	11 52				
					3	⊙	18 16				

[illegible]

Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.	Date.	Aspect	Time.
		H. M.			H. M.	December					H. M.
6	2	15 36	17	⊙	4 22				11	⊙	4 37
8	⊙	12 0		⊙	15 19				12	⊙	2 24
10	⊙	11 42	21	⊙	7 38				13	⊙	2 2
11	⊙	8 56	28	⊙	12 0				14	⊙	6 3
	⊙	11 31	24	⊙	3 55				21	⊙	23 16
12	⊙	3 23	25	⊙	19 8	2	⊙	8 9	23	⊙	13 53
	⊙	6 48	26	⊙	3 16		⊙	18 24	24	⊙	12 07
	⊙	23 19		⊙	3 27	7	⊙	27 0	25	⊙	0 51
14	⊙	6 40	28	⊙	2 52		⊙	12 0	26	⊙	1 2
	⊙	20 47		⊙	17 49	8	⊙	0 15	27	⊙	7 42
15	⊙	18 31	30	⊙	13 2		⊙	48 27	28	⊙	4 44
16	⊙	8 48		⊙		9	⊙	11 6	29	⊙	17 52
							⊙	11 52	30	⊙	13 7
						10	⊙	15 6		⊙	1 9

Mercury.

Perihelion

Aphelion

21- 3-58

5- 2-58

17- 6-58

4- 5-58

14- 9-58

2- 8-58

10-12-58

28-10-58

Vernus.

30- 1-58

22- 5-58

12- 9-58

Mars.

10- 7-58

[illegible]

Table of Ascendants for Latitudes 7° to 20°.—(contd.)

56

Sid. Time.	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
H. M.	°	°	°	°	°	°	°	°	°	°	°	°	°	°
6	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180
15	183 53 183	51 183	49 183	48 183	46 183	45 183	45 183	41 183	40 183	38 183	37 183	36 183	33 183	32 183
30	187 45 187	41 187	39 187	36 187	32 187	29 187	25 187	23 187	20 187	16 187	13 187	9 187	6 187	3 187
45	191 36 191	32 191	27 191	22 191	17 191	13 191	8 191	3 190	58 190	35 190	43 190	44 190	40 190	35 190
7	0 195 27 195	22 195	15 195	9 195	2 194	56 194	49 194	43 194	37 194	30 194	24 194	18 194	11 194	5 194
15	199 19 199	10 199	2 198	52 198	46 198	37 198	25 198	18 198	14 198	6 198	0 197	51 197	44 197	32 197
30	203 7 202	57 202	48 202	38 202	28 202	19 202	9 202	0 201	51 201	41 201	32 201	23 201	14 201	5 201
45	206 55 206	43 206	31 206	20 206	10 205	59 205	49 205	38 205	27 205	17 205	5 204	55 204	45 204	34 204
8	0 210 40 210	27 210	15 210	1 210	50 209	38 209	25 209	13 209	1 208	49 208	37 208	25 208	14 208	2 208
15	214 24 214	10 213	56 213	41 213	29 213	15 213	1 212	48 212	33 212	21 212	8 211	55 211	41 211	28 211
30	218 4 217	50 217	35 217	20 217	5 216	50 216	35 216	21 216	6 215	52 215	37 215	23 215	8 214	54 214
45	221 46 221	30 221	13 220	56 220	41 220	25 220	9 219	54 219	38 219	22 219	6 218	50 218	35 218	19 218
9	0 225 22 225	6 224	49 224	31 224	15 223	58 223	41 223	24 223	7 222	50 222	34 222	17 222	0 221	43 221
15	229 0 228	42 228	23 228	4 227	47 227	29 227	11 226	53 226	35 226	17 225	59 225	40 225	22 225	4 225
30	232 34 232	15 231	56 231	36 231	18 230	59 230	56 230	21 230	2 229	43 229	23 229	4 228	45 228	26 228
45	236 6 235	46 235	26 235	5 234	46 234	56 234	7 233	47 233	27 233	7 232	47 232	27 232	7 231	47 231
10	0 239 37 239	17 238	56 238	35 238	15 237	53 237	33 237	13 236	51 236	31 236	10 235	49 235	29 235	7 235
15	243 7 242	46 242	24 242	2 241	41 241	20 240	58 240	37 240	15 239	54 239	33 239	11 238	49 238	28 238
30	246 36 246	13 245	51 245	29 245	7 244	45 244	23 244	1 243	39 243	17 242	54 242	32 242	9 241	46 241
45	250 2 249	40 249	18 248	55 248	32 248	9 247	47 247	25 247	1 246	39 246	17 245	52 245	29 245	6 245
11	0 253 29 253	7 252	44 252	20 251	57 251	34 251	11 250	47 250	24 250	0 249	37 249	13 248	49 248	24 248
15	256 56 256	32 256	8 255	45 255	21 254	57 254	33 254	10 253	45 253	22 252	57 252	33 252	8 251	43 251
30	260 21 259	57 259	34 259	10 258	24 258	22 257	58 257	35 257	9 256	45 256	20 255	55 255	29 255	3 255
45	263 47 263	23 262	59 262	35 262	10 261	46 261	21 260	57 260	32 260	7 259	42 259	16 258	50 258	24 258
12	0 267 13 266	48 266	23 266	0 265	35 265	10 264	45 264	20 263	55 263	30 263	4 262	38 262	13 261	46 261

Table of Ascendants for Latitudes 7° to 20°.—(contd.)

