



# Astrodienst Ephemeris Tables for the year 1591

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming  
Dieter Koch and Alois Treindl  
based on Swiss Ephemeris  
Code D5EPX

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

JANUARY 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 40 6	10 <sup>3</sup> 10'23	18 <sup>8</sup> 28	20 <sup>2</sup> 27	24 <sup>2</sup> 42	4 <sup>1</sup> 25	12 <sup>1</sup> 28	23 <sup>2</sup> R58	21 <sup>1</sup> 29	7 <sup>2</sup> R27	12 <sup>1</sup> Y14	24 <sup>2</sup> 552	25 <sup>2</sup> 333	1 <sup>1</sup> 5 8	14 <sup>2</sup> R52	T 1	
W 2	6 44 3	11 <sup>1</sup> 11'34	2 <sup>1</sup> Y41	21 <sup>1</sup> 50	25 <sup>2</sup> 58	5 <sup>1</sup> 0	12 <sup>2</sup> 38	23 <sup>2</sup> II54	21 <sup>2</sup> 31	7 <sup>2</sup> Q25	12 <sup>2</sup> 14	24 <sup>2</sup> 53	25 <sup>2</sup> 30	1 <sup>2</sup> 15	14 <sup>2</sup> 851	W 2	
T 3	6 47 59	12 <sup>1</sup> 12'44	16 <sup>2</sup> 52	23 <sup>2</sup> 14	27 <sup>2</sup> 13	5 <sup>2</sup> 36	12 <sup>2</sup> 47	23 <sup>2</sup> 49	21 <sup>2</sup> 32	7 <sup>2</sup> 24	12 <sup>2</sup> 14	24 <sup>2</sup> R53	25 <sup>2</sup> 26	1 <sup>2</sup> 21	14 <sup>2</sup> 49	T 3	
F 4	6 51 56	13 <sup>1</sup> 13'54	0 <sup>2</sup> 58	24 <sup>2</sup> 39	28 <sup>2</sup> 28	6 <sup>2</sup> 11	12 <sup>2</sup> 56	23 <sup>2</sup> 45	21 <sup>2</sup> 34	7 <sup>2</sup> 22	12 <sup>2</sup> 14	24 <sup>2</sup> 53	25 <sup>2</sup> 23	1 <sup>2</sup> 28	14 <sup>2</sup> 48	F 4	
S 5	6 55 52	14 <sup>1</sup> 15'02	14 <sup>2</sup> 57	26 <sup>2</sup> 4	29 <sup>2</sup> 43	6 <sup>2</sup> 47	13 <sup>2</sup> 6	23 <sup>2</sup> 40	21 <sup>2</sup> 36	7 <sup>2</sup> 21	12 <sup>2</sup> 15	24 <sup>2</sup> 52	25 <sup>2</sup> 20	1 <sup>2</sup> 35	14 <sup>2</sup> 47	S 5	
S 6	6 59 49	15 <sup>1</sup> 16'11	28 <sup>2</sup> 49	27 <sup>2</sup> 31	0 <sup>2</sup> 59	7 <sup>2</sup> 22	13 <sup>2</sup> 15	23 <sup>2</sup> 36	21 <sup>2</sup> 38	7 <sup>2</sup> 19	12 <sup>2</sup> 15	24 <sup>2</sup> 50	25 <sup>2</sup> 17	1 <sup>2</sup> 41	14 <sup>2</sup> 46	S 6	
M 7	7 3 45	16 <sup>1</sup> 17'19	12 <sup>2</sup> II29	28 <sup>2</sup> 58	2 <sup>2</sup> 14	7 <sup>2</sup> 57	13 <sup>2</sup> 24	23 <sup>2</sup> 31	21 <sup>2</sup> 40	7 <sup>2</sup> 18	12 <sup>2</sup> 15	24 <sup>2</sup> 49	25 <sup>2</sup> 14	1 <sup>2</sup> 48	14 <sup>2</sup> 45	M 7	
T 8	7 7 42	17 <sup>1</sup> 18'26	25 <sup>2</sup> 58	0 <sup>2</sup> 25	3 <sup>2</sup> 29	8 <sup>2</sup> 33	13 <sup>2</sup> 33	23 <sup>2</sup> 27	21 <sup>2</sup> 41	7 <sup>2</sup> 16	12 <sup>2</sup> 15	24 <sup>2</sup> 48	25 <sup>2</sup> 11	1 <sup>2</sup> 55	14 <sup>2</sup> 44	T 8	
W 9	7 11 38	18 <sup>1</sup> 19'33	9 <sup>2</sup> 513	1 <sup>2</sup> 54	4 <sup>2</sup> 45	9 <sup>2</sup> 8	13 <sup>2</sup> 42	23 <sup>2</sup> 23	21 <sup>2</sup> 43	7 <sup>2</sup> 14	12 <sup>2</sup> 16	24 <sup>2</sup> 48	25 <sup>2</sup> 7	2 <sup>2</sup> 2	14 <sup>2</sup> 43	W 9	
T 10	7 15 35	19 <sup>1</sup> 20'39	22 <sup>2</sup> 13	3 <sup>2</sup> 23	6 <sup>2</sup> 0	9 <sup>2</sup> 43	13 <sup>2</sup> 50	23 <sup>2</sup> 18	21 <sup>2</sup> 45	7 <sup>2</sup> 13	12 <sup>2</sup> 16	24 <sup>2</sup> D47	25 <sup>2</sup> 4	2 <sup>2</sup> 8	14 <sup>2</sup> 42	T 10	
F 11	7 19 32	20 <sup>1</sup> 21'45	4 <sup>2</sup> Q58	4 <sup>2</sup> 52	7 <sup>2</sup> 15	10 <sup>2</sup> 18	13 <sup>2</sup> 59	23 <sup>2</sup> 14	21 <sup>2</sup> 47	7 <sup>2</sup> 11	12 <sup>2</sup> 16	24 <sup>2</sup> 48	25 <sup>2</sup> 1	2 <sup>2</sup> 15	14 <sup>2</sup> 41	F 11	
S 12	7 23 28	21 <sup>1</sup> 22'50	17 <sup>2</sup> 28	6 <sup>2</sup> 22	8 <sup>2</sup> 31	10 <sup>2</sup> 53	14 <sup>2</sup> 8	23 <sup>2</sup> 10	21 <sup>2</sup> 49	7 <sup>2</sup> 10	12 <sup>2</sup> 17	24 <sup>2</sup> 48	24 <sup>2</sup> 58	2 <sup>2</sup> 22	14 <sup>2</sup> 40	S 12	
S 13	7 27 25	22 <sup>1</sup> 23'55	29 <sup>2</sup> 45	7 <sup>2</sup> 53	9 <sup>2</sup> 46	11 <sup>2</sup> 28	14 <sup>2</sup> 16	23 <sup>2</sup> 6	21 <sup>2</sup> 51	7 <sup>2</sup> 8	12 <sup>2</sup> 17	24 <sup>2</sup> 48	24 <sup>2</sup> 55	2 <sup>2</sup> 28	14 <sup>2</sup> 39	S 13	
M14	7 31 21	23 <sup>1</sup> 24'59	11 <sup>2</sup> 10	9 <sup>2</sup> 24	11 <sup>2</sup> 1	12 <sup>2</sup> 3	14 <sup>2</sup> 24	23 <sup>2</sup> 2	21 <sup>2</sup> 53	7 <sup>2</sup> 6	12 <sup>2</sup> 17	24 <sup>2</sup> 48	24 <sup>2</sup> 52	2 <sup>2</sup> 35	14 <sup>2</sup> 39	M14	
T 15	7 35 18	24 <sup>1</sup> 26'03	23 <sup>2</sup> 47	10 <sup>2</sup> 56	12 <sup>2</sup> 17	12 <sup>2</sup> 38	14 <sup>2</sup> 32	22 <sup>2</sup> 58	21 <sup>2</sup> 56	7 <sup>2</sup> 5	12 <sup>2</sup> 18	24 <sup>2</sup> R48	24 <sup>2</sup> 48	2 <sup>2</sup> 42	14 <sup>2</sup> 38	T 15	
W16	7 39 14	25 <sup>1</sup> 27'06	5 <sup>2</sup> 40	12 <sup>2</sup> 29	13 <sup>2</sup> 32	13 <sup>2</sup> 13	14 <sup>2</sup> 40	22 <sup>2</sup> 55	21 <sup>2</sup> 58	7 <sup>2</sup> 3	12 <sup>2</sup> 18	24 <sup>2</sup> 48	24 <sup>2</sup> 45	2 <sup>2</sup> 49	14 <sup>2</sup> 37	W16	
T 17	7 43 11	26 <sup>1</sup> 28'09	17 <sup>2</sup> 32	14 <sup>2</sup> 2	14 <sup>2</sup> 47	13 <sup>2</sup> 48	14 <sup>2</sup> 48	22 <sup>2</sup> 51	22 <sup>2</sup> 0	7 <sup>2</sup> 1	12 <sup>2</sup> 19	24 <sup>2</sup> 48	24 <sup>2</sup> 42	2 <sup>2</sup> 55	14 <sup>2</sup> 37	T 17	
F 18	7 47 7	27 <sup>1</sup> 29'11	29 <sup>2</sup> 28	15 <sup>2</sup> 35	16 <sup>2</sup> 2	14 <sup>2</sup> 23	14 <sup>2</sup> 56	22 <sup>2</sup> 47	22 <sup>2</sup> 2	7 <sup>2</sup> 0	12 <sup>2</sup> 19	24 <sup>2</sup> D48	24 <sup>2</sup> 39	3 <sup>2</sup> 2	14 <sup>2</sup> 37	F 18	
S 19	7 51 4	28 <sup>1</sup> 30'13	11 <sup>2</sup> 10	17 <sup>2</sup> 10	17 <sup>2</sup> 18	14 <sup>2</sup> 57	15 <sup>2</sup> 3	22 <sup>2</sup> 44	22 <sup>2</sup> 5	6 <sup>2</sup> 58	12 <sup>2</sup> 20	24 <sup>2</sup> 48	24 <sup>2</sup> 36	3 <sup>2</sup> 9	14 <sup>2</sup> 36	S 19	
S 20	7 55 1	29 <sup>1</sup> 31'14	23 <sup>2</sup> 52	18 <sup>2</sup> 44	18 <sup>2</sup> 33	15 <sup>2</sup> 32	15 <sup>2</sup> 11	22 <sup>2</sup> 40	22 <sup>2</sup> 7	6 <sup>2</sup> 56	12 <sup>2</sup> 20	24 <sup>2</sup> 49	24 <sup>2</sup> 32	3 <sup>2</sup> 15	14 <sup>2</sup> 36	S 20	
M21	7 58 57	0 <sup>2</sup> 32'15	6 <sup>2</sup> 29	20 <sup>2</sup> 20	19 <sup>2</sup> 48	16 <sup>2</sup> 7	15 <sup>2</sup> 18	22 <sup>2</sup> 37	22 <sup>2</sup> 9	6 <sup>2</sup> 55	12 <sup>2</sup> 21	24 <sup>2</sup> 49	24 <sup>2</sup> 29	3 <sup>2</sup> 22	14 <sup>2</sup> 36	M21	
T 22	8 2 54	1 <sup>2</sup> 33'15	19 <sup>2</sup> 26	21 <sup>2</sup> 56	21 <sup>2</sup> 4	16 <sup>2</sup> 41	15 <sup>2</sup> 25	22 <sup>2</sup> 34	22 <sup>2</sup> 12	6 <sup>2</sup> 53	12 <sup>2</sup> 21	24 <sup>2</sup> 50	24 <sup>2</sup> 26	3 <sup>2</sup> 29	14 <sup>2</sup> 36	T 22	
W23	8 6 50	2 <sup>2</sup> 34'14	2 <sup>2</sup> 36	23 <sup>2</sup> 33	22 <sup>2</sup> 19	17 <sup>2</sup> 15	15 <sup>2</sup> 32	22 <sup>2</sup> 30	22 <sup>2</sup> 14	6 <sup>2</sup> 51	12 <sup>2</sup> 22	24 <sup>2</sup> 51	24 <sup>2</sup> 23	3 <sup>2</sup> 36	14 <sup>2</sup> D36	W23	
T 24	8 10 47	3 <sup>2</sup> 35'12	16 <sup>2</sup> 30	25 <sup>2</sup> 10	23 <sup>2</sup> 34	17 <sup>2</sup> 50	15 <sup>2</sup> 39	22 <sup>2</sup> 27	22 <sup>2</sup> 17	6 <sup>2</sup> 50	12 <sup>2</sup> 22	24 <sup>2</sup> 51	24 <sup>2</sup> 20	3 <sup>2</sup> 42	14 <sup>2</sup> 36	T 24	
F 25	8 14 43	4 <sup>2</sup> 36'10	0 <sup>2</sup> 34	26 <sup>2</sup> 48	24 <sup>2</sup> 49	18 <sup>2</sup> 24	15 <sup>2</sup> 46	22 <sup>2</sup> 24	22 <sup>2</sup> 19	6 <sup>2</sup> 48	12 <sup>2</sup> 23	24 <sup>2</sup> R51	24 <sup>2</sup> 17	3 <sup>2</sup> 49	14 <sup>2</sup> 36	F 25	
S 26	8 18 40	5 <sup>2</sup> 37'07	14 <sup>2</sup> 57	28 <sup>2</sup> 27	26 <sup>2</sup> 5	18 <sup>2</sup> 58	15 <sup>2</sup> 52	22 <sup>2</sup> 21	22 <sup>2</sup> 22	6 <sup>2</sup> 46	12 <sup>2</sup> 24	24 <sup>2</sup> 51	24 <sup>2</sup> 13	3 <sup>2</sup> 56	14 <sup>2</sup> 36	S 26	
S 27	8 22 36	6 <sup>2</sup> 38'02	29 <sup>2</sup> 32	0 <sup>2</sup> 37	27 <sup>2</sup> 20	19 <sup>2</sup> 33	15 <sup>2</sup> 59	22 <sup>2</sup> 18	22 <sup>2</sup> 25	6 <sup>2</sup> 45	12 <sup>2</sup> 24	24 <sup>2</sup> 50	24 <sup>2</sup> 10	4 <sup>2</sup> 2	14 <sup>2</sup> 36	S 27	
M28	8 26 33	7 <sup>2</sup> 38'56	14 <sup>2</sup> 12	1 <sup>2</sup> 47	28 <sup>2</sup> 35	20 <sup>2</sup> 7	16 <sup>2</sup> 5	22 <sup>2</sup> 16	22 <sup>2</sup> 27	6 <sup>2</sup> 43	12 <sup>2</sup> 25	24 <sup>2</sup> 48	24 <sup>2</sup> 7	4 <sup>2</sup> 9	14 <sup>2</sup> 36	M28	
T 29	8 30 30	8 <sup>2</sup> 39'49	28 <sup>2</sup> 52	3 <sup>2</sup> 28	29 <sup>2</sup> 50	20 <sup>2</sup> 41	16 <sup>2</sup> 11	22 <sup>2</sup> 13	22 <sup>2</sup> 30	6 <sup>2</sup> 41	12 <sup>2</sup> 26	24 <sup>2</sup> 46	24 <sup>2</sup> 4	4 <sup>2</sup> 16	14 <sup>2</sup> 37	T 29	
W30	8 34 26	9 <sup>2</sup> 40'40	13 <sup>2</sup> Y24	5 <sup>2</sup> 9	1 <sup>2</sup> 36	21 <sup>2</sup> 14	16 <sup>2</sup> 17	22 <sup>2</sup> 10	22 <sup>2</sup> 33	6 <sup>2</sup> 40	12 <sup>2</sup> 27	24 <sup>2</sup> 45	24 <sup>2</sup> 1	4 <sup>2</sup> 23	14 <sup>2</sup> 37	W30	
T 31	8 38 23	10 <sup>2</sup> 41'30	27 <sup>2</sup> Y44	6 <sup>2</sup> 52	2 <sup>2</sup> 21	21 <sup>2</sup> 10	16 <sup>2</sup> 10	22 <sup>2</sup> 11	22 <sup>2</sup> 35	6 <sup>2</sup> 38	12 <sup>2</sup> Y27	24 <sup>2</sup> 44	23 <sup>2</sup> 57	4 <sup>2</sup> 29	14 <sup>2</sup> 38	T 31	

Day	☉	☾		♀		♀		♂		♂		♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	♂
T 1	23s 6	8s29	4s15	22s37	0n32	23s 8	0n15	11s53	1n13	14s35	1n 5	22n12	1s 9	4s 4	0s45	18n26	0s 1	10s58	17s11	21n12
W 2	23 1	3 25	4 53	22 51	0 23	23 13	0 12	12 5	1 13	14 38	1 5	22 12	1 9	4 3	0 45	18 26	0 1	10 57	17 10	21 12
T 3	22 56	1n49	5 13	23 4	0 15	23 18	0 10	12 17	1 12	14 40	1 5	22 12	1 9	4 3	0 44	18 26	0 1	10 57	17 10	21 12
F 4	22 50	6 55	5 15	23 15	0 8	23 22	0 7	12 29	1 12	14 43	1 5	22 12	1 9	4 2	0 44	18 27	0 1	10 57	17 10	21 12
S 5	22 44	11 37	4 57	23 26	0s 0	23 25	0 5	12 41	1 12	14 46	1 6	22 12	1 9	4 1	0 44	18 27	0 1	10 56	17 9	21 12
S 6	22 37	15 40	4 23	23 36	0 8	23 27	0 2	12 52	1 12	14 48	1 6	22 12	1 9	4 0	0 44	18 28	0 1	10 56	17 9	21 12
M 7	22 30	18 49	3 34	23 44	0 15	23 28	0s 0	13 4	1 11	14 51	1 6	22 11	1 9	4 0	0 44	18 28	0 1	10 55	17 8	21 13
T 8	22 22	20 53	2 33	23 52	0 22	23 29	0 3	13 16	1 11	14 54	1 6	22 11	1 8	3 59	0 44	18 28	0 1	10 55	17 8	21 13
W 9	22 14	21 45	1 25	23 58	0 29	23 29	0 5	13 27	1 11	14 56	1 6	22 11	1 8	3 58	0 44	18 29	0 1	10 54	17 8	21 13
T 10	22 6	21 25	0 14	24 3	0 36	23 29	0 8	13 38	1 11	14 59	1 6	22 11	1 8	3 57	0 44	18 29	0 1	10 54	17 7	21 13
F 11	21 57	19 58	0 43	24 7	0 43	23 27	0 10	13 50	1 10	15 1	1 6	22 11	1 8	3 56	0 44	18 30	0 1	10 54	17 7	21 13
S 12	21 47	17 35	2 3	24 10	0 49	23 25	0 12	14 1	1 10	15 3	1 6	22 11	1 8	3 56	0 44	18 30	0 1	10 53	17 7	21 13
S 13	21 38	14 25	3 2	24 11	0 56	23 23	0 15	14 12	1 10	15 6	1 6	22 11	1 8	3 55	0 44	18 31	0 1	10 53	17 6	21 13
M14	21 27	10 43	3 52	24 11	1 2	23 19	0 17	14 23	1 9	15 8	1 7	22 11	1 7	3 54	0 44	18 31	0 1	10 52	17 6	21 13
T 15	21 17	6 38	4 32	24 10	1 8	23 15	0 20	14 34	1 9	15 10	1 7	22 11	1 7	3 53	0 44	18 31	0 1	10 52	17 6	21 13
W16	21 6	2 20	5 0	24 7	1 13	23 10	0 22	14 45	1 9	15 13	1 7	22 11	1 7	3 52	0 44	18 32	0 1	10 51	17 5	21 13
T 17	20 54	2s 3	5 15	24 3	1 19	23 4	0 24	14 55	1 9	15 15	1 7	22 11	1 7	3 51	0 44	18 32	0 1	10 51	17 5	21 13
F 18	20 43	6 22	5 16	23 58	1 24	22 58	0 27	15 6	1 8	15 17	1 7	22 11	1 7	3 50	0 44	18 33	0 1	10 50	17 4	21 13
S 19	20 30	10 31	5 4	23 51	1 29	22 51	0 29	15 17	1 8	15 19	1 7	22 11	1 7	3 49	0 44	18 33	0 1	10 50	17 4	21 13
S 20	20 18	14 18	4 38	23 43	1 33	22 43	0 31	15 27	1 8	15 21	1 7	22 11	1 6	3 48	0 44	18 34	0 1	10 49	17 4	21 13
M21	20 5	17 32	3 57	23 33	1 38	22 35	0 34	15 37	1 7	15 23	1 8	22 11	1 6	3 47	0 44	18 34	0 1	10 49	17 3	21 13
T 22	19 51	20 1	3 4	23 22	1 42	22 26	0 36	15 48	1 7	15 25	1 8	22 11	1 6	3 46	0 44	18 34	0 1	10 48	17 3	21 12
W23	19 38	21 28	1 59	23 10	1 45	22 16	0 38	15 58	1 6	15 27	1 8	22 11	1 6	3 45	0 44	18 35	0 1	10 48	17 3	21 12
T 24	19 24	21 42	0 46	22 56	1 49	22 5	0 40	16 8	1 6	15 29	1 8	22 11	1 6	3 44	0 44	18 35	0 1	10 47	17 2	21 12
F 25	19 9	20 35	0s32	22 40	1 52	21 54	0 42	16 17	1 6	15 30	1 8	22 11	1 5	3 43	0 44	18 36	0 1	10 46	17 2	21 12
S 26	18 54	18 7	1 49	22 23	1 55	21 42	0 44	16 27	1 5	15 32	1 8	22 11	1 5	3 42	0 44	18 36	0 1	10 46	17 2	21 12
S 27	18 39	14 29	3 0	22 5	1 57	21 30	0 46	16 37	1 5	15 34	1 8	22 11	1 5	3 41	0 44	18 37	0 1	10 45	17 1	21 13
M28	18 24	9 55	4 0	21 45	1 59	21 17	0 48	16 46	1 4	15 36	1 9	22 11	1 5	3 40	0 44	18 37	0 1	10 45	17 1	21 13
T 29	18 8	4 48	4 44	21 23	2 1	21 3	0 50	16 56	1 4	15 37	1 9	22 11	1 5	3 39	0 44	18 37	0 1	10 44	17 1	21 13
W30	17 52	0n32	5 10	21 0	2 3	20 48	0 52	17 5	1 4	15 39	1 9	22 11	1 4	3 38	0 44	18 38	0 1	10 44	17 0	21 13
T 31	17s36	5n47	5s16	20s36	2s 4	20s33	0s54	17s14	1n 3	15s40	1n 9	22n11	1s 4	3s37	0s44	18n38	0s 1	10s43	17s 0	21n14

