

SWISS EPHEMERIS for the year 1820
heliocentric

JANUARY 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
S 1	6 38 16	9 ⁵ 33'10	9 ⁵ 34	21 ¹ 14	27 ²⁸ 54	18 ²⁸ 28	25 ²⁸ 21	0 ⁰ 44	24 ²⁸ 52	28 ²⁸ 28	26 ²⁸ 51	27 ²⁸ 57
S 2	6 42 13	10 ⁰ 34'19	10 ⁰ 37	26 ⁰ 18	29 ⁰ 29	18 ⁰ 56	25 ⁰ 27	0 ⁰ 46	24 ⁰ 53	28 ⁰ 29	26 ⁰ 51	27 ⁰ 58
M 3	6 46 10	11 ⁰ 35'27	11 ⁰ 40	1 ¹ 12	1 ¹ 4	19 ⁰ 24	25 ⁰ 32	0 ⁰ 48	24 ⁰ 54	28 ⁰ 29	26 ⁰ 51	27 ⁰ 58
T 4	6 50 6	12 ⁰ 36'36	12 ⁰ 43	5 ⁰ 57	2 ⁰ 40	19 ⁰ 51	25 ⁰ 37	0 ⁰ 50	24 ⁰ 55	28 ⁰ 29	26 ⁰ 52	27 ⁰ 59
W 5	6 54 3	13 ⁰ 37'45	13 ⁰ 45	10 ⁰ 33	4 ⁰ 15	20 ⁰ 19	25 ⁰ 43	0 ⁰ 52	24 ⁰ 55	28 ⁰ 30	26 ⁰ 52	28 ⁰ 0
T 6	6 57 59	14 ⁰ 38'54	14 ⁰ 47	15 ⁰ 0	5 ⁰ 50	20 ⁰ 47	25 ⁰ 48	0 ⁰ 54	24 ⁰ 56	28 ⁰ 30	26 ⁰ 52	28 ⁰ 0
F 7	7 1 56	15 ⁰ 40'03	15 ⁰ 49	19 ⁰ 19	7 ⁰ 25	21 ⁰ 14	25 ⁰ 54	0 ⁰ 56	24 ⁰ 57	28 ⁰ 30	26 ⁰ 52	28 ⁰ 1
S 8	7 5 52	16 ⁰ 41'12	16 ⁰ 50	23 ⁰ 29	9 ⁰ 0	21 ⁰ 42	25 ⁰ 59	0 ⁰ 58	24 ⁰ 57	28 ⁰ 31	26 ⁰ 52	28 ⁰ 1
S 9	7 9 49	17 ⁰ 42'21	17 ⁰ 52	27 ⁰ 32	10 ⁰ 35	22 ⁰ 9	26 ⁰ 4	1 ⁰ 0	24 ⁰ 58	28 ⁰ 31	26 ⁰ 53	28 ⁰ 2
M10	7 13 45	18 ⁰ 43'30	18 ⁰ 52	1 ¹ 27	12 ⁰ 10	22 ⁰ 37	26 ⁰ 10	1 ⁰ 2	24 ⁰ 59	28 ⁰ 31	26 ⁰ 53	28 ⁰ 3
T 11	7 17 42	19 ⁰ 44'39	19 ⁰ 53	5 ⁰ 16	13 ⁰ 46	23 ⁰ 4	26 ⁰ 15	1 ⁰ 4	24 ⁰ 59	28 ⁰ 32	26 ⁰ 53	28 ⁰ 3
W12	7 21 39	20 ⁰ 45'49	20 ⁰ 53	8 ⁰ 59	15 ⁰ 21	23 ⁰ 32	26 ⁰ 20	1 ⁰ 6	25 ⁰ 0	28 ⁰ 32	26 ⁰ 53	28 ⁰ 4
T 13	7 25 35	21 ⁰ 46'57	21 ⁰ 52	12 ⁰ 35	16 ⁰ 56	23 ⁰ 59	26 ⁰ 26	1 ⁰ 8	25 ⁰ 1	28 ⁰ 33	26 ⁰ 53	28 ⁰ 4
F 14	7 29 32	22 ⁰ 48'06	22 ⁰ 52	16 ⁰ 6	18 ⁰ 31	24 ⁰ 26	26 ⁰ 31	1 ⁰ 10	25 ⁰ 2	28 ⁰ 33	26 ⁰ 54	28 ⁰ 5
S 15	7 33 28	23 ⁰ 49'15	23 ⁰ 51	19 ⁰ 32	20 ⁰ 7	24 ⁰ 54	26 ⁰ 36	1 ⁰ 12	25 ⁰ 2	28 ⁰ 33	26 ⁰ 54	28 ⁰ 6
S 16	7 37 25	24 ⁰ 50'23	24 ⁰ 50	22 ⁰ 53	21 ⁰ 42	25 ⁰ 21	26 ⁰ 42	1 ⁰ 14	25 ⁰ 3	28 ⁰ 34	26 ⁰ 54	28 ⁰ 6
M17	7 41 21	25 ⁰ 51'30	25 ⁰ 49	26 ⁰ 9	23 ⁰ 17	25 ⁰ 48	26 ⁰ 47	1 ⁰ 16	25 ⁰ 4	28 ⁰ 34	26 ⁰ 54	28 ⁰ 7
T 18	7 45 18	26 ⁰ 52'37	26 ⁰ 48	29 ⁰ 22	24 ⁰ 53	26 ⁰ 16	26 ⁰ 52	1 ⁰ 18	25 ⁰ 4	28 ⁰ 34	26 ⁰ 54	28 ⁰ 7
W19	7 49 14	27 ⁰ 53'42	27 ⁰ 48	2 ¹ 31	26 ⁰ 28	26 ⁰ 43	26 ⁰ 58	1 ⁰ 21	25 ⁰ 5	28 ⁰ 35	26 ⁰ 54	28 ⁰ 8
T 20	7 53 11	28 ⁰ 54'47	28 ⁰ 47	5 ⁰ 36	28 ⁰ 4	27 ⁰ 10	27 ⁰ 3	1 ⁰ 23	25 ⁰ 6	28 ⁰ 35	26 ⁰ 55	28 ⁰ 9
F 21	7 57 8	29 ⁰ 55'51	29 ⁰ 48	8 ⁰ 39	29 ⁰ 39	27 ⁰ 37	27 ⁰ 8	1 ⁰ 25	25 ⁰ 7	28 ⁰ 35	26 ⁰ 55	28 ⁰ 9
S 22	8 1 4	0 ⁰ 56'53	0 ⁰ 48	11 ⁰ 38	1 ¹ 14	28 ⁰ 5	27 ⁰ 14	1 ⁰ 27	25 ⁰ 7	28 ⁰ 36	26 ⁰ 55	28 ⁰ 10
S 23	8 5 1	1 ⁰ 57'55	1 ⁰ 49	14 ⁰ 35	2 ⁰ 50	28 ⁰ 32	27 ⁰ 19	1 ⁰ 29	25 ⁰ 8	28 ⁰ 36	26 ⁰ 55	28 ⁰ 11
M24	8 8 57	2 ⁰ 58'56	2 ⁰ 50	17 ⁰ 30	4 ⁰ 25	28 ⁰ 59	27 ⁰ 25	1 ⁰ 31	25 ⁰ 9	28 ⁰ 36	26 ⁰ 55	28 ⁰ 11
T 25	8 12 54	3 ⁰ 59'55	3 ⁰ 52	20 ⁰ 22	6 ⁰ 1	29 ⁰ 26	27 ⁰ 30	1 ⁰ 33	25 ⁰ 9	28 ⁰ 37	26 ⁰ 56	28 ⁰ 12
W26	8 16 50	5 ⁰ 0'54	4 ⁰ 54	23 ⁰ 13	7 ⁰ 37	29 ⁰ 53	27 ⁰ 35	1 ⁰ 35	25 ⁰ 10	28 ⁰ 37	26 ⁰ 56	28 ⁰ 12
T 27	8 20 47	6 ⁰ 1'51	5 ⁰ 56	26 ⁰ 2	9 ⁰ 12	0 ⁰ 20	27 ⁰ 41	1 ⁰ 37	25 ⁰ 11	28 ⁰ 38	26 ⁰ 56	28 ⁰ 13
F 28	8 24 44	7 ⁰ 2'48	6 ⁰ 59	28 ⁰ 50	10 ⁰ 48	0 ⁰ 47	27 ⁰ 46	1 ⁰ 39	25 ⁰ 11	28 ⁰ 38	26 ⁰ 56	28 ⁰ 14
S 29	8 28 40	8 ⁰ 3'43	8 ⁰ 1	1 ¹ 37	12 ⁰ 23	1 ⁰ 14	27 ⁰ 51	1 ⁰ 41	25 ⁰ 12	28 ⁰ 38	26 ⁰ 56	28 ⁰ 14
S 30	8 32 37	9 ⁰ 4'37	9 ⁰ 4	4 ⁰ 23	13 ⁰ 59	1 ⁰ 41	27 ⁰ 57	1 ⁰ 43	25 ⁰ 13	28 ⁰ 39	26 ⁰ 57	28 ⁰ 15
MB1	8 36 33	10 ⁰ 5'30	10 ⁰ 7	7 ⁰ 37	15 ⁰ 35	2 ⁰ 8	28 ⁰ 2	1 ⁰ 45	25 ⁰ 14	28 ⁰ 39	26 ⁰ 57	28 ⁰ 15

