

Analemmatic Sundial

Latitude: 36.0° N/S

Earliest Sunrise: 4:42 a.m. Latest Sunset: 7:18 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 587.8 mm
 Sunrise/Sunset Markers: X = ± 630.7 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	587.8	587.8	0.0							
11:55	12:05	21.8	587.6	588.1	21.8	8:10	3:50	843.4	315.8	900.6	886.2
11:50	12:10	43.6	587.2	588.8	43.6	8:05	3:55	854.9	304.9	907.7	900.5
11:45	12:15	65.4	586.5	590.2	65.4	8:00	4:00	866.0	293.9	914.5	914.5
11:40	12:20	87.2	585.5	592.0	87.2	7:55	4:05	876.7	282.7	921.2	928.3
11:35	12:25	108.9	584.3	594.3	108.9	7:50	4:10	887.0	271.4	927.6	941.7
11:30	12:30	130.5	582.8	597.2	130.6	7:45	4:15	896.9	260.0	933.8	954.9
11:25	12:35	152.1	580.9	600.5	152.3	7:40	4:20	906.3	248.4	939.7	967.8
11:20	12:40	173.6	578.9	604.3	173.9	7:35	4:25	915.3	236.7	945.4	980.3
11:15	12:45	195.1	576.5	608.6	195.4	7:30	4:30	923.9	224.9	950.9	992.6
11:10	12:50	216.4	573.9	613.3	216.9	7:25	4:35	932.0	213.0	956.0	1004.5
11:05	12:55	237.7	570.9	618.4	238.3	7:20	4:40	939.7	201.0	961.0	1016.2
11:00	1:00	258.8	567.8	624.0	259.6	7:15	4:45	946.9	188.9	965.6	1027.5
10:55	1:05	279.8	564.3	629.9	280.8	7:10	4:50	953.7	176.8	970.0	1038.5
10:50	1:10	300.7	560.6	636.1	301.9	7:05	4:55	960.0	164.5	974.0	1049.2
10:45	1:15	321.4	556.6	642.7	322.9	7:00	5:00	965.9	152.1	977.8	1059.6
10:40	1:20	342.0	552.3	649.7	343.9	6:55	5:05	971.3	139.7	981.3	1069.7
10:35	1:25	362.4	547.8	656.9	364.6	6:50	5:10	976.3	127.2	984.6	1079.5
10:30	1:30	382.7	543.0	664.3	385.3	6:45	5:15	980.8	114.7	987.5	1088.9
10:25	1:35	402.7	538.0	672.1	405.8	6:40	5:20	984.8	102.1	990.1	1098.1
10:20	1:40	422.6	532.7	680.0	426.2	6:35	5:25	988.4	89.4	992.4	1106.9
10:15	1:45	442.3	527.2	688.1	446.4	6:30	5:30	991.4	76.7	994.4	1115.4
10:10	1:50	461.7	521.4	696.4	466.5	6:25	5:35	994.1	64.0	996.1	1123.6
10:05	1:55	481.0	515.3	704.9	486.4	6:20	5:40	996.2	51.2	997.5	1131.5
10:00	2:00	500.0	509.0	713.5	506.2	6:15	5:45	997.9	38.4	998.6	1139.1
9:55	2:05	518.8	502.5	722.2	525.7	6:10	5:50	999.0	25.6	999.4	1146.3
9:50	2:10	537.3	495.7	731.1	545.1	6:05	5:55	999.8	12.8	999.8	1153.3
9:45	2:15	555.6	488.7	739.9	564.3	6:00	6:00	1000.0	0.0	1000.0	1160.0
9:40	2:20	573.6	481.5	748.9	583.3	5:55	6:05	999.8	-12.8	999.8	1166.3
9:35	2:25	591.3	474.0	757.9	602.2	5:50	6:10	999.0	-25.6	999.4	1172.3
9:30	2:30	608.8	466.3	766.8	620.8	5:45	6:15	997.9	-38.4	998.6	1178.1
9:25	2:35	625.9	458.4	775.8	639.2	5:40	6:20	996.2	-51.2	997.5	1183.5
9:20	2:40	642.8	450.3	784.8	657.3	5:35	6:25	994.1	-64.0	996.1	1188.7
9:15	2:45	659.3	441.9	793.7	675.3	5:30	6:30	991.4	-76.7	994.4	1193.5
9:10	2:50	675.6	433.4	802.6	693.0	5:25	6:35	988.4	-89.4	992.4	1198.1
9:05	2:55	691.5	424.6	811.5	710.5	5:20	6:40	984.8	-102.1	990.1	1202.4
9:00	3:00	707.1	415.6	820.2	727.8	5:15	6:45	980.8	-114.7	987.5	1206.4
8:55	3:05	722.4	406.5	828.9	744.8	5:10	6:50	976.3	-127.2	984.6	1210.1
8:50	3:10	737.3	397.1	837.4	761.5	5:05	6:55	971.3	-139.7	981.3	1213.6
8:45	3:15	751.8	387.6	845.8	778.0	5:00	7:00	965.9	-152.1	977.8	1216.8
8:40	3:20	766.0	377.8	854.2	794.3	4:55	7:05	960.0	-164.5	974.0	1219.7
8:35	3:25	779.9	367.9	862.3	810.3	4:50	7:10	953.7	-176.8	970.0	1222.3
8:30	3:30	793.4	357.8	870.3	826.0	4:45	7:15	946.9	-188.9	965.6	1224.7
8:25	3:35	806.4	347.6	878.2	841.5	4:40	7:20	939.7	-201.0	961.0	1226.9
8:20	3:40	819.2	337.1	885.8	856.6	4:35	7:25	932.0	-213.0	956.0	1228.8
8:15	3:45	831.5	326.6	893.3	871.5	4:30	7:30	923.9	-224.9	950.9	1230.5

