

SWISS EPHEMERIS for the year 1699
heliocentric

JANUARY 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
T 1	6 43 26	10 ⁵ 57'58	10 ⁵ 59	23 ²² 21	22 ^{II} 59	12 ^{II} 27	10 ^{II} 36	21 ²² 29	4 ²² 22	2 ^V 28	8 ²⁵ 25	7 ^{II} 28
F 2	6 47 22	11 ⁰ 59'09	11 ⁰ 58	27 ⁰ 13	24 ⁰ 36	13 ⁰ 4	10 ⁰ 41	21 ⁰ 31	4 ⁰ 23	2 ⁰ 28	8 ⁰ 25	7 ⁰ 30
S 3	6 51 19	13 ⁰ 0'21	12 ⁰ 58	1 ^{II} 12	26 ⁰ 13	13 ⁰ 42	10 ⁰ 46	21 ⁰ 33	4 ⁰ 24	2 ⁰ 28	8 ⁰ 25	7 ⁰ 33
S 4	6 55 15	14 ⁰ 1'32	13 ⁰ 57	5 ⁰ 18	27 ⁰ 50	14 ⁰ 20	10 ⁰ 51	21 ⁰ 35	4 ⁰ 25	2 ⁰ 29	8 ⁰ 25	7 ⁰ 36
M 5	6 59 12	15 ⁰ 2'43	14 ⁰ 57	9 ⁰ 31	29 ⁰ 27	14 ⁰ 58	10 ⁰ 55	21 ⁰ 37	4 ⁰ 25	2 ⁰ 29	8 ⁰ 26	7 ⁰ 39
T 6	7 3 9	16 ⁰ 3'53	15 ⁰ 57	13 ⁰ 51	1 ^{II} 5 4	15 ⁰ 36	11 ⁰ 0	21 ⁰ 39	4 ⁰ 26	2 ⁰ 29	8 ⁰ 26	7 ⁰ 41
W 7	7 7 5	17 ⁰ 5'02	16 ⁰ 57	18 ⁰ 20	2 ⁰ 41	16 ⁰ 14	11 ⁰ 5	21 ⁰ 41	4 ⁰ 27	2 ⁰ 30	8 ⁰ 26	7 ⁰ 44
T 8	7 11 2	18 ⁰ 6'11	17 ⁰ 58	22 ⁰ 57	4 ⁰ 18	16 ⁰ 52	11 ⁰ 10	21 ⁰ 42	4 ⁰ 27	2 ⁰ 30	8 ⁰ 26	7 ⁰ 47
F 9	7 14 58	19 ⁰ 7'20	18 ⁰ 59	27 ⁰ 43	5 ⁰ 55	17 ⁰ 29	11 ⁰ 15	21 ⁰ 44	4 ⁰ 28	2 ⁰ 30	8 ⁰ 27	7 ⁰ 50
S 10	7 18 55	20 ⁰ 8'27	20 ⁰ 0	2 ^V 38	7 ⁰ 33	18 ⁰ 7	11 ⁰ 19	21 ⁰ 46	4 ⁰ 29	2 ⁰ 31	8 ⁰ 27	7 ⁰ 52
S 11	7 22 51	21 ⁰ 9'34	21 ⁰ 2	7 ⁰ 42	9 ⁰ 10	18 ⁰ 45	11 ⁰ 24	21 ⁰ 48	4 ⁰ 30	2 ⁰ 31	8 ⁰ 27	7 ⁰ 55
M 12	7 26 48	22 ⁰ 10'40	22 ⁰ 4	12 ⁰ 55	10 ⁰ 47	19 ⁰ 23	11 ⁰ 29	21 ⁰ 50	4 ⁰ 30	2 ⁰ 32	8 ⁰ 27	7 ⁰ 58
T 13	7 30 44	23 ⁰ 11'46	23 ⁰ 6	18 ⁰ 17	12 ⁰ 24	20 ⁰ 0	11 ⁰ 34	21 ⁰ 52	4 ⁰ 31	2 ⁰ 32	8 ⁰ 28	8 ⁰ 1
W 14	7 34 41	24 ⁰ 12'50	24 ⁰ 9	23 ⁰ 48	14 ⁰ 2	20 ⁰ 38	11 ⁰ 38	21 ⁰ 54	4 ⁰ 32	2 ⁰ 32	8 ⁰ 28	8 ⁰ 3
T 15	7 38 38	25 ⁰ 13'54	25 ⁰ 12	29 ⁰ 27	15 ⁰ 39	21 ⁰ 16	11 ⁰ 43	21 ⁰ 56	4 ⁰ 33	2 ⁰ 33	8 ⁰ 28	8 ⁰ 6
F 16	7 42 34	26 ⁰ 14'57	26 ⁰ 15	5 ^{II} 15	17 ⁰ 16	21 ⁰ 53	11 ⁰ 48	21 ⁰ 57	4 ⁰ 33	2 ⁰ 33	8 ⁰ 28	8 ⁰ 9
S 17	7 46 31	27 ⁰ 16'00	27 ⁰ 18	11 ⁰ 10	18 ⁰ 54	22 ⁰ 31	11 ⁰ 53	21 ⁰ 59	4 ⁰ 34	2 ⁰ 33	8 ⁰ 29	8 ⁰ 11
S 18	7 50 27	28 ⁰ 17'01	28 ⁰ 21	17 ⁰ 13	20 ⁰ 31	23 ⁰ 9	11 ⁰ 58	22 ⁰ 1	4 ⁰ 35	2 ⁰ 34	8 ⁰ 29	8 ⁰ 14
M 19	7 54 24	29 ⁰ 18'02	29 ⁰ 24	23 ⁰ 21	22 ⁰ 8	23 ⁰ 46	12 ⁰ 2	22 ⁰ 3	4 ⁰ 35	2 ⁰ 34	8 ⁰ 29	8 ⁰ 17
T 20	7 58 20	0 ^{II} 19'03	0 ^{II} 26	29 ⁰ 34	23 ⁰ 46	24 ⁰ 24	12 ⁰ 7	22 ⁰ 5	4 ⁰ 36	2 ⁰ 35	8 ⁰ 29	8 ⁰ 20
W 21	8 2 17	1 ⁰ 20'03	1 ⁰ 28	5 ^{II} 50	25 ⁰ 23	25 ⁰ 1	12 ⁰ 12	22 ⁰ 7	4 ⁰ 37	2 ⁰ 35	8 ⁰ 30	8 ⁰ 22
T 22	8 6 13	2 ⁰ 21'02	2 ⁰ 30	12 ⁰ 9	27 ⁰ 0	25 ⁰ 39	12 ⁰ 17	22 ⁰ 9	4 ⁰ 38	2 ⁰ 35	8 ⁰ 30	8 ⁰ 25
F 23	8 10 10	3 ⁰ 22'00	3 ⁰ 31	18 ⁰ 28	28 ⁰ 38	26 ⁰ 16	12 ⁰ 21	22 ⁰ 11	4 ⁰ 38	2 ⁰ 36	8 ⁰ 30	8 ⁰ 28
S 24	8 14 7	4 ⁰ 22'58	4 ⁰ 32	24 ⁰ 46	0 ^{II} 15	26 ⁰ 53	12 ⁰ 26	22 ⁰ 13	4 ⁰ 39	2 ⁰ 36	8 ⁰ 30	8 ⁰ 31
S 25	8 18 3	5 ⁰ 23'56	5 ⁰ 33	1 ^{II} 2	1 ⁰ 53	27 ⁰ 31	12 ⁰ 31	22 ⁰ 14	4 ⁰ 40	2 ⁰ 36	8 ⁰ 31	8 ⁰ 33
M 26	8 22 0	6 ⁰ 24'52	6 ⁰ 33	7 ⁰ 14	3 ⁰ 30	28 ⁰ 8	12 ⁰ 36	22 ⁰ 16	4 ⁰ 41	2 ⁰ 37	8 ⁰ 31	8 ⁰ 36
T 27	8 25 56	7 ⁰ 25'48	7 ⁰ 33	13 ⁰ 21	5 ⁰ 8	28 ⁰ 46	12 ⁰ 41	22 ⁰ 18	4 ⁰ 41	2 ⁰ 37	8 ⁰ 31	8 ⁰ 39
W 28	8 29 53	8 ⁰ 26'43	8 ⁰ 32	19 ⁰ 22	6 ⁰ 45	29 ⁰ 23	12 ⁰ 45	22 ⁰ 20	4 ⁰ 42	2 ⁰ 37	8 ⁰ 31	8 ⁰ 42
T 29	8 33 49	9 ⁰ 27'37	9 ⁰ 31	25 ⁰ 15	8 ⁰ 23	0 ^V 0	12 ⁰ 50	22 ⁰ 22	4 ⁰ 43	2 ⁰ 38	8 ⁰ 32	8 ⁰ 44
F 30	8 37 46	10 ⁰ 28'30	10 ⁰ 31	1 ^{II} 0	10 ⁰ 0	0 ⁰ 37	12 ⁰ 55	22 ⁰ 24	4 ⁰ 43	2 ⁰ 38	8 ⁰ 32	8 ⁰ 47
S 31	8 41 42	11 ⁰ 29'22	11 ⁰ 30	6 ^{II} 36	11 ⁰ 38	1 ^V 14	13 ⁰ 0	22 ⁰ 26	4 ⁰ 44	2 ⁰ 39	8 ⁰ 32	8 ⁰ 50