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Sid. Time.	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
H. M.	°	°	°	°	°	°	°	°	°	°	°	°	°	°
12	0 267 13 266	48 266	23 266	0 265	35 265	10 264	45 264	20 263	55 263	30 263	4 262	38 262	13 261	46 261
15	270 38 270	14 269	49 269	25 269	0 268	35 268	10 267	44 267	19 266	53 266	27 266	1 265	34 265	8 265
30	274 4 273	41 273	17 272	51 272	27 272	2 271	36 271	11 270	47 270	21 269	55 269	27 269	0 268	34 268
45	277 34 277	9 276	44 276	20 275	55 275	30 275	3 274	39 274	13 273	47 273	21 272	54 272	27 271	59 271
13	0 281 3 280	38 280	14 279	50 279	25 279	0 278	35 278	9 277	43 277	17 276	51 276	24 275	57 275	29 275
15	284 34 284	10 283	45 283	21 282	56 282	31 282	6 281	41 281	15 280	48 280	22 279	55 279	28 279	0 279
30	288 8 287	44 287	19 286	55 286	30 286	6 285	41 285	15 284	50 284	24 283	58 283	30 283	3 282	36 282
45	291 41 291	19 290	55 290	32 290	7 289	43 289	18 288	53 288	27 288	0 287	35 287	8 286	41 286	15 286
14	0 295 19 294	56 294	33 294	11 293	46 293	22 292	58 292	34 292	8 291	42 291	17 290	50 290	23 289	56 289
15	299 0 298	38 298	15 297	52 297	28 297	5 296	41 296	16 295	52 295	27 295	50 295	25 294	9 293	41 293
30	302 43 302	21 301	59 301	27 301	14 300	51 300	28 300	4 299	40 299	15 298	43 298	50 298	25 297	59 297
45	306 29 306	8 305	46 305	27 305	3 304	41 304	18 303	55 303	32 303	5 302	40 302	19 301	54 301	32 301
15	310 17 309	59 309	38 309	17 308	56 308	35 308	13 307	51 307	28 307	5 306	41 306	17 305	52 305	27 305
30	314 11 313	52 313	32 313	12 312	52 312	32 312	12 311	51 311	30 311	6 310	45 310	22 309	58 309	34 309
45	318 7 317	50 317	32 317	12 316	55 316	34 316	15 315	55 315	35 315	14 314	53 314	31 314	9 313	46 313
16	0 322 6 321	50 321	32 321	18 320	58 320	41 320	23 320	3 319	45 319	25 319	5 318	45 318	24 318	3 318
15	326 11 325	55 325	39 325	24 325	7 324	51 324	34 324	17 324	0 323	42 323	23 323	5 322	45 322	25 322
30	330 14 330	1 329	48 329	33 329	20 329	5 328	49 328	34 328	18 328	2 327	46 327	29 327	10 326	52 326
45	334 25 334	11 334	48 334	33 334	20 333	5 332	49 332	34 332	18 332	2 331	46 331	29 331	10 330	52 330
17	0 338 37 338	25 338	15 338	5 337	54 337	42 337	31 337	19 337	8 336	56 336	43 336	30 336	17 336	2 336
15	342 37 342	41 342	33 342	25 342	15 342	6 341	58 341	48 341	38 341	28 341	17 341	7 340	56 340	45 340
30	346 5 346	58 346	52 346	47 346	39 346	33 346	25 346	18 346	11 346	3 345	56 345	47 345	39 345	31 345
45	351 22 351	18 351	15 351	11 351	6 351	1 350	56 350	51 350	46 350	41 350	36 350	30 350	23 350	20 350
18	0 355 42 355	40 355	38 355	34 355	33 355	31 355	29 355	26 355	23 355	20 355	17 355	15 355	13 355	9 355

Sid. Time.	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
H. M.														
18 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 15	4	19	4	26	4	27	4	34	9	4	4	4	4	4
30 30	8	37	8	49	8	54	9	9	14	9	9	9	9	9
45 15	12	56	13	13	13	13	13	13	13	13	14	14	14	14
19 0	17	14	17	17	17	17	17	17	17	17	18	18	18	18
15 15	21	27	21	21	21	21	21	21	21	21	22	22	22	22
30 30	25	35	25	25	25	25	25	25	25	25	26	26	26	26
45 15	29	46	29	29	29	29	29	29	29	29	30	30	30	30
20 0	33	51	34	34	34	34	34	34	34	34	35	35	35	35
15 15	37	54	38	10	38	2	39	39	40	35	36	36	36	36
30 30	41	53	42	28	42	28	42	42	43	40	41	41	41	41
45 15	45	57	46	28	46	28	46	46	47	44	45	45	45	45
21 0	49	42	50	2	50	2	50	50	51	47	48	48	48	48
15 15	53	30	53	14	54	33	54	57	55	53	53	53	53	53
30 30	57	17	57	23	58	46	59	9	59	56	56	56	56	56
45 15	61	61	61	8	62	62	62	62	62	62	63	63	63	63
22 0	64	41	65	4	65	4	65	65	65	65	66	66	66	66
15 15	68	19	68	5	69	5	69	69	69	69	70	70	70	70
30 30	71	53	72	7	73	5	73	73	73	73	74	74	74	74
45 15	75	27	75	10	76	8	76	76	76	76	77	77	77	77
23 0	78	58	79	17	79	15	79	79	79	79	80	80	80	80
15 15	82	28	82	18	83	16	83	83	83	83	84	84	84	84
30 30	85	45	86	21	86	19	86	86	86	86	87	87	87	87
45 15	89	21	89	24	89	21	89	89	89	89	90	90	90	90
24 0	92	48	93	27	94	25	94	94	94	94	95	95	95	95

