

Analemmatic Sundial

Latitude: 35.5° N/S

Earliest Sunrise: 4:43 a.m. Latest Sunset: 7:17 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 580.7 mm
 Sunrise/Sunset Markers: X = ± 639.6 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	580.7	580.7	0.0							
11:55	12:05	21.8	580.6	581.0	21.8	8:10	3:50	843.4	312.0	899.3	885.2
11:50	12:10	43.6	580.2	581.8	43.6	8:05	3:55	854.9	301.3	906.4	899.4
11:45	12:15	65.4	579.5	583.1	65.4	8:00	4:00	866.0	290.4	913.4	913.4
11:40	12:20	87.2	578.5	585.0	87.2	7:55	4:05	876.7	279.3	920.1	927.1
11:35	12:25	108.9	577.3	587.4	108.9	7:50	4:10	887.0	268.1	926.7	940.5
11:30	12:30	130.5	575.7	590.3	130.6	7:45	4:15	896.9	256.8	932.9	953.6
11:25	12:35	152.1	573.9	593.8	152.3	7:40	4:20	906.3	245.4	938.9	966.3
11:20	12:40	173.6	571.9	597.7	173.9	7:35	4:25	915.3	233.9	944.7	978.8
11:15	12:45	195.1	569.5	602.0	195.4	7:30	4:30	923.9	222.2	950.2	991.0
11:10	12:50	216.4	566.9	606.8	216.9	7:25	4:35	932.0	210.5	955.5	1002.9
11:05	12:55	237.7	564.1	612.1	238.3	7:20	4:40	939.7	198.6	960.5	1014.4
11:00	1:00	258.8	560.9	617.7	259.6	7:15	4:45	946.9	186.7	965.2	1025.6
10:55	1:05	279.8	557.5	623.8	280.8	7:10	4:50	953.7	174.6	969.6	1036.6
10:50	1:10	300.7	553.8	630.2	301.9	7:05	4:55	960.0	162.5	973.7	1047.2
10:45	1:15	321.4	549.9	636.9	322.9	7:00	5:00	965.9	150.3	977.5	1057.5
10:40	1:20	342.0	545.7	644.0	343.8	6:55	5:05	971.3	138.0	981.1	1067.5
10:35	1:25	362.4	541.2	651.4	364.6	6:50	5:10	976.3	125.7	984.4	1077.1
10:30	1:30	382.7	536.5	659.0	385.2	6:45	5:15	980.8	113.3	987.3	1086.5
10:25	1:35	402.7	531.5	666.9	405.7	6:40	5:20	984.8	100.8	990.0	1095.5
10:20	1:40	422.6	526.3	675.0	426.1	6:35	5:25	988.4	88.3	992.3	1104.2
10:15	1:45	442.3	520.8	683.3	446.3	6:30	5:30	991.4	75.8	994.3	1112.6
10:10	1:50	461.7	515.1	691.8	466.4	6:25	5:35	994.1	63.2	996.1	1120.7
10:05	1:55	481.0	509.1	700.4	486.3	6:20	5:40	996.2	50.6	997.5	1128.5
10:00	2:00	500.0	502.9	709.2	506.0	6:15	5:45	997.9	38.0	998.6	1135.9
9:55	2:05	518.8	496.4	718.0	525.6	6:10	5:50	999.0	25.3	999.4	1143.0
9:50	2:10	537.3	489.8	727.0	544.9	6:05	5:55	999.8	12.7	999.8	1149.9
9:45	2:15	555.6	482.8	736.1	564.1	6:00	6:00	1000.0	0.0	1000.0	1156.4
9:40	2:20	573.6	475.7	745.2	583.1	5:55	6:05	999.8	-12.7	999.8	1162.6
9:35	2:25	591.3	468.3	754.3	601.9	5:50	6:10	999.0	-25.3	999.4	1168.5
9:30	2:30	608.8	460.7	763.4	620.5	5:45	6:15	997.9	-38.0	998.6	1174.1
9:25	2:35	625.9	452.9	772.6	638.8	5:40	6:20	996.2	-50.6	997.5	1179.4
9:20	2:40	642.8	444.8	781.7	657.0	5:35	6:25	994.1	-63.2	996.1	1184.4
9:15	2:45	659.3	436.6	790.8	674.9	5:30	6:30	991.4	-75.8	994.3	1189.1
9:10	2:50	675.6	428.1	799.8	692.6	5:25	6:35	988.4	-88.3	992.3	1193.5
9:05	2:55	691.5	419.5	808.8	710.1	5:20	6:40	984.8	-100.8	990.0	1197.6
9:00	3:00	707.1	410.6	817.7	727.3	5:15	6:45	980.8	-113.3	987.3	1201.5
8:55	3:05	722.4	401.6	826.5	744.2	5:10	6:50	976.3	-125.7	984.4	1205.0
8:50	3:10	737.3	392.3	835.2	761.0	5:05	6:55	971.3	-138.0	981.1	1208.3
8:45	3:15	751.8	382.9	843.7	777.4	5:00	7:00	965.9	-150.3	977.5	1211.4
8:40	3:20	766.0	373.3	852.1	793.6	4:55	7:05	960.0	-162.5	973.7	1214.1
8:35	3:25	779.9	363.5	860.4	809.6	4:50	7:10	953.7	-174.6	969.6	1216.6
8:30	3:30	793.4	353.5	868.5	825.2	4:45	7:15	946.9	-186.7	965.2	1218.8
8:25	3:35	806.4	343.4	876.5	840.6	4:40	7:20	939.7	-198.6	960.5	1220.8
8:20	3:40	819.2	333.1	884.3	855.8	4:35	7:25	932.0	-210.5	955.5	1222.5
8:15	3:45	831.5	322.6	891.9	870.6	4:30	7:30	923.9	-222.2	950.2	1224.0