Analemmatic Sundial

Latitude: 36.0° N/S

Date Scale

Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 587.8 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-343.2	-336.8	-334.8	-325.9	-323.3	-312.2	-309.1	-295.9	-292.4	-277.5	-273.5
February	-248.3	-230.1	-225.4	-206.2	-201.4	-181.3	-176.1	-155.4	-150.1	-128.7	-123.2
March	-106.9	-85.0	-79.5	-57.3	-51.7	-29.4	-23.9	-1.4	4.1	26.4	31.9
April	65.1	86.9	92.3	113.7	119.0	140.0	145.1	165.6	170.6	190.3	195.1
May	218.6	236.6	240.9	257.6	261.6	277.0	280.6	294.6	298.0	310.2	313.0
June	328.2	336.1	337.9	343.7	345.1	348.8	349.3	350.6	350.8	348.3	349.4
July	345.1	339.6	337.9	330.5	328.3	318.7	316.1	304.6	301.5	288.4	284.9
August	262.6	246.3	242.1	224.7	220.3	201.9	197.1	177.9	173.0	153.0	147.9
September	117.0	95.9	90.6	69.1	63.7	42.0	36.6	14.7	9.2	-12.9	-18.4
October	-45.8	-67.8	-73.2	-95.0	-100.3	-121.9	-127.3	-148.3	-153.6	-174.2	-179.2
November	-208.8	-227.7	-232.3	-250.1	-254.5	-271.0	-274.9	-290.0	-293.5	-306.8	-310.1
December	-323.9	-333.3	-335.3	-342.1	-343.6	-347.9	-348.8	-350.6	-350.8	-349.9	-349.4

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	343.2	336.8	334.8	325.9	323.3	312.2	309.1	295.9	292.4	277.5	273.5
February	248.3	230.1	225.4	206.2	201.4	181.3	176.1	155.4	150.1	128.7	123.2
March	106.9	85.0	79.5	57.3	51.7	29.4	23.9	1.4	-4.1	-26.4	-31.9
April	-65.1	-86.9	-92.3	-113.7	-119.0	-140.0	-145.1	-165.6	-170.6	-190.3	-195.1
May	-218.6	-236.6	-240.9	-257.6	-261.6	-277.0	-280.6	-294.6	-298.0	-310.2	-313.0
June	-328.2	-336.1	-337.9	-343.7	-345.1	-348.8	-349.3	-350.6	-350.8	-348.3	-349.4
July	-345.1	-339.6	-337.9	-330.5	-328.3	-318.7	-316.1	-304.6	-301.5	-288.4	-284.9
August	-262.6	-246.3	-242.1	-224.7	-220.3	-201.9	-197.1	-177.9	-173.0	-153.0	-147.9
September	-117.0	-95.9	-90.6	-69.1	-63.7	-42.0	-36.6	-14.7	-9.2	12.9	18.4
October	45.8	67.8	73.2	95.0	100.3	121.9	127.3	148.3	153.6	174.2	179.2
November	208.8	227.7	232.3	250.1	254.5	271.0	274.9	290.0	293.5	306.8	310.1
December	323.9	333.3	335.3	342.1	343.6	347.9	348.8	350.6	350.8	349.9	349.4