Delta T = 7.81 sec. Greg. Calendar

FEBRUARY 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
S 1	8 45 39	12 ^{II} 30'13	12 ^{II} 29	12 ^{II} 3	13 ^{II} 16	1 ^V 52	13 ⁰ 5	22 ⁰ 28	4 ⁰ 45	2 ^V 39	8 ⁰ 32	8 ⁰ 53
M 2	8 49 36	13 ⁰ 31'02	13 ⁰ 28	17 ⁰ 21	14 ⁰ 53	2 ⁰ 29	13 ⁰ 9	22 ⁰ 29	4 ⁰ 46	2 ⁰ 39	8 ⁰ 33	8 ⁰ 55
T 3	8 53 32	14 ⁰ 31'50	14 ⁰ 27	22 ⁰ 29	16 ⁰ 31	3 ⁰ 6	13 ⁰ 14	22 ⁰ 31	4 ⁰ 46	2 ⁰ 40	8 ⁰ 33	8 ⁰ 58
W 4	8 57 29	15 ⁰ 32'36	15 ⁰ 26	27 ⁰ 27	18 ⁰ 8	3 ⁰ 43	13 ⁰ 19	22 ⁰ 33	4 ⁰ 47	2 ⁰ 40	8 ⁰ 33	9 ⁰ 1
T 5	9 1 25	16 ⁰ 33'21	16 ⁰ 26	2 ^{II} 15	19 ⁰ 46	4 ⁰ 20	13 ⁰ 24	22 ⁰ 35	4 ⁰ 48	2 ⁰ 40	8 ⁰ 33	9 ⁰ 3
F 6	9 5 22	17 ⁰ 34'04	17 ⁰ 26	6 ⁰ 55	21 ⁰ 23	4 ⁰ 57	13 ⁰ 28	22 ⁰ 37	4 ⁰ 49	2 ⁰ 41	8 ⁰ 34	9 ⁰ 6
S 7	9 9 18	18 ⁰ 34'46	18 ⁰ 26	11 ⁰ 25	23 ⁰ 1	5 ⁰ 34	13 ⁰ 33	22 ⁰ 39	4 ⁰ 49	2 ⁰ 41	8 ⁰ 34	9 ⁰ 9
S 8	9 13 15	19 ⁰ 35'26	19 ⁰ 27	15 ⁰ 47	24 ⁰ 38	6 ⁰ 11	13 ⁰ 38	22 ⁰ 41	4 ⁰ 50	2 ⁰ 41	8 ⁰ 34	9 ⁰ 12
M 9	9 17 11	20 ⁰ 36'05	20 ⁰ 28	20 ⁰ 1	26 ⁰ 16	6 ⁰ 47	13 ⁰ 43	22 ⁰ 43	4 ⁰ 51	2 ⁰ 42	8 ⁰ 34	9 ⁰ 14
T 10	9 21 8	21 ⁰ 36'41	21 ⁰ 29	24 ⁰ 6	27 ⁰ 53	7 ⁰ 24	13 ⁰ 48	22 ⁰ 45	4 ⁰ 52	2 ⁰ 42	8 ⁰ 35	9 ⁰ 17
W 11	9 25 5	22 ⁰ 37'16	22 ⁰ 31	28 ⁰ 5	29 ⁰ 31	8 ⁰ 1	13 ⁰ 52	22 ⁰ 46	4 ⁰ 52	2 ⁰ 43	8 ⁰ 35	9 ⁰ 20
T 12	9 29 1	23 ⁰ 37'49	23 ⁰ 34	1 ^{II} 56	1 ^{II} 8	8 ⁰ 38	13 ⁰ 57	22 ⁰ 48	4 ⁰ 53	2 ⁰ 43	8 ⁰ 35	9 ⁰ 23
F 13	9 32 58	24 ⁰ 38'21	24 ⁰ 36	5 ⁰ 41	2 ⁰ 46	9 ⁰ 14	14 ⁰ 2	22 ⁰ 50	4 ⁰ 54	2 ⁰ 43	8 ⁰ 35	9 ⁰ 25
S 14	9 36 54	25 ⁰ 38'50	25 ⁰ 38	9 ⁰ 20	4 ⁰ 23	9 ⁰ 51	14 ⁰ 7	22 ⁰ 52	4 ⁰ 54	2 ⁰ 44	8 ⁰ 36	9 ⁰ 28
S 15	9 40 51	26 ⁰ 39'18	26 ⁰ 41	12 ⁰ 53	6 ⁰ 1	10 ⁰ 27	14 ⁰ 12	22 ⁰ 54	4 ⁰ 55	2 ⁰ 44	8 ⁰ 36	9 ⁰ 31
M 16	9 44 47	27 ⁰ 39'45	27 ⁰ 43	16 ⁰ 20	7 ⁰ 38	11 ⁰ 4	14 ⁰ 16	22 ⁰ 56	4 ⁰ 56	2 ⁰ 44	8 ⁰ 36	9 ⁰ 34
T 17	9 48 44	28 ⁰ 40'10	28 ⁰ 45	19 ⁰ 43	9 ⁰ 16	11 ⁰ 41	14 ⁰ 21	22 ⁰ 58	4 ⁰ 57	2 ⁰ 45	8 ⁰ 37	9 ⁰ 36
W 18	9 52 40	29 ⁰ 40'33	29 ⁰ 47	23 ⁰ 1	10 ⁰ 53	12 ⁰ 17	14 ⁰ 26	23 ⁰ 0	4 ⁰ 57	2 ⁰ 45	8 ⁰ 37	9 ⁰ 39
T 19	9 56 37	0 ^{II} 40'55	0 ^{II} 49	26 ⁰ 16	12 ⁰ 31	12 ⁰ 53	14 ⁰ 31	23 ⁰ 2	4 ⁰ 58	2 ⁰ 45	8 ⁰ 37	9 ⁰ 42
F 20	10 0 34	1 ⁰ 41'16	1 ⁰ 50	29 ⁰ 26	14 ⁰ 8	13 ⁰ 30	14 ⁰ 36	23 ⁰ 3	4 ⁰ 59	2 ⁰ 46	8 ⁰ 37	9 ⁰ 45
S 21	10 4 30	2 ⁰ 41'35	2 ⁰ 51	2 ^{II} 32	15 ⁰ 45	14 ⁰ 6	14 ⁰ 40	23 ⁰ 5	5 ⁰ 0	2 ⁰ 46	8 ⁰ 38	9 ⁰ 47
S 22	10 8 27	3 ⁰ 41'53	3 ⁰ 51	5 ⁰ 36	17 ⁰ 23	14 ⁰ 42	14 ⁰ 45	23 ⁰ 7	5 ⁰ 0	2 ⁰ 47	8 ⁰ 38	9 ⁰ 50
M 23	10 12 23	4 ⁰ 42'09	4 ⁰ 51	8 ⁰ 36	19 ⁰ 0	15 ⁰ 19	14 ⁰ 50	23 ⁰ 9	5 ⁰ 1	2 ⁰ 47	8 ⁰ 38	9 ⁰ 53
T 24	10 16 20	5 ⁰ 42'24	5 ⁰ 51	11 ⁰ 34	20 ⁰ 37	15 ⁰ 55	14 ⁰ 55	23 ⁰ 11	5 ⁰ 2	2 ⁰ 47	8 ⁰ 38	9 ⁰ 56
W 25	10 20 16	6 ⁰ 42'37	6 ⁰ 50	14 ⁰ 30	22 ⁰ 15	16 ⁰ 31	15 ⁰ 0	23 ⁰ 13	5 ⁰ 2	2 ⁰ 48	8 ⁰ 39	9 ⁰ 58
T 26	10 24 13	7 ⁰ 42'49	7 ⁰ 49	17 ⁰ 23	23 ⁰ 52	17 ⁰ 7	15 ⁰ 4	23 ⁰ 15	5 ⁰ 3	2 ⁰ 48	8 ⁰ 39	10 ⁰ 1
F 27	10 28 9	8 ⁰ 42'59	8 ⁰ 48	20 ⁰ 15	25 ⁰ 29	17 ⁰ 43	15 ⁰ 9	23 ⁰ 17	5 ⁰ 4	2 ⁰ 48	8 ⁰ 39	10 ⁰ 4
S 28	10 32 6	9 ⁰ 43'07	9 ⁰ 46	23 ⁰ 15	27 ⁰ 11	18 ⁰ 19	15 ⁰ 14	23 ⁰ 19	5 ⁰ 5	2 ⁰ 49	8 ⁰ 39	10 ⁰ 7

