



# Astrodienst Ephemeris Tables for the year 1557

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 D5EPH

# ASTRODIENST EPHEMERIS for the year 1557

## geocentric

JANUARY 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	7 20 28	20°37'23	21°35'55	26°55'55	4°30'30	18°14'14	24°12'12	18°32'32	5°53'53	19°25'25	4°18'18	24°R 5	22°36'36	28°52'52	28°37'37	F 1
S 2	7 24 24	21°38'31	4°29'29	28° 2'28	5°36'36	18°39'39	24°25'25	18°35'35	5°54'54	19°25'25	4°19'19	23°35'35	22°33'33	28°59'59	28°40'40	S 2
S 3	7 28 21	22°39'38	17°16'16	29°11'11	6°43'43	19° 5'19	24°37'37	18°37'37	5°56'56	19°24'24	4°21'21	23°43'43	22°30'30	29° 5'29	28°44'44	S 3
M 4	7 32 17	23°40'44	0°16'16	0°23'23	7°49'49	19°30'30	24°50'50	18°40'40	5°57'57	19°24'24	4°22'22	23°33'33	22°27'27	29°12'12	28°47'47	M 4
T 5	7 36 14	24°41'50	13°27'27	1°36'36	8°56'56	19°55'55	25° 3'25	18°42'42	5°59'59	19°23'23	4°23'23	23°24'24	22°24'24	29°19'19	28°50'50	T 5
W 6	7 40 10	25°42'54	26°49'49	2°51'51	10° 3'10	20°20'20	25°16'16	18°45'45	6° 0'00	19°23'23	4°25'25	23°18'18	22°20'20	29°25'25	28°54'54	W 6
T 7	7 44 7	26°43'57	10°23'23	4° 7'07	11°11'11	20°45'45	25°29'29	18°48'48	6° 2'02	19°22'22	4°26'26	23°14'14	22°17'17	29°32'32	28°57'57	T 7
F 8	7 48 3	27°45'00	24° 9'09	5°25'25	12°18'18	21° 9'09	25°41'41	18°51'51	6° 3'03	19°22'22	4°27'27	23°D13	22°14'14	29°39'39	29° 0'00	F 8
S 9	7 52 0	28°46'01	8° 8'08	6°44'44	13°26'26	21°33'33	25°54'54	18°54'54	6° 4'04	19°21'21	4°29'29	23°13'13	22°11'11	29°45'45	29° 2'02	S 9
S 10	7 55 57	29°47'01	22°18'18	8° 5'05	14°34'34	21°57'57	26° 7'07	18°57'57	6° 5'05	19°21'21	4°30'30	23°R14	22° 8'08	29°52'52	29° 5'05	S 10
M 11	7 59 53	0°48'00	6°11'11	9°26'26	15°42'42	22°21'21	26°19'19	19° 1'01	6° 6'06	19°21'21	4°31'31	23°13'13	22° 4'04	29°59'59	29° 8'08	M 11
T 12	8 3 50	1°48'58	21°11'11	10°49'49	16°50'50	22°44'44	26°31'31	19° 4'04	6° 7'07	19°21'21	4°33'33	23°10'10	22° 1'01	0°27'27	29°10'10	T 12
W 13	8 7 46	2°49'55	5°26'26	12°12'12	17°58'58	23° 7'07	26°44'44	19° 8'08	6° 8'08	19°20'20	4°34'34	23° 4'04	21°58'58	0°12'12	29°13'13	W 13
T 14	8 11 43	3°50'50	20°19'19	13°37'37	19° 6'06	23°29'29	26°56'56	19°11'11	6° 9'09	19°20'20	4°36'36	22°56'56	21°55'55	0°19'19	29°15'15	T 14
F 15	8 15 39	4°51'44	4°14'14	15° 2'02	20°15'15	23°52'52	27° 8'08	19°15'15	6°10'10	19°20'20	4°37'37	22°45'45	21°52'52	0°25'25	29°17'17	F 15
S 16	8 19 36	5°52'38	18°54'54	16°29'29	21°24'24	24°13'13	27°21'21	19°19'19	6°11'11	19°20'20	4°39'39	22°33'33	21°49'49	0°32'32	29°19'19	S 16
S 17	8 23 33	6°53'30	2°14'14	17°56'56	22°33'33	24°35'35	27°33'33	19°23'23	6°12'12	19°20'20	4°40'40	22°22'22	21°45'45	0°39'39	29°21'21	S 17
M 18	8 27 29	7°54'21	16° 9'09	19°25'25	23°42'42	24°56'56	27°45'45	19°27'27	6°12'12	19°20'20	4°41'41	22°11'11	21°42'42	0°45'45	29°23'23	M 18
T 19	8 31 26	8°55'11	29° 9'09	20°54'54	24°51'51	25°17'17	27°57'57	19°31'31	6°13'13	19°20'20	4°43'43	22° 3'03	21°39'39	0°52'52	29°25'25	T 19
W 20	8 35 22	9°56'00	11°14'14	22°23'23	26° 0'00	25°38'38	28° 9'09	19°35'35	6°14'14	19°20'20	4°44'44	21°57'57	21°36'36	0°58'58	29°26'26	W 20
T 21	8 39 19	10°56'48	24° 4'04	23°54'54	27°10'10	25°58'58	28°20'20	19°39'39	6°14'14	19°20'20	4°46'46	21°54'54	21°33'33	1° 5'05	29°28'28	T 21
F 22	8 43 15	11°57'35	6°11'11	25°26'26	28°19'19	26°18'18	28°32'32	19°43'43	6°15'15	19°20'20	4°47'47	21°53'53	21°30'30	1°12'12	29°29'29	F 22
S 23	8 47 12	12°58'22	17°58'58	26°58'58	29°29'29	26°38'38	28°44'44	19°48'48	6°15'15	19°20'20	4°49'49	21°53'53	21°26'26	1°18'18	29°30'30	S 23
S 24	8 51 8	13°59'07	29°45'45	28°31'31	0°33'33	26°57'57	28°56'56	19°52'52	6°16'16	19°20'20	4°51'51	21°52'52	21°23'23	1°25'25	29°31'31	S 24
M 25	8 55 5	14°59'51	11°13'13	0°45'45	1°48'48	27°16'16	29° 7'07	19°57'57	6°16'16	19°20'20	4°52'52	21°51'51	21°20'20	1°32'32	29°32'32	M 25
T 26	8 59 1	16° 0'34	23°28'28	1°40'40	2°58'58	27°34'34	29°19'19	20° 1'01	6°16'16	19°20'20	4°54'54	21°48'48	21°17'17	1°38'38	29°33'33	T 26
W 27	9 2 58	17° 1'16	5°33'33	3°16'16	4° 8'08	27°52'52	29°30'30	20° 6'06	6°16'16	19°21'21	4°55'55	21°41'41	21°14'14	1°45'45	29°34'34	W 27
T 28	9 6 55	18° 1'56	17°52'52	4°52'52	5°19'19	28°10'10	29°41'41	20°11'11	6°17'17	19°21'21	4°57'57	21°32'32	21°10'10	1°52'52	29°34'34	T 28
F 29	9 10 51	19° 2'36	0°27'27	6°29'29	6°29'29	28°27'27	29°52'52	20°16'16	6°17'17	19°21'21	4°58'58	21°20'20	21° 7'07	1°58'58	29°35'35	F 29
S 30	9 14 48	20° 3'13	13°19'19	8° 7'07	7°39'39	28°44'44	0°34'34	20°21'21	6°R17	19°21'21	5° 0'00	21° 7'07	21° 4'04	2° 5'05	29°35'35	S 30
S 31	9 18 44	21°35'50	26°28'28	9°46'46	8°35'35	29°14'14	0°35'35	20°26'26	6°R17	19°22'22	5°11'11	20°33'33	21° 8'08	2°12'12	29°36'36	S 31

Delta T = 164.88 sec

Julian Calendar 1 Jan. 1557 == Greg. Calendar 11 Jan. 1557

FEBRUARY 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day	
M 1	9 22 41	22≈ 4'24	9℔51	11≈26	10℔3	0	29♁16	0℔26	20℔31	6°R17	19♁22	5℔3	20°R40	20♁58	2♁18	29♁36	M 1
T 2	9 26 37	23° 4'57	23°27	13° 7	11°11	29°31	0°36	20°36	6℔17	19°23	5° 5	20♁29	20°55	2°25	29°R36	T 2	
W 3	9 30 34	24° 5'29	7℔12	14°49	12°21	29°46	0°47	20°42	6°16	19°23	5° 6	20°21	20°51	2°32	29°36	W 3	
T 4	9 34 30	25° 5'58	21° 3	16°32	13°32	0℔1	0°58	20°47	6°16	19°24	5° 8	20°16	20°48	2°38	29°35	T 4	
F 5	9 38 27	26° 6'26	5♁0	18°15	14°43	0°14	1° 8	20°52	6°16	19°24	5° 9	20°14	20°45	2°45	29°35	F 5	
S 6	9 42 24	27° 6'51	19° 1	20° 0	15°54	0°28	1°19	20°58	6°16	19°25	5°11	20°13	20°42	2°51	29°35	S 6	
S 7	9 46 20	28° 7'15	3℔5	21°45	17° 5	0°40	1°29	21° 4	6°15	19°25	5°13	20°13	20°39	2°58	29°34	S 7	
M 8	9 50 17	29° 7'37	17°13	23°32	18°16	0°53	1°39	21° 9	6°15	19°26	5°14	20°13	20°35	3° 5	29°33	M 8	
T 9	9 54 13	0℔7'57	1♁22	25°19	19°27	1° 5	1°50	21°15	6°14	19°27	5°16	20°10	20°32	3°11	29°33	T 9	
W10	9 58 10	1° 8'14	15°30	27° 7	20°38	1°16	2° 0	21°21	6°14	19°28	5°18	20° 4	20°29	3°18	29°32	W10	
T11	10 2 6	2° 8'30	29°36	28°57	21°49	1°27	2°10	21°27	6°13	19°28	5°19	19°55	20°26	3°25	29°31	T11	
F12	10 6 3	3° 8'44	13♁34	0℔47	23° 1	1°37	2°19	21°33	6°12	19°29	5°21	19°44	20°23	3°31	29°30	F12	
S13	10 10 0	4° 8'56	27°21	2°38	24°12	1°46	2°29	21°38	6°12	19°30	5°22	19°32	20°20	3°38	29°28	S13	
S14	10 13 56	5° 9'06	10℔52	4°31	25°23	1°55	2°39	21°45	6°11	19°31	5°24	19°20	20°16	3°45	29°27	S14	
M15	10 17 53	6° 9'14	24° 5	6°24	26°35	2° 4	2°48	21°51	6°10	19°32	5°26	19° 9	20°13	3°51	29°26	M15	
T16	10 21 49	7° 9'20	6♁58	8°18	27°46	2°11	2°58	21°57	6° 9	19°32	5°27	19° 0	20°10	3°58	29°24	T16	
W17	10 25 46	8° 9'25	19°32	10°13	28°58	2°19	3° 7	22° 3	6° 8	19°33	5°29	18°53	20° 7	4° 5	29°22	W17	
T18	10 29 42	9° 9'27	1℔49	12° 9	0≈9	2°25	3°16	22° 9	6° 7	19°34	5°31	18°50	20° 4	4°11	29°21	T18	
F19	10 33 39	10° 9'29	13°51	14° 5	1°21	2°31	3°25	22°16	6° 6	19°35	5°32	18°D48	20° 1	4°18	29°19	F19	
S20	10 37 35	11° 9'28	25°44	16° 2	2°33	2°36	3°34	22°22	6° 5	19°36	5°34	18°48	19°57	4°25	29°17	S20	
S21	10 41 32	12° 9'26	7♁33	17°59	3°44	2°41	3°43	22°29	6° 4	19°38	5°35	18°R49	19°54	4°31	29°15	S21	
M22	10 45 28	13° 9'23	19°22	19°57	4°56	2°45	3°51	22°35	6° 3	19°39	5°37	18°49	19°51	4°38	29°12	M22	
T23	10 49 25	14° 9'17	1℔18	21°54	6° 8	2°48	4° 0	22°42	6° 2	19°40	5°39	18°47	19°48	4°44	29°10	T23	
W24	10 53 22	15° 9'10	13°25	23°51	7°20	2°50	4° 8	22°48	6° 1	19°41	5°40	18°43	19°45	4°51	29° 8	W24	
T25	10 57 18	16° 9'01	25°49	25°48	8°32	2°52	4°17	22°55	5°59	19°42	5°42	18°37	19°41	4°58	29° 5	T25	
F26	11 1 15	17° 8'51	8≈31	27°44	9°44	2°53	4°25	23° 2	5°58	19°43	5°43	18°29	19°38	5° 4	29° 3	F26	
S27	11 5 11	18° 8'38	21°35	29°39	10°56	2°R54	4°33	23° 8	5°57	19°45	5°45	18°19	19°35	5°11	29° 0	S27	
S28	11 9 8	19℔8'24	5℔0	1℔33	12≈8	2℔53	4℔41	23℔15	5℔55	19♁46	5℔47	18♁8	19♁32	5♁18	28♁57	S28	