ASTRODIENST EPHEMERIS for the year 1591  
geocentric

FEBRUARY 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 42 19	11 <sup>22</sup> 42'18	11 <sup>18</sup> 50	8 <sup>22</sup> 35	3 <sup>22</sup> 36	22 <sup>11</sup> 22	16 <sup>11</sup> 29	22°R 6	22 <sup>11</sup> 38	6°R36	12 <sup>11</sup> 28	24°D43	23 <sup>11</sup> 54	4 <sup>11</sup> 36	14 <sup>11</sup> 38	F 1
S 2	8 46 16	12°43'05	25°40	10°19	4°51	22°56	16°34	22 <sup>11</sup> 3	22°41	6 <sup>11</sup> 35	12°29	24 <sup>11</sup> 44	23°51	4°43	14°39	S 2
S 3	8 50 12	13°43'50	9 <sup>11</sup> 13	12° 4	6° 7	23°29	16°39	22° 1	22°44	6°33	12°30	24°45	23°48	4°49	14°40	S 3
M 4	8 54 9	14°44'34	22°31	13°49	7°22	24° 3	16°45	21°59	22°47	6°31	12°31	24°46	23°45	4°56	14°40	M 4
T 5	8 58 5	15°45'16	5 <sup>11</sup> 35	15°35	8°37	24°36	16°50	21°57	22°49	6°30	12°31	24°48	23°42	5° 3	14°41	T 5
W 6	9 2 2	16°45'56	18°26	17°23	9°52	25°10	16°54	21°55	22°52	6°28	12°32	24°R49	23°38	5°10	14°42	W 6
T 7	9 5 59	17°46'35	1 <sup>11</sup> 4	19°10	11° 7	25°43	16°59	21°54	22°55	6°26	12°33	24°49	23°35	5°16	14°43	T 7
F 8	9 9 55	18°47'13	13°32	20°59	12°22	26°16	17° 4	21°52	22°58	6°25	12°34	24°47	23°32	5°23	14°44	F 8
S 9	9 13 52	19°47'48	25°49	22°48	13°37	26°49	17° 8	21°51	23° 1	6°23	12°35	24°45	23°29	5°30	14°45	S 9
S 10	9 17 48	20°48'23	7 <sup>11</sup> 58	24°38	14°53	27°22	17°12	21°49	23° 4	6°21	12°36	24°41	23°26	5°36	14°46	S 10
M 11	9 21 45	21°48'56	19°59	26°29	16° 8	27°55	17°16	21°48	23° 7	6°20	12°37	24°36	23°23	5°43	14°48	M 11
T 12	9 25 41	22°49'27	1 <sup>11</sup> 54	28°20	17°23	28°28	17°20	21°47	23°10	6°18	12°38	24°31	23°19	5°50	14°49	T 12
W 13	9 29 38	23°49'57	13°47	0 <sup>11</sup> 11	18°38	29° 0	17°24	21°46	23°13	6°16	12°39	24°26	23°16	5°57	14°50	W 13
T 14	9 33 34	24°50'26	25°38	2° 3	19°53	29°33	17°27	21°45	23°16	6°15	12°40	24°22	23°13	6° 3	14°52	T 14
F 15	9 37 31	25°50'53	7 <sup>11</sup> 34	3°55	21° 8	0 <sup>11</sup> 5	17°30	21°44	23°20	6°13	12°41	24°19	23°10	6°10	14°53	F 15
S 16	9 41 28	26°51'19	19°36	5°47	22°23	0°38	17°34	21°43	23°23	6°12	12°42	24°17	23° 7	6°17	14°55	S 16
S 17	9 45 24	27°51'44	1 <sup>11</sup> 51	7°39	23°38	1°10	17°37	21°43	23°26	6°10	12°43	24°D17	23° 3	6°23	14°56	S 17
M 18	9 49 21	28°52'07	14°23	9°30	24°53	1°42	17°39	21°42	23°29	6° 9	12°44	24°18	23° 0	6°30	14°58	M 18
T 19	9 53 17	29°52'29	27°15	11°21	26° 8	2°14	17°42	21°42	23°32	6° 7	12°45	24°19	22°57	6°37	15° 0	T 19
W 20	9 57 14	0 <sup>11</sup> 52'50	10 <sup>11</sup> 33	13°11	27°23	2°46	17°44	21°41	23°35	6° 6	12°46	24°21	22°54	6°44	15° 1	W 20
T 21	10 1 10	1°53'09	24°18	14°59	28°38	3°18	17°47	21°41	23°39	6° 4	12°47	24°R22	22°51	6°50	15° 3	T 21
F 22	10 5 7	2°53'26	8 <sup>11</sup> 30	16°46	29°53	3°50	17°49	21°D41	23°42	6° 3	12°48	24°21	22°48	6°57	15° 5	F 22
S 23	10 9 3	3°53'42	23° 6	18°30	1 <sup>11</sup> 8	4°21	17°51	21°41	23°45	6° 1	12°50	24°18	22°44	7° 4	15° 7	S 23
S 24	10 13 0	4°53'56	8 <sup>11</sup> 2	20°12	2°23	4°53	17°52	21°41	23°49	6° 0	12°51	24°13	22°41	7°10	15° 9	S 24
M 25	10 16 57	5°54'08	23° 7	21°51	3°38	5°24	17°54	21°42	23°52	5°58	12°52	24° 7	22°38	7°17	15°11	M 25
T 26	10 20 53	6°54'18	8 <sup>11</sup> Y13	23°26	4°53	5°55	17°55	21°42	23°55	5°57	12°53	24° 1	22°35	7°24	15°13	T 26
W 27	10 24 50	7°54'26	23°10	24°56	6° 8	6°26	17°56	21°43	23°58	5°56	12°54	23°54	22°32	7°31	15°16	W 27
T 28	10 28 46	8 <sup>11</sup> 54'32	7 <sup>11</sup> 50	26 <sup>11</sup> 22	7 <sup>11</sup> 23	6 <sup>11</sup> 57	17 <sup>11</sup> 57	21 <sup>11</sup> 43	24 <sup>11</sup> 2	5 <sup>11</sup> 54	12 <sup>11</sup> Y55	23 <sup>11</sup> 49	22 <sup>11</sup> 29	7 <sup>11</sup> 37	15 <sup>11</sup> 18	T 28

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	17s19	10n37	5s 2	20s 9	2s 4	20s18	0s56	17s23	1n 3	15s42	1n 9	22n11	1s 4	3s36	0s44	18n39	0s 1	10s42	17s 0	21n14	21n22	2n38	13n43	2s40			
S 2	17 2	14 49	4 31	19 41	2 5	20 2	0 58	17 32	1 2	15 43	1 9	22 11	1 4	3 35	0 44	18 39	0 1	10 42	16 59	21 14	21 23	2 35	13 43	2 40			
S 3	16 44	18 10	3 46	19 12	2 4	19 45	0 59	17 41	1 2	15 45	1 9	22 11	1 4	3 33	0 43	18 40	0 1	10 41	16 59	21 13	21 23	2 33	13 43	2 40			
M 4	16 27	20 28	2 49	18 41	2 4	19 27	1 1	17 50	1 1	15 46	1 10	22 12	1 4	3 32	0 43	18 40	0 1	10 41	16 59	21 13	21 24	2 30	13 44	2 40			
T 5	16 9	21 38	1 44	18 9	2 3	19 9	1 3	17 59	1 1	15 47	1 10	22 12	1 3	3 31	0 43	18 41	0 1	10 40	16 59	21 13	21 24	2 28	13 44	2 40			
W 6	15 51	21 38	0 35	17 35	2 1	18 51	1 4	18 7	1 0	15 48	1 10	22 12	1 3	3 30	0 43	18 41	0 1	10 39	16 58	21 13	21 25	2 26	13 44	2 40			
T 7	15 32	20 31	0n34	16 59	1 59	18 32	1 6	18 16	1 0	15 50	1 10	22 12	1 3	3 29	0 43	18 41	0 1	10 39	16 58	21 13	21 26	2 23	13 45	2 40			
F 8	15 14	18 25	1 41	16 22	1 56	18 12	1 7	18 24	0 59	15 51	1 10	22 12	1 3	3 28	0 43	18 42	0 1	10 38	16 58	21 13	21 26	2 21	13 45	2 39			
S 9	14 55	15 29	2 42	15 43	1 53	17 52	1 9	18 32	0 59	15 52	1 10	22 12	1 3	3 26	0 43	18 42	0 1	10 38	16 57	21 13	21 27	2 18	13 46	2 39			
S 10	14 35	11 55	3 35	15 3	1 49	17 32	1 10	18 40	0 58	15 53	1 11	22 12	1 2	3 25	0 43	18 43	0 1	10 37	16 57	21 14	21 27	2 16	13 46	2 39			
M 11	14 16	7 55	4 18	14 22	1 45	17 10	1 12	18 48	0 58	15 54	1 11	22 12	1 2	3 24	0 43	18 43	0 1	10 36	16 57	21 15	21 28	2 14	13 46	2 39			
T 12	13 56	3 39	4 49	13 39	1 40	16 49	1 13	18 56	0 57	15 55	1 11	22 12	1 2	3 23	0 43	18 43	0 1	10 36	16 56	21 16	21 28	2 11	13 47	2 39			
W 13	13 36	0s44	5 7	12 54	1 35	16 27	1 14	19 4	0 56	15 56	1 11	22 13	1 2	3 22	0 43	18 44	0 1	10 35	16 56	21 17	21 29	2 9	13 47	2 39			
T 14	13 16	5 5	5 12	12 9	1 29	16 4	1 15	19 11	0 56	15 56	1 11	22 13	1 1	3 20	0 43	18 44	0 1	10 34	16 56	21 17	21 29	2 6	13 48	2 39			
F 15	12 56	9 16	5 4	11 22	1 22	15 41	1 16	19 19	0 55	15 57	1 11	22 13	1 1	3 19	0 43	18 45	0 1	10 34	16 56	21 18	21 30	2 4	13 48	2 39			
S 16	12 35	13 8	4 43	10 34	1 14	15 18	1 17	19 26	0 55	15 58	1 12	22 13	1 1	3 18	0 43	18 45	0 1	10 33	16 55	21 18	21 30	2 1	13 49	2 39			
S 17	12 15	16 32	4 8	9 45	1 6	14 54	1 18	19 34	0 54	15 59	1 12	22 13	1 1	3 16	0 43	18 45	0 1	10 33	16 55	21 18	21 31	1 59	13 49	2 39			
M 18	11 54	19 15	3 21	8 55	0 58	14 30	1 19	19 41	0 53	15 59	1 12	22 13	1 1	3 15	0 43	18 46	0 1	10 32	16 55	21 18	21 32	1 57	13 50	2 39			
T 19	11 32	21 5	2 22	8 4	0 48	14 5	1 20	19 48	0 53	16 0	1 12	22 13	1 0	3 14	0 43	18 46	0 1	10 31	16 55	21 18	21 32	1 54	13 51	2 39			
W 20	11 11	21 50	1 15	7 13	0 38	13 40	1 21	19 55	0 52	16 0	1 12	22 14	1 0	3 13	0 43	18 47	0 1	10 31	16 54	21 18	21 33	1 52	13 51	2 38			
T 21	10 50	21 18	0 0	6 21	0 28	13 15	1 22	20 1	0 51	16 1	1 12	22 14	1 0	3 11	0 43	18 47	0 1	10 30	16 54	21 18	21 33	1 49	13 52	2 38			
F 22	10 28	19 24	1s16	5 29	0 17	12 49	1 22	20 8	0 50	16 1	1 12	22 14	1 0	3 10	0 43	18 47	0 1	10 29	16 54	21 18	21 34	1 47	13 52	2 38			
S 23	10 6	16 12	2 30	4 38	0 5	12 23	1 23	20 15	0 50	16 1	1 13	22 14	1 0	3 9	0 43	18 48	0 1	10 29	16 54	21 18	21 34	1 44	13 53	2 38			
S 24	9 44	11 53	3 35	3 46	0n 7	11 57	1 24	20 21	0 49	16 2	1 13	22 14	0 59	3 7	0 43	18 48	0 1	10 28	16 53	21 19	21 35	1 42	13 54	2 38			
M 25	9 22	6 48	4 25	2 56	0 20	11 30	1 24	20 28	0 48	16 2	1 13	22 15	0 59	3 6	0 43	18 49	0 1	10 27	16 53	21 20	21 35	1 40	13 54	2 38			
T 26	9 0	1 17	4 57	2 6	0 33	11 3	1 25	20 34	0 47	16 2	1 13	22 15	0 59	3 5	0 43	18 49	0 1	10 27	16 53	21 21	21 36	1 37	13 55	2 38			
W 27	8 37	4n14	5 9	1 18	0 47	10 36	1 25	20 40	0 47	16 2	1 13	22 15	0 59	3 3	0 43	18 49	0 1	10 26	16 53	21 22	21 36	1 35	13 56	2 38			
T 28	8s15	9n25	5s 0	0s31	1n 1	10s 8	1s25	20s46	0n46	16s 2	1n13	22n15	0s59	3s 2	0s43	18n50	0s 1	10s25	16s53	21n23	21n37	1n32	13n56	2s38			

Julian Day Number = 2302191.5, Delta T = 101.64 sec  
Ecliptic obliquity = 23°29'29", Nutation = - 0°00'15", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 19°02'00", Lahiri = 18°09'01"Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

MARCH 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 32 43	9 <sup>h</sup> 54'35"	22 <sup>h</sup> 8' 7	27 <sup>h</sup> 42' 8	8 <sup>h</sup> 38' 7	7 <sup>h</sup> 27' 17	17 <sup>h</sup> 58' 21	11 <sup>h</sup> 44' 24	5 <sup>h</sup> 50' 12	5 <sup>h</sup> 50' 12	12 <sup>h</sup> 57' 23	23 <sup>h</sup> 46' 22	22 <sup>h</sup> 25' 7	15 <sup>h</sup> 20' 18	F 1	
S 2	10 36 39	10°54'37"	6 <sup>h</sup> 11' 1	28°56' 9	9°53' 7	7°58' 17	17°58' 21	21°45' 24	5°50' 12	5°50' 12	12°58' 23	23°D44' 22	22°22' 7	15°23' 15	S 2	
S 3	10 40 36	11°54'37"	19°30' 0	0 <sup>h</sup> Y 4	11° 8' 8	8°28' 17	17°59' 21	21°46' 24	5°50' 12	5°50' 12	12°59' 23	23 <sup>h</sup> 44' 22	22°19' 7	15°25' 15	S 3	
M 4	10 44 32	12°54'34"	22 <sup>h</sup> 38' 1	1° 5' 12	12°23' 8	8°59' 17	17 <sup>h</sup> R59' 21	21°47' 24	5°49' 13	5°49' 13	13° 0' 23	23°45' 22	22°16' 8	15°28' 15	M 4	
T 5	10 48 29	13°54'29"	15°27' 1	1°58' 13	13°37' 9	9°29' 17	17°59' 21	21°48' 24	5°48' 13	5°48' 13	13° 2' 23	23°47' 22	22°13' 8	15°30' 15	T 5	
W 6	10 52 26	14°54'22"	28° 1' 2	2°44' 14	14°52' 9	9°59' 17	17°59' 21	21°50' 24	5°46' 13	5°46' 13	13° 3' 23	23°R47' 22	22° 9' 8	15°33' 15	W 6	
T 7	10 56 22	15°54'13"	10 <sup>h</sup> Q22' 3	3°21' 16	16° 7' 10	10°28' 17	17°58' 21	21°51' 24	5°45' 13	5°45' 13	13° 4' 23	23°45' 22	22° 6' 8	15°35' 15	T 7	
F 8	11 0 19	16°54'01"	22°35' 3	3°50' 17	17°22' 10	10°58' 17	17°58' 21	21°52' 24	5°44' 13	5°44' 13	13° 6' 23	23°41' 22	22° 3' 8	15°38' 15	F 8	
S 9	11 4 15	17°53'48"	4 <sup>h</sup> 40' 4	4°11' 18	18°37' 11	11°28' 17	17°57' 21	21°54' 24	5°43' 13	5°43' 13	13° 7' 23	23°35' 22	22° 0' 8	15°41' 15	S 9	
S 10	11 8 12	18°53'32"	16°39' 4	4°23' 19	19°51' 11	11°57' 17	17°56' 21	21°56' 24	5°42' 13	5°42' 13	13° 8' 23	23°26' 21	21°57' 8	15°44' 15	S 10	
M11	11 12 8	19°53'14"	28°35' 4	4°R26' 21	21° 6' 12	12°26' 17	17°55' 21	21°58' 24	5°41' 13	5°41' 13	13° 9' 23	23°16' 21	21°54' 8	15°47' 15	M11	
T 12	11 16 5	20°52'54"	10 <sup>h</sup> A29' 4	4°21' 22	22°21' 12	12°55' 17	17°54' 22	22° 0' 24	5°39' 13	5°39' 13	13°11' 23	23° 4' 21	21°50' 8	15°49' 15	T 12	
W13	11 20 1	21°52'33"	22°21' 4	4° 8' 23	23°35' 13	13°24' 17	17°52' 22	22° 2' 24	5°38' 13	5°38' 13	13°12' 22	22°53' 21	21°47' 9	15°52' 15	W13	
T 14	11 23 58	22°52'09"	4 <sup>h</sup> M14' 3	3°47' 24	24°50' 13	13°52' 17	17°50' 22	22° 4' 24	5°37' 13	5°37' 13	13°13' 22	22°43' 21	21°44' 9	15°55' 15	T 14	
F 15	11 27 54	23°51'44"	16°10' 3	3°19' 26	26° 5' 14	14°20' 17	17°48' 22	22° 6' 24	5°36' 13	5°36' 13	13°15' 22	22°34' 21	21°41' 9	15°58' 15	F 15	
S 16	11 31 51	24°51'17"	28°13' 2	2°45' 27	27°19' 14	14°49' 17	17°46' 22	22° 9' 24	5°35' 13	5°35' 13	13°16' 22	22°28' 21	21°38' 9	16° 2' 15	S 16	
S 17	11 35 48	25°50'48"	10 <sup>h</sup> X26' 2	2° 6' 28	28°34' 15	15°17' 17	17°44' 22	22°11' 25	5°34' 13	5°34' 13	13°18' 22	22°25' 21	21°34' 9	16° 5' 15	S 17	
M18	11 39 44	26°50'17"	22°54' 1	1°21' 29	29°49' 15	15°44' 17	17°42' 22	22°14' 25	5°33' 13	5°33' 13	13°19' 22	22°D24' 21	21°31' 9	16° 8' 15	M18	
T 19	11 43 41	27°49'45"	5°34' 0	0°33' 1	1°Y 3' 16	16°12' 17	17°39' 22	22°16' 25	5°32' 13	5°32' 13	13°20' 22	22°24' 21	21°28' 9	16°11' 15	T 19	
W20	11 47 37	28°49'11"	18°51' 2	29°43' 16	16°39' 17	17°36' 22	17°36' 22	22°19' 25	5°32' 13	5°32' 13	13°22' 22	22°R24' 21	21°25' 9	16°14' 15	W20	
T 21	11 51 34	29°48'35"	28°51' 3	3°32' 17	6' 17	17°33' 22	17°33' 22	22°22' 25	5°31' 13	5°31' 13	13°23' 22	22°24' 21	21°22' 9	16°18' 15	T 21	
F 22	11 55 30	0 <sup>h</sup> Y47'57"	16°34' 2	27°59' 4	4°47' 17	17°33' 22	17°30' 22	22°25' 25	5°30' 13	5°30' 13	13°24' 22	22°22' 21	21°19' 10	16°21' 15	F 22	
S 23	11 59 27	1°47'18"	1°H 9' 2	27° 7' 6	6° 2' 18	18° 0' 17	17°27' 22	22°28' 25	5°29' 13	5°29' 13	13°26' 22	22°17' 21	21°15' 10	16°24' 15	S 23	
S 24	12 3 23	2°46'36"	16° 8' 2	26°17' 7	7°16' 18	18°26' 17	17°23' 22	22°31' 25	5°28' 13	5°28' 13	13°27' 22	22°10' 21	21°12' 10	16°28' 15	S 24	
M25	12 7 20	3°45'53"	1°Y22' 2	25°30' 8	8°31' 18	18°52' 17	17°20' 22	22°35' 25	5°28' 13	5°28' 13	13°29' 22	22° 0' 21	21° 9' 10	16°31' 15	M25	
T 26	12 11 17	4°45'07"	16°42' 2	24°46' 9	9°45' 19	19°18' 17	17°16' 22	22°38' 25	5°27' 13	5°27' 13	13°30' 21	21°50' 21	21° 6' 10	16°35' 15	T 26	
W27	12 15 13	5°44'19"	1°B56' 2	24° 6' 10	10°59' 19	19°44' 17	17°12' 22	22°42' 25	5°26' 13	5°26' 13	13°31' 21	21°39' 21	21° 3' 10	16°39' 15	W27	
T 28	12 19 10	6°43'29"	16°53' 2	23°30' 12	12°14' 20	20° 9' 17	17° 8' 22	22°45' 25	5°26' 13	5°26' 13	13°33' 21	21°30' 21	21° 0' 10	16°42' 15	T 28	
F 29	12 23 6	7°42'37"	1°H26' 2	23° 0' 13	13°28' 20	20°34' 17	17° 3' 22	22°49' 25	5°25' 13	5°25' 13	13°34' 21	21°24' 21	20°56' 10	16°46' 15	F 29	
S 30	12 27 3	8°41'43"	15°30' 2	22°34' 14	14°43' 20	20°59' 16	16°59' 22	22°53' 25	5°24' 13	5°24' 13	13°36' 21	21°19' 21	20°53' 10	16°49' 15	S 30	
S 31	12 30 59	9 <sup>h</sup> Y40'46"	29°H 6' 2	22°H 14' 15	15°Y57' 21	21°X23' 16	16°H54' 22	22°H57' 25	5°H24' 13	5°H24' 13	13°Y37' 21	21 <sup>h</sup> 18' 21	20 <sup>h</sup> 50' 11	16°H53' 15	S 31	