Analemmatic Sundial

Latitude: 35.5° N/S

Date Scale

Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 580.7 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-345.4	-338.9	-336.9	-327.9	-325.3	-314.1	-311.0	-297.8	-294.2	-279.2	-275.2
February	-249.8	-231.6	-226.8	-207.5	-202.7	-182.4	-177.2	-156.3	-151.0	-129.5	-124.0
March	-107.6	-85.6	-80.0	-57.6	-52.1	-29.6	-24.0	-1.4	4.1	26.6	32.1
April	65.5	87.4	92.9	114.4	119.8	140.9	146.0	166.7	171.7	191.5	196.4
May	220.0	238.1	242.4	259.2	263.3	278.7	282.4	296.5	299.9	312.2	315.0
June	330.2	338.2	340.1	345.9	347.2	351.0	351.5	352.8	353.0	350.4	351.6
July	347.2	341.7	340.1	332.6	330.4	320.7	318.1	306.5	303.4	290.2	286.7
August	264.2	247.8	243.6	226.1	221.6	203.1	198.3	179.0	174.1	154.0	148.8
September	117.8	96.5	91.2	69.5	64.1	42.2	36.8	14.8	9.2	-12.9	-18.5
October	-46.1	-68.2	-73.7	-95.6	-101.0	-122.7	-128.1	-149.3	-154.6	-175.3	-180.3
November	-210.1	-229.1	-233.8	-251.7	-256.1	-272.7	-276.7	-291.8	-295.3	-308.8	-312.0
December	-326.0	-335.4	-337.4	-344.2	-345.7	-350.1	-351.0	-352.8	-353.0	-352.1	-351.6

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	345.4	338.9	336.9	327.9	325.3	314.1	311.0	297.8	294.2	279.2	275.2
February	249.8	231.6	226.8	207.5	202.7	182.4	177.2	156.3	151.0	129.5	124.0
March	107.6	85.6	80.0	57.6	52.1	29.6	24.0	1.4	-4.1	-26.6	-32.1
April	-65.5	-87.4	-92.9	-114.4	-119.8	-140.9	-146.0	-166.7	-171.7	-191.5	-196.4
May	-220.0	-238.1	-242.4	-259.2	-263.3	-278.7	-282.4	-296.5	-299.9	-312.2	-315.0
June	-330.2	-338.2	-340.1	-345.9	-347.2	-351.0	-351.5	-352.8	-353.0	-350.4	-351.6
July	-347.2	-341.7	-340.1	-332.6	-330.4	-320.7	-318.1	-306.5	-303.4	-290.2	-286.7
August	-264.2	-247.8	-243.6	-226.1	-221.6	-203.1	-198.3	-179.0	-174.1	-154.0	-148.8
September	-117.8	-96.5	-91.2	-69.5	-64.1	-42.2	-36.8	-14.8	-9.2	12.9	18.5
October	46.1	68.2	73.7	95.6	101.0	122.7	128.1	149.3	154.6	175.3	180.3
November	210.1	229.1	233.8	251.7	256.1	272.7	276.7	291.8	295.3	308.8	312.0
December	326.0	335.4	337.4	344.2	345.7	350.1	351.0	352.8	353.0	352.1	351.6

Southern Hemisphere

The shaded "Date" boxes identify the two extremes of the "Date Scale" that occur on the Summer and Winter Solstices.

