

Analemmatic Sundial

Latitude: 34.0° N/S

Earliest Sunrise: 4:47 a.m. Latest Sunset: 7:13 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 559.2 mm
 Sunrise/Sunset Markers: X = ± 665.8 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	559.2	559.2	0.0							
11:55	12:05	21.8	559.1	559.5	21.8	8:10	3:50	843.4	300.5	895.3	882.2
11:50	12:10	43.6	558.7	560.4	43.6	8:05	3:55	854.9	290.1	902.8	896.3
11:45	12:15	65.4	558.0	561.8	65.4	8:00	4:00	866.0	279.6	910.0	910.0
11:40	12:20	87.2	557.1	563.8	87.2	7:55	4:05	876.7	269.0	917.1	923.5
11:35	12:25	108.9	555.9	566.4	108.9	7:50	4:10	887.0	258.2	923.8	936.7
11:30	12:30	130.5	554.4	569.6	130.6	7:45	4:15	896.9	247.3	930.3	949.5
11:25	12:35	152.1	552.7	573.2	152.3	7:40	4:20	906.3	236.3	936.6	962.1
11:20	12:40	173.6	550.7	577.4	173.9	7:35	4:25	915.3	225.2	942.6	974.3
11:15	12:45	195.1	548.4	582.1	195.4	7:30	4:30	923.9	214.0	948.3	986.3
11:10	12:50	216.4	545.9	587.3	216.8	7:25	4:35	932.0	202.7	953.8	997.9
11:05	12:55	237.7	543.2	592.9	238.2	7:20	4:40	939.7	191.3	959.0	1009.2
11:00	1:00	258.8	540.1	598.9	259.5	7:15	4:45	946.9	179.7	963.8	1020.1
10:55	1:05	279.8	536.9	605.4	280.7	7:10	4:50	953.7	168.2	968.4	1030.8
10:50	1:10	300.7	533.3	612.2	301.8	7:05	4:55	960.0	156.5	972.7	1041.1
10:45	1:15	321.4	529.5	619.4	322.8	7:00	5:00	965.9	144.7	976.7	1051.1
10:40	1:20	342.0	525.5	627.0	343.7	6:55	5:05	971.3	132.9	980.4	1060.8
10:35	1:25	362.4	521.2	634.8	364.4	6:50	5:10	976.3	121.0	983.8	1070.1
10:30	1:30	382.7	516.6	642.9	385.0	6:45	5:15	980.8	109.1	986.8	1079.1
10:25	1:35	402.7	511.8	651.3	405.5	6:40	5:20	984.8	97.1	989.6	1087.8
10:20	1:40	422.6	506.8	659.9	425.9	6:35	5:25	988.4	85.1	992.0	1096.2
10:15	1:45	442.3	501.5	668.7	446.0	6:30	5:30	991.4	73.0	994.1	1104.2
10:10	1:50	461.7	496.0	677.7	466.1	6:25	5:35	994.1	60.9	995.9	1112.0
10:05	1:55	481.0	490.3	686.8	485.9	6:20	5:40	996.2	48.7	997.4	1119.4
10:00	2:00	500.0	484.3	696.1	505.6	6:15	5:45	997.9	36.6	998.5	1126.4
9:55	2:05	518.8	478.1	705.5	525.1	6:10	5:50	999.0	24.4	999.3	1133.2
9:50	2:10	537.3	471.6	714.9	544.4	6:05	5:55	999.8	12.2	999.8	1139.6
9:45	2:15	555.6	465.0	724.5	563.5	6:00	6:00	1000.0	0.0	1000.0	1145.7
9:40	2:20	573.6	458.1	734.0	582.4	5:55	6:05	999.8	-12.2	999.8	1151.5
9:35	2:25	591.3	451.0	743.6	601.1	5:50	6:10	999.0	-24.4	999.3	1157.0
9:30	2:30	608.8	443.6	753.3	619.6	5:45	6:15	997.9	-36.6	998.5	1162.2
9:25	2:35	625.9	436.1	762.9	637.9	5:40	6:20	996.2	-48.7	997.4	1167.0
9:20	2:40	642.8	428.4	772.4	656.0	5:35	6:25	994.1	-60.9	995.9	1171.6
9:15	2:45	659.3	420.4	782.0	673.8	5:30	6:30	991.4	-73.0	994.1	1175.8
9:10	2:50	675.6	412.3	791.5	691.4	5:25	6:35	988.4	-85.1	992.0	1179.8
9:05	2:55	691.5	403.9	800.8	708.7	5:20	6:40	984.8	-97.1	989.6	1183.5
9:00	3:00	707.1	395.4	810.2	725.8	5:15	6:45	980.8	-109.1	986.8	1186.8
8:55	3:05	722.4	386.7	819.4	742.7	5:10	6:50	976.3	-121.0	983.8	1189.9
8:50	3:10	737.3	377.8	828.4	759.3	5:05	6:55	971.3	-132.9	980.4	1192.7
8:45	3:15	751.8	368.7	837.4	775.6	5:00	7:00	965.9	-144.7	976.7	1195.2
8:40	3:20	766.0	359.4	846.2	791.7	4:55	7:05	960.0	-156.5	972.7	1197.4
8:35	3:25	779.9	350.0	854.8	807.5	4:50	7:10	953.7	-168.2	968.4	1199.4
8:30	3:30	793.4	340.4	863.3	823.0	4:45	7:15	946.9	-179.7	963.8	1201.1
8:25	3:35	806.4	330.7	871.6	838.2						
8:20	3:40	819.2	320.7	879.7	853.2						
8:15	3:45	831.5	310.7	887.6	867.8						