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	7s52	13n57	4s32	0n14	1n15	9s40	1s26	20s52	0n45	16s 3	1n14	22n16	0s58	3s 1	0s43	F 1
S 2	7 29	17 36	3 49	0 56	1 29	9 12	1 26	20 58	0 44	16 3	1 14	22 16	0 58	2 59	0 43	S 2
S 3	7 7	20 11	2 54	1 36	1 43	8 44	1 26	21 3	0 43	16 2	1 14	22 16	0 58	2 58	0 43	S 3
M 4	6 44	21 36	1 52	1 13	1 56	8 15	1 26	21 9	0 42	16 2	1 14	22 16	0 58	2 57	0 43	M 4
T 5	6 21	21 51	0 45	2 46	2 10	7 47	1 26	21 14	0 41	16 2	1 14	22 17	0 58	2 55	0 43	T 5
W 6	5 57	20 59	0n23	3 16	2 23	7 17	1 26	21 20	0 40	16 2	1 14	22 17	0 57	2 54	0 43	W 6
T 7	5 34	19 5	1 28	3 42	2 35	6 48	1 26	21 25	0 39	16 2	1 15	22 17	0 57	2 53	0 43	T 7
F 8	5 11	16 21	2 28	4 4	2 46	6 19	1 26	21 30	0 39	16 1	1 15	22 18	0 57	2 51	0 43	F 8
S 9	4 48	12 56	3 21	4 22	2 57	5 49	1 25	21 35	0 38	16 1	1 15	22 18	0 57	2 50	0 43	S 9
S 10	4 24	9 2	4 4	4 36	3 6	5 20	1 25	21 40	0 37	16 1	1 15	22 18	0 57	2 49	0 43	S 10
M 11	4 1	4 47	4 37	4 45	3 15	4 50	1 25	21 45	0 35	16 0	1 15	22 19	0 56	2 47	0 43	M 11
T 12	3 37	0 23	4 57	4 49	3 22	4 20	1 24	21 50	0 34	16 0	1 15	22 19	0 56	2 46	0 43	T 12
W 13	3 14	4s 1	5 4	4 49	3 27	3 50	1 24	21 54	0 33	15 59	1 15	22 19	0 56	2 44	0 43	W 13
T 14	2 50	8 17	4 58	4 44	3 31	3 20	1 23	21 59	0 32	15 59	1 16	22 19	0 56	2 43	0 43	T 14
F 15	2 27	12 16	4 39	4 35	3 33	2 49	1 22	22 3	0 31	15 58	1 16	22 20	0 56	2 42	0 43	F 15
S 16	2 3	15 47	4 7	4 22	3 33	2 19	1 22	22 8	0 30	15 57	1 16	22 20	0 55	2 40	0 43	S 16
S 17	1 39	18 42	3 24	4 4	3 32	1 49	1 21	22 12	0 29	15 56	1 16	22 20	0 55	2 39	0 43	S 17
M 18	1 16	20 48	2 30	3 43	3 28	1 18	1 20	22 16	0 28	15 56	1 16	22 21	0 55	2 38	0 43	M 18
T 19	0 52	21 54	1 28	3 40	3 23	0 48	1 19	22 20	0 26	15 55	1 16	22 21	0 55	2 36	0 43	T 19
W 20	0 28	21 51	0 19	2 53	3 16	0 17	1 18	22 24	0 25	15 54	1 16	22 22	0 55	2 35	0 43	W 20
T 21	0 5	20 31	0s53	2 24	3 7	0n14	1 17	22 28	0 24	15 53	1 17	22 22	0 54	2 34	0 43	T 21
F 22	0n19	17 53	2 5	1 54	2 57	0 44	1 16	22 32	0 23	15 52	1 17	22 22	0 54	2 32	0 43	F 22
S 23	0 43	14 3	3 10	1 23	2 45	1 15	1 15	22 36	0 21	15 51	1 17	22 23	0 54	2 31	0 43	S 23
S 24	1 6	9 14	4 5	0 51	2 33	1 45	1 14	22 39	0 20	15 50	1 17	22 23	0 54	2 29	0 43	S 24
M 25	1 30	3 46	4 42	0 20	2 19	2 16	1 13	22 43	0 18	15 49	1 17	22 23	0 54	2 28	0 43	M 25
T 26	1 54	1n57	5 0	0s11	2 4	2 46	1 12	22 47	0 17	15 47	1 17	22 24	0 54	2 27	0 43	T 26
W 27	2 17	7 32	4 57	0 41	1 49	3 17	1 10	22 50	0 16	15 46	1 17	22 24	0 53	2 25	0 43	W 27
T 28	2 41	12 33	4 33	1 9	1 33	3 47	1 9	22 53	0 14	15 45	1 17	22 24	0 53	2 24	0 43	T 28
F 29	3 4	16 43	3 52	1 36	1 17	4 18	1 7	22 57	0 13	15 44	1 18	22 25	0 53	2 23	0 43	F 29
S 30	3 27	19 46	2 57	2 1	1 1	4 48	1 6	23 0	0 11	15 42	1 18	22 25	0 53	2 21	0 43	S 30
S 31	3n51	21n35	1s55	2s23	0n45	5n18	1s 4	23s 3	0n10	15s41	1n18	22n26	0s53	2s20	0s43	S 31

Julian Day Number = 2302219.5, Delta T = 101.53 sec  
 Ecciptic obliquity = 23°29'30", Nutation = - 0°00'15", out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 19°02'04", Lahiri = 18°09'05Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

APRIL 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	12 34 56	10°39'47	12°14	22°R 0	17°11	21°47	16°R50	23°II 1	25°K51	5°R23	13°V39	21°D17	20°47	11°12	16°857	M 1
T 2	12 38 52	11°38'46	25° 0	21°K51	18°26	22°11	16°M45	23° 5	25°54	5°L23	13°40	21°R17	20°44	11°19	17° 1	T 2
W 3	12 42 49	12°37'42	7°L28	21°D48	19°40	22°35	16°40	23° 9	25°57	5°22	13°41	21°17	20°40	11°26	17° 4	W 3
T 4	12 46 46	13°36'36	19°41	21°49	20°54	22°58	16°34	23°13	26° 1	5°22	13°43	21°14	20°37	11°33	17° 8	T 4
F 5	12 50 42	14°35'28	1°M44	21°57	22° 9	23°21	16°29	23°17	26° 4	5°22	13°44	21° 8	20°34	11°39	17°12	F 5
S 6	12 54 39	15°34'17	13°42	22° 9	23°23	23°44	16°23	23°22	26° 7	5°21	13°46	21° 0	20°31	11°46	17°16	S 6
S 7	12 58 35	16°33'04	25°35	22°26	24°37	24° 6	16°18	23°26	26°11	5°21	13°47	20°49	20°28	11°53	17°20	S 7
M 8	13 2 32	17°31'50	7°L27	22°48	25°51	24°28	16°12	23°31	26°14	5°21	13°49	20°36	20°25	11°59	17°24	M 8
T 9	13 6 28	18°30'33	19°20	23°15	27° 5	24°50	16° 6	23°35	26°17	5°20	13°50	20°22	20°21	12° 6	17°28	T 9
W10	13 10 25	19°29'14	1°M14	23°46	28°20	25°11	16° 0	23°40	26°20	5°20	13°51	20° 7	20°18	12°13	17°32	W10
T 11	13 14 21	20°27'53	13°12	24°20	29°34	25°32	15°54	23°45	26°24	5°20	13°53	19°54	20°15	12°20	17°36	T 11
F 12	13 18 18	21°26'30	25°13	24°59	0°K48	25°52	15°48	23°50	26°27	5°20	13°54	19°43	20°12	12°26	17°40	F 12
S 13	13 22 15	22°25'06	7°K27	25°42	2° 2	26°12	15°41	23°55	26°30	5°20	13°56	19°35	20° 9	12°33	17°44	S 13
S 14	13 26 11	23°23'40	19°39	26°28	3°16	26°32	15°35	24° 0	26°33	5°20	13°57	19°30	20° 6	12°40	17°48	S 14
M15	13 30 8	24°22'12	2°K 9	27°18	4°30	26°51	15°28	24° 5	26°36	5°19	13°58	19°27	20° 2	12°46	17°52	M15
T 16	13 34 4	25°20'43	14°55	28°11	5°44	27°10	15°21	24°10	26°39	5°D19	14° 0	19°27	19°59	12°53	17°57	T 16
W17	13 38 1	26°19'12	28° 1	29° 7	6°58	27°29	15°15	24°16	26°42	5°19	14° 1	19°27	19°56	13° 0	18° 1	W17
T 18	13 41 57	27°17'39	11°K31	0°V 6	8°12	27°47	15° 8	24°21	26°45	5°19	14° 3	19°26	19°53	13° 7	18° 5	T 18
F 19	13 45 54	28°16'05	25°27	1° 8	9°26	28° 5	15° 1	24°26	26°49	5°20	14° 4	19°24	19°50	13°13	18° 9	F 19
S 20	13 49 50	29°14'29	9°K50	2°12	10°40	28°22	14°54	24°32	26°52	5°20	14° 5	19°19	19°46	13°20	18°13	S 20
S 21	13 53 47	0°K12'51	24°37	3°20	11°54	28°38	14°47	24°38	26°55	5°20	14° 7	19°12	19°43	13°27	18°18	S 21
M22	13 57 44	1°11'12	9°V43	4°30	13° 8	28°55	14°39	24°43	26°58	5°20	14° 8	19° 3	19°40	13°34	18°22	M22
T 23	14 1 40	2° 9'31	24°59	5°42	14°22	29°10	14°32	24°49	27° 1	5°20	14°10	18°52	19°37	13°40	18°26	T 23
W24	14 5 37	3° 7'49	10°K13	6°56	15°35	29°26	14°25	24°55	27° 3	5°20	14°11	18°42	19°34	13°47	18°31	W24
T 25	14 9 33	4° 6'04	25°14	8°13	16°49	29°40	14°17	25° 1	27° 6	5°21	14°12	18°33	19°31	13°54	18°35	T 25
F 26	14 13 30	5° 4'18	9°II54	9°32	18° 3	29°54	14°10	25° 6	27° 9	5°21	14°14	18°25	19°27	14° 0	18°39	F 26
S 27	14 17 26	6° 2'30	24° 7	10°54	19°17	0°K 8	14° 3	25°12	27°12	5°21	14°15	18°21	19°24	14° 7	18°44	S 27
S 28	14 21 23	7° 0'40	7°K51	12°17	20°31	0°21	13°55	25°19	27°15	5°22	14°16	18°19	19°21	14°14	18°48	S 28
M29	14 25 19	7°58'48	21° 6	13°43	21°44	0°34	13°48	25°25	27°18	5°22	14°18	18°D19	19°18	14°21	18°52	M29
T 30	14 29 16	8°56'54	3°L55	15°V11	22°K58	0°K46	13°M40	25°II31	27°K21	5°L22	14°V19	18°R19	19°15	14°27	18°K57	T 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	
M 1	4n14	22n 8	0s48	2s43	0n30	5n48	1s 3	23s 6	0n 8	15s39	1n18	22n26	0s52	2s19	0s43	18n58
T 2	4 37	21 30	0n20	3 1	0 14	6 18	1 1	23 9	0 6	15 38	1 18	22 26	0 52	2 17	0 43	18 58
W 3	5 0	19 48	1 24	3 16	0s 1	6 48	0 59	23 12	0 5	15 36	1 18	22 27	0 52	2 16	0 43	18 58
T 4	5 23	17 13	2 24	3 29	0 15	7 17	0 58	23 15	0 3	15 35	1 18	22 27	0 52	2 15	0 43	18 58
F 5	5 46	13 56	3 16	3 39	0 29	7 47	0 56	23 18	0 1	15 33	1 18	22 28	0 52	2 13	0 43	18 58
S 6	6 9	10 6	3 59	3 46	0 42	8 16	0 54	23 21	0s 1	15 32	1 18	22 28	0 52	2 12	0 43	18 58
S 7	6 31	5 54	4 31	3 51	0 55	8 45	0 52	23 24	0 2	15 30	1 18	22 28	0 51	2 11	0 43	18 58
M 8	6 54	1 30	4 52	3 54	1 7	9 14	0 50	23 27	0 4	15 28	1 18	22 29	0 51	2 10	0 43	18 58
T 9	7 16	2s58	4 59	3 54	1 19	9 42	0 48	23 29	0 6	15 26	1 18	22 29	0 51	2 8	0 43	18 58
W10	7 39	7 20	4 54	3 51	1 30	10 11	0 46	23 32	0 8	15 25	1 18	22 30	0 51	2 7	0 43	18 58
T 11	8 1	11 27	4 35	3 47	1 40	10 39	0 44	23 35	0 10	15 23	1 19	22 30	0 51	2 6	0 43	18 58
F 12	8 23	15 9	4 5	3 40	1 49	11 7	0 42	23 38	0 12	15 21	1 19	22 30	0 51	2 4	0 43	18 59
S 13	8 45	18 15	3 22	3 31	1 58	11 35	0 40	23 40	0 14	15 19	1 19	22 31	0 50	2 3	0 43	18 59
S 14	9 6	20 35	2 30	3 20	2 6	12 2	0 38	23 43	0 16	15 17	1 19	22 31	0 50	2 2	0 43	18 59
M15	9 28	21 58	1 30	3 7	2 13	12 29	0 36	23 45	0 18	15 15	1 19	22 32	0 50	2 1	0 43	18 59
T 16	9 49	22 16	0 24	2 52	2 20	12 56	0 34	23 48	0 20	15 13	1 19	22 32	0 50	2 0	0 43	18 59
W17	10 11	21 21	0s45	2 35	2 26	13 22	0 31	23 51	0 23	15 11	1 19	22 32	0 50	1 58	0 43	18 59
T 18	10 32	19 11	1 54	2 17	2 32	13 49	0 29	23 53	0 25	15 9	1 19	22 33	0 50	1 57	0 43	18 59
F 19	10 53	15 51	2 58	1 56	2 36	14 14	0 27	23 56	0 27	15 7	1 19	22 33	0 49	1 56	0 43	18 59
S 20	11 14	11 30	3 53	1 34	2 40	14 40	0 25	23 58	0 30	15 5	1 19	22 34	0 49	1 55	0 43	18 59
S 21	11 34	6 20	4 34	1 11	2 44	15 5	0 22	24 1	0 32	15 3	1 19	22 34	0 49	1 54	0 43	18 59
M22	11 55	0 41	4 57	0 46	2 47	15 30	0 20	24 4	0 34	15 1	1 19	22 34	0 49	1 52	0 43	18 59
T 23	12 15	5n 3	4 59	0 19	2 49	15 54	0 17	24 6	0 37	14 59	1 19	22 35	0 49	1 51	0 43	18 59
W24	12 35	10 29	4 40	0n 9	2 51	16 18	0 15	24 9	0 39	14 57	1 19	22 35	0 49	1 50	0 43	18 58
T 25	12 55	15 12	4 2	0 38	2 52	16 42	0 13	24 11	0 42	14 55	1 19	22 35	0 48	1 49	0 43	18 58
F 26	13 14	18 53	3 8	1 9	2 52	17 5	0 10	24 14	0 45	14 52	1 19	22 36	0 48	1 48	0 43	18 58
S 27	13 34	21 17	2 5	1 41	2 52	17 28	0 8	24 17	0 47	14 50	1 19	22 36	0 48	1 47	0 43	18 58
S 28	13 53	22 20	0 55	2 15	2 51	17 50	0 5	24 20	0 50	14 48	1 19	22 37	0 48	1 46	0 43	18 58
M29	14 12	22 5	0n15	2 49	2 50	18 12	0 3	24 22	0 53	14 46	1 19	22 37	0 48	1 44	0 43	18 58
T 30	14n31	20n39	1n22	3n25	2s48	18n33	0s 0	24s25	0s56	14s44	1n19	22n37	0s48	1s43	0s43	18n58

Julian Day Number = 2302250.5, Delta T = 101.39 sec  
 Ecliptic obliquity = 23°29'30, Nutation = - 0°00'16, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 19°02'09, Lahiri = 18°09'09Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1591  
geocentric