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SWISS EPHEMERIS for the year 1699
heliocentric

MARCH 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
S 1	10 36 3	10♎43'13	10♎45	25♌53	28♎43	18♏55	15♌19	23♏20	5♉5	2♏49	8♌40	10♎9
M 2	10 39 59	11°43'18	11°43	28°40	0♎20	19°31	15°24	23°22	5°6	2°50	8°40	10°12
T 3	10 43 56	12°43'21	12°41	1♌27	1°57	20°7	15°28	23°24	5°7	2°50	8°40	10°15
W 4	10 47 52	13°43'21	13°39	4°12	3°34	20°42	15°33	23°26	5°8	2°50	8°40	10°18
T 5	10 51 49	14°43'20	14°38	6°57	5°11	21°18	15°38	23°28	5°8	2°51	8°41	10°20
F 6	10 55 45	15°43'17	15°36	9°42	6°48	21°54	15°43	23°30	5°9	2°51	8°41	10°23
S 7	10 59 42	16°43'11	16°35	12°27	8°25	22°29	15°48	23°32	5°10	2°51	8°41	10°26
S 8	11 3 38	17°43'03	17°35	15°11	10°2	23°5	15°52	23°34	5°10	2°52	8°41	10°29
M 9	11 7 35	18°42'53	18°34	17°56	11°39	23°40	15°57	23°35	5°11	2°52	8°42	10°31
T 10	11 11 31	19°42'41	19°34	20°42	13°16	24°16	16°2	23°37	5°12	2°52	8°42	10°34
W11	11 15 28	20°42'26	20°35	23°28	14°53	24°51	16°7	23°39	5°13	2°53	8°42	10°37
T 12	11 19 25	21°42'10	21°36	26°15	16°29	25°27	16°12	23°41	5°13	2°53	8°42	10°40
F 13	11 23 21	22°41'50	22°37	29°3	18°6	26°2	16°16	23°43	5°14	2°54	8°43	10°43
S 14	11 27 18	23°41'29	23°38	1♌53	19°43	26°37	16°21	23°45	5°15	2°54	8°43	10°45
S 15	11 31 14	24°41'05	24°40	4°44	21°19	27°13	16°26	23°47	5°16	2°54	8°43	10°48
M16	11 35 11	25°40'40	25°41	7°37	22°56	27°48	16°31	23°49	5°16	2°55	8°43	10°51
T 17	11 39 7	26°40'12	26°42	10°32	24°32	28°23	16°36	23°51	5°17	2°55	8°44	10°54
W18	11 43 4	27°39'42	27°44	13°29	26°9	28°58	16°40	23°52	5°18	2°55	8°44	10°56
T 19	11 47 0	28°39'11	28°45	16°29	27°45	29°33	16°45	23°54	5°18	2°56	8°44	10°59
F 20	11 50 57	29°38'37	29°46	19°31	29°21	0♉8	16°50	23°56	5°19	2°56	8°44	11°2
S 21	11 54 54	0♎38'02	0♎46	22°36	0♌58	0°43	16°55	23°58	5°20	2°56	8°45	11°5
S 22	11 58 50	1°37'25	1°46	25°45	2°34	1°17	17°0	24°0	5°21	2°57	8°45	11°7
M23	12 2 47	2°36'46	2°46	28°57	4°10	1°52	17°5	24°2	5°21	2°57	8°45	11°10
T 24	12 6 43	3°36'06	3°45	2♌13	5°46	2°27	17°9	24°4	5°22	2°58	8°45	11°13
W25	12 10 40	4°35'23	4°44	5°33	7°22	3°2	17°14	24°6	5°23	2°58	8°46	11°16
T 26	12 14 36	5°34'39	5°43	8°58	8°58	3°36	17°19	24°8	5°24	2°58	8°46	11°18
F 27	12 18 33	6°33'53	6°41	12°27	10°34	4°11	17°24	24°9	5°24	2°59	8°46	11°21
S 28	12 22 29	7°33'05	7°39	16°2	12°10	4°45	17°29	24°11	5°25	2°59	8°46	11°24
S 29	12 26 26	8°32'16	8°37	19°42	13°46	5°20	17°33	24°13	5°26	2°59	8°47	11°27
M30	12 30 23	9°31'24	9°34	23°28	15°22	5°54	17°38	24°15	5°26	3°0	8°47	11°29
T 31	12 34 19	10°30'30	10°31	27°21	16°58	6♉28	17°43	24°17	5°27	3♏0	8♌47	11♎32

Delta T = 7.81 sec.

Greg. Calendar

APRIL 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
W 1	12 38 16	11♎29'34	11♎28	1♌20	18♌34	7♉3	17♌48	24♏19	5♉28	3♏0	8♌47	11♎35
T 2	12 42 12	12°28'37	12°26	5°25	20°9	7°37	17°53	24°21	5°29	3°1	8°48	11°38
F 3	12 46 9	13°27'37	13°23	9°39	21°45	8°11	17°58	24°23	5°29	3°1	8°48	11°41
S 4	12 50 5	14°26'35	14°20	14°0	23°21	8°45	18°2	24°25	5°30	3°2	8°48	11°43
S 5	12 54 2	15°25'31	15°18	18°29	24°56	9°19	18°7	24°26	5°31	3°2	8°48	11°46
M 6	12 57 58	16°24'24	16°16	23°6	26°32	9°53	18°12	24°28	5°32	3°2	8°49	11°49
T 7	13 1 55	17°23'15	17°15	27°52	28°8	10°27	18°17	24°30	5°32	3°3	8°49	11°52
W 8	13 5 52	18°22'04	18°14	2♏47	29°43	11°1	18°22	24°32	5°33	3°3	8°49	11°54
T 9	13 9 48	19°20'50	19°13	7°51	1♌18	11°35	18°27	24°34	5°34	3°3	8°49	11°57
F 10	13 13 45	20°19'34	20°13	13°5	2°54	12°9	18°31	24°36	5°35	3°4	8°50	12°0
S 11	13 17 41	21°18'16	21°13	18°27	4°29	12°42	18°36	24°38	5°35	3°4	8°50	12°3
S 12	13 21 38	22°16'56	22°13	23°58	6°5	13°16	18°41	24°40	5°36	3°4	8°50	12°5
M13	13 25 34	23°15'34	23°13	29°38	7°40	13°50	18°46	24°42	5°37	3°5	8°51	12°8
T 14	13 29 31	24°14'09	24°13	5♉26	9°15	14°23	18°51	24°43	5°37	3°5	8°51	12°11
W15	13 33 27	25°12'43	25°14	11°22	10°50	14°57	18°55	24°45	5°38	3°6	8°51	12°14
T 16	13 37 24	26°11'14	26°14	17°24	12°26	15°30	19°0	24°47	5°39	3°6	8°51	12°17
F 17	13 41 20	27°9'44	27°14	23°33	14°1	16°3	19°5	24°49	5°40	3°6	8°52	12°19
S 18	13 45 17	28°8'13	28°14	29°46	15°36	16°37	19°10	24°51	5°40	3°7	8°52	12°22
S 19	13 49 14	29°6'39	29°14	6♐2	17°11	17°10	19°15	24°53	5°41	3°7	8°52	12°25
M20	13 53 10	0♌5'04	0♌13	12°21	18°46	17°43	19°20	24°55	5°42	3°7	8°52	12°28
T 21	13 57 7	1°3'27	1°12	18°40	20°21	18°16	19°24	24°57	5°43	3°8	8°53	12°30
W22	14 1 3	2°1'49	2°11	24°58	21°56	18°49	19°29	24°59	5°43	3°8	8°53	12°33
T 23	14 5 0	3°0'09	3°9	1♌14	23°31	19°22	19°34	25°1	5°44	3°8	8°53	12°36
F 24	14 8 56	3°58'27	4°7	7°26	25°6	19°55	19°39	25°2	5°45	3°9	8°53	12°39
S 25	14 12 53	4°56'44	5°5	13°33	26°41	20°28	19°44	25°4	5°45	3°9	8°54	12°42
S 26	14 16 49	5°54'59	6°2	19°33	28°16	21°1	19°49	25°6	5°46	3°10	8°54	12°44
M27	14 20 46	6°53'13	6°58	25°26	29°51	21°34	19°54	25°8	5°47	3°10	8°54	12°47
T 28	14 24 43	7°51'25	7°55	1♌11	1♌26	22°7	19°58	25°10	5°48	3°10	8°54	12°50
W29	14 28 39	8°49'36	8°51	6°47	3°1	22°39	20°3	25°12	5°48	3°11	8°55	12°53
T 30	14 32 36	9♌47'45	9♌47	12♌13	4♌36	23♉12	20♌8	25°14	5°49	3♏11	8♌55	12♎55

