

Analemmatic Sundial

Latitude: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 902.6 mm
 Sunrise/Sunset Markers: X = ± 117.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	902.6	902.6	0.0						
11:55	12:05	21.8	902.4	902.6	21.8	8:25	3:35	806.4	533.7	967.1	886.8
11:50	12:10	43.6	901.7	902.8	43.6	8:20	3:40	819.2	517.7	969.0	905.1
11:45	12:15	65.4	900.7	903.0	65.4	8:15	3:45	831.5	501.4	971.0	923.2
11:40	12:20	87.2	899.2	903.4	87.2	8:10	3:50	843.4	485.0	972.9	941.1
11:35	12:25	108.9	897.2	903.8	109.0	8:05	3:55	854.9	468.2	974.7	958.9
11:30	12:30	130.5	894.9	904.3	130.8	8:00	4:00	866.0	451.3	976.6	976.6
11:25	12:35	152.1	892.1	905.0	152.5	7:55	4:05	876.7	434.1	978.3	994.0
11:20	12:40	173.6	888.9	905.7	174.2	7:50	4:10	887.0	416.8	980.0	1011.3
11:15	12:45	195.1	885.2	906.5	195.9	7:45	4:15	896.9	399.2	981.7	1028.5
11:10	12:50	216.4	881.2	907.4	217.5	7:40	4:20	906.3	381.4	983.3	1045.5
11:05	12:55	237.7	876.7	908.4	239.1	7:35	4:25	915.3	363.5	984.9	1062.3
11:00	1:00	258.8	871.8	909.4	260.6	7:30	4:30	923.9	345.4	986.3	1078.9
10:55	1:05	279.8	866.5	910.6	282.1	7:25	4:35	932.0	327.1	987.8	1095.3
10:50	1:10	300.7	860.8	911.8	303.6	7:20	4:40	939.7	308.7	989.1	1111.6
10:45	1:15	321.4	854.7	913.1	325.0	7:15	4:45	946.9	290.1	990.4	1127.7
10:40	1:20	342.0	848.2	914.5	346.3	7:10	4:50	953.7	271.4	991.6	1143.7
10:35	1:25	362.4	841.2	916.0	367.6	7:05	4:55	960.0	252.6	992.7	1159.4
10:30	1:30	382.7	833.9	917.5	388.8	7:00	5:00	965.9	233.6	993.8	1175.0
10:25	1:35	402.7	826.1	919.1	409.9	6:55	5:05	971.3	214.5	994.8	1190.3
10:20	1:40	422.6	818.0	920.7	431.0	6:50	5:10	976.3	195.4	995.6	1205.5
10:15	1:45	442.3	809.5	922.5	452.0	6:45	5:15	980.8	176.1	996.5	1220.5
10:10	1:50	461.7	800.6	924.2	472.9	6:40	5:20	984.8	156.7	997.2	1235.4
10:05	1:55	481.0	791.3	926.0	493.7	6:35	5:25	988.4	137.3	997.9	1250.0
10:00	2:00	500.0	781.7	927.9	514.4	6:30	5:30	991.4	117.8	998.4	1264.4
9:55	2:05	518.8	771.6	929.8	535.0	6:25	5:35	994.1	98.3	998.9	1278.7
9:50	2:10	537.3	761.2	931.8	555.6	6:20	5:40	996.2	78.7	999.3	1292.8
9:45	2:15	555.6	750.5	933.7	576.0	6:15	5:45	997.9	59.0	999.6	1306.6
9:40	2:20	573.6	739.4	935.8	596.4	6:10	5:50	999.0	39.4	999.8	1320.3
9:35	2:25	591.3	727.9	937.8	616.6	6:05	5:55	999.8	19.7	1000.0	1333.8
9:30	2:30	608.8	716.1	939.9	636.7	6:00	6:00	1000.0	0.0	1000.0	1347.1
9:25	2:35	625.9	703.9	942.0	656.7	5:55	6:05	999.8	-19.7	1000.0	1360.2
9:20	2:40	642.8	691.4	944.1	676.6	5:50	6:10	999.0	-39.4	999.8	1373.1
9:15	2:45	659.3	678.6	946.2	696.4	5:45	6:15	997.9	-59.0	999.6	1385.8
9:10	2:50	675.6	665.5	948.3	716.0	5:40	6:20	996.2	-78.7	999.3	1398.3
9:05	2:55	691.5	652.0	950.4	735.5	5:35	6:25	994.1	-98.3	998.9	1410.6
9:00	3:00	707.1	638.2	952.5	754.9	5:30	6:30	991.4	-117.8	998.4	1422.7
8:55	3:05	722.4	624.1	954.7	774.2	5:25	6:35	988.4	-137.3	997.9	1434.7
8:50	3:10	737.3	609.8	956.8	793.3	5:20	6:40	984.8	-156.7	997.2	1446.4
8:45	3:15	751.8	595.1	958.9	812.3	5:15	6:45	980.8	-176.1	996.5	1457.9
8:40	3:20	766.0	580.2	960.9	831.1	5:10	6:50	976.3	-195.4	995.6	1469.2
8:35	3:25	779.9	564.9	963.0	849.8	5:05	6:55	971.3	-214.5	994.8	1480.4
8:30	3:30	793.4	549.5	965.0	868.4	5:00	7:00	965.9	-233.6	993.8	1491.3