A number of "Date Scale" configurations are available including the following "Date Line" combinations:

- | | | |
|---------|------------|--------------------|
| a) 1 | c) 1,10,20 | e) 1,5,10,15,20,25 |
| b) 1,15 | d) 1,11,21 | f) 1,6,11,16,21,26 |

Analemmatic Sundial

Latitude: 35.5° N/S

Earliest Sunrise: 4:43 a.m. Latest Sunset: 7:17 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 871.1 mm
 Sunrise/Sunset Markers: X = ± 959.3 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	871.1	871.1	0.0							
11:55	12:05	32.7	870.8	871.5	32.7	8:10	3:50	1265.1	468.0	1348.9	1327.7
11:50	12:10	65.4	870.2	872.7	65.4	8:05	3:55	1282.4	451.9	1359.7	1349.1
11:45	12:15	98.1	869.2	874.7	98.1	8:00	4:00	1299.0	435.5	1370.1	1370.1
11:40	12:20	130.7	867.7	877.5	130.8	7:55	4:05	1315.1	419.0	1380.2	1390.6
11:35	12:25	163.3	865.9	881.1	163.4	7:50	4:10	1330.5	402.2	1390.0	1410.7
11:30	12:30	195.8	863.6	885.5	195.9	7:45	4:15	1345.3	385.3	1399.4	1430.3
11:25	12:35	228.2	860.9	890.6	228.4	7:40	4:20	1359.5	368.1	1408.4	1449.5
11:20	12:40	260.5	857.8	896.5	260.8	7:35	4:25	1373.0	350.8	1417.1	1468.2
11:15	12:45	292.6	854.3	903.0	293.1	7:30	4:30	1385.8	333.3	1425.3	1486.5
11:10	12:50	324.7	850.4	910.3	325.3	7:25	4:35	1398.0	315.7	1433.2	1504.3
11:05	12:55	356.5	846.1	918.1	357.4	7:20	4:40	1409.5	297.9	1440.7	1521.6
11:00	1:00	388.2	841.4	926.6	389.4	7:15	4:45	1420.4	280.0	1447.7	1538.5
10:55	1:05	419.7	836.3	935.7	421.2	7:10	4:50	1430.6	261.9	1454.4	1554.9
10:50	1:10	451.1	830.7	945.3	452.9	7:05	4:55	1440.1	243.7	1460.6	1570.8
10:45	1:15	482.2	824.8	955.4	484.4	7:00	5:00	1448.9	225.4	1466.3	1586.2
10:40	1:20	513.0	818.5	966.0	515.7	6:55	5:05	1457.0	207.0	1471.6	1601.2
10:35	1:25	543.7	811.8	977.1	546.9	6:50	5:10	1464.4	188.5	1476.5	1615.7
10:30	1:30	574.0	804.7	988.5	577.8	6:45	5:15	1471.2	169.9	1481.0	1629.7
10:25	1:35	604.1	797.3	1000.3	608.6	6:40	5:20	1477.2	151.3	1484.9	1643.2
10:20	1:40	633.9	789.4	1012.5	639.2	6:35	5:25	1482.5	132.5	1488.5	1656.3
10:15	1:45	663.4	781.2	1024.9	669.5	6:30	5:30	1487.2	113.7	1491.5	1668.9
10:10	1:50	692.6	772.6	1037.6	699.6	6:25	5:35	1491.1	94.8	1494.1	1681.0
10:05	1:55	721.5	763.7	1050.6	729.4	6:20	5:40	1494.3	75.9	1496.2	1692.7
10:00	2:00	750.0	754.4	1063.7	759.0	6:15	5:45	1496.8	57.0	1497.9	1703.9
9:55	2:05	778.2	744.7	1077.1	788.4	6:10	5:50	1498.6	38.0	1499.1	1714.6
9:50	2:10	805.9	734.6	1090.5	817.4	6:05	5:55	1499.6	19.0	1499.8	1724.8
9:45	2:15	833.4	724.3	1104.1	846.2	6:00	6:00	1500.0	0.0	1500.0	1734.6
9:40	2:20	860.4	713.5	1117.7	874.7	5:55	6:05	1499.6	-19.0	1499.8	1743.9
9:35	2:25	887.0	702.5	1131.4	902.8	5:50	6:10	1498.6	-38.0	1499.1	1752.7
9:30	2:30	913.1	691.1	1145.2	930.7	5:45	6:15	1496.8	-57.0	1497.9	1761.1
9:25	2:35	938.9	679.3	1158.9	958.3	5:40	6:20	1494.3	-75.9	1496.2	1769.1
9:20	2:40	964.2	667.3	1172.6	985.5	5:35	6:25	1491.1	-94.8	1494.1	1776.6
9:15	2:45	989.0	654.9	1186.2	1012.4	5:30	6:30	1487.2	-113.7	1491.5	1783.6
9:10	2:50	1013.4	642.2	1199.7	1038.9	5:25	6:35	1482.5	-132.5	1488.5	1790.3
9:05	2:55	1037.3	629.2	1213.2	1065.1	5:20	6:40	1477.2	-151.3	1484.9	1796.5
9:00	3:00	1060.7	615.9	1226.5	1090.9	5:15	6:45	1471.2	-169.9	1481.0	1802.2
8:55	3:05	1083.5	602.3	1239.7	1116.4	5:10	6:50	1464.4	-188.5	1476.5	1807.6
8:50	3:10	1105.9	588.5	1252.7	1141.4	5:05	6:55	1457.0	-207.0	1471.6	1812.5
8:45	3:15	1127.8	574.3	1265.6	1166.1	5:00	7:00	1448.9	-225.4	1466.3	1817.0
8:40	3:20	1149.1	559.9	1278.2	1190.4	4:55	7:05	1440.1	-243.7	1460.6	1821.2
8:35	3:25	1169.8	545.2	1290.6	1214.4	4:50	7:10	1430.6	-261.9	1454.4	1824.9
8:30	3:30	1190.0	530.3	1302.8	1237.9	4:45	7:15	1420.4	-280.0	1447.7	1828.2
8:25	3:35	1209.7	515.1	1314.8	1261.0	4:40	7:20	1409.5	-297.9	1440.7	1831.2
8:20	3:40	1228.7	499.6	1326.4	1283.6	4:35	7:25	1398.0	-315.7	1433.2	1833.8
8:15	3:45	1247.2	483.9	1337.8	1305.9	4:30	7:30	1385.8	-333.3	1425.3	1836.0