Sid. Time.	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
H. M.	°	'	°	'	°	'	°	'	°	'	°	'	°	'
0	0 98	41 99	8 99	35 100	3 100	31 100	59 101	27 101	56 102	34 102	57 103	26 103	57 104	29 105
	15 102	2 102	28 102	55 103	22 103	49 104	17 104	45 105	18 105	43 106	12 106	41 107	11 107	42 108
	30 105	22 105	48 106	14 106	40 107	7 107	33 108	2 108	29 108	58 109	26 109	54 110	24 110	53 111
	45 108	42 109	7 109	32 109	57 110	23 110	49 111	16 111	43 112	11 112	38 113	6 113	34 114	2 114
1	0 112	0 112	24 112	49 113	14 113	39 114	5 114	31 114	56 115	22 115	49 116	16 116	43 117	10 117
	15 115	18 115	42 116	16 116	30 116	54 117	19 117	44 118	9 118	34 119	0 119	25 119	50 120	18 120
	30 118	39 119	0 119	23 119	46 120	10 120	33 120	57 121	21 121	46 122	11 122	35 123	0 123	25 123
	45 121	54 122	17 122	38 123	2 123	24 123	47 124	9 124	32 124	56 125	21 125	44 126	8 126	32 126
	0 125	14 125	35 125	57 126	18 126	39 127	1 127	23 127	45 128	8 128	31 128	54 129	17 129	37 130
2	15 128	31 128	53 129	14 129	34 129	54 130	15 130	36 130	57 131	19 131	40 132	2 132	24 133	45 133
	30 131	54 132	13 132	35 132	51 133	10 133	30 133	50 134	9 134	29 134	50 135	11 135	30 135	51 136
	45 135	15 135	32 135	50 136	7 136	26 136	44 137	3 137	22 137	41 138	1 138	18 138	37 138	57 139
	0 138	34 138	52 139	9 139	26 139	43 140	0 140	17 140	34 140	51 141	11 141	28 141	45 142	3 142
3	15 141	57 142	13 142	29 142	45 143	1 143	17 143	33 143	49 144	5 144	23 144	39 144	55 145	12 145
	30 145	20 145	35 145	50 146	5 146	19 146	33 146	48 147	3 147	18 147	33 147	49 148	4 148	19 148
	45 148	45 148	59 149	12 149	26 149	38 149	51 150	5 150	19 150	33 150	46 150	59 151	13 151	28 151
	0 152	10 152	22 152	32 152	46 152	58 153	10 153	22 153	35 153	47 153	59 154	11 154	24 154	36 154
4	15 155	36 155	47 155	58 156	8 156	19 156	30 156	40 156	51 157	2 157	13 157	23 157	34 157	45 157
	30 159	4 159	13 159	22 159	31 159	40 159	50 159	59 160	8 160	18 160	27 160	36 160	46 160	55 160
	45 162	35 162	44 162	50 162	26 163	3 163	10 163	18 163	25 163	33 163	41 163	49 163	57 164	6 164
5	0 166	2 166	8 166	14 166	20 166	26 166	32 166	38 166	44 166	50 166	57 167	3 167	9 167	16 167
	15 169	30 169	35 169	40 169	44 169	48 169	53 169	58 170	2 170	7 170	13 170	17 170	22 170	26 170
	30 173	0 173	3 173	6 173	9 173	12 173	15 173	19 173	21 173	24 173	28 173	31 173	34 173	37 173
	45 176	29 176	32 176	33 176	34 176	36 176	38 176	40 176	41 176	43 176	44 176	45 176	47 176	50 176
6	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180

Table of Ascendants for Latitudes 21° to 34°.—(cont'd.)