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: 36.0° N/S

Earliest Sunrise: 4:42 a.m. Latest Sunset: 7:18 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 881.7 mm
 Sunrise/Sunset Markers: X = ± 946.0 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	881.7	881.7	0.0							
11:55	12:05	32.7	881.5	882.1	32.7	8:10	3:50	1265.1	473.7	1350.9	1329.2
11:50	12:10	65.4	880.8	883.3	65.4	8:05	3:55	1282.4	457.4	1361.5	1350.7
11:45	12:15	98.1	879.8	885.2	98.1	8:00	4:00	1299.0	440.8	1371.8	1371.8
11:40	12:20	130.7	878.3	888.0	130.8	7:55	4:05	1315.1	424.1	1381.8	1392.4
11:35	12:25	163.3	876.4	891.5	163.4	7:50	4:10	1330.5	407.1	1391.4	1412.6
11:30	12:30	195.8	874.1	895.8	195.9	7:45	4:15	1345.3	390.0	1400.7	1432.4
11:25	12:35	228.2	871.4	900.8	228.4	7:40	4:20	1359.5	372.6	1409.6	1451.6
11:20	12:40	260.5	868.3	906.5	260.8	7:35	4:25	1373.0	355.1	1418.1	1470.5
11:15	12:45	292.6	864.7	912.9	293.1	7:30	4:30	1385.8	337.4	1426.3	1488.9
11:10	12:50	324.7	860.8	920.0	325.3	7:25	4:35	1398.0	319.6	1434.1	1506.8
11:05	12:55	356.5	856.4	927.7	357.4	7:20	4:40	1409.5	301.6	1441.4	1524.3
11:00	1:00	388.2	851.6	936.0	389.4	7:15	4:45	1420.4	283.4	1448.4	1541.3
10:55	1:05	419.7	846.5	944.8	421.2	7:10	4:50	1430.6	265.1	1454.9	1557.8
10:50	1:10	451.1	840.9	954.2	452.9	7:05	4:55	1440.1	246.7	1461.1	1573.8
10:45	1:15	482.2	834.9	964.1	484.4	7:00	5:00	1448.9	228.2	1466.7	1589.4
10:40	1:20	513.0	828.5	974.5	515.8	6:55	5:05	1457.0	209.6	1472.0	1604.6
10:35	1:25	543.7	821.7	985.3	547.0	6:50	5:10	1464.4	190.8	1476.8	1619.2
10:30	1:30	574.0	814.6	996.5	577.9	6:45	5:15	1471.2	172.0	1481.2	1633.4
10:25	1:35	604.1	807.0	1008.1	608.7	6:40	5:20	1477.2	153.1	1485.1	1647.1
10:20	1:40	633.9	799.1	1020.0	639.3	6:35	5:25	1482.5	134.1	1488.6	1660.4
10:15	1:45	663.4	790.8	1032.2	669.6	6:30	5:30	1487.2	115.1	1491.6	1673.1
10:10	1:50	692.6	782.1	1044.7	699.8	6:25	5:35	1491.1	96.0	1494.2	1685.4
10:05	1:55	721.5	773.0	1057.4	729.6	6:20	5:40	1494.3	76.8	1496.3	1697.3
10:00	2:00	750.0	763.6	1070.3	759.2	6:15	5:45	1496.8	57.7	1497.9	1708.6
9:55	2:05	778.2	753.8	1083.4	788.6	6:10	5:50	1498.6	38.5	1499.1	1719.5
9:50	2:10	805.9	743.6	1096.6	817.7	6:05	5:55	1499.6	19.2	1499.8	1730.0
9:45	2:15	833.4	733.1	1109.9	846.5	6:00	6:00	1500.0	0.0	1500.0	1739.9
9:40	2:20	860.4	722.2	1123.3	875.0	5:55	6:05	1499.6	-19.2	1499.8	1749.4
9:35	2:25	887.0	711.0	1136.8	903.2	5:50	6:10	1498.6	-38.5	1499.1	1758.5
9:30	2:30	913.1	699.5	1150.3	931.1	5:45	6:15	1496.8	-57.7	1497.9	1767.1
9:25	2:35	938.9	687.6	1163.7	958.7	5:40	6:20	1494.3	-76.8	1496.3	1775.3
9:20	2:40	964.2	675.4	1177.2	986.0	5:35	6:25	1491.1	-96.0	1494.2	1783.0
9:15	2:45	989.0	662.9	1190.6	1012.9	5:30	6:30	1487.2	-115.1	1491.6	1790.3
9:10	2:50	1013.4	650.0	1204.0	1039.5	5:25	6:35	1482.5	-134.1	1488.6	1797.2
9:05	2:55	1037.3	636.9	1217.2	1065.8	5:20	6:40	1477.2	-153.1	1485.1	1803.6
9:00	3:00	1060.7	623.4	1230.3	1091.6	5:15	6:45	1471.2	-172.0	1481.2	1809.6
8:55	3:05	1083.5	609.7	1243.3	1117.2	5:10	6:50	1464.4	-190.8	1476.8	1815.2
8:50	3:10	1105.9	595.7	1256.1	1142.3	5:05	6:55	1457.0	-209.6	1472.0	1820.4
8:45	3:15	1127.8	581.3	1268.8	1167.1	5:00	7:00	1448.9	-228.2	1466.7	1825.1
8:40	3:20	1149.1	566.7	1281.2	1191.4	4:55	7:05	1440.1	-246.7	1461.1	1829.5
8:35	3:25	1169.8	551.9	1293.5	1215.4	4:50	7:10	1430.6	-265.1	1454.9	1833.5
8:30	3:30	1190.0	536.7	1305.5	1239.0	4:45	7:15	1420.4	-283.4	1448.4	1837.1
8:25	3:35	1209.7	521.3	1317.2	1262.2	4:40	7:20	1409.5	-301.6	1441.4	1840.3
8:20	3:40	1228.7	505.7	1328.7	1285.0	4:35	7:25	1398.0	-319.6	1434.1	1843.2
8:15	3:45	1247.2	489.8	1339.9	1307.3	4:30	7:30	1385.8	-337.4	1426.3	1845.7