MAY 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
W 1	14 33 13	9♌54°58	16♎24	16♏40	24♋12	0♌57	13°R32	25♐37	27♋23	5♎23	14♏20	18°R19	19♌11	14♎34	19♋1	W 1
T 2	14 37 9	10°52°59	28°37	18°12	25°25	1° 8	13♎25	25°43	27°26	5°23	14°22	18♌17	19° 8	14°41	19° 6	T 2
F 3	14 41 6	11°50°59	10♎38	19°46	26°39	1°18	13°17	25°50	27°29	5°24	14°23	18°13	19° 5	14°48	19°10	F 3
S 4	14 45 2	12°48°58	22°33	21°22	27°53	1°28	13° 9	25°56	27°31	5°25	14°24	18° 7	19° 2	14°54	19°14	S 4
S 5	14 48 59	13°46°54	4♎24	23° 0	29° 6	1°37	13° 2	26° 3	27°34	5°25	14°25	17°59	18°59	15° 1	19°19	S 5
M 6	14 52 55	14°44°48	16°16	24°40	0♐20	1°45	12°54	26° 9	27°37	5°26	14°27	17°48	18°56	15° 8	19°23	M 6
T 7	14 56 52	15°42°41	28°10	26°22	1°33	1°53	12°47	26°16	27°39	5°26	14°28	17°37	18°52	15°14	19°28	T 7
W 8	15 0 48	16°40°33	10♎9	28° 5	2°47	2° 0	12°39	26°22	27°42	5°27	14°29	17°25	18°49	15°21	19°32	W 8
T 9	15 4 45	17°38°23	22°14	29°51	4° 0	2° 6	12°31	26°29	27°44	5°28	14°30	17°15	18°46	15°28	19°37	T 9
F 10	15 8 41	18°36°11	4♎25	1♋39	5°14	2°12	12°24	26°36	27°47	5°29	14°32	17° 6	18°43	15°35	19°41	F 10
S 11	15 12 38	19°33°58	16°44	3°29	6°27	2°17	12°16	26°42	27°49	5°29	14°33	17° 0	18°40	15°41	19°45	S 11
S 12	15 16 35	20°31°44	29°14	5°21	7°41	2°22	12° 9	26°49	27°51	5°30	14°34	16°56	18°37	15°48	19°50	S 12
M13	15 20 31	21°29°28	11♌54	7°15	8°54	2°25	12° 1	26°56	27°54	5°31	14°35	16°D54	18°33	15°55	19°54	M13
T 14	15 24 28	22°27°12	24°48	9°11	10° 8	2°28	11°54	27° 3	27°56	5°32	14°36	16°54	18°30	16° 1	19°59	T 14
W15	15 28 24	23°24°54	7♎59	11° 9	11°21	2°31	11°46	27°10	27°58	5°33	14°38	16°55	18°27	16° 8	20° 3	W15
T 16	15 32 21	24°22°35	21°28	13° 8	12°34	2°32	11°39	27°17	28° 1	5°34	14°39	16°R56	18°24	16°15	20° 8	T 16
F 17	15 36 17	25°20°15	5♋18	15°10	13°48	2°33	11°32	27°24	28° 3	5°35	14°40	16°55	18°21	16°22	20°12	F 17
S 18	15 40 14	26°17°54	19°30	17°13	15° 1	2°R33	11°24	27°31	28° 5	5°36	14°41	16°53	18°17	16°28	20°17	S 18
S 19	15 44 10	27°15°32	4♏1	19°18	16°14	2°32	11°17	27°38	28° 7	5°37	14°42	16°49	18°14	16°35	20°21	S 19
M20	15 48 7	28°13°09	18°48	21°25	17°28	2°31	11°10	27°45	28° 9	5°38	14°43	16°43	18°11	16°42	20°25	M20
T 21	15 52 4	29°10°45	3♋45	23°33	18°41	2°29	11° 3	27°52	28°11	5°39	14°44	16°36	18° 8	16°49	20°30	T 21
W22	15 56 0	0♐8'21	18°42	25°42	19°54	2°26	10°56	28° 0	28°13	5°40	14°45	16°29	18° 5	16°55	20°34	W22
T 23	15 59 57	1° 5'55	3♐32	27°52	21° 7	2°22	10°50	28° 7	28°15	5°41	14°46	16°23	18° 2	17° 2	20°39	T 23
F 24	16 3 53	2° 3'28	18° 5	0♐3	22°20	2°18	10°43	28°14	28°17	5°42	14°47	16°18	17°58	17° 9	20°43	F 24
S 25	16 7 50	3° 1'00	2♌15	2°15	23°34	2°12	10°36	28°22	28°19	5°43	14°48	16°16	17°55	17°15	20°48	S 25
S 26	16 11 46	3°58°30	16° 0	4°27	24°47	2° 6	10°30	28°29	28°21	5°45	14°49	16°D15	17°52	17°22	20°52	S 26
M27	16 15 43	4°56°00	29°19	6°39	26° 0	2° 0	10°23	28°36	28°23	5°46	14°50	16°15	17°49	17°29	20°56	M27
T 28	16 19 40	5°53°28	12♎13	8°51	27°13	1°52	10°17	28°44	28°25	5°47	14°51	16°17	17°46	17°36	21° 1	T 28
W29	16 23 36	6°50°54	24°46	11° 2	28°26	1°44	10°11	28°51	28°26	5°49	14°52	16°18	17°43	17°42	21° 5	W29
T 30	16 27 33	7°48°20	7♎1	13°13	29°39	1°35	10° 5	28°59	28°28	5°50	14°53	16°R19	17°39	17°49	21° 9	T 30
F 31	16 31 29	8♐45°44	19♎5	15♐22	0♌52	1♌25	9♎59	29♐6	28♋30	5♎51	14♏54	16♌18	17♌36	17♎56	21♋14	F 31

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈		♉	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	14n49	18n14	2n23	4n 2	2s45	18n54	0n 2	24s28	0s59	14s41	1n18	22n38	0s48	1s42	0s43	18n58	0n 0	9s52	16s51	22n14	22n 7	1 s 1	14n59	2s37			
T 2	15 7	15 3	3 17	4 39	2 42	19 14	0 5	24 31	1 2	14 39	1 18	22 38	0 47	1 41	0 43	18 58	0 0	9 51	16 51	22 14	22 7	1 4	15 0	2 37			
F 3	15 25	11 18	4 1	5 18	2 38	19 34	0 7	24 34	1 5	14 37	1 18	22 38	0 47	1 40	0 43	18 58	0 0	9 51	16 51	22 15	22 8	1 6	15 2	2 38			
S 4	15 43	7 9	4 34	5 58	2 34	19 53	0 10	24 37	1 8	14 35	1 18	22 39	0 47	1 39	0 43	18 58	0 0	9 51	16 51	22 16	22 8	1 9	15 3	2 38			
S 5	16 1	2 45	4 54	6 39	2 30	20 12	0 12	24 40	1 11	14 32	1 18	22 39	0 47	1 38	0 43	18 57	0 0	9 50	16 51	22 17	22 9	1 12	15 4	2 38			
M 6	16 18	1s45	5 3	7 20	2 24	20 30	0 15	24 43	1 14	14 30	1 18	22 39	0 47	1 37	0 43	18 57	0 0	9 50	16 52	22 18	22 9	1 14	15 5	2 38			
T 7	16 35	6 13	4 58	8 2	2 19	20 48	0 17	24 46	1 17	14 28	1 18	22 40	0 47	1 36	0 44	18 57	0 0	9 50	16 52	22 20	22 10	1 17	15 6	2 38			
W 8	16 51	10 28	4 40	8 45	2 12	21 5	0 20	24 49	1 20	14 26	1 18	22 40	0 47	1 35	0 44	18 57	0 0	9 50	16 52	22 21	22 10	1 19	15 7	2 38			
T 9	17 8	14 21	4 9	9 29	2 6	21 22	0 22	24 52	1 24	14 24	1 18	22 40	0 46	1 34	0 44	18 57	0 0	9 49	16 52	22 23	22 10	1 22	15 8	2 38			
F 10	17 24	17 41	3 27	10 13	1 58	21 38	0 25	24 55	1 27	14 21	1 18	22 41	0 46	1 33	0 44	18 57	0 0	9 49	16 52	22 24	22 11	1 24	15 9	2 38			
S 11	17 40	20 17	2 34	10 58	1 51	21 53	0 27	24 59	1 30	14 19	1 18	22 41	0 46	1 32	0 44	18 56	0 0	9 49	16 52	22 25	22 11	1 27	15 10	2 38			
S 12	17 55	21 56	1 33	11 43	1 43	22 8	0 30	25 2	1 34	14 17	1 18	22 41	0 46	1 31	0 44	18 56	0 0	9 48	16 53	22 25	22 12	1 29	15 12	2 38			
M13	18 11	22 31	0 27	12 29	1 34	22 22	0 32	25 6	1 37	14 15	1 17	22 41	0 46	1 30	0 44	18 56	0 0	9 48	16 53	22 25	22 12	1 32	15 13	2 38			
T 14	18 25	21 54	0s42	13 14	1 25	22 35	0 35	25 9	1 41	14 13	1 17	22 42	0 46	1 29	0 44	18 56	0 0	9 48	16 53	22 25	22 13	1 34	15 14	2 38			
W15	18 40	20 6	1 51	14 0	1 16	22 48	0 37	25 13	1 45	14 11	1 17	22 42	0 46	1 29	0 44	18 56	0 0	9 48	16 53	22 25	22 13	1 37	15 15	2 39			
T 16	18 54	17 8	2 55	14 46	1 6	23 0	0 39	25 16	1 48	14 8	1 17	22 42	0 46	1 28	0 44	18 55	0 0	9 47	16 54	22 25	22 13	1 39	15 16	2 39			
F 17	19 8	13 9	3 50	15 31	0 56	23 12	0 42	25 20	1 52	14 6	1 17	22 43	0 45	1 27	0 44	18 55	0 0	9 47	16 54	22 25	22 14	1 42	15 17	2 39			
S 18	19 22	8 21	4 33	16 17	0 46	23 23	0 44	25 24	1 56	14 4	1 17	22 43	0 45	1 26	0 44	18 55	0 0	9 47	16 54	22 25	22 14	1 44	15 18	2 39			
S 19	19 35	2 59	5 0	17 1	0 36	23 33	0 47	25 28	2 0	14 2	1 17	22 43	0 45	1 25	0 44	18 55	0 0	9 47	16 54	22 26	22 15	1 47	15 19	2 39			
M20	19 48	2n39	5 7	17 45	0 25	23 43	0 49	25 32	2 3	14 0	1 16	22 43	0 45	1 24	0 44	18 55	0 0	9 47	16 54	22 27	22 15	1 49	15 20	2 39			
T 21	20 1	8 11	4 54	18 28	0 15	23 51	0 51	25 35	2 7	13 58	1 16	22 44	0 45	1 24	0 44	18 54	0 0	9 46	16 55	22 27	22 16	1 52	15 21	2 39			
W22	20 13	13 15	4 20	19 10	0 4	24 0	0 53	25 39	2 11	13 56	1 16	22 44	0 45	1 23	0 44	18 54	0 0	9 46	16 55	22 28	22 16	1 55	15 22	2 39			
T 23	20 25	17 28	3 30	19 50	0n 7	24 7	0 56	25 43	2 15	13 54	1 16	22 44	0 45	1 22	0 44	18 54	0 0	9 46	16 55	22 29	22 16	1 57	15 23	2 39			
F 24	20 37	20 32	2 26	20 29	0 17	24 14	0 58	25 48	2 19	13 52	1 16	22 44	0 45	1 21	0 44	18 53	0 0	9 46	16 55	22 30	22 17	2 0	15 24	2 40			
S 25	20 48	22 13	1 15	21 6	0 38	24 20	1 0	25 52	2 23	13 50	1 16	22 44	0 44	1 21	0 44	18 53	0 0	9 46	16 56	22 30	22 17	2 2	15 25	2 40			
S 26	20 59	22 30	0 1	21 42	0 38	24 25	1 2	25 56	2 27	13 48	1 15	22 45	0 44	1 20	0 44	18 53	0 0	9 46	16 56	22 30	22 18	2 5	15 26	2 40			
M27	21 10	21 29	1n10	22 15	0 47	24 30	1 4	26 0	2 31	13 47	1 15	22 45	0 44	1 19	0 44	18 53	0 0	9 46	16 56	22 30	22 18	2 7	15 27	2 40			
T 28	21 20	19 21	2 16	22 45	0 57	24 34	1 6	26 4	2 36	13 45	1 15	22 45	0 44	1 18	0 44	18 52	0 0	9 45	16 56	22 30	22 19	2 10	15 28	2 40			
W29	21 30	16 20	3 14	23 14	1 6	24 37	1 8	26 8	2 40	13 43	1 15	22 45	0 44	1 18	0 44	18 52	0 0	9 45	16 57	22 30	22 19	2 12	15 29	2 40			
T 30	21 40	12 41	4 1	23 40	1 14	24 40	1 10	26 13	2 44	13 41	1 15	22 45	0 44	1 17	0 44	18 52	0 0	9 45	16 57	22 30	22 19	2 15	15 30	2 40			
F 31	21n49	8n34	4n37	24n 3	1n22	24n42	1n12	26s17	2s48	13s40	1n14	22n46	0s44	1s17	0s44	18n51	0n 0	9s45	16s57	22n30	22n20	2s17	15n31	2s40			

Julian Day Number = 2302280.5, Delta T = 101.27 sec  
Ecliptic obliquity = 23°29'30", Nutation = - 0°00'17", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 19°02'13", Lahiri = 18°09'13"Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

JUNE 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 35 26	9II43'07	1♂ 0	17II30	2♂ 5	1°R15	9°R53	29II14	28♂31	5♂253	14°V55	16°R16	17♂33	18♂ 3	21♂18	S 1
S 2	16 39 22	10°40'29	12°53	19°37	3°18	1♂ 4	9II47	29°21	28°33	5°54	14°56	16♂12	17°30	18° 9	21°22	S 2
M 3	16 43 19	11°37'50	24°46	21°42	4°31	0°52	9°42	29°29	28°34	5°55	14°57	16° 7	17°27	18°16	21°26	M 3
T 4	16 47 15	12°35'10	6II43	23°45	5°44	0°40	9°36	29°36	28°36	5°57	14°58	16° 2	17°23	18°23	21°31	T 4
W 5	16 51 12	13°32'29	18°48	25°47	6°57	0°27	9°31	29°44	28°37	5°58	14°59	15°56	17°20	18°29	21°35	W 5
T 6	16 55 8	14°29'47	1♂ 1	27°46	8° 9	0°13	9°26	29°52	28°39	6° 0	14°59	15°51	17°17	18°36	21°39	T 6
F 7	16 59 5	15°27'05	13°24	29°43	9°22	29♂59	9°21	29°59	28°40	6° 1	15° 0	15°47	17°14	18°43	21°43	F 7
S 8	17 3 2	16°24'22	25°59	1♂38	10°35	29°45	9°16	0♂ 7	28°41	6° 3	15° 1	15°44	17°11	18°50	21°48	S 8
S 9	17 6 58	17°21'38	8♂46	3°31	11°48	29°30	9°11	0°15	28°43	6° 5	15° 2	15°42	17° 8	18°56	21°52	S 9
M10	17 10 55	18°18'54	21°46	5°21	13° 0	29°14	9° 6	0°22	28°44	6° 6	15° 3	15°D42	17° 4	19° 3	21°56	M10
T 11	17 14 51	19°16'09	4♂58	7° 9	14°13	28°58	9° 2	0°30	28°45	6° 8	15° 3	15°43	17° 1	19°10	22° 0	T 11
W12	17 18 48	20°13'24	18°23	8°54	15°26	28°41	8°58	0°38	28°46	6°10	15° 4	15°45	16°58	19°16	22° 4	W12
T 13	17 22 44	21°10'38	2♂ 3	10°38	16°38	28°24	8°54	0°46	28°47	6°11	15° 5	15°46	16°55	19°23	22° 8	T 13
F 14	17 26 41	22° 7'53	15°56	12°18	17°51	28° 7	8°50	0°53	28°48	6°13	15° 5	15°R47	16°52	19°30	22°12	F 14
S 15	17 30 38	23° 5'07	0°V 3	13°57	19° 4	27°49	8°46	1° 1	28°49	6°15	15° 6	15°47	16°49	19°37	22°16	S 15
S 16	17 34 34	24° 2'21	14°21	15°33	20°16	27°32	8°42	1° 9	28°50	6°16	15° 7	15°46	16°45	19°43	22°20	S 16
M17	17 38 31	24°59'35	28°49	17° 6	21°29	27°13	8°39	1°17	28°51	6°18	15° 7	15°44	16°42	19°50	22°24	M17
T 18	17 42 27	25°56'49	13♂21	18°37	22°41	26°55	8°35	1°25	28°52	6°20	15° 8	15°42	16°39	19°57	22°28	T 18
W19	17 46 24	26°54'02	27°53	20° 6	23°54	26°37	8°32	1°32	28°52	6°22	15° 8	15°39	16°36	20° 4	22°32	W19
T 20	17 50 20	27°51'16	12II18	21°32	25° 6	26°18	8°29	1°40	28°53	6°23	15° 9	15°37	16°33	20°10	22°36	T 20
F 21	17 54 17	28°48'30	26°31	22°55	26°19	25°59	8°27	1°48	28°54	6°25	15°10	15°35	16°29	20°17	22°40	F 21
S 22	17 58 13	29°45'43	10♂27	24°16	27°31	25°41	8°24	1°56	28°55	6°27	15°10	15°D35	16°26	20°24	22°43	S 22
S 23	18 2 10	0♂42'56	24° 3	25°35	28°43	25°22	8°22	2° 4	28°55	6°29	15°11	15°35	16°23	20°30	22°47	S 23
M24	18 6 7	1°40'09	7♂18	26°50	29°56	25° 4	8°19	2°12	28°56	6°31	15°11	15°36	16°20	20°37	22°51	M24
T 25	18 10 3	2°37'21	20°11	28° 3	1♂ 8	24°45	8°17	2°19	28°56	6°33	15°12	15°37	16°17	20°44	22°55	T 25
W26	18 14 0	3°34'33	2II45	29°14	2°20	24°27	8°15	2°27	28°57	6°35	15°12	15°38	16°14	20°51	22°58	W26
T 27	18 17 56	4°31'44	15° 3	0♂21	3°32	24° 9	8°14	2°35	28°57	6°37	15°12	15°39	16°10	20°57	23° 2	T 27
F 28	18 21 53	5°28'56	27° 8	1°25	4°45	23°52	8°12	2°43	28°57	6°39	15°13	15°39	16° 7	21° 4	23° 6	F 28
S 29	18 25 49	6°26'07	9♂ 5	2°27	5°57	23°34	8°11	2°51	28°58	6°41	15°13	15°R39	16° 4	21°11	23° 9	S 29
S 30	18 29 46	7♂23'17	20♂59	3♂25	7♂ 9	23♂17	8II10	2♂59	28♂58	6♂43	15°V14	15♂39	16♂ 1	21♂18	23♂13	S 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	21n57	4n11	5n 0	24n23	1n29	24n43	1n14	26s21	2s52	13s38	1n14	22n46	0s44	1s16	0s44	18n51	0n 0	9s45	16s58	22n30	22n20	2s20	15n32	2s41					
S 2	22 6	0s20	5 10	24 40	1 36	24 43	1 16	26 26	2 56	13 36	1 14	22 46	0 44	1 15	0 44	18 51	0 0	9 45	16 58	22 30	22 21	2 23	15 33	2 41					
M 3	22 14	4 51	5 7	24 55	1 42	24 43	1 18	26 30	3 0	13 35	1 14	22 46	0 43	1 15	0 44	18 50	0 0	9 45	16 58	22 31	22 21	2 25	15 34	2 41					
T 4	22 21	9 12	4 51	25 7	1 47	24 42	1 20	26 34	3 5	13 33	1 14	22 46	0 43	1 14	0 44	18 50	0 0	9 45	16 58	22 32	22 21	2 28	15 35	2 41					
W 5	22 29	13 15	4 22	25 17	1 51	24 40	1 21	26 38	3 9	13 32	1 13	22 46	0 43	1 14	0 44	18 50	0 0	9 45	16 59	22 32	22 22	2 30	15 36	2 41					
T 6	22 35	16 49	3 40	25 23	1 55	24 37	1 23	26 42	3 13	13 30	1 13	22 46	0 43	1 13	0 44	18 49	0 0	9 45	16 59	22 33	22 22	2 33	15 37	2 41					
F 7	22 42	19 41	2 47	25 27	1 58	24 34	1 25	26 46	3 17	13 29	1 13	22 46	0 43	1 13	0 44	18 49	0 0	9 45	16 59	22 33	22 23	2 35	15 38	2 41					
S 8	22 48	21 40	1 46	25 29	2 0	24 30	1 26	26 50	3 21	13 28	1 13	22 47	0 43	1 12	0 44	18 48	0 0	9 45	17 0	22 34	22 23	2 38	15 39	2 42					
S 9	22 53	22 34	0 38	25 28	2 1	24 25	1 28	26 54	3 25	13 26	1 13	22 47	0 43	1 12	0 44	18 48	0 0	9 45	17 0	22 34	22 24	2 40	15 40	2 42					
M10	22 59	22 16	0s33	25 25	2 2	24 20	1 29	26 58	3 29	13 25	1 12	22 47	0 43	1 11	0 45	18 48	0 0	9 45	17 0	22 34	22 24	2 43	15 41	2 42					
T 11	23 3	20 45	1 44	25 20	2 2	24 14	1 30	27 2	3 33	13 24	1 12	22 47	0 43	1 11	0 45	18 47	0 0	9 45	17 1	22 34	22 24	2 46	15 42	2 42					
W12	23 8	18 2	2 50	25 13	2 1	24 7	1 32	27 6	3 37	13 23	1 12	22 47	0 43	1 10	0 45	18 47	0 0	9 45	17 1	22 34	22 25	2 48	15 43	2 42					
T 13	23 12	14 18	3 48	25 3	2 0	23 59	1 33	27 10	3 41	13 22	1 12	22 47	0 42	1 10	0 45	18 47	0 1	9 45	17 1	22 33	22 25	2 51	15 43	2 42					
F 14	23 15	9 45	4 33	24 52	1 58	23 51	1 34	27 13	3 44	13 21	1 11	22 47	0 42	1 10	0 45	18 46	0 1	9 45	17 2	22 33	22 26	2 53	15 44	2 43					
S 15	23 19	4 36	5 3	24 40	1 55	23 42	1 35	27 17	3 48	13 20	1 11	22 47	0 42	1 9	0 45	18 46	0 1	9 45	17 2	22 33	22 26	2 56	15 45	2 43					
S 16	23 21	0n50	5 14	24 26	1 51	23 33	1 36	27 20	3 52	13 19	1 11	22 47	0 42	1 9	0 45	18 45	0 1	9 45	17 2	22 33	22 26	2 58	15 46	2 43					
M17	23 24	6 18	5 6	24 10	1 47	23 23	1 37	27 23	3 55	13 18	1 11	22 47	0 42	1 9	0 45	18 45	0 1	9 45	17 3	22 34	22 27	3 1	15 47	2 43					
T 18	23 26	11 27	4 39	23 53	1 42	23 12	1 38	27 26	3 59	13 17	1 10	22 47	0 42	1 8	0 45	18 44	0 1	9 45	17 3	22 34	22 27	3 3	15 48	2 43					
W19	23 27	15 56	3 53	23 35	1 37	23 0	1 39	27 29	4 2	13 16	1 10	22 47	0 42	1 8	0 45	18 44	0 1	9 45	17 3	22 34	22 27	3 6	15 48	2 44					
T 20	23 28	19 27	2 53	23 15	1 31	22 48	1 40	27 32	4 5	13 16	1 10	22 47	0 42	1 8	0 45	18 44	0 1	9 45	17 4	22 35	22 28	3 9	15 49	2 44					
F 21	23 29	21 43	1 43	22 55	1 24	22 35	1 41	27 34	4 9	13 15	1 10	22 47	0 42	1 8	0 45	18 43	0 1	9 45	17 4	22 35	22 28	3 11	15 50	2 44					
S 22	23 29	22 37	0 28	22 34	1 17	22 21	1 41	27 37	4 12	13 15	1 9	22 47	0 42	1 7	0 45	18 43	0 1	9 46	17 4	22 35	22 29	3 14	15 51	2 44					
S 23	23 29	22 7	0n47	22 12	1 9	22 7	1 42	27 39	4 15	13 14	1 9	22 47	0 42	1 7	0 45	18 42	0 1	9 46	17 5	22 35	22 29	3 16	15 52	2 44					
M24	23 29	20 22	1 57	21 49	1 0	21 53	1 42	27 41	4 18	13 14	1 9	22 47	0 41	1 7	0 45	18 42	0 1	9 46	17 5	22 35	22 29	3 19	15 52	2 45					
T 25	23 28	17 38	3 0	21 26	0 52	21 37	1 43	27 43	4 20	13 13	1 9	22 47	0 41	1 7	0 45	18 41	0 1	9 46	17 5	22 35	22 30	3 21	15 53	2 45					
W26	23 27	14 7	3 52	21 3	0 42	21 21	1 43	27 45	4 23	13 13	1 8	22 47	0 41	1 7	0 45	18 41	0 1	9 46	17 6	22 34	22 30	3 24	15 54	2 45					
T 27	23 25	10 5	4 33	20 39	0 32	21 5	1 43	27 47	4 25	13 12	1 8	22 47	0 41	1 6	0 45	18 40	0 1	9 46	17 6	22 34	22 31	3 26	15 54	2 45					
F 28	23 23	5 44	5 0	20 14	0 22	20 48	1 44	27 48	4 28	13 12	1 8	22 47	0 41	1 6	0 45	18 40	0 1	9 46	17 6	22 34	22 31	3 29	15 55	2 45					
S 29	23 20	1 12	5 14	19 50	0 11	20 30	1 44	27 50	4 30	13 12	1 7	22 47	0 41	1 6	0 45	18 39	0 1	9 47	17 7	22 34	22 31	3 32	15 56	2 46					
S 30	23n17	3s20	5n15	19n25	0s 1	20n12	1n44	27s51	4s32	13s12	1n 7	22n47	0s41	1s 6	0s45	18n39	0n 1	9s47	17s 7	22n34	22n32	3s34	15n56	2s46					