Sid. Time.	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
M.	°	°	°	°	°	°	°	°	°	°	°	°	°	°
6	0 180	0 180	0 180	0 180	0 180	0 180	0 180	0 180	6 180	0 180	0 180	0 180	0 180	0 180
15	183	31 183	27 183	26 183	24 183	22 183	20 183	19 183	17 183	17 183	16 183	15 183	13 183	10 183
30	187	0 186	57 186	51 186	46 186	45 186	41 186	39 186	36 186	36 186	32 186	29 186	26 186	23 186
45	190	30 190	25 190	20 190	16 189	12 190	7 190	2 189	58 189	53 189	47 189	43 189	38 189	34 189
7	0 193	58 193	52 193	46 193	40 193	34 193	28 193	22 193	16 193	10 193	3 192	57 192	51 192	44 192
15	197	29 197	20 197	14 197	1 196	57 196	50 196	42 196	35 196	27 196	19 196	11 196	3 195	54 195
30	200	56 200	47 200	38 200	29 200	20 200	10 200	1 199	52 199	42 199	33 199	24 199	14 199	5 198
45	204	24 204	13 204	2 203	52 203	41 203	3 203	9 202	58 202	47 202	37 202	26 202	15 202	5 201
8	0 207	50 207	38 207	27 207	14 207	2 206	50 206	38 2 2	25 206	13 206	1 205	49 205	36 205	24 205
15	211	15 211	1 210	48 210	34 210	22 210	9 209	55 209	41 209	27 209	14 209	1 208	47 208	32 208
30	214	40 214	25 214	10 213	55 213	42 213	27 213	12 212	57 212	42 212	27 212	11 211	56 211	41 211
45	218	3 217	47 217	31 217	15 216	59 216	43 216	11 215	55 215	37 215	21 215	5 214	48 214	33 214
9	0 221	26 221	8 220	51 220	34 220	17 220	0 219	43 219	26 219	9 218	49 218	32 218	15 217	57 217
15	224	46 224	28 224	10 223	53 223	37 223	16 222	57 222	38 222	19 221	53 221	42 221	23 221	3 220
30	228	4 227	47 227	28 227	9 226	50 226	30 226	10 225	51 225	31 225	10 224	50 224	30 224	9 223
45	231	29 231	7 230	46 230	26 230	6 229	45 229	3 228	41 228	20 227	58 227	37 227	15 226	5 225
10	0 234	46 234	25 234	3 233	42 233	21 232	59 232	37 232	15 231	52 231	29 231	6 230	45 230	23 229
15	238	6 237	43 237	21 236	58 236	36 236	13 235	51 235	28 235	4 234	39 234	16 233	53 233	28 233
30	241	22 241	0 240	37 240	14 239	50 239	27 239	3 238	39 238	14 237	49 237	25 237	0 236	35 236
45	244	42 244	18 243	54 243	30 243	6 242	41 242	16 241	51 241	26 241	0 240	35 240	42 239	15 238
11	0 248	0 247	36 247	11 246	46 246	21 245	55 245	29 245	4 244	38 244	11 243	44 243	17 242	50 242
15	251	18 250	53 250	28 250	3 249	37 249	11 248	44 248	17 247	49 247	22 246	54 246	26 245	58 245
30	254	38 254	12 253	46 253	20 252	53 252	26 251	58 251	31 251	2 250	34 250	4 249	36 249	7 248
45	257	58 257	32 257	5 256	38 256	11 255	43 255	15 254	46 254	17 253	48 253	19 252	49 252	18 251
12	0 261	19 260	52 260	25 259	57 259	29 259	1 258	31 258	4 257	34 257	3 256	34 256	3 255	31 254

Sid. Time.	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
H. M.	°	°	°	°	°	°	°	°	°	°	°	°	°	°
12	0 261	19 260	52 260	25 259	57 259	29 259	0 258	31 258	4 257	34 257	3 256	34 256	3 255	31 254
15	264	41 264	14 263	45 263	18 262	49 262	20 261	51 261	22 260	51 260	19 259	49 259	18 258	45 258
30	268	6 267	38 267	8 266	41 266	12 265	42 265	12 264	42 264	11 263	39 263	8 262	36 262	2 261
45	271	32 271	4 270	35 270	6 269	38 269	7 268	37 268	6 267	34 267	1 266	29 265	56 265	22 264
13	0 275	1 274	33 274	4 273	34 273	6 272	34 272	4 271	33 271	0 270	27 269	54 269	21 268	46 268
15	278	32 278	3 277	35 277	5 276	36 276	4 275	34 275	2 274	29 273	55 273	22 272	48 272	12 271
30	282	7 281	38 281	9 280	39 280	10 279	38 279	8 278	35 278	22 277	28 276	54 276	19 275	43 275
45	285	46 285	17 284	48 284	18 283	49 283	17 282	47 282	13 281	40 281	5 280	32 279	57 279	20 278
14	0 289	28 288	59 288	30 288	0 287	31 286	59 286	29 285	55 285	22 284	48 284	14 283	36 283	1 282
15	293	14 292	46 292	17 291	48 291	18 290	46 290	16 289	43 289	10 288	35 288	1 287	25 286	49 286
30	297	5 296	38 296	9 295	40 295	11 294	11 294	16 293	38 293	5 292	30 291	57 291	20 290	43 290
45	301	2 300	34 300	7 299	38 299	9 298	39 298	10 297	38 297	5 296	31 295	57 295	22 294	45 294
15	305	2 304	36 304	8 303	41 303	13 302	44 302	14 301	42 301	10 300	36 300	3 299	28 298	52 298
15	309	9 308	44 308	18 307	51 307	24 306	55 306	26 305	56 305	24 304	52 304	20 303	46 303	10 302
30	313	22 312	59 312	54 312	8 311	42 311	15 310	47 310	18 309	48 309	17 308	45 308	13 307	38 307
45	317	41 317	18 316	56 316	31 316	6 315	40 315	14 314	47 314	18 313	48 313	19 312	48 312	15 311
16	0 322	5 321	43 321	21 320	59 320	36 320	12 319	48 319	23 318	55 318	27 317	59 317	30 316	59 316
15	326	33 326	15 325	56 325	35 325	14 324	52 324	30 324	6 323	42 323	16 322	51 322	24 321	55 321
30	331	9 330	53 330	35 330	16 329	57 329	38 329	18 328	57 328	35 328	12 327	50 327	25 326	59 326
45	335	49 335	35 335	19 335	3 334	48 334	31 334	14 333	55 333	36 333	17 332	57 332	36 332	13 331
17	0 340	22 340	22 340	9 339	56 339	43 339	30 339	16 339	0 338	44 338	29 338	12 337	58 337	35 337
15	345	22 345	13 345	3 344	54 344	44 344	22 344	11 343	49 343	46 343	38 343	19 343	4 342	51 341
30	350	14 350	7 350	1 349	54 349	47 349	41 349	34 349	25 349	17 349	8 348	59 348	40 348	29 347
45	355	7 355	4 354	59 354	56 354	53 354	49 354	46 354	42 354	38 354	33 354	29 354	24 354	19 354
18	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0