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Greg. Calendar

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SWISS EPHEMERIS for the year 1699
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MAY 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
F 1	14 36 32	10M45'52	10M44	17Ω31	6♁11	23♁45	20♁13	25♁16	5♁50	3♁11	8Ω55	12M58
S 2	14 40 29	11°43'58	11°40	22°38	7°46	24°17	20°18	25°18	5°51	3°12	8°55	13° 1
S 3	14 44 25	12°42'02	12°36	27°36	9°21	24°50	20°23	25°19	5°51	3°12	8°56	13° 4
M 4	14 48 22	13°40'04	13°33	2M24	10°56	25°22	20°27	25°21	5°52	3°13	8°56	13° 7
T 5	14 52 18	14°38'04	14°30	7° 3	12°30	25°54	20°32	25°23	5°53	3°13	8°56	13° 9
W 6	14 56 15	15°36'02	15°28	11°34	14° 5	26°27	20°37	25°25	5°53	3°13	8°56	13°12
T 7	15 0 12	16°33'58	16°25	15°55	15°40	26°59	20°42	25°27	5°54	3°14	8°57	13°15
F 8	15 4 8	17°31'52	17°24	20° 8	17°15	27°31	20°47	25°29	5°55	3°14	8°57	13°18
S 9	15 8 5	18°29'45	18°22	24°14	18°50	28° 3	20°52	25°31	5°56	3°14	8°57	13°20
S 10	15 12 1	19°27'35	19°21	28°12	20°25	28°35	20°56	25°33	5°56	3°15	8°57	13°23
M 11	15 15 58	20°25'24	20°20	2♁ 3	21°59	29° 7	21° 1	25°35	5°57	3°15	8°58	13°26
T 12	15 19 54	21°23'12	21°20	5°48	23°34	29°39	21° 6	25°36	5°58	3°15	8°58	13°29
W 13	15 23 51	22°20'58	22°19	9°26	25° 9	0II11	21°11	25°38	5°59	3°16	8°58	13°32
T 14	15 27 47	23°18'42	23°19	12°59	26°44	0°43	21°16	25°40	5°59	3°16	8°58	13°34
F 15	15 31 44	24°16'25	24°18	16°27	28°19	1°15	21°21	25°42	6° 0	3°17	8°59	13°37
S 16	15 35 41	25°14'07	25°18	19°49	29°53	1°47	21°26	25°44	6° 1	3°17	8°59	13°40
S 17	15 39 37	26°11'48	26°17	23° 8	1♁28	2°18	21°30	25°46	6° 2	3°17	8°59	13°43
M 18	15 43 34	27° 9'27	27°16	26°22	3° 3	2°50	21°35	25°48	6° 2	3°18	8°59	13°45
T 19	15 47 30	28° 7'06	28°15	29°32	4°38	3°21	21°40	25°50	6° 3	3°18	9° 0	13°48
W 20	15 51 27	29° 4'43	29°13	2M38	6°13	3°53	21°45	25°52	6° 4	3°18	9° 0	13°51
T 21	15 55 23	0♁ 2'19	0♁11	5°42	7°48	4°24	21°50	25°54	6° 4	3°19	9° 0	13°54
F 22	15 59 20	0°59'55	1° 9	8°42	9°23	4°56	21°55	25°55	6° 5	3°19	9° 0	13°57
S 23	16 3 16	1°57'29	2° 6	11°40	10°57	5°27	22° 0	25°57	6° 6	3°19	9° 1	13°59
S 24	16 7 13	2°55'02	3° 3	14°35	12°32	5°59	22° 4	25°59	6° 7	3°20	9° 1	14° 2
M 25	16 11 10	3°52'35	4° 0	17°29	14° 7	6°30	22° 9	26° 1	6° 7	3°20	9° 1	14° 5
T 26	16 15 6	4°50'07	4°56	20°20	15°42	7° 1	22°14	26° 3	6° 8	3°21	9° 2	14° 8
W 27	16 19 3	5°47'38	5°52	23°10	17°17	7°32	22°19	26° 5	6° 9	3°21	9° 2	14°11
T 28	16 22 59	6°45'08	6°47	25°58	18°52	8° 3	22°24	26° 7	6°10	3°21	9° 2	14°13
F 29	16 26 56	7°42'37	7°43	28°46	20°27	8°34	22°29	26° 9	6°10	3°22	9° 2	14°16
S 30	16 30 52	8°40'05	8°38	1♁32	22° 2	9° 5	22°34	26°11	6°11	3°22	9° 3	14°19
S 31	16 34 49	9♁37'33	9♁34	4♁18	23♁37	9II36	22♁38	26♁13	6♁12	3♁22	9Ω 3	14M22

Delta T = 7.81 sec.

Greg. Calendar

JUNE 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
M 1	16 38 45	10♁34'59	10♁30	7♁ 3	25♁12	10II 7	22♁43	26♁14	6♁12	3♁23	9Ω 3	14M25
T 2	16 42 42	11°32'24	11°26	9°47	26°47	10°38	22°48	26°16	6°13	3°23	9° 3	14°27
W 3	16 46 39	12°29'48	12°22	12°32	28°22	11° 9	22°53	26°18	6°14	3°23	9° 4	14°30
T 4	16 50 35	13°27'10	13°19	15°17	29°57	11°39	22°58	26°20	6°15	3°24	9° 4	14°33
F 5	16 54 32	14°24'32	14°16	18° 2	1X32	12°10	23° 3	26°22	6°15	3°24	9° 4	14°36
S 6	16 58 28	15°21'52	15°13	20°47	3° 7	12°41	23° 8	26°24	6°16	3°25	9° 4	14°38
S 7	17 2 25	16°19'12	16°11	23°33	4°42	13°11	23°12	26°26	6°17	3°25	9° 5	14°41
M 8	17 6 21	17°16'30	17°10	26°21	6°17	13°42	23°17	26°28	6°18	3°25	9° 5	14°44
T 9	17 10 18	18°13'48	18° 8	29° 9	7°53	14°12	23°22	26°30	6°18	3°26	9° 5	14°47
W 10	17 14 14	19°11'05	19° 7	1♁58	9°28	14°43	23°27	26°31	6°19	3°26	9° 5	14°50
T 11	17 18 11	20° 8'21	20° 6	4°50	11° 3	15°13	23°32	26°33	6°20	3°26	9° 6	14°52
F 12	17 22 8	21° 5'36	21° 5	7°42	12°38	15°44	23°37	26°35	6°21	3°27	9° 6	14°55
S 13	17 26 4	22° 2'51	22° 4	10°37	14°13	16°14	23°42	26°37	6°21	3°27	9° 6	14°58
S 14	17 30 1	23° 0'06	23° 3	13°35	15°49	16°44	23°47	26°39	6°22	3°28	9° 6	15° 1
M 15	17 33 57	23°57'20	24° 1	16°34	17°24	17°14	23°51	26°41	6°23	3°28	9° 7	15° 4
T 16	17 37 54	24°54'33	25° 0	19°37	18°59	17°44	23°56	26°43	6°23	3°28	9° 7	15° 6
W 17	17 41 50	25°51'46	25°59	22°42	20°34	18°15	24° 1	26°45	6°24	3°29	9° 7	15° 9
T 18	17 45 47	26°48'59	26°57	25°51	22°10	18°45	24° 6	26°47	6°25	3°29	9° 7	15°12
F 19	17 49 43	27°46'12	27°55	29° 3	23°45	19°15	24°11	26°49	6°26	3°29	9° 8	15°15
S 20	17 53 40	28°43'25	28°52	2♁19	25°21	19°45	24°16	26°50	6°26	3°30	9° 8	15°18
S 21	17 57 37	29°40'38	29°49	5°40	26°56	20°14	24°21	26°52	6°27	3°30	9° 8	15°20
M 22	18 1 33	0♁37'50	0♁36	9° 5	28°31	20°44	24°26	26°54	6°28	3°30	9° 8	15°23
T 23	18 5 30	1°35'03	1°42	12°34	0♁ 7	21°14	24°30	26°56	6°29	3°31	9° 9	15°26
W 24	18 9 26	2°32'16	2°38	16° 9	1°42	21°44	24°35	26°58	6°29	3°31	9° 9	15°29
T 25	18 13 23	3°29'29	3°34	19°49	3°18	22°14	24°40	27° 0	6°30	3°32	9° 9	15°32
F 26	18 17 19	4°26'42	4°29	23°36	4°53	22°43	24°45	27° 2	6°31	3°32	9° 9	15°34
S 27	18 21 16	5°23'55	5°25	27°28	6°29	23°13	24°50	27° 4	6°31	3°32	9°10	15°37
S 28	18 25 12	6°21'08	6°20	1X27	8° 5	23°43	24°55	27° 6	6°32	3°33	9°10	15°40
M 29	18 29 9	7°18'21	7°15	5°33	9°40	24°12	25° 0	27° 8	6°33	3°33	9°10	15°43
T 30	18 33 6	8♁15'34	8♁11	9♁47	11♁16	24II42	25♁ 5	27♁ 9	6♁34	3♁33	9Ω11	15M46

