

JANUARY 1980

DAY	EPIHEMERIS SIDEREAL TIME			LONGITUDE at NOON												
	h	m	s	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	
1 T	18 41	13.1	10 16	17 52.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
2 W	18 45	9.6	11 14.9	17 51.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
3 T	18 49	6.2	12 16.0	17 51.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
4 F	18 53	2.7	13 17.2	17 51.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
5 S	18 56	59.3	14 18.3	17 51.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
6 S	19 0	55.8	15 19.4	17 51.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
7 M	19 4	52.4	16 20.6	17 50.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
8 T	19 8	49.0	17 21.7	17 50.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
9 W	19 12	45.5	18 22.9	17 50.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
10 T	19 16	42.1	19 24.0	17 50.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
11 F	19 20	38.6	20 25.1	17 50.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
12 S	19 24	35.2	21 26.3	17 49.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
13 S	19 28	31.7	22 27.4	17 49.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
14 M	19 32	28.3	23 28.6	17 49.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
15 W	19 36	24.8	24 29.7	17 49.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
16 W	19 40	21.4	25 30.8	17 49.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
17 T	19 44	18.0	26 32.0	17 48.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
18 F	19 48	14.5	27 33.1	17 48.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
19 S	19 52	11.1	28 34.2	17 48.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
20 S	19 56	7.6	29 35.3	17 48.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
21 M	20 0	4.2	30 36.4	17 48.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
22 T	20 0	0.7	31 37.5	17 47.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
23 W	20 0	57.3	2 38.5	17 47.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
24 T	20 1	53.9	3 39.6	17 47.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
25 F	20 1	50.4	4 40.6	17 47.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
26 S	20 1	47.0	5 41.6	17 47.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
27 S	20 2	43.5	6 42.5	17 46.9	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
28 M	20 2	40.1	7 43.5	17 46.7	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
29 T	20 2	36.6	8 44.4	17 46.5	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
30 W	20 3	33.2	9 45.3	17 46.3	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						
31 T	20 3	29.7	10 46.3	17 46.1	29 43.7	10 11.2	26 59.5	24 4.5	20 56.9	21 36.9						

DECLINATION at NOON													
1 T	18 41	13.1	23 S 2.7	10N 48.6	18N 58.8	24 S 4.0	18S 54.9	9N 10.5	8N 47.7	3N 10.9	18S 31.2	21S 47.6	7N 23.8
4 F	18 53	27.1	22 46.6	10 52.0	16 25.3	24 20.6	17 49.7	9 5.2	8 50.3	3 11.8	18 35.3	21 48.0	7 24.5
7 M	19 4 52.4	22 26.4	10 55.4	7 28.1	24 25.5	16 40.2	9 1.4	8 53.1	3 11.8	18 35.3	21 48.0	7 24.5	7 24.5
10 T	19 16 42.1	22 2.2	10 58.8	3S 57.7	24 18.2	15 26.6	9 2.1	8 56.7	3 12.9	18 37.1	21 48.7	7 28.4	7 28.4
13 S	19 28 31.7	21 34.1	11 2.2	14 21.2	23 58.2	14 9.3	9 3.2	9 1.0	3 14.3	18 38.9	21 49.1	7 27.6	7 27.6
16 W	19 40 21.4	21 2.3	11 5.6	19 14.4	23 25.2	12 48.8	9 3.7	9 5.9	3 16.1	18 40.6	21 49.4	7 28.8	7 28.8
19 S	19 52 11.1	20 26.8	11 8.9	13 53.3	22 36.8	11 25.3	9 14.5	9 11.4	3 18.3	18 42.2	21 49.7	7 30.2	7 30.2
22 T	20 4 0.7	19 47.9	11 12.3	17 38.8	21 38.8	9 59.2	9 32.9	9 23.9	3 20.8	18 45.0	21 50.7	7 33.3	7 33.3
25 F	20 15 50.4	19 5.7	11 15.7	11N 50.0	20 25.0	8 30.9	9 36.2	9 30.9	3 23.0	18 47.8	21 51.7	7 36.5	7 36.5
28 M	20 27 40.1	18 20.3	11 19.0	18 42.0	18 57.3	7 0.8	9 50.9	9 30.9	3 27.0	18 46.3	21 50.8	7 35.0	7 35.0
31 T	20 39 29.7	17 32.0	11 22.4	17 36.1	17 16.1	5 29.1	10 8.0	9 38.3	3 30.5	18 47.4	21 50.8	7 36.8	7 36.8