Analemmatic Sundial

Latitude: 36.0° N/S

Date Scale

Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 881.7 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-514.9	-505.1	-502.2	-488.8	-484.9	-468.3	-463.6	-443.8	-438.6	-416.2	-410.3
February	-372.4	-345.2	-338.1	-309.3	-302.1	-271.9	-264.1	-233.0	-225.1	-193.1	-184.8
March	-160.4	-127.5	-119.2	-85.9	-77.6	-44.1	-35.8	-2.1	6.1	39.6	47.9
April	97.6	130.3	138.5	170.5	178.5	210.0	217.7	248.4	256.0	285.5	292.7
May	327.9	354.9	361.3	386.4	392.4	415.5	420.9	441.9	447.0	465.3	469.5
June	492.3	504.1	506.9	515.6	517.6	523.1	523.9	525.9	526.1	522.4	524.1
July	517.6	509.4	506.9	495.7	492.5	478.0	474.1	456.9	452.3	432.6	427.3
August	393.8	369.4	363.2	337.0	330.4	302.8	295.6	266.8	259.5	229.5	221.8
September	175.5	143.8	135.9	103.6	95.5	63.0	54.9	22.0	13.8	-19.3	-27.5
October	-68.7	-101.7	-109.8	-142.6	-150.5	-182.9	-190.9	-222.5	-230.4	-261.3	-268.8
November	-313.2	-341.6	-348.4	-375.2	-381.7	-406.5	-412.4	-435.0	-440.2	-460.2	-465.1
December	-485.9	-499.9	-502.9	-513.1	-515.4	-521.9	-523.1	-525.9	-526.1	-524.9	-524.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	514.9	505.1	502.2	488.8	484.9	468.3	463.6	443.8	438.6	416.2	410.3
February	372.4	345.2	338.1	309.3	302.1	271.9	264.1	233.0	225.1	193.1	184.8
March	160.4	127.5	119.2	85.9	77.6	44.1	35.8	2.1	-6.1	-39.6	-47.9
April	-97.6	-130.3	-138.5	-170.5	-178.5	-210.0	-217.7	-248.4	-256.0	-285.5	-292.7
May	-327.9	-354.9	-361.3	-386.4	-392.4	-415.5	-420.9	-441.9	-447.0	-465.3	-469.5
June	-492.3	-504.1	-506.9	-515.6	-517.6	-523.1	-523.9	-525.9	-526.1	-522.4	-524.1
July	-517.6	-509.4	-506.9	-495.7	-492.5	-478.0	-474.1	-456.9	-452.3	-432.6	-427.3
August	-393.8	-369.4	-363.2	-337.0	-330.4	-302.8	-295.6	-266.8	-259.5	-229.5	-221.8
September	-175.5	-143.8	-135.9	-103.6	-95.5	-63.0	-54.9	-22.0	-13.8	19.3	27.5
October	68.7	101.7	109.8	142.6	150.5	182.9	190.9	222.5	230.4	261.3	268.8
November	313.2	341.6	348.4	375.2	381.7	406.5	412.4	435.0	440.2	460.2	465.1
December	485.9	499.9	502.9	513.1	515.4	521.9	523.1	525.9	526.1	524.9	524.1