ASTRODIENST EPHEMERIS for the year 1591  
geocentric

JULY 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 33 42	8 <sup>20</sup> 28	2 <sup>11</sup> 54	4 <sup>20</sup> 20	8 <sup>21</sup> 21	23°R 1	8°R 9	3 <sup>26</sup> 6	28 <sup>18</sup> 58	6 <sup>21</sup> 45	15°V14	15°R38	15 <sup>25</sup> 58	21 <sup>22</sup> 24	23 <sup>28</sup> 16	M 1
T 2	18 37 39	9°17'39	14°53	5°12	9°33	22 <sup>27</sup> 45	8 <sup>18</sup> 8	3°14	28°58	6°47	15°14	15 <sup>25</sup> 38	15°55	21°31	23°20	T 2
W 3	18 41 36	10°14'49	27° 2	6° 0	10°45	22°29	8° 7	3°22	28°58	6°49	15°14	15°37	15°51	21°38	23°23	W 3
T 4	18 45 32	11°11'59	9 <sup>27</sup> 23	6°45	11°57	22°14	8° 7	3°30	28°58	6°51	15°15	15°36	15°48	21°44	23°26	T 4
F 5	18 49 29	12° 9'10	21°58	7°26	13° 9	22° 0	8° 7	3°38	28°R58	6°53	15°15	15°36	15°45	21°51	23°30	F 5
S 6	18 53 25	13° 6'20	4 <sup>23</sup> 48	8° 4	14°21	21°46	8°D 6	3°45	28°58	6°55	15°15	15°36	15°42	21°58	23°33	S 6
S 7	18 57 22	14° 3'31	17°55	8°37	15°32	21°33	8° 7	3°53	28°58	6°57	15°15	15°D36	15°39	22° 5	23°36	S 7
M 8	19 1 18	15° 0'42	1 <sup>28</sup> 18	9° 6	16°44	21°20	8° 7	4° 1	28°58	6°59	15°16	15°36	15°35	22°11	23°39	M 8
T 9	19 5 15	15°57'54	14°55	9°31	17°56	21° 8	8° 7	4° 9	28°58	7° 1	15°16	15°R36	15°32	22°18	23°43	T 9
W10	19 9 11	16°55'06	28°45	9°52	19° 8	20°57	8° 8	4°16	28°58	7° 3	15°16	15°36	15°29	22°25	23°46	W10
T 11	19 13 8	17°52'18	12 <sup>18</sup> 45	10° 8	20°19	20°46	8° 9	4°24	28°57	7° 5	15°16	15°35	15°26	22°31	23°49	T 11
F 12	19 17 5	18°49'31	26°52	10°19	21°31	20°36	8°10	4°32	28°57	7° 7	15°16	15°35	15°23	22°38	23°52	F 12
S 13	19 21 1	19°46'45	11°V 4	10°26	22°42	20°27	8°11	4°39	28°57	7° 9	15°16	15°35	15°20	22°45	23°55	S 13
S 14	19 24 58	20°44'00	25°19	10°R28	23°54	20°19	8°12	4°47	28°56	7°12	15°16	15°D35	15°16	22°52	23°58	S 14
M15	19 28 54	21°41'15	9 <sup>28</sup> 33	10°25	25° 5	20°11	8°14	4°55	28°56	7°14	15°16	15°35	15°13	22°58	24° 1	M15
T 16	19 32 51	22°38'31	23°44	10°17	26°17	20° 4	8°16	5° 2	28°55	7°16	15°R16	15°36	15°10	23° 5	24° 4	T 16
W17	19 36 47	23°35'48	7 <sup>11</sup> 50	10° 4	27°28	19°58	8°17	5°10	28°55	7°18	15°16	15°36	15° 7	23°12	24° 6	W17
T 18	19 40 44	24°33'06	21°47	9°46	28°40	19°53	8°20	5°17	28°54	7°20	15°16	15°37	15° 4	23°19	24° 9	T 18
F 19	19 44 40	25°30'25	5 <sup>28</sup> 34	9°24	29°51	19°49	8°22	5°25	28°54	7°22	15°16	15°38	15° 1	23°25	24°12	F 19
S 20	19 48 37	26°27'45	19° 7	8°57	1 <sup>19</sup> 2	19°45	8°24	5°33	28°53	7°25	15°16	15°R38	14°57	23°32	24°14	S 20
S 21	19 52 34	27°25'05	2 <sup>20</sup> 26	8°26	2°13	19°43	8°27	5°40	28°52	7°27	15°16	15°37	14°54	23°39	24°17	S 21
M22	19 56 30	28°22'26	15°28	7°51	3°25	19°41	8°30	5°47	28°51	7°29	15°16	15°36	14°51	23°45	24°20	M22
T 23	20 0 27	29°19'48	28°14	7°13	4°36	19°40	8°32	5°55	28°50	7°31	15°16	15°35	14°48	23°52	24°22	T 23
W24	20 4 23	0 <sup>20</sup> 17	10 <sup>19</sup> 44	6°32	5°47	19°D40	8°36	6° 2	28°50	7°33	15°16	15°33	14°45	23°59	24°25	W24
T 25	20 8 20	1°14'33	23° 0	5°49	6°58	19°41	8°39	6°10	28°49	7°36	15°15	15°30	14°41	24° 6	24°27	T 25
F 26	20 12 16	2°11'56	5 <sup>25</sup> 5	5° 5	8° 9	19°42	8°42	6°17	28°48	7°38	15°15	15°28	14°38	24°12	24°29	F 26
S 27	20 16 13	3° 9'20	17° 2	4°19	9°19	19°45	8°46	6°24	28°47	7°40	15°15	15°27	14°35	24°19	24°32	S 27
S 28	20 20 9	4° 6'45	28°55	3°34	10°30	19°48	8°50	6°32	28°46	7°42	15°15	15°D26	14°32	24°26	24°34	S 28
M29	20 24 6	5° 4'10	10 <sup>18</sup> 49	2°50	11°41	19°52	8°54	6°39	28°44	7°45	15°15	15°26	14°29	24°32	24°36	M29
T 30	20 28 3	6° 1'37	22°48	2° 8	12°52	19°57	8°58	6°46	28°43	7°47	15°14	15°27	14°26	24°39	24°38	T 30
W31	20 31 59	6 <sup>20</sup> 59'03	4 <sup>27</sup> 58	1 <sup>20</sup> 28	14 <sup>19</sup> 2	20 <sup>27</sup> 3	9 <sup>18</sup> 2	6 <sup>25</sup> 53	28 <sup>18</sup> 42	7 <sup>20</sup> 49	15°V14	15 <sup>25</sup> 28	14 <sup>25</sup> 22	24 <sup>24</sup> 46	24 <sup>28</sup> 40	W31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	23n14	7s46	5n 2	19n 1	0s13	19n53	1n44	27s52	4s34	13s12	1n 7	22n46	0s41	1s 6	0s45	18n38
T 2	23 10	11 56	4 36	18 36	0 25	19 34	1 44	27 53	4 36	13 12	1 7	22 46	0 41	1 6	0 45	18 38
W 3	23 6	15 41	3 58	18 12	0 38	19 14	1 43	27 54	4 38	13 12	1 6	22 46	0 41	1 6	0 45	18 37
T 4	23 1	18 49	3 7	17 49	0 51	18 54	1 43	27 55	4 39	13 12	1 6	22 46	0 41	1 6	0 45	18 37
F 5	22 56	21 8	2 7	17 25	1 4	18 33	1 43	27 55	4 41	13 12	1 6	22 46	0 41	1 6	0 45	18 36
S 6	22 51	22 25	0 59	17 3	1 17	18 12	1 42	27 56	4 42	13 12	1 6	22 46	0 41	1 6	0 45	18 36
S 7	22 45	22 30	0s13	16 41	1 31	17 50	1 42	27 56	4 44	13 13	1 5	22 46	0 40	1 6	0 45	18 35
M 8	22 39	21 19	1 26	16 19	1 45	17 28	1 41	27 57	4 45	13 13	1 5	22 46	0 40	1 6	0 46	18 35
T 9	22 32	18 52	2 35	15 59	2 0	17 5	1 40	27 57	4 46	13 13	1 5	22 45	0 40	1 6	0 46	18 34
W10	22 25	15 19	3 37	15 40	2 14	16 42	1 40	27 57	4 47	13 14	1 5	22 45	0 40	1 7	0 46	18 34
T 11	22 18	10 53	4 26	15 22	2 28	16 18	1 39	27 57	4 48	13 14	1 4	22 45	0 40	1 7	0 46	18 33
F 12	22 10	5 50	5 0	15 5	2 43	15 54	1 38	27 57	4 48	13 15	1 4	22 45	0 40	1 7	0 46	18 33
S 13	22 2	0 27	5 16	14 50	2 57	15 30	1 37	27 57	4 49	13 16	1 4	22 45	0 40	1 7	0 46	18 32
S 14	21 53	4n58	5 12	14 36	3 11	15 5	1 36	27 57	4 49	13 16	1 3	22 44	0 40	1 7	0 46	18 32
M15	21 44	10 7	4 50	14 23	3 24	14 40	1 34	27 56	4 50	13 17	1 3	22 44	0 40	1 8	0 46	18 31
T 16	21 35	18 43	4 9	14 13	3 37	14 15	1 33	27 56	4 50	13 18	1 3	22 44	0 40	1 8	0 46	18 31
W17	21 25	18 28	3 14	14 4	3 50	13 49	1 32	27 56	4 50	13 19	1 3	22 44	0 40	1 8	0 46	18 30
T 18	21 15	21 6	2 8	13 57	4 2	13 23	1 30	27 55	4 50	13 20	1 2	22 44	0 40	1 8	0 46	18 29
F 19	21 5	22 27	0 55	13 53	4 13	12 56	1 29	27 55	4 50	13 21	1 2	22 43	0 40	1 9	0 46	18 29
S 20	20 54	22 27	0n19	13 50	4 23	12 29	1 27	27 55	4 50	13 22	1 2	22 43	0 40	1 9	0 46	18 28
S 21	20 43	21 9	1 32	13 49	4 32	12 2	1 26	27 54	4 49	13 23	1 2	22 43	0 39	1 9	0 46	18 28
M22	20 32	18 44	2 38	13 50	4 39	11 35	1 24	27 54	4 49	13 24	1 1	22 43	0 39	1 10	0 46	18 27
T 23	20 20	15 28	3 34	13 54	4 46	11 7	1 22	27 53	4 49	13 25	1 1	22 42	0 39	1 10	0 46	18 27
W24	20 8	11 33	4 19	13 59	4 50	10 39	1 20	27 53	4 48	13 26	1 1	22 42	0 39	1 10	0 46	18 26
T 25	19 56	7 15	4 51	14 7	4 54	10 11	1 18	27 52	4 48	13 28	1 1	22 42	0 39	1 11	0 46	18 26
F 26	19 43	2 43	5 10	14 16	4 55	9 42	1 16	27 52	4 47	13 29	1 0	22 41	0 39	1 11	0 46	18 25
S 27	19 30	1s51	5 15	14 27	4 55	9 14	1 14	27 51	4 46	13 30	1 0	22 41	0 39	1 12	0 46	18 25
S 28	19 16	6 20	5 7	14 39	4 52	8 45	1 11	27 51	4 46	13 32	1 0	22 41	0 39	1 12	0 46	18 24
M29	19 2	10 35	4 45	14 53	4 48	8 15	1 9	27 50	4 45	13 33	1 0	22 41	0 39	1 12	0 46	18 23
T 30	18 48	14 28	4 11	15 8	4 43	7 46	1 6	27 50	4 44	13 35	0 59	22 40	0 39	1 13	0 46	18 23
W31	18n34	17s49	3n25	15n24	4s35	7n17	1n 4	27s49	4s43	13s36	0n59	22n40	0s39	1s13	0s46	18n22

Julian Day Number = 2302341.5, Delta T = 101.01 sec  
Ecliptic obliquity = 23°29'30, Nutation = - 0°00'16, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 19°02'21, Lahiri = 18°09'21Greg. Calendar



ASTRODIENST EPHEMERIS for the year 1591  
geocentric

AUGUST 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	20 35 56	7♏56'31	17♊22	0°R52	15♎13	20♊10	9♎7	7♏0	28°R41	7♏51	15°R14	15♏30	14♏19	24♎53	24♊42	T 1
F 2	20 39 52	8°54'00	0♊4	0♏19	16°23	20°17	9°11	7°7	28°R40	7°53	15°R13	15°31	14°16	24°59	24°44	F 2
S 3	20 43 49	9°51'29	13°6	29♏52	17°34	20°25	9°16	7°14	28°38	7°56	15°13	15°R32	14°13	25°6	24°46	S 3
S 4	20 47 45	10°49'00	26°30	29°30	18°44	20°34	9°21	7°21	28°37	7°58	15°13	15°31	14°10	25°13	24°48	S 4
M 5	20 51 42	11°46'31	10♋14	29°14	19°54	20°44	9°26	7°28	28°36	8°0	15°12	15°30	14°7	25°20	24°49	M 5
T 6	20 55 39	12°44'04	24°18	29°4	21°5	20°54	9°31	7°35	28°34	8°2	15°12	15°27	14°3	25°26	24°51	T 6
W 7	20 59 35	13°41'38	8♋36	29°D 1	22°15	21°6	9°36	7°42	28°33	8°5	15°11	15°23	14°0	25°33	24°53	W 7
T 8	21 3 32	14°39'13	23°2	29°4	23°25	21°17	9°42	7°49	28°31	8°7	15°11	15°19	13°57	25°40	24°54	T 8
F 9	21 7 28	15°36'49	7♋32	29°15	24°35	21°30	9°48	7°56	28°30	8°9	15°10	15°15	13°54	25°46	24°56	F 9
S 10	21 11 25	16°34'28	22°0	29°34	25°45	21°43	9°54	8°3	28°28	8°11	15°10	15°12	13°51	25°53	24°57	S 10
S 11	21 15 21	17°32'07	6♊21	29°59	26°55	21°57	9°59	8°9	28°26	8°13	15°9	15°10	13°47	26°0	24°59	S 11
M12	21 19 18	18°29'49	20°32	0♏32	28°4	22°12	10°6	8°16	28°25	8°16	15°9	15°D10	13°44	26°7	25°0	M12
T 13	21 23 14	19°27'32	4♏32	1°12	29°14	22°27	10°12	8°22	28°23	8°18	15°8	15°11	13°41	26°13	25°1	T 13
W14	21 27 11	20°25'16	18°18	1°59	0♏24	22°43	10°18	8°29	28°21	8°20	15°8	15°12	13°38	26°20	25°3	W14
T 15	21 31 7	21°23'03	1♏52	2°53	1°33	23°0	10°25	8°35	28°20	8°22	15°7	15°13	13°35	26°27	25°4	T 15
F 16	21 35 4	22°20'51	15°14	3°53	2°43	23°17	10°32	8°42	28°18	8°24	15°6	15°R14	13°32	26°33	25°5	F 16
S 17	21 39 1	23°18'41	28°23	5°0	3°52	23°35	10°38	8°48	28°16	8°27	15°6	15°13	13°28	26°40	25°6	S 17
S 18	21 42 57	24°16'32	11♏20	6°14	5°1	23°54	10°45	8°55	28°14	8°29	15°5	15°11	13°25	26°47	25°7	S 18
M19	21 46 54	25°14'25	24°5	7°33	6°11	24°13	10°52	9°1	28°12	8°31	15°4	15°6	13°22	26°54	25°8	M19
T 20	21 50 50	26°12'19	6♎38	8°57	7°20	24°33	11°0	9°7	28°10	8°33	15°4	15°0	13°19	27°0	25°9	T 20
W21	21 54 47	27°10'15	18°59	10°27	8°29	24°53	11°7	9°13	28°8	8°35	15°3	14°52	13°16	27°7	25°9	W21
T 22	21 58 43	28°8'12	1♏9	12°1	9°38	25°14	11°15	9°19	28°6	8°37	15°2	14°45	13°12	27°14	25°10	T 22
F 23	22 2 40	29°6'10	13°11	13°40	10°46	25°36	11°22	9°25	28°4	8°39	15°2	14°37	13°9	27°21	25°11	F 23
S 24	22 6 36	0♎4'10	25°6	15°22	11°55	25°58	11°30	9°31	28°2	8°41	15°1	14°30	13°6	27°27	25°11	S 24
S 25	22 10 33	1°2'12	6♎57	17°7	13°4	26°20	11°38	9°37	28°0	8°44	15°0	14°26	13°3	27°34	25°12	S 25
M26	22 14 30	2°0'15	18°59	18°55	14°12	26°43	11°46	9°43	27°58	8°46	14°59	14°23	13°0	27°41	25°12	M26
T 27	22 18 26	2°58'19	0♊46	20°46	15°21	27°7	11°54	9°49	27°56	8°48	14°58	14°D22	12°57	27°47	25°13	T 27
W28	22 22 23	3°56'25	12°53	22°38	16°29	27°31	12°2	9°54	27°54	8°50	14°58	14°22	12°53	27°54	25°13	W28
T 29	22 26 19	4°54'32	25°15	24°32	17°37	27°56	12°11	10°0	27°52	8°52	14°57	14°23	12°50	28°1	25°13	T 29
F 30	22 30 16	5°52'41	7♊57	26°26	18°46	28°21	12°19	10°5	27°50	8°54	14°56	14°R24	12°47	28°8	25°13	F 30
S 31	22 34 12	6♎50'51	21♊3	28♏22	19♎54	28♊47	12♎28	10♏11	27♋47	8♏56	14°Y55	14♏24	12♏44	28♎14	25♊13	S 31

