JANUARY 1997

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
					LONGITUDE at NOON							
1 W	18 44 42.4	11♑ 7.3	3♎ 1.7	4♎44.2	12♑26.0	19♐ 4.9	29♍24.3	25♑17.5	1♈21.7	3♒18.1	26♑51.4	4♐25.5
2 T	18 48 39.0	12 8.4	2 58.5	16 56.0	11R 4.6	20 19.9	29 43.9	25 31.4	1 24.9	3 21.5	26 53.6	4 27.5
3 F	18 52 35.5	13 9.6	2 55.3	29 26.8	9 43.8	21 35.0	0♎ 3.1	25 45.3	1 28.1	3 24.8	26 55.8	4 29.5
4 S	18 56 32.1	14 10.8	2 52.2	12♏21.5	8 26.3	22 50.1	0 21.9	25 59.3	1 31.4	3 28.2	26 58.0	4 31.4
5 S	19 0 28.7	15 12.0	2 49.0	25 44.1	7 14.3	24 5.2	0 40.4	26 13.3	1 34.8	3 31.6	27 0.3	4 33.4
6 M	19 4 25.2	16 13.2	2 45.8	9♐36.2	6 9.5	25 20.4	0 58.4	26 27.3	1 38.3	3 35.0	27 2.6	4 35.3
7 T	19 8 21.8	17 14.3	2 42.6	23 56.7	5 13.4	26 35.5	1 16.0	26 41.3	1 41.9	3 38.4	27 4.8	4 37.2
8 W	19 12 18.3	18 15.5	2 39.5	8♑41.1	4 26.7	27 50.6	1 33.1	26 55.3	1 45.6	3 41.8	27 7.1	4 39.0
9 T	19 16 14.9	19 16.7	2 36.3	23 41.8	3 50.0	29 5.7	1 49.8	27 9.4	1 49.3	3 45.2	27 9.3	4 40.9
10 F	19 20 11.4	20 17.9	2 33.1	8♒48.9	3 23.2	0♑20.9	2 6.0	27 23.4	1 53.2	3 48.7	27 11.6	4 42.7
11 S	19 24 8.0	21 19.0	2 29.9	23 52.1	3 6.2	1 36.0	2 21.8	27 37.5	1 57.1	3 52.1	27 13.8	4 44.5
12 S	19 28 4.6	22 20.2	2 26.7	8♓42.7	2 58.6	2 51.1	2 37.1	27 51.6	2 1.2	3 56.6	27 16.1	4 46.3
13 M	19 32 1.1	23 21.3	2 23.6	23 14.4	2D59.8	4 6.3	2 51.9	28 5.6	2 5.3	3 59.1	27 18.4	4 48.0
14 T	19 35 57.7	24 22.5	2 20.4	7♈24.1	3 9.2	5 21.4	3 6.2	28 19.7	2 9.5	4 2.6	27 20.7	4 49.7
15 W	19 39 54.2	25 23.6	2 17.2	21 11.2	3 26.1	6 36.5	3 20.0	28 33.8	2 13.8	4 6.1	27 22.9	4 51.4
16 T	19 43 50.8	26 24.7	2 14.0	4♉37.0	3 49.9	7 51.7	3 33.3	28 48.0	2 18.2	4 9.5	27 25.2	4 53.1
17 F	19 47 47.3	27 25.8	2 10.9	17 44.0	4 20.0	9 6.8	3 46.1	29 2.1	2 22.7	4 13.0	27 27.5	4 54.7
18 S	19 51 43.9	28 26.9	2 7.7	0♊34.9	4 55.8	10 21.9	3 58.3	29 16.2	2 27.2	4 16.5	27 29.8	4 56.3
19 S	19 55 40.4	29 27.9	2 4.5	13 12.2	5 36.7	11 37.1	4 10.0	29 30.3	2 31.9	4 20.1	27 32.0	4 57.9
20 M	19 59 37.0	0♒29.0	2 1.3	25 38.3	6 22.3	12 52.2	4 21.2	29 44.4	2 36.6	4 23.6	27 34.3	4 59.5
21 T	20 3 33.6	1 30.0	1 58.1	7♋54.8	7 12.0	14 7.4	4 31.7	29 58.5	2 41.4	4 27.1	27 36.6	5 1.0
22 W	20 7 30.1	2 31.0	1 55.0	20 3.1	8 5.5	15 22.5	4 41.8	0♒12.7	2 46.2	4 30.6	27 38.9	5 2.5
23 T	20 11 26.7	3 32.1	1 51.8	2♌ 4.3	9 2.3	16 37.6	4 51.2	0 26.8	2 51.2	4 34.1	27 41.1	5 4.0
24 F	20 15 23.2	4 33.1	1 48.6	13 59.5	10 2.3	17 52.8	5 0.0	0 40.9	2 56.2	4 37.6	27 43.4	5 5.4
25 S	20 19 19.8	5 34.0	1 45.4	25 50.3	11 5.1	19 7.9	5 8.2	0 55.0	3 1.3	4 41.2	27 45.7	5 6.9
26 S	20 23 16.3	6 35.1	1 42.3	7♍38.5	12 10.4	20 23.1	5 15.9	1 9.2	3 6.5	4 44.7	27 48.0	5 8.3
27 M	20 27 12.9	7 36.0	1 39.1	19 26.7	13 18.0	21 38.2	5 22.9	1 23.2	3 11.8	4 48.2	27 50.2	5 9.7
28 T	20 31 9.4	8 37.0	1 35.9	1♎18.2	14 27.7	22 53.4	5 29.2	1 37.3	3 17.1	4 51.8	27 52.5	5 11.0
29 W	20 35 6.0	9 37.9	1 32.7	13 17.0	15 39.3	24 8.5	5 34.9	1 51.4	3 22.5	4 55.3	27 54.7	5 12.3
30 T	20 39 2.6	10 38.8	1 29.6	25 27.7	16 52.8	25 23.7	5 39.9	2 5.5	3 28.0	4 58.8	27 56.9	5 13.6
31 F	20 42 59.1	11 39.8	1 26.4	7♏55.1	18 7.8	26 38.8	5 44.2	2 19.5	3 33.5	5 2.3	27 59.2	5 14.8
					DECLINATION at NOON							
1 W	18 44 42.4	22S58.3	1S12.2	1S41.7	20S23.5	22S13.9	2N40.3	21S24.2	1S37.2	19S58.2	20S21.9	8S50.0
4 S	18 56 32.1	22 40.9	1 8.4	12 27.0	20 6.4	22 36.6	2 20.8	21 16.7	1 32.8	19 55.8	20 20.7	8 50.5
7 T	19 8 21.8	22 19.5	1 4.7	18 19.5	20 2.6	22 53.2	2 2.8	21 9.0	1 28.0	19 53.4	20 19.4	8 50.9
10 F	19 20 11.4	21 54.2	1 0.9	14 11.0	20 11.8	23 3.6	1 46.6	21 1.1	1 22.9	19 51.0	20 18.1	8 51.2
13 M	19 32 1.1	21 25.0	0 57.1	2 2.2	20 31.0	23 7.6	1 32.0	20 53.0	1 17.5	19 48.5	20 16.9	8 51.4
16 T	19 43 50.8	20 52.1	0 53.3	10N25.0	20 55.6	23 5.2	1 19.3	20 44.7	1 11.9	19 46.1	20 15.6	8 51.5
19 S	19 55 40.4	20 15.7	0 49.5	17 35.4	21 21.0	22 56.4	1 8.5	20 36.1	1 5.9	19 43.6	20 14.3	8 51.6
22 W	20 7 30.1	19 35.8	0 45.7	17 12.8	21 43.6	22 41.4	0 59.7	20 27.5	0 59.7	19 41.1	20 12.9	8 51.6
25 S	20 19 19.8	18 52.6	0 41.9	10 12.4	22 0.5	22 20.0	0 53.0	20 18.6	0 53.2	19 38.6	20 11.6	8 51.4
28 T	20 31 9.4	18 6.3	0 38.1	0S23.6	22 9.8	21 52.5	0 48.5	20 9.6	0 46.5	19 36.0	20 10.3	8 51.3
31 F	20 42 59.1	17 17.2	0 34.4	11 7.8	22 10.0	21 19.1	0 46.3	20 0.4	0 39.6	19 33.5	20 9.0	8 51.0

FEBRUARY 1997

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
					LONGITUDE at NOON							
1 S	20 46 55.7	12♒40.7	1♎23.2	20♏44.3	19♑24.4	27♑53.9	5♎47.8	2♒33.5	3♈39.1	5♒ 5.8	28♑ 1.4	5♐16.0
2 S	20 50 52.2	13 41.6	1 20.0	3♐59.4	20 42.5	29 9.1	5 50.8	2 47.6	3 44.7	5 9.3	28 3.6	5 17.2
3 M	20 54 48.8	14 42.4	1 16.8	17 43.4	22 1.8	0♒24.2	5 53.0	3 1.6	3 50.5	5 12.8	28 5.8	5 18.3
4 T	20 58 45.3	15 43.3	1 13.7	1♑57.0	23 22.5	1 39.4	5 54.5	3 15.6	3 56.3	5 16.2	28 8.0	5 19.4
5 W	21 2 41.9	16 44.1	1 10.5	16 37.6	24 44.3	2 54.5	5 55.2	3 29.5	4 2.1	5 19.7	28 10.2	5 20.5
6 T	21 6 38.4	17 45.0	1 7.3	1♒39.6	26 7.3	4 9.6	5 55.2	3 43.5	4 8.0	5 23.2	28 12.4	5 21.6
7 F	21 10 35.0	18 45.8	1 4.1	16 54.1	27 31.3	5 24.8	5R54.5	3 57.4	4 14.0	5 26.6	28 14.5	5 22.6
8 S	21 14 31.5	19 46.6	1 1.0	2♓10.4	28 56.4	6 39.9	5 53.0	4 11.3	4 20.1	5 30.1	28 16.7	5 23.6
9 S	21 18 28.1	20 47.3	0 57.8	17 18.0	0♒22.5	7 55.0	5 50.7	4 25.2	4 26.2	5 33.5	28 18.8	5 24.5
10 M	21 22 24.7	21 48.1	0 54.6	2♈ 8.3	1 49.6	9 10.1	5 47.7	4 39.0	4 32.3	5 36.9	28 21.0	5 25.4
11 T	21 26 21.2	22 48.8	0 51.4	16 35.3	3 17.6	10 25.2	5 43.9	4 52.8	4 38.5	5 40.3	28 23.1	5 26.3
12 W	21 30 17.8	23 49.5	0 48.2	0♉36.1	4 46.6	11 40.3	5 39.3	5 6.6	4 44.8	5 43.7	28 25.2	5 27.2
13 T	21 34 14.3	24 50.2	0 45.1	14 10.8	6 16.5	12 55.4	5 34.0	5 20.4	4 51.1	5 47.1	28 27.3	5 28.0
14 F	21 38 10.9	25 50.8	0 41.9	27 21.2	7 47.3	14 10.4	5 27.8	5 34.1	[illegible] 57.5	5 50.5	28 29.3	5 28.8
15 S	21 42 7.4	26 51.4	0 38.7	10♊10.2	9 19.0	15 25.5	5 20.9	5 47.8	[illegible] 3.9	5 53.8	28 31.4	5 29.5
16 S	21 46 4.0	27 52.0	0 35.5	22 41.6	10 51.7	16 40.6	5 13.3	6 1.5	[illegible]	5 57.2	28 33.5	5 30.3
17 M	21 50 0.5	28 52.6	0 32.4	4♋58.7	12 25.2	17 55.7	5 4.8	6 15.1	5 17.[illegible]	6 0.5	28 35.5	5 30.9
18 T	21 53 57.1	29 53.1	0 29.2	17 5.1	13 59.7	19 10.7	4 55.5	6 28.7	5 23.5	6 3.8	28 37.6	5 31.6
19 W	21 57 53.6	0♓53.6	0 26.0	29 3.6	15 35.0	20 25.7	4 45.5	6 42.2	5 30.2	6 7.1	28 39.6	5 32.2
20 T	22 1 50.2	1 54.0	0 22.8	10♌56.9	17 11.3	21 40.7	4 34.7	6 55.7	5 36.8	6 10.4	28 41.5	5 32.8
21 F	22 5 46.7	2 54.5	0 19.6	22 47.1	18 48.5	22 55.7	4 23.1	7 9.1	5 43.5	6 13.6	28 43.5	5 33.3
22 S	22 9 43.3	3 54.9	0 16.5	4♍36.1	20 26.6	24 10.7	4 10.8	7 22.5	5 50.3	6 16.8	28 45.5	5 33.8
23 S	22 13 39.8	4 55.2	0 13.3	16 26.0	22 5.7	25 25.7	3 57.8	7 35.9	5 57.1	6 20.0	28 47.4	5 34.3
24 M	22 17 36.4	5 55.6	0 10.1	28 18.7	23 45.8	26 40.7	3 44.0	7 49.2	6 3.9	6 23.2	28 49.3	5 34.7
25 T	22 21 33.0	6 55.9	0 6.9	10♎16.5	25 26.8	27 55.7	3 29.4	8 2.5	6 10.8	6 26.3	28 51.2	5 35.1
26 W	22 25 29.5	7 56.2	0 3.8	22 22.3	27 8.8	29 10.6	3 14.2	8 15.7	6 17.7	6 29.5	28 53.1	5 35.5
27 T	22 29 26.1	8 56.5	0 0.6	4♏38.9	28 51.9	0♓25.6	2 58.2	8 28.9	6 24.6	6 32.6	28 54.9	5 35.8
28 F	22 33 22.6	9 56.7	29♍57.4	17 10.0	0♓35.9	1 40.5	2 41.6	8 42.0	6 31.6	6 35.7	28 56.8	5 36.1
					DECLINATION at NOON							
1 S	20 46 55.7	17S 0.1	0S33.1	14S 4.0	22S 7.9	21S 6.7	0N46.1	19S57.3	0S37.2	19S32.7	20S 8.6	8S50.9
4 T	20 58 45.3	16 7.3	0 29.3	18 16.3	21 54.7	20 25.6	0 47.1	19 48.0	0 30.0	19 30.1	20 7.3	8 50.5
7 F	21 10 35.0	15 12.0	0 25.5	12 26.2	21 30.6	19 39.1	0 50.7	19 38.5	0 22.5	19 27.6	20 6.0	8 50.1
10 M	21 22 24.7	14 14.3	0 21.7	0N36.3	20 55.2	18 47.5	0 56.8	19 28.9	0 14.9	19 25.2	20 4.7	8 49.5
13 T	21 34 14.3	13 14.5	0 17.9	12 34.2	20 8.3	17 50.9	1 5.4	19 19.2	0 7.1	19 22.7	20 3.4	8 49.0
16 S	21 46 4.0	12 12.8	0 14.1	18 3.8	19 9.7	16 49.8	1 16.5	19 9.5	0N 0.9	19 20.2	20 2.2	8 48.3
19 W	21 57 53.6	11 9.4	0 10.3	15 55.2	17 59.1	15 44.4	1 30.1	18 59.7	0 9.0	19 17.8	20 1.0	8 47.6
22 S	22 9 43.3	10 4.4	0 6.5	7 49.1	16 36.6	14 35.1	1 46.1	18 49.8	0 17.2	19 15.5	19 59.8	8 46.8
25 T	22 21 33.0	8 58.0	0 2.8	3S 5.8	15 2.2	13 22.2	2 4.3	18 39.9	0 25.6	19 13.1	19 58.6	8 46.0
28 F	22 33 22.6	7 50.3	0N 1.0	13 10.1	13 15.7	12 6.0	2 24.5	18 29.9	0 34.0	19 10.9	19 57.5	8 45.1