FEBRUARY 1980

DAY	EPIHEMERIS SIDEREAL TIME			LONGITUDE at NOON											
	h	m	s	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
1 F	20 43	26.3	11 47.2	0 13.6	16 15.5	19 42.1	19 51.0	13 37.4	8 7 8.8	26 26.1	25 13.3	21 56.6	21 45.3		
2 S	20 47	22.9	12 48.0	0 10.5	28 19.2	21 28.3	21 3.1	13R 24.2	8 7 2.3	26 20.4	25 14.8	21 58.2	21 45.0		
3 S	20 51	19.4	13 48.9	0 7.3	10 15.0	23 14.6	22 15.2	13 10.4	7 55.8	26 20.6	25 16.2	21 59.8	21 44.7		
4 M	20 55	16.0	14 49.7	0 4.1	22 5.5	25 0.8	23 27.2	12 55.8	7 49.1	26 17.8	25 17.5	22 1.3	21 44.3		
5 T	20 59	12.5	15 50.5	0 0.9	26 46.8	26 46.8	26 46.8	12 40.4	7 42.3	26 14.8	25 18.8	22 2.8	21 43.9		
6 W	21 3 9.1	16 51.4	29 57.8	15 42.5	28 32.5	25 50.9	12 24.4	7 35.7	20 7.1	26 12.0	25 20.1	22 4.3	21 43.5		
7 T	21 7 5.6	17 52.1	29 54.6	27 36.8	30 17.6	27 2.6	12 7.6	7 28.4	26 8.6	25 21.3	22 5.8	22 6.8	21 43.1		
8 F	21 11 2.2	18 52.9	29 51.4	25 18.8	31 5.0	27 1.8	12 14.2	7 21.3	26 5.4	25 22.4	22 7.2	22 8.2	21 42.7		
9 S	21 14 58.7	19 53.7	29 48.2	21 58.8	3 44.8	29 25.7	11 30.2	7 14.1	26 2.1	25 23.5	22 8.7	22 10.1	21 42.0		
10 S	21 18 55.3	20 54.4	29 45.0	4 35.8	5 26.2	30 7.1	11 34.7	6 8.8	25 58.7	25 24.6	22 10.0	21 41.4	21 41.4		
11 M	21 22 51.8	21 55.1	29 41.9	1 35.5	7 5.7	1 48.4	10 13.1	6 59.5	25 55.2	25 26.6	22 11.4	21 40.8	21 40.8		
12 T	21 26 48.4	22 55.9	29 38.7	1 10.0	8 42.7	2 59.6	10 34.3	6 52.1	25 51.8	25 28.0	22 12.8	21 40.2	21 40.2		
13 W	21 30 45.0	23 56.6	29 35.5	1 53.3	10 16.8	4 10.7	10 34.8	6 44.6	25 48.2	25 27.5	22 14.1	21 39.5	21 39.5		
14 T	21 34 41.5	24 57.2	29 32.3	2 38.8	11 47.5	5 21.7	10 34.3	6 37.0	25 44.5	25 28.3	22 15.4	21 38.8	21 38.8		
15 F	21 38 38.1	25 57.9	29 29.1	3 33.8	13 13.8	6 32.6	9 51.9	6 29.4	25 40.7	25 29.1	22 16.6	21 38.1	21 38.1		
16 S	21 42 34.6	26 58.5	29 26.0	4 30.0	14 35.7	7 43.3	9 9.6	6 21.0	25 36.9	25 29.8	22 17.8	21 37.3	21 37.3		
17 S	21 46 31.2	27 59.1	29 22.8	5 26.2	15 52.0	8 54.0	8 47.4	6 14.7	25 33.0	25 30.4	22 19.0	21 36.5	21 36.5		
18 M	21 50 27.7	28 59.7	29 19.6	6 23.5	16 58.8	10 4.5	8 24.8	6 8.2	25 29.1	25 31.0	22 20.2	21 35.7	21 35.7		
19 T	21 54 24.3	29 60.3	29 16.4	7 16.0	17 59.6	11 17.2	8 16.4	5 58.4	25 25.1	25 31.6	22 21.3	21 34.8	21 34.8		
20 W	21 58 20.8	30 60.9	29 13.3	8 8.1	19 0.0	12 25.2	7 38.7	5 51.6	25 21.0	25 32.1	22 22.4	21 33.9	21 33.9		
21 T	22 2 17.4	31 61.5	29 10.1	9 0.0	20 0.0	13 33.3	7 51.3	5 44.7	25 16.9	25 32.7	22 23.5	21 33.0	21 33.0		
22 F	22 6 13.9	3 1.6	29 8.9	26 42.7	20 28.1	14 45.3	6 51.7	5 37.9	25 12.7	25 33.2	22 24.5	21 32.1	21 32.1		
23 S	22 10 10.5	4 2.1	29 7.7	30 0.0	20 58.0	15 55.1	6 28.0	5 27.0	25 8.5	25 33.3	22 25.5	21 31.1	21 31.1		
24 S	22 14 7.0	5 2.4	29 6.6	23 14.4	21 18.2	17 4.8	6 42.2	5 19.1	25 4.2	25 33.5	22 26.5	21 30.1	21 30.1		
25 M	22 18 3.6	6 2.8	28 57.4	6 50.3	21 28.7	18 14.4	5 40.3	5 11.2	24 59.8	25 33.8	22 27.4	21 29.1	21 29.1		
26 T	22 22 0.1														