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	18n19	20s25	2n29	15n41	4s26	6n47	1n 1	27s49	4s42	13s38	0n59	22n40	0s39	1s14	0s46	18n22	0n 1	9s57	17s18	22n35	22n43	4s57	16n11	2s54	
F 2	18 4	22 5	1 24	15 58	4 15	6 17	0 59	27 48	4 41	13 40	0 59	22 39	0 39	1 15	0 46	18 21	0 1	9 58	17 19	22 35	22 44	4 59	16 11	2 54	
S 3	17 49	22 37	0 13	16 15	4 4	5 47	0 56	27 48	4 40	13 42	0 58	22 39	0 39	1 15	0 46	18 21	0 1	9 58	17 19	22 35	22 44	5 2	16 11	2 54	
S 4	17 33	21 53	1s 0	16 33	3 50	5 17	0 53	27 47	4 39	13 43	0 58	22 39	0 39	1 16	0 46	18 20	0 1	9 59	17 19	22 35	22 44	5 4	16 11	2 55	
M 5	17 18	19 49	2 11	16 50	3 36	4 47	0 50	27 47	4 38	13 45	0 58	22 38	0 39	1 16	0 46	18 19	0 1	9 59	17 20	22 35	22 45	5 7	16 11	2 55	
T 6	17 1	16 32	3 17	17 7	3 21	4 16	0 47	27 46	4 36	13 47	0 58	22 38	0 39	1 17	0 46	18 19	0 1	9 59	17 20	22 36	22 45	5 10	16 11	2 55	
W 7	16 45	12 14	4 10	17 23	3 5	3 46	0 44	27 46	4 35	13 49	0 57	22 38	0 39	1 17	0 46	18 18	0 1	10 0	17 20	22 36	22 45	5 12	16 11	2 55	
T 8	16 28	7 11	4 49	17 38	2 49	3 15	0 41	27 45	4 34	13 51	0 57	22 37	0 38	1 18	0 46	18 18	0 1	10 0	17 21	22 37	22 46	5 15	16 12	2 56	
F 9	16 11	1 44	5 9	17 52	2 32	2 44	0 38	27 45	4 32	13 53	0 57	22 37	0 38	1 19	0 46	18 17	0 1	10 1	17 21	22 37	22 46	5 17	16 12	2 56	
S 10	15 54	3n48	5 10	18 5	2 15	2 14	0 35	27 44	4 31	13 55	0 57	22 37	0 38	1 19	0 47	18 17	0 1	10 1	17 21	22 37	22 46	5 20	16 12	2 56	
S 11	15 37	9 5	4 51	18 17	1 58	1 43	0 31	27 44	4 30	13 57	0 56	22 36	0 38	1 20	0 47	18 16	0 1	10 2	17 21	22 38	22 47	5 22	16 12	2 57	
M12	15 19	13 50	4 15	18 27	1 40	1 12	0 28	27 43	4 28	13 59	0 56	22 36	0 38	1 21	0 47	18 16	0 1	10 2	17 22	22 38	22 47	5 25	16 12	2 57	
T 13	15 1	17 45	3 24	18 35	1 23	0 41	0 25	27 43	4 27	14 1	0 56	22 35	0 38	1 21	0 47	18 15	0 1	10 3	17 22	22 38	22 47	5 28	16 12	2 57	
W14	14 43	20 38	2 21	18 41	1 7	0 10	0 21	27 42	4 25	14 4	0 56	22 35	0 38	1 22	0 47	18 14	0 1	10 3	17 22	22 37	22 48	5 30	16 12	2 57	
T 15	14 24	22 17	1 12	18 44	0 50	0s21	0 17	27 42	4 24	14 6	0 55	22 35	0 38	1 23	0 47	18 14	0 1	10 4	17 23	22 37	22 48	5 33	16 12	2 58	
F 16	14 6	22 37	0 0	18 46	0 35	0 52	0 14	27 41	4 22	14 8	0 55	22 34	0 38	1 24	0 47	18 13	0 1	10 4	17 23	22 37	22 48	5 35	16 12	2 58	
S 17	13 47	21 41	1n11	18 45	0 19	1 23	0 10	27 40	4 20	14 11	0 55	22 34	0 38	1 24	0 47	18 13	0 1	10 5	17 23	22 37	22 48	5 38	16 12	2 58	
S 18	13 28	19 37	2 17	18 41	0 5	1 54	0 6	27 40	4 19	14 13	0 55	22 34	0 38	1 25	0 47	18 12	0 1	10 5	17 24	22 38	22 49	5 41	16 12	2 59	
M19	13 8	16 35	3 15	18 34	0n 9	2 25	0 3	27 39	4 17	14 15	0 55	22 33	0 38	1 26	0 47	18 12	0 1	10 6	17 24	22 38	22 49	5 43	16 12	2 59	
T 20	12 49	12 51	4 2	18 25	0 22	2 56	0s 1	27 38	4 16	14 18	0 54	22 33	0 38	1 27	0 47	18 11	0 1	10 6	17 24	22 39	22 49	5 46	16 11	2 59	
W21	12 29	8 37	4 37	18 13	0 34	3 27	0 5	27 37	4 14	14 20	0 54	22 32	0 38	1 27	0 47	18 11	0 1	10 7	17 24	22 40	22 50	5 48	16 11	3 0	
T 22	12 9	4 7	4 59	17 57	0 46	3 58	0 9	27 36	4 12	14 23	0 54	22 32	0 38	1 28	0 47	18 10	0 1	10 7	17 25	22 40	22 50	5 51	16 11	3 0	
F 23	11 49	0s29	5 8	17 39	0 56	4 29	0 13	27 36	4 11	14 26	0 54	22 32	0 38	1 29	0 47	18 9	0 1	10 8	17 25	22 41	22 50	5 53	16 11	3 0	
S 24	11 28	5 2	5 3	17 18	1 5	4 59	0 17	27 35	4 9	14 28	0 53	22 31	0 38	1 30	0 47	18 9	0 1	10 8	17 25	22 42	22 51	5 56	16 11	3 0	
S 25	11 8	9 23	4 45	16 55	1 14	5 30	0 21	27 34	4 7	14 31	0 53	22 31	0 38	1 31	0 47	18 8	0 1	10 9	17 25	22 43	22 51	5 59	16 11	3 1	
M26	10 47	13 23	4 14	16 28	1 21	6 0	0 26	27 32	4 5	14 33	0 53	22 31	0 38	1 32	0 47	18 8	0 1	10 9	17 26	22 43	22 51	6 1	16 11	3 1	
T 27	10 26	16 53	3 33	15 59	1 28	6 31	0 30	27 31	4 4	14 36	0 53	22 30	0 38	1 32	0 47	18 7	0 1	10 10	17 26	22 43	22 52	6 4	16 10	3 1	
W28	10 5	19 44	2 41	15 28	1 33	7 1	0 34	27 30	4 2	14 39	0 53	22 30	0 38	1 33	0 47	18 7	0 1	10 10	17 26	22 43	22 52	6 6	16 10	3 2	
T 29	9 44	21 43	1 41	14 55	1 38	7 31	0 38	27 29	4 0	14 42	0 52	22 29	0 38	1 34	0 47	18 6	0 1	10 11	17 26	22 43	22 52	6 9	16 10	3 2	
F 30	9 23	22 41	0 35	14 19	1 41	8 1	0 43	27 27	3 58	14 44	0 52	22 29	0 38	1 35	0 47	18 6	0 1	10 12	17 27	22 43	22 53	6 12	16 10	3 2	
S 31	9n 1	22s26	0s36	13n42	1n44	8s31	0s47	27s26	3s57	14s47	0ns52	22n29	0s38	1s36	0s47	18n 5	0n 1	10s12	17s27	22n43	22n53	6s14	16n 9	3s 3	

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

SEPTEMBER 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 38 9	7♎49°03	4♎35	0♎18	21♎1	29♎13	12♎37	10♎16	27°R45	8♎58	14°R54	14°R22	12♎41	28♎21	25°R13	S 1
M 2	22 42 5	8°47'16	18°33	2°14	22° 9	29°39	12°45	10°22	27°K43	9° 0	14°Y53	14°B18	12°38	28°28	25°B13	M 2
T 3	22 46 2	9°45'31	2°K56	4°10	23°17	0°Z 6	12°54	10°27	27°41	9° 2	14°52	14°12	12°34	28°34	25°13	T 3
W 4	22 49 59	10°43'48	17°38	6° 5	24°24	0°33	13° 3	10°32	27°38	9° 4	14°52	14° 4	12°31	28°41	25°13	W 4
T 5	22 53 55	11°42'06	2°Y32	8° 0	25°32	1° 1	13°13	10°37	27°36	9° 6	14°51	13°55	12°28	28°48	25°13	T 5
F 6	22 57 52	12°40'27	17°28	9°55	26°39	1°29	13°22	10°42	27°34	9° 8	14°50	13°47	12°25	28°55	25°13	F 6
S 7	23 1 48	13°38'49	2°B18	11°49	27°46	1°58	13°31	10°47	27°32	9°10	14°49	13°39	12°22	29° 1	25°12	S 7
S 8	23 5 45	14°37'14	16°55	13°42	28°53	2°27	13°41	10°52	27°29	9°12	14°48	13°34	12°18	29° 8	25°12	S 8
M 9	23 9 41	15°35'41	1°B13	15°34	29°59	2°56	13°50	10°57	27°27	9°13	14°47	13°31	12°15	29°15	25°11	M 9
T 10	23 13 38	16°34'10	15°12	17°25	1°B 6	3°25	14° 0	11° 1	27°24	9°15	14°46	13°D30	12°12	29°21	25°11	T 10
W11	23 17 34	17°32'42	28°50	19°16	2°13	3°55	14°10	11° 6	27°22	9°17	14°45	13°31	12° 9	29°28	25°10	W11
T 12	23 21 31	18°31'15	12°B11	21° 5	3°19	4°26	14°20	11°11	27°20	9°19	14°44	13°R31	12° 6	29°35	25° 9	T 12
F 13	23 25 28	19°29'51	25°14	22°53	4°25	4°57	14°30	11°15	27°17	9°21	14°43	13°31	12° 3	29°42	25° 9	F 13
S 14	23 29 24	20°28'29	8°B 4	24°41	5°31	5°28	14°40	11°19	27°15	9°23	14°42	13°28	11°59	29°48	25° 8	S 14
S 15	23 33 21	21°27'09	20°42	26°27	6°37	5°59	14°50	11°24	27°13	9°24	14°41	13°23	11°56	29°55	25° 7	S 15
M16	23 37 17	22°25'51	3°B10	28°12	7°43	6°31	15° 1	11°28	27°10	9°26	14°40	13°15	11°53	0°B 2	25° 6	M16
T 17	23 41 14	23°24'36	15°28	29°57	8°48	7° 3	15°11	11°32	27° 8	9°28	14°39	13° 4	11°50	0° 8	25° 5	T 17
W18	23 45 10	24°23'22	27°38	1°A40	9°54	7°35	15°21	11°36	27° 5	9°29	14°38	12°51	11°47	0°15	25° 4	W18
T 19	23 49 7	25°22'10	9°A41	3°22	10°59	8° 8	15°32	11°40	27° 3	9°31	14°36	12°38	11°44	0°22	25° 3	T 19
F 20	23 53 3	26°21'00	21°38	5° 4	12° 4	8°41	15°43	11°44	27° 1	9°33	14°35	12°25	11°40	0°29	25° 1	F 20
S 21	23 57 0	27°19'52	3°B30	6°44	13° 9	9°14	15°53	11°48	26°58	9°34	14°34	12°13	11°37	0°35	25° 0	S 21
S 22	0 0 56	28°18'46	15°20	8°24	14°13	9°48	16° 4	11°51	26°56	9°36	14°33	12° 4	11°34	0°42	24°59	S 22
M23	0 4 53	29°17'42	27°10	10° 3	15°18	10°22	16°15	11°55	26°53	9°38	14°32	11°57	11°31	0°49	24°57	M23
T 24	0 8 50	0°A16'40	9°A 5	11°40	16°22	10°56	16°26	11°58	26°51	9°39	14°31	11°53	11°28	0°55	24°56	T 24
W25	0 12 46	1°15'40	21° 9	13°17	17°26	11°30	16°37	12° 2	26°48	9°41	14°30	11°51	11°24	1° 2	24°54	W25
T 26	0 16 43	2°14'41	3°B27	14°53	18°29	12° 5	16°48	12° 5	26°46	9°42	14°29	11°D51	11°21	1° 9	24°53	T 26
F 27	0 20 39	3°13'44	16° 4	16°28	19°33	12°40	17° 0	12° 8	26°44	9°44	14°28	11°R51	11°18	1°16	24°51	F 27
S 28	0 24 36	4°12'49	29° 6	18° 3	20°36	13°15	17°11	12°11	26°41	9°45	14°26	11°50	11°15	1°22	24°50	S 28
S 29	0 28 32	5°11'56	12°A35	19°36	21°39	13°50	17°22	12°14	26°39	9°47	14°25	11°47	11°12	1°29	24°48	S 29
M30	0 32 29	6°A11'04	26°A35	21°A 9	22°B42	14°B26	17°B34	12°B17	26°K36	9°B48	14°Y24	11°B42	11°B 9	1°B36	24°B46	M30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	8n39	20s53	1s46	13n 3	1n46	9s 1	0s51	27s24	3s55	14s50	0n52	22n28	0s38	1s37	0s47	18n 5	0n 1	10s13	17s27	22n43	22n53	6s17	16n 9	3s 3	3s 3	3s 3	3s 3
M 2	8 18	18 2	2 52	12 22	1 47	9 30	0 56	27 23	3 53	14 53	0 52	22 28	0 37	1 38	0 47	18 4	0 1	10 13	17 27	22 43	22 53	6 19	16 9	3 3	3 3	3 3	3 3
T 3	7 56	14 1	3 50	11 41	1 48	10 0	1 0	27 21	3 51	14 56	0 51	22 27	0 37	1 39	0 47	18 4	0 1	10 14	17 28	22 44	22 54	6 22	16 8	3 4	3 4	3 4	3 4
W 4	7 34	9 5	4 33	10 58	1 47	10 29	1 5	27 19	3 50	14 59	0 51	22 27	0 37	1 39	0 47	18 3	0 1	10 14	17 28	22 45	22 54	6 24	16 8	3 4	3 4	3 4	3 4
T 5	7 11	3 33	4 58	10 14	1 46	10 58	1 9	27 17	3 48	15 2	0 51	22 27	0 37	1 40	0 47	18 3	0 1	10 15	17 28	22 46	22 54	6 27	16 8	3 4	3 4	3 4	3 4
F 6	6 49	2n11	5 4	9 29	1 45	11 27	1 14	27 15	3 46	15 5	0 51	22 26	0 37	1 41	0 47	18 2	0 1	10 15	17 28	22 47	22 55	6 30	16 7	3 4	3 4	3 4	3 4
S 7	6 27	7 47	4 49	8 44	1 43	11 55	1 18	27 13	3 44	15 8	0 51	22 26	0 37	1 42	0 47	18 2	0 1	10 16	17 28	22 47	22 55	6 32	16 7	3 5	3 5	3 5	3 5
S 8	6 4	12 51	4 15	7 58	1 40	12 23	1 23	27 10	3 42	15 11	0 50	22 26	0 37	1 43	0 47	18 1	0 1	10 16	17 29	22 48	22 55	6 35	16 7	3 5	3 5	3 5	3 5
M 9	5 41	17 6	3 25	7 12	1 37	12 51	1 27	27 8	3 40	15 14	0 50	22 25	0 37	1 44	0 47	18 1	0 1	10 17	17 29	22 48	22 56	6 37	16 6	3 5	3 5	3 5	3 5
T 10	5 19	20 16	2 25	6 25	1 33	13 19	1 32	27 5	3 39	15 17	0 50	22 25	0 37	1 45	0 47	18 0	0 1	10 17	17 29	22 48	22 56	6 40	16 6	3 6	3 6	3 6	3 6
W11	4 56	22 12	1 17	5 38	1 29	13 47	1 36	27 3	3 37	15 20	0 50	22 25	0 37	1 46	0 47	18 0	0 1	10 18	17 29	22 48	22 56	6 43	16 5	3 6	3 6	3 6	3 6
T 12	4 33	22 49	0 7	4 51	1 25	14 14	1 41	27 0	3 35	15 23	0 50	22 24	0 37	1 47	0 47	17 59	0 2	10 18	17 29	22 48	22 56	6 45	16 5	3 6	3 6	3 6	3 6
F 13	4 10	22 9	1n 2	4 4	1 20	14 41	1 46	26 57	3 33	15 26	0 49	22 24	0 37	1 48	0 47	17 59	0 2	10 19	17 29	22 48	22 57	6 48	16 4	3 7	3 7	3 7	3 7
S 14	3 47	20 20	2 7	3 16	1 15	15 7	1 50	26 54	3 31	15 29	0 49	22 24	0 37	1 49	0 47	17 58	0 2	10 19	17 30	22 49	22 57	6 50	16 4	3 7	3 7	3 7	3 7
S 15	3 24	17 32	3 4	2 29	1 10	15 34	1 55	26 50	3 29	15 33	0 49	22 23	0 37	1 50	0 47	17 58	0 2	10 20	17 30	22 49	22 57	6 53	16 3	3 7	3 7	3 7	3 7
M16	3 1	13 57	3 51	1 42	1 5	16 0	1 59	26 47	3 27	15 36	0 49	22 23	0 37	1 51	0 47	17 57	0 2	10 21	17 30	22 50	22 58	6 55	16 3	3 7	3 7	3 7	3 7
T 17	2 37	9 50	4 27	0 55	0 59	16 25	2 4	26 44	3 26	15 39	0 49	22 23	0 37	1 52	0 47	17 57	0 2	10 21	17 30	22 51	22 58	6 58	16 2	3 8	3 8	3 8	3 8
W18	2 14	5 23	4 50	0 8	0 53	16 51	2 8	26 40	3 24	15 42	0 49	22 22	0 37	1 53	0 47	17 56	0 2	10 22	17 30	22 52	22 58	7 1	16 2	3 8	3 8	3 8	3 8
T 19	1 51	0 45	5 0	0s38	0 46	17 16	2 13	26 36	3 22	15 45	0 48	22 22	0 37	1 54	0 47	17 56	0 2	10 22	17 30	22 53	22 58	7 3	16 1	3 8	3 8	3 8	3 8
F 20	1 27	3s52	4 57	1 24	0 40	17 40	2 17	26 32	3 20	15 49	0 48	22 22	0 37	1 55	0 47	17 56	0 2	10 23	17 30	22 55	22 59	7 6	16 1	3 9	3 9	3 9	3 9
S 21	1 4	8 19	4 41	2 10	0 34	18 4	2 22	26 28	3 18	15 52	0 48	22 21	0 37	1 56	0 47	17 55	0 2	10 23	17 30	22 56	22 59	7 8	16 0	3 9	3 9	3 9	3 9
S 22	0 40	12 27	4 12	2 56	0 27	18 28	2 26	26 24	3 16	15 55	0 48	22 21	0 37	1 57	0 47	17 55	0 2	10 24	17 31	22 57	22 59	7 11	16 0	3 9	3 9	3 9	3 9
M23	0 17	16 7	3 33	3 41	0 20	18 52	2 31	26 19	3 14	15 58	0 48	22 21	0 37	1 58	0 47	17 54	0 2	10 24	17 31	22 57	23 0	7 14	15 59	3 9	3 9	3 9	3 9
T 24	0s 7	19 10	2 44	4 25	0 13	19 15	2 35	26 14	3 13	16 2	0 48	22 20	0 37	1 58	0 47	17 54	0 2	10 25	17 31	22 58	23 0	7 16	15 58	3 10	3 10	3 10	3 10
W25	0 30	21 25	1 47	5 10	0 6	19 37	2 40	26 10	3 11	16 5	0 47	22 20	0 37	1 59	0 47	17 54	0 2	10 25	17 31	22 58	23 0	7 19	15 58	3 10	3 10	3 10	3 10
T 26	0 54	22 43	0 44	5 53	0s 1	20 0	2 44	26 5	3 9	16 8	0 47	22 20	0 37	2 0	0 47	17 53	0 2	10 26	17 31	22 58	23 0	7 21	15 57	3 10	3 10	3 10	3 10
F 27	1 17	22 54	0s22	6 37	0 8	20 21	2 48	26 0	3 7	16 12	0 47	22 20	0 37	2 1	0 47	17 53	0 2	10 26	17 31	22 58	23 1	7 24	15 56	3 11	3 11	3 11	3 11
S 28	1 41	21 51	1 30	7 19	0 15	20 43	2 53	25 54	3 5	16 15	0 47	22 19	0 37	2 2	0 47	17 52	0 2	10 27	17 31	22 58	23 1	7 26	15 56	3 11	3 11	3 11	3 11
S 29	2 4	19 32	2 35	8 2	0 22	21 4	2 57	25 49	3 3	16 18	0 47	22 19	0 37	2 3	0 47	17 52	0 2	10 27	17 31	22 58	23 1	7 29	15 55	3 11	3 11	3 11	3 11
M30	2s28	16s 1	3s33	8s43	0s29	21s24	3s 1	25s43	3s 2	16s22	0n47	22n19	0s37	2s 4	0s47	17n52	0n 2	10s28	17s31	22n59	23n 1	7s32	15n54	3s11	3s11	3s11	3s11