Analematic Sundial

Latitude: 34.0° N/S

Date Scale

Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 559.2 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-351.7	-345.1	-343.1	-333.9	-331.3	-319.9	-316.7	-303.2	-299.6	-284.3	-280.3
February	-254.4	-235.8	-231.0	-211.3	-206.4	-185.8	-180.5	-159.2	-153.8	-131.9	-126.3
March	-109.6	-87.1	-81.4	-58.7	-53.0	-30.1	-24.5	-1.4	4.2	27.1	32.7
April	66.7	89.0	94.6	116.5	122.0	143.5	148.7	169.7	174.9	195.1	200.0
May	224.0	242.4	246.8	263.9	268.1	283.8	287.6	301.9	305.4	317.9	320.7
June	336.3	344.4	346.3	352.2	353.6	357.4	357.9	359.3	359.4	356.9	358.1
July	353.6	348.0	346.3	338.7	336.5	326.6	323.9	312.1	309.0	295.5	292.0
August	269.1	252.4	248.1	230.2	225.7	206.9	201.9	182.3	177.3	156.8	151.6
September	119.9	98.3	92.8	70.8	65.2	43.0	37.5	15.0	9.4	-13.2	-18.8
October	-46.9	-69.5	-75.0	-97.4	-102.8	-124.9	-130.4	-152.0	-157.4	-178.5	-183.6
November	-213.9	-233.3	-238.0	-256.3	-260.8	-277.7	-281.7	-297.2	-300.8	-314.4	-317.7
December	-331.9	-341.5	-343.6	-350.5	-352.1	-356.5	-357.4	-359.3	-359.4	-358.6	-358.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	351.7	345.1	343.1	333.9	331.3	319.9	316.7	303.2	299.6	284.3	280.3
February	254.4	235.8	231.0	211.3	206.4	185.8	180.5	159.2	153.8	131.9	126.3
March	109.6	87.1	81.4	58.7	53.0	30.1	24.5	1.4	-4.2	-27.1	-32.7
April	-66.7	-89.0	-94.6	-116.5	-122.0	-143.5	-148.7	-169.7	-174.9	-195.1	-200.0
May	-224.0	-242.4	-246.8	-263.9	-268.1	-283.8	-287.6	-301.9	-305.4	-317.9	-320.7
June	-336.3	-344.4	-346.3	-352.2	-353.6	-357.4	-357.9	-359.3	-359.4	-356.9	-358.1
July	-353.6	-348.0	-346.3	-338.7	-336.5	-326.6	-323.9	-312.1	-309.0	-295.5	-292.0
August	-269.1	-252.4	-248.1	-230.2	-225.7	-206.9	-201.9	-182.3	-177.3	-156.8	-151.6
September	-119.9	-98.3	-92.8	-70.8	-65.2	-43.0	-37.5	-15.0	-9.4	13.2	18.8
October	46.9	69.5	75.0	97.4	102.8	124.9	130.4	152.0	157.4	178.5	183.6
November	213.9	233.3	238.0	256.3	260.8	277.7	281.7	297.2	300.8	314.4	317.7
December	331.9	341.5	343.6	350.5	352.1	356.5	357.4	359.3	359.4	358.6	358.1

