

Analemmatic Sundial

Latitude: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 906.3 mm
 Sunrise/Sunset Markers: X = ± 109.7 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	906.3	906.3	0.0						
11:55	12:05	21.8	906.1	906.4	21.8	8:25	3:35	806.4	535.9	968.3	887.4
11:50	12:10	43.6	905.4	906.5	43.6	8:20	3:40	819.2	519.8	970.2	905.7
11:45	12:15	65.4	904.4	906.7	65.4	8:15	3:45	831.5	503.5	972.0	923.9
11:40	12:20	87.2	902.9	907.1	87.2	8:10	3:50	843.4	487.0	973.9	941.9
11:35	12:25	108.9	900.9	907.5	109.0	8:05	3:55	854.9	470.2	975.7	959.7
11:30	12:30	130.5	898.6	908.0	130.8	8:00	4:00	866.0	453.2	977.4	977.4
11:25	12:35	152.1	895.8	908.6	152.5	7:55	4:05	876.7	435.9	979.1	994.9
11:20	12:40	173.6	892.5	909.3	174.2	7:50	4:10	887.0	418.5	980.8	1012.3
11:15	12:45	195.1	888.9	910.1	195.9	7:45	4:15	896.9	400.8	982.4	1029.5
11:10	12:50	216.4	884.8	910.9	217.5	7:40	4:20	906.3	383.0	983.9	1046.5
11:05	12:55	237.7	880.3	911.9	239.1	7:35	4:25	915.3	365.0	985.4	1063.4
11:00	1:00	258.8	875.4	912.9	260.7	7:30	4:30	923.9	346.8	986.8	1080.1
10:55	1:05	279.8	870.1	914.0	282.2	7:25	4:35	932.0	328.5	988.2	1096.6
10:50	1:10	300.7	864.4	915.2	303.6	7:20	4:40	939.7	310.0	989.5	1112.9
10:45	1:15	321.4	858.2	916.4	325.0	7:15	4:45	946.9	291.3	990.7	1129.1
10:40	1:20	342.0	851.7	917.8	346.4	7:10	4:50	953.7	272.5	991.9	1145.1
10:35	1:25	362.4	844.7	919.2	367.6	7:05	4:55	960.0	253.6	993.0	1160.9
10:30	1:30	382.7	837.3	920.6	388.9	7:00	5:00	965.9	234.6	994.0	1176.5
10:25	1:35	402.7	829.6	922.2	410.0	6:55	5:05	971.3	215.4	994.9	1192.0
10:20	1:40	422.6	821.4	923.7	431.1	6:50	5:10	976.3	196.2	995.8	1207.3
10:15	1:45	442.3	812.8	925.4	452.1	6:45	5:15	980.8	176.8	996.6	1222.3
10:10	1:50	461.7	803.9	927.1	473.0	6:40	5:20	984.8	157.4	997.3	1237.2
10:05	1:55	481.0	794.6	928.8	493.8	6:35	5:25	988.4	137.9	997.9	1251.9
10:00	2:00	500.0	784.9	930.6	514.5	6:30	5:30	991.4	118.3	998.5	1266.5
9:55	2:05	518.8	774.8	932.4	535.2	6:25	5:35	994.1	98.7	998.9	1280.8
9:50	2:10	537.3	764.4	934.3	555.7	6:20	5:40	996.2	79.0	999.3	1294.9
9:45	2:15	555.6	753.6	936.2	576.2	6:15	5:45	997.9	59.3	999.6	1308.9
9:40	2:20	573.6	742.4	938.2	596.5	6:10	5:50	999.0	39.5	999.8	1322.6
9:35	2:25	591.3	730.9	940.1	616.8	6:05	5:55	999.8	19.8	1000.0	1336.2
9:30	2:30	608.8	719.0	942.1	636.9	6:00	6:00	1000.0	0.0	1000.0	1349.6
9:25	2:35	625.9	706.8	944.1	656.9	5:55	6:05	999.8	-19.8	1000.0	1362.8
9:20	2:40	642.8	694.3	946.1	676.9	5:50	6:10	999.0	-39.5	999.8	1375.8
9:15	2:45	659.3	681.4	948.2	696.6	5:45	6:15	997.9	-59.3	999.6	1388.6
9:10	2:50	675.6	668.2	950.2	716.3	5:40	6:20	996.2	-79.0	999.3	1401.1
9:05	2:55	691.5	654.7	952.3	735.9	5:35	6:25	994.1	-98.7	998.9	1413.5
9:00	3:00	707.1	640.9	954.3	755.3	5:30	6:30	991.4	-118.3	998.5	1425.8
8:55	3:05	722.4	626.7	956.3	774.6	5:25	6:35	988.4	-137.9	997.9	1437.8
8:50	3:10	737.3	612.3	958.4	793.7	5:20	6:40	984.8	-157.4	997.3	1449.6
8:45	3:15	751.8	597.6	960.4	812.8	5:15	6:45	980.8	-176.8	996.6	1461.2
8:40	3:20	766.0	582.6	962.4	831.6	5:10	6:50	976.3	-196.2	995.8	1472.6
8:35	3:25	779.9	567.3	964.4	850.4	5:05	6:55	971.3	-215.4	994.9	1483.8
8:30	3:30	793.4	551.7	966.3	869.0	5:00	7:00	965.9	-234.6	994.0	1494.9