Analemmatic Sundial

Latitude: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 902.6 mm
 Sunrise/Sunset Markers: X = ± 117.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	960.0	-252.6	992.7	1502.0	2:55	9:05	691.5	-652.0	950.4	1701.4
4:50	7:10	953.7	-271.4	991.6	1512.6	2:50	9:10	675.6	-665.5	948.3	1707.4
4:45	7:15	946.9	-290.1	990.4	1522.9	2:45	9:15	659.3	-678.6	946.2	1713.1
4:40	7:20	939.7	-308.7	989.1	1533.0	2:40	9:20	642.8	-691.4	944.1	1718.7
4:35	7:25	932.0	-327.1	987.8	1543.0	2:35	9:25	625.9	-703.9	942.0	1724.1
4:30	7:30	923.9	-345.4	986.3	1552.7	2:30	9:30	608.8	-716.1	939.9	1729.3
4:25	7:35	915.3	-363.5	984.9	1562.3	2:25	9:35	591.3	-727.9	937.8	1734.4
4:20	7:40	906.3	-381.4	983.3	1571.7	2:20	9:40	573.6	-739.4	935.8	1739.2
4:15	7:45	896.9	-399.2	981.7	1580.8	2:15	9:45	555.6	-750.5	933.7	1743.9
4:10	7:50	887.0	-416.8	980.0	1589.8	2:10	9:50	537.3	-761.2	931.8	1748.4
4:05	7:55	876.7	-434.1	978.3	1598.6	2:05	9:55	518.8	-771.6	929.8	1752.7
4:00	8:00	866.0	-451.3	976.6	1607.2	2:00	10:00	500.0	-781.7	927.9	1756.9
3:55	8:05	854.9	-468.2	974.7	1615.6	1:55	10:05	481.0	-791.3	926.0	1760.9
3:50	8:10	843.4	-485.0	972.9	1623.8	1:50	10:10	461.7	-800.6	924.2	1764.7
3:45	8:15	831.5	-501.4	971.0	1631.8	1:45	10:15	442.3	-809.5	922.5	1768.3
3:40	8:20	819.2	-517.7	969.0	1639.6	1:40	10:20	422.6	-818.0	920.7	1771.7
3:35	8:25	806.4	-533.7	967.1	1647.2	1:35	10:25	402.7	-826.1	919.1	1775.0
3:30	8:30	793.4	-549.5	965.0	1654.6	1:30	10:30	382.7	-833.9	917.5	1778.1
3:25	8:35	779.9	-564.9	963.0	1661.9	1:25	10:35	362.4	-841.2	916.0	1781.1
3:20	8:40	766.0	-580.2	960.9	1668.9	1:20	10:40	342.0	-848.2	914.5	1783.8
3:15	8:45	751.8	-595.1	958.9	1675.8	1:15	10:45	321.4	-854.7	913.1	1786.4
3:10	8:50	737.3	-609.8	956.8	1682.5						
3:05	8:55	722.4	-624.1	954.7	1689.0						
3:00	9:00	707.1	-638.2	952.5	1695.3						

Analemmatic Sundial

Latitude: 64.5° N/S

Date Scale

Semi-Major Axis (E-W): 1000 mm Semi-Minor Axis (N-S): 902.6 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-182.7	-179.2	-178.1	-173.4	-172.0	-166.1	-164.5	-157.5	-155.6	-147.6	-145.6
February	-132.1	-122.5	-120.0	-109.7	-107.2	-96.5	-93.7	-82.7	-79.9	-68.5	-65.6
March	-56.9	-45.2	-42.3	-30.5	-27.5	-15.6	-12.7	-0.8	2.2	14.1	17.0
April	34.6	46.2	49.1	60.5	63.3	74.5	77.2	88.1	90.8	101.3	103.8
May	116.3	125.9	128.2	137.1	139.2	147.4	149.3	156.8	158.6	165.1	166.6
June	174.6	178.9	179.8	182.9	183.6	185.6	185.9	186.6	186.7	185.3	185.9
July	183.6	180.7	179.8	175.9	174.7	169.6	168.2	162.1	160.4	153.5	151.6
August	139.7	131.0	128.8	119.6	117.2	107.4	104.9	94.7	92.1	81.4	78.7
September	62.3	51.0	48.2	36.8	33.9	22.3	19.5	7.8	4.9	-6.8	-9.8
October	-24.4	-36.1	-39.0	-50.6	-53.4	-64.9	-67.7	-78.9	-81.7	-92.7	-95.4
November	-111.1	-121.2	-123.6	-133.1	-135.4	-144.2	-146.3	-154.3	-156.2	-163.3	-165.0
December	-172.4	-177.4	-178.4	-182.0	-182.8	-185.1	-185.6	-186.6	-186.7	-186.2	-185.9

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	182.7	179.2	178.1	173.4	172.0	166.1	164.5	157.5	155.6	147.6	145.6
February	132.1	122.5	120.0	109.7	107.2	96.5	93.7	82.7	79.9	68.5	65.6
March	56.9	45.2	42.3	30.5	27.5	15.6	12.7	0.8	-2.2	-14.1	-17.0
April	-34.6	-46.2	-49.1	-60.5	-63.3	-74.5	-77.2	-88.1	-90.8	-101.3	-103.8
May	-116.3	-125.9	-128.2	-137.1	-139.2	-147.4	-149.3	-156.8	-158.6	-165.1	-166.6
June	-174.6	-178.9	-179.8	-182.9	-183.6	-185.6	-185.9	-186.6	-186.7	-185.3	-185.9
July	-183.6	-180.7	-179.8	-175.9	-174.7	-169.6	-168.2	-162.1	-160.4	-153.5	-151.6
August	-139.7	-131.0	-128.8	-119.6	-117.2	-107.4	-104.9	-94.7	-92.1	-81.4	-78.7
September	-62.3	-51.0	-48.2	-36.8	-33.9	-22.3	-19.5	-7.8	-4.9	6.8	9.8
October	24.4	36.1	39.0	50.6	53.4	64.9	67.7	78.9	81.7	92.7	95.4
November	111.1	121.2	123.6	133.1	135.4	144.2	146.3	154.3	156.2	163.3	165.0
December	172.4	177.4	178.4	182.0	182.8	185.1	185.6	186.6	186.7	186.2	185.9