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SWISS EPHEMERIS for the year 1699

heliocentric

JULY 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♃
W 1	18 37 2	9♁12'47	9♁ 6	14♃ 8	12♃52	25♂11	25♃ 9	27♁11	6♁34	3♃34	9♁11	15♃48
T 2	18 40 59	10° 9'59	10° 2	18°37	14°27	25°40	25°14	27°13	6°35	3°34	9°11	15°51
F 3	18 44 55	11° 7'11	10°59	23°15	16° 3	26°10	25°19	27°15	6°36	3°34	9°11	15°54
S 4	18 48 52	12° 4'23	11°56	28° 1	17°39	26°39	25°24	27°17	6°37	3°35	9°12	15°57
S 5	18 52 48	13° 1'34	12°53	2♃57	19°14	27° 8	25°29	27°19	6°37	3°35	9°12	16° 0
M 6	18 56 45	13°58'46	13°50	8° 1	20°50	27°38	25°34	27°21	6°38	3°36	9°12	16° 2
T 7	19 0 41	14°55'58	14°48	13°15	22°26	28° 7	25°39	27°23	6°39	3°36	9°12	16° 5
W 8	19 4 38	15°53'09	15°47	18°37	24° 2	28°36	25°44	27°25	6°40	3°36	9°13	16° 8
T 9	19 8 35	16°50'21	16°45	24° 9	25°38	29° 5	25°49	27°27	6°40	3°37	9°13	16°11
F 10	19 12 31	17°47'33	17°44	29°49	27°14	29°34	25°53	27°28	6°41	3°37	9°13	16°14
S 11	19 16 28	18°44'45	18°43	5♃37	28°50	0♁ 3	25°58	27°30	6°42	3°37	9°13	16°16
S 12	19 20 24	19°41'58	19°42	11°33	0♁26	0°32	26° 3	27°32	6°42	3°38	9°14	16°19
M13	19 24 21	20°39'11	20°41	17°36	2° 2	1° 1	26° 8	27°34	6°43	3°38	9°14	16°22
T 14	19 28 17	21°36'24	21°39	23°44	3°38	1°30	26°13	27°36	6°44	3°39	9°14	16°25
W15	19 32 14	22°33'38	22°38	29°57	5°14	1°59	26°18	27°38	6°45	3°39	9°14	16°28
T 16	19 36 10	23°30'52	23°37	6♂14	6°50	2°28	26°23	27°40	6°45	3°39	9°15	16°30
F 17	19 40 7	24°28'07	24°35	12°33	8°26	2°56	26°28	27°42	6°46	3°40	9°15	16°33
S 18	19 44 4	25°25'23	25°33	18°52	10° 2	3°25	26°33	27°44	6°47	3°40	9°15	16°36
S 19	19 48 0	26°22'40	26°31	25°10	11°38	3°54	26°37	27°46	6°48	3°40	9°15	16°39
M20	19 51 57	27°19'58	27°29	1♁26	13°14	4°23	26°42	27°48	6°48	3°41	9°16	16°42
T 21	19 55 53	28°17'16	28°26	7°38	14°51	4°51	26°47	27°49	6°49	3°41	9°16	16°44
W22	19 59 50	29°14'36	29°22	13°44	16°27	5°20	26°52	27°51	6°50	3°41	9°16	16°47
T 23	20 3 46	0♁11'57	0♁18	19°44	18° 3	5°48	26°57	27°53	6°51	3°42	9°16	16°50
F 24	20 7 43	1° 9'19	1°14	25°37	19°39	6°17	27° 2	27°55	6°51	3°42	9°17	16°53
S 25	20 11 39	2° 6'41	2°10	1♁22	21°16	6°45	27° 7	27°57	6°52	3°43	9°17	16°56
S 26	20 15 36	3° 4'05	3° 5	6°57	22°52	7°14	27°12	27°59	6°53	3°43	9°17	16°59
M27	20 19 33	4° 1'29	4° 1	12°24	24°28	7°42	27°17	28° 1	6°53	3°43	9°17	17° 1
T 28	20 23 29	4°58'55	4°56	17°40	26° 5	8°10	27°21	28° 3	6°54	3°44	9°18	17° 4
W29	20 27 26	5°56'21	5°52	22°48	27°41	8°39	27°26	28° 5	6°55	3°44	9°18	17° 7
T 30	20 31 22	6°53'48	6°48	27°45	29°18	9° 7	27°31	28° 7	6°56	3°44	9°18	17°10
F 31	20 35 19	7°51'15	7°44	2♃33	0♂54	9♁35	27♃36	28♁ 8	6♁56	3♃45	9♁18	17♃13

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Greg. Calendar

AUGUST 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♃
S 1	20 39 15	8♁48'43	8♁41	7♃12	2♂31	10♁ 4	27♃41	28♁10	6♁57	3♃45	9♁19	17♃15
S 2	20 43 12	9°46'12	9°37	11°42	4° 7	10°32	27°46	28°12	6°58	3°45	9°19	17°18
M 3	20 47 8	10°43'42	10°35	16° 3	5°44	11° 0	27°51	28°14	6°59	3°46	9°19	17°21
T 4	20 51 5	11°41'13	11°32	20°16	7°21	11°28	27°56	28°16	6°59	3°46	9°20	17°24
W 5	20 55 2	12°38'44	12°31	24°21	8°57	11°56	28° 1	28°18	7° 0	3°47	9°20	17°27
T 6	20 58 58	13°36'16	13°29	28°19	10°34	12°24	28° 6	28°20	7° 1	3°47	9°20	17°29
F 7	21 2 55	14°33'50	14°28	2♁10	12°11	12°52	28°10	28°22	7° 1	3°47	9°20	17°32
S 8	21 6 51	15°31'24	15°27	5°55	13°47	13°20	28°15	28°24	7° 2	3°48	9°21	17°35
S 9	21 10 48	16°28'59	16°26	9°33	15°24	13°48	28°20	28°26	7° 3	3°48	9°21	17°38
M10	21 14 44	17°26'36	17°25	13° 6	17° 1	14°16	28°25	28°27	7° 4	3°48	9°21	17°41
T 11	21 18 41	18°24'14	18°25	16°33	18°38	14°44	28°30	28°29	7° 4	3°49	9°21	17°44
W12	21 22 37	19°21'53	19°24	19°56	20°15	15°12	28°35	28°31	7° 5	3°49	9°22	17°46
T 13	21 26 34	20°19'33	20°23	23°14	21°52	15°40	28°40	28°33	7° 6	3°50	9°22	17°49
F 14	21 30 31	21°17'15	21°22	26°28	23°29	16° 7	28°45	28°35	7° 7	3°50	9°22	17°52
S 15	21 34 27	22°14'58	22°21	29°38	25° 6	16°35	28°50	28°37	7° 7	3°50	9°22	17°55
S 16	21 38 24	23°12'43	23°20	2♃44	26°43	17° 3	28°55	28°39	7° 8	3°51	9°23	17°58
M17	21 42 20	24°10'29	24°19	5°47	28°20	17°30	29° 0	28°41	7° 9	3°51	9°23	18° 0
T 18	21 46 17	25° 8'17	25°17	8°48	29°57	17°58	29° 4	28°43	7°10	3°51	9°23	18° 3
W19	21 50 13	26° 6'07	26°14	11°46	1♁34	18°26	29° 9	28°45	7°10	3°52	9°23	18° 6
T 20	21 54 10	27° 3'59	27°12	14°41	3°11	18°53	29°14	28°47	7°11	3°52	9°24	18° 9
F 21	21 58 6	28° 1'53	28° 9	17°34	4°48	19°21	29°19	28°48	7°12	3°52	9°24	18°12
S 22	22 2 3	28°59'49	29° 5	20°26	6°25	19°49	29°24	28°50	7°12	3°53	9°24	18°14
S 23	22 6 0	29°57'46	0♁ 2	23°15	8° 2	20°16	29°29	28°52	7°13	3°53	9°24	18°17
M24	22 9 56	0♁55'45	0°58	26° 4	9°39	20°44	29°34	28°54	7°14	3°54	9°25	18°20
T 25	22 13 53	1°53'45	1°54	28°51	11°17	21°11	29°39	28°56	7°15	3°54	9°25	18°23
W26	22 17 49	2°51'48	2°50	1♃37	12°54	21°38	29°44	28°58	7°15	3°54	9°25	18°26
T 27	22 21 46	3°49'51	3°46	4°23	14°31	22° 6	29°49	29° 0	7°16	3°55	9°25	18°29
F 28	22 25 42	4°47'57	4°42	7° 8	16° 9	22°33	29°54	29° 2	7°17	3°55	9°26	18°31
S 29	22 29 39	5°46'03	5°39	9°53	17°46	23° 1	29°59	29° 4	7°18	3°55	9°26	18°34
S 30	22 33 35	6°44'11	6°36	12°37	19°23	23°28	0♁ 4	29° 6	7°18	3°56	9°26	18°37
M31	22 37 32	7♁42'21	7♁34	15♃22	21♁ 1	23♁55	0♁ 8	29♁ 7	7♁19	3♃56	9♁26	18♃40