# ASTRODIENST EPHEMERIS for the year 1557

## geocentric

MARCH 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	11 13 4	20° 8'07"	18° 44'	3° 25'	13° 20'	2° 52'	4° 48'	23° 22'	5° 54'	19° 47'	5° 48'	17° 58'	19° 29'	5° 24'	28° 54'	M 1
T 2	11 17 1	21° 7'49"	2° 44'	5° 14'	14° 32'	2° 50'	4° 56'	23° 29'	5° 52'	19° 48'	5° 50'	17° 50'	19° 26'	5° 31'	28° 51'	T 2
W 3	11 20 57	22° 7'29"	16° 56'	7° 1'	15° 44'	2° 47'	5° 3'	23° 36'	5° 51'	19° 50'	5° 51'	17° 44'	19° 22'	5° 38'	28° 48'	W 3
T 4	11 24 54	23° 7'06"	18° 14'	8° 44'	16° 56'	2° 44'	5° 11'	23° 43'	5° 49'	19° 51'	5° 53'	17° 40'	19° 19'	5° 44'	28° 45'	T 4
F 5	11 28 51	24° 6'41"	15° 33'	10° 24'	18° 8'	2° 40'	5° 18'	23° 50'	5° 47'	19° 53'	5° 55'	17° 39'	19° 16'	5° 51'	28° 42'	F 5
S 6	11 32 47	25° 6'14"	29° 51'	12° 0'	19° 21'	2° 35'	5° 25'	23° 57'	5° 46'	19° 54'	5° 56'	17° 39'	19° 13'	5° 58'	28° 38'	S 6
S 7	11 36 44	26° 5'45"	14° 4'	13° 31'	20° 33'	2° 29'	5° 32'	24° 4'	5° 44'	19° 56'	5° 58'	17° 40'	19° 10'	6° 4'	28° 35'	S 7
M 8	11 40 40	27° 5'13"	28° 11'	14° 57'	21° 45'	2° 23'	5° 39'	24° 11'	5° 42'	19° 57'	5° 59'	17° 41'	19° 7'	6° 11'	28° 32'	M 8
T 9	11 44 37	28° 4'39"	12° 10'	16° 18'	22° 57'	2° 15'	5° 45'	24° 18'	5° 41'	19° 59'	6° 1'	17° 40'	19° 3'	6° 18'	28° 28'	T 9
W10	11 48 33	29° 4'03"	26° 2'	17° 32'	24° 10'	2° 7'	5° 52'	24° 25'	5° 39'	20° 0'	6° 2'	17° 37'	19° 0'	6° 24'	28° 24'	W10
T 11	11 52 30	0° 3'24"	9° 44'	18° 41'	25° 22'	1° 58'	5° 58'	24° 33'	5° 37'	20° 2'	6° 4'	17° 32'	18° 57'	6° 31'	28° 21'	T 11
F 12	11 56 26	1° 2'43"	23° 16'	19° 44'	26° 34'	1° 49'	6° 4'	24° 40'	5° 35'	20° 3'	6° 5'	17° 25'	18° 54'	6° 38'	28° 17'	F 12
S 13	12 0 23	2° 1'59"	6° 36'	20° 40'	27° 47'	1° 39'	6° 10'	24° 47'	5° 33'	20° 5'	6° 7'	17° 17'	18° 51'	6° 44'	28° 13'	S 13
S 14	12 4 20	3° 1'13"	19° 43'	21° 29'	28° 59'	1° 27'	6° 16'	24° 54'	5° 31'	20° 7'	6° 8'	17° 9'	18° 47'	6° 51'	28° 9'	S 14
M15	12 8 16	4° 0'25"	2° 36'	22° 11'	0° 11'	1° 16'	6° 21'	25° 2'	5° 29'	20° 8'	6° 10'	17° 2'	18° 44'	6° 58'	28° 5'	M15
T 16	12 12 13	4° 59'35"	15° 14'	22° 46'	1° 24'	1° 3'	6° 27'	25° 9'	5° 27'	20° 10'	6° 11'	16° 57'	18° 41'	7° 4'	28° 1'	T 16
W17	12 16 9	5° 58'43"	27° 37'	23° 14'	2° 36'	0° 50'	6° 32'	25° 17'	5° 25'	20° 12'	6° 13'	16° 53'	18° 38'	7° 11'	27° 57'	W17
T 18	12 20 6	6° 57'50"	9° 47'	23° 35'	3° 49'	0° 36'	6° 38'	25° 24'	5° 23'	20° 13'	6° 14'	16° 51'	18° 35'	7° 17'	27° 53'	T 18
F 19	12 24 2	7° 56'54"	21° 47'	23° 48'	5° 1'	0° 21'	6° 43'	25° 31'	5° 21'	20° 15'	6° 15'	16° 51'	18° 32'	7° 24'	27° 49'	F 19
S 20	12 27 59	8° 55'56"	3° 39'	23° 55'	6° 14'	0° 6'	6° 47'	25° 39'	5° 18'	20° 17'	6° 17'	16° 52'	18° 28'	7° 31'	27° 45'	S 20
S 21	12 31 55	9° 54'57"	15° 27'	23° 54'	7° 26'	29° 50'	6° 52'	25° 46'	5° 16'	20° 19'	6° 18'	16° 53'	18° 25'	7° 37'	27° 40'	S 21
M22	12 35 52	10° 53'56"	27° 17'	23° 47'	8° 39'	29° 33'	6° 57'	25° 54'	5° 14'	20° 20'	6° 20'	16° 55'	18° 22'	7° 44'	27° 36'	M22
T 23	12 39 49	11° 52'53"	9° 31'	23° 34'	9° 51'	29° 16'	7° 1'	26° 1'	5° 12'	20° 22'	6° 21'	16° 56'	18° 19'	7° 51'	27° 32'	T 23
W24	12 43 45	12° 51'48"	21° 20'	23° 15'	11° 4'	28° 58'	7° 5'	26° 9'	5° 10'	20° 24'	6° 22'	16° 56'	18° 16'	7° 57'	27° 27'	W24
T 25	12 47 42	13° 50'41"	3° 43'	22° 50'	12° 17'	28° 40'	7° 9'	26° 17'	5° 7'	20° 26'	6° 24'	16° 54'	18° 13'	8° 4'	27° 23'	T 25
F 26	12 51 38	14° 49'33"	16° 26'	22° 20'	13° 29'	28° 21'	7° 13'	26° 24'	5° 5'	20° 28'	6° 25'	16° 51'	18° 9'	8° 11'	27° 18'	F 26
S 27	12 55 35	15° 48'23"	29° 33'	21° 46'	14° 42'	28° 1'	7° 17'	26° 32'	5° 3'	20° 30'	6° 26'	16° 46'	18° 6'	8° 17'	27° 14'	S 27
S 28	12 59 31	16° 47'11"	13° 4'	21° 9'	15° 55'	27° 41'	7° 20'	26° 39'	5° 0'	20° 32'	6° 28'	16° 42'	18° 3'	8° 24'	27° 9'	S 28
M29	13 3 28	17° 45'57"	26° 59'	20° 28'	17° 7'	27° 21'	7° 23'	26° 47'	4° 58'	20° 34'	6° 29'	16° 37'	18° 0'	8° 31'	27° 5'	M29
T 30	13 7 24	18° 44'41"	11° 16'	19° 46'	18° 20'	27° 0'	7° 26'	26° 55'	4° 56'	20° 36'	6° 30'	16° 33'	17° 57'	8° 37'	27° 0'	T 30
W31	13 11 21	19° 43'23"	25° 49'	19° 3'	19° 33'	26° 38'	7° 29'	27° 2'	4° 53'	20° 38'	6° 32'	16° 31'	17° 53'	8° 44'	26° 55'	W31

Delta T = 164.54 sec

Julian Calendar 1 March 1557 = Greg. Calendar 11 March 1557

APRIL 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	13 15 17	20° 42'04"	10° 31'	18° 19'	20° 45'	26° 17'	7° 32'	27° 10'	4° 51'	20° 40'	6° 33'	16° 30'	17° 50'	8° 51'	26° 51'	T 1
F 2	13 19 14	21° 40'42"	25° 17'	17° 36'	21° 58'	25° 55'	7° 35'	27° 18'	4° 48'	20° 42'	6° 34'	16° 30'	17° 47'	8° 57'	26° 46'	F 2
S 3	13 23 11	22° 39'18"	9° 11'	16° 54'	23° 11'	25° 33'	7° 37'	27° 25'	4° 46'	20° 44'	6° 35'	16° 31'	17° 44'	9° 4'	26° 41'	S 3
S 4	13 27 7	23° 37'53"	24° 31'	16° 14'	24° 24'	25° 11'	7° 39'	27° 33'	4° 43'	20° 46'	6° 36'	16° 32'	17° 41'	9° 11'	26° 37'	S 4
M 5	13 31 4	24° 36'24"	8° 50'	15° 36'	25° 36'	24° 48'	7° 41'	27° 41'	4° 41'	20° 48'	6° 38'	16° 33'	17° 38'	9° 17'	26° 32'	M 5
T 6	13 35 0	25° 34'54"	22° 53'	15° 2'	26° 49'	24° 26'	7° 43'	27° 48'	4° 38'	20° 50'	6° 39'	16° 34'	17° 34'	9° 24'	26° 27'	T 6
W 7	13 38 57	26° 33'22"	6° 40'	14° 31'	28° 2'	24° 3'	7° 45'	27° 56'	4° 36'	20° 52'	6° 40'	16° 34'	17° 31'	9° 31'	26° 23'	W 7
T 8	13 42 53	27° 31'47"	20° 10'	14° 5'	29° 15'	23° 41'	7° 46'	28° 4'	4° 33'	20° 54'	6° 41'	16° 33'	17° 28'	9° 37'	26° 18'	T 8
F 9	13 46 50	28° 30'10"	3° 24'	13° 42'	0° 27'	23° 18'	7° 47'	28° 12'	4° 31'	20° 56'	6° 42'	16° 31'	17° 25'	9° 44'	26° 13'	F 9
S 10	13 50 46	29° 28'31"	16° 23'	13° 25'	1° 40'	22° 56'	7° 49'	28° 19'	4° 28'	20° 58'	6° 43'	16° 28'	17° 22'	9° 51'	26° 9'	S 10
S 11	13 54 43	0° 26'49"	29° 8'	13° 12'	2° 53'	22° 33'	7° 49'	28° 27'	4° 26'	21° 0'	6° 44'	16° 26'	17° 18'	9° 57'	26° 4'	S 11
M12	13 58 40	1° 25'06"	11° 40'	13° 4'	4° 6'	22° 11'	7° 50'	28° 35'	4° 23'	21° 2'	6° 45'	16° 24'	17° 15'	10° 4'	25° 59'	M12
T 13	14 2 36	2° 23'21"	24° 0'	13° 0'	5° 19'	21° 49'	7° 51'	28° 42'	4° 21'	21° 5'	6° 46'	16° 22'	17° 12'	10° 10'	25° 55'	T 13
W14	14 6 33	3° 21'34"	6° 10'	13° 3'	6° 31'	21° 28'	7° 51'	28° 50'	4° 18'	21° 7'	6° 47'	16° 21'	17° 9'	10° 17'	25° 50'	W14
T 15	14 10 29	4° 19'46"	18° 11'	13° 9'	7° 44'	21° 6'	7° 51'	28° 58'	4° 16'	21° 9'	6° 48'	16° 21'	17° 6'	10° 24'	25° 45'	T 15
F 16	14 14 26	5° 17'55"	0° 6'	13° 21'	8° 57'	20° 45'	7° 51'	29° 5'	4° 13'	21° 11'	6° 49'	16° 21'	17° 3'	10° 30'	25° 41'	F 16
S 17	14 18 22	6° 16'03"	11° 56'	13° 37'	10° 10'	20° 24'	7° 51'	29° 13'	4° 11'	21° 13'	6° 50'	16° 22'	16° 59'	10° 37'	25° 36'	S 17
S 18	14 22 19	7° 14'10"	23° 44'	13° 57'	11° 23'	20° 4'	7° 51'	29° 21'	4° 8'	21° 15'	6° 51'	16° 23'	16° 56'	10° 44'	25° 32'	S 18
M19	14 26 15	8° 12'15"	5° 35'	14° 22'	12° 36'	19° 44'	7° 50'	29° 28'	4° 5'	21° 18'	6° 52'	16° 24'	16° 53'	10° 50'	25° 27'	M19
T 20	14 30 12	9° 10'19"	17° 31'	14° 52'	13° 49'	19° 25'	7° 49'	29° 36'	4° 3'	21° 20'	6° 53'	16° 25'	16° 50'	10° 57'	25° 23'	T 20
W21	14 34 9	10° 8'21"	29° 38'	15° 25'	15° 1'	19° 6'	7° 48'	29° 44'	4° 0'	21° 22'	6° 54'	16° 25'	16° 47'	11° 4'	25° 18'	W21
T 22	14 38 5	11° 6'22"	11° 59'	16° 2'	16° 14'	18° 48'	7° 47'	29° 51'	3° 58'	21° 24'	6° 55'	16° 25'	16° 44'	11° 10'	25° 14'	T 22
F 23	14 42 2	12° 4'21"	24° 39'	16° 44'	17° 27'	18° 30'	7° 46'	29° 59'	3° 55'	21° 27'	6° 56'	16° 25'	16° 40'	11° 17'	25° 10'	F 23
S 24	14 45 58	13° 2'19"	7° 42'	17° 28'	18° 40'	18° 13'	7° 44'	0° 6'	3° 53'	21° 29'	6° 57'	16° 25'	16° 37'	11° 24'	25° 5'	S 24
S 25	14 49 55	14° 0'16"	21° 10'	18° 17'	19° 53'	17° 56'	7° 42'	0° 14'	3° 50'	21° 31'	6° 57'	16° 25'	16° 34'	11° 30'	25° 1'	S 25
M26	14 53 51	14° 58'11"	5° 5'	19° 9'	21° 6'	17° 40'	7° 40'	0° 21'	3° 48'	21° 33'	6° 58'	16° 24'	16° 31'	11° 37'	24° 57'	M26
T 27	14 57 48	15° 56'05"	19° 25'	20° 4'	22° 19'	17° 25'	7° 38'	0° 29'	3° 45'	21° 35'	6° 59'	16° 24'	16° 28'	11° 44'	24° 53'	T 27
W28	15 1 44	16° 53'57"	4° 6'	21° 2'	23° 32'	17° 10'	7° 36'	0° 37'	3° 43'	21° 38'	7° 0'	16° 24'	16° 24'	11° 50'	24° 49'	W28
T 29	15 5 41	17° 51'49"	19° 4'	22° 3'	24° 45'	16° 57'	7° 34'	0° 44'	3° 41'	21° 40'	7° 0'	16° 24'	16° 21'	11° 57'	24° 44'	T 29
F 30	15 9 38	18° 49'39"	4° 11'	23° 7'	25° 58'	16° 44'	7° 31'	0° 51'	3° 38'	21° 42'	7° 1'	16° 24'	16° 18'	12° 4'	24° 40'	F 30