Analemmatic Sundial

Latitude: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 906.3 mm
 Sunrise/Sunset Markers: X = ± 109.7 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	960.0	-253.6	993.0	1505.7	2:55	9:05	691.5	-654.7	952.3	1707.3
4:50	7:10	953.7	-272.5	991.9	1516.3	2:50	9:10	675.6	-668.2	950.2	1713.3
4:45	7:15	946.9	-291.3	990.7	1526.8	2:45	9:15	659.3	-681.4	948.2	1719.2
4:40	7:20	939.7	-310.0	989.5	1537.0	2:40	9:20	642.8	-694.3	946.1	1724.8
4:35	7:25	932.0	-328.5	988.2	1547.0	2:35	9:25	625.9	-706.8	944.1	1730.3
4:30	7:30	923.9	-346.8	986.8	1556.9	2:30	9:30	608.8	-719.0	942.1	1735.6
4:25	7:35	915.3	-365.0	985.4	1566.5	2:25	9:35	591.3	-730.9	940.1	1740.7
4:20	7:40	906.3	-383.0	983.9	1576.0	2:20	9:40	573.6	-742.4	938.2	1745.6
4:15	7:45	896.9	-400.8	982.4	1585.3	2:15	9:45	555.6	-753.6	936.2	1750.4
4:10	7:50	887.0	-418.5	980.8	1594.3	2:10	9:50	537.3	-764.4	934.3	1755.0
4:05	7:55	876.7	-435.9	979.1	1603.2	2:05	9:55	518.8	-774.8	932.4	1759.3
4:00	8:00	866.0	-453.2	977.4	1611.9	2:00	10:00	500.0	-784.9	930.6	1763.6
3:55	8:05	854.9	-470.2	975.7	1620.4	1:55	10:05	481.0	-794.6	928.8	1767.6
3:50	8:10	843.4	-487.0	973.9	1628.7	1:50	10:10	461.7	-803.9	927.1	1771.5
3:45	8:15	831.5	-503.5	972.0	1636.7	1:45	10:15	442.3	-812.8	925.4	1775.1
3:40	8:20	819.2	-519.8	970.2	1644.7	1:40	10:20	422.6	-821.4	923.7	1778.6
3:35	8:25	806.4	-535.9	968.3	1652.4	1:35	10:25	402.7	-829.6	922.2	1782.0
3:30	8:30	793.4	-551.7	966.3	1659.9	1:30	10:30	382.7	-837.3	920.6	1785.1
3:25	8:35	779.9	-567.3	964.4	1667.2	1:25	10:35	362.4	-844.7	919.2	1788.1
3:20	8:40	766.0	-582.6	962.4	1674.4	1:20	10:40	342.0	-851.7	917.8	1790.9
3:15	8:45	751.8	-597.6	960.4	1681.3	1:15	10:45	321.4	-858.2	916.4	1793.6
3:10	8:50	737.3	-612.3	958.4	1688.1	1:10	10:50	300.7	-864.4	915.2	1796.0
3:05	8:55	722.4	-626.7	956.3	1694.7	1:05	10:55	279.8	-870.1	914.0	1798.3
3:00	9:00	707.1	-640.9	954.3	1701.1	1:00	11:00	258.8	-875.4	912.9	1800.4

Analematic Sundial

Latitude: 65.0° N/S

Date Scale

Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 906.3 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-179.3	-175.9	-174.9	-170.2	-168.9	-163.1	-161.5	-154.6	-152.7	-144.9	-142.9
February	-129.7	-120.2	-117.8	-107.7	-105.2	-94.7	-92.0	-81.2	-78.4	-67.2	-64.4
March	-55.9	-44.4	-41.5	-29.9	-27.0	-15.3	-12.5	-0.7	2.1	13.8	16.7
April	34.0	45.4	48.2	59.4	62.2	73.2	75.8	86.5	89.1	99.4	101.9
May	114.2	123.6	125.8	134.5	136.7	144.7	146.6	153.9	155.7	162.1	163.5
June	171.4	175.6	176.5	179.6	180.3	182.2	182.4	183.1	183.2	181.9	182.5
July	180.3	177.4	176.5	172.6	171.5	166.5	165.1	159.1	157.5	150.7	148.8
August	137.2	128.6	126.5	117.4	115.1	105.4	102.9	92.9	90.4	79.9	77.3
September	61.1	50.1	47.3	36.1	33.3	21.9	19.1	7.7	4.8	-6.7	-9.6
October	-23.9	-35.4	-38.2	-49.6	-52.4	-63.7	-66.5	-77.5	-80.2	-91.0	-93.6
November	-109.1	-119.0	-121.3	-130.7	-132.9	-141.6	-143.6	-151.5	-153.3	-160.3	-162.0
December	-169.2	-174.1	-175.1	-178.7	-179.5	-181.7	-182.2	-183.1	-183.2	-182.8	-182.5

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	179.3	175.9	174.9	170.2	168.9	163.1	161.5	154.6	152.7	144.9	142.9
February	129.7	120.2	117.8	107.7	105.2	94.7	92.0	81.2	78.4	67.2	64.4
March	55.9	44.4	41.5	29.9	27.0	15.3	12.5	0.7	-2.1	-13.8	-16.7
April	-34.0	-45.4	-48.2	-59.4	-62.2	-73.2	-75.8	-86.5	-89.1	-99.4	-101.9
May	-114.2	-123.6	-125.8	-134.5	-136.7	-144.7	-146.6	-153.9	-155.7	-162.1	-163.5
June	-171.4	-175.6	-176.5	-179.6	-180.3	-182.2	-182.4	-183.1	-183.2	-181.9	-182.5
July	-180.3	-177.4	-176.5	-172.6	-171.5	-166.5	-165.1	-159.1	-157.5	-150.7	-148.8
August	-137.2	-128.6	-126.5	-117.4	-115.1	-105.4	-102.9	-92.9	-90.4	-79.9	-77.3
September	-61.1	-50.1	-47.3	-36.1	-33.3	-21.9	-19.1	-7.7	-4.8	6.7	9.6
October	23.9	35.4	38.2	49.6	52.4	63.7	66.5	77.5	80.2	91.0	93.6
November	109.1	119.0	121.3	130.7	132.9	141.6	143.6	151.5	153.3	160.3	162.0
December	169.2	174.1	175.1	178.7	179.5	181.7	182.2	183.1	183.2	182.8	182.5