Analemmatic Sundial

Latitude: 35.5° N/S

Date Scale

Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 871.1 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-518.1	-508.3	-505.3	-491.9	-487.9	-471.2	-466.6	-446.6	-441.3	-418.8	-412.9
February	-374.7	-347.4	-340.3	-311.3	-304.0	-273.6	-265.8	-234.5	-226.6	-194.3	-186.0
March	-161.4	-128.4	-120.0	-86.5	-78.1	-44.4	-36.0	-2.1	6.2	39.9	48.2
April	98.3	131.2	139.4	171.6	179.7	211.4	219.1	250.0	257.6	287.3	294.5
May	330.0	357.1	363.6	388.8	394.9	418.1	423.6	444.7	449.8	468.3	472.4
June	495.4	507.3	510.1	518.9	520.9	526.4	527.2	529.2	529.5	525.7	527.4
July	520.9	512.6	510.1	498.8	495.6	481.0	477.1	459.7	455.1	435.3	430.0
August	396.3	371.7	365.4	339.1	332.5	304.7	297.5	268.5	261.1	231.0	223.2
September	176.6	144.8	136.8	104.3	96.1	63.4	55.2	22.2	13.9	-19.4	-27.7
October	-69.1	-102.3	-110.5	-143.5	-151.5	-184.0	-192.1	-223.9	-231.8	-262.9	-270.5
November	-315.1	-343.7	-350.6	-377.5	-384.1	-409.1	-415.0	-437.7	-443.0	-463.1	-468.0
December	-488.9	-503.1	-506.1	-516.3	-518.6	-525.2	-526.4	-529.2	-529.5	-528.2	-527.4

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	518.1	508.3	505.3	491.9	487.9	471.2	466.6	446.6	441.3	418.8	412.9
February	374.7	347.4	340.3	311.3	304.0	273.6	265.8	234.5	226.6	194.3	186.0
March	161.4	128.4	120.0	86.5	78.1	44.4	36.0	2.1	-6.2	-39.9	-48.2
April	-98.3	-131.2	-139.4	-171.6	-179.7	-211.4	-219.1	-250.0	-257.6	-287.3	-294.5
May	-330.0	-357.1	-363.6	-388.8	-394.9	-418.1	-423.6	-444.7	-449.8	-468.3	-472.4
June	-495.4	-507.3	-510.1	-518.9	-520.9	-526.4	-527.2	-529.2	-529.5	-525.7	-527.4
July	-520.9	-512.6	-510.1	-498.8	-495.6	-481.0	-477.1	-459.7	-455.1	-435.3	-430.0
August	-396.3	-371.7	-365.4	-339.1	-332.5	-304.7	-297.5	-268.5	-261.1	-231.0	-223.2
September	-176.6	-144.8	-136.8	-104.3	-96.1	-63.4	-55.2	-22.2	-13.9	19.4	27.7
October	69.1	102.3	110.5	143.5	151.5	184.0	192.1	223.9	231.8	262.9	270.5
November	315.1	343.7	350.6	377.5	384.1	409.1	415.0	437.7	443.0	463.1	468.0
December	488.9	503.1	506.1	516.3	518.6	525.2	526.4	529.2	529.5	528.2	527.4

Southern Hemisphere

The shaded "Date" boxes identify the two extremes of the "Date Scale" that occur on the Summer and Winter Solstices.