Delta T = 164.36 sec

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1557

## geocentric

MAY 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	15 13 34	19°34'27	19°11'12	24°14'14	27°11'11	16°R31	7°R28	0°R59	3°R36	21°R44	7°R 2	16°R24	16°R15	12°R10	24°R37	S 1
S 2	15 17 31	20°45'14	4°5 5	25°24	28°24	16°R20	7°R25	1° 6	3°R33	21°47	7° 2	16°R24	16°12	12°17	24°R33	S 2
M 3	15 21 27	21°42'59	18°42	26°37	29°37	16° 9	7°22	1°14	3°31	21°49	7° 3	16°23	16° 9	12°24	24°29	M 3
T 4	15 25 24	22°40'43	2°R58	27°52	0°R50	16° 0	7°19	1°21	3°29	21°51	7° 4	16°23	16° 5	12°30	24°25	T 4
W 5	15 29 20	23°38'25	16°50	29°10	2° 3	15°50	7°15	1°28	3°26	21°53	7° 5	16°22	16° 2	12°37	24°21	W 5
T 6	15 33 17	24°36'05	0°R19	0°R30	3°16	15°42	7°11	1°36	3°24	21°56	7° 5	16°D22	15°59	12°44	24°18	T 6
F 7	15 37 14	25°33'43	13°25	1°53	4°29	15°35	7° 7	1°43	3°22	21°58	7° 5	16°23	15°56	12°50	24°14	F 7
S 8	15 41 10	26°31'20	26°12	3°19	5°42	15°28	7° 3	1°50	3°19	22° 0	7° 6	16°23	15°53	12°57	24°11	S 8
S 9	15 45 7	27°28'56	8°R42	4°47	6°55	15°22	6°59	1°58	3°17	22° 2	7° 6	16°24	15°50	13° 4	24° 8	S 9
M10	15 49 3	28°26'30	20°59	6°17	8° 8	15°17	6°55	2° 5	3°15	22° 5	7° 7	16°25	15°46	13°10	24° 4	M10
T 11	15 53 0	29°24'02	3°R 5	7°50	9°21	15°13	6°50	2°12	3°13	22° 7	7° 7	16°26	15°43	13°17	24° 1	T 11
W12	15 56 56	0°R21'34	15° 4	9°25	10°34	15°10	6°46	2°19	3°11	22° 9	7° 7	16°R27	15°40	13°24	23°58	W12
T 13	16 0 53	1°19'04	26°57	11° 3	11°47	15° 7	6°41	2°26	3° 8	22°11	7° 8	16°26	15°37	13°30	23°55	T 13
F 14	16 4 49	2°16'33	8°R47	12°43	13° 0	15° 6	6°36	2°33	3° 6	22°14	7° 8	16°25	15°34	13°37	23°52	F 14
S 15	16 8 46	3°14'02	20°36	14°25	14°13	15° 5	6°31	2°40	3° 4	22°16	7° 8	16°23	15°30	13°44	23°49	S 15
S 16	16 12 43	4°11'29	2°R26	16°10	15°26	15°D 4	6°25	2°47	3° 2	22°18	7° 9	16°21	15°27	13°50	23°46	S 16
M17	16 16 39	5° 8'55	14°20	17°57	16°39	15° 5	6°20	2°54	3° 0	22°20	7° 9	16°18	15°24	13°57	23°44	M17
T 18	16 20 36	6° 6'21	26°20	19°46	17°52	15° 6	6°14	3° 1	2°58	22°22	7° 9	16°15	15°21	14° 4	23°41	T 18
W19	16 24 32	7° 3'46	8°R29	21°38	19° 5	15° 9	6° 9	3° 8	2°56	22°25	7°10	16°13	15°18	14°10	23°38	W19
T 20	16 28 29	8° 1'09	20°51	23°32	20°19	15°12	6° 3	3°15	2°54	22°27	7°10	16°11	15°15	14°17	23°36	T 20
F 21	16 32 25	8°58'33	3°R29	25°29	21°32	15°15	5°57	3°22	2°52	22°29	7°10	16°D10	15°11	14°24	23°34	F 21
S 22	16 36 22	9°55'55	16°28	27°27	22°45	15°20	5°51	3°28	2°50	22°31	7°10	16°10	15° 8	14°30	23°31	S 22
S 23	16 40 18	10°53'18	29°49	29°28	23°58	15°25	5°45	3°35	2°49	22°33	7°10	16°11	15° 5	14°37	23°29	S 23
M24	16 44 15	11°50'39	13°R35	1°R30	25°11	15°31	5°38	3°42	2°47	22°36	7°10	16°12	15° 2	14°44	23°27	M24
T 25	16 48 12	12°48'00	27°47	3°35	26°24	15°37	5°32	3°48	2°45	22°38	7°10	16°13	14°59	14°50	23°25	T 25
W26	16 52 8	13°45'21	12°R24	5°41	27°37	15°45	5°25	3°55	2°43	22°40	7°11	16°R14	14°56	14°57	23°23	W26
T 27	16 56 5	14°42'41	27°21	7°49	28°51	15°53	5°19	4° 1	2°42	22°42	7°11	16°14	14°52	15° 4	23°22	T 27
F 28	17 0 1	15°40'00	12°R31	9°58	0°R 4	16° 1	5°12	4° 8	2°40	22°44	7°11	16°12	14°49	15°10	23°20	F 28
S 29	17 3 58	16°37'19	27°44	12° 8	1°17	16°11	5° 5	4°14	2°38	22°46	7°R11	16° 9	14°46	15°17	23°18	S 29
S 30	17 7 54	17°34'38	12°R51	14°19	2°30	16°21	4°58	4°20	2°37	22°48	7°11	16° 5	14°43	15°24	23°17	S 30
M31	17 11 51	18°R31'55	27°R43	16°R30	3°R44	16°R32	4°R51	4°R27	2°R35	22°R50	7°R11	16°R 0	14°R40	15°R30	23°R16	M31

Delta T = 164.19 sec

Julian Calendar 1 May 1557 == Greg. Calendar 11 May 1557

JUNE 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	17 15 47	19°R29'12	12°R12	18°R42	4°R57	16°R43	4°R44	4°R33	2°R34	22°R52	7°R10	15°R56	14°R36	15°R37	23°R15	T 1
W 2	17 19 44	20°26'28	26°13	20°54	6°10	16°55	4°R37	4°39	2°R32	22°54	7°R10	15°R53	14°33	15°44	23°R13	W 2
T 3	17 23 41	21°23'43	9°R47	23° 5	7°23	17° 8	4°30	4°45	2°31	22°56	7°10	15°51	14°30	15°50	23°12	T 3
F 4	17 27 37	22°20'57	22°54	25°16	8°37	17°21	4°22	4°51	2°30	22°59	7°10	15°D50	14°27	15°57	23°11	F 4
S 5	17 31 34	23°18'10	5°R37	27°27	9°50	17°35	4°15	4°57	2°28	23° 1	7°10	15°51	14°24	16° 4	23°11	S 5
S 6	17 35 30	24°15'23	18° 1	29°36	11° 3	17°49	4° 7	5° 3	2°27	23° 2	7°10	15°52	14°21	16°10	23°10	S 6
M 7	17 39 27	25°12'35	0°R10	19°44	12°17	18° 4	4° 0	5° 9	2°26	23° 4	7°10	15°54	14°17	16°17	23° 9	M 7
T 8	17 43 23	26° 9'47	12° 9	3°50	13°30	18°20	3°52	5°15	2°25	23° 6	7° 9	15°R55	14°14	16°24	23° 9	T 8
W 9	17 47 20	27° 6'58	24° 0	5°55	14°43	18°36	3°45	5°21	2°24	23° 8	7° 9	15°54	14°11	16°30	23° 9	W 9
T 10	17 51 16	28° 4'09	5°R49	7°59	15°57	18°53	3°37	5°26	2°23	23°10	7° 9	15°52	14° 8	16°37	23° 8	T 10
F 11	17 55 13	29° 1'19	17°37	10° 1	17°10	19°10	3°30	5°32	2°22	23°12	7° 8	15°48	14° 5	16°44	23° 8	F 11
S 12	17 59 10	29°58'30	29°28	12° 0	18°23	19°28	3°22	5°38	2°21	23°14	7° 8	15°43	14° 2	16°50	23°D 8	S 12
S 13	18 3 6	0°R55'40	11°R23	13°58	19°37	19°46	3°14	5°43	2°20	23°16	7° 8	15°35	13°58	16°57	23° 8	S 13
M14	18 7 3	1°52'50	23°24	15°54	20°50	20° 5	3° 7	5°49	2°19	23°18	7° 7	15°27	13°55	17° 4	23° 8	M14
T 15	18 10 59	2°50'00	5°R32	17°48	22° 4	20°24	2°59	5°54	2°18	23°20	7° 7	15°18	13°52	17°10	23° 9	T 15
W16	18 14 56	3°47'10	17°49	19°40	23°17	20°44	2°51	5°59	2°17	23°22	7° 7	15°10	13°49	17°17	23° 9	W16
T 17	18 18 52	4°44'20	0°R18	21°30	24°31	21° 4	2°44	6° 4	2°16	23°23	7° 6	15° 4	13°46	17°24	23°10	T 17
F 18	18 22 49	5°41'30	13° 0	23°18	25°44	21°25	2°36	6°10	2°16	23°25	7° 6	15° 0	13°42	17°30	23°10	F 18
S 19	18 26 45	6°38'40	25°58	25° 3	26°58	21°46	2°28	6°15	2°15	23°27	7° 5	14°57	13°39	17°37	23°11	S 19
S 20	18 30 42	7°35'51	9°R14	26°47	28°11	22° 7	2°21	6°20	2°14	23°29	7° 5	14°D57	13°36	17°44	23°12	S 20
M21	18 34 39	8°33'02	22°52	28°29	29°25	22°29	2°13	6°25	2°14	23°30	7° 4	14°57	13°33	17°50	23°13	M21
T 22	18 38 35	9°30'13	6°R53	0°R 8	0°R38	22°52	2° 5	6°29	2°13	23°32	7° 4	14°58	13°30	17°57	23°14	T 22
W23	18 42 32	10°27'25	12°17	1°46	1°52	23°15	1°58	6°34	2°13	23°34	7° 3	14°R58	13°27	18° 4	23°15	W23
T 24	18 46 28	11°24'38	6°R 1	3°21	3° 5	23°38	1°50	6°39	2°13	23°35	7° 2	14°56	13°23	18°10	23°16	T 24
F 25	18 50 25	12°21'51	21° 1	4°54	4°19	24° 2	1°43	6°44	2°12	23°37	7° 2	14°53	13°20	18°17	23°18	F 25
S 26	18 54 21	13°19'04	6°R 9	6°26	5°33	24°26	1°35	6°48	2°12	23°39	7° 1	14°46	13°17	18°24	23°19	S 26
S 27	18 58 18	14°16'18	21°15	7°55	6°46	24°50	1°28	6°53	2°12	23°40	7° 1	14°38	13°14	18°30	23°21	S 27
M28	19 2 15	15°13'32	6°R10	9°22	8° 0	25°15	1°21	6°57	2°12	23°42	7° 0	14°29	13°11	18°37	23°23	M28
T 29	19 6 11	16°10'46	20°44	10°47	9°14	25°41	1°13	7° 1	2°11	23°43	6°59	14°20	13° 8	18°44	23°24	T 29
W30	19 10 8	17°R 8'00	4°R52	12°R 9	10°R27	26°R 6	1°R 6	7°R 5	2°R11	23°R45	6°R58	14°R13	13°R 4	18°R50	23°R26	W30