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: 36.0° N/S

Earliest Sunrise: 4:42 a.m. Latest Sunset: 7:18 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1175.6 mm
 Sunrise/Sunset Markers: X = ± 1261.4 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1175.6	1175.6	0.0							
11:55	12:05	43.6	1175.3	1176.1	43.6	8:10	3:50	1686.8	631.6	1801.2	1772.3
11:50	12:10	87.2	1174.5	1177.7	87.2	8:05	3:55	1709.8	609.9	1815.3	1801.0
11:45	12:15	130.8	1173.1	1180.3	130.8	8:00	4:00	1732.1	587.8	1829.1	1829.1
11:40	12:20	174.3	1171.1	1184.0	174.4	7:55	4:05	1753.5	565.4	1842.4	1856.6
11:35	12:25	217.7	1168.6	1188.7	217.8	7:50	4:10	1774.0	542.8	1855.2	1883.5
11:30	12:30	261.1	1165.5	1194.4	261.2	7:45	4:15	1793.7	519.9	1867.6	1909.8
11:25	12:35	304.2	1161.9	1201.1	304.6	7:40	4:20	1812.6	496.8	1879.5	1935.5
11:20	12:40	347.3	1157.7	1208.7	347.8	7:35	4:25	1830.6	473.5	1890.9	1960.6
11:15	12:45	390.2	1153.0	1217.2	390.8	7:30	4:30	1847.8	449.9	1901.7	1985.2
11:10	12:50	432.9	1147.7	1226.6	433.8	7:25	4:35	1864.0	426.1	1912.1	2009.1
11:05	12:55	475.4	1141.9	1236.9	476.6	7:20	4:40	1879.4	402.1	1921.9	2032.3
11:00	1:00	517.6	1135.5	1247.9	519.2	7:15	4:45	1893.9	377.9	1931.2	2055.0
10:55	1:05	559.7	1128.6	1259.7	561.6	7:10	4:50	1907.4	353.5	1939.9	2077.0
10:50	1:10	601.4	1121.2	1272.3	603.9	7:05	4:55	1920.1	329.0	1948.1	2098.5
10:45	1:15	642.9	1113.2	1285.5	645.9	7:00	5:00	1931.9	304.3	1955.7	2119.3
10:40	1:20	684.0	1104.7	1299.3	687.7	6:55	5:05	1942.7	279.4	1962.7	2139.4
10:35	1:25	724.9	1095.6	1313.7	729.3	6:50	5:10	1952.6	254.4	1969.1	2159.0
10:30	1:30	765.4	1086.1	1328.7	770.6	6:45	5:15	1961.6	229.3	1974.9	2177.9
10:25	1:35	805.5	1076.0	1344.1	811.6	6:40	5:20	1969.6	204.1	1980.2	2196.1
10:20	1:40	845.2	1065.4	1360.0	852.4	6:35	5:25	1976.7	178.8	1984.8	2213.8
10:15	1:45	884.6	1054.3	1376.3	892.8	6:30	5:30	1982.9	153.4	1988.8	2230.8
10:10	1:50	923.5	1042.7	1392.9	933.0	6:25	5:35	1988.1	128.0	1992.2	2247.2
10:05	1:55	962.0	1030.7	1409.8	972.8	6:20	5:40	1992.4	102.5	1995.0	2263.0
10:00	2:00	1000.0	1018.1	1427.1	1012.3	6:15	5:45	1995.7	76.9	1997.2	2278.2
9:55	2:05	1037.5	1005.0	1444.5	1051.5	6:10	5:50	1998.1	51.3	1998.8	2292.7
9:50	2:10	1074.6	991.5	1462.1	1090.3	6:05	5:55	1999.5	25.6	1999.7	2306.6
9:45	2:15	1111.1	977.5	1479.9	1128.7	6:00	6:00	2000.0	0.0	2000.0	2319.9
9:40	2:20	1147.2	963.0	1497.8	1166.7	5:55	6:05	1999.5	-25.6	1999.7	2332.6
9:35	2:25	1182.6	948.0	1515.7	1204.3	5:50	6:10	1998.1	-51.3	1998.8	2344.7
9:30	2:30	1217.5	932.6	1533.7	1241.5	5:45	6:15	1995.7	-76.9	1997.2	2356.2
9:25	2:35	1251.8	916.8	1551.7	1278.3	5:40	6:20	1992.4	-102.5	1995.0	2367.1
9:20	2:40	1285.6	900.5	1569.6	1314.7	5:35	6:25	1988.1	-128.0	1992.2	2377.4
9:15	2:45	1318.7	883.8	1587.5	1350.6	5:30	6:30	1982.9	-153.4	1988.8	2387.1
9:10	2:50	1351.2	866.7	1605.3	1386.0	5:25	6:35	1976.7	-178.8	1984.8	2396.2
9:05	2:55	1383.0	849.2	1622.9	1421.0	5:20	6:40	1969.6	-204.1	1980.2	2404.8
9:00	3:00	1414.2	831.3	1640.4	1455.5	5:15	6:45	1961.6	-229.3	1974.9	2412.8
8:55	3:05	1444.7	812.9	1657.7	1489.5	5:10	6:50	1952.6	-254.4	1969.1	2420.2
8:50	3:10	1474.6	794.2	1674.8	1523.1	5:05	6:55	1942.7	-279.4	1962.7	2427.1
8:45	3:15	1503.7	775.1	1691.7	1556.1	5:00	7:00	1931.9	-304.3	1955.7	2433.5
8:40	3:20	1532.1	755.6	1708.3	1588.6	4:55	7:05	1920.1	-329.0	1948.1	2439.3
8:35	3:25	1559.8	735.8	1724.6	1620.6	4:50	7:10	1907.4	-353.5	1939.9	2444.7
8:30	3:30	1586.7	715.6	1740.6	1652.0	4:45	7:15	1893.9	-377.9	1931.2	2449.5
8:25	3:35	1612.9	695.1	1756.3	1682.9	4:40	7:20	1879.4	-402.1	1921.9	2453.8
8:20	3:40	1638.3	674.3	1771.6	1713.3	4:35	7:25	1864.0	-426.1	1912.1	2457.6
8:15	3:45	1662.9	653.1	1786.6	1743.1	4:30	7:30	1847.8	-449.9	1901.7	2460.9