MAY 1980

DAY	EPHEMERIS SIDEREAL TIME		LONGITUDE at NOON											
	h	m	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
1 T	2 38	16.1	11 15.6	25 27.6	24 38.1	28 10.2	23 45.9	29 18.7	0 16.9	20 34.0	24 4.9	22 18.2	19 48.5	
2 F	2 42	12.6	12 13.9	25 24.5	24 25.6	27 5.7	23 40.0	29 17.9	0 17.9	20 31.9	24 8.2	22 19.7	19 47.0	
3 S	2 46	9.2	13 11.9	25 21.3	24 13.8	27 3.5	25 4.1	29 50.2	0 19.1	20 29.9	24 0.0	22 15.9	19 45.4	
4 S	2 50	5.7	14 10.0	25 18.1	24 2.3	27 0.2	25 4.1	29 50.2	0 19.1	20 28.1	23 57.5	22 14.7	19 43.9	
5 M	2 57	1.3	15 8.1	25 14.9	15 35.0	6 3.5	26 17.4	0 23.5	0 22.1	20 26.3	23 55.1	22 13.5	19 42.4	
6 T	3 5 56.9	16 6.3	16 6.3	25 11.7	25 22.8	8 8.3	26 52.2	0 40.8	0 23.9	20 24.7	23 52.6	22 12.4	19 41.0	
7 W	3 1 55.4	17 4.3	17 4.3	25 8.6	25 12.8	10 10.0	27 1.2	0 58.5	0 25.1	20 23.1	23 50.2	22 11.1	19 39.6	
8 T	3 5 51.9	18 2.3	18 2.3	25 5.4	26 10.1	12 15.5	27 57.7	1 16.6	0 27.9	20 21.5	23 47.7	22 9.9	19 38.1	
9 F	3 9 48.5	19 0.4	19 0.4	25 2.2	26 10.1	14 22.3	28 28.2	1 35.2	0 30.2	20 20.2	23 45.1	22 8.6	19 37.1	
10 S	3 13 45.0	19 58.3	24 59.0	24 40.8	16 30.3	16 30.3	28 57.3	1 54.1	0 32.7	20 18.9	23 42.6	22 7.3	19 35.3	
11 S	3 17 41.6	20 56.3	24 55.9	24 32.2	18 39.4	29 24.9	29 13.5	0 35.3	0 35.3	20 17.8	23 40.1	22 6.0	19 33.8	
12 M	3 21 38.2	21 54.3	24 52.7	24 9.7	20 49.3	29 50.8	2 33.2	0 38.2	0 38.2	20 16.7	23 37.6	22 4.8	19 32.5	
13 T	3 25 34.7	22 52.2	24 50.9	9 23.3	22 59.9	30 51.5	3 53.5	0 41.1	0 41.1	20 15.7	23 35.1	22 3.3	19 31.2	
14 W	3 29 31.3	23 50.1	24 48.3	23 49.2	25 10.9	0 37.7	3 13.7	0 44.3	0 44.3	20 14.8	23 32.6	22 1.9	19 29.9	
15 T	3 33 27.8	24 47.9	24 46.1	8 21.9	27 22.0	0 58.5	3 34.6	0 47.6	0 47.6	20 14.1	23 30.0	22 0.5	19 28.6	
16 F	3 37 24.3	25 45.8	24 44.0	22 35.5	29 33.0	1 17.4	3 55.8	0 51.1	0 51.1	20 13.4	23 27.5	21 59.1	19 27.3	
17 S	3 41 20.9	26 43.6	24 36.8	6 19.4	31 44.4	4 17.3	4 17.3	0 54.8	0 54.8	20 12.8	23 25.0	21 57.7	19 26.0	
18 S	3 45 17.5	27 41.4	24 33.6	19 38.2	3 53.6	1 49.5	4 39.2	0 58.6	0 58.6	20 12.4	23 22.5	21 56.3	19 24.8	
19 M	3 49 14.0	28 39.2	24 30.9	6 2.6	2 5.5	1 4.1	2 5.5	1 4.1	2 5.5	20 12.0	23 20.0	21 54.8	19 23.6	
20 T	3 53 10.5	29 36.9	24 28.3	15 0.9	8 10.3	2 13.4	5 24.0	1 6.8	1 6.8	20 11.8	23 17.5	21 53.4	19 22.4	
21 W	3 57 7.2	30 34.6	24 25.7	22 12.7	9 11.4	3 22.2	6 46.9	1 11.1	1 11.1	20 11.6	23 15.0	21 51.9	19 21.2	
22 T	4 1 3.7	31 32.3	24 23.0	9 11.4	12 21.2	4 30.7	8 10.2	1 15.6	1 15.6	20 11.4	23 12.5	21 50.4	19 20.1	
23 F	4 5 0.3	32 30.0	24 20.7	21 2.6	14 23.8	5 39.0	6 33.6	1 20.2	1 20.2	20 11.2	23 10.0	21 48.9	19 18.9	
24 S	4 8 56.8	3 27.6	24 17.6	2 51.4	16 24.3	2 35.0	6 57.4	1 25.0	1 25.0	20 11.0	23 7.6	21 47.4	19 17.7	
25 S	4 12 53.4	4 25.2	24 14.4	14 42.7	18 22.8	2 34.6	7 21.4	1 30.0	1 30.0	20 12.0	23 5.1	21 45.9	19 16.8	
26 M	4 16 49.9	5 22.8	24 8.2	26 40.3	20 18.4	2 31.8	7 45.6	1 35.1	1 35.1	20 12.4	23 2.7	21 44.3	19 15.7	
27 T	4 20 46.5	6 20.4	24 5.0	8 47.5	22 11.8	2 26.7	8 10.5	1 40.4	1 40.4	20 12.9	23 0.3	21 42.8	19 14.8	
28 W	4 24 43.0	7 18.0	24 1.8	21 6.2	24 2.5	2 19.1	8 35.5	1 45.8	1 45.8	20 13.5	22 57.9	21 41.3	19 13.8	
29 T	4 28 39.6	8 15.5	23 58.7	3 37.7	25 50.5	2 9.0	9 9.7	1 51.3	1 51.3	20 14.2	22 55.5	21 39.7	19 12.9	
30 F	4 32 36.2	9 13.0	23 55.5	16 22.1	27 35.8	1 56.5	9 26.1	1 57.0	1 57.0	20 14.9	22 53.1	21 38.1	19 11.9	
31 S	4 36 32.7	10 10.5	23 52.3	29 19.0	29 18.3	1 41.6	9 51.8	2 2.9	2 2.9	20 15.8	22 50.7	21 36.6	19 11.0	