Delta T = 164.01 sec

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1557  
geocentric

JULY 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	19 14 4	18°51'4	18°31'	13°30'	11°41'	26°33'	0°R59	7°8'10	2°D11	23°8'46	6°R58	14°R 7	13°8'1	18°57'	23°28'	T 1
F 2	19 18 1	19°2'29	1°42'	14°48'	12°55'	26°59'	0°52'	7°14'	2°M.11	23°48'	6°57'	14°8'4	12°58'	19°4'	23°31'	F 2
S 3	19 21 57	19°59'44	14°27'	16°4'	14°9'	27°26'	0°45'	7°18'	2°11'	23°49'	6°56'	14°2'	12°55'	19°10'	23°33'	S 3
S 4	19 25 54	20°56'58	26°50'	17°17'	15°22'	27°53'	0°38'	7°21'	2°12'	23°51'	6°55'	14°D 2	12°52'	19°17'	23°35'	S 4
M 5	19 29 50	21°54'14	8°M.57	18°28'	16°36'	28°20'	0°32'	7°25'	2°12'	23°52'	6°55'	14°R 3	12°48'	19°24'	23°38'	M 5
T 6	19 33 47	22°51'29	20°53'	19°37'	17°50'	28°48'	0°25'	7°29'	2°12'	23°53'	6°54'	14°3'	12°45'	19°30'	23°40'	T 6
W 7	19 37 44	23°48'45	2°7'43	20°43'	19°4'	29°16'	0°19'	7°33'	2°12'	23°55'	6°53'	14°1'	12°42'	19°37'	23°43'	W 7
T 8	19 41 40	24°46'01	14°31'	21°46'	20°17'	29°45'	0°12'	7°36'	2°13'	23°56'	6°52'	13°57'	12°39'	19°44'	23°46'	T 8
F 9	19 45 37	25°43'18	26°21'	22°46'	21°31'	0°M.13	0°6'	7°40'	2°13'	23°57'	6°51'	13°51'	12°36'	19°50'	23°49'	F 9
S 10	19 49 33	26°40'35	8°3'16	23°44'	22°45'	0°43'	29°59'	7°43'	2°13'	23°58'	6°50'	13°41'	12°33'	19°57'	23°52'	S 10
S 11	19 53 30	27°37'53	20°18'	24°38'	23°59'	1°12'	29°54'	7°46'	2°14'	24°0'	6°49'	13°30'	12°29'	20°4'	23°55'	S 11
M12	19 57 26	28°35'12	2°30'	25°30'	25°13'	1°42'	29°48'	7°49'	2°14'	24°1'	6°49'	13°18'	12°26'	20°10'	23°58'	M12
T 13	20 1 23	29°32'32	14°51'	26°18'	26°27'	2°12'	29°42'	7°52'	2°15'	24°2'	6°48'	13°5'	12°23'	20°17'	24°1'	T 13
W14	20 5 19	0°29'52	27°22'	27°3'	27°41'	2°42'	29°36'	7°55'	2°16'	24°3'	6°47'	12°53'	12°20'	20°24'	24°4'	W14
T 15	20 9 16	1°27'13	10°4'4	27°44'	28°55'	3°12'	29°31'	7°58'	2°16'	24°4'	6°46'	12°43'	12°17'	20°30'	24°8'	T 15
F 16	20 13 13	2°24'35	22°57'	28°21'	0°9'9	3°43'	29°25'	8°1'	2°17'	24°5'	6°45'	12°35'	12°14'	20°37'	24°11'	F 16
S 17	20 17 9	3°21'59	6°3'3	28°55'	1°23'	4°14'	29°20'	8°4'	2°18'	24°6'	6°44'	12°31'	12°10'	20°44'	24°15'	S 17
S 18	20 21 6	4°19'23	19°23'	29°24'	2°37'	4°45'	29°15'	8°6'	2°19'	24°7'	6°43'	12°28'	12°7'	20°50'	24°19'	S 18
M19	20 25 2	5°16'49	2°3'59	29°49'	3°51'	5°17'	29°10'	8°9'	2°20'	24°8'	6°42'	12°28'	12°4'	20°57'	24°23'	M19
T 20	20 28 59	6°14'16	16°52'	0°10'10	5°5'	5°49'	29°5'	8°11'	2°21'	24°9'	6°41'	12°28'	12°1'	21°4'	24°27'	T 20
W21	20 32 55	7°11'45	1°11'2	0°25'	6°19'	6°21'	29°1'	8°13'	2°22'	24°10'	6°40'	12°27'	11°58'	21°10'	24°31'	W21
T 22	20 36 52	8°9'15	15°30'	0°36'	7°33'	6°53'	28°56'	8°16'	2°23'	24°11'	6°39'	12°25'	11°54'	21°17'	24°35'	T 22
F 23	20 40 48	9°6'46	0°31'1	0°42'	8°47'	7°26'	28°52'	8°18'	2°24'	24°12'	6°37'	12°19'	11°51'	21°24'	24°39'	F 23
S 24	20 44 45	10°4'18	15°0'	0°R43	10°1'	7°59'	28°48'	8°20'	2°25'	24°13'	6°36'	12°12'	11°48'	21°31'	24°44'	S 24
S 25	20 48 42	11°1'52	29°51'	0°38'	11°15'	8°32'	28°44'	8°22'	2°26'	24°14'	6°35'	12°1'	11°45'	21°37'	24°48'	S 25
M26	20 52 38	11°59'27	14°33'	0°28'	12°29'	9°5'	28°40'	8°23'	2°27'	24°15'	6°34'	11°50'	11°42'	21°44'	24°52'	M26
T 27	20 56 35	12°57'03	29°0'	0°13'	13°44'	9°39'	28°36'	8°25'	2°29'	24°15'	6°33'	11°39'	11°39'	21°51'	24°57'	T 27
W28	21 0 31	13°54'41	13°4'4	29°52'	14°58'	10°13'	28°33'	8°27'	2°30'	24°16'	6°32'	11°29'	11°35'	21°57'	25°2'	W28
T 29	21 4 28	14°52'19	26°43'	29°25'	16°12'	10°47'	28°29'	8°28'	2°32'	24°17'	6°31'	11°21'	11°32'	22°4'	25°7'	T 29
F 30	21 8 24	15°49'58	9°55'	28°54'	17°26'	11°21'	28°26'	8°29'	2°33'	24°17'	6°30'	11°16'	11°29'	22°11'	25°11'	F 30
S 31	21 12 21	16°47'38	22°42'	28°17'	18°40'	11°M.56	28°23'	8°31'	2°M.34	24°18'	6°28'	11°13'	11°26'	22°17'	25°16'	S 31

Delta T = 163.84 sec

Julian Calendar 1 July 1557 == Greg. Calendar 11 July 1557

AUGUST 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	21 16 17	17°45'20	5°M.7	27°R36	19°55'	12°M.30	28°R21	8°8'32	2°M.36	24°8'19	6°R27	11°R12	11°8'23	22°7'24	25°21'	S 1
M 2	21 20 14	18°43'02	17°15'	26°52'	21°9'	13°5'	28°18'	8°33'	2°38'	24°19'	6°26'	11°12'	11°20'	22°31'	25°27'	M 2
T 3	21 24 11	19°40'46	29°11'	26°3'	22°23'	13°40'	28°16'	8°34'	2°39'	24°20'	6°25'	11°12'	11°16'	22°37'	25°32'	T 3
W 4	21 28 7	20°38'31	11°7'2	25°13'	23°37'	14°16'	28°13'	8°35'	2°41'	24°20'	6°24'	11°10'	11°13'	22°44'	25°37'	W 4
T 5	21 32 4	21°36'17	22°51'	24°20'	24°52'	14°51'	28°11'	8°35'	2°43'	24°21'	6°23'	11°7'	11°10'	22°51'	25°42'	T 5
F 6	21 36 0	22°34'04	4°3'44	23°27'	26°6'	15°27'	28°9'	8°36'	2°45'	24°21'	6°21'	11°0'	11°7'	22°57'	25°48'	F 6
S 7	21 39 57	23°31'52	16°45'	22°35'	27°20'	16°3'	28°8'	8°36'	2°46'	24°21'	6°20'	10°52'	11°4'	23°4'	25°53'	S 7
S 8	21 43 53	24°29'42	28°55'	21°44'	28°35'	16°39'	28°6'	8°37'	2°48'	24°22'	6°19'	10°41'	11°0'	23°11'	25°59'	S 8
M 9	21 47 50	25°27'33	11°38'18	20°55'	29°49'	17°16'	28°5'	8°37'	2°50'	24°22'	6°18'	10°28'	10°57'	23°17'	26°5'	M 9
T 10	21 51 46	26°25'26	23°54'	20°10'	1°M.3	17°52'	28°4'	8°37'	2°52'	24°22'	6°16'	10°16'	10°54'	23°24'	26°10'	T 10
W11	21 55 43	27°23'20	6°7'43	19°30'	2°17'	18°29'	28°3'	8°R38	2°54'	24°23'	6°15'	10°4'	10°51'	23°31'	26°16'	W11
T 12	21 59 40	28°21'15	19°44'	18°55'	3°32'	19°6'	28°2'	8°37'	2°56'	24°23'	6°14'	9°54'	10°48'	23°37'	26°22'	T 12
F 13	22 3 36	29°19'13	2°7'57	18°26'	4°46'	19°43'	28°2'	8°37'	2°58'	24°23'	6°13'	9°47'	10°45'	23°44'	26°28'	F 13
S 14	22 7 33	0°17'12	16°21'	18°5'	6°1'	20°20'	28°1'	8°37'	3°0'	24°23'	6°11'	9°42'	10°41'	23°51'	26°34'	S 14
S 15	22 11 29	1°15'13	29°55'	17°51'	7°15'	20°57'	28°D 1	8°37'	3°3'	24°23'	6°10'	9°40'	10°38'	23°57'	26°40'	S 15
M16	22 15 26	2°13'16	13°3'39	17°D45	8°29'	21°35'	28°1'	8°36'	3°5'	24°23'	6°9'	9°D40	10°35'	24°4'	26°46'	M16
T 17	22 19 22	3°11'21	27°33'	17°48'	9°44'	22°13'	28°1'	8°36'	3°7'	24°24'	6°8'	9°R40	10°32'	24°11'	26°53'	T 17
W18	22 23 19	4°9'28	11°11'37	17°59'	10°58'	22°50'	28°2'	8°35'	3°10'	24°R24	6°6'	9°40'	10°29'	24°17'	26°59'	W18
T 19	22 27 15	5°7'37	25°51'	18°19'	12°13'	23°29'	28°3'	8°34'	3°12'	24°24'	6°5'	9°38'	10°25'	24°24'	27°5'	T 19
F 20	22 31 12	6°5'48	10°31'13	18°47'	13°27'	24°7'	28°3'	8°34'	3°14'	24°24'	6°4'	9°34'	10°22'	24°31'	27°12'	F 20
S 21	22 35 9	7°4'01	24°39'	19°24'	14°42'	24°45'	28°4'	8°33'	3°17'	24°23'	6°3'	9°28'	10°19'	24°38'	27°18'	S 21
S 22	22 39 5	8°2'17	9°9'4	20°9'	15°56'	25°24'	28°5'	8°32'	3°19'	24°23'	6°1'	9°20'	10°16'	24°44'	27°25'	S 22
M23	22 43 2	9°0'34	23°23'	21°1'	17°11'	26°2'	28°7'	8°30'	3°22'	24°23'	6°0'	9°10'	10°13'	24°51'	27°32'	M23
T 24	22 46 58	9°58'53	7°11'29	22°2'	18°25'	26°41'	28°8'	8°29'	3°24'	24°23'	5°59'	9°0'	10°10'	24°58'	27°38'	T 24
W25	22 50 55	10°57'13	21°19'	23°9'	19°40'	27°20'	28°10'	8°28'	3°27'	24°23'	5°58'	8°52'	10°6'	25°4'	27°45'	W25
T 26	22 54 51	11°55'36	4°42'4	24°22'	20°54'	28°0'	28°12'	8°26'	3°30'	24°23'	5°56'	8°45'	10°3'	25°11'	27°52'	T 26
F 27	22 58 48	12°54'00	17°53'	25°42'	22°9'	28°39'	28°14'	8°25'	3°32'	24°22'	5°55'	8°41'	10°0'	25°18'	27°59'	F 27
S 28	23 2 44	13°52'26	0°M.37	27°7'	23°23'	29°18'	28°16'	8°23'	3°35'	24°22'	5°54'	8°39'	9°57'	25°24'	28°6'	S 28
S 29	23 6 41	14°50'53	13°2'	28°37'	24°38'	29°58'	28°19'	8°21'	3°38'	24°22'	5°53'	8°D38	9°54'	25°31'	28°13'	S 29
M30	23 10 38	15°49'23	25°11'	0°11'11	25°52'	0°7'38	28°22'	8°19'	3°40'	24°21'	5°51'	8°39'	9°51'	25°38'	28°20'	M30
T 31	23 14 34	16°47'54	7°7'8	1°M.48	27°11'7	1°7'18	28°24'	8°17'	3°M.43	24°21'	5°49'	8°30'	9°47'	25°44'	28°27'	T 31