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: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1353.9 mm
 Sunrise/Sunset Markers: X = ± 176.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	1353.9	1353.9	0.0						
11:55	12:05	32.7	1353.6	1354.0	32.7	8:25	3:35	1209.7	800.6	1450.6	1330.2
11:50	12:10	65.4	1352.6	1354.2	65.4	8:20	3:40	1228.7	776.6	1453.5	1357.6
11:45	12:15	98.1	1351.0	1354.5	98.1	8:15	3:45	1247.2	752.2	1456.5	1384.8
11:40	12:20	130.7	1348.7	1355.0	130.8	8:10	3:50	1265.1	727.4	1459.3	1411.7
11:35	12:25	163.3	1345.8	1355.7	163.5	8:05	3:55	1282.4	702.4	1462.1	1438.4
11:30	12:30	195.8	1342.3	1356.5	196.1	8:00	4:00	1299.0	676.9	1464.8	1464.8
11:25	12:35	228.2	1338.1	1357.4	228.7	7:55	4:05	1315.1	651.2	1467.5	1491.0
11:20	12:40	260.5	1333.3	1358.5	261.3	7:50	4:10	1330.5	625.2	1470.1	1517.0
11:15	12:45	292.6	1327.9	1359.7	293.8	7:45	4:15	1345.3	598.8	1472.6	1542.7
11:10	12:50	324.7	1321.8	1361.1	326.2	7:40	4:20	1359.5	572.2	1475.0	1568.2
11:05	12:55	356.5	1315.1	1362.6	358.6	7:35	4:25	1373.0	545.3	1477.3	1593.4
11:00	1:00	388.2	1307.7	1364.2	391.0	7:30	4:30	1385.8	518.1	1479.5	1618.3
10:55	1:05	419.7	1299.8	1365.9	423.2	7:25	4:35	1398.0	490.7	1481.6	1643.0
10:50	1:10	451.1	1291.2	1367.7	455.4	7:20	4:40	1409.5	463.1	1483.7	1667.4
10:45	1:15	482.2	1282.0	1369.7	487.5	7:15	4:45	1420.4	435.2	1485.6	1691.6
10:40	1:20	513.0	1272.2	1371.8	519.5	7:10	4:50	1430.6	407.1	1487.4	1715.5
10:35	1:25	543.7	1261.8	1374.0	551.4	7:05	4:55	1440.1	378.9	1489.1	1739.1
10:30	1:30	574.0	1250.8	1376.2	583.2	7:00	5:00	1448.9	350.4	1490.7	1762.4
10:25	1:35	604.1	1239.2	1378.6	614.9	6:55	5:05	1457.0	321.8	1492.1	1785.5
10:20	1:40	633.9	1227.0	1381.1	646.5	6:50	5:10	1464.4	293.0	1493.5	1808.3
10:15	1:45	663.4	1214.3	1383.7	678.0	6:45	5:15	1471.2	264.1	1494.7	1830.8
10:10	1:50	692.6	1200.9	1386.3	709.3	6:40	5:20	1477.2	235.1	1495.8	1853.1
10:05	1:55	721.5	1187.0	1389.1	740.5	6:35	5:25	1482.5	206.0	1496.8	1875.0
10:00	2:00	750.0	1172.5	1391.8	771.6	6:30	5:30	1487.2	176.7	1497.6	1896.7
9:55	2:05	778.2	1157.4	1394.7	802.6	6:25	5:35	1491.1	147.4	1498.4	1918.1
9:50	2:10	805.9	1141.8	1397.6	833.4	6:20	5:40	1494.3	118.0	1498.9	1939.2
9:45	2:15	833.4	1125.7	1400.6	864.0	6:15	5:45	1496.8	88.5	1499.4	1960.0
9:40	2:20	860.4	1109.0	1403.6	894.5	6:10	5:50	1498.6	59.1	1499.7	1980.5
9:35	2:25	887.0	1091.8	1406.7	924.9	6:05	5:55	1499.6	29.5	1499.9	2000.7
9:30	2:30	913.1	1074.1	1409.8	955.0	6:00	6:00	1500.0	0.0	1500.0	2020.6
9:25	2:35	938.9	1055.9	1412.9	985.0	5:55	6:05	1499.6	-29.5	1499.9	2040.3
9:20	2:40	964.2	1037.1	1416.1	1014.9	5:50	6:10	1498.6	-59.1	1499.7	2059.6
9:15	2:45	989.0	1017.9	1419.3	1044.5	5:45	6:15	1496.8	-88.5	1499.4	2078.7
9:10	2:50	1013.4	998.2	1422.4	1074.0	5:40	6:20	1494.3	-118.0	1498.9	2097.5
9:05	2:55	1037.3	978.0	1425.6	1103.3	5:35	6:25	1491.1	-147.4	1498.4	2115.9
9:00	3:00	1060.7	957.3	1428.8	1132.4	5:30	6:30	1487.2	-176.7	1497.6	2134.1
8:55	3:05	1083.5	936.2	1432.0	1161.3	5:25	6:35	1482.5	-206.0	1496.8	2152.0
8:50	3:10	1105.9	914.7	1435.2	1189.9	5:20	6:40	1477.2	-235.1	1495.8	2169.6
8:45	3:15	1127.8	892.7	1438.3	1218.4	5:15	6:45	1471.2	-264.1	1494.7	2186.8
8:40	3:20	1149.1	870.3	1441.4	1246.7	5:10	6:50	1464.4	-293.0	1493.5	2203.8
8:35	3:25	1169.8	847.4	1444.5	1274.8	5:05	6:55	1457.0	-321.8	1492.1	2220.5
8:30	3:30	1190.0	824.2	1447.6	1302.6	5:00	7:00	1448.9	-350.4	1490.7	2236.9