DECLINATION at NOON													
1 T	2 38	16.1	15N12.5	13N 2.1	14S 3.6	9N12.3	27N35.5	13N39.7	12N31.3	5N54.4	18S 30.9	21S 48.9	8N38.3
4 S	2 50	5.7	16 5.5	13 5.3	19 23.7	11 36.8	27 40.1	12 40.1	12 27.2	5 56.3	18 29.1	21 48.7	8 39.3
7 W	3 1 55.4	16 56.0	13 8.5	15 59.8	14 2.2	27 40.5	12 53.3	12 27.2	12 27.2	5 56.3	18 29.1	21 48.7	8 39.3
10 S	3 13 45.0	17 44.0	13 11.6	4 22.9	16 25.0	27 37.1	12 28.1	12 24.3	12 24.3	5 56.9	18 25.5	21 48.1	8 40.9
13 T	3 25 34.7	18 29.4	13 14.8	9N56.3	18 40.3	27 29.8	12 1.7	12 20.8	12 20.8	5 59.7	18 23.6	21 47.8	8 41.5
16 F	3 37 24.3	19 12.0	13 18.0	18 48.7	20 42.7	27 18.9	11 34.1	12 16.8	12 16.8	6 0.1	18 21.8	21 47.5	8 42.0
19 M	3 49 14.0	19 51.6	13 21.2	17 47.0	22 27.0	27 4.5	11 5.3	12 12.3	12 12.3	6 0.1	18 19.9	21 47.2	8 42.6
22 T	4 1 3.7	20 28.2	13 24.4	9 20.6	23 49.4	26 45.0	10 35.4	12 7.2	12 7.2	6 5.9	18 18.1	21 46.9	8 42.4
25 S	4 12 53.4	21 16.1	13 27.5	25 11.3	24 48.0	26 24.9	10 4.4	12 15.6	12 15.6	6 5.9	18 16.3	21 46.8	8 42.6
28 W	4 24 43.0	21 31.7	13 30.7	13 11.7	25 23.0	25 59.5	9 32.4	11 55.6	11 55.6	6 56.5	18 14.7	21 46.0	8 42.3
31 S	4 36 32.7	21 58.5	13 33.8	19 23.3	25 36.4	25 30.1	8 59.4	11 49.0	11 49.0	6 56.5	18 12.7	21 46.0	8 42.3