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SWISS EPHEMERIS for the year 1699
heliocentric

SEPTEMBER 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
T 1	22 41 29	8 ^h 40'32	8 ^h 31	18 [°] 7' 7	22 [°] 38	24 [°] 22	0 [°] 13	29 [°] 9	7 [°] 20	3 [°] 56	9 [°] 27	18 ^h 43
W 2	22 45 25	9 [°] 38'45	9 [°] 30	20 [°] 52	24 [°] 15	24 [°] 50	0 [°] 18	29 [°] 11	7 [°] 20	3 [°] 57	9 [°] 27	18 [°] 45
T 3	22 49 22	10 [°] 36'59	10 [°] 28	23 [°] 39	25 [°] 53	25 [°] 17	0 [°] 23	29 [°] 13	7 [°] 21	3 [°] 57	9 [°] 27	18 [°] 48
F 4	22 53 18	11 [°] 35'15	11 [°] 27	26 [°] 26	27 [°] 30	25 [°] 44	0 [°] 28	29 [°] 15	7 [°] 22	3 [°] 58	9 [°] 27	18 [°] 51
S 5	22 57 15	12 [°] 33'32	12 [°] 26	29 [°] 14	29 [°] 8	26 [°] 11	0 [°] 33	29 [°] 17	7 [°] 23	3 [°] 58	9 [°] 28	18 [°] 54
S 6	23 1 11	13 [°] 31'51	13 [°] 26	2 ^h 3 4	0 ^h 45	26 [°] 38	0 [°] 38	29 [°] 19	7 [°] 23	3 [°] 58	9 [°] 28	18 [°] 57
M 7	23 5 8	14 [°] 30'12	14 [°] 26	4 [°] 55	2 [°] 23	27 [°] 6	0 [°] 43	29 [°] 21	7 [°] 24	3 [°] 59	9 [°] 28	19 [°] 0
T 8	23 9 4	15 [°] 28'34	15 [°] 26	7 [°] 48	4 [°] 0	27 [°] 33	0 [°] 48	29 [°] 23	7 [°] 25	3 [°] 59	9 [°] 28	19 [°] 2
W 9	23 13 1	16 [°] 26'58	16 [°] 26	10 [°] 43	5 [°] 38	28 [°] 0	0 [°] 53	29 [°] 25	7 [°] 26	3 [°] 59	9 [°] 29	19 [°] 5
T 10	23 16 57	17 [°] 25'24	17 [°] 26	13 [°] 40	7 [°] 15	28 [°] 27	0 [°] 58	29 [°] 27	7 [°] 26	4 [°] 0	9 [°] 29	19 [°] 8
F 11	23 20 54	18 [°] 23'52	18 [°] 27	16 [°] 40	8 [°] 53	28 [°] 54	1 [°] 3	29 [°] 28	7 [°] 27	4 [°] 0	9 [°] 29	19 [°] 11
S 12	23 24 51	19 [°] 22'21	19 [°] 27	19 [°] 43	10 [°] 30	29 [°] 21	1 [°] 8	29 [°] 30	7 [°] 28	4 [°] 0	9 [°] 30	19 [°] 14
S 13	23 28 47	20 [°] 20'53	20 [°] 27	22 [°] 48	12 [°] 8	29 [°] 48	1 [°] 12	29 [°] 32	7 [°] 29	4 [°] 1	9 [°] 30	19 [°] 16
M14	23 32 44	21 [°] 19'27	21 [°] 27	25 [°] 57	13 [°] 45	0 ^h 15	1 [°] 17	29 [°] 34	7 [°] 29	4 [°] 1	9 [°] 30	19 [°] 19
T 15	23 36 40	22 [°] 18'03	22 [°] 26	29 [°] 9	15 [°] 23	0 [°] 42	1 [°] 22	29 [°] 36	7 [°] 30	4 [°] 2	9 [°] 30	19 [°] 22
W16	23 40 37	23 [°] 16'42	23 [°] 25	2 ^h 26	17 [°] 0	1 [°] 9	1 [°] 27	29 [°] 38	7 [°] 31	4 [°] 2	9 [°] 31	19 [°] 25
T 17	23 44 33	24 [°] 15'23	24 [°] 24	5 [°] 46	18 [°] 38	1 [°] 36	1 [°] 32	29 [°] 40	7 [°] 31	4 [°] 2	9 [°] 31	19 [°] 28
F 18	23 48 30	25 [°] 14'06	25 [°] 22	9 [°] 11	20 [°] 16	2 [°] 2	1 [°] 37	29 [°] 42	7 [°] 32	4 [°] 3	9 [°] 31	19 [°] 31
S 19	23 52 26	26 [°] 12'51	26 [°] 20	12 [°] 41	21 [°] 53	2 [°] 29	1 [°] 42	29 [°] 44	7 [°] 33	4 [°] 3	9 [°] 31	19 [°] 33
S 20	23 56 23	27 [°] 11'39	27 [°] 18	16 [°] 16	23 [°] 31	2 [°] 56	1 [°] 47	29 [°] 46	7 [°] 34	4 [°] 3	9 [°] 32	19 [°] 36
M21	0 0 20	28 [°] 10'29	28 [°] 15	19 [°] 56	25 [°] 8	3 [°] 23	1 [°] 52	29 [°] 48	7 [°] 34	4 [°] 4	9 [°] 32	19 [°] 39
T 22	0 4 16	29 [°] 9'21	29 [°] 12	23 [°] 43	26 [°] 46	3 [°] 50	1 [°] 57	29 [°] 49	7 [°] 35	4 [°] 4	9 [°] 32	19 [°] 42
W23	0 8 13	0 ^h 8'15	0 ^h 9	27 [°] 36	28 [°] 23	4 [°] 17	2 [°] 2	29 [°] 51	7 [°] 36	4 [°] 4	9 [°] 32	19 [°] 45
T 24	0 12 9	1 [°] 7'11	1 [°] 6	1 ^h 35	0 ^h 1	4 [°] 43	2 [°] 7	29 [°] 53	7 [°] 37	4 [°] 5	9 [°] 33	19 [°] 48
F 25	0 16 6	2 [°] 6'09	2 [°] 3	5 [°] 41	1 [°] 38	5 [°] 10	2 [°] 12	29 [°] 55	7 [°] 37	4 [°] 5	9 [°] 33	19 [°] 50
S 26	0 20 2	3 [°] 5'09	3 [°] 0	9 [°] 55	3 [°] 16	5 [°] 37	2 [°] 17	29 [°] 57	7 [°] 38	4 [°] 6	9 [°] 33	19 [°] 53
S 27	0 23 59	4 [°] 4'11	3 [°] 58	14 [°] 16	4 [°] 53	6 [°] 3	2 [°] 22	29 [°] 59	7 [°] 39	4 [°] 6	9 [°] 33	19 [°] 56
M28	0 27 55	5 [°] 3'15	4 [°] 56	18 [°] 46	6 [°] 31	6 [°] 30	2 [°] 26	0 ^h 1	7 [°] 39	4 [°] 6	9 [°] 34	19 [°] 59
T 29	0 31 52	6 [°] 2'20	5 [°] 54	23 [°] 24	8 [°] 8	6 [°] 57	2 [°] 31	0 [°] 3	7 [°] 40	4 [°] 7	9 [°] 34	20 [°] 2
W30	0 35 49	7 [°] 1'28	6 [°] 52	28 [°] 11	9 ^h 46	7 ^h 24	2 ^h 36	0 ^h 5	7 ^h 41	4 ^h 7	9 ^h 34	20 ^h 4

Delta T = 7.81 sec.