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: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1359.5 mm
 Sunrise/Sunset Markers: X = ± 164.6 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	1359.5	1359.5	0.0						
11:55	12:05	32.7	1359.1	1359.5	32.7	8:25	3:35	1209.7	803.9	1452.4	1331.2
11:50	12:10	65.4	1358.2	1359.7	65.4	8:20	3:40	1228.7	779.8	1455.3	1358.6
11:45	12:15	98.1	1356.6	1360.1	98.1	8:15	3:45	1247.2	755.3	1458.1	1385.8
11:40	12:20	130.7	1354.3	1360.6	130.8	8:10	3:50	1265.1	730.4	1460.8	1412.8
11:35	12:25	163.3	1351.4	1361.2	163.5	8:05	3:55	1282.4	705.3	1463.5	1439.6
11:30	12:30	195.8	1347.8	1362.0	196.1	8:00	4:00	1299.0	679.7	1466.1	1466.1
11:25	12:35	228.2	1343.6	1362.9	228.7	7:55	4:05	1315.1	653.9	1468.7	1492.4
11:20	12:40	260.5	1338.8	1363.9	261.3	7:50	4:10	1330.5	627.7	1471.2	1518.5
11:15	12:45	292.6	1333.3	1365.1	293.8	7:45	4:15	1345.3	601.3	1473.6	1544.2
11:10	12:50	324.7	1327.2	1366.4	326.3	7:40	4:20	1359.5	574.5	1475.9	1569.8
11:05	12:55	356.5	1320.5	1367.8	358.7	7:35	4:25	1373.0	547.5	1478.1	1595.1
11:00	1:00	388.2	1313.1	1369.3	391.0	7:30	4:30	1385.8	520.2	1480.3	1620.1
10:55	1:05	419.7	1305.2	1371.0	423.2	7:25	4:35	1398.0	492.7	1482.3	1644.9
10:50	1:10	451.1	1296.5	1372.8	455.4	7:20	4:40	1409.5	465.0	1484.2	1669.4
10:45	1:15	482.2	1287.3	1374.6	487.5	7:15	4:45	1420.4	437.0	1486.1	1693.7
10:40	1:20	513.0	1277.5	1376.6	519.5	7:10	4:50	1430.6	408.8	1487.8	1717.6
10:35	1:25	543.7	1267.0	1378.7	551.5	7:05	4:55	1440.1	380.4	1489.5	1741.4
10:30	1:30	574.0	1256.0	1380.9	583.3	7:00	5:00	1448.9	351.9	1491.0	1764.8
10:25	1:35	604.1	1244.3	1383.2	615.0	6:55	5:05	1457.0	323.1	1492.4	1788.0
10:20	1:40	633.9	1232.1	1385.6	646.6	6:50	5:10	1464.4	294.2	1493.7	1810.9
10:15	1:45	663.4	1219.3	1388.1	678.1	6:45	5:15	1471.2	265.2	1494.9	1833.5
10:10	1:50	692.6	1205.9	1390.6	709.5	6:40	5:20	1477.2	236.1	1496.0	1855.8
10:05	1:55	721.5	1191.9	1393.2	740.7	6:35	5:25	1482.5	206.8	1496.9	1877.9
10:00	2:00	750.0	1177.3	1395.9	771.8	6:30	5:30	1487.2	177.4	1497.7	1899.7
9:55	2:05	778.2	1162.2	1398.7	802.8	6:25	5:35	1491.1	148.0	1498.4	1921.2
9:50	2:10	805.9	1146.6	1401.5	833.6	6:20	5:40	1494.3	118.5	1499.0	1942.4
9:45	2:15	833.4	1130.4	1404.3	864.3	6:15	5:45	1496.8	88.9	1499.4	1963.3
9:40	2:20	860.4	1113.6	1407.2	894.8	6:10	5:50	1498.6	59.3	1499.7	1984.0
9:35	2:25	887.0	1096.3	1410.2	925.2	6:05	5:55	1499.6	29.7	1499.9	2004.3
9:30	2:30	913.1	1078.5	1413.2	955.4	6:00	6:00	1500.0	0.0	1500.0	2024.4
9:25	2:35	938.9	1060.2	1416.2	985.4	5:55	6:05	1499.6	-29.7	1499.9	2044.2
9:20	2:40	964.2	1041.4	1419.2	1015.3	5:50	6:10	1498.6	-59.3	1499.7	2063.6
9:15	2:45	989.0	1022.1	1422.3	1045.0	5:45	6:15	1496.8	-88.9	1499.4	2082.8
9:10	2:50	1013.4	1002.3	1425.3	1074.5	5:40	6:20	1494.3	-118.5	1499.0	2101.7
9:05	2:55	1037.3	982.0	1428.4	1103.8	5:35	6:25	1491.1	-148.0	1498.4	2120.3
9:00	3:00	1060.7	961.3	1431.5	1132.9	5:30	6:30	1487.2	-177.4	1497.7	2138.6
8:55	3:05	1083.5	940.1	1434.5	1161.9	5:25	6:35	1482.5	-206.8	1496.9	2156.6
8:50	3:10	1105.9	918.4	1437.6	1190.6	5:20	6:40	1477.2	-236.1	1496.0	2174.4
8:45	3:15	1127.8	896.4	1440.6	1219.1	5:15	6:45	1471.2	-265.2	1494.9	2191.8
8:40	3:20	1149.1	873.8	1443.6	1247.5	5:10	6:50	1464.4	-294.2	1493.7	2208.9
8:35	3:25	1169.8	850.9	1446.6	1275.6	5:05	6:55	1457.0	-323.1	1492.4	2225.8
8:30	3:30	1190.0	827.6	1449.5	1303.5	5:00	7:00	1448.9	-351.9	1491.0	2242.3