JUNE 1980

DAY	EPHEMERIS SIDEREAL TIME		LONGITUDE at NOON											
	h	m	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
1 S	4 40	29.3	11 8.0	23 49.1	12 27.8	0 58.0	1 24.4	10 17.8	2 8.9	20 16.8	22 48.4	21 35.0	19 9.3	
2 M	4 44	25.8	12 5.4	23 46.0	25 47.7	2 34.8	1 19.4	10 44.0	2 15.3	20 15.9	22 46.0	21 33.4	19 9.3	
3 T	4 48	22.4	13 2.9	23 42.8	9 18.2	4 8.7	0 43.0	11 10.5	2 21.3	20 15.0	22 43.6	21 31.8	19 8.4	
4 W	4 52	18.9	14 0.3	23 39.6	22 59.4	5 39.7	0 19.0	11 37.2	2 27.7	20 14.3	22 41.2	21 30.2	19 7.6	
5 T	4 56	15.5	14 57.7	23 36.4	6 51.2	7 7.8	29 52.9	12 4.2	2 34.2	20 13.7	22 39.4	21 28.6	19 6.8	
6 F	5 0	12.1	15 55.1	23 33.3	20 53.8	8 32.9	29 24.9	12 31.4	2 40.9	20 13.2	22 36.9	21 27.0	19 6.1	
7 S	5 4	8.6	16 52.5	23 30.1	5 1 6.6	9 55.0	28 56.1	12 58.8	2 47.7	20 12.8	22 34.7	21 25.4	19 5.4	
8 S	5 8	5.2	17 49.9	23 26.9	19 28.0	11 14.0	28 23.6	13 26.4	2 54.7	20 12.0	22 32.5	21 23.7	19 4.8	
9 M	5 12	17.7	18 47.3	23 23.7	3 54.8	12 30.0	27 50.7	13 54.3	3 1.8	20 11.3	22 30.3	21 22.1	19 4.1	
10 T	5 15	58.3	19 44.7	23 20.5	18 22.5	13 42.8	27 16.4	14 22.4	3 9.0	20 10.7	22 28.2	21 20.5	19 3.5	
11 W	5 19	54.8	20 42.1	23 17.4	2 45.1	14 52.5	26 4.9	15 19.2	3 16.3	20 10.1	22 26.0	21 18.9	19 2.9	
12 T	5 23	51.4	21 39.4	23 14.2	16 56.8	15 58.9	26 4.9	15 19.2	3 16.3	20 9.4	22 24.0	21 17.2	19 2.4	
13 F	5 27	48.0	22 36.8	23 11.0	0 55.5	17 2.0	25 28.0	15 48.0	3 31.4	20 8.6	22 21.9	21 15.6	19 1.8	
14 S	5 31	44.5	23 34.1	23 7.8	14 26.0	18 1.7	24 50.6	16 18.9	3 39.1	20 7.8	22 19.8	21 14.0	19 1.4	
15 S	5 35	41.1	24 31.4	23 4.7	27 37.9	18 57.9	24 13.1	16 46.1	3 46.9	20 7.0	22 17.8	21 12.4	19 0.9	
16 M	5 39	37.6	25 28.7	23 1.5	10 27.6	19 50.5	23 35.6	17 45.0	3 54.9	20 6.3	22 15.9	21 10.8	19 0.5	
17 T	5 43	34.2	26 26.1	22 56.3	22 57.1	20 39.5	22 58.4	17 45.0	4 1.2	20 5.6	22 14.0	21 9.2	19 0.1	
18 W	5 47	30.7	27 23.3	22 55.1	5 1 9.7	21 24.7	22 21.6	18 14.8	4 11.2	20 4.8	22 12.1	21 7.6	18 59.8	
19 T	5 51	27.3	28 20.6	22 52.0	17 9.9	22 2.7	21 45.7	18 44.7	4 19.5	20 3.9	22 10.2	21 6.0	18 59.5	
20 F	5 55	23.9	29 17.9	22 48.8	29 2.7	22 43.4	21 10.6	19 14.8	4 28.0	20 3.4	22 8.4	21 4.4	18 59.2	
21 S	5 59	20.4	30 15.1	22 45.6	10 53.4	23 16.7	20 36.8	19 45.1	4 36.5	20 2.8	22 6.6	21 2.8	18 58.9	
22 S	6 3	17.0	1 12.3	22 42.4	22 46.9	23 45.8	20 4.3	20 15.6	4 45.2	21 0.3	22 4.8	21 1.2	18 58.7	
23 M	6 7	13.5	2 9.6	22 39.2	4 48.0	24 10.5	19 33.4	20 46.2	4 53.9	21 0.4	22 3.1	20 59.6	18 58.5	
24 T	6 11	10.1	3 6.8	22 36.1	17 0.4	24 30.9	19							