MARCH 1997

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
					LONGITUDE at NOON							
1 S	22 37 19.2	10♓56.9	29♍54.2	29♏59.1	2♓21.0	2♓55.5	2♎24.3	8♒55.1	6♈38.6	6♒38.7	28♑58.6	5♐36.3
2 S	22 41 15.7	11 57.1	29 51.0	13♐ 9.6	4 7.1	4 10.4	2R 6.4	9 8.1	6 45.7	6 41.8	29 0.4	5 36.6
3 M	22 45 12.3	12 57.3	29 47.9	26 44.2	5 54.3	5 25.3	1 47.9	9 21.1	6 52.7	6 44.8	29 2.1	5 36.8
4 T	22 49 8.8	13 57.5	29 44.7	10♑44.3	7 42.6	6 40.2	1 28.7	9 34.0	6 59.8	6 47.8	29 3.9	5 36.9
5 W	22 53 5.4	14 57.6	29 41.5	25 9.3	9 31.9	7 55.1	1 9.0	9 46.9	7 7.0	6 50.7	29 5.6	5 37.0
6 T	22 57 1.9	15 57.7	29 38.3	9♒56.0	11 22.3	9 10.0	0 48.8	9 59.6	7 14.2	6 53.7	29 7.3	5 37.1
7 F	23 0 58.5	16 57.7	29 35.2	24 58.4	13 13.7	10 24.9	0 28.1	10 12.4	7 21.4	6 56.5	29 9.0	5 37.2
8 S	23 4 55.0	17 57.8	29 32.0	10♓ 8.2	15 6.2	11 39.8	0 6.9	10 25.0	7 28.6	6 59.4	29 10.7	5 37.2
9 S	23 8 51.6	18 57.8	29 28.8	25 16.0	16 59.8	12 54.7	29♍45.3	10 37.7	7 35.9	7 2.3	29 12.3	5 37.2
10 M	23 12 48.1	19 57.8	29 25.6	10♈12.5	18 54.4	14 9.5	29 23.3	10 50.2	7 43.2	7 5.1	29 13.9	5R37.1
11 T	23 16 44.7	20 57.7	29 22.4	24 49.9	20 49.9	15 24.4	29 0.9	11 2.7	7 50.5	7 7.9	29 15.5	5 37.0
12 W	23 20 41.2	21 57.6	29 19.3	9♉ 3.1	22 46.3	16 39.2	28 38.3	11 15.1	7 57.8	7 10.6	29 17.1	5 36.9
13 T	23 24 37.8	22 57.5	29 16.1	22 49.5	24 43.6	17 54.0	28 15.4	11 27.4	8 5.2	7 13.4	29 18.6	5 36.8
14 F	23 28 34.3	23 57.3	29 12.9	6♊ 9.1	26 41.6	19 8.8	27 52.3	11 39.7	8 12.5	7 16.0	29 20.1	5 36.6
15 S	23 32 30.9	24 57.1	29 9.7	19 4.0	28 40.3	20 23.5	27 29.0	11 51.8	8 19.9	7 18.7	29 21.6	5 36.3
16 S	23 36 27.4	25 56.9	29 6.6	1♋37.4	0♈39.5	21 38.3	27 5.5	12 4.0	8 27.3	7 21.3	29 23.1	5 36.1
17 M	23 40 24.0	26 56.6	29 3.4	13 53.5	2 39.0	22 53.0	26 42.0	12 16.0	8 34.7	7 23.9	29 24.5	5 35.8
18 T	23 44 20.5	27 56.3	29 0.2	25 56.5	4 38.7	24 7.7	26 18.5	12 27.9	8 42.2	7 26.4	29 25.9	5 35.4
19 W	23 48 17.1	28 55.9	28 57.0	7♌50.8	6 38.3	25 22.4	25 55.0	12 39.8	8 49.6	7 28.9	29 27.3	5 35.1
20 T	23 52 13.6	29 55.5	28 53.8	19 40.2	8 37.6	26 37.1	25 31.5	12 51.6	8 57.1	7 31.4	29 28.6	5 34.7
21 F	23 56 10.2	0♈55.1	28 50.7	1♍28.3	10 36.3	27 51.8	25 8.1	13 3.3	9 4.5	7 33.8	29 29.9	5 34.3
22 S	0 0 6.8	1 54.6	28 47.5	13 18.2	12 34.1	29 6.4	24 44.9	13 14.9	9 12.0	7 36.2	29 31.2	5 33.8
23 S	0 4 3.3	2 54.1	28 44.3	25 12.5	14 30.5	0♈21.1	24 21.8	13 26.5	9 19.5	7 38.6	29 32.5	5 33.3
24 M	0 7 59.9	3 53.6	28 41.1	7♎13.3	16 25.3	1 35.7	23 59.0	13 37.9	9 27.0	7 40.9	29 33.7	5 32.8
25 T	0 11 56.4	4 53.0	28 37.9	19 22.5	18 18.0	2 50.3	23 36.4	13 49.3	9 34.5	7 43.2	29 34.9	5 32.2
26 W	0 15 53.0	5 52.4	28 34.8	1♏41.8	20 8.3	4 4.9	23 14.1	14 0.6	9 42.0	7 45.4	29 36.1	5 31.6
27 T	0 19 49.5	6 51.8	28 31.6	14 12.8	21 55.6	5 19.4	22 52.2	14 11.8	9 49.5	7 47.6	29 37.3	5 31.0
28 F	0 23 46.1	7 51.1	28 28.4	26 57.0	23 39.6	6 34.0	22 30.6	14 22.8	9 57.0	7 49.8	29 38.4	5 30.4
29 S	0 27 42.6	8 50.4	28 25.2	9♐56.0	25 19.8	7 48.5	22 9.5	14 33.8	10 4.5	7 51.9	29 39.5	5 29.7
30 S	0 31 39.2	9 49.7	28 22.1	23 11.4	26 56.0	9 3.1	21 48.9	14 44.8	10 12.1	7 54.0	29 40.6	5 29.0
31 M	0 35 35.7	10 49.0	28 18.9	6♑44.4	28 27.6	10 17.6	21 28.7	14 55.6	10 19.6	7 56.1	29 41.6	5 28.3
					DECLINATION at NOON							
1 S	22 37 19.2	7S27.6	0N 2.3	15S37.2	12S37.6	11S39.9	2N31.6	18S26.6	0N36.9	19S10.1	19S57.1	8S44.8
4 T	22 49 8.8	6 18.6	0 6.1	17 51.2	10 35.3	10 19.9	2 54.1	18 16.7	0 45.4	19 7.9	19 56.0	8 43.9
7 F	23 0 58.5	5 8.9	0 9.9	10 25.3	8 21.5	8 57.4	3 18.0	18 6.8	0 54.1	19 5.8	19 55.0	8 42.9
10 M	23 12 48.1	3 58.5	0 13.7	3N 4.1	5 56.8	7 32.7	3 42.8	17 56.9	1 2.8	19 3.7	19 54.0	8 41.8
13 T	23 24 37.8	2 47.7	0 17.5	14 19.1	3 22.2	6 6.2	4 8.1	17 47.1	1 11.6	19 1.6	19 53.0	8 40.8
16 S	23 36 27.4	1 36.6	0 21.3	18 8.1	0 39.4	4 38.3	4 33.4	17 37.3	1 20.4	18 59.7	19 52.1	8 39.6
19 W	23 48 17.1	0 25.5	0 25.1	14 19.5	2N 8.8	3 9.2	4 58.2	17 27.7	1 29.3	18 57.8	19 51.2	8 38.5
22 S	0 0 6.8	0N45.6	0 28.8	5 15.3	4 58.2	1 39.4	5 22.1	17 18.2	1 38.1	18 56.0	19 50.4	8 37.3
25 T	0 11 56.4	1 56.4	0 32.6	5S51.1	7 43.3	0 9.0	5 44.7	17 8.7	1 46.9	18 54.3	19 49.6	8 36.2
28 F	0 23 46.1	3 6.9	0 36.4	15 5.6	10 17.8	1N21.5	6 5.5	16 59.5	1 55.8	18 52.7	19 48.9	8 35.0
31 M	0 35 35.7	4 16.8	0 40.2	18 2.3	12 35.3	2 51.9	6 24.2	16 50.4	2 4.6	18 51.2	19 48.2	8 33.8