Analemmatic Sundial

Latitude: 36.0° N/S

Date Scale

Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1175.6 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-686.5	-673.5	-669.6	-651.8	-646.5	-624.3	-618.2	-591.8	-584.8	-554.9	-547.0
February	-496.5	-460.3	-450.9	-412.4	-402.8	-362.6	-352.2	-310.7	-300.2	-257.4	-246.4
March	-213.9	-170.1	-158.9	-114.6	-103.5	-58.8	-47.7	-2.8	8.2	52.8	63.9
April	130.2	173.8	184.6	227.4	238.1	280.1	290.3	331.3	341.3	380.7	390.2
May	437.2	473.1	481.7	515.1	523.2	554.0	561.2	589.2	596.0	620.5	626.0
June	656.4	672.2	675.8	687.5	690.1	697.5	698.5	701.2	701.5	696.5	698.8
July	690.1	679.2	675.8	661.0	656.7	637.4	632.1	609.1	603.0	576.8	569.8
August	525.1	492.5	484.2	449.3	440.5	403.7	394.1	355.7	346.0	306.0	295.8
September	234.0	191.8	181.2	138.1	127.3	83.9	73.2	29.4	18.4	-25.7	-36.7
October	-91.6	-135.6	-146.4	-190.1	-200.7	-243.8	-254.5	-296.7	-307.2	-348.4	-358.4
November	-417.5	-455.4	-464.6	-500.2	-508.9	-542.0	-549.9	-580.0	-587.0	-613.7	-620.1
December	-647.8	-666.6	-670.5	-684.1	-687.1	-695.8	-697.5	-701.2	-701.5	-699.9	-698.8

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	686.5	673.5	669.6	651.8	646.5	624.3	618.2	591.8	584.8	554.9	547.0
February	496.5	460.3	450.9	412.4	402.8	362.6	352.2	310.7	300.2	257.4	246.4
March	213.9	170.1	158.9	114.6	103.5	58.8	47.7	2.8	-8.2	-52.8	-63.9
April	-130.2	-173.8	-184.6	-227.4	-238.1	-280.1	-290.3	-331.3	-341.3	-380.7	-390.2
May	-437.2	-473.1	-481.7	-515.1	-523.2	-554.0	-561.2	-589.2	-596.0	-620.5	-626.0
June	-656.4	-672.2	-675.8	-687.5	-690.1	-697.5	-698.5	-701.2	-701.5	-696.5	-698.8
July	-690.1	-679.2	-675.8	-661.0	-656.7	-637.4	-632.1	-609.1	-603.0	-576.8	-569.8
August	-525.1	-492.5	-484.2	-449.3	-440.5	-403.7	-394.1	-355.7	-346.0	-306.0	-295.8
September	-234.0	-191.8	-181.2	-138.1	-127.3	-83.9	-73.2	-29.4	-18.4	25.7	36.7
October	91.6	135.6	146.4	190.1	200.7	243.8	254.5	296.7	307.2	348.4	358.4
November	417.5	455.4	464.6	500.2	508.9	542.0	549.9	580.0	587.0	613.7	620.1
December	647.8	666.6	670.5	684.1	687.1	695.8	697.5	701.2	701.5	699.9	698.8