A number of "Date Scale" configurations are available including the following "Date Line" combinations:

- | | | |
|---------|------------|--------------------|
| a) 1 | c) 1,10,20 | e) 1,5,10,15,20,25 |
| b) 1,15 | d) 1,11,21 | f) 1,6,11,16,21,26 |

Analemmatic Sundial

Latitude: 35.5° N/S

Earliest Sunrise: 4:43 a.m. Latest Sunset: 7:17 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1161.4 mm
 Sunrise/Sunset Markers: X = ± 1279.1 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1161.4	1161.4	0.0							
11:55	12:05	43.6	1161.1	1161.9	43.6	8:10	3:50	1686.8	624.0	1798.5	1770.3
11:50	12:10	87.2	1160.3	1163.6	87.2	8:05	3:55	1709.8	602.5	1812.9	1798.9
11:45	12:15	130.8	1158.9	1166.3	130.8	8:00	4:00	1732.1	580.7	1826.8	1826.8
11:40	12:20	174.3	1157.0	1170.0	174.4	7:55	4:05	1753.5	558.6	1840.3	1854.2
11:35	12:25	217.7	1154.5	1174.9	217.8	7:50	4:10	1774.0	536.3	1853.3	1880.9
11:30	12:30	261.1	1151.5	1180.7	261.2	7:45	4:15	1793.7	513.7	1865.8	1907.1
11:25	12:35	304.2	1147.9	1187.5	304.5	7:40	4:20	1812.6	490.8	1877.9	1932.7
11:20	12:40	347.3	1143.8	1195.3	347.7	7:35	4:25	1830.6	467.8	1889.4	1957.6
11:15	12:45	390.2	1139.1	1204.1	390.8	7:30	4:30	1847.8	444.5	1900.5	1982.0
11:10	12:50	432.9	1133.9	1213.7	433.8	7:25	4:35	1864.0	420.9	1911.0	2005.7
11:05	12:55	475.4	1128.1	1224.2	476.5	7:20	4:40	1879.4	397.2	1920.9	2028.8
11:00	1:00	517.6	1121.8	1235.5	519.1	7:15	4:45	1893.9	373.3	1930.3	2051.3
10:55	1:05	559.7	1115.0	1247.6	561.6	7:10	4:50	1907.4	349.2	1939.1	2073.1
10:50	1:10	601.4	1107.7	1260.4	603.8	7:05	4:55	1920.1	325.0	1947.4	2094.4
10:45	1:15	642.9	1099.8	1273.9	645.8	7:00	5:00	1931.9	300.6	1955.1	2115.0
10:40	1:20	684.0	1091.4	1288.0	687.6	6:55	5:05	1942.7	276.0	1962.2	2134.9
10:35	1:25	724.9	1082.4	1302.7	729.2	6:50	5:10	1952.6	251.4	1968.7	2154.2
10:30	1:30	765.4	1073.0	1318.0	770.5	6:45	5:15	1961.6	226.6	1974.6	2172.9
10:25	1:35	805.5	1063.0	1333.8	811.5	6:40	5:20	1969.6	201.7	1979.9	2191.0
10:20	1:40	845.2	1052.6	1350.0	852.2	6:35	5:25	1976.7	176.7	1984.6	2208.4
10:15	1:45	884.6	1041.6	1366.6	892.6	6:30	5:30	1982.9	151.6	1988.7	2225.2
10:10	1:50	923.5	1030.2	1383.5	932.8	6:25	5:35	1988.1	126.4	1992.1	2241.4
10:05	1:55	962.0	1018.2	1400.8	972.6	6:20	5:40	1992.4	101.2	1995.0	2256.9
10:00	2:00	1000.0	1005.8	1418.3	1012.0	6:15	5:45	1995.7	76.0	1997.2	2271.8
9:55	2:05	1037.5	992.9	1436.1	1051.1	6:10	5:50	1998.1	50.7	1998.7	2286.1
9:50	2:10	1074.6	979.5	1454.0	1089.9	6:05	5:55	1999.5	25.3	1999.7	2299.7
9:45	2:15	1111.1	965.7	1472.1	1128.2	6:00	6:00	2000.0	0.0	2000.0	2312.8
9:40	2:20	1147.2	951.4	1490.3	1166.2	5:55	6:05	1999.5	-25.3	1999.7	2325.2
9:35	2:25	1182.6	936.6	1508.6	1203.8	5:50	6:10	1998.1	-50.7	1998.7	2337.0
9:30	2:30	1217.5	921.4	1526.9	1241.0	5:45	6:15	1995.7	-76.0	1997.2	2348.2
9:25	2:35	1251.8	905.8	1545.2	1277.7	5:40	6:20	1992.4	-101.2	1995.0	2358.8
9:20	2:40	1285.6	889.7	1563.4	1314.0	5:35	6:25	1988.1	-126.4	1992.1	2368.8
9:15	2:45	1318.7	873.2	1581.6	1349.8	5:30	6:30	1982.9	-151.6	1988.7	2378.2
9:10	2:50	1351.2	856.3	1599.7	1385.2	5:25	6:35	1976.7	-176.7	1984.6	2387.0
9:05	2:55	1383.0	839.0	1617.6	1420.1	5:20	6:40	1969.6	-201.7	1979.9	2395.3
9:00	3:00	1414.2	821.2	1635.4	1454.5	5:15	6:45	1961.6	-226.6	1974.6	2403.0
8:55	3:05	1444.7	803.1	1653.0	1488.5	5:10	6:50	1952.6	-251.4	1968.7	2410.1
8:50	3:10	1474.6	784.6	1670.3	1521.9	5:05	6:55	1942.7	-276.0	1962.2	2416.7
8:45	3:15	1503.7	765.8	1687.4	1554.9	5:00	7:00	1931.9	-300.6	1955.1	2422.7
8:40	3:20	1532.1	746.5	1704.3	1587.3	4:55	7:05	1920.1	-325.0	1947.4	2428.2
8:35	3:25	1559.8	727.0	1720.9	1619.1	4:50	7:10	1907.4	-349.2	1939.1	2433.2
8:30	3:30	1586.7	707.0	1737.1	1650.5	4:45	7:15	1893.9	-373.3	1930.3	2437.6
8:25	3:35	1612.9	686.8	1753.0	1681.3	4:40	7:20	1879.4	-397.2	1920.9	2441.6
8:20	3:40	1638.3	666.2	1768.6	1711.5	4:35	7:25	1864.0	-420.9	1911.0	2445.1
8:15	3:45	1662.9	645.2	1783.7	1741.2	4:30	7:30	1847.8	-444.5	1900.5	2448.1