Analemmatic Sundial

Latitude: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1359.5 mm
 Sunrise/Sunset Markers: X = ± 164.6 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
4:55	7:05	1440.1	-380.4	1489.5	2258.5	2:55	9:05	1037.3	-982.0	1428.4	2561.0
4:50	7:10	1430.6	-408.8	1487.8	2274.5	2:50	9:10	1013.4	-1002.3	1425.3	2570.0
4:45	7:15	1420.4	-437.0	1486.1	2290.1	2:45	9:15	989.0	-1022.1	1422.3	2578.8
4:40	7:20	1409.5	-465.0	1484.2	2305.5	2:40	9:20	964.2	-1041.4	1419.2	2587.2
4:35	7:25	1398.0	-492.7	1482.3	2320.6	2:35	9:25	938.9	-1060.2	1416.2	2595.5
4:30	7:30	1385.8	-520.2	1480.3	2335.3	2:30	9:30	913.1	-1078.5	1413.2	2603.4
4:25	7:35	1373.0	-547.5	1478.1	2349.8	2:25	9:35	887.0	-1096.3	1410.2	2611.1
4:20	7:40	1359.5	-574.5	1475.9	2364.0	2:20	9:40	860.4	-1113.6	1407.2	2618.5
4:15	7:45	1345.3	-601.3	1473.6	2377.9	2:15	9:45	833.4	-1130.4	1404.3	2625.6
4:10	7:50	1330.5	-627.7	1471.2	2391.5	2:10	9:50	805.9	-1146.6	1401.5	2632.4
4:05	7:55	1315.1	-653.9	1468.7	2404.8	2:05	9:55	778.2	-1162.2	1398.7	2639.0
4:00	8:00	1299.0	-679.7	1466.1	2417.8	2:00	10:00	750.0	-1177.3	1395.9	2645.3
3:55	8:05	1282.4	-705.3	1463.5	2430.5	1:55	10:05	721.5	-1191.9	1393.2	2651.4
3:50	8:10	1265.1	-730.4	1460.8	2443.0	1:50	10:10	692.6	-1205.9	1390.6	2657.2
3:45	8:15	1247.2	-755.3	1458.1	2455.1	1:45	10:15	663.4	-1219.3	1388.1	2662.7
3:40	8:20	1228.7	-779.8	1455.3	2467.0	1:40	10:20	633.9	-1232.1	1385.6	2668.0
3:35	8:25	1209.7	-803.9	1452.4	2478.6	1:35	10:25	604.1	-1244.3	1383.2	2673.0
3:30	8:30	1190.0	-827.6	1449.5	2489.9	1:30	10:30	574.0	-1256.0	1380.9	2677.7
3:25	8:35	1169.8	-850.9	1446.6	2500.9	1:25	10:35	543.7	-1267.0	1378.7	2682.2
3:20	8:40	1149.1	-873.8	1443.6	2511.6	1:20	10:40	513.0	-1277.5	1376.6	2686.4
3:15	8:45	1127.8	-896.4	1440.6	2522.0	1:15	10:45	482.2	-1287.3	1374.6	2690.3
3:10	8:50	1105.9	-918.4	1437.6	2532.2	1:10	10:50	451.1	-1296.5	1372.8	2694.0
3:05	8:55	1083.5	-940.1	1434.5	2542.0	1:05	10:55	419.7	-1305.2	1371.0	2697.5
3:00	9:00	1060.7	-961.3	1431.5	2551.6	1:00	11:00	388.2	-1313.1	1369.3	2700.7

Analemmatic Sundial

Latitude: 65.0° N/S

Date Scale

Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1359.5 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-269.0	-263.9	-262.3	-255.4	-253.3	-244.6	-242.2	-231.9	-229.1	-217.4	-214.3
February	-194.5	-180.3	-176.6	-161.6	-157.8	-142.0	-138.0	-121.7	-117.6	-100.9	-96.6
March	-83.8	-66.6	-62.3	-44.9	-40.5	-23.0	-18.7	-1.1	3.2	20.7	25.0
April	51.0	68.1	72.3	89.1	93.3	109.7	113.7	129.8	133.7	149.2	152.9
May	171.3	185.4	188.7	201.8	205.0	217.0	219.9	230.9	233.5	243.1	245.2
June	257.2	263.4	264.8	269.3	270.4	273.3	273.7	274.7	274.9	272.9	273.8
July	270.4	266.1	264.8	259.0	257.3	249.7	247.7	238.7	236.3	226.0	223.2
August	205.7	193.0	189.7	176.0	172.6	158.2	154.4	139.4	135.6	119.9	115.9
September	91.7	75.1	71.0	54.1	49.9	32.9	28.7	11.5	7.2	-10.1	-14.4
October	-35.9	-53.1	-57.4	-74.5	-78.6	-95.5	-99.7	-116.2	-120.4	-136.5	-140.4
November	-163.6	-178.4	-182.0	-196.0	-199.4	-212.4	-215.4	-227.2	-230.0	-240.4	-243.0
December	-253.8	-261.2	-262.7	-268.0	-269.2	-272.6	-273.3	-274.7	-274.9	-274.2	-273.8

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	269.0	263.9	262.3	255.4	253.3	244.6	242.2	231.9	229.1	217.4	214.3
February	194.5	180.3	176.6	161.6	157.8	142.0	138.0	121.7	117.6	100.9	96.6
March	83.8	66.6	62.3	44.9	40.5	23.0	18.7	1.1	-3.2	-20.7	-25.0
April	-51.0	-68.1	-72.3	-89.1	-93.3	-109.7	-113.7	-129.8	-133.7	-149.2	-152.9
May	-171.3	-185.4	-188.7	-201.8	-205.0	-217.0	-219.9	-230.9	-233.5	-243.1	-245.2
June	-257.2	-263.4	-264.8	-269.3	-270.4	-273.3	-273.7	-274.7	-274.9	-272.9	-273.8
July	-270.4	-266.1	-264.8	-259.0	-257.3	-249.7	-247.7	-238.7	-236.3	-226.0	-223.2
August	-205.7	-193.0	-189.7	-176.0	-172.6	-158.2	-154.4	-139.4	-135.6	-119.9	-115.9
September	-91.7	-75.1	-71.0	-54.1	-49.9	-32.9	-28.7	-11.5	-7.2	10.1	14.4
October	35.9	53.1	57.4	74.5	78.6	95.5	99.7	116.2	120.4	136.5	140.4
November	163.6	178.4	182.0	196.0	199.4	212.4	215.4	227.2	230.0	240.4	243.0
December	253.8	261.2	262.7	268.0	269.2	272.6	273.3	274.7	274.9	274.2	273.8