Analemmatic Sundial

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Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1353.9 mm
 Sunrise/Sunset Markers: X = ± 176.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	1440.1	-378.9	1489.1	2253.0	2:55	9:05	1037.3	-978.0	1425.6	2552.2
4:50	7:10	1430.6	-407.1	1487.4	2268.8	2:50	9:10	1013.4	-998.2	1422.4	2561.1
4:45	7:15	1420.4	-435.2	1485.6	2284.4	2:45	9:15	989.0	-1017.9	1419.3	2569.7
4:40	7:20	1409.5	-463.1	1483.7	2299.6	2:40	9:20	964.2	-1037.1	1416.1	2578.1
4:35	7:25	1398.0	-490.7	1481.6	2314.5	2:35	9:25	938.9	-1055.9	1412.9	2586.2
4:30	7:30	1385.8	-518.1	1479.5	2329.1	2:30	9:30	913.1	-1074.1	1409.8	2594.0
4:25	7:35	1373.0	-545.3	1477.3	2343.5	2:25	9:35	887.0	-1091.8	1406.7	2601.6
4:20	7:40	1359.5	-572.2	1475.0	2357.5	2:20	9:40	860.4	-1109.0	1403.6	2608.9
4:15	7:45	1345.3	-598.8	1472.6	2371.3	2:15	9:45	833.4	-1125.7	1400.6	2615.9
4:10	7:50	1330.5	-625.2	1470.1	2384.7	2:10	9:50	805.9	-1141.8	1397.6	2622.6
4:05	7:55	1315.1	-651.2	1467.5	2397.9	2:05	9:55	778.2	-1157.4	1394.7	2629.1
4:00	8:00	1299.0	-676.9	1464.8	2410.8	2:00	10:00	750.0	-1172.5	1391.8	2635.3
3:55	8:05	1282.4	-702.4	1462.1	2423.3	1:55	10:05	721.5	-1187.0	1389.1	2641.3
3:50	8:10	1265.1	-727.4	1459.3	2435.6	1:50	10:10	692.6	-1200.9	1386.3	2647.0
3:45	8:15	1247.2	-752.2	1456.5	2447.6	1:45	10:15	663.4	-1214.3	1383.7	2652.4
3:40	8:20	1228.7	-776.6	1453.5	2459.4	1:40	10:20	633.9	-1227.0	1381.1	2657.6
3:35	8:25	1209.7	-800.6	1450.6	2470.8	1:35	10:25	604.1	-1239.2	1378.6	2662.5
3:30	8:30	1190.0	-824.2	1447.6	2482.0	1:30	10:30	574.0	-1250.8	1376.2	2667.2
3:25	8:35	1169.8	-847.4	1444.5	2492.8	1:25	10:35	543.7	-1261.8	1374.0	2671.6
3:20	8:40	1149.1	-870.3	1441.4	2503.4	1:20	10:40	513.0	-1272.2	1371.8	2675.8
3:15	8:45	1127.8	-892.7	1438.3	2513.7	1:15	10:45	482.2	-1282.0	1369.7	2679.6
3:10	8:50	1105.9	-914.7	1435.2	2523.8						
3:05	8:55	1083.5	-936.2	1432.0	2533.5						
3:00	9:00	1060.7	-957.3	1428.8	2543.0						

Analematic Sundial

Latitude: 64.5° N/S

Date Scale

Semi-Major Axis (E-W): 1500 mm Semi-Minor Axis (N-S): 1353.9 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-274.0	-268.8	-267.2	-260.1	-258.0	-249.2	-246.7	-236.2	-233.4	-221.5	-218.3
February	-198.2	-183.7	-179.9	-164.6	-160.8	-144.7	-140.6	-124.0	-119.8	-102.7	-98.4
March	-85.4	-67.9	-63.4	-45.7	-41.3	-23.5	-19.1	-1.1	3.3	21.1	25.5
April	52.0	69.4	73.7	90.8	95.0	111.8	115.8	132.2	136.2	151.9	155.8
May	174.5	188.8	192.3	205.6	208.8	221.1	224.0	235.2	237.9	247.6	249.8
June	262.0	268.3	269.7	274.4	275.4	278.4	278.8	279.8	280.0	278.0	278.9
July	275.4	271.1	269.7	263.8	262.1	254.4	252.3	243.1	240.7	230.2	227.4
August	209.6	196.6	193.2	179.3	175.8	161.1	157.3	142.0	138.1	122.1	118.1
September	93.4	76.5	72.3	55.1	50.8	33.5	29.2	11.7	7.3	-10.3	-14.7
October	-36.6	-54.1	-58.4	-75.9	-80.1	-97.3	-101.6	-118.4	-122.6	-139.0	-143.0
November	-166.6	-181.8	-185.4	-199.7	-203.1	-216.3	-219.5	-231.5	-234.3	-244.9	-247.5
December	-258.5	-266.0	-267.6	-273.0	-274.2	-277.7	-278.4	-279.8	-280.0	-279.3	-278.9

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	274.0	268.8	267.2	260.1	258.0	249.2	246.7	236.2	233.4	221.5	218.3
February	198.2	183.7	179.9	164.6	160.8	144.7	140.6	124.0	119.8	102.7	98.4
March	85.4	67.9	63.4	45.7	41.3	23.5	19.1	1.1	-3.3	-21.1	-25.5
April	-52.0	-69.4	-73.7	-90.8	-95.0	-111.8	-115.8	-132.2	-136.2	-151.9	-155.8
May	-174.5	-188.8	-192.3	-205.6	-208.8	-221.1	-224.0	-235.2	-237.9	-247.6	-249.8
June	-262.0	-268.3	-269.7	-274.4	-275.4	-278.4	-278.8	-279.8	-280.0	-278.0	-278.9
July	-275.4	-271.1	-269.7	-263.8	-262.1	-254.4	-252.3	-243.1	-240.7	-230.2	-227.4
August	-209.6	-196.6	-193.2	-179.3	-175.8	-161.1	-157.3	-142.0	-138.1	-122.1	-118.1
September	-93.4	-76.5	-72.3	-55.1	-50.8	-33.5	-29.2	-11.7	-7.3	10.3	14.7
October	36.6	54.1	58.4	75.9	80.1	97.3	101.6	118.4	122.6	139.0	143.0
November	166.6	181.8	185.4	199.7	203.1	216.3	219.5	231.5	234.3	244.9	247.5
December	258.5	266.0	267.6	273.0	274.2	277.7	278.4	279.8	280.0	279.3	278.9