Analemmatic Sundial

Latitude: 35.5° N/S

Date Scale

Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1161.4 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-690.8	-677.8	-673.8	-655.9	-650.6	-628.3	-622.1	-595.5	-588.4	-558.4	-550.5
February	-499.7	-463.2	-453.7	-415.0	-405.4	-364.8	-354.4	-312.7	-302.1	-259.1	-248.0
March	-215.2	-171.1	-159.9	-115.3	-104.2	-59.1	-48.0	-2.8	8.2	53.2	64.3
April	131.0	174.9	185.8	228.8	239.6	281.8	292.1	333.3	343.4	383.1	392.7
May	439.9	476.1	484.8	518.4	526.5	557.5	564.8	592.9	599.7	624.4	629.9
June	660.5	676.4	680.1	691.8	694.5	701.9	702.9	705.6	705.9	700.9	703.2
July	694.5	683.4	680.1	665.1	660.8	641.4	636.1	613.0	606.8	580.4	573.4
August	528.4	495.6	487.3	452.2	443.3	406.3	396.6	358.0	348.2	308.0	297.7
September	235.5	193.0	182.3	139.0	128.1	84.5	73.7	29.6	18.5	-25.9	-36.9
October	-92.2	-136.4	-147.3	-191.3	-201.9	-245.4	-256.1	-298.5	-309.1	-350.5	-360.7
November	-420.2	-458.3	-467.5	-503.4	-512.1	-545.4	-553.3	-583.6	-590.7	-617.5	-624.0
December	-651.9	-670.8	-674.8	-688.5	-691.5	-700.2	-701.9	-705.6	-705.9	-704.3	-703.2

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	690.8	677.8	673.8	655.9	650.6	628.3	622.1	595.5	588.4	558.4	550.5
February	499.7	463.2	453.7	415.0	405.4	364.8	354.4	312.7	302.1	259.1	248.0
March	215.2	171.1	159.9	115.3	104.2	59.1	48.0	2.8	-8.2	-53.2	-64.3
April	-131.0	-174.9	-185.8	-228.8	-239.6	-281.8	-292.1	-333.3	-343.4	-383.1	-392.7
May	-439.9	-476.1	-484.8	-518.4	-526.5	-557.5	-564.8	-592.9	-599.7	-624.4	-629.9
June	-660.5	-676.4	-680.1	-691.8	-694.5	-701.9	-702.9	-705.6	-705.9	-700.9	-703.2
July	-694.5	-683.4	-680.1	-665.1	-660.8	-641.4	-636.1	-613.0	-606.8	-580.4	-573.4
August	-528.4	-495.6	-487.3	-452.2	-443.3	-406.3	-396.6	-358.0	-348.2	-308.0	-297.7
September	-235.5	-193.0	-182.3	-139.0	-128.1	-84.5	-73.7	-29.6	-18.5	25.9	36.9
October	92.2	136.4	147.3	191.3	201.9	245.4	256.1	298.5	309.1	350.5	360.7
November	420.2	458.3	467.5	503.4	512.1	545.4	553.3	583.6	590.7	617.5	624.0
December	651.9	670.8	674.8	688.5	691.5	700.2	701.9	705.6	705.9	704.3	703.2

Southern Hemisphere

The shaded "Date" boxes identify the two extremes of the "Date Scale" that occur on the Summer and Winter Solstices.