SEPTEMBER 1980

DAY	EPIHEMERIS SIDEREAL TIME		LONGITUDE at NOON																						
	h	m	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓											
1 M	10	43	12.4	9	11.5	18	58.8	5	53.9	14	51.7	23	34.0	2	7.7	18	11.4	27	33.6	21	58.2	19	54.2	20	5.0
2 T	10	47	12.4	11	9.5	18	53.7	19	35.2	14	42.2	24	34.9	2	47.0	18	24.3	27	40.8	21	59.9	19	54.2	20	7.0
3 W	10	51	5.5	11	7.7	18	53.7	19	35.2	14	42.2	24	34.9	2	47.0	18	24.3	27	40.8	21	59.9	19	54.2	20	7.0
4 T	10	55	21.1	12	5.8	18	47.3	15	58.6	20	19.4	22	37.4	3	26.4	18	37.2	27	35.4	22	1.6	19	54.3	20	8.9
5 F	10	58	58.6	13	4.0	18	44.1	28	44.2	22	6.2	27	39.8	4	4.5	19	3.1	28	48.0	22	3.4	24	54.4	20	10.9
6 S	11	2	55.2	14	2.3	18	41.9	34	21.9	28	42.0	5	25.1	19	16.0	28	9.8	22	7.2	19	54.7	20	14.9		
7 S	11	6	51.7	15	0.5	18	37.8	23	37.4	25	36.3	29	44.6	6	4.9	19	29.0	28	17.1	22	9.1	19	54.9	20	16.9
8 M	11	10	48.3	15	58.8	18	34.6	5	49.3	27	19.5	0	47.5	6	4.7	19	29.0	28	17.1	22	9.1	19	54.9	20	16.9
9 T	11	14	44.8	16	57.2	18	31.4	17	51.5	29	1.7	24.7	19	55.0	28	31.9	22	13.1	19	55.2	20	19.0	20	21.1	
10 W	11	18	41.4	17	55.5	18	28.2	29	48.6	0	42.6	2	54.2	8	4.8	20	8.0	28	39.2	22	15.2	19	55.8	20	23.2
11 T	11	22	37.9	18	53.9	18	25.1	21	41.5	2	22.5	3	58.0	8	4.9	20	21.0	28	46.6	22	17.3	19	56.1	20	25.3
12 F	11	26	34.5	19	52.3	18	21.9	23	32.0	4	1.2	5	2.0	9	25.1	20	34.0	28	54.0	22	19.5	19	56.5	20	27.4
13 S	11	30	31.0	20	50.7	18	18.7	5	22.5	5	38.8	6	6.2	10	5.4	20	47.0	29	1.4	22	21.7	19	56.9	20	29.5
14 S	11	34	27.6	21	49.2	18	15.5	17	15.9	7	15.3	7	10.8	10	45.8	20	60.0	29	8.8	22	23.9	19	57.3	20	31.7
15 M	11	38	24.1	22	47.7	18	12.3	29	15.5	8	50.8	8	15.6	11	26.3	21	13.0	29	16.2	22	26.2	19	57.8	20	33.8
16 T	11	42	20.7	23	46.2	18	9.2	31	12.5	10	25.2	9	20.6	12	6.9	21	25.9	29	23.6	22	28.5	19	58.3	20	36.0
17 W	11	46	17.2	24	44.7	18	6.0	33	48.9	11	31.4	10	25.9	12	6.5	21	26.9	29	31.0	22	30.9	19	58.8	20	38.2
18 T	11	50	13.8	25	43.3	18	2.8	35	31.3	13	30.9	11	31.4	13	20.2	22	51.9	29	38.5	22	33.3	19	59.4	20	40.4
19 F	11	54	10.3	26	41.9	17	59.8	19	36.4	15	2.1	12	37.1	14	3.1	22	4.9	29	45.9	22	35.7	19	60.0	20	42.6
20 S	11	58	6.9	27	40.5	17	56.5	3	7.5	16	32.4	13	43.1	14	20.2	22	17.9	29	53.3	22	38.2	20	0.6	20	44.9
21 S	12	2	3.4	28	39.2	17	53.3	17	8.4	18	1.6	14	49.3	15	30.9	22	30.8	0	0.8	22	40.7	20	1.2	20	47.1
22 M	12	5	60.0	29	37.9	17	50.1	1	32.8	19	29.7	15	55.7	16	23.8	23	24.9	0	8.2	22	43.3	20	1.9	20	49.4
23 T	12	9	56.5	0	36.6	17	46.9	16	22.7	20	56.8	17	2.3	16	53.1	22	56.7	0	15.7	22	45.9	20	2.7	20	51.1
24 W	12	13	53.1	1	35.4	17	43.7	1	30.0	22	22.9	18	9.2	17	34.4	23	9.6	0	23.1	22	48.5	20	3.4	20	53.9
25 T	12	17	49.6	2	34.1	17	40.6	16	45.1	23	47.9	19	16.2	18	57.3	23	22.5	0	30.6	22	51.2	20	4.2	20	56.2
26 F	12	21	46.2	3	32.9	17	37.4	1	47.5	25	11.7	20	23.5	18	57.1	23	35.4	0	38.0	22	53.9	20	5.0	20	58.5
27 S	12	25	42.7	4	31.8	17	34.2	16	56.9	26	34.5	21	30.9	19	38.5	23	48.3	0	45.4	22	56.7	20	5.9	21	0.8
28 S	12	29	39.3	5	30.7	17	31.0	1	35.4	27	58.1	22	38.6	20	20.1	24	1.2	0	52.9	22	59.4	20	6.7	21	3.1
29 M	12	33	35.9	6	29.6	17	27.9	15	48.1	29	16.5	23	46.4	21	1.7	24	14.0	1	0.3	23	2.3	20	7.6	21	5.4
30 T	12	37	32.4	7	28.8	17	24.7	19	33.4	0	35.7	24	54.5	21	4.3	24	26.9	1	7.8	23	5.2	20	8.6	21	7.8