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: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1805.2 mm
 Sunrise/Sunset Markers: X = ± 235.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	1805.2	1805.2	0.0						
11:55	12:05	43.6	1804.7	1805.3	43.6	8:25	3:35	1612.9	1067.4	1934.1	1773.6
11:50	12:10	87.2	1803.5	1805.6	87.3	8:20	3:40	1638.3	1035.4	1938.1	1810.1
11:45	12:15	130.8	1801.3	1806.0	130.9	8:15	3:45	1662.9	1002.9	1942.0	1846.3
11:40	12:20	174.3	1798.3	1806.7	174.4	8:10	3:50	1686.8	969.9	1945.8	1882.3
11:35	12:25	217.7	1794.4	1807.6	218.0	8:05	3:55	1709.8	936.5	1949.5	1917.8
11:30	12:30	261.1	1789.7	1808.7	261.5	8:00	4:00	1732.1	902.6	1953.1	1953.1
11:25	12:35	304.2	1784.2	1809.9	305.0	7:55	4:05	1753.5	868.3	1956.7	1988.1
11:20	12:40	347.3	1777.7	1811.4	348.4	7:50	4:10	1774.0	833.5	1960.1	2022.7
11:15	12:45	390.2	1770.5	1813.0	391.7	7:45	4:15	1793.7	798.4	1963.4	2057.0
11:10	12:50	432.9	1762.4	1814.8	435.0	7:40	4:20	1812.6	762.9	1966.6	2090.9
11:05	12:55	475.4	1753.4	1816.7	478.2	7:35	4:25	1830.6	727.0	1969.7	2124.5
11:00	1:00	517.6	1743.7	1818.9	521.3	7:30	4:30	1847.8	690.8	1972.7	2157.8
10:55	1:05	559.7	1733.1	1821.2	564.3	7:25	4:35	1864.0	654.3	1975.5	2190.7
10:50	1:10	601.4	1721.6	1823.6	607.2	7:20	4:40	1879.4	617.4	1978.2	2223.3
10:45	1:15	642.9	1709.4	1826.3	650.0	7:15	4:45	1893.9	580.3	1980.8	2255.5
10:40	1:20	684.0	1696.3	1829.0	692.6	7:10	4:50	1907.4	542.8	1983.2	2287.3
10:35	1:25	724.9	1682.4	1831.9	735.2	7:05	4:55	1920.1	505.1	1985.4	2318.8
10:30	1:30	765.4	1667.8	1835.0	777.6	7:00	5:00	1931.9	467.2	1987.5	2349.9
10:25	1:35	805.5	1652.3	1838.2	819.9	6:55	5:05	1942.7	429.1	1989.5	2380.7
10:20	1:40	845.2	1636.0	1841.5	862.0	6:50	5:10	1952.6	390.7	1991.3	2411.1
10:15	1:45	884.6	1619.0	1844.9	904.0	6:45	5:15	1961.6	352.2	1992.9	2441.1
10:10	1:50	923.5	1601.2	1848.4	945.8	6:40	5:20	1969.6	313.5	1994.4	2470.7
10:05	1:55	962.0	1582.6	1852.1	987.4	6:35	5:25	1976.7	274.6	1995.7	2500.0
10:00	2:00	1000.0	1563.3	1855.8	1028.8	6:30	5:30	1982.9	235.6	1996.8	2528.9
9:55	2:05	1037.5	1543.3	1859.6	1070.1	6:25	5:35	1988.1	196.5	1997.8	2557.4
9:50	2:10	1074.6	1522.5	1863.5	1111.2	6:20	5:40	1992.4	157.3	1998.6	2585.5
9:45	2:15	1111.1	1500.9	1867.5	1152.0	6:15	5:45	1995.7	118.1	1999.2	2613.3
9:40	2:20	1147.2	1478.7	1871.5	1192.7	6:10	5:50	1998.1	78.7	1999.6	2640.6
9:35	2:25	1182.6	1455.8	1875.6	1233.2	6:05	5:55	1999.5	39.4	1999.9	2667.6
9:30	2:30	1217.5	1432.1	1879.7	1273.4	6:00	6:00	2000.0	0.0	2000.0	2694.2
9:25	2:35	1251.8	1407.8	1883.9	1313.4	5:55	6:05	1999.5	-39.4	1999.9	2720.4
9:20	2:40	1285.6	1382.8	1888.1	1353.2	5:50	6:10	1998.1	-78.7	1999.6	2746.2
9:15	2:45	1318.7	1357.2	1892.3	1392.7	5:45	6:15	1995.7	-118.1	1999.2	2771.6
9:10	2:50	1351.2	1330.9	1896.6	1432.0	5:40	6:20	1992.4	-157.3	1998.6	2796.6
9:05	2:55	1383.0	1304.0	1900.8	1471.0	5:35	6:25	1988.1	-196.5	1997.8	2821.2
9:00	3:00	1414.2	1276.4	1905.1	1509.8	5:30	6:30	1982.9	-235.6	1996.8	2845.5
8:55	3:05	1444.7	1248.3	1909.3	1548.3	5:25	6:35	1976.7	-274.6	1995.7	2869.3
8:50	3:10	1474.6	1219.6	1913.5	1586.6	5:20	6:40	1969.6	-313.5	1994.4	2892.7
8:45	3:15	1503.7	1190.2	1917.7	1624.6	5:15	6:45	1961.6	-352.2	1992.9	2915.8
8:40	3:20	1532.1	1160.3	1921.9	1662.3	5:10	6:50	1952.6	-390.7	1991.3	2938.5
8:35	3:25	1559.8	1129.9	1926.0	1699.7	5:05	6:55	1942.7	-429.1	1989.5	2960.7
8:30	3:30	1586.7	1098.9	1930.1	1736.8	5:00	7:00	1931.9	-467.2	1987.5	2982.6