Greg. Calendar

OCTOBER 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
T 1	0 39 45	8 ^h 0'37	7 ^h 51	3 [°] Y 6	11 ^h 23	7 ^h 50	2 ^h 41	0 ^h 7	7 ^h 42	4 ^h 7	9 ^h 34	20 ^h 7
F 2	0 43 42	8 [°] 59'48	8 [°] 51	8 [°] 11	13 [°] 0	8 [°] 17	2 [°] 46	0 [°] 9	7 [°] 42	4 [°] 8	9 [°] 35	20 [°] 10
S 3	0 47 38	9 [°] 59'01	9 [°] 50	13 [°] 24	14 [°] 38	8 [°] 43	2 [°] 51	0 [°] 10	7 [°] 43	4 [°] 8	9 [°] 35	20 [°] 13
S 4	0 51 35	10 [°] 58'16	10 [°] 50	18 [°] 47	16 [°] 15	9 [°] 10	2 [°] 56	0 [°] 12	7 [°] 44	4 [°] 9	9 [°] 35	20 [°] 16
M 5	0 55 31	11 [°] 57'32	11 [°] 51	24 [°] 19	17 [°] 52	9 [°] 37	3 [°] 1	0 [°] 14	7 [°] 45	4 [°] 9	9 [°] 35	20 [°] 19
T 6	0 59 28	12 [°] 56'51	12 [°] 52	29 [°] 59	19 [°] 30	10 [°] 3	3 [°] 6	0 [°] 16	7 [°] 45	4 [°] 9	9 [°] 36	20 [°] 21
W 7	1 3 24	13 [°] 56'11	13 [°] 52	5 ^h 48	21 [°] 7	10 [°] 30	3 [°] 11	0 [°] 18	7 [°] 46	4 [°] 10	9 [°] 36	20 [°] 24
T 8	1 7 21	14 [°] 55'33	14 [°] 54	11 [°] 44	22 [°] 44	10 [°] 56	3 [°] 16	0 [°] 20	7 [°] 47	4 [°] 10	9 [°] 36	20 [°] 27
F 9	1 11 17	15 [°] 54'57	15 [°] 55	17 [°] 47	24 [°] 22	11 [°] 23	3 [°] 21	0 [°] 22	7 [°] 48	4 [°] 10	9 [°] 36	20 [°] 30
S 10	1 15 14	16 [°] 54'23	16 [°] 56	23 [°] 56	25 [°] 59	11 [°] 49	3 [°] 26	0 [°] 24	7 [°] 48	4 [°] 11	9 [°] 37	20 [°] 33
S 11	1 19 11	17 [°] 53'51	17 [°] 58	0 ^h 11 9	27 [°] 36	12 [°] 16	3 [°] 31	0 [°] 26	7 [°] 49	4 [°] 11	9 [°] 37	20 [°] 36
M12	1 23 7	18 [°] 53'22	18 [°] 59	6 [°] 26	29 [°] 13	12 [°] 42	3 [°] 36	0 [°] 28	7 [°] 50	4 [°] 11	9 [°] 37	20 [°] 38
T 13	1 27 4	19 [°] 52'55	20 [°] 0	12 [°] 44	0 ^h 50	13 [°] 9	3 [°] 41	0 [°] 30	7 [°] 50	4 [°] 12	9 [°] 37	20 [°] 41
W14	1 31 0	20 [°] 52'30	21 [°] 0	19 [°] 4	2 [°] 27	13 [°] 35	3 [°] 46	0 [°] 31	7 [°] 51	4 [°] 12	9 [°] 38	20 [°] 44
T 15	1 34 57	21 [°] 52'07	22 [°] 0	25 [°] 22	4 [°] 4	14 [°] 2	3 [°] 51	0 [°] 33	7 [°] 52	4 [°] 13	9 [°] 38	20 [°] 47
F 16	1 38 53	22 [°] 51'47	23 [°] 0	1 ^h 37	5 [°] 41	14 [°] 28	3 [°] 56	0 [°] 35	7 [°] 53	4 [°] 13	9 [°] 38	20 [°] 50
S 17	1 42 50	23 [°] 51'29	24 [°] 0	7 [°] 49	7 [°] 18	14 [°] 54	4 [°] 0	0 [°] 37	7 [°] 53	4 [°] 13	9 [°] 39	20 [°] 53
S 18	1 46 46	24 [°] 51'14	24 [°] 59	13 [°] 55	8 [°] 55	15 [°] 21	4 [°] 5	0 [°] 39	7 [°] 54	4 [°] 14	9 [°] 39	20 [°] 55
M19	1 50 43	25 [°] 51'00	25 [°] 58	19 [°] 55	10 [°] 32	15 [°] 47	4 [°] 10	0 [°] 41	7 [°] 55	4 [°] 14	9 [°] 39	20 [°] 58
T 20	1 54 40	26 [°] 50'49	26 [°] 56	25 [°] 48	12 [°] 9	16 [°] 14	4 [°] 15	0 [°] 43	7 [°] 56	4 [°] 14	9 [°] 39	21 [°] 1
W21	1 58 36	27 [°] 50'40	27 [°] 54	1 ^h 32	13 [°] 45	16 [°] 40	4 [°] 20	0 [°] 45	7 [°] 56	4 [°] 15	9 [°] 40	21 [°] 4
T 22	2 2 33	28 [°] 50'33	28 [°] 52	7 [°] 7	15 [°] 22	17 [°] 6	4 [°] 25	0 [°] 47	7 [°] 57	4 [°] 15	9 [°] 40	21 [°] 7
F 23	2 6 29	29 [°] 50'28	29 [°] 50	12 [°] 34	16 [°] 59	17 [°] 33	4 [°] 30	0 [°] 49	7 [°] 58	4 [°] 15	9 [°] 40	21 [°] 10
S 24	2 10 26	0 ^h 50'25	0 ^h 48	17 [°] 50	18 [°] 35	17 [°] 59	4 [°] 35	0 [°] 51	7 [°] 59	4 [°] 16	9 [°] 40	21 [°] 12
S 25	2 14 22	1 [°] 50'24	1 [°] 47	22 [°] 57	20 [°] 12	18 [°] 25	4 [°] 40	0 [°] 52	7 [°] 59	4 [°] 16	9 [°] 41	21 [°] 15
M26	2 18 19	2 [°] 50'25	2 [°] 45	27 [°] 54	21 [°] 49	18 [°] 52	4 [°] 45	0 [°] 54	8 [°] 0	4 [°] 17	9 [°] 41	21 [°] 18
T 27	2 22 15	3 [°] 50'27	3 [°] 44	2 ^h 42	23 [°] 25	19 [°] 18	4 [°] 50	0 [°] 56	8 [°] 1	4 [°] 17	9 [°] 41	21 [°] 21
W28	2 26 12	4 [°] 50'31	4 [°] 43	7 [°] 21	25 [°] 2	19 [°] 44	4 [°] 55	0 [°] 58	8 [°] 1	4 [°] 17	9 [°] 41	21 [°] 24
T 29	2 30 9	5 [°] 50'37	5 [°] 42	11 [°] 50	26 [°] 38	20 [°] 11	5 [°] 0	1 [°] 0	8 [°] 2	4 [°] 18	9 [°] 42	21 [°] 27
F 30	2 34 5	6 [°] 50'45	6 [°] 42	16 [°] 11	28 [°] 14	20 [°] 37						