Table of Ascendants for Latitudes 21° to 34°.—(concl'd.)

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Sid. Time.	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
H. M.	°	°	°	°	°	°	°	°	°	°	°	°	°	°
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	4	53	4	56	5	1	5	18	5	22	5	36	5	41
30	9	46	9	53	10	6	10	35	10	43	10	52	11	11
45	14	38	14	47	14	13	15	49	16	1	16	14	16	56
19	0	19	26	19	38	19	51	20	4	20	17	20	30	20
15	24	11	24	25	24	41	24	57	25	12	25	29	44	30
30	28	51	29	7	29	25	29	44	30	3	30	22	30	46
45	33	27	33	45	34	4	34	25	34	46	35	8	35	3
20	0	37	55	38	17	38	39	39	1	39	24	39	48	40
15	42	19	42	42	43	4	43	29	43	54	44	20	44	20
30	46	38	47	1	47	26	47	52	48	18	48	45	49	13
45	50	51	16	51	42	52	9	52	36	53	5	53	34	54
21	0	54	58	55	24	55	52	56	19	56	47	57	17	57
15	58	58	59	26	59	53	60	22	60	51	61	21	61	21
30	62	55	63	22	63	51	64	20	64	48	65	19	65	19
45	66	46	67	14	67	43	68	12	68	42	69	14	69	44
22	0	70	32	71	1	71	30	72	0	72	29	73	1	73
15	74	14	74	43	75	12	75	42	76	11	76	43	77	11
30	77	53	78	22	78	51	79	21	79	50	80	22	80	22
45	81	28	81	57	82	25	82	55	83	24	83	56	84	26
23	0	84	59	85	27	85	56	86	26	86	54	87	26	87
15	88	28	88	56	89	25	89	54	90	22	90	53	91	23
30	91	54	92	22	92	52	93	19	93	48	94	18	94	48
45	95	19	95	46	96	15	96	42	97	11	97	40	98	11
24	0	98	41	99	8	99	35	100	3	100	31	100	59	101

LOGARITHMIC TABLE.

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Hours or Degrees.