Delta T = 163.66 sec

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1557

## geocentric

SEPTEMBER 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	23 18 31	17 <sup>h</sup> 46'26"	19 <sup>h</sup> 00'	3 <sup>h</sup> 29'	28 <sup>h</sup> 21'	1 <sup>h</sup> 58'	28 <sup>h</sup> 28'	8 <sup>h</sup> 15'	3 <sup>h</sup> 46'	24 <sup>h</sup> 20'	5 <sup>h</sup> 49'	8 <sup>h</sup> 41'	9 <sup>h</sup> 44'	25 <sup>h</sup> 51'	28 <sup>h</sup> 34'	W 1
T 2	23 22 27	18 <sup>h</sup> 45'01"	0 <sup>h</sup> 35'	5 <sup>h</sup> 13'	29 <sup>h</sup> 36'	2 <sup>h</sup> 38'	28 <sup>h</sup> 31'	8 <sup>h</sup> 13'	3 <sup>h</sup> 49'	24 <sup>h</sup> 20'	5 <sup>h</sup> 48'	8 <sup>h</sup> 40'	9 <sup>h</sup> 41'	25 <sup>h</sup> 58'	28 <sup>h</sup> 41'	T 2
F 3	23 26 24	19 <sup>h</sup> 43'37"	12 <sup>h</sup> 46'	6 <sup>h</sup> 58'	0 <sup>h</sup> 50'	3 <sup>h</sup> 18'	28 <sup>h</sup> 34'	8 <sup>h</sup> 11'	3 <sup>h</sup> 52'	24 <sup>h</sup> 20'	5 <sup>h</sup> 47'	8 <sup>h</sup> 37'	9 <sup>h</sup> 38'	26 <sup>h</sup> 04'	28 <sup>h</sup> 49'	F 3
S 4	23 30 20	20 <sup>h</sup> 42'15"	24 <sup>h</sup> 49'	8 <sup>h</sup> 45'	2 <sup>h</sup> 05'	3 <sup>h</sup> 59'	28 <sup>h</sup> 38'	8 <sup>h</sup> 08'	3 <sup>h</sup> 55'	24 <sup>h</sup> 19'	5 <sup>h</sup> 45'	8 <sup>h</sup> 32'	9 <sup>h</sup> 35'	26 <sup>h</sup> 11'	28 <sup>h</sup> 56'	S 4
S 5	23 34 17	21 <sup>h</sup> 40'54"	7 <sup>h</sup> 05'	10 <sup>h</sup> 34'	3 <sup>h</sup> 19'	4 <sup>h</sup> 39'	28 <sup>h</sup> 41'	8 <sup>h</sup> 06'	3 <sup>h</sup> 58'	24 <sup>h</sup> 18'	5 <sup>h</sup> 44'	8 <sup>h</sup> 26'	9 <sup>h</sup> 31'	26 <sup>h</sup> 18'	29 <sup>h</sup> 03'	S 5
M 6	23 38 13	22 <sup>h</sup> 39'35"	19 <sup>h</sup> 37'	12 <sup>h</sup> 23'	4 <sup>h</sup> 34'	5 <sup>h</sup> 20'	28 <sup>h</sup> 45'	8 <sup>h</sup> 03'	4 <sup>h</sup> 01'	24 <sup>h</sup> 18'	5 <sup>h</sup> 43'	8 <sup>h</sup> 18'	9 <sup>h</sup> 28'	26 <sup>h</sup> 25'	29 <sup>h</sup> 11'	M 6
T 7	23 42 10	23 <sup>h</sup> 38'19"	2 <sup>h</sup> 25'	14 <sup>h</sup> 13'	5 <sup>h</sup> 48'	6 <sup>h</sup> 01'	28 <sup>h</sup> 50'	8 <sup>h</sup> 00'	4 <sup>h</sup> 04'	24 <sup>h</sup> 17'	5 <sup>h</sup> 42'	8 <sup>h</sup> 10'	9 <sup>h</sup> 25'	26 <sup>h</sup> 31'	29 <sup>h</sup> 18'	T 7
W 8	23 46 7	24 <sup>h</sup> 37'03"	15 <sup>h</sup> 31'	16 <sup>h</sup> 03'	7 <sup>h</sup> 03'	6 <sup>h</sup> 42'	28 <sup>h</sup> 54'	7 <sup>h</sup> 58'	4 <sup>h</sup> 07'	24 <sup>h</sup> 17'	5 <sup>h</sup> 41'	8 <sup>h</sup> 02'	9 <sup>h</sup> 22'	26 <sup>h</sup> 38'	29 <sup>h</sup> 26'	W 8
T 9	23 50 3	25 <sup>h</sup> 35'50"	28 <sup>h</sup> 53'	17 <sup>h</sup> 54'	8 <sup>h</sup> 17'	7 <sup>h</sup> 23'	28 <sup>h</sup> 58'	7 <sup>h</sup> 55'	4 <sup>h</sup> 10'	24 <sup>h</sup> 16'	5 <sup>h</sup> 39'	7 <sup>h</sup> 56'	9 <sup>h</sup> 19'	26 <sup>h</sup> 45'	29 <sup>h</sup> 33'	T 9
F 10	23 54 0	26 <sup>h</sup> 34'39"	12 <sup>h</sup> 27'30"	19 <sup>h</sup> 44'	9 <sup>h</sup> 32'	8 <sup>h</sup> 04'	29 <sup>h</sup> 03'	7 <sup>h</sup> 52'	4 <sup>h</sup> 13'	24 <sup>h</sup> 15'	5 <sup>h</sup> 38'	7 <sup>h</sup> 52'	9 <sup>h</sup> 16'	26 <sup>h</sup> 51'	29 <sup>h</sup> 41'	F 10
S 11	23 57 56	27 <sup>h</sup> 33'30"	26 <sup>h</sup> 19'	21 <sup>h</sup> 34'	10 <sup>h</sup> 47'	8 <sup>h</sup> 46'	29 <sup>h</sup> 08'	7 <sup>h</sup> 49'	4 <sup>h</sup> 16'	24 <sup>h</sup> 14'	5 <sup>h</sup> 37'	7 <sup>h</sup> 49'	9 <sup>h</sup> 12'	26 <sup>h</sup> 58'	29 <sup>h</sup> 48'	S 11
S 12	0 1 53	28 <sup>h</sup> 32'24"	10 <sup>h</sup> 16'	23 <sup>h</sup> 24'	12 <sup>h</sup> 01'	9 <sup>h</sup> 27'	29 <sup>h</sup> 13'	7 <sup>h</sup> 46'	4 <sup>h</sup> 20'	24 <sup>h</sup> 14'	5 <sup>h</sup> 36'	7 <sup>h</sup> 49'	9 <sup>h</sup> 09'	27 <sup>h</sup> 05'	29 <sup>h</sup> 56'	S 12
M 13	0 5 49	29 <sup>h</sup> 31'19"	24 <sup>h</sup> 20'	25 <sup>h</sup> 13'	13 <sup>h</sup> 16'	10 <sup>h</sup> 09'	29 <sup>h</sup> 18'	7 <sup>h</sup> 43'	4 <sup>h</sup> 23'	24 <sup>h</sup> 13'	5 <sup>h</sup> 35'	7 <sup>h</sup> 50'	9 <sup>h</sup> 06'	27 <sup>h</sup> 11'	0 <sup>h</sup> 04'	M 13
T 14	0 9 46	0 <sup>h</sup> 30'17"	8 <sup>h</sup> 28'	27 <sup>h</sup> 02'	14 <sup>h</sup> 30'	10 <sup>h</sup> 50'	29 <sup>h</sup> 23'	7 <sup>h</sup> 39'	4 <sup>h</sup> 26'	24 <sup>h</sup> 12'	5 <sup>h</sup> 34'	7 <sup>h</sup> 51'	9 <sup>h</sup> 03'	27 <sup>h</sup> 18'	0 <sup>h</sup> 12'	T 14
W 15	0 13 42	1 <sup>h</sup> 29'17"	22 <sup>h</sup> 38'	28 <sup>h</sup> 50'	15 <sup>h</sup> 45'	11 <sup>h</sup> 32'	29 <sup>h</sup> 29'	7 <sup>h</sup> 36'	4 <sup>h</sup> 29'	24 <sup>h</sup> 11'	5 <sup>h</sup> 33'	7 <sup>h</sup> 52'	9 <sup>h</sup> 00'	27 <sup>h</sup> 25'	0 <sup>h</sup> 19'	W 15
T 16	0 17 39	2 <sup>h</sup> 28'20"	6 <sup>h</sup> 48'	0 <sup>h</sup> 38'	16 <sup>h</sup> 59'	12 <sup>h</sup> 14'	29 <sup>h</sup> 34'	7 <sup>h</sup> 32'	4 <sup>h</sup> 33'	24 <sup>h</sup> 10'	5 <sup>h</sup> 32'	7 <sup>h</sup> 52'	8 <sup>h</sup> 57'	27 <sup>h</sup> 31'	0 <sup>h</sup> 27'	T 16
F 17	0 21 36	3 <sup>h</sup> 27'25"	20 <sup>h</sup> 57'	2 <sup>h</sup> 24'	18 <sup>h</sup> 14'	12 <sup>h</sup> 56'	29 <sup>h</sup> 40'	7 <sup>h</sup> 29'	4 <sup>h</sup> 36'	24 <sup>h</sup> 09'	5 <sup>h</sup> 30'	7 <sup>h</sup> 51'	8 <sup>h</sup> 53'	27 <sup>h</sup> 38'	0 <sup>h</sup> 35'	F 17
S 18	0 25 32	4 <sup>h</sup> 26'33"	5 <sup>h</sup> 03'	4 <sup>h</sup> 10'	19 <sup>h</sup> 28'	13 <sup>h</sup> 38'	29 <sup>h</sup> 46'	7 <sup>h</sup> 25'	4 <sup>h</sup> 39'	24 <sup>h</sup> 08'	5 <sup>h</sup> 29'	7 <sup>h</sup> 48'	8 <sup>h</sup> 50'	27 <sup>h</sup> 45'	0 <sup>h</sup> 43'	S 18
S 19	0 29 29	5 <sup>h</sup> 25'42"	19 <sup>h</sup> 03'	5 <sup>h</sup> 55'	20 <sup>h</sup> 43'	14 <sup>h</sup> 20'	29 <sup>h</sup> 52'	7 <sup>h</sup> 22'	4 <sup>h</sup> 43'	24 <sup>h</sup> 07'	5 <sup>h</sup> 28'	7 <sup>h</sup> 44'	8 <sup>h</sup> 47'	27 <sup>h</sup> 51'	0 <sup>h</sup> 51'	S 19
M 20	0 33 25	6 <sup>h</sup> 24'54"	2 <sup>h</sup> 54'	7 <sup>h</sup> 40'	21 <sup>h</sup> 58'	15 <sup>h</sup> 03'	29 <sup>h</sup> 58'	7 <sup>h</sup> 18'	4 <sup>h</sup> 46'	24 <sup>h</sup> 06'	5 <sup>h</sup> 27'	7 <sup>h</sup> 40'	8 <sup>h</sup> 44'	27 <sup>h</sup> 58'	0 <sup>h</sup> 59'	M 20
T 21	0 37 22	7 <sup>h</sup> 24'08"	16 <sup>h</sup> 33'	9 <sup>h</sup> 23'	23 <sup>h</sup> 12'	15 <sup>h</sup> 45'	0 <sup>h</sup> 05'	7 <sup>h</sup> 14'	4 <sup>h</sup> 50'	24 <sup>h</sup> 05'	5 <sup>h</sup> 26'	7 <sup>h</sup> 35'	8 <sup>h</sup> 41'	28 <sup>h</sup> 05'	1 <sup>h</sup> 07'	T 21
W 22	0 41 18	8 <sup>h</sup> 23'25"	29 <sup>h</sup> 59'	11 <sup>h</sup> 06'	24 <sup>h</sup> 27'	16 <sup>h</sup> 28'	0 <sup>h</sup> 11'	7 <sup>h</sup> 10'	4 <sup>h</sup> 53'	24 <sup>h</sup> 04'	5 <sup>h</sup> 25'	7 <sup>h</sup> 30'	8 <sup>h</sup> 37'	28 <sup>h</sup> 12'	1 <sup>h</sup> 15'	W 22
T 23	0 45 15	9 <sup>h</sup> 22'43"	13 <sup>h</sup> 08'	12 <sup>h</sup> 48'	25 <sup>h</sup> 41'	17 <sup>h</sup> 10'	0 <sup>h</sup> 18'	7 <sup>h</sup> 06'	4 <sup>h</sup> 56'	24 <sup>h</sup> 03'	5 <sup>h</sup> 24'	7 <sup>h</sup> 27'	8 <sup>h</sup> 34'	28 <sup>h</sup> 18'	1 <sup>h</sup> 23'	T 23
F 24	0 49 11	10 <sup>h</sup> 22'03"	26 <sup>h</sup> 00'	14 <sup>h</sup> 29'	26 <sup>h</sup> 56'	17 <sup>h</sup> 53'	0 <sup>h</sup> 25'	7 <sup>h</sup> 02'	5 <sup>h</sup> 00'	24 <sup>h</sup> 02'	5 <sup>h</sup> 23'	7 <sup>h</sup> 25'	8 <sup>h</sup> 31'	28 <sup>h</sup> 25'	1 <sup>h</sup> 31'	F 24
S 25	0 53 8	11 <sup>h</sup> 21'26"	8 <sup>h</sup> 36'	16 <sup>h</sup> 10'	28 <sup>h</sup> 10'	18 <sup>h</sup> 36'	0 <sup>h</sup> 32'	6 <sup>h</sup> 58'	5 <sup>h</sup> 03'	24 <sup>h</sup> 01'	5 <sup>h</sup> 22'	7 <sup>h</sup> 25'	8 <sup>h</sup> 28'	28 <sup>h</sup> 32'	1 <sup>h</sup> 39'	S 25
S 26	0 57 4	12 <sup>h</sup> 20'50"	20 <sup>h</sup> 56'	17 <sup>h</sup> 50'	29 <sup>h</sup> 25'	19 <sup>h</sup> 19'	0 <sup>h</sup> 39'	6 <sup>h</sup> 54'	5 <sup>h</sup> 07'	24 <sup>h</sup> 00'	5 <sup>h</sup> 21'	7 <sup>h</sup> 25'	8 <sup>h</sup> 25'	28 <sup>h</sup> 38'	1 <sup>h</sup> 47'	S 26
M 27	1 1 1	13 <sup>h</sup> 20'17"	3 <sup>h</sup> 02'	19 <sup>h</sup> 29'	0 <sup>h</sup> 40'	20 <sup>h</sup> 02'	0 <sup>h</sup> 46'	6 <sup>h</sup> 50'	5 <sup>h</sup> 10'	23 <sup>h</sup> 59'	5 <sup>h</sup> 20'	7 <sup>h</sup> 27'	8 <sup>h</sup> 22'	28 <sup>h</sup> 45'	1 <sup>h</sup> 55'	M 27
T 28	1 4 58	14 <sup>h</sup> 19'45"	15 <sup>h</sup> 00'	21 <sup>h</sup> 07'	1 <sup>h</sup> 54'	20 <sup>h</sup> 45'	0 <sup>h</sup> 54'	6 <sup>h</sup> 46'	5 <sup>h</sup> 14'	23 <sup>h</sup> 57'	5 <sup>h</sup> 19'	7 <sup>h</sup> 28'	8 <sup>h</sup> 18'	28 <sup>h</sup> 52'	2 <sup>h</sup> 04'	T 28
W 29	1 8 54	15 <sup>h</sup> 19'15"	26 <sup>h</sup> 51'	22 <sup>h</sup> 45'	3 <sup>h</sup> 09'	21 <sup>h</sup> 29'	1 <sup>h</sup> 02'	6 <sup>h</sup> 41'	5 <sup>h</sup> 18'	23 <sup>h</sup> 56'	5 <sup>h</sup> 18'	7 <sup>h</sup> 30'	8 <sup>h</sup> 15'	28 <sup>h</sup> 58'	2 <sup>h</sup> 12'	W 29
T 30	1 12 51	16 <sup>h</sup> 18'47"	8 <sup>h</sup> 42'	24 <sup>h</sup> 22'	4 <sup>h</sup> 23'	22 <sup>h</sup> 12'	1 <sup>h</sup> 09'	6 <sup>h</sup> 37'	5 <sup>h</sup> 16'	23 <sup>h</sup> 55'	5 <sup>h</sup> 18'	7 <sup>h</sup> 31'	8 <sup>h</sup> 12'	29 <sup>h</sup> 05'	2 <sup>h</sup> 20'	T 30