Delta T = 11.67 sec.

FEBRUARY 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
T 1	8 40 30	11 ⁰ 6'22	11 ⁰ 9	9 ⁰ 54	17 ⁰ 10	2 ⁰ 35	28 ⁰ 7	1 ⁰ 47	25 ⁰ 14	28 ⁰ 39	26 ⁰ 57	28 ⁰ 16
W 2	8 44 26	12 ⁰ 7'13	12 ⁰ 12	12 ⁰ 38	18 ⁰ 46	3 ⁰ 2	28 ⁰ 13	1 ⁰ 49	25 ⁰ 15	28 ⁰ 40	26 ⁰ 57	28 ⁰ 17
T 3	8 48 23	13 ⁰ 8'02	13 ⁰ 14	15 ⁰ 23	20 ⁰ 22	3 ⁰ 29	28 ⁰ 18	1 ⁰ 51	25 ⁰ 16	28 ⁰ 40	26 ⁰ 57	28 ⁰ 17
F 4	8 52 19	14 ⁰ 8'51	14 ⁰ 16	18 ⁰ 8	21 ⁰ 58	3 ⁰ 56	28 ⁰ 24	1 ⁰ 53	25 ⁰ 16	28 ⁰ 40	26 ⁰ 57	28 ⁰ 18
S 5	8 56 16	15 ⁰ 9'39	15 ⁰ 18	20 ⁰ 53	23 ⁰ 34	4 ⁰ 23	28 ⁰ 29	1 ⁰ 55	25 ⁰ 17	28 ⁰ 41	26 ⁰ 58	28 ⁰ 18
S 6	9 0 12	16 ⁰ 10'26	16 ⁰ 19	23 ⁰ 39	25 ⁰ 9	4 ⁰ 50	28 ⁰ 34	1 ⁰ 57	25 ⁰ 18	28 ⁰ 41	26 ⁰ 58	28 ⁰ 19
M 7	9 4 9	17 ⁰ 11'12	17 ⁰ 20	26 ⁰ 25	26 ⁰ 45	5 ⁰ 16	28 ⁰ 40	1 ⁰ 59	25 ⁰ 18	28 ⁰ 41	26 ⁰ 58	28 ⁰ 20
T 8	9 8 6	18 ⁰ 11'57	18 ⁰ 21	29 ⁰ 13	28 ⁰ 21	5 ⁰ 43	28 ⁰ 45	2 ⁰ 1	25 ⁰ 19	28 ⁰ 42	26 ⁰ 58	28 ⁰ 20
W 9	9 12 2	19 ⁰ 12'41	19 ⁰ 21	2 ⁰ 3	29 ⁰ 57	6 ⁰ 10	28 ⁰ 50	2 ⁰ 3	25 ⁰ 20	28 ⁰ 42	26 ⁰ 58	28 ⁰ 21
T 10	9 15 59	20 ⁰ 13'24	20 ⁰ 21	4 ⁰ 52	1 ⁰ 33	6 ⁰ 37	28 ⁰ 56	2 ⁰ 5	25 ⁰ 21	28 ⁰ 43	26 ⁰ 59	28 ⁰ 21
F 11	9 19 55	21 ⁰ 14'06	21 ⁰ 20	7 ⁰ 43	3 ⁰ 9	7 ⁰ 4	29 ⁰ 1	2 ⁰ 7	25 ⁰ 21	28 ⁰ 43	26 ⁰ 59	28 ⁰ 22
S 12	9 23 52	22 ⁰ 14'47	22 ⁰ 19	10 ⁰ 37	4 ⁰ 45	7 ⁰ 30	29 ⁰ 6	2 ⁰ 9	25 ⁰ 22	28 ⁰ 43	26 ⁰ 59	28 ⁰ 23
S 13	9 27 48	23 ⁰ 15'26	23 ⁰ 18	13 ⁰ 33	6 ⁰ 21	7 ⁰ 57	29 ⁰ 12	2 ⁰ 11	25 ⁰ 23	28 ⁰ 44	26 ⁰ 59	28 ⁰ 23
M14	9 31 45	24 ⁰ 16'04	24 ⁰ 16	16 ⁰ 31	7 ⁰ 57	8 ⁰ 24	29 ⁰ 17	2 ⁰ 13	25 ⁰ 23	28 ⁰ 44	26 ⁰ 59	28 ⁰ 24
T 15	9 35 42	25 ⁰ 16'40	25 ⁰ 15	19 ⁰ 31	9 ⁰ 33	8 ⁰ 50	29 ⁰ 23	2 ⁰ 15	25 ⁰ 24	28 ⁰ 44	27 ⁰ 0	28 ⁰ 24
W16	9 39 38	26 ⁰ 17'15	26 ⁰ 14	22 ⁰ 35	11 ⁰ 9	9 ⁰ 17	29 ⁰ 28	2 ⁰ 17	25 ⁰ 25	28 ⁰ 45	27 ⁰ 0	28 ⁰ 25
T 17	9 43 35	27 ⁰ 17'48	27 ⁰ 12	25 ⁰ 41	12 ⁰ 45	9 ⁰ 44	29 ⁰ 33	2 ⁰ 19	25 ⁰ 25	28 ⁰ 45	27 ⁰ 0	28 ⁰ 26
F 18	9 47 31	28 ⁰ 18'20	28 ⁰ 11	28 ⁰ 51	14 ⁰ 22	10 ⁰ 10	29 ⁰ 39	2 ⁰ 21	25 ⁰ 26	28 ⁰ 45	27 ⁰ 0	28 ⁰ 26
S 19	9 51 28	29 ⁰ 18'49	29 ⁰ 11	2 ⁰ 5	15 ⁰ 58	10 ⁰ 37	29 ⁰ 44	2 ⁰ 23	25 ⁰ 27	28 ⁰ 46	27 ⁰ 0	28 ⁰ 27
S 20	9 55 24	0 ⁰ 19'17	0 ⁰ 11	5 ⁰ 23	17 ⁰ 34	11 ⁰ 4	29 ⁰ 49	2 ⁰ 25	25 ⁰ 28	28 ⁰ 46	27 ⁰ 0	28 ⁰ 27
M21	9 59 21	1 ⁰ 19'43	1 ⁰ 11	8 ⁰ 45	19 ⁰ 10	11 ⁰ 30	29 ⁰ 55	2 ⁰ 27	25 ⁰ 28	28 ⁰ 46	27 ⁰ 1	28 ⁰ 28
T 22	10 3 17	2 ⁰ 20'07	2 ⁰ 11	12 ⁰ 11	20 ⁰ 47	11 ⁰ 57	0 ⁰ 30	2 ⁰ 29	25 ⁰ 29	28 ⁰ 47	27 ⁰ 1	28 ⁰ 29
W23	10 7 14	3 ⁰ 20'29	3 ⁰ 12	15 ⁰ 43	22 ⁰ 23	12 ⁰ 23	0 ⁰ 6	2 ⁰ 31	25 ⁰ 30	28 ⁰ 47	27 ⁰ 1	28 ⁰ 29
T 24	10 11 11	4 ⁰ 20'49	4 ⁰ 13	19 ⁰ 19	23 ⁰ 59	12 ⁰ 50	0 ⁰ 11	2 ⁰ 33	25 ⁰ 30	28 ⁰ 48	27 ⁰ 1	28 ⁰ 30
F 25	10 15 7	5 ⁰ 21'07	5 ⁰ 15	23 ⁰ 2	25 ⁰ 36	13 ⁰ 16	0 ⁰ 16	2 ⁰ 35	25 ⁰ 31	28 ⁰ 48	27 ⁰ 1	28 ⁰ 30
S 26	10 19 4	6 ⁰ 21'23	6 ⁰ 16	26 ⁰ 50	27 ⁰ 12	13 ⁰ 43	0 ⁰ 22	2 ⁰ 37	25 ⁰ 32	28 ⁰ 48	27 ⁰ 2	28 ⁰ 31
S 27	10 23 0	7 ⁰ 21'37	7 ⁰ 18	0 ⁰ 45	28 ⁰ 48	14 ⁰ 9	0 ⁰ 27	2 ⁰ 39	25 ⁰ 32	28 ⁰ 49	27 ⁰ 2	28 ⁰ 32
M28	10 26 57	8 ⁰ 21'49	8 ⁰ 20	4 ⁰ 46	0 ⁰ 25	14 ⁰ 36	0 ⁰ 32	2 ⁰ 41	25 ⁰ 33	28 ⁰ 49	27 ⁰ 2	28 ⁰ 32
T 29	10 30 53	9 ⁰ 22										