Analemmatic Sundial

Latitude: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1805.2 mm
 Sunrise/Sunset Markers: X = ± 235.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
4:55	7:05	1920.1	-505.1	1985.4	3004.0	2:55	9:05	1383.0	-1304.0	1900.8	3402.9
4:50	7:10	1907.4	-542.8	1983.2	3025.1	2:50	9:10	1351.2	-1330.9	1896.6	3414.8
4:45	7:15	1893.9	-580.3	1980.8	3045.8	2:45	9:15	1318.7	-1357.2	1892.3	3426.3
4:40	7:20	1879.4	-617.4	1978.2	3066.1	2:40	9:20	1285.6	-1382.8	1888.1	3437.5
4:35	7:25	1864.0	-654.3	1975.5	3086.0	2:35	9:25	1251.8	-1407.8	1883.9	3448.3
4:30	7:30	1847.8	-690.8	1972.7	3105.5	2:30	9:30	1217.5	-1432.1	1879.7	3458.7
4:25	7:35	1830.6	-727.0	1969.7	3124.6	2:25	9:35	1182.6	-1455.8	1875.6	3468.8
4:20	7:40	1812.6	-762.9	1966.6	3143.3	2:20	9:40	1147.2	-1478.7	1871.5	3478.5
4:15	7:45	1793.7	-798.4	1963.4	3161.7	2:15	9:45	1111.1	-1500.9	1867.5	3487.8
4:10	7:50	1774.0	-833.5	1960.1	3179.6	2:10	9:50	1074.6	-1522.5	1863.5	3496.8
4:05	7:55	1753.5	-868.3	1956.7	3197.2	2:05	9:55	1037.5	-1543.3	1859.6	3505.5
4:00	8:00	1732.1	-902.6	1953.1	3214.3	2:00	10:00	1000.0	-1563.3	1855.8	3513.8
3:55	8:05	1709.8	-936.5	1949.5	3231.1	1:55	10:05	962.0	-1582.6	1852.1	3521.7
3:50	8:10	1686.8	-969.9	1945.8	3247.5	1:50	10:10	923.5	-1601.2	1848.4	3529.3
3:45	8:15	1662.9	-1002.9	1942.0	3263.5	1:45	10:15	884.6	-1619.0	1844.9	3536.6
3:40	8:20	1638.3	-1035.4	1938.1	3279.2	1:40	10:20	845.2	-1636.0	1841.5	3543.5
3:35	8:25	1612.9	-1067.4	1934.1	3294.4	1:35	10:25	805.5	-1652.3	1838.2	3550.1
3:30	8:30	1586.7	-1098.9	1930.1	3309.3	1:30	10:30	765.4	-1667.8	1835.0	3556.3
3:25	8:35	1559.8	-1129.9	1926.0	3323.8	1:25	10:35	724.9	-1682.4	1831.9	3562.1
3:20	8:40	1532.1	-1160.3	1921.9	3337.9	1:20	10:40	684.0	-1696.3	1829.0	3567.7
3:15	8:45	1503.7	-1190.2	1917.7	3351.6	1:15	10:45	642.9	-1709.4	1826.3	3572.9
3:10	8:50	1474.6	-1219.6	1913.5	3365.0						
3:05	8:55	1444.7	-1248.3	1909.3	3378.0						
3:00	9:00	1414.2	-1276.4	1905.1	3390.6						

Analemmatic Sundial

Latitude: 64.5° N/S

Date Scale

Semi-Major Axis (E-W): 2000 mm Semi-Minor Axis (N-S): 1805.2 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-365.3	-358.4	-356.3	-346.8	-344.0	-332.2	-329.0	-314.9	-311.2	-295.3	-291.1
February	-264.2	-244.9	-239.9	-219.5	-214.4	-192.9	-187.4	-165.3	-159.7	-137.0	-131.1
March	-113.8	-90.5	-84.6	-61.0	-55.1	-31.3	-25.4	-1.5	4.4	28.1	34.0
April	69.3	92.5	98.3	121.0	126.7	149.0	154.5	176.3	181.6	202.6	207.7
May	232.6	251.8	256.4	274.1	278.4	294.8	298.7	313.6	317.1	330.2	333.1
June	349.3	357.7	359.6	365.8	367.3	371.2	371.7	373.1	373.3	370.6	371.9
July	367.3	361.4	359.6	351.7	349.4	339.2	336.4	324.2	320.9	306.9	303.2
August	279.4	262.1	257.7	239.1	234.4	214.8	209.7	189.3	184.1	162.8	157.4
September	124.5	102.1	96.4	73.5	67.8	44.7	38.9	15.6	9.8	-13.7	-19.5
October	-48.7	-72.2	-77.9	-101.1	-106.8	-129.8	-135.4	-157.9	-163.5	-185.4	-190.7
November	-222.2	-242.3	-247.2	-266.2	-270.8	-288.4	-292.6	-308.6	-312.4	-326.6	-330.0
December	-344.7	-354.7	-356.8	-364.1	-365.7	-370.3	-371.2	-373.1	-373.3	-372.4	-371.9

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	365.3	358.4	356.3	346.8	344.0	332.2	329.0	314.9	311.2	295.3	291.1
February	264.2	244.9	239.9	219.5	214.4	192.9	187.4	165.3	159.7	137.0	131.1
March	113.8	90.5	84.6	61.0	55.1	31.3	25.4	1.5	-4.4	-28.1	-34.0
April	-69.3	-92.5	-98.3	-121.0	-126.7	-149.0	-154.5	-176.3	-181.6	-202.6	-207.7
May	-232.6	-251.8	-256.4	-274.1	-278.4	-294.8	-298.7	-313.6	-317.1	-330.2	-333.1
June	-349.3	-357.7	-359.6	-365.8	-367.3	-371.2	-371.7	-373.1	-373.3	-370.6	-371.9
July	-367.3	-361.4	-359.6	-351.7	-349.4	-339.2	-336.4	-324.2	-320.9	-306.9	-303.2
August	-279.4	-262.1	-257.7	-239.1	-234.4	-214.8	-209.7	-189.3	-184.1	-162.8	-157.4
September	-124.5	-102.1	-96.4	-73.5	-67.8	-44.7	-38.9	-15.6	-9.8	13.7	19.5
October	48.7	72.2	77.9	101.1	106.8	129.8	135.4	157.9	163.5	185.4	190.7
November	222.2	242.3	247.2	266.2	270.8	288.4	292.6	308.6	312.4	326.6	330.0
December	344.7	354.7	356.8	364.1	365.7	370.3	371.2	373.1	373.3	372.4	371.9

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: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2256.5 mm
 Sunrise/Sunset Markers: X = ± 294.9 mm