Delta T = 163.48 sec

Julian Calendar 1 Sept. 1557 == Greg. Calendar 11 Sept. 1557

OCTOBER 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	1 16 47	17♏18'21"	20♊37'	25♏58'	5♏38'	22♏55'	1♊17'	6♏R32	5♏25'	23♏R54	5♏R17'	7♏R31	8♏9	29♏12'	2♏28'	F 1
S 2	1 20 44	18°17'56	2♏40'	27°33'	6°52'	23°39'	1°25'	6♏28'	5°28'	23♏52'	5♏16'	7♏30'	8°6'	29°18'	2°37'	S 2
S 3	1 24 40	19°17'33	14°56'	29°8'	8°7'	24°23'	1°34'	6°23'	5°32'	23°51'	5°15'	7°29'	8°2'	29°25'	2°45'	S 3
M 4	1 28 37	20°17'12	27°30'	0♏43'	9°22'	25°6'	1°42'	6°19'	5°36'	23°50'	5°14'	7°27'	7°59'	29°32'	2°53'	M 4
T 5	1 32 33	21°16'53	10♏24'	2°17'	10°36'	25°50'	1°50'	6°14'	5°39'	23°48'	5°13'	7°24'	7°56'	29°39'	3°2'	T 5
W 6	1 36 30	22°16'36	23°39'	3°50'	11°51'	26°34'	1°59'	6°10'	5°43'	23°47'	5°13'	7°22'	7°53'	29°45'	3°10'	W 6
T 7	1 40 27	23°16'20	7♏17'	5°22'	13°5'	27°18'	2°8'	6°5'	5°47'	23°46'	5°12'	7°20'	7°50'	29°52'	3°18'	T 7
F 8	1 44 23	24°16'06	21°14'	6°54'	14°20'	28°2'	2°16'	6°0'	5°50'	23°44'	5°11'	7°19'	7°47'	29°59'	3°27'	F 8
S 9	1 48 20	25°15'55	5♏28'	8°26'	15°34'	28°46'	2°25'	5°56'	5°54'	23°43'	5°10'	7°D19	7°43'	0♊5'	3°35'	S 9
S 10	1 52 16	26°15'45	19♏53'	9°57'	16°49'	29°30'	2°34'	5°51'	5°58'	23°41'	5°10'	7°19'	7°40'	0°12'	3°43'	S 10
M11	1 56 13	27°15'37	4♏25'	11°27'	18°3'	0♊14'	2°44'	5°46'	6°1'	23°40'	5°9'	7°19'	7°37'	0°19'	3°52'	M11
T 12	2 0 9	28°15'32	18°57'	12°57'	19°18'	0°59'	2°53'	5°41'	6°5'	23°38'	5°8'	7°20'	7°34'	0°25'	4°0'	T 12
W13	2 4 6	29°15'29	3♏25'	14°27'	20°32'	1°43'	3°2'	5°37'	6°9'	23°37'	5°8'	7°21'	7°31'	0°32'	4°9'	W13
T 14	2 8 2	0♏15'29	17°45'	15°55'	21°47'	2°28'	3°12'	5°32'	6°13'	23°35'	5°7'	7°22'	7°28'	0°39'	4°17'	T 14
F 15	2 11 59	1°15'30	1♏54'	17°24'	23°1'	3°12'	3°22'	5°27'	6°16'	23°34'	5°6'	7°R22	7°24'	0°45'	4°25'	F 15
S 16	2 15 56	2°15'34	15°50'	18°51'	24°16'	3°57'	3°32'	5°22'	6°20'	23°32'	5°6'	7°22'	7°21'	0°52'	4°34'	S 16
S 17	2 19 52	3°15'39	29°31'	20°18'	25°30'	4°41'	3°41'	5°17'	6°24'	23°31'	5°5'	7°21'	7°18'	0°59'	4°42'	S 17
M18	2 23 49	4°15'47	12♏59'	21°45'	26°45'	5°26'	3°51'	5°12'	6°28'	23°29'	5°5'	7°21'	7°15'	1°6'	4°51'	M18
T 19	2 27 45	5°15'57	26°13'	23°11'	27°59'	6°11'	4°2'	5°7'	6°31'	23°28'	5°4'	7°20'	7°12'	1°12'	4°59'	T 19
W20	2 31 42	6°16'09	9♏13'	24°36'	29°14'	6°56'	4°12'	5°3'	6°35'	23°26'	5°4'	7°20'	7°8'	1°19'	5°7'	W20
T 21	2 35 38	7°16'23	22°0'	26°0'	0♏28'	7°41'	4°22'	4°58'	6°39'	23°24'	5°3'	7°D20	7°5'	1°26'	5°16'	T 21
F 22	2 39 35	8°16'38	4♏34'	27°24'	1°43'	8°26'	4°33'	4°53'	6°43'	23°23'	5°3'	7°R20	7°2'	1°32'	5°24'	F 22
S 23	2 43 31	9°16'56	16°56'	28°47'	2°57'	9°11'	4°43'	4°48'	6°46'	23°21'	5°2'	7°20'	6°59'	1°39'	5°33'	S 23
S 24	2 47 28	10°17'15	29°7'	0♏9'	4°11'	9°56'	4°54'	4°43'	6°50'	23°19'	5°2'	7°20'	6°56'	1°46'	5°41'	S 24
M25	2 51 25	11°17'36	11♏9'	1°29'	5°26'	10°41'	5°5'	4°38'	6°54'	23°18'	5°2'	7°20'	6°53'	1°52'	5°49'	M25
T 26	2 55 21	12°17'59	23°4'	2°49'	6°40'	11°27'	5°16'	4°34'	6°58'	23°16'	5°1'	7°19'	6°49'	1°59'	5°58'	T 26
W27	2 59 18	13°18'23	4♏55'	4°8'	7°55'	12°12'	5°27'	4°29'	7°1'	23°15'	5°1'	7°18'	6°46'	2°6'	6°6'	W27
T 28	3 3 14	14°18'49	16°45'	5°25'	9°9'	12°57'	5°38'	4°24'	7°5'	23°13'	5°1'	7°17'	6°43'	2°13'	6°15'	T 28
F 29	3 7 11	15°19'16	28°38'	6°41'	10°24'	13°43'	5°49'	4°19'	7°9'	23°11'	5°0'	7°17'	6°40'	2°19'	6°23'	F 29
S 30	3 11 7	16°19'45	10♏38'	7°55'	11°38'	14°28'	6°0'	4°15'	7°13'	23°9'	5°0'	7°D16	6°37'	2°26'	6°31'	S 30
S 31	3 15 4	17♏20'15	22♏51'	9♏7'	12♏52'	15♊14'	6♊12'	4♏10'	7♏16'	23♏8'	5♏0'	7♏16'	6♏34'	2♊33'	6♏40'	S 31