APRIL 1997

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
					LONGITUDE at NOON							
1 T	0 39 32.3	11♈48.2	28♍15.7	20♑35.7	29♈54.3	11♈32.1	21♍ 9.0	15♒ 6.3	10♈27.2	7♒58.1	29♑42.6	5♐27.5
2 W	0 43 28.8	12 47.4	28 12.5	4♒45.3	1♉15.9	12 46.6	20R49.9	15 16.9	10 34.7	8 0.0	29 43.6	5R26.7
3 T	0 47 25.4	13 46.5	28 9.3	19 11.6	2 32.0	14 1.1	20 31.3	15 27.5	10 42.2	8 2.0	29 44.5	5 25.9
4 F	0 51 21.9	14 45.7	28 6.2	3♓51.3	3 42.3	15 15.6	20 13.4	15 37.9	10 49.7	8 3.8	29 45.4	5 25.0
5 S	0 55 18.5	15 44.7	28 3.0	18 39.7	4 46.8	16 30.0	19 56.1	15 48.2	10 57.2	8 5.7	29 46.3	5 24.1
6 S	0 59 15.0	16 43.8	27 59.8	3♈30.0	5 45.1	17 44.4	19 39.4	15 58.4	11 4.7	8 7.5	29 47.1	5 23.2
7 M	1 3 11.6	17 42.8	27 56.6	18 15.1	6 37.1	18 58.8	19 23.4	16 8.4	11 12.2	8 9.2	29 47.9	5 22.3
8 T	1 7 8.1	18 41.8	27 53.5	2♉47.5	7 22.7	20 13.2	19 8.2	16 18.4	11 19.7	8 10.9	29 48.7	5 21.3
9 W	1 11 4.7	19 40.8	27 50.3	17 1.2	8 1.8	21 27.6	18 53.6	16 28.3	11 27.2	8 12.5	29 49.5	5 20.3
10 T	1 15 1.2	20 39.7	27 47.1	0♊51.8	8 34.3	22 42.0	18 39.8	16 38.0	11 34.7	8 14.1	29 50.2	5 19.3
11 F	1 18 57.8	21 38.6	27 43.9	14 17.4	9 0.2	23 56.3	18 26.8	16 47.7	11 42.1	8 15.7	29 50.9	5 18.2
12 S	1 22 54.3	22 37.5	27 40.7	27 18.0	9 19.5	25 10.6	18 14.5	16 57.2	11 49.6	8 17.2	29 51.5	5 17.1
13 S	1 26 50.9	23 36.3	27 37.6	9♋56.0	9 32.2	26 24.9	18 3.0	17 6.6	11 57.0	8 18.7	29 52.1	5 16.0
14 M	1 30 47.4	24 35.1	27 34.4	22 14.7	9 38.5	27 39.2	17 52.3	17 15.9	12 4.4	8 20.1	29 52.7	5 14.9
15 T	1 34 44.0	25 33.8	27 31.2	4♌18.6	9 38.5	28 53.5	17 42.3	17 25.0	12 11.8	8 21.5	29 53.3	5 13.8
16 W	1 38 40.6	26 32.5	27 28.0	16 12.5	9R32.4	0♉ 7.7	17 33.2	17 34.0	12 19.2	8 22.8	29 53.8	5 12.6
17 T	1 42 37.1	27 31.2	27 24.9	28 1.4	9 20.5	1 21.9	17 24.8	17 42.9	12 26.6	8 24.1	29 54.3	5 11.4
18 F	1 46 33.7	28 29.8	27 21.7	9♍49.9	9 3.2	2 36.1	17 17.2	17 51.7	12 33.9	8 25.3	29 54.7	5 10.2
19 S	1 50 30.2	29 28.4	27 18.5	21 42.3	8 40.8	3 50.3	17 10.4	18 0.4	12 41.2	8 26.5	29 55.1	5 8.9
20 S	1 54 26.8	0♉27.0	27 15.3	3♎42.3	8 14.0	5 4.5	17 4.5	18 9.0	12 48.6	8 27.7	29 55.6	5 7.7
21 M	1 58 23.3	1 25.5	27 12.1	15 52.7	7 43.1	6 18.7	16 59.3	18 17.3	12 55.9	8 28.8	29 55.9	5 6.4
22 T	2 2 19.9	2 24.0	27 9.0	28 15.8	7 8.8	7 32.8	16 54.9	18 25.6	13 3.1	8 29.8	29 56.2	5 5.1
23 W	2 6 16.4	3 22.5	27 5.8	10♏52.7	6 31.9	8 46.9	16 51.2	18 33.7	13 10.4	8 30.8	29 56.5	5 3.8
24 T	2 10 13.0	4 20.9	27 2.6	23 43.8	5 53.0	10 1.0	16 48.4	18 41.7	13 17.6	8 31.8	29 56.8	5 2.5
25 F	2 14 9.5	5 19.3	26 59.4	6♐49.1	5 12.9	11 15.0	16 46.2	18 49.6	13 24.8	8 32.7	29 57.0	5 1.1
26 S	2 18 .1	6 17.7	26 56.2	20 7.8	4 32.3	12 29.1	16 44.9	18 57.3	13 31.9	8 33.5	29 57.2	4 59.7
27 S	2 22 2.6	7 16.0	26 53.1	3♑38.9	3 52.0	13 43.1	16 44.3	19 4.9	13 39.0	8 34.3	29 57.4	4 58.3
28 M	2 25 59.2	8 14.4	26 49.9	17 21.6	3 12.6	14 57.1	16D44.4	19 12.3	13 46.1	8 35.0	29 57.5	4 56.9
29 T	2 29 55.7	9 12.7	26 46.7	1♒14.9	2 34.9	16 11.1	16 45.3	19 19.6	13 53.2	8 35.7	29 57.6	4 55.5
30 W	2 33 52.3	10 10.9	26 43.5	15 17.9	1 59.5	17 25.1	16 47.0	19 26.8	14 0.2	8 36.4	29 57.6	4 54.1
					DECLINATION at NOON							
1 T	0 39 32.3	4N40.0	0N41.5	17S 0.5	13N16.4	3N22.0	6N29.9	16S47.4	2N 7.5	18S50.7	19S48.0	8S33.4
4 F	0 51 21.9	5 49.0	0 45.3	8 1.2	15 3.3	4 51.6	6 45.5	16 38.6	2 16.3	18 49.3	19 47.4	8 32.2
7 M	1 3 11.6	6 57.1	0 49.1	5N31.4	16 23.3	6 20.4	6 58.4	16 30.0	2 25.0	18 48.0	19 46.8	8 30.9
10 T	1 15 1.2	8 4.1	0 52.9	15 46.5	17 14.3	7 47.9	7 8.5	16 21.6	2 33.6	18 46.8	19 46.4	8 29.7
13 S	1 26 50.9	9 9.9	0 56.6	17 56.0	17 35.2	9 13.8	7 15.7	16 13.5	2 42.2	18 45.7	19 45.9	8 28.5
16 W	1 38 40.6	10 14.3	1 0.4	12 36.1	17 25.8	10 37.8	7 20.1	16 5.6	2 50.6	18 44.8	19 45.6	8 27.3
19 S	1 50 30.2	11 17.1	1 4.2	2 42.9	16 47.4	11 59.5	7 21.7	15 58.1	2 59.0	18 43.9	19 45.3	8 26.2
22 T	2 2 19.9	12 18.3	1 8.0	8S26.1	15 44.2	13 18.7	7 20.5	15 50.9	3 7.3	18 43.1	19 45.0	8 25.0
25 F	2 14 9.5	13 17.7	1 11.8	16 41.3	14 23.6	14 35.0	7 16.7	15 44.0	3 15.4	18 42.5	19 44.9	8 23.9
28 M	2 25 59.2	14 15.1	1 15.6	17 27.8	12 55.5	15 48.0	7 10.3	15 37.5	3 23.4	18 42.0	19 44.8	8 22.8

MAY 1997

DAY	EPHEMERIS SIDEREAL TIME	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
	h m s	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
						LONGITUDE at NOON						
1 T	2 37 48.9	11♉ 9.2	26♍40.4	29♒29.6	1♉26.9	18♉39.1	16♍49.3	19♒33.8	14♈ 7.2	8♒37.0	29♑57.7	4♐52.6
2 F	2 41 45.4	12 7.4	26 37.2	13♓48.4	0R57.6	19 53.1	16 52.3	19 40.6	14 14.2	8 37.5	29R57.6	4R51.1
3 S	2 45 42.0	13 5.6	26 34.0	28 11.8	0 32.0	21 7.0	16 56.1	19 47.3	14 21.1	8 38.0	29 57.6	4 49.6
4 S	2 49 38.5	14 3.8	26 30.8	12♈36.6	0 10.4	22 20.9	17 0.6	19 53.9	14 28.0	8 38.5	29 57.5	4 48.1
5 M	2 53 35.1	15 1.9	26 27.7	26 58.1	29♈53.1	23 34.9	17 5.7	20 0.3	14 34.9	8 38.9	29 57.4	4 46.6
6 T	2 57 31.6	16 0.0	26 24.5	11♉11.4	29 40.3	24 48.8	17 11.5	20 6.5	14 41.7	8 39.2	29 57.3	4 45.1
7 W	3 1 28.2	16 58.1	26 21.3	25 11.4	29 32.1	26 2.6	17 18.0	20 12.6	14 48.5	8 39.5	29 57.1	4 43.5
8 T	3 5 24.7	17 56.2	26 18.1	8♊53.6	29 28.6	27 16.5	17 25.2	20 18.5	14 55.3	8 39.8	29 56.9	4 42.0
9 F	3 9 21.3	18 54.2	26 14.9	22 15.1	29D29.7	28 30.4	17 33.0	20 24.2	15 2.0	8 40.0	29 56.7	4 40.4
10 S	3 13 17.8	19 52.2	26 11.8	5♋14.8	29 35.6	29 44.2	17 41.5	20 29.8	15 8.6	8 40.1	29 56.4	4 38.8
11 S	3 17 14.4	20 50.2	26 8.6	17 53.4	29 46.1	0♊58.0	17 50.6	20 35.3	15 15.3	8 40.3	29 56.2	4 37.3
12 M	3 21 11.0	21 48.2	26 5.4	0♌13.3	0♉ 1.2	2 11.8	18 0.3	20 40.6	15 21.9	8 40.3	29 55.8	4 35.7
13 T	3 25 7.5	22 46.1	26 2.2	12 18.2	0 20.7	3 25.6	18 10.6	20 45.7	15 28.4	8 40.3	29 55.5	4 34.1
14 W	3 29 4.1	23 44.0	25 59.1	24 12.7	0 44.6	4 39.4	18 21.5	20 50.6	15 34.9	8 40.3	29 55.1	4 32.5
15 T	3 33 0.6	24 41.8	25 55.9	6♍ 2.0	1 12.7	5 53.1	18 33.0	20 55.4	15 41.3	8R40.2	29 54.6	4 30.9
16 F	3 36 57.2	25 39.7	25 52.7	17 51.4	1 44.9	7 6.8	18 45.0	20 60.0	15 47.7	8 40.0	29 54.2	4 29.2
17 S	3 40 53.7	26 37.5	25 49.5	29 46.1	2 21.2	8 20.5	18 57.6	21 4.4	15 54.0	8 39.8	29 53.7	4 27.6
18 S	3 44 50.3	27 35.2	25 46.3	11♎50.8	3 1.3	9 34.2	19 10.8	21 8.7	16 0.3	8 39.6	29 53.2	4 26.0
19 M	3 48 46.8	28 33.0	25 43.2	24 9.4	3 45.1	10 47.8	19 24.4	21 12.7	16 6.5	8 39.3	29 52.6	4 24.4
20 T	3 52 43.4	29 30.7	25 40.0	6♏44.9	4 32.6	12 1.5	19 38.6	21 16.6	16 12.7	8 39.0	29 52.1	4 22.7
21 W	3 56 39.9	0♊28.4	25 36.8	19 38.8	5 23.5	13 15.1	19 53.4	21 20.4	16 18.8	8 38.6	29 51.5	4 21.1
22 T	4 0 36.5	1 26.1	25 33.6	2♐51.1	6 17.9	14 28.7	20 8.6	21 23.9	16 24.9	8 38.1	29 50.8	4 19.4
23 F	4 4 33.1	2 23.7	25 30.5	16 20.6	7 15.5	15 42.3	20 24.3	21 27.3	16 30.9	8 37.7	29 50.2	4 17.8
24 S	4 8 29.6	3 21.4	25 27.3	0♑ 4.5	8 16.4	16 55.8	20 40.5	21 30.5	16 36.9	8 37.1	29 49.5	4 16.1
25 S	4 12 26.2	4 19.0	25 24.1	13 59.5	9 20.3	18 9.4	20 57.1	21 33.5	16 42.8	8 36.5	29 48.7	4 14.5
26 M	4 16 22.7	5 16.6	25 20.9	28 1.9	10 27.3	19 22.9	21 14.2	21 36.3	16 48.6	8 35.9	29 48.0	4 12.8
27 T	4 20 19.3	6 14.1	25 17.8	12♒ 8.4	11 37.3	20 36.5	21 31.8	21 39.0	16 54.4	8 35.2	29 47.2	4 11.2
28 W	4 24 15.8	7 11.7	25 14.6	26 16.7	12 50.1	21 50.0	21 49.8	21 41.5	17 0.2	8 34.5	29 46.4	4 9.5
29 T	4 28 12.4	8 9.3	25 11.4	10♓24.9	14 5.8	23 3.5	22 8.3	21 43.7	17 5.8	8 33.8	29 45.6	4 7.9
30 F	4 32 9.0	9 6.8	25 8.2	24 31.9	15 24.2	24 16.9	22 27.1	21 45.8	17 11.4	8 32.9	29 44.7	4 6.2
31 S	4 36 5.5	10 4.3	25 5.0	8♈36.7	16 45.5	25 30.4	22 46.4	21 47.7	17 17.0	8 32.1	29 43.8	4 4.6
						DECLINATION at NOON						
1 T	2 37 48.9	15N10.4	1N19.4	9S19.9	11N31.0	16N57.5	7N 1.4	15S31.4	3N31.3	18S41.6	19S44.7	8S21.8
4 S	2 49 38.5	16 3.5	1 23.2	3N46.6	10 19.2	18 3.0	6 50.2	15 25.7	3 39.0	18 41.3	19 44.7	8 20.7
7 W	3 1 28.2	16 54.1	1 26.9	14 51.5	9 26.5	19 4.3	6 36.8	15 20.4	3 46.5	18 41.1	19 44.8	8 19.8
10 S	3 13 17.8	17 42.3	1 30.7	18 16.1	8 55.8	20 1.1	6 21.2	15 15.5	3 53.9	18 41.1	19 44.9	8 18.8
13 T	3 25 7.5	18 27.7	1 34.5	13 38.1	8 47.6	20 53.0	6 3.6	15 11.1	4 1.1	18 41.1	19 45.1	8 18.0
16 F	3 36 57.2	19 10.4	1 38.3	4 2.5	9 0.5	21 39.7	5 44.2	15 7.2	4 8.1	18 41.3	19 45.4	8 17.2
19 M	3 48 46.8	19 50.1	1 42.1	7S12.2	9 32.5	22 21.0	5 22.9	15 3.8	4 14.9	18 41.6	19 45.7	8 16.4
22 T	4 0 36.5	20 26.8	1 45.8	16 11.0	10 21.1	22 56.6	4 60.0	15 0.9	4 21.4	18 42.0	19 46.1	8 15.7
25 S	4 12 26.2	21 0.3	1 49.6	17 55.0	11 24.0	23 26.4	4 35.5	14 58.5	4 27.8	18 42.5	19 46.5	8 15.1
28 W	4 24 15.8	21 30.6	1 53.4	10 23.7	12 38.7	23 50.0	4 9.5	14 56.6	4 33.9	18 43.2	19 47.0	8 14.5
31 S	4 36 5.5	21 57.5	1 57.2	2N23.2	14 2.7	24 7.4	3 42.1	14 55.2	4 39.8	18 43.9	19 47.5	8 14.0