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: 36.0° N/S

Earliest Sunrise: 4:42 a.m. Latest Sunset: 7:18 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1469.5 mm
 Sunrise/Sunset Markers: X = ± 1576.7 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
12:00	0.0	1469.5	1469.5	0.0							
11:55	12:05	54.5	1469.1	1470.1	54.5	8:10	3:50	2108.5	789.5	2251.5	2215.4
11:50	12:10	109.0	1468.1	1472.1	109.1	8:05	3:55	2137.3	762.3	2269.2	2251.2
11:45	12:15	163.5	1466.3	1475.4	163.5	8:00	4:00	2165.1	734.7	2286.3	2286.3
11:40	12:20	217.9	1463.9	1480.0	218.0	7:55	4:05	2191.8	706.8	2303.0	2320.7
11:35	12:25	272.2	1460.7	1485.9	272.3	7:50	4:10	2217.5	678.5	2319.0	2354.4
11:30	12:30	326.3	1456.9	1493.0	326.6	7:45	4:15	2242.2	649.9	2334.5	2387.3
11:25	12:35	380.3	1452.4	1501.3	380.7	7:40	4:20	2265.8	621.0	2349.3	2419.4
11:20	12:40	434.1	1447.1	1510.9	434.7	7:35	4:25	2288.3	591.8	2363.6	2450.8
11:15	12:45	487.7	1441.2	1521.5	488.5	7:30	4:30	2309.7	562.3	2377.2	2481.4
11:10	12:50	541.1	1434.6	1533.3	542.2	7:25	4:35	2330.0	532.6	2390.1	2511.3
11:05	12:55	594.2	1427.4	1546.1	595.7	7:20	4:40	2349.2	502.6	2402.4	2540.4
11:00	1:00	647.0	1419.4	1559.9	649.0	7:15	4:45	2367.3	472.3	2414.0	2568.8
10:55	1:05	699.6	1410.8	1574.7	702.0	7:10	4:50	2384.3	441.9	2424.9	2596.3
10:50	1:10	751.8	1401.5	1590.4	754.8	7:05	4:55	2400.1	411.2	2435.1	2623.1
10:45	1:15	803.6	1391.5	1606.9	807.4	7:00	5:00	2414.8	380.3	2444.6	2649.1
10:40	1:20	855.1	1380.8	1624.1	859.6	6:55	5:05	2428.4	349.3	2453.3	2674.3
10:35	1:25	906.1	1369.6	1642.2	911.6	6:50	5:10	2440.7	318.1	2461.4	2698.7
10:30	1:30	956.7	1357.6	1660.8	963.2	6:45	5:15	2452.0	286.7	2468.7	2722.3
10:25	1:35	1006.9	1345.0	1680.1	1014.5	6:40	5:20	2462.0	255.2	2475.2	2745.2
10:20	1:40	1056.5	1331.8	1700.0	1065.5	6:35	5:25	2470.9	223.5	2481.0	2767.3
10:15	1:45	1105.7	1317.9	1720.3	1116.1	6:30	5:30	2478.6	191.8	2486.0	2788.5
10:10	1:50	1154.4	1303.4	1741.1	1166.3	6:25	5:35	2485.1	160.0	2490.3	2809.0
10:05	1:55	1202.5	1288.3	1762.3	1216.0	6:20	5:40	2490.5	128.1	2493.8	2828.8
10:00	2:00	1250.0	1272.6	1783.8	1265.4	6:15	5:45	2494.6	96.1	2496.5	2847.7
9:55	2:05	1296.9	1256.3	1805.6	1314.3	6:10	5:50	2497.6	64.1	2498.4	2865.9
9:50	2:10	1343.2	1239.3	1827.6	1362.8	6:05	5:55	2499.4	32.1	2499.6	2883.3
9:45	2:15	1388.9	1221.8	1849.8	1410.8	6:00	6:00	2500.0	0.0	2500.0	2899.9
9:40	2:20	1433.9	1203.7	1872.2	1458.4	5:55	6:05	2499.4	-32.1	2499.6	2915.7
9:35	2:25	1478.3	1185.0	1894.6	1505.4	5:50	6:10	2497.6	-64.1	2498.4	2930.9
9:30	2:30	1521.9	1165.8	1917.1	1551.9	5:45	6:15	2494.6	-96.1	2496.5	2945.2
9:25	2:35	1564.8	1146.0	1939.6	1597.9	5:40	6:20	2490.5	-128.1	2493.8	2958.8
9:20	2:40	1607.0	1125.7	1962.0	1643.3	5:35	6:25	2485.1	-160.0	2490.3	2971.7
9:15	2:45	1648.4	1104.8	1984.4	1688.2	5:30	6:30	2478.6	-191.8	2486.0	2983.8
9:10	2:50	1689.0	1083.4	2006.6	1732.5	5:25	6:35	2470.9	-223.5	2481.0	2995.3
9:05	2:55	1728.8	1061.5	2028.7	1776.3	5:20	6:40	2462.0	-255.2	2475.2	3006.0
9:00	3:00	1767.8	1039.1	2050.5	1819.4	5:15	6:45	2452.0	-286.7	2468.7	3016.0
8:55	3:05	1805.9	1016.2	2072.2	1861.9	5:10	6:50	2440.7	-318.1	2461.4	3025.3
8:50	3:10	1843.2	992.8	2093.5	1903.8	5:05	6:55	2428.4	-349.3	2453.3	3033.9
8:45	3:15	1879.6	968.9	2114.6	1945.1	5:00	7:00	2414.8	-380.3	2444.6	3041.9
8:40	3:20	1915.1	944.6	2135.4	1985.7	4:55	7:05	2400.1	-411.2	2435.1	3049.2
8:35	3:25	1949.7	919.8	2155.8	2025.7	4:50	7:10	2384.3	-441.9	2424.9	3055.8
8:30	3:30	1983.4	894.6	2175.8	2065.0	4:45	7:15	2367.3	-472.3	2414.0	3061.8
8:25	3:35	2016.1	868.9	2195.4	2103.7	4:40	7:20	2349.2	-502.6	2402.4	3067.2
8:20	3:40	2047.9	842.8	2214.5	2141.6	4:35	7:25	2330.0	-532.6	2390.1	3072.0
8:15	3:45	2078.7	816.4	2233.2	2178.9	4:30	7:30	2309.7	-562.3	2377.2	3076.2