# ASTRODIENST EPHEMERIS for the year 1557

## geocentric

NOVEMBER 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	3 19 0	18 <sup>11</sup> 20'46	5 <sup>11</sup> 21	10 <sup>11</sup> 17	14 <sup>11</sup> 7	15 <sup>11</sup> 59	6 <sup>11</sup> 23	4 <sup>11</sup> R 5	7 <sup>11</sup> 20	23 <sup>11</sup> R 6	5 <sup>11</sup> R 0	7 <sup>11</sup> 17	6 <sup>11</sup> 30	2 <sup>11</sup> 39	6 <sup>11</sup> 48	M 1
T 2	3 22 57	19 <sup>11</sup> 21'18	18 <sup>11</sup> 11	11 <sup>11</sup> 24	15 <sup>11</sup> 21	16 <sup>11</sup> 45	6 <sup>11</sup> 34	4 <sup>11</sup> 1	7 <sup>11</sup> 24	23 <sup>11</sup> R 4	4 <sup>11</sup> 59	7 <sup>11</sup> 18	6 <sup>11</sup> 27	2 <sup>11</sup> 46	6 <sup>11</sup> 56	T 2
W 3	3 26 54	20 <sup>11</sup> 21'52	1 <sup>11</sup> 25	12 <sup>11</sup> 29	16 <sup>11</sup> 36	17 <sup>11</sup> 31	6 <sup>11</sup> 46	3 <sup>11</sup> 56	7 <sup>11</sup> 27	23 <sup>11</sup> 3	4 <sup>11</sup> 59	7 <sup>11</sup> 19	6 <sup>11</sup> 24	2 <sup>11</sup> 53	7 <sup>11</sup> 4	W 3
T 4	3 30 50	21 <sup>11</sup> 22'26	15 <sup>11</sup> 5	13 <sup>11</sup> 30	17 <sup>11</sup> 50	18 <sup>11</sup> 16	6 <sup>11</sup> 58	3 <sup>11</sup> 52	7 <sup>11</sup> 31	23 <sup>11</sup> 1	4 <sup>11</sup> 59	7 <sup>11</sup> 20	6 <sup>11</sup> 21	2 <sup>11</sup> 59	7 <sup>11</sup> 13	T 4
F 5	3 34 47	22 <sup>11</sup> 23'03	29 <sup>11</sup> 12	14 <sup>11</sup> 28	19 <sup>11</sup> 4	19 <sup>11</sup> 2	7 <sup>11</sup> 10	3 <sup>11</sup> 47	7 <sup>11</sup> 35	22 <sup>11</sup> 59	4 <sup>11</sup> 59	7 <sup>11</sup> 21	6 <sup>11</sup> 18	3 <sup>11</sup> 6	7 <sup>11</sup> 21	F 5
S 6	3 38 43	23 <sup>11</sup> 23'40	13 <sup>11</sup> 41	15 <sup>11</sup> 22	20 <sup>11</sup> 19	19 <sup>11</sup> 48	7 <sup>11</sup> 21	3 <sup>11</sup> 43	7 <sup>11</sup> 38	22 <sup>11</sup> 58	4 <sup>11</sup> 59	7 <sup>11</sup> R21	6 <sup>11</sup> 14	3 <sup>11</sup> 13	7 <sup>11</sup> 29	S 6
S 7	3 42 40	24 <sup>11</sup> 24'19	28 <sup>11</sup> 29	16 <sup>11</sup> 11	21 <sup>11</sup> 33	20 <sup>11</sup> 34	7 <sup>11</sup> 33	3 <sup>11</sup> 38	7 <sup>11</sup> 42	22 <sup>11</sup> 56	4 <sup>11</sup> 59	7 <sup>11</sup> 20	6 <sup>11</sup> 11	3 <sup>11</sup> 20	7 <sup>11</sup> 37	S 7
M 8	3 46 36	25 <sup>11</sup> 25'00	13 <sup>11</sup> 11	16 <sup>11</sup> 55	22 <sup>11</sup> 47	21 <sup>11</sup> 20	7 <sup>11</sup> 45	3 <sup>11</sup> 34	7 <sup>11</sup> 46	22 <sup>11</sup> 54	4 <sup>11</sup> 59	7 <sup>11</sup> 18	6 <sup>11</sup> 8	3 <sup>11</sup> 26	7 <sup>11</sup> 46	M 8
T 9	3 50 33	26 <sup>11</sup> 25'42	28 <sup>11</sup> 27	17 <sup>11</sup> 33	24 <sup>11</sup> 2	22 <sup>11</sup> 5	7 <sup>11</sup> 57	3 <sup>11</sup> 30	7 <sup>11</sup> 49	22 <sup>11</sup> 53	4 <sup>11</sup> D59	7 <sup>11</sup> 16	6 <sup>11</sup> 5	3 <sup>11</sup> 33	7 <sup>11</sup> 54	T 9
W10	3 54 29	27 <sup>11</sup> 26'26	13 <sup>11</sup> 21	18 <sup>11</sup> 4	25 <sup>11</sup> 16	22 <sup>11</sup> 51	8 <sup>11</sup> 10	3 <sup>11</sup> 25	7 <sup>11</sup> 53	22 <sup>11</sup> 51	4 <sup>11</sup> 59	7 <sup>11</sup> 13	6 <sup>11</sup> 2	3 <sup>11</sup> 40	8 <sup>11</sup> 2	W10
T 11	3 58 26	28 <sup>11</sup> 27'11	28 <sup>11</sup> 1	18 <sup>11</sup> 28	26 <sup>11</sup> 30	23 <sup>11</sup> 37	8 <sup>11</sup> 22	3 <sup>11</sup> 21	7 <sup>11</sup> 56	22 <sup>11</sup> 49	4 <sup>11</sup> 59	7 <sup>11</sup> 11	5 <sup>11</sup> 59	3 <sup>11</sup> 46	8 <sup>11</sup> 10	T 11
F 12	4 2 23	29 <sup>11</sup> 27'58	12 <sup>11</sup> 22	18 <sup>11</sup> 44	27 <sup>11</sup> 44	24 <sup>11</sup> 23	8 <sup>11</sup> 34	3 <sup>11</sup> 17	8 <sup>11</sup> 0	22 <sup>11</sup> 47	4 <sup>11</sup> 59	7 <sup>11</sup> 9	5 <sup>11</sup> 55	3 <sup>11</sup> 53	8 <sup>11</sup> 18	F 12
S 13	4 6 19	0 <sup>11</sup> 28'46	26 <sup>11</sup> 21	18 <sup>11</sup> R51	28 <sup>11</sup> 59	25 <sup>11</sup> 9	8 <sup>11</sup> 47	3 <sup>11</sup> 13	8 <sup>11</sup> 4	22 <sup>11</sup> 46	4 <sup>11</sup> 59	7 <sup>11</sup> D 8	5 <sup>11</sup> 52	4 <sup>11</sup> 0	8 <sup>11</sup> 26	S 13
S 14	4 10 16	1 <sup>11</sup> 29'35	9 <sup>11</sup> 58	18 <sup>11</sup> 48	0 <sup>11</sup> 13	25 <sup>11</sup> 56	8 <sup>11</sup> 59	3 <sup>11</sup> 9	8 <sup>11</sup> 7	22 <sup>11</sup> 44	4 <sup>11</sup> 59	7 <sup>11</sup> 8	5 <sup>11</sup> 49	4 <sup>11</sup> 6	8 <sup>11</sup> 34	S 14
M15	4 14 12	2 <sup>11</sup> 30'27	23 <sup>11</sup> 13	18 <sup>11</sup> 35	1 <sup>11</sup> 27	26 <sup>11</sup> 42	9 <sup>11</sup> 12	3 <sup>11</sup> 5	8 <sup>11</sup> 11	22 <sup>11</sup> 42	4 <sup>11</sup> 59	7 <sup>11</sup> 9	5 <sup>11</sup> 46	4 <sup>11</sup> 13	8 <sup>11</sup> 42	M15
T 16	4 18 9	3 <sup>11</sup> 31'19	6 <sup>11</sup> 10	18 <sup>11</sup> 11	2 <sup>11</sup> 41	27 <sup>11</sup> 28	9 <sup>11</sup> 24	3 <sup>11</sup> 1	8 <sup>11</sup> 14	22 <sup>11</sup> 41	4 <sup>11</sup> 59	7 <sup>11</sup> 11	5 <sup>11</sup> 43	4 <sup>11</sup> 20	8 <sup>11</sup> 50	T 16
W17	4 22 5	4 <sup>11</sup> 32'13	18 <sup>11</sup> 51	17 <sup>11</sup> 36	3 <sup>11</sup> 55	28 <sup>11</sup> 14	9 <sup>11</sup> 37	2 <sup>11</sup> 57	8 <sup>11</sup> 18	22 <sup>11</sup> 39	5 <sup>11</sup> 0	7 <sup>11</sup> 12	5 <sup>11</sup> 40	4 <sup>11</sup> 27	8 <sup>11</sup> 58	W17
T 18	4 26 2	5 <sup>11</sup> 33'09	1 <sup>11</sup> 18	16 <sup>11</sup> 49	5 <sup>11</sup> 10	29 <sup>11</sup> 0	9 <sup>11</sup> 50	2 <sup>11</sup> 54	8 <sup>11</sup> 21	22 <sup>11</sup> 37	5 <sup>11</sup> 0	7 <sup>11</sup> R13	5 <sup>11</sup> 36	4 <sup>11</sup> 33	9 <sup>11</sup> 6	T 18
F 19	4 29 58	6 <sup>11</sup> 34'05	13 <sup>11</sup> 35	15 <sup>11</sup> 52	6 <sup>11</sup> 24	29 <sup>11</sup> 46	10 <sup>11</sup> 2	2 <sup>11</sup> 50	8 <sup>11</sup> 24	22 <sup>11</sup> 36	5 <sup>11</sup> 0	7 <sup>11</sup> 13	5 <sup>11</sup> 33	4 <sup>11</sup> 40	9 <sup>11</sup> 13	F 19
S 20	4 33 55	7 <sup>11</sup> 35'03	25 <sup>11</sup> 43	14 <sup>11</sup> 46	7 <sup>11</sup> 38	0 <sup>11</sup> 33	10 <sup>11</sup> 15	2 <sup>11</sup> 47	8 <sup>11</sup> 28	22 <sup>11</sup> 34	5 <sup>11</sup> 0	7 <sup>11</sup> 12	5 <sup>11</sup> 30	4 <sup>11</sup> 47	9 <sup>11</sup> 21	S 20
S 21	4 37 52	8 <sup>11</sup> 36'02	7 <sup>11</sup> 44	13 <sup>11</sup> 32	8 <sup>11</sup> 52	1 <sup>11</sup> 19	10 <sup>11</sup> 28	2 <sup>11</sup> 43	8 <sup>11</sup> 31	22 <sup>11</sup> 33	5 <sup>11</sup> 1	7 <sup>11</sup> 9	5 <sup>11</sup> 27	4 <sup>11</sup> 53	9 <sup>11</sup> 29	S 21
M22	4 41 48	9 <sup>11</sup> 37'02	19 <sup>11</sup> 39	12 <sup>11</sup> 13	10 <sup>11</sup> 6	2 <sup>11</sup> 5	10 <sup>11</sup> 41	2 <sup>11</sup> 40	8 <sup>11</sup> 35	22 <sup>11</sup> 31	5 <sup>11</sup> 1	7 <sup>11</sup> 4	5 <sup>11</sup> 24	5 <sup>11</sup> 0	9 <sup>11</sup> 37	M22
T 23	4 45 45	10 <sup>11</sup> 38'03	1 <sup>11</sup> 32	10 <sup>11</sup> 50	11 <sup>11</sup> 20	2 <sup>11</sup> 52	10 <sup>11</sup> 54	2 <sup>11</sup> 36	8 <sup>11</sup> 38	22 <sup>11</sup> 29	5 <sup>11</sup> 1	6 <sup>11</sup> 58	5 <sup>11</sup> 20	5 <sup>11</sup> 7	9 <sup>11</sup> 44	T 23
W24	4 49 41	11 <sup>11</sup> 39'04	13 <sup>11</sup> 22	9 <sup>11</sup> 27	12 <sup>11</sup> 34	3 <sup>11</sup> 38	11 <sup>11</sup> 7	2 <sup>11</sup> 33	8 <sup>11</sup> 41	22 <sup>11</sup> 28	5 <sup>11</sup> 2	6 <sup>11</sup> 51	5 <sup>11</sup> 17	5 <sup>11</sup> 13	9 <sup>11</sup> 52	W24
T 25	4 53 38	12 <sup>11</sup> 40'07	25 <sup>11</sup> 13	8 <sup>11</sup> 7	13 <sup>11</sup> 48	4 <sup>11</sup> 25	11 <sup>11</sup> 20	2 <sup>11</sup> 30	8 <sup>11</sup> 44	22 <sup>11</sup> 26	5 <sup>11</sup> 2	6 <sup>11</sup> 44	5 <sup>11</sup> 14	5 <sup>11</sup> 20	9 <sup>11</sup> 59	T 25
F 26	4 57 34	13 <sup>11</sup> 41'10	7 <sup>11</sup> 7	6 <sup>11</sup> 52	15 <sup>11</sup> 2	5 <sup>11</sup> 11	11 <sup>11</sup> 34	2 <sup>11</sup> 27	8 <sup>11</sup> 48	22 <sup>11</sup> 25	5 <sup>11</sup> 2	6 <sup>11</sup> 38	5 <sup>11</sup> 11	5 <sup>11</sup> 27	10 <sup>11</sup> 7	F 26
S 27	5 1 31	14 <sup>11</sup> 42'13	19 <sup>11</sup> 7	5 <sup>11</sup> 45	16 <sup>11</sup> 16	5 <sup>11</sup> 57	11 <sup>11</sup> 47	2 <sup>11</sup> 24	8 <sup>11</sup> 51	22 <sup>11</sup> 23	5 <sup>11</sup> 3	6 <sup>11</sup> 33	5 <sup>11</sup> 8	5 <sup>11</sup> 34	10 <sup>11</sup> 14	S 27
S 28	5 5 28	15 <sup>11</sup> 43'17	1 <sup>11</sup> 16	4 <sup>11</sup> 46	17 <sup>11</sup> 30	6 <sup>11</sup> 44	12 <sup>11</sup> 0	2 <sup>11</sup> 21	8 <sup>11</sup> 54	22 <sup>11</sup> 22	5 <sup>11</sup> 3	6 <sup>11</sup> 30	5 <sup>11</sup> 5	5 <sup>11</sup> 40	10 <sup>11</sup> 22	S 28
M29	5 9 24	16 <sup>11</sup> 44'22	13 <sup>11</sup> 40	3 <sup>11</sup> 58	18 <sup>11</sup> 44	7 <sup>11</sup> 30	12 <sup>11</sup> 13	2 <sup>11</sup> 18	8 <sup>11</sup> 57	22 <sup>11</sup> 20	5 <sup>11</sup> 4	6 <sup>11</sup> D29	5 <sup>11</sup> 1	5 <sup>11</sup> 47	10 <sup>11</sup> 29	M29
T 30	5 13 21	17 <sup>11</sup> 45'26	26 <sup>11</sup> 13	3 <sup>11</sup> 21	19 <sup>11</sup> 58	8 <sup>11</sup> 17	12 <sup>11</sup> 27	2 <sup>11</sup> 16	9 <sup>11</sup> 10	22 <sup>11</sup> 19	5 <sup>11</sup> 4	6 <sup>11</sup> 29	4 <sup>11</sup> 58	5 <sup>11</sup> 54	10 <sup>11</sup> 37	T 30