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: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1812.6 mm
 Sunrise/Sunset Markers: X = ± 219.5 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	1812.6	1812.6	0.0						
11:55	12:05	43.6	1812.2	1812.7	43.6	8:25	3:35	1612.9	1071.8	1936.5	1774.9
11:50	12:10	87.2	1810.9	1813.0	87.3	8:20	3:40	1638.3	1039.7	1940.4	1811.5
11:45	12:15	130.8	1808.7	1813.5	130.9	8:15	3:45	1662.9	1007.0	1944.1	1847.8
11:40	12:20	174.3	1805.7	1814.1	174.4	8:10	3:50	1686.8	973.9	1947.8	1883.8
11:35	12:25	217.7	1801.8	1814.9	218.0	8:05	3:55	1709.8	940.3	1951.3	1919.5
11:30	12:30	261.1	1797.1	1816.0	261.5	8:00	4:00	1732.1	906.3	1954.8	1954.8
11:25	12:35	304.2	1791.5	1817.2	305.0	7:55	4:05	1753.5	871.8	1958.2	1989.9
11:20	12:40	347.3	1785.1	1818.5	348.4	7:50	4:10	1774.0	837.0	1961.5	2024.6
11:15	12:45	390.2	1777.8	1820.1	391.7	7:45	4:15	1793.7	801.7	1964.8	2059.0
11:10	12:50	432.9	1769.6	1821.8	435.0	7:40	4:20	1812.6	766.0	1967.8	2093.1
11:05	12:55	475.4	1760.7	1823.7	478.2	7:35	4:25	1830.6	730.0	1970.8	2126.8
11:00	1:00	517.6	1750.9	1825.8	521.3	7:30	4:30	1847.8	693.7	1973.7	2160.2
10:55	1:05	559.7	1740.2	1828.0	564.3	7:25	4:35	1864.0	657.0	1976.4	2193.2
10:50	1:10	601.4	1728.7	1830.3	607.2	7:20	4:40	1879.4	620.0	1979.0	2225.9
10:45	1:15	642.9	1716.4	1832.9	650.0	7:15	4:45	1893.9	582.6	1981.5	2258.2
10:40	1:20	684.0	1703.3	1835.5	692.7	7:10	4:50	1907.4	545.1	1983.8	2290.2
10:35	1:25	724.9	1689.4	1838.3	735.3	7:05	4:55	1920.1	507.2	1986.0	2321.8
10:30	1:30	765.4	1674.6	1841.2	777.7	7:00	5:00	1931.9	469.1	1988.0	2353.1
10:25	1:35	805.5	1659.1	1844.3	820.0	6:55	5:05	1942.7	430.8	1989.9	2384.0
10:20	1:40	845.2	1642.8	1847.5	862.1	6:50	5:10	1952.6	392.3	1991.6	2414.5
10:15	1:45	884.6	1625.7	1850.8	904.1	6:45	5:15	1961.6	353.6	1993.2	2444.7
10:10	1:50	923.5	1607.8	1854.2	945.9	6:40	5:20	1969.6	314.8	1994.6	2474.5
10:05	1:55	962.0	1589.2	1857.6	987.6	6:35	5:25	1976.7	275.7	1995.9	2503.9
10:00	2:00	1000.0	1569.8	1861.2	1029.1	6:30	5:30	1982.9	236.6	1997.0	2532.9
9:55	2:05	1037.5	1549.6	1864.9	1070.4	6:25	5:35	1988.1	197.3	1997.9	2561.6
9:50	2:10	1074.6	1528.7	1868.6	1111.5	6:20	5:40	1992.4	158.0	1998.6	2589.9
9:45	2:15	1111.1	1507.1	1872.5	1152.4	6:15	5:45	1995.7	118.6	1999.2	2617.8
9:40	2:20	1147.2	1484.8	1876.3	1193.1	6:10	5:50	1998.1	79.1	1999.7	2645.3
9:35	2:25	1182.6	1461.8	1880.3	1233.6	6:05	5:55	1999.5	39.5	1999.9	2672.4
9:30	2:30	1217.5	1438.0	1884.2	1273.8	6:00	6:00	2000.0	0.0	2000.0	2699.2
9:25	2:35	1251.8	1413.6	1888.2	1313.9	5:55	6:05	1999.5	-39.5	1999.9	2725.5
9:20	2:40	1285.6	1388.5	1892.3	1353.7	5:50	6:10	1998.1	-79.1	1999.7	2751.5
9:15	2:45	1318.7	1362.8	1896.4	1393.3	5:45	6:15	1995.7	-118.6	1999.2	2777.1
9:10	2:50	1351.2	1336.4	1900.4	1432.6	5:40	6:20	1992.4	-158.0	1998.6	2802.3
9:05	2:55	1383.0	1309.4	1904.5	1471.7	5:35	6:25	1988.1	-197.3	1997.9	2827.1
9:00	3:00	1414.2	1281.7	1908.6	1510.6	5:30	6:30	1982.9	-236.6	1997.0	2851.5
8:55	3:05	1444.7	1253.4	1912.7	1549.2	5:25	6:35	1976.7	-275.7	1995.9	2875.5
8:50	3:10	1474.6	1224.6	1916.7	1587.5	5:20	6:40	1969.6	-314.8	1994.6	2899.2
8:45	3:15	1503.7	1195.1	1920.8	1625.5	5:15	6:45	1961.6	-353.6	1993.2	2922.4
8:40	3:20	1532.1	1165.1	1924.8	1663.3	5:10	6:50	1952.6	-392.3	1991.6	2945.2
8:35	3:25	1559.8	1134.6	1928.8	1700.8	5:05	6:55	1942.7	-430.8	1989.9	2967.7
8:30	3:30	1586.7	1103.5	1932.7	1738.0	5:00	7:00	1931.9	-469.1	1988.0	2989.7