SWISS EPHEMERIS for the year 1820
heliocentric

MARCH 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
W 1	10 34 50	10 ^m 22'08	10 ^m 24	13 ^h 11	3 ^h 38	15 ^h 29	0 ^h 43	2 ^h 46	25 ^h 35	28 ^h 50	27 ^h 2	28 ^h 33
T 2	10 38 46	11 ^h 22'15	11 ^h 26	17 ^h 35	5 ^h 14	15 ^h 55	0 ^h 49	2 ^h 48	25 ^h 35	28 ^h 50	27 ^h 2	28 ^h 34
F 3	10 42 43	12 ^h 22'20	12 ^h 27	22 ^h 7	6 ^h 51	16 ^h 22	0 ^h 54	2 ^h 50	25 ^h 36	28 ^h 50	27 ^h 3	28 ^h 35
S 4	10 46 39	13 ^h 22'23	13 ^h 29	26 ^h 48	8 ^h 28	16 ^h 48	0 ^h 59	2 ^h 52	25 ^h 37	28 ^h 51	27 ^h 3	28 ^h 35
S 5	10 50 36	14 ^h 22'25	14 ^h 30	1 ^h 38	10 ^h 4	17 ^h 15	1 ^h 5	2 ^h 54	25 ^h 37	28 ^h 51	27 ^h 3	28 ^h 36
M 6	10 54 33	15 ^h 22'25	15 ^h 31	6 ^h 36	11 ^h 41	17 ^h 41	1 ^h 10	2 ^h 56	25 ^h 38	28 ^h 51	27 ^h 3	28 ^h 36
T 7	10 58 29	16 ^h 22'23	16 ^h 31	11 ^h 44	13 ^h 18	18 ^h 7	1 ^h 16	2 ^h 58	25 ^h 39	28 ^h 52	27 ^h 3	28 ^h 37
W 8	11 2 26	17 ^h 22'20	17 ^h 31	17 ^h 0	14 ^h 54	18 ^h 34	1 ^h 21	3 ^h 0	25 ^h 39	28 ^h 52	27 ^h 4	28 ^h 38
T 9	11 6 22	18 ^h 22'16	18 ^h 31	22 ^h 26	16 ^h 31	19 ^h 0	1 ^h 26	3 ^h 2	25 ^h 40	28 ^h 53	27 ^h 4	28 ^h 38
F 10	11 10 19	19 ^h 22'09	19 ^h 30	28 ^h 1	18 ^h 8	19 ^h 27	1 ^h 32	3 ^h 4	25 ^h 41	28 ^h 53	27 ^h 4	28 ^h 39
S 11	11 14 15	20 ^h 22'01	20 ^h 28	3 ^h 44	19 ^h 45	19 ^h 53	1 ^h 37	3 ^h 6	25 ^h 42	28 ^h 53	27 ^h 4	28 ^h 39
S 12	11 18 12	21 ^h 21'51	21 ^h 27	9 ^h 35	21 ^h 22	20 ^h 19	1 ^h 42	3 ^h 8	25 ^h 42	28 ^h 54	27 ^h 4	28 ^h 40
M13	11 22 8	22 ^h 21'40	22 ^h 25	15 ^h 33	22 ^h 58	20 ^h 46	1 ^h 48	3 ^h 10	25 ^h 43	28 ^h 54	27 ^h 5	28 ^h 41
T 14	11 26 5	23 ^h 21'26	23 ^h 23	21 ^h 38	24 ^h 35	21 ^h 12	1 ^h 53	3 ^h 12	25 ^h 44	28 ^h 54	27 ^h 5	28 ^h 41
W15	11 30 2	24 ^h 21'10	24 ^h 20	27 ^h 48	26 ^h 12	21 ^h 38	1 ^h 59	3 ^h 14	25 ^h 44	28 ^h 55	27 ^h 5	28 ^h 42
T 16	11 33 58	25 ^h 20'53	25 ^h 18	4 ^h 3	27 ^h 49	22 ^h 4	2 ^h 4	3 ^h 16	25 ^h 45	28 ^h 55	27 ^h 5	28 ^h 42
F 17	11 37 55	26 ^h 20'33	26 ^h 16	10 ^h 21	29 ^h 26	22 ^h 31	2 ^h 9	3 ^h 18	25 ^h 46	28 ^h 55	27 ^h 5	28 ^h 43
S 18	11 41 51	27 ^h 20'11	27 ^h 14	16 ^h 40	1 ^h 3	22 ^h 57	2 ^h 15	3 ^h 20	25 ^h 46	28 ^h 56	27 ^h 5	28 ^h 44
S 19	11 45 48	28 ^h 19'47	28 ^h 12	22 ^h 59	2 ^h 40	23 ^h 23	2 ^h 20	3 ^h 22	25 ^h 47	28 ^h 56	27 ^h 6	28 ^h 44
M20	11 49 44	29 ^h 19'21	29 ^h 11	29 ^h 16	4 ^h 17	23 ^h 50	2 ^h 26	3 ^h 24	25 ^h 48	28 ^h 56	27 ^h 6	28 ^h 45
T 21	11 53 41	0 ^h 18'52	0 ^h 10	5 ^h 31	5 ^h 55	24 ^h 16	2 ^h 31	3 ^h 26	25 ^h 49	28 ^h 57	27 ^h 6	28 ^h 45
W22	11 57 37	1 ^h 18'21	1 ^h 9	11 ^h 41	7 ^h 32	24 ^h 42	2 ^h 36	3 ^h 28	25 ^h 49	28 ^h 57	27 ^h 6	28 ^h 46
T 23	12 1 34	2 ^h 17'48	2 ^h 9	17 ^h 45	9 ^h 9	25 ^h 8	2 ^h 42	3 ^h 30	25 ^h 50	28 ^h 58	27 ^h 6	28 ^h 47
F 24	12 5 31	3 ^h 17'12	3 ^h 9	23 ^h 43	10 ^h 46	25 ^h 35	2 ^h 47	3 ^h 32	25 ^h 51	28 ^h 58	27 ^h 7	28 ^h 47
S 25	12 9 27	4 ^h 16'34	4 ^h 9	29 ^h 33	12 ^h 23	26 ^h 1	2 ^h 52	3 ^h 34	25 ^h 51	28 ^h 58	27 ^h 7	28 ^h 48
S 26	12 13 24	5 ^h 15'54	5 ^h 10	5 ^h 14	14 ^h 0	26 ^h 27	2 ^h 58	3 ^h 36	25 ^h 52	28 ^h 59	27 ^h 7	28 ^h 48
M27	12 17 20	6 ^h 15'12	6 ^h 10	10 ^h 47	15 ^h 38	26 ^h 53	3 ^h 3	3 ^h 38	25 ^h 53	28 ^h 59	27 ^h 7	28 ^h 49
T 28	12 21 17	7 ^h 14'27	7 ^h 11	16 ^h 10	17 ^h 15	27 ^h 20	3 ^h 9	3 ^h 40	25 ^h 53	28 ^h 59	27 ^h 7	28 ^h 50
W29	12 25 13	8 ^h 13'40	8 ^h 12	21 ^h 23	18 ^h 52	27 ^h 46	3 ^h 14	3 ^h 42	25 ^h 54	29 ^h 0	27 ^h 7	28 ^h 50
T 30	12 29 10	9 ^h 12'51	9 ^h 13	26 ^h 27	20 ^h 30	28 ^h 12	3 ^h 19	3 ^h 44	25 ^h 55	29 ^h 0	27 ^h 8	28 ^h 51
F 31	12 33 6	10 ^h 12'00	10 ^h 14	1 ^h 21	22 ^h 37	28 ^h 38	3 ^h 25	3 ^h 46	25 ^h 55	29 ^h 0	27 ^h 8	28 ^h 51