DECLINATION at NOON

DAY	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓													
1 M	10	43	12.4	8	N 7.4	15	N 8.6	16	N 18.2	7	N 19.3	19	N 1.7	12	S 34.2	5	N 37.3	2	N 51.9	18	S 1.2	21	S 41.9	7	N 39.0
2 T	10	55	21.1	7	N 1.4	15	N 11.6	13	S 12.8	4	N 13.8	14	N 43.8	4	N 40.3	5	N 22.2	2	N 43.2	21	N 2.6	21	N 42.0	7	N 35.9
3 W	11	6	51.7	5	N 54.4	15	N 14.6	13	S 56.7	2	N 37.4	18	N 21.7	13	S 98.4	5	N 22.2	2	N 43.2	21	N 2.6	21	N 42.0	7	N 35.9
4 T	11	18	41.4	4	N 46.4	15	N 17.5	3	N 8.3	0	N 18.1	17	N 55.2	14	S 56.6	4	N 51.7	2	N 25.6	18	N 5.8	21	N 42.7	7	N 39.8
5 F	11	30	31.0	3	N 27.5	15	N 20.4	8	S 33.7	15	S 58.6	17	N 24.3	15	N 20.0	4	N 36.5	2	N 16.8	18	N 7.5	21	N 42.7	7	N 39.8
6 S	11	42	20.7	2	N 18.8	15	N 23.4	17	N 22.0	4	N 11.6	16	N 49.1	15	N 59.6	4	N 2.2	2	N 8.0	18	N 9.3	21	N 42.7	7	N 39.8
7 S	11	54	10.3	1	N 18.8	15	N 26.3	19	N 25.7	6	N 20.2	16	N 9.5	16	N 38.4	4	N 6.0	1	N 59.2	18	N 11.2	21	N 43.2	7	N 20.7
8 M	12	5	60.0	0	N 8.8	15	N 29.2	21	N 34.7	0	N 23.8	15	N 25.7	17	N 16.4	3	N 50.7	1	N 50.4	18	N 13.2	21	N 43.5	7	N 17.7
9 T	12	9	56.5	1	N 13.3	15	N 32.1	2	N 34.7	10	N 21.6	14	N 27.9	3	N 35.5	1	N 41.6	1	N 41.6	18	N 15.2	21	N 43.8	7	N 14.7
10 W	12	13	53.1	2	N 11.4	15	N 35.1	12	N 33.5	12	N 13.0	13	N 45.9	18	N 28.6	3	N 20.4	1	N 32.9	18	N 17.3	21	N 44.2	7	N 11.8