Analemmatic Sundial

Latitude: 36.0° N/S

Date Scale

Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 1469.5 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-858.1	-841.9	-836.9	-814.7	-808.1	-780.4	-772.7	-739.7	-731.0	-693.7	-683.8
February	-620.7	-575.4	-563.6	-515.5	-503.5	-453.2	-440.2	-388.4	-375.2	-321.8	-308.0
March	-267.4	-212.6	-198.7	-143.2	-129.4	-73.5	-59.7	-3.5	10.2	66.0	79.8
April	162.7	217.2	230.8	284.2	297.6	350.1	362.8	414.1	426.6	475.9	487.8
May	546.5	591.4	602.2	643.9	654.0	692.5	701.6	736.5	745.0	775.6	782.5
June	820.4	840.2	844.8	859.4	862.7	871.9	873.1	876.5	876.9	870.6	873.6
July	862.7	849.0	844.8	826.2	820.9	796.7	790.2	761.4	753.8	721.0	712.2
August	656.4	615.7	605.3	561.7	550.6	504.7	492.7	444.7	432.5	382.5	369.7
September	292.5	239.7	226.5	172.7	159.2	104.9	91.5	36.7	22.9	-32.1	-45.9
October	-114.5	-169.5	-183.0	-237.6	-250.8	-304.8	-318.2	-370.8	-384.0	-435.4	-448.0
November	-521.9	-569.3	-580.7	-625.3	-636.2	-677.5	-687.3	-725.0	-733.7	-767.1	-775.2
December	-809.8	-833.2	-838.2	-855.2	-858.9	-869.8	-871.9	-876.5	-876.9	-874.8	-873.6

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	858.1	841.9	836.9	814.7	808.1	780.4	772.7	739.7	731.0	693.7	683.8
February	620.7	575.4	563.6	515.5	503.5	453.2	440.2	388.4	375.2	321.8	308.0
March	267.4	212.6	198.7	143.2	129.4	73.5	59.7	3.5	-10.2	-66.0	-79.8
April	-162.7	-217.2	-230.8	-284.2	-297.6	-350.1	-362.8	-414.1	-426.6	-475.9	-487.8
May	-546.5	-591.4	-602.2	-643.9	-654.0	-692.5	-701.6	-736.5	-745.0	-775.6	-782.5
June	-820.4	-840.2	-844.8	-859.4	-862.7	-871.9	-873.1	-876.5	-876.9	-870.6	-873.6
July	-862.7	-849.0	-844.8	-826.2	-820.9	-796.7	-790.2	-761.4	-753.8	-721.0	-712.2
August	-656.4	-615.7	-605.3	-561.7	-550.6	-504.7	-492.7	-444.7	-432.5	-382.5	-369.7
September	-292.5	-239.7	-226.5	-172.7	-159.2	-104.9	-91.5	-36.7	-22.9	32.1	45.9
October	114.5	169.5	183.0	237.6	250.8	304.8	318.2	370.8	384.0	435.4	448.0
November	521.9	569.3	580.7	625.3	636.2	677.5	687.3	725.0	733.7	767.1	775.2
December	809.8	833.2	838.2	855.2	858.9	869.8	871.9	876.5	876.9	874.8	873.6

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 |