JUNE 1997

						LONGITUDE at NOON						
1 S	4 40 2.1	11♊ 1.9	25♍ 1.9	22♈38.1	18♉ 9.4	26♊43.9	23♍ 6.2	21♒49.5	17♈22.5	8♒31.2	29♑43.0	4♐ 3.0
2 M	4 43 58.6	11 59.4	24 58.7	6♉34.1	19 36.1	27 57.3	23 26.3	21 51.0	17 27.9	8R30.3	29R42.0	4R 1.4
3 T	4 47 55.2	12 56.9	24 55.5	20 22.2	21 5.3	29 10.8	23 46.9	21 52.4	17 33.3	8 29.3	29 41.1	3 59.8
4 W	4 51 51.7	13 54.3	24 52.3	3♊59.6	22 37.2	0♋24.2	24 7.8	21 53.5	17 38.6	8 28.3	29 40.1	3 58.1
5 T	4 55 48.3	14 51.8	24 49.2	17 23.3	24 11.8	1 37.6	24 29.1	21 54.5	17 43.8	8 27.2	29 39.1	3 56.5
6 F	4 59 44.8	15 49.2	24 46.0	0♋30.9	25 48.9	2 50.9	24 50.8	21 55.3	17 48.9	8 26.1	29 38.0	3 54.9
7 S	5 3 41.4	16 46.7	24 42.8	13 20.9	27 28.7	4 4.3	25 12.8	21 55.8	17 54.0	8 24.9	29 37.0	3 53.3
8 S	5 7 38.0	17 44.1	24 39.6	25 53.4	29 11.0	5 17.7	25 35.3	21 56.2	17 59.0	8 23.7	29 35.9	3 51.7
9 M	5 11 34.5	18 41.5	24 36.5	8♌ 9.8	0♊55.9	6 31.0	25 58.0	21 56.4	18 3.9	8 22.4	29 34.8	3 50.1
10 T	5 15 31.1	19 38.8	24 33.3	20 12.8	2 43.3	7 44.3	26 21.2	21 56.4	18 8.8	8 21.1	29 33.6	3 48.6
11 W	5 19 27.6	20 36.2	24 30.1	2♍ 6.4	4 33.2	8 57.6	26 44.7	21R56.2	18 13.6	8 19.8	29 32.5	3 47.0
12 T	5 23 24.2	21 33.5	24 26.9	13 55.2	6 25.6	10 10.8	27 8.5	21 55.8	18 18.3	8 18.4	29 31.3	3 45.5
13 F	5 27 20.7	22 30.9	24 23.7	25 44.5	8 20.4	11 24.1	27 32.6	21 55.2	18 22.9	8 17.0	29 30.1	3 43.9
14 S	5 31 17.3	23 28.2	24 20.6	7♎39.8	10 17.6	12 37.3	27 57.1	21 54.5	18 27.5	8 15.6	29 [illegible]	[illegible] 42.4
15 S	5 35 13.9	24 25.5	24 17.4	19 46.4	12 17.0	13 50.5	28 21.8	21 53.5	18 31.9	8 14.1	29 27.0	3 40.9
16 M	5 39 10.4	25 22.8	24 14.2	2♏ 9.3	14 18.5	15 3.7	28 46.9	21 52.3	18 36.3	8 12.6	29 26.4	3 39.4
17 T	5 43 7.0	26 20.0	24 11.0	14 52.3	16 22.0	16 16.9	29 12.3	21 51.0	18 40.7	8 11.0	29 25.1	3 37.9
18 W	5 47 3.5	27 17.3	24 7.9	27 57.9	18 27.3	17 30.0	29 38.0	21 49.5	18 44.9	8 9.4	29 23.8	3 36.4
19 T	5 51 0.1	28 14.5	24 4.7	11♐26.6	20 34.2	18 43.1	0♎ 3.9	21 47.8	18 49.1	8 7.8	29 22.5	3 34.9
20 F	5 54 56.6	29 11.8	24 1.5	25 17.0	22 42.5	19 56.2	0 30.2	21 45.9	18 53.1	8 6.1	29 21.1	3 33.5
21 S	5 58 53.2	0♋ 9.0	23 58.3	9♑25.2	24 52.0	21 9.3	0 56.7	21 43.8	18 57.1	8 4.4	29 19.8	3 32.1
22 S	6 2 49.8	1 6.3	23 55.2	23 46.1	27 2.4	22 22.4	1 23.5	21 41.5	19 1.1	8 2.7	29 18.4	3 30.7
23 M	6 6 46.3	2 3.5	23 52.0	8♒13.5	29 13.4	23 35.5	1 50.6	21 39.1	19 4.9	8 1.0	29 17.1	3 29.3
24 T	6 10 42.9	3 0.7	23 48.8	22 41.4	1♋24.8	24 48.5	2 17.9	21 36.4	19 8.7	7 59.2	29 15.7	3 27.9
25 W	6 14 39.4	3 57.9	23 45.6	7♓ 5.2	3 36.2	26 1.5	2 45.5	21 33.6	19 12.3	7 57.3	29 14.2	3 26.6
26 T	6 18 36.0	4 55.1	23 42.4	21 21.5	5 47.4	27 14.5	3 13.3	21 30.6	19 15.9	7 55.5	29 12.8	3 25.2
27 F	6 22 32.5	5 52.3	23 39.3	5♈28.5	7 58.1	28 27.5	3 41.4	21 27.4	19 19.4	7 53.6	29 11.3	3 23.9
28 S	6 26 29.1	6 49.5	23 36.1	19 25.3	10 8.1	29 40.4	4 9.8	21 24.0	19 22.8	7 51.6	29 9.9	3 22.6
29 S	6 30 25.7	7 46.8	23 32.9	3♉11.8	12 17.2	0♌53.4	4 38.3	21 20.5	19 26.1	7 49.7	29 8.4	3 21.3
30 M	6 34 22.2	8 44.0	23 29.7	16 47.8	14 25.1	2 6.3	5 7.2	21 16.7	19 29.4	7 47.7	29 6.9	3 20.0
						DECLINATION at NOON						
1 S	4 40 2.1	22N 5.7	1N58.5	6N41.2	14N32.4	24N11.8	3N32.7	14S54.9	4N41.7	18S44.2	19S47.7	8S13.8
4 W	4 51 51.7	22 28.0	2 2.2	16 21.0	16 4.9	24 20.7	3 3.5	14 54.3	4 47.3	18 45.0	19 48.3	8 13.4
7 S	5 3 41.4	22 46.8	2 6.0	18 1.7	17 40.5	24 23.2	2 33.1	14 54.3	4 52.5	18 46.0	19 49.0	8 13.1
10 T	5 15 31.1	23 2.0	2 9.8	12 2.7	19 16.0	24 19.2	2 1.5	14 54.8	4 57.6	18 47.1	19 49.7	8 12.9
13 F	5 27 20.7	23 13.5	2 13.6	1 48.0	20 47.2	24 8.7	1 28.9	14 55.9	5 2.3	18 48.2	19 50.4	8 12.7
16 M	5 39 10.4	23 21.4	2 17.3	9S18.8	22 9.5	23 51.9	0 55.2	14 57.6	5 6.7	18 49.5	19 51.2	8 12.6
19 T	5 51 0.1	23 25.5	2 21.1	17 17.9	23 17.6	23 28.8	0 20.6	14 59.8	5 10.9	18 50.8	19 52.0	8 12.6
22 S	6 2 49.8	23 26.0	2 24.9	17 4.5	24 6.3	22 59.6	0S14.9	15 2.5	5 14.8	18 52.2	19 52.9	8 12.7
25 W	6 14 39.4	23 22.7	2 28.7	7 36.7	24 31.6	22 24.4	0 51.2	15 5.7	5 18.3	18 53.6	19 53.8	8 12.8
28 S	6 26 29.1	23 15.7	2 32.4	5N31.1	24 31.8	21 43.5	1 28.3	15 9.5	5 21.6	18 55.2	19 54.7	8 13.1