Min.	0	1	2	3	4	5	6	7	8	9	10	11	12	Min
0	3.1584	1.3802	1.0792	.9031	.7781	.6812	.6021	.5351	.4771	.4260	.3802	.3388	.3010	0
1	3.1584	1.3730	1.0756	.9007	.7763	.6798	.6009	.5341	.4762	.4252	.3797	.3382	.3004	1
2	2.8573	1.3660	1.0720	.8983	.7745	.6784	.5997	.5330	.4753	.4243	.3788	.3375	.2997	2
3	2.6812	1.3590	1.0685	.8959	.7728	.6769	.5985	.5320	.4744	.4236	.3780	.3368	.2990	3
4	2.5563	1.3522	1.0649	.8935	.7710	.6755	.5973	.5310	.4735	.4228	.3773	.3362	.2984	4
5	2.4594	1.3454	1.0614	.8912	.7692	.6741	.5961	.5300	.4726	.4220	.3766	.3355	.2977	5
6	2.3802	1.3388	1.0580	.8888	.7674	.6726	.5947	.5289	.4717	.4212	.3759	.3349	.2971	6
7	2.3133	1.3323	1.0546	.8865	.7657	.6712	.5937	.5281	.4708	.4204	.3752	.3342	.2964	7
8	2.2553	1.3258	1.0511	.8842	.7639	.6698	.5925	.5271	.4699	.4196	.3745	.3336	.2957	8
9	2.2041	1.3195	1.0478	.8819	.7622	.6684	.5913	.5259	.4690	.4188	.3737	.3329	.2949	9
10	2.1584	1.3133	1.0444	.8796	.7604	.6670	.5902	.5249	.4682	.4180	.3730	.3323	.2944	10
11	2.1170	1.3071	1.0411	.8773	.7587	.6656	.5890	.5239	.4673	.4172	.3723	.3316	.2935	11
12	2.0792	1.3010	1.0378	.8751	.7570	.6642	.5878	.5229	.4664	.4164	.3716	.3310	.2931	12
13	2.0444	1.2950	1.0345	.8728	.7552	.6628	.5866	.5219	.4655	.4156	.3709	.3303	.2927	13
14	2.0122	1.2891	1.0313	.8706	.7535	.6614	.5855	.5209	.4646	.4148	.3702	.3297	.2923	14
15	1.9823	1.2833	1.0280	.8683	.7518	.6600	.5843	.5199	.4638	.4141	.3695	.3291	.2919	15
16	1.9542	1.2775	1.0248	.8661	.7501	.6587	.5832	.5189	.4629	.4133	.3688	.3284	.2915	16
17	1.9279	1.2719	1.0216	.8639	.7484	.6573	.5820	.5179	.4620	.4125	.3681	.3278	.2911	17
18	1.9031	1.2663	1.0185	.8617	.7467	.6559	.5809	.5169	.4611	.4117	.3674	.3271	.2907	18
19	1.8796	1.2607	1.0153	.8595	.7451	.6546	.5797	.5159	.4603	.4109	.3667	.3265	.2903	19
20	1.8573	1.2553	1.0122	.8573	.7434	.6532	.5786	.5149	.4594	.4102	.3660	.3258	.2899	20
21	1.8361	1.2499	1.0091	.8552	.7417	.6519	.5774	.5139	.4585	.4094	.3653	.3252	.2895	21
22	1.8159	1.2445	1.0061	.8530	.7401	.6505	.5761	.5129	.4577	.4086	.3646	.3246	.2891	22
23	1.7966	1.2393	1.0030	.8509	.7384	.6492	.5752	.5110	.4568	.4079	.3639	.3239	.2887	23
24	1.7781	1.2341	1.0000	.8487	.7368	.6478	.5740	.5110	.4559	.4071	.3632	.3233	.2883	24
25	1.7604	1.2289	.9970	.8466	.7351	.6465	.5729	.5100	.4551	.4063	.3625	.3227	.2879	25
26	1.7434	1.2239	.9940	.8445	.7335	.6451	.5718	.5090	.4542	.4055	.3618	.3220	.2875	26
27	1.7270	1.2188	.9910	.8424	.7318	.6438	.5706	.5081	.4534	.4048	.3611	.3214	.2871	27
28	1.7112	1.2139	.9881	.8403	.7302	.6425	.5695	.5071	.4525	.4040	.3604	.3208	.2867	28
29	1.6960	1.2090	.9852	.8382	.7286	.6412	.5684	.5061	.4516	.4032	.3597	.3201	.2863	29

Hours or Degrees.