Local Time		X	Y	Z	W	Local Time		X	Y	Z	W
12:00		0.0	2256.5	2256.5	0.0						
11:55	12:05	54.5	2255.9	2256.6	54.5	8:25	3:35	2016.1	1334.3	2417.6	2217.0
11:50	12:10	109.0	2254.3	2257.0	109.1	8:20	3:40	2047.9	1294.3	2422.6	2262.7
11:45	12:15	163.5	2251.6	2257.6	163.6	8:15	3:45	2078.7	1253.6	2427.4	2307.9
11:40	12:20	217.9	2247.9	2258.4	218.1	8:10	3:50	2108.5	1212.4	2432.2	2352.8
11:35	12:25	272.2	2243.1	2259.5	272.5	8:05	3:55	2137.3	1170.6	2436.9	2397.3
11:30	12:30	326.3	2237.2	2260.8	326.9	8:00	4:00	2165.1	1128.2	2441.4	2441.4
11:25	12:35	380.3	2230.2	2262.4	381.2	7:55	4:05	2191.8	1085.3	2445.8	2485.1
11:20	12:40	434.1	2222.2	2264.2	435.5	7:50	4:10	2217.5	1041.9	2450.1	2528.3
11:15	12:45	487.7	2213.1	2266.2	489.6	7:45	4:15	2242.2	998.0	2454.3	2571.2
11:10	12:50	541.1	2203.0	2268.5	543.7	7:40	4:20	2265.8	953.6	2458.3	2613.6
11:05	12:55	594.2	2191.8	2270.9	597.7	7:35	4:25	2288.3	908.8	2462.1	2655.6
11:00	1:00	647.0	2179.6	2273.6	651.6	7:30	4:30	2309.7	863.5	2465.8	2697.2
10:55	1:05	699.6	2166.3	2276.5	705.4	7:25	4:35	2330.0	817.8	2469.4	2738.4
10:50	1:10	751.8	2152.0	2279.6	759.0	7:20	4:40	2349.2	771.8	2472.8	2779.1
10:45	1:15	803.6	2136.7	2282.8	812.5	7:15	4:45	2367.3	725.3	2475.9	2819.3
10:40	1:20	855.1	2120.4	2286.3	865.8	7:10	4:50	2384.3	678.5	2479.0	2859.1
10:35	1:25	906.1	2103.0	2289.9	919.0	7:05	4:55	2400.1	631.4	2481.8	2898.5
10:30	1:30	956.7	2084.7	2293.7	972.0	7:00	5:00	2414.8	584.0	2484.4	2937.4
10:25	1:35	1006.9	2065.4	2297.7	1024.8	6:55	5:05	2428.4	536.3	2486.9	2975.9
10:20	1:40	1056.5	2045.1	2301.9	1077.5	6:50	5:10	2440.7	488.4	2489.1	3013.9
10:15	1:45	1105.7	2023.8	2306.1	1129.9	6:45	5:15	2452.0	440.2	2491.2	3051.4
10:10	1:50	1154.4	2001.5	2310.5	1182.2	6:40	5:20	2462.0	391.8	2493.0	3088.4
10:05	1:55	1202.5	1978.3	2315.1	1234.2	6:35	5:25	2470.9	343.3	2494.6	3125.0
10:00	2:00	1250.0	1954.2	2319.7	1286.0	6:30	5:30	2478.6	294.5	2496.0	3161.1
9:55	2:05	1296.9	1929.1	2324.5	1337.6	6:25	5:35	2485.1	245.7	2497.3	3196.8
9:50	2:10	1343.2	1903.1	2329.4	1389.0	6:20	5:40	2490.5	196.7	2498.2	3231.9
9:45	2:15	1388.9	1876.2	2334.3	1440.0	6:15	5:45	2494.6	147.6	2499.0	3266.6
9:40	2:20	1433.9	1848.4	2339.4	1490.9	6:10	5:50	2497.6	98.4	2499.6	3300.8
9:35	2:25	1478.3	1819.7	2344.5	1541.4	6:05	5:55	2499.4	49.2	2499.9	3334.5
9:30	2:30	1521.9	1790.2	2349.7	1591.7	6:00	6:00	2500.0	0.0	2500.0	3367.7
9:25	2:35	1564.8	1759.8	2354.9	1641.7	5:55	6:05	2499.4	-49.2	2499.9	3400.5
9:20	2:40	1607.0	1728.6	2360.1	1691.5	5:50	6:10	2497.6	-98.4	2499.6	3432.7
9:15	2:45	1648.4	1696.5	2365.4	1740.9	5:45	6:15	2494.6	-147.6	2499.0	3464.5
9:10	2:50	1689.0	1663.6	2370.7	1790.0	5:40	6:20	2490.5	-196.7	2498.2	3495.8
9:05	2:55	1728.8	1630.0	2376.0	1838.8	5:35	6:25	2485.1	-245.7	2497.3	3526.5
9:00	3:00	1767.8	1595.6	2381.3	1887.3	5:30	6:30	2478.6	-294.5	2496.0	3556.8
8:55	3:05	1805.9	1560.4	2386.6	1935.4	5:25	6:35	2470.9	-343.3	2494.6	3586.6
8:50	3:10	1843.2	1524.4	2391.9	1983.2	5:20	6:40	2462.0	-391.8	2493.0	3615.9
8:45	3:15	1879.6	1487.8	2397.2	2030.7	5:15	6:45	2452.0	-440.2	2491.2	3644.7
8:40	3:20	1915.1	1450.4	2402.4	2077.8	5:10	6:50	2440.7	-488.4	2489.1	3673.1
8:35	3:25	1949.7	1412.4	2407.5	2124.6	5:05	6:55	2428.4	-536.3	2486.9	3700.9
8:30	3:30	1983.4	1373.6	2412.6	2171.0	5:00	7:00	2414.8	-584.0	2484.4	3728.2

Analemmatic Sundial

Latitude: 64.5° N/S

Earliest Sunrise: 1:16 a.m. Latest Sunset: 10:44 p.m.
 Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2256.5 mm
 Sunrise/Sunset Markers: X = ± 294.9 mm