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 |

Analemmatic Sundial

Latitude: 34.0° N/S

Earliest Sunrise: 4:47 a.m. Latest Sunset: 7:13 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 838.8 mm
 Sunrise/Sunset Markers: X = ± 998.7 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	838.8	838.8	0.0							
11:55	12:05	32.7	838.6	839.2	32.7	8:10	3:50	1265.1	450.7	1343.0	1323.3
11:50	12:10	65.4	838.0	840.5	65.4	8:05	3:55	1282.4	435.1	1354.2	1344.4
11:45	12:15	98.1	837.0	842.7	98.1	8:00	4:00	1299.0	419.4	1365.1	1365.1
11:40	12:20	130.7	835.6	845.8	130.8	7:55	4:05	1315.1	403.4	1375.6	1385.3
11:35	12:25	163.3	833.8	849.6	163.4	7:50	4:10	1330.5	387.3	1385.7	1405.0
11:30	12:30	195.8	831.6	854.4	195.9	7:45	4:15	1345.3	371.0	1395.5	1424.3
11:25	12:35	228.2	829.0	859.9	228.4	7:40	4:20	1359.5	354.5	1404.9	1443.2
11:20	12:40	260.5	826.0	866.1	260.8	7:35	4:25	1373.0	337.8	1413.9	1461.5
11:15	12:45	292.6	822.7	873.2	293.1	7:30	4:30	1385.8	321.0	1422.5	1479.4
11:10	12:50	324.7	818.9	880.9	325.3	7:25	4:35	1398.0	304.0	1430.7	1496.8
11:05	12:55	356.5	814.8	889.3	357.3	7:20	4:40	1409.5	286.9	1438.4	1513.7
11:00	1:00	388.2	810.2	898.4	389.3	7:15	4:45	1420.4	269.6	1445.8	1530.2
10:55	1:05	419.7	805.3	908.1	421.1	7:10	4:50	1430.6	252.2	1452.6	1546.2
10:50	1:10	451.1	800.0	918.4	452.7	7:05	4:55	1440.1	234.7	1459.1	1561.6
10:45	1:15	482.2	794.3	929.2	484.2	7:00	5:00	1448.9	217.1	1465.1	1576.6
10:40	1:20	513.0	788.2	940.5	515.5	6:55	5:05	1457.0	199.4	1470.6	1591.1
10:35	1:25	543.7	781.8	952.2	546.6	6:50	5:10	1464.4	181.5	1475.7	1605.2
10:30	1:30	574.0	774.9	964.4	577.6	6:45	5:15	1471.2	163.6	1480.3	1618.7
10:25	1:35	604.1	767.8	976.9	608.3	6:40	5:20	1477.2	145.7	1484.4	1631.7
10:20	1:40	633.9	760.2	989.8	638.8	6:35	5:25	1482.5	127.6	1488.0	1644.3
10:15	1:45	663.4	752.3	1003.0	669.0	6:30	5:30	1487.2	109.5	1491.2	1656.4
10:10	1:50	692.6	744.0	1016.5	699.1	6:25	5:35	1491.1	91.3	1493.9	1667.9
10:05	1:55	721.5	735.4	1030.2	728.9	6:20	5:40	1494.3	73.1	1496.1	1679.0
10:00	2:00	750.0	726.4	1044.1	758.4	6:15	5:45	1496.8	54.9	1497.8	1689.7
9:55	2:05	778.2	717.1	1058.2	787.6	6:10	5:50	1498.6	36.6	1499.0	1699.8
9:50	2:10	805.9	707.4	1072.4	816.6	6:05	5:55	1499.6	18.3	1499.8	1709.4
9:45	2:15	833.4	697.4	1086.7	845.3	6:00	6:00	1500.0	0.0	1500.0	1718.6
9:40	2:20	860.4	687.1	1101.1	873.6	5:55	6:05	1499.6	-18.3	1499.8	1727.3
9:35	2:25	887.0	676.4	1115.5	901.7	5:50	6:10	1498.6	-36.6	1499.0	1735.5
9:30	2:30	913.1	665.5	1129.9	929.4	5:45	6:15	1496.8	-54.9	1497.8	1743.3
9:25	2:35	938.9	654.2	1144.3	956.9	5:40	6:20	1494.3	-73.1	1496.1	1750.6
9:20	2:40	964.2	642.5	1158.7	983.9	5:35	6:25	1491.1	-91.3	1493.9	1757.4
9:15	2:45	989.0	630.6	1173.0	1010.7	5:30	6:30	1487.2	-109.5	1491.2	1763.8
9:10	2:50	1013.4	618.4	1187.2	1037.1	5:25	6:35	1482.5	-127.6	1488.0	1769.7
9:05	2:55	1037.3	605.9	1201.3	1063.1	5:20	6:40	1477.2	-145.7	1484.4	1775.2
9:00	3:00	1060.7	593.1	1215.2	1088.7	5:15	6:45	1471.2	-163.6	1480.3	1780.2
8:55	3:05	1083.5	580.0	1229.0	1114.0	5:10	6:50	1464.4	-181.5	1475.7	1784.8
8:50	3:10	1105.9	566.7	1242.6	1138.9	5:05	6:55	1457.0	-199.4	1470.6	1789.0
8:45	3:15	1127.8	553.1	1256.1	1163.4	5:00	7:00	1448.9	-217.1	1465.1	1792.8
8:40	3:20	1149.1	539.2	1269.3	1187.5	4:55	7:05	1440.1	-234.7	1459.1	1796.2
8:35	3:25	1169.8	525.0	1282.2	1211.2	4:50	7:10	1430.6	-252.2	1452.6	1799.1
8:30	3:30	1190.0	510.6	1295.0	1234.4	4:45	7:15	1420.4	-269.6	1445.8	1801.7
8:25	3:35	1209.7	496.0	1307.4	1257.3						
8:20	3:40	1228.7	481.1	1319.6	1279.7						
8:15	3:45	1247.2	466.0	1331.4	1301.7						