Min.	0	1	2	3	4	5	6	7	8	9	10	11	Min.
30	1.6812	1.2041	.9823	.8361	.7270	.6398	.5673	.5051	.4508	.4025	.3590	.3195	30
31	1.6670	1.1993	.9794	.8341	.7254	.6385	.5662	.5042	.4499	.4017	.3583	.3189	31
32	1.6532	1.1946	.9765	.8327	.7238	.6372	.5651	.5032	.4491	.4010	.3576	.3176	32
33	1.6398	1.1899	.9722	.8300	.7222	.6359	.5640	.5023	.4482	.4002	.3563	.3170	33
34	1.6269	1.1852	.9708	.8279	.7206	.6346	.5629	.5013	.4474	.3994	.3563	.3170	34
35	1.6143	1.1806	.9680	.8259	.7190	.6333	.5618	.5003	.4466	.3987	.3556	.3164	35
36	1.6021	1.1761	.9652	.8239	.7174	.6320	.5607	.4994	.4457	.3979	.3549	.3157	36
37	1.5902	1.1716	.9625	.8219	.7159	.6307	.5596	.4984	.4449	.3972	.3542	.3151	37
38	1.5786	1.1671	.9597	.8199	.7143	.6294	.5585	.4975	.4440	.3964	.3535	.3145	38
39	1.5673	1.1627	.9570	.8179	.7128	.6282	.5573	.4965	.4432	.3957	.3529	.3139	39
40	1.5563	1.1584	.9542	.8159	.7112	.6269	.5563	.4956	.4424	.3949	.3522	.3133	40
41	1.5456	1.1540	.9515	.8140	.7097	.6256	.5552	.4947	.4415	.3942	.3515	.3126	41
42	1.5351	1.1498	.9488	.8120	.7081	.6243	.5541	.4937	.4407	.3934	.3508	.3120	42
43	1.5249	1.1455	.9462	.8101	.7066	.6231	.5531	.4928	.4399	.3927	.3501	.3114	43
44	1.5149	1.1413	.9435	.8081	.7050	.6218	.5520	.4918	.4390	.3919	.3495	.3108	44
45	1.5051	1.1372	.9409	.8062	.7035	.6205	.5509	.4909	.4382	.3912	.3488	.3102	45
46	1.4956	1.1331	.9383	.8042	.7020	.6193	.5498	.4900	.4374	.3905	.3481	.3096	46
47	1.4863	1.1290	.9356	.8023	.7005	.6180	.5488	.4890	.4365	.3897	.3475	.3089	47
48	1.4771	1.1249	.9330	.8004	.6990	.6168	.5477	.4881	.4357	.3890	.3468	.3083	48
49	1.4682	1.1209	.9305	.7985	.6975	.6155	.5466	.4872	.4349	.3882	.3461	.3077	49
50	1.4594	1.1170	.9279	.7966	.6960	.6143	.5456	.4863	.4341	.3875	.3454	.3071	50
51	1.4508	1.1130	.9254	.7947	.6945	.6131	.5445	.4853	.4333	.3868	.3448	.3065	51
52	1.4424	1.1091	.9228	.7929	.6930	.6118	.5435	.4844	.4324	.3860	.3441	.3059	52
53	1.4341	1.1053	.9203	.7910	.6915	.6101	.5424	.4835	.4316	.3853	.3434	.3053	53
54	1.4260	1.1015	.9178	.7891	.6900	.6094	.5414	.4826	.4308	.3846	.3428	.3047	54
55	1.4180	1.0977	.9153	.7873	.6885	.6081	.5403	.4817	.4300	.3838	.3421	.3041	55
56	1.4102	1.0939	.9128	.7854	.6871	.6069	.5393	.4808	.4292	.3831	.3415	.3034	56
57	1.4025	1.0902	.9104	.7836	.6856	.6057	.5382	.4798	.4284	.3824	.3408	.3028	57
58	1.3949	1.0865	.9079	.7818	.6841	.6045	.5372	.4789	.4276	.3817	.3401	.3022	58
59	1.3875	1.0828	.9055	.7800	.6827	.6033	.5361	.4780	.4268	.3809	.3395	.3016	59

LOGARITHMIC TABLE—(contd.)

Hours or Degrees.

Min.	12	13	14	15	16	17	18	19	20	21	22	23	Min.
0	.3010	.2663	.2341	.2041	.1761	.1498	.1249	.1015	.0792	.0580	.0378	.0185	0
1	.3004	.2657	.2336	.2036	.1756	.1493	.1245	.1011	.0788	.0576	.0375	.0182	1
2	.2998	.2652	.2330	.2032	.1752	.1489	.1241	.1007	.0785	.0573	.0371	.0179	2
3	.2992	.2646	.2325	.2027	.1747	.1485	.1237	.1003	.0781	.0570	.0368	.0175	3
4	.2986	.2640	.2320	.2022	.1743	.1481	.1233	.0999	.0778	.0566	.0363	.0172	4
5	.2980	.2635	.2315	.2017	.1738	.1476	.1229	.0996	.0774	.0563	.0361	.0169	5
6	.2974	.2629	.2310	.2012	.1734	.1472	.1225	.0992	.0770	.0559	.0358	.0166	6
7	.2968	.2624	.2305	.2008	.1729	.1468	.1221	.0988	.0766	.0556	.0355	.0163	7
8	.2962	.2618	.2300	.2003	.1725	.1464	.1217	.0984	.0763	.0552	.0352	.0160	8
9	.2956	.2613	.2295	.1998	.1720	.1459	.1213	.0980	.0759	.0549	.0348	.0157	9
10	.2950	.2607	.2289	.1993	.1716	.1455	.1209	.0977	.0756	.0546	.0345	.0154	10
11	.2944	.2602	.2284	.1988	.1711	.1451	.1205	.0973	.0752	.0542	.0342	.0150	11
12	.2938	.2596	.2279	.1984	.1707	.1447	.1201	.0969	.0749	.0539	.0339	.0147	12
13	.2933	.2591	.2274	.1979	.1702	.1443	.1197	.0965	.0745	.0535	.0335	.0144	13
14	.2927	.2585	.2269	.1974	.1698	.1438	.1193	.0962	.0741	.0532	.0332	.0141	14
15	.2921	.2580	.2264	.1969	.1694	.1434	.1190	.0958	.0738	.0529	.0329	.0138	15
16	.2915	.2574	.2259	.1965	.1689	.1430	.1186	.0954	.0734	.0525	.0326	.0135	16
17	.2909	.2569	.2253	.1960	.1685	.1426	.1182	.0950	.0731	.0522	.0322	.0132	17
18	.2903	.2564	.2249	.1955	.1680	.1422	.1178	.0947	.0727	.0518	.0319	.0129	18
19	.2897	.2558	.2244	.1950	.1676	.1417	.1174	.0943	.0724	.0515	.0316	.0125	19
20	.2891	.2553	.2239	.1946	.1671	.1413	.1170	.0939	.0720	.0512	.0313	.0122	20
21	.2885	.2547	.2234	.1941	.1667	.1409	.1166	.0935	.0716	.0508	.0309	.0119	21
22	.2880	.2542	.2229	.1936	.1662	.1405	.1162	.0932	.0713	.0505	.0306	.0116	22
23	.2874	.2536	.2223	.1932	.1658	.1401	.1158	.0928	.0709	.0501	.0303	.0113	23
24	.2868	.2531	.2218	.1927	.1654	.1397	.1154	.0924	.0706	.0498	.0300	.0110	24
25	.2862	.2526	.2213	.1922	.1649	.1392	.1150	.0920	.0702	.0495	.0296	.0107	25
26	.2856	.2520	.2208	.1917	.1645	.1388	.1146	.0917	.0699	.0491	.0293	.0104	26
27	.2850	.2515	.2203	.1913	.1640	.1384	.1142	.0913	.0695	.0488	.0290	.0101	27
28	.2845	.2509	.2198	.1908	.1636	.1380	.1138	.0909	.0692	.0484	.0287	.0098	28
29	.2839	.2504	.2193	.1903	.1632	.1376	.1134	.0906	.0688	.0481	.0284	.0095	29