Delta T = 11.62 sec.

APRIL 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
S 1	12 37 3	11 ^h 11'07	11 ^h 15	6 ^h 6	23 ^h 34	29 ^h 5	3 ^h 30	3 ^h 48	25 ^h 56	29 ^h 1	27 ^h 8	28 ^h 52
S 2	12 41 0	12 ^h 10'12	12 ^h 16	10 ^h 42	25 ^h 22	29 ^h 31	3 ^h 36	3 ^h 50	25 ^h 57	29 ^h 1	27 ^h 8	28 ^h 53
M 3	12 44 56	13 ^h 9'16	13 ^h 16	15 ^h 8	26 ^h 59	29 ^h 57	3 ^h 41	3 ^h 52	25 ^h 58	29 ^h 1	27 ^h 8	28 ^h 53
T 4	12 48 53	14 ^h 8'17	14 ^h 16	19 ^h 27	28 ^h 37	0 ^h 23	3 ^h 46	3 ^h 55	25 ^h 58	29 ^h 2	27 ^h 9	28 ^h 54
W 5	12 52 49	15 ^h 7'17	15 ^h 16	23 ^h 37	0 ^h 14	0 ^h 49	3 ^h 52	3 ^h 57	25 ^h 59	29 ^h 2	27 ^h 9	28 ^h 54
T 6	12 56 46	16 ^h 6'15	16 ^h 15	27 ^h 39	1 ^h 51	1 ^h 16	3 ^h 57	3 ^h 59	26 ^h 0	29 ^h 3	27 ^h 9	28 ^h 55
F 7	13 0 42	17 ^h 5'11	17 ^h 14	1 ^h 35	3 ^h 29	1 ^h 42	4 ^h 3	4 ^h 1	26 ^h 0	29 ^h 3	27 ^h 9	28 ^h 56
S 8	13 4 39	18 ^h 4'06	18 ^h 12	5 ^h 23	5 ^h 6	2 ^h 8	4 ^h 8	4 ^h 3	26 ^h 1	29 ^h 3	27 ^h 9	28 ^h 56
S 9	13 8 35	19 ^h 2'59	19 ^h 10	9 ^h 6	6 ^h 44	2 ^h 34	4 ^h 13	4 ^h 5	26 ^h 2	29 ^h 4	27 ^h 10	28 ^h 57
M10	13 12 32	20 ^h 1'50	20 ^h 7	12 ^h 42	8 ^h 21	3 ^h 1	4 ^h 19	4 ^h 7	26 ^h 2	29 ^h 4	27 ^h 10	28 ^h 57
T 11	13 16 29	21 ^h 0'39	21 ^h 4	16 ^h 13	9 ^h 59	3 ^h 27	4 ^h 24	4 ^h 9	26 ^h 3	29 ^h 4	27 ^h 10	28 ^h 58
W12	13 20 25	21 ^h 59'26	22 ^h 1	19 ^h 38	11 ^h 36	3 ^h 53	4 ^h 30	4 ^h 11	26 ^h 4	29 ^h 5	27 ^h 10	28 ^h 59
T 13	13 24 22	22 ^h 58'11	22 ^h 58	22 ^h 59	13 ^h 14	4 ^h 19	4 ^h 35	4 ^h 13	26 ^h 5	29 ^h 5	27 ^h 10	28 ^h 59
F 14	13 28 18	23 ^h 56'55	23 ^h 55	26 ^h 16	14 ^h 51	4 ^h 45	4 ^h 40	4 ^h 15	26 ^h 5	29 ^h 5	27 ^h 10	29 ^h 0
S 15	13 32 15	24 ^h 55'36	24 ^h 52	29 ^h 28	16 ^h 29	5 ^h 12	4 ^h 46	4 ^h 17	26 ^h 6	29 ^h 6	27 ^h 11	29 ^h 0
S 16	13 36 11	25 ^h 54'16	25 ^h 49	2 ^h 37	18 ^h 7	5 ^h 38	4 ^h 51	4 ^h 19	26 ^h 7	29 ^h 6	27 ^h 11	29 ^h 1
M17	13 40 8	26 ^h 52'53	26 ^h 46	5 ^h 42	19 ^h 44	6 ^h 4	4 ^h 57	4 ^h 21	26 ^h 7	29 ^h 6	27 ^h 11	29 ^h 2
T 18	13 44 4	27 ^h 51'28	27 ^h 43	8 ^h 44	21 ^h 22	6 ^h 30	5 ^h 2	4 ^h 23	26 ^h 8	29 ^h 7	27 ^h 11	29 ^h 2
W19	13 48 1	28 ^h 50'01	28 ^h 41	11 ^h 44	22 ^h 59	6 ^h 56	5 ^h 7	4 ^h 25	26 ^h 9	29 ^h 7	27 ^h 11	29 ^h 3
T 20	13 51 58	29 ^h 48'32	29 ^h 39	14 ^h 41	24 ^h 37	7 ^h 23	5 ^h 13	4 ^h 27	26 ^h 9	29 ^h 8	27 ^h 12	29 ^h 3
F 21	13 55 54	0 ^h 47'00	0 ^h 38	17 ^h 35	26 ^h 14	7 ^h 49	5 ^h 18	4 ^h 29	26 ^h 10	29 ^h 8	27 ^h 12	29 ^h 4
S 22	13 59 51	1 ^h 45'27	1 ^h 37	20 ^h 28	27 ^h 52	8 ^h 15	5 ^h 24	4 ^h 31	26 ^h 11	29 ^h 8	27 ^h 12	29 ^h 5
S 23	14 3 47	2 ^h 43'51	2 ^h 36	23 ^h 18	29 ^h 29	8 ^h 41	5 ^h 29	4 ^h 33	26 ^h 12	29 ^h 9	27 ^h 12	29 ^h 5
M24	14 7 44	3 ^h 42'13	3 ^h 35	26 ^h 8	1 ^h 7	9 ^h 8	5 ^h 34	4 ^h 35	26 ^h 12	29 ^h 9	27 ^h 12	29 ^h 6
T 25	14 11 40	4 ^h 40'33	4 ^h 35	28 ^h 56	2 ^h 44	9 ^h 34	5 ^h 40	4 ^h 37	26 ^h 13	29 ^h 9	27 ^h 12	29 ^h 6
W26	14 15 37	5 ^h 38'51	5 ^h 35	1 ^h 43	4 ^h 22	10 ^h 0	5 ^h 45	4 ^h 39	26 ^h 14	29 ^h 10	27 ^h 13	29 ^h 7
T 27	14 19 33	6 ^h 37'07	6 ^h 35	4 ^h 29	5 ^h 59	10 ^h 26	5 ^h 51	4 ^h 41	26 ^h 14	29 ^h 10	27 ^h 13	29 ^h 8
F 28	14 23 30	7 ^h 35'21	7 ^h 35	7 ^h 14	7 ^h 37	10 ^h 53	5 ^h 56	4 ^h 43	26 ^h 15	29 ^h 10	27 ^h 13	29 ^h 8
S 29	14 27 27	8 ^h 33'34	8 ^h 35	9 ^h 59	9 ^h 14	11 ^h 19	6 ^h 2	4				