Analemmatic Sundial

Latitude: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1812.6 mm
 Sunrise/Sunset Markers: X = ± 219.5 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	1920.1	-507.2	1986.0	3011.4	2:55	9:05	1383.0	-1309.4	1904.5	3414.6
4:50	7:10	1907.4	-545.1	1983.8	3032.6	2:50	9:10	1351.2	-1336.4	1900.4	3426.7
4:45	7:15	1893.9	-582.6	1981.5	3053.5	2:45	9:15	1318.7	-1362.8	1896.4	3438.3
4:40	7:20	1879.4	-620.0	1979.0	3074.0	2:40	9:20	1285.6	-1388.5	1892.3	3449.7
4:35	7:25	1864.0	-657.0	1976.4	3094.1	2:35	9:25	1251.8	-1413.6	1888.2	3460.6
4:30	7:30	1847.8	-693.7	1973.7	3113.8	2:30	9:30	1217.5	-1438.0	1884.2	3471.2
4:25	7:35	1830.6	-730.0	1970.8	3133.1	2:25	9:35	1182.6	-1461.8	1880.3	3481.4
4:20	7:40	1812.6	-766.0	1967.8	3152.0	2:20	9:40	1147.2	-1484.8	1876.3	3491.3
4:15	7:45	1793.7	-801.7	1964.8	3170.5	2:15	9:45	1111.1	-1507.1	1872.5	3500.8
4:10	7:50	1774.0	-837.0	1961.5	3188.6	2:10	9:50	1074.6	-1528.7	1868.6	3509.9
4:05	7:55	1753.5	-871.8	1958.2	3206.4	2:05	9:55	1037.5	-1549.6	1864.9	3518.7
4:00	8:00	1732.1	-906.3	1954.8	3223.7	2:00	10:00	1000.0	-1569.8	1861.2	3527.1
3:55	8:05	1709.8	-940.3	1951.3	3240.7	1:55	10:05	962.0	-1589.2	1857.6	3535.2
3:50	8:10	1686.8	-973.9	1947.8	3257.3	1:50	10:10	923.5	-1607.8	1854.2	3542.9
3:45	8:15	1662.9	-1007.0	1944.1	3273.5	1:45	10:15	884.6	-1625.7	1850.8	3550.3
3:40	8:20	1638.3	-1039.7	1940.4	3289.3	1:40	10:20	845.2	-1642.8	1847.5	3557.3
3:35	8:25	1612.9	-1071.8	1936.5	3304.7	1:35	10:25	805.5	-1659.1	1844.3	3563.9
3:30	8:30	1586.7	-1103.5	1932.7	3319.8	1:30	10:30	765.4	-1674.6	1841.2	3570.3
3:25	8:35	1559.8	-1134.6	1928.8	3334.5	1:25	10:35	724.9	-1689.4	1838.3	3576.2
3:20	8:40	1532.1	-1165.1	1924.8	3348.8	1:20	10:40	684.0	-1703.3	1835.5	3581.8
3:15	8:45	1503.7	-1195.1	1920.8	3362.7	1:15	10:45	642.9	-1716.4	1832.9	3587.1
3:10	8:50	1474.6	-1224.6	1916.7	3376.2	1:10	10:50	601.4	-1728.7	1830.3	3592.0
3:05	8:55	1444.7	-1253.4	1912.7	3389.4	1:05	10:55	559.7	-1740.2	1828.0	3596.6
3:00	9:00	1414.2	-1281.7	1908.6	3402.2	1:00	11:00	517.6	-1750.9	1825.8	3600.9

Analemmatic Sundial

Latitude: 65.0° N/S

Date Scale

Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1812.6 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-358.6	-351.8	-349.8	-340.5	-337.7	-326.1	-322.9	-309.1	-305.5	-289.9	-285.8
February	-259.4	-240.5	-235.5	-215.4	-210.4	-189.4	-184.0	-162.3	-156.8	-134.5	-128.7
March	-111.7	-88.8	-83.0	-59.8	-54.1	-30.7	-24.9	-1.5	4.3	27.6	33.4
April	68.0	90.8	96.5	118.8	124.4	146.3	151.6	173.0	178.3	198.9	203.9
May	228.4	247.2	251.7	269.1	273.3	289.4	293.2	307.8	311.3	324.1	327.0
June	342.9	351.1	353.1	359.1	360.5	364.4	364.9	366.3	366.5	363.8	365.1
July	360.5	354.8	353.1	345.3	343.0	332.9	330.2	318.2	315.0	301.3	297.7
August	274.3	257.3	252.9	234.7	230.1	210.9	205.9	185.8	180.7	159.9	154.5
September	122.3	100.2	94.7	72.2	66.5	43.9	38.2	15.3	9.6	-13.4	-19.2
October	-47.8	-70.8	-76.5	-99.3	-104.8	-127.4	-133.0	-155.0	-160.5	-182.0	-187.2
November	-218.1	-237.9	-242.7	-261.3	-265.9	-283.1	-287.2	-303.0	-306.6	-320.6	-323.9
December	-338.4	-348.2	-350.3	-357.4	-359.0	-363.5	-364.4	-366.3	-366.5	-365.6	-365.1

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	358.6	351.8	349.8	340.5	337.7	326.1	322.9	309.1	305.5	289.9	285.8
February	259.4	240.5	235.5	215.4	210.4	189.4	184.0	162.3	156.8	134.5	128.7
March	111.7	88.8	83.0	59.8	54.1	30.7	24.9	1.5	-4.3	-27.6	-33.4
April	-68.0	-90.8	-96.5	-118.8	-124.4	-146.3	-151.6	-173.0	-178.3	-198.9	-203.9
May	-228.4	-247.2	-251.7	-269.1	-273.3	-289.4	-293.2	-307.8	-311.3	-324.1	-327.0
June	-342.9	-351.1	-353.1	-359.1	-360.5	-364.4	-364.9	-366.3	-366.5	-363.8	-365.1
July	-360.5	-354.8	-353.1	-345.3	-343.0	-332.9	-330.2	-318.2	-315.0	-301.3	-297.7
August	-274.3	-257.3	-252.9	-234.7	-230.1	-210.9	-205.9	-185.8	-180.7	-159.9	-154.5
September	-122.3	-100.2	-94.7	-72.2	-66.5	-43.9	-38.2	-15.3	-9.6	13.4	19.2
October	47.8	70.8	76.5	99.3	104.8	127.4	133.0	155.0	160.5	182.0	187.2
November	218.1	237.9	242.7	261.3	265.9	283.1	287.2	303.0	306.6	320.6	323.9
December	338.4	348.2	350.3	357.4	359.0	363.5	364.4	366.3	366.5	365.6	365.1