Hours or Degrees

Min.	12	13	14	15	16	17	18	19	20	21	22	23	Min.
30	.2833	.2499	.2188	.1899	.1627	.1372	.1130	.0902	.0685	.0478	.0280	.0091	30
31	.2827	.2493	.2183	.1894	.1623	.1368	.1127	.0898	.0681	.0474	.0277	.0088	31
32	.2821	.2488	.2178	.1889	.1618	.1363	.1123	.0894	.0678	.0471	.0274	.0085	32
33	.2816	.2483	.2173	.1885	.1614	.1359	.1119	.0891	.0674	.0468	.0271	.0082	33
34	.2810	.2477	.2168	.1880	.1610	.1355	.1115	.0887	.0670	.0464	.0267	.0079	34
35	.2804	.2472	.2164	.1875	.1605	.1351	.1111	.0883	.0667	.0461	.0264	.0076	35
36	.2798	.2467	.2159	.1871	.1601	.1357	.1107	.0880	.0663	.0458	.0261	.0073	36
37	.2793	.2461	.2154	.1866	.1597	.1343	.1103	.0876	.0660	.0454	.0258	.0070	37
38	.2787	.2456	.2149	.1862	.1592	.1339	.1099	.0872	.0656	.0451	.0255	.0067	38
39	.2781	.2451	.2144	.1857	.1588	.1335	.1095	.0869	.0652	.0448	.0251	.0064	39
40	.2775	.2445	.2139	.1852	.1584	.1331	.1091	.0865	.0649	.0444	.0248	.0061	40
41	.2770	.2440	.2134	.1848	.1579	.1326	.1088	.0861	.0646	.0441	.0245	.0058	41
42	.2764	.2435	.2129	.1843	.1575	.1322	.1084	.0857	.0642	.0438	.0242	.0055	42
43	.2758	.2430	.2124	.1838	.1571	.1318	.1080	.0854	.0639	.0434	.0239	.0052	43
44	.2753	.2424	.2119	.1834	.1566	.1314	.1076	.0850	.0635	.0431	.0236	.0049	44
45	.2747	.2419	.2114	.1829	.1561	.1310	.1072	.0846	.0632	.0428	.0232	.0046	45
46	.2741	.2414	.2109	.1825	.1558	.1306	.1068	.0843	.0628	.0424	.0229	.0042	46
47	.2736	.2409	.2104	.1820	.1553	.1302	.1064	.0839	.0625	.0421	.0226	.0039	47
48	.2730	.2403	.2099	.1816	.1549	.1298	.1061	.0835	.0622	.0418	.0223	.0036	48
49	.2724	.2398	.2095	.1811	.1545	.1294	.1057	.0832	.0618	.0414	.0220	.0033	49
50	.2719	.2393	.2090	.1806	.1540	.1290	.1053	.0828	.0615	.0411	.0216	.0030	50
51	.2713	.2388	.2085	.1802	.1536	.1286	.1049	.0825	.0611	.0408	.0213	.0027	51
52	.2707	.2382	.2080	.1797	.1532	.1282	.1045	.0821	.0608	.0404	.0210	.0024	52
53	.2702	.2377	.2075	.1793	.1528	.1278	.1041	.0817	.0604	.0401	.0207	.0021	53
54	.2696	.2372	.2070	.1788	.1523	.1274	.1038	.0814	.0601	.0398	.0204	.0018	54
55	.2691	.2367	.2065	.1784	.1519	.1270	.1034	.0810	.0597	.0394	.0201	.0015	55
56	.2685	.2362	.2061	.1779	.1515	.1266	.1030	.0806	.0594	.0391	.0197	.0012	56
57	.2679	.2356	.2056	.1774	.1510	.1261	.1026	.0803	.0590	.0388	.0194	.0009	57
58	.2674	.2351	.2051	.1770	.1506	.1257	.1022	.0799	.0587	.0384	.0191	.0006	58
59	.2668	.2346	.2046	.1765	.1502	.1253	.1018	.0795	.0583	.0381	.0188	.0003	59

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