Analematic Sundial

Latitude: 34.0° N/S

Date Scale

Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 838.8 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-527.6	-517.6	-514.6	-500.9	-496.9	-479.8	-475.1	-454.8	-449.4	-426.5	-420.4
February	-381.6	-353.8	-346.5	-317.0	-309.6	-278.7	-270.7	-238.8	-230.7	-197.9	-189.4
March	-164.4	-130.7	-122.2	-88.0	-79.5	-45.2	-36.7	-2.2	6.3	40.6	49.1
April	100.1	133.6	141.9	174.8	183.0	215.2	223.1	254.6	262.3	292.6	299.9
May	336.0	363.6	370.2	395.9	402.1	425.8	431.3	452.9	458.0	476.9	481.1
June	504.5	516.6	519.4	528.4	530.4	536.1	536.8	538.9	539.2	535.3	537.1
July	530.4	522.0	519.4	508.0	504.7	489.8	485.8	468.2	463.5	443.3	437.9
August	403.6	378.5	372.1	345.3	338.6	310.3	302.9	273.4	265.9	235.2	227.3
September	179.9	147.4	139.3	106.2	97.9	64.5	56.3	22.6	14.1	-19.8	-28.2
October	-70.4	-104.2	-112.5	-146.1	-154.2	-187.4	-195.6	-228.0	-236.1	-267.7	-275.5
November	-320.9	-350.0	-357.1	-384.5	-391.1	-416.6	-422.6	-445.7	-451.1	-471.6	-476.6
December	-497.9	-512.3	-515.4	-525.8	-528.1	-534.8	-536.1	-538.9	-539.2	-537.9	-537.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	527.6	517.6	514.6	500.9	496.9	479.8	475.1	454.8	449.4	426.5	420.4
February	381.6	353.8	346.5	317.0	309.6	278.7	270.7	238.8	230.7	197.9	189.4
March	164.4	130.7	122.2	88.0	79.5	45.2	36.7	2.2	-6.3	-40.6	-49.1
April	-100.1	-133.6	-141.9	-174.8	-183.0	-215.2	-223.1	-254.6	-262.3	-292.6	-299.9
May	-336.0	-363.6	-370.2	-395.9	-402.1	-425.8	-431.3	-452.9	-458.0	-476.9	-481.1
June	-504.5	-516.6	-519.4	-528.4	-530.4	-536.1	-536.8	-538.9	-539.2	-535.3	-537.1
July	-530.4	-522.0	-519.4	-508.0	-504.7	-489.8	-485.8	-468.2	-463.5	-443.3	-437.9
August	-403.6	-378.5	-372.1	-345.3	-338.6	-310.3	-302.9	-273.4	-265.9	-235.2	-227.3
September	-179.9	-147.4	-139.3	-106.2	-97.9	-64.5	-56.3	-22.6	-14.1	19.8	28.2
October	70.4	104.2	112.5	146.1	154.2	187.4	195.6	228.0	236.1	267.7	275.5
November	320.9	350.0	357.1	384.5	391.1	416.6	422.6	445.7	451.1	471.6	476.6
December	497.9	512.3	515.4	525.8	528.1	534.8	536.1	538.9	539.2	537.9	537.1