JULY 1997

DAY	EPHEMERIS SIDEREAL TIME	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
	h m s	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
						LONGITUDE a NOON						
1 T	6 38 18.8	9♋41.2	23♍26.6	0♊13.1	16♋31.7	3♌19.2	5♎36.2	21♒12.8	19♈32.5	7♒45.7	29♑ 5.4	3♐18.8
2 W	6 42 15.3	10 38.4	23 23.4	13 27.1	18 36.9	4 32.0	6 5.5	21R 8.7	19 35.5	7R43.7	29R 3.9	3R17.6
3 T	6 46 11.9	11 35.6	23 20.2	26 28.6	20 40.4	5 44.9	6 35.1	21 4.5	19 38.5	7 41.6	29 2.4	3 16.4
4 F	6 50 8.4	12 32.9	23 17.0	9♋17.0	22 42.3	6 57.7	7 4.9	21 0.1	19 41.3	7 39.5	29 0.8	3 15.2
5 S	6 54 5.0	13 30.1	23 13.9	21 51.7	24 42.4	8 10.6	7 34.8	20 55.5	19 44.1	7 37.4	28 59.3	3 14.0
6 S	6 58 1.6	14 27.3	23 10.7	4♌12.8	26 40.7	9 23.3	8 5.1	20 50.8	19 46.8	7 35.3	28 57.7	3 12.9
7 M	7 1 58.1	15 24.5	23 7.5	16 21.4	28 37.2	10 36.1	8 35.5	20 45.9	19 49.3	7 33.1	28 56.2	3 11.8
8 T	7 5 54.7	16 21.7	23 4.3	28 19.6	0♌31.7	11 48.9	9 6.1	20 40.8	19 51.8	7 31.0	28 54.6	3 10.7
9 W	7 9 51.2	17 19.0	23 1.1	10♍10.3	2 24.3	13 1.6	9 37.0	20 35.6	19 54.2	7 28.8	28 53.0	3 9.7
10 T	7 13 47.8	18 16.2	22 58.0	21 57.5	4 15.0	14 14.3	10 8.1	20 30.2	19 56.5	7 26.6	28 51.4	3 8.6
11 F	7 17 44.3	19 13.4	22 54.8	3♎45.9	6 3.7	15 26.9	10 39.4	20 24.7	19 58.7	7 24.3	28 49.8	3 7.6
12 S	7 21 40.9	20 10.6	22 51.6	15 40.4	7 50.5	16 39.6	11 10.8	20 19.1	20 0.8	7 22.1	28 48.2	3 6.6
13 S	7 25 37.5	21 7.9	22 48.4	27 46.6	9 35.4	17 52.2	11 42.5	20 13.3	20 2.8	7 19.9	28 46.7	3 5.7
14 M	7 29 34.0	22 5.1	22 45.3	10♏ 9.5	11 18.2	19 4.8	12 14.4	20 7.4	20 4.7	7 17.6	28 45.1	3 4.8
15 T	7 33 30.6	23 2.3	22 42.1	22 53.8	12 59.2	20 17.4	12 46.4	20 1.4	20 6.5	7 15.3	28 43.4	3 3.9
16 W	7 37 27.1	23 59.5	22 38.9	6♐ 3.1	14 38.2	21 29.9	13 18.7	19 55.2	20 8.2	7 13.0	28 41.8	3 3.0
17 T	7 41 23.7	24 56.7	22 35.7	19 39.0	16 15.2	22 42.4	13 51.1	19 48.9	20 9.8	7 10.7	28 40.2	3 2.2
18 F	7 45 20.2	25 54.0	22 32.6	3♑40.8	17 50.3	23 54.8	14 23.7	19 42.4	20 11.3	7 8.3	28 38.6	3 1.3
19 S	7 49 16.8	26 51.2	22 29.4	18 5.2	19 23.4	25 7.3	14 56.5	19 35.9	20 12.7	7 6.0	28 37.0	3 0.6
20 S	7 53 13.3	27 48.4	22 26.2	2♒46.3	20 54.6	26 19.7	15 29.4	19 29.3	20 14.0	7 3.6	28 35.3	2 59.8
21 M	7 57 9.9	28 45.7	22 23.0	17 36.6	22 23.8	27 32.0	16 2.5	19 22.5	20 15.2	7 1.3	28 33.7	2 59.0
22 T	8 1 6.5	29 42.9	22 19.8	2♓28.0	23 51.0	28 44.4	16 35.8	19 15.7	20 16.3	6 58.9	28 32.1	2 58.3
23 W	8 5 3.0	0♌40.2	22 16.7	17 13.0	25 16.2	29 56.7	17 9.3	19 8.7	20 17.3	6 56.5	28 30.5	2 57.7
24 T	8 8 59.6	1 37.5	22 13.5	1♈46.0	26 39.4	1♍ 8.9	17 42.9	19 1.6	20 18.1	6 54.2	28 28.8	2 57.0
25 F	8 12 56.1	2 34.8	22 10.3	16 3.3	28 0.5	2 21.2	18 16.7	18 54.5	20 18.9	6 51.8	28 27.2	2 56.4
26 S	8 16 52.7	3 32.1	22 7.1	0♉ 3.3	29 19.4	3 33.4	18 50.7	18 47.3	20 19.6	6 49.4	28 25.6	2 55.8
27 S	8 20 49.2	4 29.4	22 4.0	13 45.7	0♍36.2	4 45.6	19 24.8	18 40.0	20 20.2	6 47.0	28 24.0	2 55.3
28 M	8 24 45.8	5 26.8	22 0.8	27 11.3	1 50.9	5 57.7	19 59.1	18 32.6	20 20.7	6 44.6	28 22.4	2 54.7
29 T	8 28 42.3	6 24.2	21 57.6	10♊21.2	3 3.2	7 9.8	20 33.5	18 25.2	20 21.1	6 42.2	28 20.7	2 54.2
30 W	8 32 38.9	7 21.5	21 54.4	23 16.6	4 13.2	8 21.9	21 8.1	18 17.6	20 21.3	6 39.8	28 19.1	2 53.8
31 T	8 36 35.5	8 18.9	21 51.3	5♋58.7	5 20.8	9 34.0	21 42.9	18 10.1	20 21.5	6 37.4	28 17.5	2 53.3
						DECLINATION at NOON						
1 T	6 38 18.8	23N 5.0	2N36.2	15N38.6	24N 7.4	20N57.1	2S 6.1	15S13.8	5N24.5	18S56.8	19S55.6	8S13.4
4 F	6 50 8.4	22 50.7	2 40.0	18 18.3	23 20.8	20 5.5	2 44.5	15 18.6	5 27.1	18 58.4	19 56.6	8 13.8
7 M	7 1 58.1	22 32.8	2 43.7	13 7.2	22 15.6	19 8.9	3 23.6	15 23.8	5 29.4	19 0.1	19 57.5	8 14.3
10 T	7 13 47.8	22 11.4	2 47.5	3 12.7	20 55.4	18 7.7	4 3.1	15 29.4	5 31.3	19 1.9	19 58.5	8 14.9
13 S	7 25 37.5	21 46.6	2 51.3	7S51.9	19 23.8	17 2.1	4 43.2	15 35.4	5 32.9	19 3.6	19 59.5	8 15.5
16 W	7 37 27.1	21 18.5	2 55.0	16 28.1	17 44.0	15 52.6	5 23.7	15 41.8	5 34.2	19 5.4	20 0.6	8 16.3
19 S	7 49 16.8	20 47.1	2 58.8	17 42.1	15 58.7	14 39.3	6 4.5	15 48.5	5 35.1	19 7.2	20 1.6	8 17.1
22 T	8 1 6.5	20 12.5	3 2.6	9 4.9	14 10.3	13 22.7	6 45.5	15 55.4	5 35.7	19 9.1	20 2.6	8 18.0
25 F	8 12 56.1	19 34.9	3 6.3	4N16.9	12 20.9	12 3.0	7 26.9	16 2.5	5 35.9	19 10.9	20 3.6	8 19.0
28 M	8 24 45.8	18 54.4	3 10.1	14 55.5	10 32.6	10 40.6	8 8.3	16 9.8	5 35.8	19 12.7	20 4.6	8 20.0
31 T	8 36 35.5	18 11.0	3 13.8	18 20.2	8 47.4	9 15.8	8 49.9	16 17.3	5 35.3	19 14.6	20 5.6	8 21.2

AUGUST 1997

						LONGITUDE at NOON						
1 F	8 40 32.0	9♌16.4	21♍48.1	18♋28.5	6♍25.9	10♍46.0	22♎17.8	18♒ 2.5	20♈21.6	6♒35.0	28♑15.9	2♐52.9
2 S	8 44 28.6	10 13.8	21 44.9	0♌46.9	7 28.3	11 58.0	22 52.9	17R54.8	20R21.5	6R32.6	28R14.4	2R52.6
3 S	8 48 25.1	11 11.3	21 41.7	12 55.2	8 28.1	13 10.0	23 28.2	17 47.1	20 21.4	6 30.2	28 12.8	2 52.3
4 M	8 52 21.7	12 8.7	21 38.5	24 54.5	9 25.1	14 21.9	24 3.6	17 39.4	20 21.2	6 27.8	28 11.3	2 52.0
5 T	8 56 18.2	13 6.2	21 35.4	6♍46.8	10 19.0	15 33.8	24 39.1	17 31.6	20 20.8	6 25.5	28 9.7	2 51.7
6 W	9 0 14.8	14 3.7	21 32.2	18 34.5	11 9.9	16 45.6	25 14.8	17 23.8	20 20.4	6 23.1	28 8.1	2 51.4
7 T	9 4 11.3	15 1.2	21 29.0	0♎20.7	11 57.6	17 57.4	25 50.6	17 16.0	20 19.8	6 20.7	28 6.6	2 51.2
8 F	9 8 7.9	15 58.7	21 25.8	12 8.9	12 41.8	19 9.2	26 26.6	17 8.2	20 19.2	6 18.4	28 5.1	2 51.1
9 S	9 12 4.4	16 56.3	21 22.7	24 3.4	13 22.4	20 20.9	27 2.7	17 0.3	20 18.4	6 16.0	28 3.5	2 50.9
10 S	9 16 1.0	17 53.8	21 19.5	6♏ 8.9	13 59.2	21 32.6	27 39.0	16 52.5	20 17.5	6 13.7	28 2.0	2 50.8
11 M	9 19 57.6	18 51.4	21 16.3	18 30.1	14 32.1	22 44.2	28 15.4	16 44.7	20 16.6	6 11.4	28 0.5	2 50.7
12 T	9 23 54.1	19 49.0	21 13.1	1♐11.9	15 0.7	23 55.8	28 51.9	16 36.9	20 15.5	6 9.0	27 59.1	2 50.7
13 W	9 27 50.7	20 46.6	21 9.9	14 18.0	15 25.0	25 7.3	29 28.5	16 29.1	20 14.3	6 6.7	27 57.6	2 50.7
14 T	9 31 47.2	21 44.2	21 6.8	27 51.4	15 44.6	26 18.8	0♏ 5.3	16 21.3	20 13.1	6 4.5	27 56.1	2 50.7
15 F	9 35 43.8	22 41.8	21 3.6	11♑52.7	15 59.4	27 30.2	0 42.3	16 13.5	20 11.7	6 2.2	27 54.7	2D50.8
16 S	9 39 40.3	23 39.4	21 0.4	26 20.1	16 9.1	28 41.6	1 19.3	16 5.8	20 10.2	5 59.9	27 53.3	2 50.8
17 S	9 43 36.9	24 37.1	20 57.2	11♒ 8.9	16 13.6	29 52.9	1 56.5	15 58.2	20 8.7	5 57.7	27 51.8	2 51.0
18 M	9 47 33.4	25 34.8	20 54.1	26 11.9	16R12.6	1♎ 4.2	2 33.8	15 50.5	20 7.0	5 55.5	27 50.4	2 51.1
19 T	9 51 30.0	26 32.5	20 50.9	11♓20.2	16 6.0	2 15.5	3 11.2	15 43.0	20 5.3	5 53.3	27 49.1	2 51.3
20 W	9 55 26.5	27 30.2	20 47.7	26 24.5	15 53.7	3 26.7	3 48.8	15 35.4	20 3.4	5 51.1	27 47.7	2 51.5
21 T	9 59 23.1	28 28.0	20 44.5	11♈16.6	15 35.6	4 37.8	4 26.4	15 28.0	20 1.5	5 48.9	27 46.4	2 51.8
22 F	10 3 19.6	29 25.8	20 41.3	25 50.3	15 11.8	5 48.9	5 4.2	15 20.6	19 59.4	5 46.8	27 45.0	2 52.1
23 S	10 7 16.2	0♍23.6	20 38.2	10♉ 1.8	14 42.3	6 59.9	5 42.2	15 13.3	19 57.3	5 44.7	27 43.7	2 52.4
24 S	10 11 12.7	1 21.5	20 35.0	23 49.9	14 7.4	8 10.9	6 20.2	15 6.0	19 55.1	5 42.6	27 42.5	2 52.8
25 M	10 15 9.3	2 19.3	20 31.8	7♊14.9	13 27.3	9 21.9	6 58.4	14 58.9	19 52.8	5 40.6	27 41.2	2 53.2
26 T	10 19 5.9	3 17.2	20 28.6	20 18.6	12 42.6	10 32.7	7 36.7	14 51.8	19 50.4	5 38.5	27 40.0	2 53.6
27 W	10 23 2.4	4 15.1	20 25.5	3♋ 3.6	11 53.8	11 43.6	8 15.1	14 44.8	19 47.9	5 36.5	27 38.7	2 54.1
28 T	10 26 59.0	5 13.1	20 22.3	15 32.6	11 1.7	12 54.3	8 53.6	14 37.9	19 45.3	5 34.5	27 37.5	2 54.6
29 F	10 30 55.5	6 11.1	20 19.1	27 48.5	10 7.1	14 5.0	9 32.3	14 31.1	19 42.6	5 32.6	27 36.3	2 55.1
30 S	10 34 52.1	7 9.1	20 15.9	9♌53.9	9 11.1	15 15.7	10 11.1	14 24.4	19 39.8	5 30.6	27 35.2	2 55.7
31 S	10 38 48.6	8 7.2	20 12.7	21 51.3	8 14.8	16 26.3	10 49.9	14 17.9	19 36.9	5 28.7	27 34.0	2 56.2
						DECLINATION at NOON						
1 F	8 40 32.0	17N56.0	3N15.1	17N38.9	8N13.3	8N47.1	9S 3.8	16S19.8	5N35.1	19S15.2	20S 6.0	8S21.6
4 M	8 52 21.7	17 9.1	3 18.9	11 7.8	6 35.4	7 19.5	9 45.4	16 27.3	5 34.1	19 17.0	20 7.0	8 22.8
7 T	9 4 11.3	16 19.7	3 22.6	0 43.3	5 5.8	5 50.3	10 27.0	16 34.8	5 32.9	19 18.7	20 7.9	8 24.1
10 S	9 16 1.0	15 28.0	3 26.4	10S 0.4	3 47.3	4 19.8	11 8.5	16 42.3	5 31.3	19 20.5	20 8.9	8 25.5
13 W	9 27 50.7	14 34.0	3 30.1	17 20.4	2 43.4	2 48.2	11 49.9	16 49.7	5 29.3	19 22.2	20 9.8	8 26.9
16 S	9 39 40.3	13 38.0	3 33.9	16 44.2	1 57.9	1 15.8	12 30.9	16 56.9	5 27.1	19 23.9	20 10.7	8 28.4
19 T	9 51 30.0	12 40.0	3 37.6	6 35.6	1 35.2	0S16.9	13 11.7	17 4.0	5 24.5	19 25.5	20 11.6	8 30.0
22 F	10 3 19.6	11 40.3	3 41.4	7N 5.4	1 39.7	1 49.8	13 52.0	17 10.8	5 21.6	19 27.1	20 12.5	8 31.6
25 M	10 15 9.3	10 38.8	3 45.1	16 26.4	2 14.2	3 22.6	14 31.9	17 17.4	5 18.5	19 28.6	20 13.3	8 33.3
28 T	10 26 59.0	9 35.8	3 48.9	17 48.5	3 17.9	4 54.8	15 11.2	17 23.7	5 15.0	19 30.1	20 14.1	8 35.0
31 S	10 38 48.6	8 31.5	3 52.6	11 52.6	4 44.6	6 26.4	15 49.9	17 29.6	5 11.3	19 31.5	20 14.8	8 36.7