Local Time	X	Y	Z	W	Local Time	X	Y	Z	W		
4:55	7:05	2400.1	-631.4	2481.8	3755.1	2:55	9:05	1728.8	-1630.0	2376.0	4253.6
4:50	7:10	2384.3	-678.5	2479.0	3781.4	2:50	9:10	1689.0	-1663.6	2370.7	4268.5
4:45	7:15	2367.3	-725.3	2475.9	3807.3	2:45	9:15	1648.4	-1696.5	2365.4	4282.9
4:40	7:20	2349.2	-771.8	2472.8	3832.6	2:40	9:20	1607.0	-1728.6	2360.1	4296.8
4:35	7:25	2330.0	-817.8	2469.4	3857.5	2:35	9:25	1564.8	-1759.8	2354.9	4310.3
4:30	7:30	2309.7	-863.5	2465.8	3881.9	2:30	9:30	1521.9	-1790.2	2349.7	4323.4
4:25	7:35	2288.3	-908.8	2462.1	3905.8	2:25	9:35	1478.3	-1819.7	2344.5	4336.0
4:20	7:40	2265.8	-953.6	2458.3	3929.2	2:20	9:40	1433.9	-1848.4	2339.4	4348.1
4:15	7:45	2242.2	-998.0	2454.3	3952.1	2:15	9:45	1388.9	-1876.2	2334.3	4359.8
4:10	7:50	2217.5	-1041.9	2450.1	3974.5	2:10	9:50	1343.2	-1903.1	2329.4	4371.1
4:05	7:55	2191.8	-1085.3	2445.8	3996.5	2:05	9:55	1296.9	-1929.1	2324.5	4381.9
4:00	8:00	2165.1	-1128.2	2441.4	4017.9	2:00	10:00	1250.0	-1954.2	2319.7	4392.2
3:55	8:05	2137.3	-1170.6	2436.9	4038.9	1:55	10:05	1202.5	-1978.3	2315.1	4402.2
3:50	8:10	2108.5	-1212.4	2432.2	4059.4	1:50	10:10	1154.4	-2001.5	2310.5	4411.7
3:45	8:15	2078.7	-1253.6	2427.4	4079.4	1:45	10:15	1105.7	-2023.8	2306.1	4420.7
3:40	8:20	2047.9	-1294.3	2422.6	4099.0	1:40	10:20	1056.5	-2045.1	2301.9	4429.4
3:35	8:25	2016.1	-1334.3	2417.6	4118.0	1:35	10:25	1006.9	-2065.4	2297.7	4437.6
3:30	8:30	1983.4	-1373.6	2412.6	4136.6	1:30	10:30	956.7	-2084.7	2293.7	4445.3
3:25	8:35	1949.7	-1412.4	2407.5	4154.7	1:25	10:35	906.1	-2103.0	2289.9	4452.7
3:20	8:40	1915.1	-1450.4	2402.4	4172.4	1:20	10:40	855.1	-2120.4	2286.3	4459.6
3:15	8:45	1879.6	-1487.8	2397.2	4189.5	1:15	10:45	803.6	-2136.7	2282.8	4466.1
3:10	8:50	1843.2	-1524.4	2391.9	4206.3						
3:05	8:55	1805.9	-1560.4	2386.6	4222.5						
3:00	9:00	1767.8	-1595.6	2381.3	4238.3						

Analemmatic Sundial

Latitude: 64.5° N/S

Date Scale

Semi-Major Axis (E-W): 2500 mm Semi-Minor Axis (N-S): 2256.5 mm

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	-456.6	-448.0	-445.4	-433.5	-430.0	-415.3	-411.2	-393.6	-389.0	-369.1	-363.9
February	-330.3	-306.2	-299.9	-274.3	-267.9	-241.2	-234.3	-206.7	-199.7	-171.2	-163.9
March	-142.3	-113.1	-105.7	-76.2	-68.8	-39.1	-31.8	-1.9	5.4	35.1	42.5
April	86.6	115.6	122.8	151.3	158.4	186.3	193.1	220.3	227.0	253.2	259.6
May	290.8	314.7	320.4	342.7	348.0	368.5	373.3	391.9	396.4	412.7	416.4
June	436.6	447.1	449.6	457.3	459.1	464.0	464.6	466.4	466.6	463.3	464.9
July	459.1	451.8	449.6	439.7	436.8	424.0	420.5	405.2	401.1	383.7	379.0
August	349.3	327.6	322.1	298.9	293.0	268.5	262.2	236.6	230.1	203.6	196.8
September	155.7	127.6	120.5	91.9	84.7	55.8	48.7	19.5	12.2	-17.1	-24.4
October	-60.9	-90.2	-97.4	-126.4	-133.5	-162.2	-169.3	-197.3	-204.3	-231.7	-238.4
November	-277.7	-302.9	-309.0	-332.8	-338.5	-360.5	-365.8	-385.8	-390.5	-408.2	-412.5
December	-430.9	-443.4	-446.0	-455.1	-457.1	-462.9	-464.0	-466.4	-466.6	-465.5	-464.9

Northern Hemisphere

Month	Date										
	1	5	6	10	11	15	16	20	21	25	26
January	456.6	448.0	445.4	433.5	430.0	415.3	411.2	393.6	389.0	369.1	363.9
February	330.3	306.2	299.9	274.3	267.9	241.2	234.3	206.7	199.7	171.2	163.9
March	142.3	113.1	105.7	76.2	68.8	39.1	31.8	1.9	-5.4	-35.1	-42.5
April	-86.6	-115.6	-122.8	-151.3	-158.4	-186.3	-193.1	-220.3	-227.0	-253.2	-259.6
May	-290.8	-314.7	-320.4	-342.7	-348.0	-368.5	-373.3	-391.9	-396.4	-412.7	-416.4
June	-436.6	-447.1	-449.6	-457.3	-459.1	-464.0	-464.6	-466.4	-466.6	-463.3	-464.9
July	-459.1	-451.8	-449.6	-439.7	-436.8	-424.0	-420.5	-405.2	-401.1	-383.7	-379.0
August	-349.3	-327.6	-322.1	-298.9	-293.0	-268.5	-262.2	-236.6	-230.1	-203.6	-196.8
September	-155.7	-127.6	-120.5	-91.9	-84.7	-55.8	-48.7	-19.5	-12.2	17.1	24.4
October	60.9	90.2	97.4	126.4	133.5	162.2	169.3	197.3	204.3	231.7	238.4
November	277.7	302.9	309.0	332.8	338.5	360.5	365.8	385.8	390.5	408.2	412.5
December	430.9	443.4	446.0	455.1	457.1	462.9	464.0	466.4	466.6	465.5	464.9

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 |