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 |

Analemmatic Sundial

Latitude: 34.0° N/S

Earliest Sunrise: 4:47 a.m. Latest Sunset: 7:13 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1118.4 mm
 Sunrise/Sunset Markers: X = ± 1331.6 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1118.4	1118.4	0.0							
11:55	12:05	43.6	1118.1	1119.0	43.6	8:10	3:50	1686.8	600.9	1790.6	1764.4
11:50	12:10	87.2	1117.3	1120.7	87.2	8:05	3:55	1709.8	580.2	1805.6	1792.5
11:45	12:15	130.8	1116.0	1123.6	130.8	8:00	4:00	1732.1	559.2	1820.1	1820.1
11:40	12:20	174.3	1114.1	1127.7	174.4	7:55	4:05	1753.5	537.9	1834.1	1847.0
11:35	12:25	217.7	1111.7	1132.9	217.8	7:50	4:10	1774.0	516.4	1847.7	1873.4
11:30	12:30	261.1	1108.8	1139.1	261.2	7:45	4:15	1793.7	494.6	1860.7	1899.1
11:25	12:35	304.2	1105.4	1146.5	304.5	7:40	4:20	1812.6	472.7	1873.2	1924.2
11:20	12:40	347.3	1101.4	1154.9	347.7	7:35	4:25	1830.6	450.4	1885.2	1948.7
11:15	12:45	390.2	1096.9	1164.2	390.8	7:30	4:30	1847.8	428.0	1896.7	1972.5
11:10	12:50	432.9	1091.9	1174.6	433.7	7:25	4:35	1864.0	405.3	1907.6	1995.7
11:05	12:55	475.4	1086.3	1185.8	476.5	7:20	4:40	1879.4	382.5	1917.9	2018.3
11:00	1:00	517.6	1080.3	1197.9	519.0	7:15	4:45	1893.9	359.5	1927.7	2040.3
10:55	1:05	559.7	1073.7	1210.8	561.4	7:10	4:50	1907.4	336.3	1936.9	2061.5
10:50	1:10	601.4	1066.6	1224.5	603.6	7:05	4:55	1920.1	313.0	1945.4	2082.2
10:45	1:15	642.9	1059.0	1238.9	645.6	7:00	5:00	1931.9	289.5	1953.4	2102.2
10:40	1:20	684.0	1050.9	1253.9	687.4	6:55	5:05	1942.7	265.8	1960.8	2121.5
10:35	1:25	724.9	1042.3	1269.6	728.9	6:50	5:10	1952.6	242.1	1967.5	2140.2
10:30	1:30	765.4	1033.3	1285.8	770.1	6:45	5:15	1961.6	218.2	1973.7	2158.3
10:25	1:35	805.5	1023.7	1302.6	811.0	6:40	5:20	1969.6	194.2	1979.2	2175.7
10:20	1:40	845.2	1013.6	1319.8	851.7	6:35	5:25	1976.7	170.1	1984.0	2192.4
10:15	1:45	884.6	1003.0	1337.4	892.1	6:30	5:30	1982.9	146.0	1988.3	2208.5
10:10	1:50	923.5	992.0	1355.3	932.1	6:25	5:35	1988.1	121.8	1991.8	2223.9
10:05	1:55	962.0	980.5	1373.6	971.8	6:20	5:40	1992.4	97.5	1994.8	2238.7
10:00	2:00	1000.0	968.6	1392.2	1011.2	6:15	5:45	1995.7	73.1	1997.1	2252.9
9:55	2:05	1037.5	956.1	1410.9	1050.2	6:10	5:50	1998.1	48.8	1998.7	2266.4
9:50	2:10	1074.6	943.2	1429.8	1088.8	6:05	5:55	1999.5	24.4	1999.7	2279.2
9:45	2:15	1111.1	929.9	1448.9	1127.0	6:00	6:00	2000.0	0.0	2000.0	2291.5
9:40	2:20	1147.2	916.1	1468.1	1164.8	5:55	6:05	1999.5	-24.4	1999.7	2303.1
9:35	2:25	1182.6	901.9	1487.3	1202.3	5:50	6:10	1998.1	-48.8	1998.7	2314.0
9:30	2:30	1217.5	887.3	1506.5	1239.3	5:45	6:15	1995.7	-73.1	1997.1	2324.4
9:25	2:35	1251.8	872.2	1525.7	1275.8	5:40	6:20	1992.4	-97.5	1994.8	2334.1
9:20	2:40	1285.6	856.7	1544.9	1311.9	5:35	6:25	1988.1	-121.8	1991.8	2343.2
9:15	2:45	1318.7	840.8	1564.0	1347.6	5:30	6:30	1982.9	-146.0	1988.3	2351.7
9:10	2:50	1351.2	824.6	1582.9	1382.8	5:25	6:35	1976.7	-170.1	1984.0	2359.6
9:05	2:55	1383.0	807.9	1601.7	1417.5	5:20	6:40	1969.6	-194.2	1979.2	2366.9
9:00	3:00	1414.2	790.8	1620.3	1451.7	5:15	6:45	1961.6	-218.2	1973.7	2373.6
8:55	3:05	1444.7	773.4	1638.7	1485.4	5:10	6:50	1952.6	-242.1	1967.5	2379.8
8:50	3:10	1474.6	755.6	1656.9	1518.5	5:05	6:55	1942.7	-265.8	1960.8	2385.4
8:45	3:15	1503.7	737.4	1674.8	1551.2	5:00	7:00	1931.9	-289.5	1953.4	2390.4
8:40	3:20	1532.1	718.9	1692.4	1583.3	4:55	7:05	1920.1	-313.0	1945.4	2394.9
8:35	3:25	1559.8	700.0	1709.7	1614.9	4:50	7:10	1907.4	-336.3	1936.9	2398.8
8:30	3:30	1586.7	680.8	1726.6	1645.9	4:45	7:15	1893.9	-359.5	1927.7	2402.3
8:25	3:35	1612.9	661.3	1743.2	1676.4						
8:20	3:40	1638.3	641.5	1759.4	1706.3						
8:15	3:45	1662.9	621.3	1775.2	1735.6						