SEPTEMBER 1997

LONGITUDE at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
1 M	10 42 45.2	9♍ 5.2	20♍ 9.6	3♍43.0	7♍19.4	17♎36.9	11♏28.9	14♒11.4	19♈34.0	5♒26.9	27♑32.9	2♐56.9
2 T	10 46 41.7	10 3.3	20 6.4	15 31.0	6R26.1	18 47.4	12 8.1	14R 5.1	19R31.0	5R25.0	27R31.8	2 57.5
3 W	10 50 38.3	11 1.5	20 3.2	27 17.7	5 36.1	19 57.8	12 47.3	13 58.9	19 27.9	5 23.2	27 30.7	2 58.2
4 T	10 54 34.8	11 59.6	20 0.0	9♎ 5.4	4 50.5	21 8.1	13 26.7	13 52.8	19 24.7	5 21.4	27 29.7	2 58.9
5 F	10 58 31.4	12 57.8	19 56.9	20 56.9	4 10.6	22 18.5	14 6.1	13 46.9	19 21.4	5 19.7	27 28.7	2 59.7
6 S	11 2 27.9	13 56.0	19 53.7	2♏55.1	3 37.1	23 28.7	14 45.7	13 41.1	19 18.1	5 18.0	27 27.7	3 0.5
7 S	11 6 24.5	14 54.2	19 50.5	15 3.4	3 11.0	24 38.9	15 25.4	13 35.4	19 14.7	5 16.3	27 26.7	3 1.3
8 M	11 10 21.0	15 52.5	19 47.3	27 25.7	2 53.0	25 48.9	16 5.2	13 29.9	19 11.2	5 14.7	27 25.7	3 2.2
9 T	11 14 17.6	16 50.8	19 44.1	10♐ 5.6	2 43.5	26 59.0	16 45.1	13 24.5	19 7.6	5 13.1	27 24.8	3 3.1
10 W	11 18 14.1	17 49.1	19 41.0	23 6.8	2 42.9	28 8.9	17 25.1	13 19.3	19 4.0	5 11.5	27 23.9	3 4.0
11 T	11 22 10.7	18 47.4	19 37.8	6♑32.4	2D51.3	29 18.8	18 5.2	13 14.3	19 0.3	5 10.0	27 23.1	3 4.9
12 F	11 26 7.2	19 45.8	19 34.6	20 24.2	3 9.0	0♏28.6	18 45.4	13 9.4	18 56.5	5 8.5	27 22.2	3 5.9
13 S	11 30 3.8	20 44.2	19 31.4	4♒42.1	3 35.6	1 38.3	19 25.7	13 4.6	18 52.7	5 7.0	27 21.4	3 6.9
14 S	11 34 0.3	21 42.6	19 28.2	19 23.8	4 11.2	2 48.0	20 6.2	13 0.1	18 48.8	5 5.7	27 20.7	3 8.0
15 M	11 37 56.9	22 41.1	19 25.1	4♓23.9	4 55.2	3 57.5	20 46.7	12 55.7	18 44.9	5 4.3	27 19.9	3 9.1
16 T	11 41 53.4	23 39.6	19 21.9	19 34.9	5 47.4	5 7.0	21 27.3	12 51.5	18 40.9	5 3.0	27 19.2	3 10.2
17 W	11 45 50.0	24 38.1	19 18.7	4♈47.5	6 47.2	6 16.3	22 8.0	12 47.5	18 36.8	5 1.7	27 18.5	3 11.3
18 T	11 49 46.6	25 36.6	19 15.5	19 52.1	7 54.0	7 25.6	22 48.8	12 43.6	18 32.7	5 0.4	27 17.8	3 12.5
19 F	11 53 43.1	26 35.2	19 12.4	4♉40.2	9 7.4	8 34.8	23 29.7	12 39.9	18 28.5	4 59.2	27 17.2	3 13.7
20 S	11 57 39.7	27 33.8	19 9.2	19 5.4	10 26.7	9 43.9	24 10.7	12 36.4	18 24.3	4 58.0	27 16.6	3 14.9
21 S	12 1 36.2	28 32.4	19 6.0	3♊ 4.4	11 51.2	10 52.9	24 51.8	12 33.0	18 20.0	4 56.9	27 16.0	3 16.2
22 M	12 5 32.8	29 31.1	19 2.8	16 36.0	13 20.3	12 1.9	25 33.0	12 29.9	18 15.7	4 55.8	27 15.5	3 17.5
23 T	12 9 29.3	0♎29.8	18 59.6	29 41.8	14 53.5	13 10.7	26 14.3	12 26.9	18 11.3	4 54.8	27 14.9	3 18.8
24 W	12 13 25.9	1 28.6	18 56.5	12♋24.5	16 30.1	14 19.4	26 55.7	12 24.1	18 6.9	4 53.8	27 14.4	3 20.1
25 T	12 17 22.4	2 27.3	18 53.3	24 48.1	18 9.5	15 28.1	27 37.2	12 21.5	18 2.5	4 52.9	27 14.0	3 21.5
26 F	12 21 19.0	3 26.2	18 50.1	6♌56.6	19 51.4	16 36.6	28 18.8	12 19.1	17 58.0	4 52.0	27 13.6	3 22.9
27 S	12 25 15.5	4 25.0	18 46.9	18 54.3	21 35.1	17 45.0	29 0.5	12 16.9	17 53.4	4 51.1	27 13.2	3 24.3
28 S	12 29 12.1	5 23.9	18 43.8	0♍45.0	23 20.3	18 53.4	29 42.3	12 14.9	17 48.9	4 50.3	27 12.8	3 25.8
29 M	12 33 8.6	6 22.9	18 40.6	12 32.3	25 6.7	20 1.6	0♐24.2	12 13.0	17 44.3	4 49.6	27 12.5	3 27.2
30 T	12 37 5.2	7 21.9	18 37.4	24 19.1	26 53.8	21 9.7	1 6.1	12 11.4	17 39.7	4 48.9	27 12.2	3 28.8

DECLINATION at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
1 M	10 42 45.2	8N 9.7	3N53.9	8N47.0	5N16.7	6S56.7	16S 2.7	17S31.5	5N10.0	19S31.9	20S15.0	8S37.3
4 T	10 54 34.8	7 3.8	3 57.6	1S58.9	6 54.4	8 26.7	16 40.5	17 36.9	5 5.9	19 33.2	20 15.7	8 39.2
7 S	11 6 24.5	5 56.8	4 1.4	12 10.5	8 22.0	9 55.3	17 17.5	17 42.0	5 1.6	19 34.4	20 16.4	8 41.0
10 W	11 18 14.1	4 48.9	4 5.1	17 58.3	9 26.0	11 22.1	17 53.6	17 46.5	4 57.1	19 35.5	20 17.0	8 42.9
13 S	11 30 3.8	3 40.3	4 8.8	15 26.2	9 57.4	12 46.9	18 28.7	17 50.7	4 52.4	19 36.5	20 17.5	8 44.8
16 T	11 41 53.4	2 31.1	4 12.6	4 6.6	9 52.2	14 9.3	19 2.8	17 54.3	4 47.5	19 37.5	20 18.0	8 46.8
19 F	11 53 43.1	1 21.4	4 16.3	9N32.7	9 11.0	15 29.0	19 35.7	17 57.5	4 42.4	19 38.3	20 18.5	8 48.8
22 M	12 5 32.8	0 11.5	4 20.0	17 30.1	7 57.9	16 45.7	20 7.4	18 0.2	4 37.2	19 39.1	20 18.9	8 50.7
25 T	12 17 22.4	0S58.6	4 23.8	16 53.9	6 19.2	17 59.1	20 37.8	18 2.4	4 32.0	19 39.7	20 19.3	8 52.7
28 S	12 29 12.1	2 8.7	4 27.5	9 35.5	4 22.1	19 8.9	21 6.8	18 4.1	4 26.6	19 40.3	20 19.6	8 54.8