ASTRODIENST EPHEMERIS for the year 1591  
geocentric

OCTOBER 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	0 36 25	7♄10'15	11♋4	22♈41	23♎44	15♌2	17♎45	12♏20	26°R34	9♏49	14°R23	11°R34	11♏5	1♎42	24°R44	T 1
W 2	0 40 22	8° 9'27	25°57	24°12	24°46	15°38	17°57	12°22	26°H32	9°51	14°Y22	11♏24	11° 2	1°49	24°B42	W 2
T 3	0 44 19	9° 8'41	11°Y7	25°42	25°48	16°14	18° 9	12°25	26°29	9°52	14°21	11°13	10°59	1°56	24°40	T 3
F 4	0 48 15	10° 7'57	26°23	27°12	26°49	16°50	18°20	12°27	26°27	9°53	14°20	11° 2	10°56	2° 3	24°38	F 4
S 5	0 52 12	11° 7'15	11♋34	28°40	27°50	17°27	18°32	12°30	26°25	9°55	14°18	10°52	10°53	2° 9	24°36	S 5
S 6	0 56 8	12° 6'36	26°30	0♎8	28°51	18° 4	18°44	12°32	26°22	9°56	14°17	10°45	10°49	2°16	24°34	S 6
M 7	1 0 5	13° 5'59	11♎4	1°35	29°52	18°41	18°56	12°34	26°20	9°57	14°16	10°40	10°46	2°23	24°32	M 7
T 8	1 4 1	14° 5'25	25°12	3° 2	0♌52	19°18	19° 8	12°36	26°18	9°58	14°15	10°38	10°43	2°29	24°29	T 8
W 9	1 7 58	15° 4'53	8♏54	4°27	1°52	19°56	19°20	12°38	26°16	10° 0	14°14	10°38	10°40	2°36	24°27	W 9
T 10	1 11 54	16° 4'23	22°12	5°52	2°51	20°33	19°32	12°40	26°13	10° 1	14°13	10°37	10°37	2°43	24°25	T 10
F 11	1 15 51	17° 3'55	5♏9	7°16	3°50	21°11	19°44	12°41	26°11	10° 2	14°12	10°37	10°34	2°50	24°22	F 11
S 12	1 19 48	18° 3'30	17°48	8°38	4°49	21°49	19°57	12°43	26° 9	10° 3	14°10	10°34	10°30	2°56	24°20	S 12
S 13	1 23 44	19° 3'07	0♎13	10° 0	5°47	22°27	20° 9	12°45	26° 7	10° 4	14° 9	10°28	10°27	3° 3	24°17	S 13
M14	1 27 41	20° 2'46	12°28	11°21	6°45	23° 6	20°21	12°46	26° 5	10° 5	14° 8	10°19	10°24	3°10	24°15	M14
T 15	1 31 37	21° 2'27	24°35	12°41	7°42	23°44	20°34	12°47	26° 2	10° 6	14° 7	10° 8	10°21	3°16	24°12	T 15
W16	1 35 34	22° 2'11	6♄36	14° 0	8°39	24°23	20°46	12°48	26° 0	10° 7	14° 6	9°55	10°18	3°23	24°10	W16
T 17	1 39 30	23° 1'56	18°32	15°17	9°36	25° 1	20°59	12°49	25°58	10° 8	14° 5	9°40	10°15	3°30	24° 7	T 17
F 18	1 43 27	24° 1'44	0♎25	16°33	10°32	25°40	21°11	12°50	25°56	10° 9	14° 3	9°26	10°11	3°37	24° 4	F 18
S 19	1 47 23	25° 1'34	12°16	17°48	11°27	26°20	21°24	12°51	25°54	10°10	14° 2	9°14	10° 8	3°43	24° 1	S 19
S 20	1 51 20	26° 1'25	24° 6	19° 1	12°22	26°59	21°37	12°52	25°52	10°10	14° 1	9° 3	10° 5	3°50	23°59	S 20
M21	1 55 17	27° 1'18	5♌58	20°12	13°16	27°38	21°49	12°52	25°50	10°11	14° 0	8°56	10° 2	3°57	23°56	M21
T 22	1 59 13	28° 1'14	17°54	21°22	14°10	28°18	22° 2	12°53	25°48	10°12	13°59	8°51	9°59	4° 3	23°53	T 22
W23	2 3 10	29° 1'11	29°59	22°29	15° 3	28°57	22°15	12°53	25°46	10°13	13°58	8°49	9°55	4°10	23°50	W23
T 24	2 7 6	0♎1'09	12♌16	23°35	15°56	29°37	22°28	12°54	25°45	10°13	13°57	8°D49	9°52	4°17	23°47	T 24
F 25	2 11 3	1° 1'10	24°50	24°37	16°48	0♌17	22°40	12°54	25°43	10°14	13°56	8°R49	9°49	4°24	23°44	F 25
S 26	2 14 59	2° 1'12	7♌45	25°37	17°39	0°57	22°53	12°R54	25°41	10°15	13°55	8°49	9°46	4°30	23°41	S 26
S 27	2 18 56	3° 1'15	21° 7	26°34	18°30	1°37	23° 6	12°54	25°39	10°15	13°53	8°48	9°43	4°37	23°38	S 27
M28	2 22 52	4° 1'20	4♋57	27°28	19°19	2°18	23°19	12°54	25°37	10°16	13°52	8°44	9°40	4°44	23°35	M28
T 29	2 26 49	5° 1'27	19°17	28°17	20° 8	2°58	23°32	12°53	25°36	10°16	13°51	8°38	9°36	4°50	23°32	T 29
W30	2 30 46	6° 1'35	4♎5	29° 2	20°56	3°39	23°45	12°53	25°34	10°17	13°50	8°30	9°33	4°57	23°29	W30
T 31	2 34 42	7♎1'45	19°Y13	29♎43	21♌44	4♌19	23♎58	12♏52	25°H32	10♏17	13°Y49	8♏20	9♏30	5♎4	23°B26	T 31

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	2s51	11s25	4s19	9s24	0s36	21s44	3s 5	25s37	3s 0	16s25	0n47	22n19	0s37	2s 5	0s47	17n51	0n 2	10s28	17s31	22n59	23n 2	7s34	15n54	3s12	
W 2	3 15	6 2	4 49	10 5	0 43	22 4	3 9	25 31	2 58	16 29	0 46	22 18	0 37	2 6	0 47	17 51	0 2	10 28	17 31	23 0	23 2	7 37	15 53	3 12	
T 3	3 38	0 12	5 0	10 44	0 51	22 23	3 13	25 25	2 56	16 32	0 46	22 18	0 37	2 7	0 47	17 51	0 2	10 29	17 31	23 1	23 2	7 39	15 52	3 12	
F 4	4 1	5n42	4 50	11 23	0 58	22 41	3 17	25 19	2 54	16 35	0 46	22 18	0 37	2 8	0 47	17 50	0 2	10 29	17 31	23 2	23 2	7 42	15 51	3 12	
S 5	4 25	11 14	4 19	12 2	1 5	22 59	3 21	25 12	2 52	16 39	0 46	22 18	0 36	2 9	0 47	17 50	0 2	10 30	17 31	23 3	23 3	7 45	15 51	3 13	
S 6	4 48	16 0	3 30	12 40	1 12	23 17	3 25	25 5	2 51	16 42	0 46	22 18	0 36	2 10	0 47	17 50	0 2	10 30	17 31	23 3	23 3	7 47	15 50	3 13	
M 7	5 11	19 41	2 29	13 17	1 18	23 34	3 29	24 58	2 49	16 46	0 46	22 18	0 36	2 11	0 47	17 49	0 2	10 31	17 31	23 4	23 3	7 50	15 49	3 13	
T 8	5 34	22 4	1 21	13 53	1 25	23 50	3 32	24 51	2 47	16 49	0 46	22 17	0 36	2 11	0 47	17 49	0 2	10 31	17 31	23 4	23 3	7 52	15 48	3 14	
W 9	5 57	23 2	0 9	14 28	1 32	24 6	3 36	24 44	2 45	16 52	0 45	22 17	0 36	2 12	0 47	17 49	0 2	10 32	17 31	23 4	23 4	7 55	15 48	3 14	
T 10	6 20	22 39	1n 1	15 3	1 38	24 22	3 40	24 36	2 43	16 56	0 45	22 17	0 36	2 13	0 47	17 48	0 2	10 32	17 31	23 4	23 4	7 57	15 47	3 14	
F 11	6 43	21 3	2 6	15 37	1 45	24 37	3 43	24 29	2 41	16 59	0 45	22 17	0 36	2 14	0 47	17 48	0 2	10 32	17 31	23 4	23 4	8 0	15 46	3 14	
S 12	7 6	18 26	3 3	16 10	1 51	24 51	3 46	24 21	2 40	17 3	0 45	22 17	0 36	2 15	0 47	17 48	0 2	10 33	17 31	23 4	23 5	8 3	15 45	3 15	
S 13	7 29	15 0	3 50	16 42	1 57	25 5	3 49	24 13	2 38	17 6	0 45	22 17	0 36	2 16	0 47	17 48	0 2	10 33	17 31	23 5	23 5	8 5	15 44	3 15	
M14	7 51	10 59	4 26	17 13	2 3	25 18	3 53	24 4	2 36	17 9	0 45	22 17	0 36	2 17	0 47	17 47	0 2	10 34	17 31	23 5	23 5	8 8	15 43	3 15	
T 15	8 14	6 35	4 49	17 43	2 9	25 31	3 56	23 56	2 34	17 13	0 45	22 17	0 36	2 17	0 47	17 47	0 2	10 34	17 31	23 6	23 5	8 10	15 43	3 15	
W16	8 36	1 57	4 59	18 12	2 14	25 43	3 58	23 47	2 32	17 16	0 44	22 16	0 36	2 18	0 47	17 47	0 2	10 34	17 31	23 7	23 6	8 13	15 42	3 15	
T 17	8 58	2s42	4 56	18 41	2 20	25 55	4 1	23 39	2 31	17 20	0 44	22 16	0 36	2 19	0 47	17 47	0 2	10 35	17 31	23 8	23 6	8 15	15 41	3 16	
F 18	9 20	7 16	4 41	19 8	2 25	26 6	4 4	23 30	2 29	17 23	0 44	22 16	0 36	2 20	0 47	17 46	0 2	10 35	17 31	23 9	23 6	8 18	15 40	3 16	
S 19	9 42	11 32	4 12	19 34	2 29	26 16	4 6	23 20	2 27	17 26	0 44	22 16	0 36	2 21	0 47	17 46	0 2	10 35	17 31	23 10	23 6	8 21	15 39	3 16	
S 20	10 4	15 23	3 33	19 58	2 34	26 26	4 9	23 11	2 25	17 30	0 44	22 16	0 36	2 21	0 47	17 46	0 2	10 36	17 31	23 11	23 6	8 23	15 38	3 16	
M21	10 26	18 39	2 45	20 22	2 38	26 36	4 11	23 1	2 24	17 33	0 44	22 16	0 36	2 22	0 47	17 46	0 2	10 36	17 31	23 11	23 7	8 26	15 37	3 17	
T 22	10 48	21 8	1 49	20 44	2 41	26 44	4 13	22 52	2 22	17 37	0 44	22 16	0 36	2 23	0 47	17 45	0 2	10 37	17 31	23 12	23 7	8 28	15 36	3 17	
W23	11 9	22 43	0 47	21 5	2 45	26 53	4 15	22 42	2 20	17 40	0 44	22 16	0 36	2 24	0 47	17 45	0 2	10 37	17 31	23 12	23 7	8 31	15 35	3 17	
T 24	11 30	23 14	0s18	21 24	2 47	27 0	4 17	22 32	2 18	17 43	0 44	22 16	0 36	2 24	0 47	17 45	0 2	10 37	17 30	23 12	23 7	8 34	15 35	3 17	
F 25	11 51	22 35	1 24	21 42	2 50	27 7	4 18	22 21	2 17	17 47	0 43	22 16	0 36	2 25	0 46	17 45	0 2	10 37	17 30	23 12	23 8	8 36	15 34	3 17	
S 26	12 12	20 45	2 28	21 59	2 51	27 14	4 20	22 11	2 15	17 50	0 43	22 16	0 36	2 26	0 46	17 45	0 2	10 38	17 30	23 12	23 8	8 39	15 33	3 18	
S 27	12 33	17 44	3 25	22 13	2 52	27 20	4 21	22 0	2 13	17 54	0 43	22 16	0 36	2 27	0 46	17 45	0 2	10 38	17 30	23 12	23 8	8 41	15 32	3 18	
M28	12 53	13 38	4 13	22 26	2 53	27 25	4 22	21 49	2 11	17 57	0 43	22 16	0 36	2 27	0 46	17 44	0 2	10 38	17 30	23 12	23 8	8 44	15 31	3 18	
T 29	13 14	8 39	4 47	22 38	2 53	27 30	4 23	21 38	2 10	18 0	0 43	22 16	0 36	2 28	0 46	17 44	0 2	10 39	17 30	23 13	23 9	8 46	15 30	3 18	
W30	13 34	3 0	5 3	22 47	2 52	27 34	4 24	21 27	2 8	18 4	0 43	22 16	0 36	2 28	0 46	17 44	0 2	10 39	17 30	23 13	23 9	8 49	15 29	3 18	
T 31	13s53	2n56	4s58	22s54	2s50	27s38	4s25	21s16	2s 6	18s 7	0n43	22n17	0s36	2s29	0s46	17n44	0n 2	10s39	17s30	23n14	23n 9	8s52	15n28	3s18	