SWISS EPHEMERIS for the year 1699
heliocentric

NOVEMBER 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
S 1	2 41 58	8♃51°04	8♃42	24♎29	1♎27	21♏30	5♃15	1♁ 6	8♁ 4	4♃19	9♏42	21♎35
M 2	2 45 55	9°51'17	9°43	28°27	3° 3	21°56	5°20	1° 8	8° 5	4°19	9°43	21°38
T 3	2 49 51	10°51'30	10°44	2♁17	4°39	22°22	5°25	1°10	8° 6	4°19	9°43	21°41
W 4	2 53 48	11°51'45	11°45	6° 2	6°15	22°48	5°30	1°12	8° 7	4°20	9°43	21°44
T 5	2 57 44	12°52'02	12°47	9°40	7°52	23°15	5°35	1°13	8° 7	4°20	9°43	21°46
F 6	3 1 41	13°52'20	13°49	13°12	9°28	23°41	5°40	1°15	8° 8	4°21	9°44	21°49
S 7	3 5 38	14°52'40	14°52	16°40	11° 4	24° 7	5°45	1°17	8° 9	4°21	9°44	21°52
S 8	3 9 34	15°53'02	15°54	20° 2	12°40	24°33	5°50	1°19	8° 9	4°21	9°44	21°55
M 9	3 13 31	16°53'25	16°56	23°20	14°15	25° 0	5°55	1°21	8°10	4°22	9°44	21°58
T 10	3 17 27	17°53'50	17°58	26°34	15°51	25°26	6° 0	1°23	8°11	4°22	9°45	22° 1
W 11	3 21 24	18°54'17	19° 0	29°44	17°27	25°52	6° 5	1°25	8°12	4°22	9°45	22° 3
T 12	3 25 20	19°54'46	20° 2	2♎50	19° 3	26°18	6°10	1°27	8°12	4°23	9°45	22° 6
F 13	3 29 17	20°55'17	21° 4	5°53	20°39	26°45	6°15	1°29	8°13	4°23	9°45	22° 9
S 14	3 33 13	21°55'49	22° 4	8°53	22°14	27°11	6°19	1°31	8°14	4°23	9°46	22°12
S 15	3 37 10	22°56'24	23° 5	11°51	23°50	27°37	6°24	1°33	8°15	4°24	9°46	22°15
M 16	3 41 7	23°57'00	24° 5	14°46	25°26	28° 3	6°29	1°35	8°15	4°24	9°46	22°18
T 17	3 45 3	24°57'38	25° 5	17°40	27° 1	28°30	6°34	1°36	8°16	4°25	9°46	22°20
W 18	3 49 0	25°58'17	26° 4	20°31	28°37	28°56	6°39	1°38	8°17	4°25	9°47	22°23
T 19	3 52 56	26°58'58	27° 4	23°21	0♁12	29°22	6°44	1°40	8°18	4°25	9°47	22°26
F 20	3 56 53	27°59'41	28° 3	26° 9	1°48	29°48	6°49	1°42	8°18	4°26	9°47	22°29
S 21	4 0 49	29° 0'25	29° 2	28°56	3°23	0♎14	6°54	1°44	8°19	4°26	9°48	22°32
S 22	4 4 46	0♎11'11	0♎ 0	1♁42	4°58	0°41	6°59	1°46	8°20	4°26	9°48	22°35
M 23	4 8 42	1° 1'58	0°59	4°28	6°34	1° 7	7° 4	1°48	8°20	4°27	9°48	22°37
T 24	4 12 39	2° 2'46	1°59	7°13	8° 9	1°33	7° 9	1°50	8°21	4°27	9°48	22°40
W 25	4 16 36	3° 3'36	2°58	9°58	9°44	1°59	7°14	1°52	8°22	4°28	9°49	22°43
T 26	4 20 32	4° 4'26	3°57	12°42	11°20	2°26	7°19	1°54	8°23	4°28	9°49	22°46
F 27	4 24 29	5° 5'17	4°57	15°27	12°55	2°52	7°24	1°56	8°23	4°28	9°49	22°49
S 28	4 28 25	6° 6'10	5°57	18°12	14°30	3°18	7°29	1°58	8°24	4°29	9°49	22°52
S 29	4 32 22	7° 7'03	6°58	20°58	16° 5	3°44	7°34	1°59	8°25	4°29	9°50	22°54
M 30	4 36 18	8♎7°57	7♎59	23♁44	17♁40	4♎10	7♃39	2♁ 1	8♁26	4♃29	9♏50	22♎57

Delta T = 7.82 sec.

Greg. Calendar

DECEMBER 1699 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
T 1	4 40 15	9♎8°51	9♎ 0	26♁31	19♁15	4♎37	7♃44	2♁ 3	8♁26	4♃30	9♏50	23♎ 0
W 2	4 44 11	10° 9'47	10° 2	29°20	20°50	5° 3	7°49	2° 5	8°27	4°30	9°50	23° 3
T 3	4 48 8	11°10'43	11° 4	2♁ 9	22°25	5°29	7°54	2° 7	8°28	4°30	9°51	23° 6
F 4	4 52 5	12°11'40	12° 6	5° 0	24° 0	5°55	7°59	2° 9	8°29	4°31	9°51	23° 9
S 5	4 56 1	13°12'38	13° 9	7°54	25°35	6°22	8° 4	2°11	8°29	4°31	9°51	23°12
S 6	4 59 58	14°13'36	14°12	10°49	27°10	6°48	8° 9	2°13	8°30	4°32	9°51	23°14
M 7	5 3 54	15°14'36	15°15	13°46	28°45	7°14	8°14	2°15	8°31	4°32	9°52	23°17
T 8	5 7 51	16°15'36	16°18	16°46	0♁20	7°40	8°19	2°17	8°31	4°32	9°52	23°20
W 9	5 11 47	17°16'37	17°21	19°48	1°55	8° 7	8°24	2°19	8°32	4°33	9°52	23°23
T 10	5 15 44	18°17'39	18°23	22°54	3°30	8°33	8°29	2°21	8°33	4°33	9°52	23°26
F 11	5 19 40	19°18'42	19°26	26° 3	5° 5	8°59	8°34	2°22	8°34	4°33	9°53	23°29
S 12	5 23 37	20°19'46	20°28	29°15	6°40	9°25	8°39	2°24	8°34	4°34	9°53	23°31
S 13	5 27 34	21°20'50	21°29	2♁32	8°15	9°52	8°44	2°26	8°35	4°34	9°53	23°34
M 14	5 31 30	22°21'56	22°31	5°52	9°50	10°18	8°49	2°28	8°36	4°34	9°53	23°37
T 15	5 35 27	23°23'02	23°32	9°18	11°24	10°44	8°54	2°30	8°37	4°35	9°54	23°40
W 16	5 39 23	24°24'10	24°32	12°48	12°59	11°11	8°59	2°32	8°37	4°35	9°54	23°43
T 17	5 43 20	25°25'18	25°32	16°23	14°34	11°37	9° 4	2°34	8°38	4°36	9°54	23°46
F 18	5 47 16	26°26'27	26°32	20° 3	16° 9	12° 3	9° 9	2°36	8°39	4°36	9°55	23°48
S 19	5 51 13	27°27'36	27°32	23°50	17°44	12°29	9°14	2°38	8°40	4°36	9°55	23°51
S 20	5 55 9	28°28'46	28°31	27°43	19°19	12°56	9°19	2°40	8°40	4°37	9°55	23°54
M 21	5 59 6	29°29'56	29°31	1♁42	20°53	13°22	9°24	2°42	8°41	4°37	9°55	23°57
T 22	6 3 3	0♁31'07	0♁30	5°49	22°28	13°49	9°29	2°44	8°42	4°37	9°56	24° 0
W 23	6 6 59	1°32'18	1°29	10° 3	24° 3	14°15	9°34	2°45	8°42	4°38	9°56	24° 3
T 24	6 10 56	2°33'29	2°29	14°25	25°38	14°41	9°39	2°47	8°43	4°38	9°56	24° 6
F 25	6 14 52	3°34'40	3°29	18°54	27°13	15° 8	9°44	2°49	8°44	4°39	9°56	24° 8
S 26	6 18 49	4°35'52	4°29	23°33	28°47	15°34	9°49	2°51	8°45	4°39	9°57	24°11
S 27	6 22 45	5°37'03	5°29	28°20	0♁22	16° 0	9°54	2°53	8°45	4°39	9°57	24°14
M 28	6 26 42	6°38'14	6°29	3♃15	1°57	16°27	9°59	2°55	8°46	4°40	9°57	24°17
T 29	6 30 38	7°39'24	7°30	8°20	3°32	16°53	10° 4	2°57	8°47	4°40	9°57	24°20
W 30	6 34 35	8°40'35	8°32	13°34	5° 7	17°20	10° 9	2°59	8°48	4°40	9°58	24°23
T 31	6 38 32	9♏41'45	9♏33	18♃57	6♁42	17♎46	10♁14	3♁ 1	8♁48	4♃41	9♏58	24♎25

Delta T = 7.82 sec.

Greg. Calendar

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