Analemmatic Sundial

Latitude: 34.0° N/S

Date Scale

Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1118.4 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-703.5	-690.2	-686.1	-667.9	-662.5	-639.8	-633.5	-606.4	-599.2	-568.7	-560.6
February	-508.8	-471.7	-462.0	-422.6	-412.8	-371.5	-360.9	-318.4	-307.6	-263.8	-252.5
March	-219.2	-174.3	-162.9	-117.4	-106.1	-60.2	-48.9	-2.9	8.4	54.1	65.4
April	133.4	178.1	189.2	233.0	244.0	287.0	297.4	339.4	349.7	390.1	399.9
May	448.0	484.9	493.7	527.9	536.2	567.7	575.1	603.8	610.7	635.8	641.5
June	672.6	688.8	692.6	704.5	707.2	714.8	715.8	718.5	718.9	713.7	716.1
July	707.2	696.0	692.6	677.3	672.9	653.1	647.8	624.2	618.0	591.1	583.9
August	538.1	504.7	496.2	460.4	451.4	413.7	403.9	364.6	354.6	313.6	303.1
September	239.8	196.5	185.7	141.6	130.5	86.0	75.0	30.1	18.8	-26.3	-37.6
October	-93.9	-138.9	-150.0	-194.8	-205.6	-249.9	-260.8	-304.0	-314.8	-357.0	-367.3
November	-427.9	-466.7	-476.1	-512.6	-521.5	-555.4	-563.5	-594.3	-601.5	-628.9	-635.5
December	-663.9	-683.1	-687.1	-701.1	-704.2	-713.1	-714.8	-718.5	-718.9	-717.2	-716.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	703.5	690.2	686.1	667.9	662.5	639.8	633.5	606.4	599.2	568.7	560.6
February	508.8	471.7	462.0	422.6	412.8	371.5	360.9	318.4	307.6	263.8	252.5
March	219.2	174.3	162.9	117.4	106.1	60.2	48.9	2.9	-8.4	-54.1	-65.4
April	-133.4	-178.1	-189.2	-233.0	-244.0	-287.0	-297.4	-339.4	-349.7	-390.1	-399.9
May	-448.0	-484.9	-493.7	-527.9	-536.2	-567.7	-575.1	-603.8	-610.7	-635.8	-641.5
June	-672.6	-688.8	-692.6	-704.5	-707.2	-714.8	-715.8	-718.5	-718.9	-713.7	-716.1
July	-707.2	-696.0	-692.6	-677.3	-672.9	-653.1	-647.8	-624.2	-618.0	-591.1	-583.9
August	-538.1	-504.7	-496.2	-460.4	-451.4	-413.7	-403.9	-364.6	-354.6	-313.6	-303.1
September	-239.8	-196.5	-185.7	-141.6	-130.5	-86.0	-75.0	-30.1	-18.8	26.3	37.6
October	93.9	138.9	150.0	194.8	205.6	249.9	260.8	304.0	314.8	357.0	367.3
November	427.9	466.7	476.1	512.6	521.5	555.4	563.5	594.3	601.5	628.9	635.5
December	663.9	683.1	687.1	701.1	704.2	713.1	714.8	718.5	718.9	717.2	716.1