SWISS EPHEMERIS for the year 1820
heliocentric

MAY 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
M 1	14 35 20	10♁29'54	10♁34	15♃28	12♄29	12♄11	6♁12	4♃49	26♁17	29♁11	27♁14	29♁10
T 2	14 39 16	11°28'02	11°34	18°13	14° 7	12°38	6°18	4°51	26°18	29°12	27°14	29°11
W 3	14 43 13	12°26'08	12°33	20°58	15°44	13° 4	6°23	4°53	26°19	29°12	27°14	29°11
T 4	14 47 9	13°24'13	13°32	23°44	17°21	13°30	6°29	4°56	26°19	29°13	27°14	29°12
F 5	14 51 6	14°22'16	14°31	26°31	18°59	13°57	6°34	4°58	26°20	29°13	27°14	29°12
S 6	14 55 2	15°20'18	15°29	29°18	20°36	14°23	6°39	5° 0	26°21	29°13	27°15	29°13
S 7	14 58 59	16°18'18	16°26	2♃ 7	22°13	14°49	6°45	5° 2	26°21	29°14	27°15	29°14
M 8	15 2 56	17°16'18	17°23	4°57	23°50	15°16	6°50	5° 4	26°22	29°14	27°15	29°14
T 9	15 6 52	18°14'15	18°20	7°49	25°28	15°42	6°56	5° 6	26°23	29°14	27°15	29°15
W10	15 10 49	19°12'12	19°17	10°43	27° 5	16° 8	7° 1	5° 8	26°23	29°15	27°15	29°15
T 11	15 14 45	20°10'07	20°13	13°38	28°42	16°35	7° 6	5°10	26°24	29°15	27°15	29°16
F 12	15 18 42	21° 8'01	21° 9	16°36	0♁19	17° 1	7°12	5°12	26°25	29°15	27°16	29°17
S 13	15 22 38	22° 5'54	22° 5	19°37	1°56	17°27	7°17	5°14	26°26	29°16	27°16	29°17
S 14	15 26 35	23° 3'44	23° 1	22°41	3°33	17°54	7°23	5°16	26°26	29°16	27°16	29°18
M15	15 30 31	24° 1'34	23°57	25°47	5°10	18°20	7°28	5°18	26°27	29°16	27°16	29°18
T 16	15 34 28	24°59'22	24°53	28°58	6°47	18°47	7°34	5°20	26°28	29°17	27°16	29°19
W17	15 38 25	25°57'08	25°50	2♁11	8°24	19°13	7°39	5°22	26°28	29°17	27°17	29°20
T 18	15 42 21	26°54'53	26°47	5°29	10° 1	19°39	7°44	5°24	26°29	29°18	27°17	29°20
F 19	15 46 18	27°52'36	27°44	8°51	11°38	20° 6	7°50	5°26	26°30	29°18	27°17	29°21
S 20	15 50 14	28°50'17	28°41	12°18	13°15	20°32	7°55	5°28	26°30	29°18	27°17	29°21
S 21	15 54 11	29°47'57	29°39	15°49	14°52	20°59	8° 1	5°30	26°31	29°19	27°17	29°22
M22	15 58 7	0♁45'35	0♁37	19°26	16°28	21°25	8° 6	5°32	26°32	29°19	27°18	29°23
T 23	16 2 4	1°43'11	1°36	23° 9	18° 5	21°52	8°11	5°34	26°33	29°19	27°18	29°23
W24	16 6 0	2°40'47	2°34	26°57	19°42	22°18	8°17	5°36	26°33	29°20	27°18	29°24
T 25	16 9 57	3°38'20	3°33	0♁52	21°18	22°45	8°22	5°38	26°34	29°20	27°18	29°24
F 26	16 13 54	4°35'53	4°32	4°54	22°55	23°11	8°28	5°40	26°35	29°20	27°18	29°25
S 27	16 17 50	5°33'24	5°32	9° 3	24°31	23°38	8°33	5°42	26°35	29°21	27°18	29°26
S 28	16 21 47	6°30'55	6°31	13°19	26° 8	24° 4	8°39	5°44	26°36	29°21	27°19	29°26
M29	16 25 43	7°28'24	7°30	17°44	27°44	24°31	8°44	5°46	26°37	29°21	27°19	29°27
T 30	16 29 40	8°25'52	8°30	22°16	29°21	24°58	8°49	5°49	26°37	29°22	27°19	29°27
W31	16 33 36	9♁23'19	9♁29	26♁57	0♁57	25♄24	8♁55	5♃51	26♁38	29♁22	27♁19	29♁28

Delta T = 11.58 sec.