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: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2265.8 mm
 Sunrise/Sunset Markers: X = ± 274.3 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	2265.8	2265.8	0.0						
11:55	12:05	54.5	2265.2	2265.9	54.5	8:25	3:35	2016.1	1339.8	2420.7	2218.6
11:50	12:10	109.0	2263.6	2266.2	109.1	8:20	3:40	2047.9	1299.6	2425.4	2264.4
11:45	12:15	163.5	2260.9	2266.8	163.6	8:15	3:45	2078.7	1258.8	2430.1	2309.7
11:40	12:20	217.9	2257.1	2267.6	218.1	8:10	3:50	2108.5	1217.4	2434.7	2354.7
11:35	12:25	272.2	2252.3	2268.7	272.5	8:05	3:55	2137.3	1175.4	2439.2	2399.3
11:30	12:30	326.3	2246.4	2270.0	326.9	8:00	4:00	2165.1	1132.9	2443.5	2443.5
11:25	12:35	380.3	2239.4	2271.5	381.2	7:55	4:05	2191.8	1089.8	2447.8	2487.4
11:20	12:40	434.1	2231.3	2273.2	435.5	7:50	4:10	2217.5	1046.2	2451.9	2530.8
11:15	12:45	487.7	2222.2	2275.1	489.7	7:45	4:15	2242.2	1002.1	2455.9	2573.7
11:10	12:50	541.1	2212.1	2277.3	543.8	7:40	4:20	2265.8	957.6	2459.8	2616.3
11:05	12:55	594.2	2200.8	2279.6	597.8	7:35	4:25	2288.3	912.5	2463.5	2658.5
11:00	1:00	647.0	2188.6	2282.2	651.6	7:30	4:30	2309.7	867.1	2467.1	2700.2
10:55	1:05	699.6	2175.3	2285.0	705.4	7:25	4:35	2330.0	821.2	2470.5	2741.5
10:50	1:10	751.8	2160.9	2287.9	759.0	7:20	4:40	2349.2	774.9	2473.7	2782.3
10:45	1:15	803.6	2145.5	2291.1	812.5	7:15	4:45	2367.3	728.3	2476.8	2822.8
10:40	1:20	855.1	2129.1	2294.4	865.9	7:10	4:50	2384.3	681.3	2479.7	2862.7
10:35	1:25	906.1	2111.7	2297.9	919.1	7:05	4:55	2400.1	634.0	2482.5	2902.3
10:30	1:30	956.7	2093.3	2301.6	972.1	7:00	5:00	2414.8	586.4	2485.0	2941.3
10:25	1:35	1006.9	2073.9	2305.4	1025.0	6:55	5:05	2428.4	538.5	2487.4	2980.0
10:20	1:40	1056.5	2053.5	2309.3	1077.7	6:50	5:10	2440.7	490.4	2489.5	3018.1
10:15	1:45	1105.7	2032.1	2313.5	1130.1	6:45	5:15	2452.0	442.0	2491.5	3055.8
10:10	1:50	1154.4	2009.8	2317.7	1182.4	6:40	5:20	2462.0	393.4	2493.3	3093.1
10:05	1:55	1202.5	1986.5	2322.1	1234.5	6:35	5:25	2470.9	344.7	2494.8	3129.9
10:00	2:00	1250.0	1962.2	2326.5	1286.3	6:30	5:30	2478.6	295.7	2496.2	3166.2
9:55	2:05	1296.9	1937.0	2331.1	1337.9	6:25	5:35	2485.1	246.7	2497.4	3202.0
9:50	2:10	1343.2	1910.9	2335.8	1389.3	6:20	5:40	2490.5	197.5	2498.3	3237.3
9:45	2:15	1388.9	1883.9	2340.6	1440.5	6:15	5:45	2494.6	148.2	2499.0	3272.2
9:40	2:20	1433.9	1856.0	2345.4	1491.3	6:10	5:50	2497.6	98.8	2499.6	3306.6
9:35	2:25	1478.3	1827.2	2350.3	1542.0	6:05	5:55	2499.4	49.4	2499.9	3340.5
9:30	2:30	1521.9	1797.6	2355.3	1592.3	6:00	6:00	2500.0	0.0	2500.0	3374.0
9:25	2:35	1564.8	1767.0	2360.3	1642.4	5:55	6:05	2499.4	-49.4	2499.9	3406.9
9:20	2:40	1607.0	1735.7	2365.4	1692.1	5:50	6:10	2497.6	-98.8	2499.6	3439.4
9:15	2:45	1648.4	1703.5	2370.4	1741.6	5:45	6:15	2494.6	-148.2	2499.0	3471.4
9:10	2:50	1689.0	1670.5	2375.5	1790.8	5:40	6:20	2490.5	-197.5	2498.3	3502.9
9:05	2:55	1728.8	1636.7	2380.7	1839.7	5:35	6:25	2485.1	-246.7	2497.4	3533.9
9:00	3:00	1767.8	1602.1	2385.8	1888.2	5:30	6:30	2478.6	-295.7	2496.2	3564.4
8:55	3:05	1805.9	1566.8	2390.9	1936.5	5:25	6:35	2470.9	-344.7	2494.8	3594.4
8:50	3:10	1843.2	1530.7	2395.9	1984.3	5:20	6:40	2462.0	-393.4	2493.3	3623.9
8:45	3:15	1879.6	1493.9	2401.0	2031.9	5:15	6:45	2452.0	-442.0	2491.5	3653.0
8:40	3:20	1915.1	1456.4	2406.0	2079.1	5:10	6:50	2440.7	-490.4	2489.5	3681.5
8:35	3:25	1949.7	1418.2	2410.9	2126.0	5:05	6:55	2428.4	-538.5	2487.4	3709.6
8:30	3:30	1983.4	1379.3	2415.8	2172.5	5:00	7:00	2414.8	-586.4	2485.0	3737.2