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 |

Analemmatic Sundial

Latitude: 34.0° N/S

Earliest Sunrise: 4:47 a.m. Latest Sunset: 7:13 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1398.0 mm
 Sunrise/Sunset Markers: X = ± 1664.5 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1398.0	1398.0	0.0							
11:55	12:05	54.5	1397.6	1398.7	54.5	8:10	3:50	2108.5	751.1	2238.3	2205.5
11:50	12:10	109.0	1396.7	1400.9	109.1	8:05	3:55	2137.3	725.2	2257.0	2240.7
11:45	12:15	163.5	1395.0	1404.5	163.5	8:00	4:00	2165.1	699.0	2275.1	2275.1
11:40	12:20	217.9	1392.7	1409.6	218.0	7:55	4:05	2191.8	672.4	2292.6	2308.8
11:35	12:25	272.2	1389.7	1416.1	272.3	7:50	4:10	2217.5	645.5	2309.6	2341.7
11:30	12:30	326.3	1386.0	1423.9	326.5	7:45	4:15	2242.2	618.3	2325.9	2373.9
11:25	12:35	380.3	1381.7	1433.1	380.7	7:40	4:20	2265.8	590.8	2341.5	2405.3
11:20	12:40	434.1	1376.7	1443.6	434.6	7:35	4:25	2288.3	563.0	2356.5	2435.8
11:15	12:45	487.7	1371.1	1455.3	488.5	7:30	4:30	2309.7	535.0	2370.8	2465.7
11:10	12:50	541.1	1364.8	1468.2	542.1	7:25	4:35	2330.0	506.7	2384.5	2494.7
11:05	12:55	594.2	1357.9	1482.2	595.6	7:20	4:40	2349.2	478.1	2397.4	2522.9
11:00	1:00	647.0	1350.3	1497.4	648.8	7:15	4:45	2367.3	449.4	2409.6	2550.3
10:55	1:05	699.6	1342.1	1513.5	701.8	7:10	4:50	2384.3	420.4	2421.1	2576.9
10:50	1:10	751.8	1333.3	1530.6	754.5	7:05	4:55	2400.1	391.2	2431.8	2602.7
10:45	1:15	803.6	1323.8	1548.6	807.0	7:00	5:00	2414.8	361.8	2441.8	2627.7
10:40	1:20	855.1	1313.7	1567.4	859.2	6:55	5:05	2428.4	332.3	2451.0	2651.9
10:35	1:25	906.1	1302.9	1587.0	911.1	6:50	5:10	2440.7	302.6	2459.4	2675.3
10:30	1:30	956.7	1291.6	1607.3	962.6	6:45	5:15	2452.0	272.7	2467.1	2697.8
10:25	1:35	1006.9	1279.6	1628.2	1013.8	6:40	5:20	2462.0	242.8	2474.0	2719.6
10:20	1:40	1056.5	1267.0	1649.7	1064.6	6:35	5:25	2470.9	212.7	2480.0	2740.5
10:15	1:45	1105.7	1253.8	1671.7	1115.1	6:30	5:30	2478.6	182.5	2485.3	2760.6
10:10	1:50	1154.4	1240.0	1694.2	1165.1	6:25	5:35	2485.1	152.2	2489.8	2779.9
10:05	1:55	1202.5	1225.6	1717.0	1214.8	6:20	5:40	2490.5	121.8	2493.5	2798.4
10:00	2:00	1250.0	1210.7	1740.2	1264.0	6:15	5:45	2494.6	91.4	2496.3	2816.1
9:55	2:05	1296.9	1195.2	1763.6	1312.7	6:10	5:50	2497.6	61.0	2498.4	2833.0
9:50	2:10	1343.2	1179.0	1787.3	1361.0	6:05	5:55	2499.4	30.5	2499.6	2849.0
9:45	2:15	1388.9	1162.4	1811.1	1408.8	6:00	6:00	2500.0	0.0	2500.0	2864.3
9:40	2:20	1433.9	1145.2	1835.1	1456.1	5:55	6:05	2499.4	-30.5	2499.6	2878.8
9:35	2:25	1478.3	1127.4	1859.1	1502.8	5:50	6:10	2497.6	-61.0	2498.4	2892.5
9:30	2:30	1521.9	1109.1	1883.2	1549.1	5:45	6:15	2494.6	-91.4	2496.3	2905.4
9:25	2:35	1564.8	1090.3	1907.2	1594.8	5:40	6:20	2490.5	-121.8	2493.5	2917.6
9:20	2:40	1607.0	1070.9	1931.1	1639.9	5:35	6:25	2485.1	-152.2	2489.8	2929.0
9:15	2:45	1648.4	1051.1	1955.0	1684.5	5:30	6:30	2478.6	-182.5	2485.3	2939.6
9:10	2:50	1689.0	1030.7	1978.6	1728.4	5:25	6:35	2470.9	-212.7	2480.0	2949.5
9:05	2:55	1728.8	1009.9	2002.1	1771.8	5:20	6:40	2462.0	-242.8	2474.0	2958.6
9:00	3:00	1767.8	988.5	2025.4	1814.6	5:15	6:45	2452.0	-272.7	2467.1	2967.1
8:55	3:05	1805.9	966.7	2048.4	1856.7	5:10	6:50	2440.7	-302.6	2459.4	2974.7
8:50	3:10	1843.2	944.5	2071.1	1898.2	5:05	6:55	2428.4	-332.3	2451.0	2981.7
8:45	3:15	1879.6	921.8	2093.4	1939.0	5:00	7:00	2414.8	-361.8	2441.8	2988.0
8:40	3:20	1915.1	898.6	2115.5	1979.1	4:55	7:05	2400.1	-391.2	2431.8	2993.6
8:35	3:25	1949.7	875.0	2137.1	2018.6	4:50	7:10	2384.3	-420.4	2421.1	2998.5
8:30	3:30	1983.4	851.0	2158.3	2057.4	4:45	7:15	2367.3	-449.4	2409.6	3002.8
8:25	3:35	2016.1	826.6	2179.0	2095.5						
8:20	3:40	2047.9	801.8	2199.3	2132.9						
8:15	3:45	2078.7	776.7	2219.0	2169.5						