Delta T = 163.13 sec

Julian Calendar 1 Nov. 1557 == Greg. Calendar 11 Nov. 1557

DECEMBER 1557 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	5 17 17	18 <sup>11</sup> 46'32	9 <sup>11</sup> Y28	2 <sup>11</sup> R55	21 <sup>11</sup> 12	9 <sup>11</sup> 3	12 <sup>11</sup> 340	2 <sup>11</sup> R13	9 <sup>11</sup> 14	22 <sup>11</sup> R17	5 <sup>11</sup> 5	6 <sup>11</sup> 30	4 <sup>11</sup> 55	6 <sup>11</sup> 0	10 <sup>11</sup> 44	W 1
T 2	5 21 14	19 <sup>11</sup> 47'37	23 <sup>11</sup> 0	2 <sup>11</sup> 39	22 <sup>11</sup> 26	9 <sup>11</sup> 50	12 <sup>11</sup> 54	2 <sup>11</sup> 11	9 <sup>11</sup> 7	22 <sup>11</sup> 16	5 <sup>11</sup> 5	6 <sup>11</sup> 32	4 <sup>11</sup> 52	6 <sup>11</sup> 7	10 <sup>11</sup> 51	T 2
F 3	5 25 10	20 <sup>11</sup> 48'43	7 <sup>11</sup> 0	2 <sup>11</sup> D35	23 <sup>11</sup> 40	10 <sup>11</sup> 36	13 <sup>11</sup> 7	2 <sup>11</sup> 8	9 <sup>11</sup> 10	22 <sup>11</sup> 14	5 <sup>11</sup> 6	6 <sup>11</sup> R33	4 <sup>11</sup> 49	6 <sup>11</sup> 14	10 <sup>11</sup> 58	F 3
S 4	5 29 7	21 <sup>11</sup> 49'49	21 <sup>11</sup> 29	2 <sup>11</sup> 40	24 <sup>11</sup> 53	11 <sup>11</sup> 23	13 <sup>11</sup> 21	2 <sup>11</sup> 6	9 <sup>11</sup> 13	22 <sup>11</sup> 13	5 <sup>11</sup> 7	6 <sup>11</sup> 32	4 <sup>11</sup> 46	6 <sup>11</sup> 21	11 <sup>11</sup> 5	S 4
S 5	5 33 3	22 <sup>11</sup> 50'56	6 <sup>11</sup> 11	2 <sup>11</sup> 54	26 <sup>11</sup> 7	12 <sup>11</sup> 9	13 <sup>11</sup> 34	2 <sup>11</sup> 4	9 <sup>11</sup> 16	22 <sup>11</sup> 11	5 <sup>11</sup> 7	6 <sup>11</sup> 28	4 <sup>11</sup> 42	6 <sup>11</sup> 27	11 <sup>11</sup> 12	S 5
M 6	5 37 0	23 <sup>11</sup> 52'03	21 <sup>11</sup> 33	3 <sup>11</sup> 16	27 <sup>11</sup> 21	12 <sup>11</sup> 56	13 <sup>11</sup> 48	2 <sup>11</sup> 2	9 <sup>11</sup> 19	22 <sup>11</sup> 10	5 <sup>11</sup> 8	6 <sup>11</sup> 23	4 <sup>11</sup> 39	6 <sup>11</sup> 34	11 <sup>11</sup> 19	M 6
T 7	5 40 57	24 <sup>11</sup> 53'11	6 <sup>11</sup> 52	3 <sup>11</sup> 46	28 <sup>11</sup> 35	13 <sup>11</sup> 42	14 <sup>11</sup> 2	2 <sup>11</sup> 0	9 <sup>11</sup> 22	22 <sup>11</sup> 9	5 <sup>11</sup> 9	6 <sup>11</sup> 16	4 <sup>11</sup> 36	6 <sup>11</sup> 41	11 <sup>11</sup> 26	T 7
W 8	5 44 53	25 <sup>11</sup> 54'19	22 <sup>11</sup> 7	4 <sup>11</sup> 23	29 <sup>11</sup> 48	14 <sup>11</sup> 29	14 <sup>11</sup> 15	1 <sup>11</sup> 58	9 <sup>11</sup> 24	22 <sup>11</sup> 7	5 <sup>11</sup> 9	6 <sup>11</sup> 8	4 <sup>11</sup> 33	6 <sup>11</sup> 47	11 <sup>11</sup> 33	W 8
T 9	5 48 50	26 <sup>11</sup> 55'27	7 <sup>11</sup> 19	5 <sup>11</sup> 5	1 <sup>11</sup> 2	15 <sup>11</sup> 16	14 <sup>11</sup> 29	1 <sup>11</sup> 56	9 <sup>11</sup> 27	22 <sup>11</sup> 6	5 <sup>11</sup> 10	6 <sup>11</sup> 1	4 <sup>11</sup> 30	6 <sup>11</sup> 54	11 <sup>11</sup> 40	T 9
F 10	5 52 46	27 <sup>11</sup> 56'36	21 <sup>11</sup> 48	5 <sup>11</sup> 53	2 <sup>11</sup> 15	16 <sup>11</sup> 2	14 <sup>11</sup> 43	1 <sup>11</sup> 55	9 <sup>11</sup> 30	22 <sup>11</sup> 5	5 <sup>11</sup> 11	5 <sup>11</sup> 54	4 <sup>11</sup> 26	7 <sup>11</sup> 1	11 <sup>11</sup> 47	F 10
S 11	5 56 43	28 <sup>11</sup> 57'46	6 <sup>11</sup> 11	6 <sup>11</sup> 46	3 <sup>11</sup> 29	16 <sup>11</sup> 49	14 <sup>11</sup> 57	1 <sup>11</sup> 53	9 <sup>11</sup> 33	22 <sup>11</sup> 3	5 <sup>11</sup> 12	5 <sup>11</sup> 49	4 <sup>11</sup> 23	7 <sup>11</sup> 8	11 <sup>11</sup> 53	S 11
S 12	6 0 39	29 <sup>11</sup> 58'56	19 <sup>11</sup> 44	7 <sup>11</sup> 43	4 <sup>11</sup> 42	17 <sup>11</sup> 35	15 <sup>11</sup> 10	1 <sup>11</sup> 52	9 <sup>11</sup> 36	22 <sup>11</sup> 2	5 <sup>11</sup> 12	5 <sup>11</sup> 47	4 <sup>11</sup> 20	7 <sup>11</sup> 14	12 <sup>11</sup> 0	S 12
M13	6 4 36	1 <sup>11</sup> 0'06	3 <sup>11</sup> 10	8 <sup>11</sup> 43	5 <sup>11</sup> 56	18 <sup>11</sup> 22	15 <sup>11</sup> 24	1 <sup>11</sup> 50	9 <sup>11</sup> 38	22 <sup>11</sup> 1	5 <sup>11</sup> 13	5 <sup>11</sup> D46	4 <sup>11</sup> 17	7 <sup>11</sup> 21	12 <sup>11</sup> 7	M13
T 14	6 8 32	2 <sup>11</sup> 1'17	15 <sup>11</sup> 52	9 <sup>11</sup> 47	7 <sup>11</sup> 9	19 <sup>11</sup> 8	15 <sup>11</sup> 38	1 <sup>11</sup> 49	9 <sup>11</sup> 41	21 <sup>11</sup> 59	5 <sup>11</sup> 14	5 <sup>11</sup> 47	4 <sup>11</sup> 14	7 <sup>11</sup> 28	12 <sup>11</sup> 13	T 14
W15	6 12 29	3 <sup>11</sup> 2'28	28 <sup>11</sup> 24	10 <sup>11</sup> 54	8 <sup>11</sup> 23	19 <sup>11</sup> 55	15 <sup>11</sup> 52	1 <sup>11</sup> 48	9 <sup>11</sup> 44	21 <sup>11</sup> 58	5 <sup>11</sup> 15	5 <sup>11</sup> 48	4 <sup>11</sup> 11	7 <sup>11</sup> 34	12 <sup>11</sup> 19	W15
T 16	6 16 26	4 <sup>11</sup> 3'40	10 <sup>11</sup> 40	12 <sup>11</sup> 3	9 <sup>11</sup> 36	20 <sup>11</sup> 41	16 <sup>11</sup> 6	1 <sup>11</sup> 47	9 <sup>11</sup> 46	21 <sup>11</sup> 57	5 <sup>11</sup> 16	5 <sup>11</sup> R48	4 <sup>11</sup> 7	7 <sup>11</sup> 41	12 <sup>11</sup> 26	T 16
F 17	6 20 22	5 <sup>11</sup> 4'52	22 <sup>11</sup> 46	13 <sup>11</sup> 15	10 <sup>11</sup> 49	21 <sup>11</sup> 28	16 <sup>11</sup> 20	1 <sup>11</sup> 46	9 <sup>11</sup> 49	21 <sup>11</sup> 56	5 <sup>11</sup> 17	5 <sup>11</sup> 46	4 <sup>11</sup> 4	7 <sup>11</sup> 48	12 <sup>11</sup> 32	F 17
S 18	6 24 19	6 <sup>11</sup> 6'04	4 <sup>11</sup> 34	14 <sup>11</sup> 29	12 <sup>11</sup> 2	22 <sup>11</sup> 15	16 <sup>11</sup> 34	1 <sup>11</sup> 45	9 <sup>11</sup> 51	21 <sup>11</sup> 55	5 <sup>11</sup> 18	5 <sup>11</sup> 42	4 <sup>11</sup> 1	7 <sup>11</sup> 54	12 <sup>11</sup> 38	S 18
S 19	6 28 15	7 <sup>11</sup> 7'17	16 <sup>11</sup> 37	15 <sup>11</sup> 44	13 <sup>11</sup> 15	23 <sup>11</sup> 1	16 <sup>11</sup> 48	1 <sup>11</sup> 45	9 <sup>11</sup> 54	21 <sup>11</sup> 54	5 <sup>11</sup> 19	5 <sup>11</sup> 35	3 <sup>11</sup> 58	8 <sup>11</sup> 1	12 <sup>11</sup> 44	S 19
M20	6 32 12	8 <sup>11</sup> 8'29	28 <sup>11</sup> 28	17 <sup>11</sup> 1	14 <sup>11</sup> 29	23 <sup>11</sup> 48	17 <sup>11</sup> 2	1 <sup>11</sup> 44	9 <sup>11</sup> 56	21 <sup>11</sup> 53	5 <sup>11</sup> 20	5 <sup>11</sup> 25	3 <sup>11</sup> 55	8 <sup>11</sup> 8	12 <sup>11</sup> 50	M20
T 21	6 36 8	9 <sup>11</sup> 9'42	10 <sup>11</sup> 319	18 <sup>11</sup> 19	15 <sup>11</sup> 42	24 <sup>11</sup> 34	17 <sup>11</sup> 16	1 <sup>11</sup> 44	9 <sup>11</sup> 58	21 <sup>11</sup> 52	5 <sup>11</sup> 21	5 <sup>11</sup> 13	3 <sup>11</sup> 52	8 <sup>11</sup> 15	12 <sup>11</sup> 56	T 21
W22	6 40 5	10 <sup>11</sup> 10'54	22 <sup>11</sup> 11	19 <sup>11</sup> 39	16 <sup>11</sup> 55	25 <sup>11</sup> 21	17 <sup>11</sup> 30	1 <sup>11</sup> 43	10 <sup>11</sup> 1	21 <sup>11</sup> 51	5 <sup>11</sup> 22	5 <sup>11</sup> 0	3 <sup>11</sup> 48	8 <sup>11</sup> 21	13 <sup>11</sup> 2	W22
T 23	6 44 2	11 <sup>11</sup> 12'06	4 <sup>11</sup> 5	21 <sup>11</sup> 0	18 <sup>11</sup> 8	26 <sup>11</sup> 7	17 <sup>11</sup> 44	1 <sup>11</sup> 43	10 <sup>11</sup> 3	21 <sup>11</sup> 50	5 <sup>11</sup> 23	4 <sup>11</sup> 47	3 <sup>11</sup> 45	8 <sup>11</sup> 28	13 <sup>11</sup> 8	T 23
F 24	6 47 58	12 <sup>11</sup> 13'17	16 <sup>11</sup> 4	22 <sup>11</sup> 22	19 <sup>11</sup> 21	26 <sup>11</sup> 54	17 <sup>11</sup> 58	1 <sup>11</sup> D43	10 <sup>11</sup> 5	21 <sup>11</sup> 49	5 <sup>11</sup> 24	4 <sup>11</sup> 35	3 <sup>11</sup> 42	8 <sup>11</sup> 35	13 <sup>11</sup> 14	F 24
S 25	6 51 55	13 <sup>11</sup> 14'29	28 <sup>11</sup> 8	23 <sup>11</sup> 45	20 <sup>11</sup> 33	27 <sup>11</sup> 41	18 <sup>11</sup> 12	1 <sup>11</sup> 43	10 <sup>11</sup> 8	21 <sup>11</sup> 48	5 <sup>11</sup> 25	4 <sup>11</sup> 24	3 <sup>11</sup> 39	8 <sup>11</sup> 41	13 <sup>11</sup> 20	S 25
S 26	6 55 51	14 <sup>11</sup> 15'39	10 <sup>11</sup> 321	25 <sup>11</sup> 9	21 <sup>11</sup> 46	28 <sup>11</sup> 27	18 <sup>11</sup> 26	1 <sup>11</sup> 43	10 <sup>11</sup> 10	21 <sup>11</sup> 47	5 <sup>11</sup> 26	4 <sup>11</sup> 16	3 <sup>11</sup> 36	8 <sup>11</sup> 48	13 <sup>11</sup> 25	S 26
M27	6 59 48	15 <sup>11</sup> 16'49	22 <sup>11</sup> 45	26 <sup>11</sup> 34	22 <sup>11</sup> 59	29 <sup>11</sup> 14	18 <sup>11</sup> 40	1 <sup>11</sup> 43	10 <sup>11</sup> 12	21 <sup>11</sup> 46	5 <sup>11</sup> 27	4 <sup>11</sup> 11	3 <sup>11</sup> 32	8 <sup>11</sup> 55	13 <sup>11</sup> 31	M27
T 28	7 3 44	16 <sup>11</sup> 17'59	5 <sup>11</sup> Y24	28 <sup>11</sup> 0	24 <sup>11</sup> 11	0 <sup>11</sup> 0	18 <sup>11</sup> 54	1 <sup>11</sup> 44	10 <sup>11</sup> 14	21 <sup>11</sup> 45	5 <sup>11</sup> 28	4 <sup>11</sup> 9	3 <sup>11</sup> 29	9 <sup>11</sup> 2	13 <sup>11</sup> 36	T 28
W29	7 7 41	17 <sup>11</sup> 19'07	18 <sup>11</sup> 22	29 <sup>11</sup> 26	25 <sup>11</sup> 24	0 <sup>11</sup> 46	19 <sup>11</sup> 8	1 <sup>11</sup> 44	10 <sup>11</sup> 16	21 <sup>11</sup> 44	5 <sup>11</sup> 29	4 <sup>11</sup> D 9	3 <sup>11</sup> 26	9 <sup>11</sup> 8	13 <sup>11</sup> 41	W29
T 30	7 11 37	18 <sup>11</sup> 20'15	1 <sup>11</sup> 343	0 <sup>11</sup> 353	26 <sup>11</sup> 36	1 <sup>11</sup> 33	19 <sup>11</sup> 23	1 <sup>11</sup> 45	10 <sup>11</sup> 18	21 <sup>11</sup> 43	5 <sup>11</sup> 30	4 <sup>11</sup> R 9	3 <sup>11</sup> 23	9 <sup>11</sup> 15	13 <sup>11</sup> 47	T 30
F 31	7 15 34	19 <sup>11</sup> 21'22	15 <sup>11</sup> 30	2 <sup>11</sup> 321	27 <sup>11</sup> 349	2 <sup>11</sup> 319	19 <sup>11</sup> 337	1 <sup>11</sup> 45	10 <sup>11</sup> 20	21 <sup>11</sup> 43	5 <sup>11</sup> 32	4 <sup>11</sup> 8	3 <sup>11</sup> 20	9 <sup>11</sup> 22	13 <sup>11</sup> 52	F 31