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

NOVEMBER 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 38 39	8♈ 1°57	4♈ 33	0♈ 17	22♈ 30	5♈ 0	24♈ 11	12°R52	25°R31	10♈ 18	13°R48	8°R11	9♈ 27	5♈ 11	23°R22	F 1
S 2	2 42 35	9° 2'10	19°52	0°46	23°16	5°41	24°25	12°51	25°29	10°18	13°47	8°3	9°24	5°17	23°19	S 2
S 3	2 46 32	10° 2'25	5♈ 1	1° 9	24° 0	6°21	24°38	12°50	25°28	10°19	13°46	7°56	9°21	5°24	23°16	S 3
M 4	2 50 28	11° 2'43	19°49	1°24	24°44	7° 2	24°51	12°49	25°26	10°19	13°45	7°53	9°17	5°31	23°13	M 4
T 5	2 54 25	12° 3'02	4♈ 10	1°R31	25°26	7°43	25° 4	12°48	25°25	10°19	13°44	7°D51	9°14	5°37	23° 9	T 5
W 6	2 58 21	13° 3'23	18° 3	1°29	26° 8	8°25	25°17	12°47	25°23	10°19	13°43	7°52	9°11	5°44	23° 6	W 6
T 7	3 2 18	14° 3'46	1♈ 29	1°18	26°48	9° 6	25°31	12°45	25°22	10°20	13°42	7°53	9° 8	5°51	23° 3	T 7
F 8	3 6 15	15° 4'11	14°29	0°57	27°28	9°47	25°44	12°44	25°21	10°20	13°41	7°R53	9° 5	5°57	23° 0	F 8
S 9	3 10 11	16° 4'38	27° 7	0°26	28° 6	10°29	25°57	12°42	25°19	10°20	13°40	7°52	9° 1	6° 4	22°56	S 9
S 10	3 14 8	17° 5'07	9♈ 29	29♈ 45	28°42	11°10	26°11	12°41	25°18	10°20	13°39	7°50	8°58	6°11	22°53	S 10
M 11	3 18 4	18° 5'38	21°38	28°54	29°18	11°52	26°24	12°39	25°17	10°20	13°38	7°45	8°55	6°18	22°50	M 11
T 12	3 22 1	19° 6'10	3♈ 38	27°53	29°52	12°33	26°37	12°37	25°16	10°20	13°37	7°38	8°52	6°24	22°46	T 12
W 13	3 25 57	20° 6'45	15°33	26°44	0♈ 25	13°15	26°51	12°35	25°15	10°R20	13°37	7°29	8°49	6°31	22°43	W 13
T 14	3 29 54	21° 7'20	27°25	25°29	0°56	13°57	27° 4	12°33	25°14	10°20	13°36	7°20	8°46	6°38	22°40	T 14
F 15	3 33 50	22° 7'58	9♈ 16	24° 9	1°26	14°38	27°17	12°31	25°13	10°20	13°35	7°10	8°42	6°44	22°36	F 15
S 16	3 37 47	23° 8'37	21° 8	22°48	1°54	15°20	27°31	12°29	25°12	10°20	13°34	7° 2	8°39	6°51	22°33	S 16
S 17	3 41 43	24° 9'18	3♈ 2	21°27	2°21	16° 2	27°44	12°26	25°11	10°20	13°33	6°55	8°36	6°58	22°29	S 17
M 18	3 45 40	25°10'00	15° 1	20°10	2°45	16°44	27°58	12°24	25°10	10°20	13°32	6°51	8°33	7° 5	22°26	M 18
T 19	3 49 37	26°10'43	27° 5	18°58	3° 8	17°27	28°11	12°21	25° 9	10°20	13°31	6°48	8°30	7°11	22°23	T 19
W 20	3 53 33	27°11'28	9♈ 18	17°55	3°30	18° 9	28°25	12°19	25° 8	10°20	13°31	6°D48	8°26	7°18	22°19	W 20
T 21	3 57 30	28°12'13	21°42	17° 2	3°49	18°51	28°38	12°16	25° 7	10°19	13°30	6°48	8°23	7°25	22°16	T 21
F 22	4 1 26	29°13'00	4♈ 20	16°20	4° 6	19°33	28°51	12°13	25° 7	10°19	13°29	6°50	8°20	7°31	22°13	F 22
S 23	4 5 23	0♈ 13'48	17°16	15°49	4°21	20°15	29° 5	12°10	25° 6	10°19	13°28	6°52	8°17	7°38	22° 9	S 23
S 24	4 9 19	1°14'37	0♈ 32	15°30	4°35	20°58	29°18	12° 7	25° 6	10°18	13°28	6°R52	8°14	7°45	22° 6	S 24
M 25	4 13 16	2°15'26	14°13	15°D22	4°45	21°40	29°32	12° 4	25° 5	10°18	13°27	6°52	8°11	7°51	22° 3	M 25
T 26	4 17 13	3°16'17	28°19	15°24	4°54	22°23	29°45	12° 1	25° 5	10°18	13°26	6°49	8° 7	7°58	21°59	T 26
W 27	4 21 9	4°17'08	12°48	15°37	5° 1	23° 5	29°59	11°57	25° 4	10°17	13°26	6°46	8° 4	8° 5	21°56	W 27
T 28	4 25 6	5°18'00	27°38	16° 0	5° 5	23°48	0♈ 12	11°54	25° 4	10°17	13°25	6°41	8° 1	8°12	21°53	T 28
F 29	4 29 2	6°18'53	12♈ 42	16°30	5°R 6	24°30	0°25	11°50	25° 3	10°16	13°24	6°37	7°58	8°18	21°50	F 29
S 30	4 32 59	7♈ 19'48	27♈ 51	17♈ 8	5♈ 6	25♈ 13	0♈ 39	11°547	25° 3	10°16	13°24	6°33	7°55	8♈ 25	21°47	S 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	14s13	8n47	4s33	22s58	2s47	27s41	4s25	21s 4	2s 5	18s10	0n43	22n17	0s36	2s30	0s46	17n44	0n 2	10s39	17s29	23n14	23n 9	8s54	15n27	3s19			
S 2	14 32	14 6	3 47	23 1	2 43	27 44	4 25	20 53	2 3	18 14	0 43	22 17	0 36	2 30	0 46	17 44	0 2	10 40	17 29	23 15	23 10	8 57	15 26	3 19			
S 3	14 52	18 27	2 46	23 0	2 38	27 46	4 25	20 41	2 1	18 17	0 42	22 17	0 36	2 31	0 46	17 44	0 2	10 40	17 29	23 15	23 10	8 59	15 25	3 19			
M 4	15 10	21 31	1 35	22 57	2 31	27 47	4 24	20 29	1 59	18 20	0 42	22 17	0 35	2 31	0 46	17 44	0 2	10 40	17 29	23 15	23 10	9 2	15 24	3 19			
T 5	15 29	23 6	0 20	22 51	2 24	27 49	4 24	20 16	1 58	18 23	0 42	22 17	0 35	2 32	0 46	17 44	0 2	10 40	17 29	23 16	23 10	9 4	15 23	3 19			
W 6	15 48	23 10	0n54	22 42	2 14	27 49	4 23	20 4	1 56	18 27	0 42	22 17	0 35	2 33	0 46	17 44	0 2	10 40	17 29	23 15	23 10	9 7	15 22	3 19			
T 7	16 6	21 53	2 3	22 29	2 4	27 49	4 22	19 52	1 54	18 30	0 42	22 18	0 35	2 33	0 46	17 44	0 2	10 41	17 28	23 15	23 11	9 9	15 21	3 20			
F 8	16 24	19 27	3 4	22 12	1 51	27 49	4 21	19 39	1 53	18 33	0 42	22 18	0 35	2 34	0 46	17 44	0 2	10 41	17 28	23 15	23 11	9 12	15 20	3 20			
S 9	16 41	16 9	3 53	21 52	1 37	27 48	4 19	19 26	1 51	18 36	0 42	22 18	0 35	2 34	0 46	17 44	0 2	10 41	17 28	23 15	23 11	9 15	15 19	3 20			
S 10	16 58	12 12	4 31	21 28	1 22	27 46	4 17	19 13	1 49	18 40	0 42	22 18	0 35	2 34	0 46	17 43	0 2	10 41	17 28	23 16	23 11	9 17	15 18	3 20			
M11	17 15	7 50	4 55	21 0	1 4	27 44	4 15	19 0	1 48	18 43	0 42	22 18	0 35	2 35	0 46	17 43	0 2	10 41	17 27	23 16	23 11	9 20	15 17	3 20			
T 12	17 32	3 14	5 6	20 29	0 46	27 42	4 12	18 46	1 46	18 46	0 42	22 19	0 35	2 35	0 46	17 43	0 2	10 41	17 27	23 16	23 12	9 22	15 17	3 20			
W13	17 49	1s28	5 4	19 54	0 26	27 39	4 9	18 33	1 45	18 49	0 42	22 19	0 35	2 36	0 46	17 43	0 2	10 42	17 27	23 17	23 12	9 25	15 16	3 20			
T 14	18 5	6 5	4 49	19 16	0 6	27 35	4 6	18 19	1 43	18 52	0 41	22 19	0 35	2 36	0 46	17 43	0 2	10 42	17 27	23 17	23 12	9 27	15 15	3 20			
F 15	18 21	10 29	4 21	18 37	0n14	27 31	4 2	18 6	1 41	18 56	0 41	22 19	0 35	2 36	0 46	17 44	0 2	10 42	17 27	23 18	23 12	9 30	15 14	3 21			
S 16	18 36	14 31	3 42	17 57	0 35	27 27	3 59	17 52	1 40	18 59	0 41	22 20	0 35	2 37	0 46	17 44	0 2	10 42	17 26	23 18	23 13	9 33	15 13	3 21			
S 17	18 51	17 59	2 53	17 17	0 55	27 22	3 54	17 37	1 38	19 2	0 41	22 20	0 35	2 37	0 46	17 44	0 2	10 42	17 26	23 19	23 13	9 35	15 12	3 21			
M18	19 6	20 44	1 55	16 39	1 13	27 17	3 50	17 23	1 37	19 5	0 41	22 20	0 35	2 37	0 46	17 44	0 2	10 42	17 26	23 19	23 13	9 38	15 11	3 21			
T 19	19 20	22 35	0 53	16 3	1 31	27 12	3 45	17 9	1 35	19 8	0 41	22 20	0 35	2 38	0 46	17 44	0 2	10 42	17 26	23 19	23 13	9 40	15 10	3 21			
W20	19 34	23 24	0s14	15 31	1 46	27 6	3 39	16 54	1 33	19 11	0 41	22 21	0 35	2 38	0 46	17 44	0 2	10 42	17 25	23 19	23 13	9 43	15 9	3 21			
T 21	19 48	23 4	1 20	15 3	1 59	26 59	3 33	16 40	1 32	19 14	0 41	22 21	0 35	2 38	0 46	17 44	0 2	10 42	17 25	23 19	23 14	9 45	15 8	3 21			
F 22	20 2	21 33	2 24	14 40	2 11	26 52	3 27	16 25	1 30	19 17	0 41	22 21	0 35	2 39	0 46	17 44	0 2	10 42	17 25	23 19	23 14	9 48	15 7	3 21			
S 23	20 15	18 55	3 23	14 23	2 20	26 45	3 20	16 10	1 29	19 20	0 41	22 22	0 35	2 39	0 45	17 44	0 2	10 42	17 25	23 19	23 14	9 50	15 6	3 21			
S 24	20 27	15 14	4 12	14 10	2 27	26 38	3 13	15 55	1 27	19 23	0 41	22 22	0 35	2 39	0 45	17 44	0 2	10 42	17 24	23 19	23 14	9 53	15 5	3 21			
M25	20 40	10 39	4 48	14 3	2 32	26 29	3 5	15 40	1 26	19 26	0 41	22 22	0 34	2 39	0 45	17 44	0 2	10 42	17 24	23 19	23 14	9 56	15 4	3 21			
T 26	20 51	5 24	5 9	14 1	2 35	26 21	2 57	15 25	1 24	19 29	0 41	22 23	0 34	2 39	0 45	17 44	0 2	10 42	17 24	23 19	23 15	9 58	15 4	3 21			
W27	21 3	0n18	5 11	14 3	2 37	26 12	2 48	15 9	1 23	19 32	0 41	22 23	0 34	2 39	0 45	17 45	0 2	10 42	17 23	23 19	23 15	10 1	15 3	3 22			
T 28	21 14	6 7	4 52	14 9	2 37	26 3	2 39	14 54	1 21	19 35	0 40	22 23	0 34	2 40	0 45	17 45	0 2	10 42	17 23	23 19	23 15	10 3	15 2	3 22			
F 29	21 25	11 40	4 13	14 19	2 36	25 53	2 30	14 38	1 20	19 38	0 40	22 24	0 34	2 40	0 45	17 45	0 2	10 42	17 23	23 20	23 15	10 6	15 1	3 22			
S 30	21s35	16n32	3s16	14s31	2n34	25s43	2s20	14s22	1s18	19s40	0n40	22n24	0s34	2s40	0s45	17n45	0n 2	10s42	17s22	23n20	23n15	10s 8	15n 0	3s22			

# ASTRODIENST EPHEMERIS for the year 1591

## geocentric

DECEMBER 1591 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
S 1	4 36 55	8°20'43	12°11'55	17°11'53	5°R 2	25°56	0°52	11°R43	25°R 3	10°R15	13°R23	6°R30	7°52	8°11'32	21°R43	S 1
M 2	4 40 52	9°21'39	27°44	18°44	4°57	26°38	1° 6	11°39	25°R 3	10°R14	13°R22	6°28	7°48	8°38	21°R40	M 2
T 3	4 44 48	10°22'36	12°15	19°40	4°48	27°21	1°19	11°36	25° 3	10°14	13°22	6°D28	7°45	8°45	21°37	T 3
W 4	4 48 45	11°23'35	26°15	20°40	4°38	28° 4	1°32	11°32	25° 3	10°13	13°21	6°29	7°42	8°52	21°34	W 4
T 5	4 52 42	12°24'34	9°50	21°45	4°24	28°46	1°46	11°28	25°D 3	10°12	13°21	6°30	7°39	8°59	21°31	T 5
F 6	4 56 38	13°25'35	22°59	22°53	4° 9	29°29	1°59	11°24	25° 3	10°12	13°20	6°32	7°36	9° 5	21°28	F 6
S 7	5 0 35	14°26'36	5°14	24° 4	3°51	0°12	2°12	11°20	25° 3	10°11	13°20	6°33	7°32	9°12	21°25	S 7
S 8	5 4 31	15°27'39	18° 9	25°17	3°30	0°55	2°26	11°16	25° 3	10°10	13°19	6°R33	7°29	9°19	21°22	S 8
M 9	5 8 28	16°28'42	0°19	26°33	3° 8	1°38	2°39	11°11	25° 3	10° 9	13°19	6°33	7°26	9°25	21°19	M 9
T 10	5 12 24	17°29'47	12°18	27°51	2°43	2°20	2°52	11° 7	25° 3	10° 8	13°19	6°31	7°23	9°32	21°16	T 10
W11	5 16 21	18°30'52	24°10	29°11	2°16	3° 3	3° 5	11° 3	25° 3	10° 7	13°18	6°29	7°20	9°39	21°13	W11
T 12	5 20 17	19°31'59	6°11	0°32	1°48	3°46	3°19	10°58	25° 4	10° 7	13°18	6°26	7°17	9°45	21°10	T 12
F 13	5 24 14	20°33'06	17°52	1°54	1°18	4°29	3°32	10°54	25° 4	10° 6	13°17	6°23	7°13	9°52	21° 7	F 13
S 14	5 28 11	21°34'14	29°46	3°17	0°46	5°12	3°45	10°49	25° 5	10° 5	13°17	6°21	7°10	9°59	21° 4	S 14
S 15	5 32 7	22°35'22	11°47	4°42	0°12	5°55	3°58	10°45	25° 5	10° 4	13°17	6°19	7° 7	10° 6	21° 2	S 15
M16	5 36 4	23°36'32	23°56	6° 7	29°38	6°38	4°11	10°40	25° 6	10° 3	13°16	6°18	7° 4	10°12	20°59	M16
T 17	5 40 0	24°37'41	6°15	7°33	29° 3	7°21	4°24	10°35	25° 6	10° 2	13°16	6°D17	7° 1	10°19	20°56	T 17
W18	5 43 57	25°38'51	18°43	9° 0	28°27	8° 4	4°37	10°31	25° 7	10° 0	13°16	6°18	6°58	10°26	20°54	W18
T 19	5 47 53	26°40'02	1°24	10°28	27°51	8°47	4°50	10°26	25° 8	9°59	13°16	6°18	6°54	10°32	20°51	T 19
F 20	5 51 50	27°41'12	14°18	11°56	27°14	9°30	5° 3	10°21	25° 8	9°58	13°16	6°19	6°51	10°39	20°49	F 20
S 21	5 55 46	28°42'23	27°25	13°24	26°38	10°13	5°16	10°16	25° 9	9°57	13°15	6°20	6°48	10°46	20°46	S 21
S 22	5 59 43	29°43'33	10°49	14°53	26° 2	10°56	5°29	10°12	25°10	9°56	13°15	6°21	6°45	10°52	20°44	S 22
M23	6 3 40	0°34'44	24°28	16°23	25°26	11°39	5°42	10° 7	25°11	9°55	13°15	6°21	6°42	10°59	20°41	M23
T 24	6 7 36	1°45'54	8°25	17°53	24°51	12°22	5°55	10° 2	25°12	9°53	13°15	6°R21	6°38	11° 6	20°39	T 24
W25	6 11 33	2°47'04	22°37	19°23	24°18	13° 5	6° 8	9°57	25°13	9°52	13°15	6°21	6°35	11°13	20°37	W25
T 26	6 15 29	3°48'14	7° 4	20°54	23°45	13°49	6°20	9°52	25°14	9°51	13°15	6°20	6°32	11°19	20°35	T 26
F 27	6 19 26	4°49'24	21°41	22°25	23°14	14°32	6°33	9°47	25°15	9°50	13°15	6°20	6°29	11°26	20°32	F 27
S 28	6 23 22	5°50'33	6°12	23°56	22°45	15°15	6°46	9°42	25°16	9°48	13°D15	6°D20	6°26	11°33	20°30	S 28
S 29	6 27 19	6°51'43	21° 5	25°28	22°18	15°58	6°58	9°37	25°18	9°47	13°15	6°20	6°23	11°39	20°28	S 29
M30	6 31 15	7°52'52	5°38	27° 0	21°52	16°41	7°11	9°32	25°19	9°46	13°15	6°R20	6°19	11°46	20°26	M30
T 31	6 35 12	8°54'02	19°58	28°33	21°29	17°24	7°23	9°27	25°20	9°44	13°V15	6°20	6°16	11°53	20°24	T 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	21s45	20n19	2s 6	14s47	2n31	25s33	2s 9	14s 6	1s17	19s43	0n40	22n25	0s34	2s40	0s45	17n45	0n 2	10s42	17s22	23n20	23n15	10s11	14n59	3s22											
M 2	21 54	22 41	0 48	15 4	2 27	25 22	1 58	13 51	1 15	19 46	0 40	22 25	0 34	2 40	0 45	17 45	0 3	10 42	17 22	23 20	23 16	10 13	14 58	3 22											
T 3	22 3	23 27	0n32	15 24	2 23	25 10	1 46	13 34	1 14	19 49	0 40	22 25	0 34	2 40	0 45	17 46	0 3	10 42	17 22	23 20	23 16	10 16	14 58	3 22											
W 4	22 12	22 42	1 47	15 45	2 17	24 59	1 34	13 18	1 12	19 52	0 40	22 26	0 34	2 40	0 45	17 46	0 3	10 42	17 21	23 20	23 16	10 18	14 57	3 22											
T 5	22 20	20 36	2 53	16 7	2 12	24 46	1 21	13 2	1 11	19 54	0 40	22 26	0 34	2 40	0 45	17 46	0 3	10 42	17 21	23 20	23 16	10 21	14 56	3 22											
F 6	22 28	17 29	3 49	16 31	2 5	24 34	1 8	12 46	1 9	19 57	0 40	22 27	0 34	2 40	0 45	17 46	0 3	10 42	17 21	23 20	23 16	10 24	14 55	3 22											
S 7	22 35	13 37	4 31	16 55	1 59	24 21	0 55	12 29	1 8	20 0	0 40	22 27	0 34	2 40	0 45	17 46	0 3	10 42	17 20	23 20	23 17	10 26	14 54	3 22											
S 8	22 42	9 17	4 59	17 19	1 52	24 8	0 41	12 13	1 7	20 2	0 40	22 27	0 34	2 40	0 45	17 47	0 3	10 42	17 20	23 20	23 17	10 29	14 54	3 22											
M 9	22 48	4 40	5 13	17 44	1 45	23 54	0 27	11 56	1 5	20 5	0 40	22 28	0 33	2 39	0 45	17 47	0 3	10 41	17 20	23 20	23 17	10 31	14 53	3 22											
T 10	22 54	0s 3	5 14	18 8	1 38	23 40	0 12	11 39	1 4	20 8	0 40	22 28	0 33	2 39	0 45	17 47	0 3	10 41	17 19	23 20	23 17	10 34	14 52	3 22											
W11	23 0	4 44	5 0	18 33	1 30	23 25	0n 3	11 23	1 2	20 10	0 40	22 29	0 33	2 39	0 45	17 47	0 3	10 41	17 19	23 20	23 17	10 36	14 51	3 22											
T 12	23 5	9 14	4 34	18 58	1 23	23 11	0 18	11 6	1 1	20 13	0 40	22 29	0 33	2 39	0 45	17 48	0 3	10 41	17 19	23 20	23 17	10 39	14 51	3 22											
F 13	23 9	13 24	3 57	19 22	1 15	22 56	0 34	10 49	1 0	20 15	0 40	22 30	0 33	2 39	0 45	17 48	0 3	10 41	17 18	23 20	23 18	10 41	14 50	3 22											
S 14	23 13	17 5	3 9	19 46	1 7	22 40	0 49	10 32	0 58	20 18	0 40	22 30	0 33	2 39	0 45	17 48	0 3	10 41	17 18	23 20	23 18	10 44	14 49	3 22											
S 15	23 17	20 5	2 12	20 9	1 0	22 25	1 5	10 15	0 57	20 20	0 40	22 30	0 33	2 38	0 45	17 48	0 3	10 40	17 18	23 20	23 18	10 46	14 48	3 22											
M16	23 20	22 13	1 8	20 32	0 52	22 9	1 20	9 57	0 56	20 23	0 40	22 31	0 33	2 38	0 45	17 49	0 3	10 40	17 17	23 21	23 18	10 49	14 48	3 22											
T 17	23 23	23 20	0 0	20 54	0 44	21 53	1 36	9 40	0 54	20 25	0 39	22 31	0 33	2 38	0 45	17 49	0 3	10 40	17 17	23 21	23 18	10 51	14 47	3 22											
W18	23 25	23 19	1s 8	21 15	0 36	21 37	1 52	9 23	0 53	20 28	0 39	22 32	0 33	2 38	0 44	17 49	0 3	10 40	17 16	23 21	23 19	10 54	14 47	3 22											
T 19	23 27	22 5	2 15	21 35	0 29	21 22	2 7	9 5	0 52	20 30	0 39	22 32	0 33	2 37	0 44	17 50	0 3	10 39	17 16	23 20	23 19	10 56	14 46	3 22											
F 20	23 28	19 42	3 16	21 55	0 21	21 6	2 22	8 48	0 50	20 33	0 39	22 33	0 33	2 37	0 44	17 50	0 3	10 39	17 16	23 20	23 19	10 59	14 45	3 22											
S 21	23 29	16 16	4 7	22 14	0 14	20 50	2 37	8 30	0 49	20 35	0 39	22 33	0 32	2 36	0 44	17 50	0 3	10 39	17 15	23 20	23 19	11 2	14 45	3 22											
S 22	23 30	11 57	4 47	22 32	0 6	20 35	2 51	8 13	0 48	20 37	0 39	22 34	0 32	2 36	0 44	17 51	0 3	10 39	17 15	23 20	23 19	11 4	14 44	3 21											
M23	23 29	6 57	5 11	22 49	0s 1	20 19	3 6	7 55	0 46	20 40	0 39	22 34	0 32	2 36	0 44	17 51	0 3	10 38	17 15	23 20	23 19	11 7	14 44	3 21											
T 24	23 29	1 31	5 17	23 4	0 8	20 4	3 19	7 38	0 45	20 42	0 39	22 35	0 32	2 35	0 44	17 51	0 3	10 38	17 14	23 20	23 19	11 9	14 43	3 21											
W25	23 28	4n 6	5 5	23 19	0 15	19 50	3 32	7 20	0 44	20 44	0 39	22 35	0 32	2 35	0 44	17 52	0 3	10 38	17 14	23 20	23 20	11 12	14 42	3 21											
T 26	23 26	9 36	4 33	23 33	0 22	19 36	3 45	7 2	0 43	20 46	0 39	22 36	0 32	2 34	0 44	17 52	0 3	10 37	17 14	23 20	23 20	11 14	14 42	3 21											
F 27	23 24	14 38	3 43	23 45	0 29	19 23	3 57	6 44	0 41	20 48	0 39	22 36	0 32	2 34	0 44	17 52	0 3	10 37	17 13	23 20	23 20	11 17	14 41	3 21											
S 28	23 22	18 49	2 39	23 57	0 36	19 10	4 8	6 27	0 40	20 51	0 39	22 37	0 32	2 33	0 44	17 53	0 3	10 37	17 13	23 20	23 20	11 19	14 41	3 21											
S 29	23 19	21 48	1 24	24 7	0 42	18 57	4 19	6 9	0 39	20 53	0 39	22 37	0 32	2 33	0 44	17 53	0 3	10 36	17 12	23 20	23 20	11 22	14 40	3 21											
M30	23 15	23 18	0 4	24 16	0 48	18 46	4 29	5 51	0 38	20 55	0 39	22 37	0 32	2 32	0 44	17 53	0 3	10 36	17 12	23 20	23 20	11 24	14 40	3 21											
T 31	23s12	23n14	1n15	24s23	0s54	18s35	4n39	5s33	0s36	20s57	0n39	22n38	0s31	2s32	0s44	17n54	0n 3	10s36	17s12	23n20	23n21	11s27	14n40	3s21											