JUNE 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
T 1	16 37 33	10♁20'46	10♁27	1♃47	2♁33	25♄51	9♁ 0	5♃53	26♁39	29♁23	27♁19	29♁29
F 2	16 41 29	11°18'12	11°26	6°46	4°10	26°18	9° 6	5°55	26°40	29°23	27°20	29°29
S 3	16 45 26	12°15'37	12°24	11°54	5°46	26°44	9°11	5°57	26°40	29°23	27°20	29°30
S 4	16 49 23	13°13'01	13°21	17°10	7°22	27°11	9°17	5°59	26°41	29°24	27°20	29°30
M 5	16 53 19	14°10'25	14°18	22°36	8°58	27°38	9°22	6° 1	26°42	29°24	27°20	29°31
T 6	16 57 16	15° 7'48	15°15	28°11	10°34	28° 4	9°27	6° 3	26°42	29°24	27°20	29°32
W 7	17 1 12	16° 5'11	16°11	3♁55	12°10	28°31	9°33	6° 5	26°43	29°25	27°20	29°32
T 8	17 5 9	17° 2'33	17° 7	9°46	13°46	28°58	9°38	6° 7	26°44	29°25	27°21	29°33
F 9	17 9 5	17°59'55	18° 3	15°45	15°22	29°25	9°44	6° 9	26°44	29°25	27°21	29°33
S 10	17 13 2	18°57'16	18°59	21°50	16°58	29°51	9°49	6°11	26°45	29°26	27°21	29°34
S 11	17 16 58	19°54'36	19°54	28° 0	18°34	0♁18	9°55	6°13	26°46	29°26	27°21	29°35
M12	17 20 55	20°51'56	20°50	4♁15	20°10	0°45	10° 0	6°15	26°47	29°26	27°21	29°35
T 13	17 24 52	21°49'15	21°45	10°33	21°45	1°12	10° 5	6°17	26°47	29°27	27°22	29°36
W14	17 28 48	22°46'33	22°41	16°52	23°21	1°39	10°11	6°19	26°48	29°27	27°22	29°36
T 15	17 32 45	23°43'51	23°37	23°11	24°57	2° 6	10°16	6°21	26°49	29°28	27°22	29°37
F 16	17 36 41	24°41'08	24°33	29°28	26°32	2°32	10°22	6°23	26°49	29°28	27°22	29°38
S 17	17 40 38	25°38'23	25°30	5♁43	28° 8	2°59	10°27	6°25	26°50	29°28	27°22	29°38
S 18	17 44 34	26°35'39	26°27	11°53	29°43	3°26	10°33	6°27	26°51	29°29	27°23	29°39
M19	17 48 31	27°32'53	27°24	17°57	1♁19	3°53	10°38	6°29	26°51	29°29	27°23	29°39
T 20	17 52 28	28°30'07	28°21	23°54	2°54	4°20	10°43	6°31	26°52	29°29	27°23	29°40
W21	17 56 24	29°27'20	29°19	29°44	4°30	4°47	10°49	6°33	26°53	29°30	27°23	29°41
T 22	18 0 21	0♁24'33	0♁17	5♁25	6° 5	5°14	10°54	6°35	26°54	29°30	27°23	29°41
F 23	18 4 17	1°21'45	1°16	10°57	7°41	5°41	11° 0	6°38	26°54	29°30	27°23	29°42
S 24	18 8 14	2°18'56	2°15	16°20	9°16	6° 8	11° 5	6°40	26°55	29°31	27°24	29°42
S 25	18 12 10	3°16'08	3°14	21°33	10°51	6°36	11°11	6°42	26°56	29°31	27°24	29°43
M26	18 16 7	4°13'19	4°13	26°37	12°26	7° 3	11°16	6°44	26°56	29°32	27°24	29°44
T 27	18 20 3	5°10'29	5°12	1♁31	14° 2	7°30	11°22	6°46	26°57	29°32	27°24	29°44
W28	18 24 0	6° 7'40	6°11	6°15	15°37	7°57	11°27	6°48	26°58	29°32	27°24	29°45
T 29	18 27 57	7° 4'51	7°10	10°50	17°12	8°24	11°32	6°50	26°58	29°33	27°25	29°45
F 30	18 31 53	8♁ 2'01	8♁ 8	15♄17	18♁47	8♁51	11♁38	6♃52	26♁59	29♁33	27♁25	29♁46

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SWISS EPHEMERIS for the year 1820
heliocentric

JULY 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
S 1	18 35 50	8 ⁵⁹ 51'12	9 ³ 7	19 ¹⁷ 35	20 ²⁷ 22	9 ¹⁹ 19	11 ¹⁴ 43	6 ⁵⁴ 54	27 ²⁷ 0	29 ²⁷ 33	27 ²⁵ 25	29 ²⁷ 47
S 2	18 39 46	9 ⁵⁶ 23	10° 5	23°45	21°57	9°46	11°49	6°56	27° 1	29°34	27°25	29°47
M 3	18 43 43	10°53'34	11° 2	27°47	23°32	10°13	11°54	6°58	27° 1	29°34	27°25	29°48
T 4	18 47 39	11°50'46	11°59	1 ⁴² 42	25° 7	10°41	12° 0	7° 0	27° 2	29°34	27°26	29°48
W 5	18 51 36	12°47'58	12°56	5°31	26°42	11° 8	12° 5	7° 2	27° 3	29°35	27°26	29°49
T 6	18 55 32	13°45'10	13°52	9°13	28°17	11°35	12°10	7° 4	27° 3	29°35	27°26	29°50
F 7	18 59 29	14°42'23	14°48	12°49	29°52	12° 3	12°16	7° 6	27° 4	29°35	27°26	29°50
S 8	19 3 26	15°39'36	15°44	16°19	1 ²⁷ 27	12°30	12°21	7° 8	27° 5	29°36	27°26	29°51
S 9	19 7 22	16°36'50	16°39	19°45	3° 2	12°58	12°27	7°10	27° 5	29°36	27°26	29°51
M10	19 11 19	17°34'04	17°35	23° 6	4°37	13°25	12°32	7°12	27° 6	29°37	27°27	29°52
T 11	19 15 15	18°31'18	18°30	26°22	6°12	13°53	12°38	7°14	27° 7	29°37	27°27	29°53
W12	19 19 12	19°28'32	19°26	29°34	7°47	14°20	12°43	7°16	27° 8	29°37	27°27	29°53
T 13	19 23 8	20°25'47	20°21	2 ⁴³ 43	9°22	14°48	12°49	7°18	27° 8	29°38	27°27	29°54
F 14	19 27 5	21°23'02	21°17	5°48	10°57	15°15	12°54	7°20	27° 9	29°38	27°27	29°54
S 15	19 31 1	22°20'17	22°13	8°50	12°32	15°43	12°59	7°22	27°10	29°38	27°28	29°55
S 16	19 34 58	23°17'32	23° 9	11°49	14° 7	16°11	13° 5	7°25	27°10	29°39	27°28	29°56
M17	19 38 55	24°14'47	24° 6	14°46	15°41	16°38	13°10	7°27	27°11	29°39	27°28	29°56
T 18	19 42 51	25°12'02	25° 3	17°41	17°16	17° 6	13°16	7°29	27°12	29°39	27°28	29°57
W19	19 46 48	26° 9'18	26° 0	20°33	18°51	17°34	13°21	7°31	27°12	29°40	27°28	29°57
T 20	19 50 44	27° 6'34	26°58	23°24	20°26	18° 2	13°27	7°33	27°13	29°40	27°28	29°58
F 21	19 54 41	28° 3'51	27°56	26°13	22° 1	18°30	13°32	7°35	27°14	29°40	27°29	29°59
S 22	19 58 37	29° 1'08	28°55	29° 1	23°36	18°57	13°38	7°37	27°14	29°41	27°29	29°59
S 23	20 2 34	29°58'25	29°54	1 ⁴⁸ 48	25°11	19°25	13°43	7°39	27°15	29°41	27°29	29°59
M24	20 6 31	0 ⁵⁵ 43	0 ⁵³ 53	4°34	26°45	19°53	13°48	7°41	27°16	29°42	27°29	0° 0
T 25	20 10 27	1°53'02	1°52	7°19	28°20	20°21	13°54	7°43	27°17	29°42	27°29	0° 1
W26	20 14 24	2°50'21	2°51	10° 4	29°55	20°49	13°59	7°45	27°17	29°42	27°30	0° 2
T 27	20 18 20	3°47'41	3°50	12°49	1 ³⁰ 30	21°17	14° 5	7°47	27°18	29°43	27°30	0° 2
F 28	20 22 17	4°45'01	4°49	15°34	3° 5	21°45	14°10	7°49	27°19	29°43	27°30	0° 3
S 29	20 26 13	5°42'23	5°48	18°18	4°40	22°13	14°16	7°51	27°19	29°43	27°30	0° 3
S 30	20 30 10	6°39'46	6°47	21° 4	6°14	22°41	14°21	7°53	27°20	29°44	27°30	0° 4
MB1	20 34 6	7 ³⁷ 09	7 ⁴⁵ 45	23 ⁴⁹ 49	7 ⁴⁹ 49	23 ¹⁰ 10	14 ²⁷ 27	7 ⁵⁵ 55	27 ²¹ 21	29 ⁴⁴ 44	27 ³¹ 31	0 ⁴ 5

Delta T = 11.53 sec.