Analemmatic Sundial

Latitude: 65.0° N/S

Earliest Sunrise: 00:59 a.m. Latest Sunset: 11:01 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2265.8 mm
 Sunrise/Sunset Markers: X = ± 274.3 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	2400.1	-634.0	2482.5	3764.2	2:55	9:05	1728.8	-1636.7	2380.7	4268.3
4:50	7:10	2384.3	-681.3	2479.7	3790.8	2:50	9:10	1689.0	-1670.5	2375.5	4283.3
4:45	7:15	2367.3	-728.3	2476.8	3816.9	2:45	9:15	1648.4	-1703.5	2370.4	4297.9
4:40	7:20	2349.2	-774.9	2473.7	3842.5	2:40	9:20	1607.0	-1735.7	2365.4	4312.1
4:35	7:25	2330.0	-821.2	2470.5	3867.6	2:35	9:25	1564.8	-1767.0	2360.3	4325.8
4:30	7:30	2309.7	-867.1	2467.1	3892.2	2:30	9:30	1521.9	-1797.6	2355.3	4339.0
4:25	7:35	2288.3	-912.5	2463.5	3916.4	2:25	9:35	1478.3	-1827.2	2350.3	4351.8
4:20	7:40	2265.8	-957.6	2459.8	3940.0	2:20	9:40	1433.9	-1856.0	2345.4	4364.1
4:15	7:45	2242.2	-1002.1	2455.9	3963.1	2:15	9:45	1388.9	-1883.9	2340.6	4376.0
4:10	7:50	2217.5	-1046.2	2451.9	3985.8	2:10	9:50	1343.2	-1910.9	2335.8	4387.4
4:05	7:55	2191.8	-1089.8	2447.8	4008.0	2:05	9:55	1296.9	-1937.0	2331.1	4398.4
4:00	8:00	2165.1	-1132.9	2443.5	4029.7	2:00	10:00	1250.0	-1962.2	2326.5	4408.9
3:55	8:05	2137.3	-1175.4	2439.2	4050.9	1:55	10:05	1202.5	-1986.5	2322.1	4419.0
3:50	8:10	2108.5	-1217.4	2434.7	4071.6	1:50	10:10	1154.4	-2009.8	2317.7	4428.6
3:45	8:15	2078.7	-1258.8	2430.1	4091.9	1:45	10:15	1105.7	-2032.1	2313.5	4437.8
3:40	8:20	2047.9	-1299.6	2425.4	4111.6	1:40	10:20	1056.5	-2053.5	2309.3	4446.6
3:35	8:25	2016.1	-1339.8	2420.7	4130.9	1:35	10:25	1006.9	-2073.9	2305.4	4454.9
3:30	8:30	1983.4	-1379.3	2415.8	4149.8	1:30	10:30	956.7	-2093.3	2301.6	4462.8
3:25	8:35	1949.7	-1418.2	2410.9	4168.1	1:25	10:35	906.1	-2111.7	2297.9	4470.3
3:20	8:40	1915.1	-1456.4	2406.0	4186.0	1:20	10:40	855.1	-2129.1	2294.4	4477.3
3:15	8:45	1879.6	-1493.9	2401.0	4203.4	1:15	10:45	803.6	-2145.5	2291.1	4483.9
3:10	8:50	1843.2	-1530.7	2395.9	4220.3	1:10	10:50	751.8	-2160.9	2287.9	4490.1
3:05	8:55	1805.9	-1566.8	2390.9	4236.7	1:05	10:55	699.6	-2175.3	2285.0	4495.8
3:00	9:00	1767.8	-1602.1	2385.8	4252.7	1:00	11:00	647.0	-2188.6	2282.2	4501.1

Analematic Sundial

Latitude: 65.0° N/S

Date Scale

Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2265.8 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-448.3	-439.8	-437.2	-425.6	-422.2	-407.7	-403.7	-386.4	-381.8	-362.4	-357.2
February	-324.2	-300.6	-294.4	-269.3	-263.0	-236.7	-230.0	-202.9	-196.0	-168.1	-160.9
March	-139.7	-111.0	-103.8	-74.8	-67.6	-38.4	-31.2	-1.8	5.3	34.5	41.7
April	85.0	113.5	120.6	148.5	155.5	182.9	189.5	216.3	222.8	248.6	254.8
May	285.5	309.0	314.6	336.4	341.7	361.7	366.5	384.8	389.2	405.1	408.7
June	428.6	438.9	441.3	448.9	450.7	455.5	456.1	457.9	458.1	454.8	456.3
July	450.7	443.5	441.3	431.6	428.8	416.2	412.8	397.8	393.8	376.6	372.1
August	342.9	321.6	316.2	293.4	287.7	263.6	257.4	232.3	225.9	199.8	193.2
September	152.8	125.2	118.3	90.2	83.2	54.8	47.8	19.2	12.0	-16.8	-24.0
October	-59.8	-88.5	-95.6	-124.1	-131.0	-159.2	-166.2	-193.7	-200.6	-227.5	-234.0
November	-272.7	-297.4	-303.4	-326.7	-332.3	-353.9	-359.1	-378.7	-383.3	-400.7	-404.9
December	-423.0	-435.3	-437.9	-446.7	-448.7	-454.4	-455.5	-457.9	-458.1	-457.0	-456.3

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	448.3	439.8	437.2	425.6	422.2	407.7	403.7	386.4	381.8	362.4	357.2
February	324.2	300.6	294.4	269.3	263.0	236.7	230.0	202.9	196.0	168.1	160.9
March	139.7	111.0	103.8	74.8	67.6	38.4	31.2	1.8	-5.3	-34.5	-41.7
April	-85.0	-113.5	-120.6	-148.5	-155.5	-182.9	-189.5	-216.3	-222.8	-248.6	-254.8
May	-285.5	-309.0	-314.6	-336.4	-341.7	-361.7	-366.5	-384.8	-389.2	-405.1	-408.7
June	-428.6	-438.9	-441.3	-448.9	-450.7	-455.5	-456.1	-457.9	-458.1	-454.8	-456.3
July	-450.7	-443.5	-441.3	-431.6	-428.8	-416.2	-412.8	-397.8	-393.8	-376.6	-372.1
August	-342.9	-321.6	-316.2	-293.4	-287.7	-263.6	-257.4	-232.3	-225.9	-199.8	-193.2
September	-152.8	-125.2	-118.3	-90.2	-83.2	-54.8	-47.8	-19.2	-12.0	16.8	24.0
October	59.8	88.5	95.6	124.1	131.0	159.2	166.2	193.7	200.6	227.5	234.0
November	272.7	297.4	303.4	326.7	332.3	353.9	359.1	378.7	383.3	400.7	404.9
December	423.0	435.3	437.9	446.7	448.7	454.4	455.5	457.9	458.1	457.0	456.3

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