A number of "Date Scale" configurations are available including the following "Date Line" combinations:

- | | | |
|---------|------------|--------------------|
| a) 1 | c) 1,10,20 | e) 1,5,10,15,20,25 |
| b) 1,15 | d) 1,11,21 | f) 1,6,11,16,21,26 |

Analemmatic Sundial

Latitude: 35.5° N/S

Earliest Sunrise: 4:43 a.m. Latest Sunset: 7:17 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1451.8 mm
 Sunrise/Sunset Markers: X = ± 1598.9 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1451.8	1451.8	0.0							
11:55	12:05	54.5	1451.4	1452.4	54.5	8:10	3:50	2108.5	780.0	2248.1	2212.9
11:50	12:10	109.0	1450.4	1454.5	109.1	8:05	3:55	2137.3	753.1	2266.1	2248.6
11:45	12:15	163.5	1448.6	1457.8	163.5	8:00	4:00	2165.1	725.9	2283.5	2283.5
11:40	12:20	217.9	1446.2	1462.6	218.0	7:55	4:05	2191.8	698.3	2300.4	2317.7
11:35	12:25	272.2	1443.1	1468.6	272.3	7:50	4:10	2217.5	670.3	2316.6	2351.2
11:30	12:30	326.3	1439.3	1475.9	326.6	7:45	4:15	2242.2	642.1	2332.3	2383.9
11:25	12:35	380.3	1434.9	1484.4	380.7	7:40	4:20	2265.8	613.5	2347.4	2415.8
11:20	12:40	434.1	1429.7	1494.2	434.7	7:35	4:25	2288.3	584.7	2361.8	2447.0
11:15	12:45	487.7	1423.9	1505.1	488.5	7:30	4:30	2309.7	555.6	2375.6	2477.5
11:10	12:50	541.1	1417.3	1517.1	542.2	7:25	4:35	2330.0	526.2	2388.7	2507.1
11:05	12:55	594.2	1410.2	1530.2	595.7	7:20	4:40	2349.2	496.5	2401.1	2536.0
11:00	1:00	647.0	1402.3	1544.4	648.9	7:15	4:45	2367.3	466.7	2412.9	2564.1
10:55	1:05	699.6	1393.8	1559.5	702.0	7:10	4:50	2384.3	436.6	2423.9	2591.4
10:50	1:10	751.8	1384.6	1575.5	754.8	7:05	4:55	2400.1	406.2	2434.3	2618.0
10:45	1:15	803.6	1374.7	1592.4	807.3	7:00	5:00	2414.8	375.7	2443.9	2643.7
10:40	1:20	855.1	1364.2	1610.0	859.5	6:55	5:05	2428.4	345.1	2452.7	2668.6
10:35	1:25	906.1	1353.0	1628.4	911.5	6:50	5:10	2440.7	314.2	2460.9	2692.8
10:30	1:30	956.7	1341.2	1647.5	963.1	6:45	5:15	2452.0	283.2	2468.3	2716.2
10:25	1:35	1006.9	1328.8	1667.2	1014.3	6:40	5:20	2462.0	252.1	2474.9	2738.7
10:20	1:40	1056.5	1315.7	1687.4	1065.3	6:35	5:25	2470.9	220.8	2480.8	2760.5
10:15	1:45	1105.7	1302.0	1708.2	1115.8	6:30	5:30	2478.6	189.5	2485.8	2781.5
10:10	1:50	1154.4	1287.7	1729.4	1166.0	6:25	5:35	2485.1	158.0	2490.2	2801.7
10:05	1:55	1202.5	1272.8	1751.0	1215.7	6:20	5:40	2490.5	126.5	2493.7	2821.1
10:00	2:00	1250.0	1257.3	1772.9	1265.0	6:15	5:45	2494.6	94.9	2496.5	2839.8
9:55	2:05	1296.9	1241.1	1795.1	1313.9	6:10	5:50	2497.6	63.3	2498.4	2857.6
9:50	2:10	1343.2	1224.4	1817.5	1362.4	6:05	5:55	2499.4	31.7	2499.6	2874.7
9:45	2:15	1388.9	1207.1	1840.2	1410.3	6:00	6:00	2500.0	0.0	2500.0	2891.0
9:40	2:20	1433.9	1189.2	1862.9	1457.8	5:55	6:05	2499.4	-31.7	2499.6	2906.5
9:35	2:25	1478.3	1170.8	1885.7	1504.7	5:50	6:10	2497.6	-63.3	2498.4	2921.2
9:30	2:30	1521.9	1151.8	1908.6	1551.2	5:45	6:15	2494.6	-94.9	2496.5	2935.2
9:25	2:35	1564.8	1132.2	1931.5	1597.1	5:40	6:20	2490.5	-126.5	2493.7	2948.5
9:20	2:40	1607.0	1112.1	1954.3	1642.5	5:35	6:25	2485.1	-158.0	2490.2	2961.0
9:15	2:45	1648.4	1091.5	1977.0	1687.3	5:30	6:30	2478.6	-189.5	2485.8	2972.7
9:10	2:50	1689.0	1070.3	1999.6	1731.5	5:25	6:35	2470.9	-220.8	2480.8	2983.8
9:05	2:55	1728.8	1048.7	2022.0	1775.1	5:20	6:40	2462.0	-252.1	2474.9	2994.1
9:00	3:00	1767.8	1026.5	2044.2	1818.2	5:15	6:45	2452.0	-283.2	2468.3	3003.7
8:55	3:05	1805.9	1003.9	2066.2	1860.6	5:10	6:50	2440.7	-314.2	2460.9	3012.6
8:50	3:10	1843.2	980.8	2087.9	1902.4	5:05	6:55	2428.4	-345.1	2452.7	3020.8
8:45	3:15	1879.6	957.2	2109.3	1943.6	5:00	7:00	2414.8	-375.7	2443.9	3028.4
8:40	3:20	1915.1	933.2	2130.4	1984.1	4:55	7:05	2400.1	-406.2	2434.3	3035.3
8:35	3:25	1949.7	908.7	2151.1	2023.9	4:50	7:10	2384.3	-436.6	2423.9	3041.5
8:30	3:30	1983.4	883.8	2171.4	2063.1	4:45	7:15	2367.3	-466.7	2412.9	3047.1
8:25	3:35	2016.1	858.4	2191.3	2101.6	4:40	7:20	2349.2	-496.5	2401.1	3052.0
8:20	3:40	2047.9	832.7	2210.7	2139.4	4:35	7:25	2330.0	-526.2	2388.7	3056.3
8:15	3:45	2078.7	806.6	2229.7	2176.5	4:30	7:30	2309.7	-555.6	2375.6	3060.1