OCTOBER 1997

LONGITUDE at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
1 W	12 41 1.7	8♎20.9	18♍34.2	6♎ 8.0	28♍41.4	22♏17.7	1♐48.2	12♒10.0	17♈35.1	4♒48.2	27♑11.9	3♐30.3
2 T	12 44 58.3	9 19.9	18 31.0	18 1.3	0♎29.3	23 25.6	2 30.4	12R 8.7	17R30.4	4R47.6	27R11.7	3 31.9
3 F	12 48 54.8	10 19.0	18 27.9	0♏ 0.8	2 17.3	24 33.4	3 12.6	12 7.7	17 25.7	4 47.0	27 11.5	3 33.5
4 S	12 52 51.4	11 18.1	18 24.7	12 8.5	4 5.2	25 41.0	3 55.0	12 6.8	17 21.0	4 46.5	27 11.3	3 35.1
5 S	12 56 47.9	12 17.3	18 21.5	24 26.4	5 52.9	26 48.6	4 37.4	12 6.3	17 16.4	4 46.1	27 11.2	3 36.8
6 M	13 0 44.5	13 16.4	18 18.3	6♐56.3	7 40.2	27 55.9	5 20.0	12 5.8	17 11.6	4 45.7	27 11.1	3 38.4
7 T	13 4 41.0	14 15.6	18 15.1	19 40.6	9 27.0	29 3.2	6 2.6	12 5.6	17 6.9	4 45.3	27 11.1	3 40.1
8 W	13 8 37.6	15 14.9	18 12.0	2♑41.7	11 13.3	0♐10.3	6 45.2	12 5.5	17 2.2	4 45.0	27 11.0	3 41.8
9 T	13 12 34.1	16 14.1	18 8.8	16 1.8	12 59.1	1 17.2	7 28.0	12D 5.7	16 57.4	4 44.7	27 11.0	3 43.6
10 F	13 16 30.7	17 13.4	18 5.6	29 42.8	14 44.2	2 24.0	8 10.9	12 6.1	16 52.7	4 44.5	27D11.1	3 45.3
11 S	13 20 27.2	18 12.7	18 2.4	13♒45.8	16 28.7	3 30.7	8 53.8	12 6.6	16 47.9	4 44.3	27 11.1	3 47.1
12 S	13 24 23.8	19 12.1	17 59.3	28 10.3	18 12.5	4 37.1	9 36.9	12 7.4	16 43.2	4 44.2	27 11.2	3 48.9
13 M	13 28 20.4	20 11.5	17 56.1	12♓53.6	19 55.6	5 43.4	10 20.0	12 8.4	16 38.5	4 44.1	27 11.4	3 50.8
14 T	13 32 16.9	21 10.9	17 52.9	27 51.0	21 38.1	6 49.6	11 3.1	12 9.5	16 33.8	4 44.1	27 11.5	3 52.6
15 W	13 36 13.5	22 10.3	17 49.7	12♈55.1	23 19.8	7 55.5	11 46.4	12 10.9	16 29.1	4 44.1	27 11.7	3 54.5
16 T	13 40 10.0	23 9.8	17 46.5	27 57.4	25 0.9	9 1.3	12 29.7	12 12.4	16 24.4	4D44.2	27 12.0	3 56.4
17 F	13 44 6.6	24 9.3	17 43.4	12♉48.6	26 41.3	10 6.8	13 13.2	12 14.2	16 19.7	4 44.4	27 12.2	3 58.3
18 S	13 48 3.1	25 8.8	17 40.2	27 20.7	28 21.0	11 12.2	13 56.7	12 16.1	16 15.0	4 44.5	27 12.5	4 0.2
19 S	13 51 59.7	26 8.4	17 37.0	11♊28.0	0♏ 0.1	12 17.4	14 40.2	12 18.2	16 10.4	4 44.8	27 12.9	4 2.2
20 M	13 55 56.2	27 8.0	17 33.8	25 7.5	1 38.6	13 22.4	15 23.9	12 20.6	16 5.8	4 45.1	27 13.2	4 4.2
21 T	13 59 52.8	28 7.7	17 30.7	8♋19.2	3 16.4	14 27.1	16 7.6	12 23.1	16 1.2	4 45.4	27 13.6	4 6.2
22 W	14 3 49.3	29 7.4	17 27.5	21 5.3	4 53.6	15 31.7	16 51.4	12 25.8	15 56.6	4 45.8	27 14.1	4 8.2
23 T	14 7 45.9	0♏ 7.1	17 24.3	3♌29.5	6 30.3	16 36.0	17 35.3	12 28.7	15 52.1	4 46.2	27 14.5	4 10.2
24 F	14 11 42.4	1 6.9	17 21.1	15 36.6	8 6.3	17 40.1	18 19.3	12 31.8	15 47.6	4 46.7	27 15.0	4 12.3
25 S	14 15 39.0	2 6.7	17 17.9	27 31.8	9 41.8	18 43.9	19 3.3	12 35.1	15 43.1	4 47.3	27 15.6	4 14.3
26 S	14 19 35.5	3 6.6	17 14.8	9♍20.2	11 16.9	19 47.6	19 47.5	12 38.7	15 38.8	4 47.9	27 16.2	4 16.5
27 M	14 23 32.1	4 6.4	17 11.6	21 6.4	12 51.3	20 50.9	20 31.7	12 42.3	15 34.4	4 48.5	27 16.8	4 18.6
28 T	14 27 28.6	5 6.3	17 8.4	2♎54.5	14 25.3	21 54.0	21 15.9	12 46.2	15 30.0	4 49.2	27 17.4	4 20.7
29 W	14 31 25.2	6 6.3	17 5.2	14 48.1	15 58.8	22 56.9	22 0.3	12 50.2	15 25.8	4 50.0	27 18.1	4 22.8
30 T	14 35 21.8	7 6.3	17 2.1	26 49.8	17 31.7	23 59.4	22 44.7	12 54.4	15 21.5	4 50.8	27 18.8	4 25.0
31 F	14 39 18.3	8 6.3	16 58.9	9♏ 1.3	19 4.3	25 1.7	23 29.2	12 58.9	15 17.3	4 51.6	27 19.5	4 27.1

DECLINATION at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
1 W	12 41 1.7	3S18.6	4N31.2	1S 4.1	2N13.2	20S14.9	21S34.3	18S 5.3	4N21.1	19S40.7	20S19.8	8S56.8
4 S	12 52 51.4	4 28.2	4 35.0	11 30.3	0S 2.1	21 16.7	22 0.2	18 5.9	4 15.7	19 41.0	20 20.0	8 58.8
7 T	13 4 41.0	5 37.4	4 38.7	17 48.5	2 19.9	22 14.1	22 24.5	18 6.1	4 10.2	19 41.3	20 20.1	9 0.8
10 F	13 16 30.7	6 45.8	4 42.4	16 17.5	4 37.1	23 6.8	22 47.1	18 5.7	4 4.7	19 41.4	20 20.2	9 2.8
13 M	13 28 20.4	7 53.4	4 46.1	6 9.7	6 51.7	23 54.5	23 7.8	18 4.8	3 59.3	19 41.4	20 20.2	9 4.9
16 T	13 40 10.0	9 0.1	4 49.9	7N42.6	9 2.4	24 37.1	23 26.7	18 3.4	3 54.0	19 41.3	20 20.1	9 6.8
19 S	13 51 59.7	10 5.5	4 53.6	17 3.3	11 8.0	25 14.4	23 43.5	18 1.5	3 48.8	19 41.1	20 20.0	9 8.8
22 W	14 3 49.3	11 9.7	4 57.3	17 25.9	13 7.8	25 46.2	23 58.3	17 59.1	3 43.7	19 40.8	20 19.9	9 10.8
25 S	14 15 39.0	12 12.4	5 1.0	10 32.4	15 1.0	26 12.4	24 11.0	17 56.2	3 38.7	19 40.3	20 19.6	9 12.7
28 T	14 27 28.6	13 13.4	5 4.7	0S 1.1	16 47.2	26 33.0	24 21.6	17 52.8	3 34.0	19 39.8	20 19.4	9 14.6
31 F	14 39 18.3	14 12.5	5 8.4	10 45.9	18 25.7	26 47.8	24 29.9	17 49.0	3 29.4	19 39.1	20 19.0	9 16.5

NOVEMBER 1997

LONGITUDE at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
1 S	14 43 14.9	9♏ 6.3	16♍55.7	21♏24.0	20♏36.3	26♐ 3.6	24♐13.7	13♒ 3.5	15♈13.2	4♒52.5	27♑20.3	4♐29.3
2 S	14 47 11.4	10 6.4	16 52.5	3♐58.2	22 7.9	27 5.2	24 58.3	13 8.2	15R 9.1	4 53.5	27 21.1	4 31.5
3 M	14 51 8.0	11 6.5	16 49.3	16 44.4	23 39.1	28 6.6	25 43.0	13 13.2	15 5.1	4 54.5	27 22.0	4 33.7
4 T	14 55 4.5	12 6.6	16 46.2	29 42.7	25 9.8	29 7.5	26 27.8	13 18.3	15 1.1	4 55.5	27 22.8	4 35.9
5 W	14 59 1.1	13 6.8	16 43.0	12♑53.5	26 40.1	0♑ 8.1	27 12.6	13 23.6	14 57.3	4 56.6	27 23.7	4 38.1
6 T	15 2 57.6	14 7.0	16 39.8	26 17.4	28 10.0	1 8.4	27 57.5	13 29.1	14 53.4	4 57.8	27 24.6	4 40.4
7 F	15 6 54.2	15 7.2	16 36.6	9♒55.2	29 39.4	2 8.2	28 42.5	13 34.8	14 49.7	4 59.0	27 25.6	4 42.6
8 S	15 10 50.7	16 7.4	16 33.5	23 47.7	1♐ 8.4	3 7.7	29 27.5	13 40.6	14 46.0	5 0.2	27 26.6	4 44.9
9 S	15 14 47.3	17 7.7	16 30.3	7♓55.3	2 36.8	4 6.7	0♑12.6	13 46.6	14 42.4	5 1.5	27 27.6	4 47.2
10 M	15 18 43.9	18 7.9	16 27.1	22 17.2	4 4.8	5 5.3	0 57.7	13 52.8	14 38.8	5 2.9	27 28.7	4 49.4
11 T	15 22 40.4	19 8.2	16 23.9	6♈51.2	5 32.3	6 3.5	1 42.9	13 59.1	14 35.3	5 4.3	27 29.8	4 51.7
12 W	15 26 37.0	20 8.6	16 20.8	21 33.0	6 59.3	7 1.2	2 28.2	14 5.6	14 31.9	5 5.7	27 30.9	4 54.0
13 T	15 30 33.5	21 8.9	16 17.6	6♉16.5	8 25.6	7 58.3	3 13.5	14 12.2	14 28.6	5 7.2	27 32.0	4 56.3
14 F	15 34 30.1	22 9.3	16 14.4	20 54.2	9 51.4	8 55.0	3 58.8	14 19.1	14 25.4	5 8.7	27 33.2	4 58.6
15 S	15 38 26.6	23 9.7	16 11.2	5♊18.7	11 16.5	9 51.2	4 44.3	14 26.0	14 22.2	5 10.3	27 34.4	5 1.0
16 S	15 42 23.2	24 10.2	16 8.0	19 23.5	12 40.9	10 46.8	5 29.8	14 33.2	14 19.2	5 12.0	27 35.7	5 3.3
17 M	15 46 19.7	25 10.7	16 4.9	3♋ 4.1	14 4.4	11 41.9	6 15.3	14 40.5	14 16.2	5 13.6	27 36.9	5 5.7
18 T	15 50 16.3	26 11.2	16 1.7	16 18.7	15 27.0	12 36.4	7 0.9	14 47.9	14 13.3	5 15.4	27 38.2	5 8.0
19 W	15 54 12.8	27 11.7	15 58.5	29 8.1	16 48.6	13 30.2	7 46.6	14 55.5	14 10.5	5 17.1	27 39.6	5 10.4
20 T	15 58 9.4	28 12.2	15 55.3	11♌35.1	18 9.1	14 23.4	8 32.3	15 3.3	14 7.8	5 18.9	27 40.9	5 12.7
21 F	16 2 6.0	29 12.8	15 52.2	23 44.0	19 28.3	15 16.0	9 18.0	15 11.2	14 5.1	5 20.8	27 42.3	5 15.1
22 S	16 6 2.5	0♐13.4	15 49.0	5♍40.0	20 46.0	16 7.9	10 3.9	15 19.2	14 2.6	5 22.7	27 43.7	5 17.4
23 S	16 9 59.1	1 14.1	15 45.8	17 28.7	22 2.1	16 59.1	10 49.7	15 27.4	14 0.1	5 24.6	27 45.1	5 19.8
24 M	16 13 55.6	2 14.7	15 42.6	29 15.6	23 16.3	17 49.5	11 35.7	15 35.7	13 57.8	5 26.6	27 46.6	5 22.1
25 T	16 17 52.2	3 15.4	15 39.4	11♎ 5.8	24 28.4	18 39.2	12 21.6	15 44.2	13 55.5	5 28.6	27 48.1	5 24.5
26 W	16 21 48.7	4 16.1	15 36.3	23 4.0	25 38.0	19 28.1	13 7.7	15 52.8	13 53.3	5 30.7	27 49.6	5 26.9
27 T	16 25 45.3	5 16.9	15 33.1	5♏13.7	26 44.9	20 16.2	13 53.7	16 1.6	13 51.3	5 32.8	27 51.1	5 29.2
28 F	16 29 41.9	6 17.7	15 29.9	17 37.4	27 48.5	21 3.4	14 39.9	16 10.5	13 49.3	5 35.0	27 52.7	5 31.6
29 S	16 33 38.4	7 18.4	15 26.7	0♐16.3	28 48.5	21 49.7	15 26.0	16 19.5	13 47.5	5 37.2	27 54.3	5 34.0
30 S	16 37 35.0	8 19.3	15 23.6	13 10.5	29 44.4	22 35.0	16 12.3	16 28.7	13 45.7	5 39.4	27 55.9	5 36.3