AUGUST 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
T 1	20 38 3	8 ³⁴ 35	8 ⁴³ 43	26 ³⁶ 36	9 ²⁴ 24	23 ³⁸ 38	14 ³² 32	7 ⁵⁷ 57	27 ²¹ 21	29 ⁴⁴ 44	27 ³¹ 31	0 ⁴ 5
W 2	20 42 0	9°32'01	9°40	29°24	10°59	24° 6	14°38	7°59	27°22	29°45	27°31	0° 6
T 3	20 45 56	10°29'29	10°38	2 ¹² 12	12°34	24°34	14°43	8° 1	27°23	29°45	27°31	0° 6
F 4	20 49 53	11°26'58	11°34	5° 3	14° 9	25° 3	14°48	8° 3	27°24	29°45	27°31	0° 7
S 5	20 53 49	12°24'28	12°31	7°54	15°44	25°31	14°54	8° 5	27°24	29°46	27°31	0° 8
S 6	20 57 46	13°22'00	13°27	10°48	17°19	25°59	14°59	8° 8	27°25	29°46	27°32	0° 8
M 7	21 1 42	14°19'33	14°23	13°44	18°54	26°28	15° 5	8°10	27°26	29°47	27°32	0° 9
T 8	21 5 39	15°17'07	15°19	16°42	20°29	26°56	15°10	8°12	27°26	29°47	27°32	0° 9
W 9	21 9 35	16°14'42	16°15	19°43	22° 4	27°25	15°16	8°14	27°27	29°47	27°32	0°10
T 10	21 13 32	17°12'18	17°10	22°47	23°38	27°53	15°21	8°16	27°28	29°48	27°32	0°11
F 11	21 17 29	18° 9'55	18° 6	25°54	25°13	28°22	15°27	8°18	27°28	29°48	27°33	0°11
S 12	21 21 25	19° 7'34	19° 2	29° 4	26°48	28°50	15°32	8°20	27°29	29°48	27°33	0°12
S 13	21 25 22	20° 5'13	19°59	2 ¹⁸ 18	28°24	29°19	15°38	8°22	27°30	29°49	27°33	0°12
M14	21 29 18	21° 2'54	20°55	5°36	29°59	29°48	15°43	8°24	27°31	29°49	27°33	0°13
T 15	21 33 15	22° 0'36	21°52	8°58	1 ³⁴ 34	0 ¹⁶ 16	15°48	8°26	27°31	29°49	27°33	0°14
W16	21 37 11	22°58'18	22°50	12°25	3° 9	0°45	15°54	8°28	27°32	29°50	27°33	0°14
T 17	21 41 8	23°56'02	23°47	15°56	4°44	1°14	15°59	8°30	27°33	29°50	27°34	0°15
F 18	21 45 4	24°53'48	24°45	19°33	6°19	1°43	16° 5	8°32	27°33	29°50	27°34	0°15
S 19	21 49 1	25°51'34	25°44	23°16	7°54	2°12	16°10	8°34	27°34	29°51	27°34	0°16
S 20	21 52 58	26°49'21	26°43	27° 5	9°29	2°41	16°16	8°36	27°35	29°51	27°34	0°17
M21	21 56 54	27°47'10	27°42	1 ⁰ 0	11° 4	3°10	16°21	8°38	27°35	29°52	27°34	0°17
T 22	22 0 51	28°45'00	28°41	5° 2	12°40	3°39	16°27	8°40	27°36	29°52	27°35	0°18
W23	22 4 47	29°42'51	29°41	9°11	14°15	4° 8	16°32	8°42	27°37	29°52	27°35	0°18
T 24	22 8 44	0 ⁴⁰ 44	0 ⁴¹ 41	13°28	15°50	4°37	16°38	8°44	27°38	29°53	27°35	0°19
F 25	22 12 40	1°38'38	1°41	17°52	17°25	5° 6	16°43	8°46	27°38	29°53	27°35	0°20
S 26	22 16 37	2°36'34	2°41	22°25	19° 1	5°35	16°48	8°49	27°39	29°53	27°35	0°20
S 27	22 20 33	3°34'31	3°40	27° 6	20°36	6° 4	16°54	8°51	27°40	29°54	27°36	0°21
M28	22 24 30	4°32'31	4°39	1 ⁵⁶ 56	22°11	6°33	16°59	8°53	27°40	29°54	27°36	0°21
T 29	22 28 27	5°30'32	5°38	6°55	23°47	7° 3	17° 5	8°55	27°41	29°54	27°36	0°22
W30	22 32 23	6°28'35	6°37	12° 3	25°22	7°32	17°10	8°57	27°42	29°55	27°36	0°23
T 31	22 36 20	7 ²⁶ 40	7 ³⁵ 35	17 ²¹ 21	26 ⁵⁷ 57	8 ¹⁶ 16	17 ¹⁶ 16	8 ⁵⁹ 59	27 ⁴² 42	29 ⁵⁵ 55	27 ³⁶ 36	0 ²³ 23

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SWISS EPHEMERIS for the year 1820
heliocentric

SEPTEMBER 1820

00:00 UT

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

Delta T = 11.48 sec.

OCTOBER 1820

00:00 UT

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

Delta T = 11.45 sec.

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SWISS EPHEMERIS for the year 1820
heliocentric