Analemmatic Sundial

Latitude: 34.0° N/S

Date Scale

Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1398.0 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-879.3	-862.7	-857.6	-834.9	-828.1	-799.7	-791.9	-758.1	-749.0	-710.8	-700.7
February	-636.0	-589.6	-577.5	-528.3	-516.0	-464.4	-451.1	-398.0	-384.5	-329.8	-315.7
March	-274.0	-217.8	-203.6	-146.7	-132.6	-75.3	-61.2	-3.6	10.5	67.7	81.8
April	166.8	222.6	236.5	291.3	304.9	358.7	371.8	424.3	437.1	487.6	499.9
May	560.0	606.1	617.1	659.9	670.2	709.6	718.9	754.8	763.4	794.8	801.8
June	840.8	861.0	865.7	880.6	884.0	893.5	894.7	898.2	898.6	892.2	895.2
July	884.0	870.0	865.7	846.7	841.2	816.4	809.7	780.3	772.4	738.8	729.9
August	672.6	630.9	620.2	575.6	564.3	517.1	504.9	455.7	443.2	392.0	378.9
September	299.8	245.7	232.1	177.0	163.1	107.5	93.8	37.6	23.5	-32.9	-47.0
October	-117.3	-173.7	-187.5	-243.5	-257.1	-312.3	-326.0	-380.0	-393.5	-446.2	-459.1
November	-534.9	-583.4	-595.1	-640.8	-651.9	-694.3	-704.4	-742.9	-751.9	-786.1	-794.3
December	-829.8	-853.8	-858.9	-876.4	-880.2	-891.3	-893.5	-898.2	-898.6	-896.5	-895.2

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	879.3	862.7	857.6	834.9	828.1	799.7	791.9	758.1	749.0	710.8	700.7
February	636.0	589.6	577.5	528.3	516.0	464.4	451.1	398.0	384.5	329.8	315.7
March	274.0	217.8	203.6	146.7	132.6	75.3	61.2	3.6	-10.5	-67.7	-81.8
April	-166.8	-222.6	-236.5	-291.3	-304.9	-358.7	-371.8	-424.3	-437.1	-487.6	-499.9
May	-560.0	-606.1	-617.1	-659.9	-670.2	-709.6	-718.9	-754.8	-763.4	-794.8	-801.8
June	-840.8	-861.0	-865.7	-880.6	-884.0	-893.5	-894.7	-898.2	-898.6	-892.2	-895.2
July	-884.0	-870.0	-865.7	-846.7	-841.2	-816.4	-809.7	-780.3	-772.4	-738.8	-729.9
August	-672.6	-630.9	-620.2	-575.6	-564.3	-517.1	-504.9	-455.7	-443.2	-392.0	-378.9
September	-299.8	-245.7	-232.1	-177.0	-163.1	-107.5	-93.8	-37.6	-23.5	32.9	47.0
October	117.3	173.7	187.5	243.5	257.1	312.3	326.0	380.0	393.5	446.2	459.1
November	534.9	583.4	595.1	640.8	651.9	694.3	704.4	742.9	751.9	786.1	794.3
December	829.8	853.8	858.9	876.4	880.2	891.3	893.5	898.2	898.6	896.5	895.2

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 |