DECLINATION at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
1 S	14 43 14.9	14S31.8	5N 9.7	13S43.0	18S56.7	26S51.5	24S32.1	17S47.6	3N27.9	19S38.9	20S18.9	9S17.1
4 T	14 55 4.5	15 28.1	5 13.4	18 26.2	20 24.1	26 58.8	24 37.4	17 43.1	3 23.7	19 38.1	20 18.5	9 18.9
7 F	15 6 54.2	16 22.2	5 17.1	14 43.2	21 42.5	27 0.4	24 40.3	17 38.1	3 19.7	19 37.1	20 18.0	9 20.7
10 M	15 18 43.9	17 13.8	5 20.8	3 24.9	22 51.4	26 56.7	24 40.8	17 32.6	3 15.9	19 36.1	20 17.5	9 22.4
13 T	15 30 33.5	18 2.7	5 24.5	10N 1.2	23 49.9	26 47.6	24 39.0	17 26.7	3 12.5	19 35.0	20 16.9	9 24.1
16 S	15 42 23.2	18 48.8	5 28.2	17 58.8	24 37.6	26 33.5	24 34.6	17 20.4	3 9.4	19 33.8	20 16.2	9 25.7
19 W	15 54 12.8	19 31.8	5 31.9	16 39.4	25 13.7	26 14.6	24 27.9	17 13.6	3 6.6	19 32.4	20 15.5	9 27.3
22 S	16 6 2.5	20 11.7	5 35.6	8 31.3	25 37.6	25 51.2	24 18.6	17 6.4	3 4.1	19 31.0	20 14.8	9 28.8
25 T	16 17 52.2	20 48.3	5 39.3	2S28.0	25 48.9	25 23.7	24 7.0	16 58.7	3 2.0	19 29.5	20 14.0	9 30.3
28 F	16 29 41.9	21 21.4	5 42.9	12 51.4	25 47.4	24 52.5	23 52.8	16 50.7	3 0.3	19 27.9	20 13.1	9 31.7

DECEMBER 1997

LONGITUDE at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉ ° ′	☊ ° ′	☽ ° ′	☿ ° ′	♀ ° ′	♂ ° ′	♃ ° ′	♄ ° ′	♅ ° ′	♆ ° ′	♇ ° ′
1 M	16 41 31.5	9♐20.1	15♍20.4	26♐19.0	0♑35.5	23♑19.4	16♑58.5	16♒38.0	13♈44.0	5♒41.7	27♑57.5	5♐38.7
2 T	16 45 28.1	10 20.9	15 17.2	9♑40.0	1 21.2	24 2.7	17 44.8	16 47.4	13R42.5	5 44.0	27 59.2	5 41.0
3 W	16 49 24.6	11 21.8	15 14.0	23 11.6	2 0.7	24 45.0	18 31.2	16 56.9	13 41.0	5 46.4	28 0.9	5 43.4
4 T	16 53 21.2	12 22.7	15 10.9	6♒51.8	2 33.4	25 26.2	19 17.6	17 6.6	13 39.7	5 48.8	28 2.6	5 45.7
5 F	16 57 17.7	13 23.6	15 7.7	20 39.6	2 58.4	26 6.2	20 4.1	17 16.4	13 38.5	5 51.2	28 4.3	5 48.1
6 S	17 1 14.3	14 24.5	15 4.5	4♓34.1	3 14.9	26 45.0	20 50.5	17 26.3	13 37.3	5 53.7	28 6.1	5 50.4
7 S	17 5 10.9	15 25.5	15 1.3	18 35.1	3 22.0	27 22.6	21 37.1	17 36.4	13 36.3	5 56.2	28 7.9	5 52.8
8 M	17 9 7.4	16 26.4	14 58.1	2♈42.4	3R18.8	27 58.8	22 23.7	17 46.6	13 35.4	5 58.7	28 9.7	5 55.2
9 T	17 13 4.0	17 27.3	14 55.0	16 54.9	3 4.8	28 33.6	23 10.2	17 56.9	13 34.6	6 1.3	28 11.5	5 57.5
10 W	17 17 0.5	18 28.3	14 51.8	1♉10.9	2 39.5	29 7.0	23 56.9	18 7.3	13 33.9	6 3.9	28 13.4	5 59.8
11 T	17 20 57.1	19 29.3	14 48.6	15 27.0	2 2.7	29 38.8	24 43.5	18 17.8	13 33.3	6 6.6	28 15.2	6 2.1
12 F	17 24 53.6	20 30.2	14 45.4	29 38.8	1 14.7	0♒ 9.2	25 30.2	18 28.4	13 32.8	6 9.3	28 17.1	6 4.4
13 S	17 28 50.2	21 31.2	14 42.3	13♊41.2	0 16.2	0 37.9	26 16.9	18 39.1	13 32.5	6 12.0	28 19.0	6 6.7
14 S	17 32 46.8	22 32.2	14 39.1	27 29.1	29♐ 8.4	1 4.9	27 3.7	18 50.0	13 32.2	6 14.7	28 20.9	6 9.0
15 M	17 36 43.3	23 33.2	14 35.9	10♋58.4	27 53.2	1 30.2	27 50.5	19 0.9	13 32.1	6 17.5	28 22.9	6 11.3
16 T	17 40 39.9	24 34.3	14 32.7	24 6.7	26 32.9	1 53.7	28 37.3	19 11.9	13 32.0	6 20.3	28 24.8	6 13.6
17 W	17 44 36.4	25 35.3	14 29.6	6♌53.5	25 10.0	2 15.3	29 24.1	19 23.1	13D32.1	6 23.2	28 26.8	6 15.9
18 T	17 48 33.0	26 36.3	14 26.4	19 20.3	23 47.6	2 35.1	0♒11.0	19 34.3	13 32.2	6 26.0	28 28.8	6 18.1
19 F	17 52 29.5	27 37.4	14 23.2	1♍30.1	22 28.2	2 52.8	0 57.9	19 45.7	13 32.5	6 28.9	28 30.8	6 20.3
20 S	17 56 26.1	28 38.5	14 20.0	13 27.4	21 14.3	3 8.4	1 44.9	19 57.1	13 32.9	6 31.9	28 32.8	6 22.6
21 S	18 0 22.7	29 39.6	14 16.8	25 17.1	20 8.1	3 22.0	2 31.8	20 8.6	13 33.4	6 34.8	28 34.9	6 24.8
22 M	18 4 19.2	0♑40.7	14 13.7	7♎ 4.8	19 11.1	3 33.4	3 18.8	20 20.3	13 34.0	6 37.8	28 36.9	6 27.0
23 T	18 8 15.8	1 41.8	14 10.5	18 56.1	18 24.3	3 42.5	4 5.8	20 32.0	13 34.8	6 40.8	28 39.0	6 29.2
24 W	18 12 12.3	2 42.9	14 7.3	0♏56.3	17 48.2	3 49.4	4 52.9	20 43.8	13 35.6	6 43.8	28 41.1	6 31.4
25 T	18 16 8.9	3 44.1	14 4.1	13 10.0	17 22.9	3 53.9	5 40.0	20 55.7	13 36.5	6 46.9	28 43.2	6 33.5
26 F	18 20 5.4	4 45.2	14 1.0	25 41.0	17 8.2	3 56.1	6 27.0	21 7.7	13 37.6	6 50.0	28 45.3	6 35.7
27 S	18 24 2.0	5 46.4	13 57.8	8♐31.4	17 3.5	3R55.8	7 14.2	21 19.8	13 38.8	6 53.1	28 47.4	6 37.8
28 S	18 27 58.6	6 47.6	13 54.6	21 42.1	17D 8.3	3 53.1	8 1.4	21 32.0	13 40.1	6 56.3	28 49.6	6 40.0
29 M	18 31 55.1	7 48.8	13 51.4	5♑11.6	17 21.8	3 47.9	8 48.5	21 44.3	13 41.5	6 59.5	28 51.8	6 42.1
30 T	18 35 51.7	8 49.9	13 48.3	18 57.5	17 43.2	3 40.2	9 35.7	21 56.6	13 43.0	7 2.7	28 53.9	6 44.2
31 W	18 39 48.2	9 51.1	13 45.1	2♒55.8	18 11.9	3 30.0	10 22.9	22 9.0	13 44.6	7 5.9	28 56.1	6 46.2

DECLINATION at NOON

DAY	EPHEMERIS SIDEREAL TIME h m s	☉	☊	☽	☿	♀	♂	♃	♄	♅	♆	♇
1 M	16 41 31.5	21S50.9	5N46.6	18S28.1	25S33.1	24S18.0	23S36.3	16S42.2	2N58.9	19S26.2	20S12.2	9S33.0
4 T	16 53 21.2	22 16.6	5 50.3	15 31.9	25 6.6	23 40.7	23 17.3	16 33.3	2 57.9	19 24.4	20 11.3	9 34.3
7 S	17 5 10.9	22 38.4	5 54.0	4 47.8	24 28.9	23 1.1	22 56.0	16 24.1	2 57.3	19 22.5	20 10.2	9 35.5
10 W	17 17 0.5	22 56.2	5 57.7	8N28.6	23 41.0	22 19.7	22 32.3	16 14.4	2 57.1	19 20.5	20 9.2	9 36.7
13 S	17 28 50.2	23 10.0	6 1.4	17 28.1	22 44.3	21 37.1	22 6.3	16 4.4	2 57.2	19 18.5	20 8.1	9 37.7
16 T	17 40 39.9	23 19.5	6 5.0	17 30.2	21 42.6	20 54.0	21 38.1	15 54.0	2 57.8	19 16.3	20 7.0	9 38.7
19 F	17 52 29.5	23 24.9	6 8.7	9 56.6	20 45.3	20 10.8	21 7.8	15 43.3	2 58.7	19 14.1	20 5.9	9 39.6
22 M	18 4 19.2	23 26.1	6 12.4	0S57.0	20 4.7	19 28.2	20 35.3	15 32.2	3 0.1	19 11.9	20 4.7	9 40.4
25 T	18 16 8.9	23 23.0	6 16.0	11 37.2	19 48.6	18 46.8	20 0.7	15 20.8	3 1.8	19 9.5	20 3.4	9 41.2
28 S	18 27 58.6	23 15.8	6 19.7	18 11.9	19 55.6	18 7.2	19 24.2	15 9.0	3 3.9	19 7.1	20 2.2	9 41.9
31 W	18 39 48.2	23 4.3	6 23.4	16 21.5	20 19.5	17 30.0	18 45.8	14 56.9	3 6.4	19 4.7	20 0.9	9 42.5