NOVEMBER 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♃
W 1	2 40 46	8♃30'39	8♃38	8♃ 0	6♁24	9♂59	22♁55	11♃ 6	28♂26	0♃17	27♁48	1♃ 0
T 2	2 44 43	9°30'48	9°37	10°54	8° 1	10°32	23° 0	11° 8	28°26	0°18	27°48	1° 1
F 3	2 48 39	10°30'59	10°36	13°50	9°38	11° 5	23° 6	11°10	28°27	0°18	27°48	1° 2
S 4	2 52 36	11°31'11	11°35	16°48	11°15	11°37	23°11	11°12	28°28	0°18	27°48	1° 2
S 5	2 56 32	12°31'26	12°33	19°49	12°52	12°10	23°17	11°14	28°28	0°19	27°48	1° 3
M 6	3 0 29	13°31'43	13°32	22°53	14°30	12°43	23°22	11°16	28°29	0°19	27°49	1° 3
T 7	3 4 25	14°32'01	14°30	26° 0	16° 7	13°16	23°28	11°19	28°30	0°19	27°49	1° 4
W 8	3 8 22	15°32'21	15°29	29°10	17°44	13°49	23°33	11°21	28°30	0°20	27°49	1° 5
T 9	3 12 18	16°32'43	16°28	2♁24	19°21	14°22	23°39	11°23	28°31	0°20	27°49	1° 5
F 10	3 16 15	17°33'06	17°27	5°42	20°59	14°55	23°44	11°25	28°32	0°20	27°49	1° 6
S 11	3 20 12	18°33'31	18°26	9° 4	22°36	15°28	23°50	11°27	28°33	0°21	27°50	1° 6
S 12	3 24 8	19°33'57	19°26	12°31	24°14	16° 1	23°55	11°29	28°33	0°21	27°50	1° 7
M13	3 28 5	20°34'24	20°26	16° 3	25°51	16°35	24° 1	11°31	28°34	0°22	27°50	1° 8
T 14	3 32 1	21°34'53	21°26	19°40	27°28	17° 8	24° 6	11°33	28°35	0°22	27°50	1° 8
W15	3 35 58	22°35'23	22°27	23°23	29° 6	17°41	24°12	11°35	28°35	0°22	27°50	1° 9
T 16	3 39 54	23°35'54	23°29	27°12	0♁43	18°15	24°17	11°37	28°36	0°23	27°51	1° 9
F 17	3 43 51	24°36'26	24°31	1♁ 8	2°21	18°48	24°23	11°39	28°37	0°23	27°51	1°10
S 18	3 47 47	25°37'00	25°33	5°10	3°58	19°22	24°28	11°41	28°37	0°23	27°51	1°11
S 19	3 51 44	26°37'35	26°35	9°19	5°36	19°55	24°34	11°43	28°38	0°24	27°51	1°11
M20	3 55 41	27°38'11	27°38	13°36	7°13	20°29	24°39	11°45	28°39	0°24	27°51	1°12
T 21	3 59 37	28°38'49	28°41	18° 1	8°51	21° 3	24°45	11°47	28°40	0°24	27°51	1°12
W22	4 3 34	29°39'28	29°43	22°34	10°28	21°36	24°50	11°49	28°40	0°25	27°52	1°13
T 23	4 7 30	0♁40'09	0♁45	27°15	12° 6	22°10	24°56	11°51	28°41	0°25	27°52	1°14
F 24	4 11 27	1°40'52	1°48	2♃ 6	13°43	22°44	25° 1	11°54	28°42	0°25	27°52	1°14
S 25	4 15 23	2°41'36	2°50	7° 5	15°21	23°18	25° 7	11°56	28°42	0°26	27°52	1°15
S 26	4 19 20	3°42'21	3°51	12°13	16°58	23°52	25°12	11°58	28°43	0°26	27°52	1°15
M27	4 23 16	4°43'08	4°52	17°31	18°36	24°26	25°18	12° 0	28°44	0°27	27°53	1°16
T 28	4 27 13	5°43'56	5°53	22°57	20°13	25° 0	25°23	12° 2	28°44	0°27	27°53	1°17
W29	4 31 10	6°44'46	6°54	28°33	21°51	25°34	25°29	12° 4	28°45	0°27	27°53	1°17
T 30	4 35 6	7♁45'37	7♁54	4♃17	23♁28	26♂ 9	25♁34	12♃ 6	28♂46	0♃28	27♁53	1♃18

Delta T = 11.43 sec.

DECEMBER 1820

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♃
F 1	4 39 3	8♁46'30	8♁54	10♃ 8	25♁ 6	26♂43	25♁40	12♃ 8	28♂46	0♃28	27♁53	1♃18
S 2	4 42 59	9°47'24	9°54	16° 7	26°44	27°17	25°45	12°10	28°47	0°28	27°53	1°19
S 3	4 46 56	10°48'19	10°53	22°13	28°21	27°52	25°50	12°12	28°48	0°29	27°54	1°20
M 4	4 50 52	11°49'16	11°52	28°24	29°59	28°26	25°56	12°14	28°49	0°29	27°54	1°20
T 5	4 54 49	12°50'13	12°52	4♁39	1♁36	29° 1	26° 1	12°16	28°49	0°29	27°54	1°21
W 6	4 58 45	13°51'12	13°51	10°56	3°14	29°35	26° 7	12°18	28°50	0°30	27°54	1°21
T 7	5 2 42	14°52'12	14°50	17°15	4°51	0♃10	26°12	12°20	28°51	0°30	27°54	1°22
F 8	5 6 39	15°53'12	15°49	23°34	6°29	0°44	26°18	12°22	28°51	0°30	27°55	1°23
S 9	5 10 35	16°54'13	16°48	29°52	8° 6	1°19	26°23	12°25	28°52	0°31	27°55	1°23
S 10	5 14 32	17°55'15	17°48	6♁ 6	9°44	1°54	26°29	12°27	28°53	0°31	27°55	1°24
M11	5 18 28	18°56'17	18°48	12°16	11°21	2°29	26°34	12°29	28°53	0°32	27°55	1°24
T 12	5 22 25	19°57'20	19°49	18°19	12°58	3° 4	26°40	12°31	28°54	0°32	27°55	1°25
W13	5 26 21	20°58'23	20°50	24°16	14°36	3°39	26°45	12°33	28°55	0°32	27°56	1°26
T 14	5 30 18	21°59'27	21°51	0♁ 6	16°13	4°14	26°51	12°35	28°56	0°33	27°56	1°26
F 15	5 34 15	23° 0'30	22°53	5°46	17°51	4°49	26°56	12°37	28°56	0°33	27°56	1°27
S 16	5 38 11	24° 1'35	23°55	11°18	19°28	5°24	27° 2	12°39	28°57	0°33	27°56	1°27
S 17	5 42 8	25° 2'39	24°58	16°40	21° 5	5°59	27° 7	12°41	28°58	0°34	27°56	1°28
M18	5 46 4	26° 3'44	26° 1	21°52	22°42	6°34	27°13	12°43	28°58	0°34	27°56	1°29
T 19	5 50 1	27° 4'50	27° 4	26°55	24°20	7°10	27°18	12°45	28°59	0°34	27°57	1°29
W20	5 53 57	28° 5'56	28° 7	1♁49	25°57	7°45	27°24	12°47	29° 0	0°35	27°57	1°30
T 21	5 57 54	29° 7'02	29°10	6°33	27°34	8°20	27°29	12°49	29° 0	0°35	27°57	1°30
F 22	6 1 50	0♃ 8'09	0♃12	11° 7	29°11	8°56	27°35	12°51	29° 1	0°35	27°57	1°31
S 23	6 5 47	1° 9'16	1°15	15°33	0♁48	9°31	27°40	12°53	29° 2	0°36	27°57	1°32
S 24	6 9 44	2°10'24	2°18	19°51	2°25	10° 7	27°46	12°56	29° 2	0°36	27°58	1°32
M25	6 13 40	3°11'32	3°20	24° 0	4° 3	10°42	27°51	12°58	29° 3	0°37	27°58	1°33
T 26	6 17 37	4°12'41	4°22	28° 2	5°40	11°18	27°57	13° 0	29° 4	0°37	27°58	1°33
W27	6 21 33	5°13'50	5°23	1♁57	7°17	11°54	28° 2	13° 2	29° 5	0°37	27°58	1°34
T 28	6 25 30	6°14'59	6°24	5°45	8°53	12°29	28° 8	13° 4	29° 5	0°38	27°58	1°35
F 29	6 29 26	7°16'09	7°25	9°27	10°30	13° 5	28°13	13° 6	29° 6	0°38	27°58	1°35
S 30	6 33 23	8°17'20	8°26	13° 2	12° 7	13°41	28°19	13° 8	29° 7	0°38	27°59	1°36
S 31	6 37 19	9♁18'31	9♁26	16♁33	13♁44	14♃17	28♁24	13♃10	29♂ 7	0♃39	27♁59	1♃36

Delta T = 11.40 sec.

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