Analemmatic Sundial

Latitude: 35.5° N/S

Date Scale

Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1451.8 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-863.5	-847.2	-842.2	-819.8	-813.2	-785.4	-777.6	-744.4	-735.6	-698.0	-688.1
February	-624.6	-579.0	-567.1	-518.8	-506.7	-456.1	-443.0	-390.8	-377.6	-323.8	-310.0
March	-269.0	-213.9	-199.9	-144.1	-130.2	-73.9	-60.1	-3.6	10.3	66.5	80.3
April	163.8	218.6	232.3	286.0	299.5	352.3	365.1	416.7	429.3	478.9	490.9
May	549.9	595.2	606.0	648.0	658.2	696.8	706.0	741.2	749.6	780.5	787.4
June	825.6	845.5	850.1	864.8	868.1	877.4	878.6	882.0	882.4	876.1	879.1
July	868.1	854.3	850.1	831.4	826.0	801.7	795.2	766.2	758.5	725.5	716.7
August	660.5	619.5	609.1	565.2	554.1	507.8	495.8	447.5	435.2	384.9	372.1
September	294.4	241.3	227.9	173.8	160.2	105.6	92.1	36.9	23.1	-32.3	-46.2
October	-115.2	-170.6	-184.2	-239.1	-252.4	-306.7	-320.2	-373.2	-386.4	-438.2	-450.8
November	-525.2	-572.9	-584.4	-629.2	-640.2	-681.8	-691.7	-729.5	-738.4	-771.9	-780.1
December	-814.9	-838.5	-843.5	-860.6	-864.3	-875.3	-877.4	-882.0	-882.4	-880.3	-879.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	863.5	847.2	842.2	819.8	813.2	785.4	777.6	744.4	735.6	698.0	688.1
February	624.6	579.0	567.1	518.8	506.7	456.1	443.0	390.8	377.6	323.8	310.0
March	269.0	213.9	199.9	144.1	130.2	73.9	60.1	3.6	-10.3	-66.5	-80.3
April	-163.8	-218.6	-232.3	-286.0	-299.5	-352.3	-365.1	-416.7	-429.3	-478.9	-490.9
May	-549.9	-595.2	-606.0	-648.0	-658.2	-696.8	-706.0	-741.2	-749.6	-780.5	-787.4
June	-825.6	-845.5	-850.1	-864.8	-868.1	-877.4	-878.6	-882.0	-882.4	-876.1	-879.1
July	-868.1	-854.3	-850.1	-831.4	-826.0	-801.7	-795.2	-766.2	-758.5	-725.5	-716.7
August	-660.5	-619.5	-609.1	-565.2	-554.1	-507.8	-495.8	-447.5	-435.2	-384.9	-372.1
September	-294.4	-241.3	-227.9	-173.8	-160.2	-105.6	-92.1	-36.9	-23.1	32.3	46.2
October	115.2	170.6	184.2	239.1	252.4	306.7	320.2	373.2	386.4	438.2	450.8
November	525.2	572.9	584.4	629.2	640.2	681.8	691.7	729.5	738.4	771.9	780.1
December	814.9	838.5	843.5	860.6	864.3	875.3	877.4	882.0	882.4	880.3	879.1

Southern Hemisphere

The shaded "Date" boxes identify the two extremes of the "Date Scale" that occur on the Summer and Winter Solstices.

A number of "Date Scale" configurations are available including the following "Date Line" combinations:

- | | | |
|---------|------------|--------------------|
| a) 1 | c) 1,10,20 | e) 1,5,10,15,20,25 |
| b) 1,15 | d) 1,11,21 | f) 1,6,11,16,21,26 |