OCTOBER 1980

DAY	EPIHEMERIS SIDEREAL TIME		LONGITUDE at NOON																						
	h	m	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓											
1 W	12	41	29.0	8	N 27.6	17	N 21.5	12	S 52.2	1	N 53.6	26	N 2.7	22	N 25.3	24	N 39.7	1	N 15.2	23	N 8.0	20	N 9.6	21	N 10.2
2 T	12	45	25.5	9	N 26.7	17	N 18.3	25	N 47.4	3	N 10.1	27	N 11.1	24	N 25.3	4	N 52.5	1	N 22.8	23	N 11.0	20	N 10.6	21	N 12.5
3 F	12	49	22.1	10	N 25.8	17	N 15.1	8	N 23.0	4	N 25.2	28	N 19.7	23	N 49.1	25	N 10.0	1	N 22.8	23	N 11.0	20	N 11.6	21	N 14.9
4 S	12	53	18.6	11	N 24.9	17	N 12.0	20	N 42.9	5	N 38.8	29	N 28.5	24	N 31.1	25	N 18.0	1	N 37.3	23	N 16.9	20	N 12.7	21	N 17.2
5 F	12	57	15.2	12	N 24.0	17	N 8.8	2	N 51.3	6	N 50.8	0	N 37.4	25	N 13.2	25	N 30.8	1	N 44.7	23	N 19.9	20	N 13.8	21	N 19.6
6 M	13	1	11.7	13	N 23.2	17	N 5.6	14	N 51.5	8	N 1.0	1	N 46.4	26	N 37.5	25	N 56.1	1	N 52.1	23	N 23.0	20	N 14.9	21	N 22.0
7 T	13	5	8.3	14	N 22.4	17	N 2.4	26	N 46.4	9	N 9.4	2	N 55.7	26	N 37.7	25	N 56.1	1	N 52.1	23	N 23.0	20	N 14.9	21	N 22.0
8 W	13	9	4.8	15	N 21.7	16	N 59.3	0	N 38.4	10	N 15.8	4	N 5.0	27	N 20.1	26	N 8.7	2	N 6.7	23	N 29.1	20	N 17.2	21	N 26.7
9 T	13	13	1.4	16	N 21.0	16	N 56.1	1	N 20.9	11	N 20.0	5	N 14.6	28	N 2.5	26	N 21.4	2	N 14.1	23	N 32.3	20	N 18.5	21	N 29.1
10 F	13	16	57.9	17	N 20.3	16	N 52.9	2	N 20.6	12	N 21.9	6	N 24.3	29	N 4.7	26	N 33.9	2	N 21.3	23	N 35.4	20	N 19.7	21	N 31.5
11 S	13	20	54.9	18	N 19.7	16	N 49.7	1	N 13.9	13	N 21.3	7	N 34.1	29	N 25.1	26	N 46.5	2	N 28.6	23	N 38.6	20	N 21.0	21	N 33.9
12 S	13	24	51.0	19	N 19.1	16	N 46.5	2	N 10.8	14	N 17.8	8	N 44.0	0	N 10.3	26	N 59.0	2	N 35.9	23	N 41.8	20	N 22.3	21	N 36.3
13 M	13	28	47.6	20	N 18.5	16	N 43.4	8	N 13.5	15	N 11.3	9	N 54.1	0	N 53.7	27	N 11.4	2	N 43.1	23	N 45.1	20	N 23.6	21	N 38.7
14 T	13	32	44.1	21	N 18.0	16	N 40.2	20	N 24.7	16	N 1.5	11	N 4.4	1	N 35.9	27	N 23.8	2	N 50.3	23	N 48.4	20	N 24.9	21	N 41.1
15 W	13	36	40.7	22	N 17.5	16	N 37.0	2	N 24.7	16	N 47.9	12	N 14.7	2	N 18.8	27	N 36.6	3	N 4.6	23	N 55.0	20	N 27.7	21	N 45.9
16 T	13	40	37.2																						