

mo-day	winter sun	approximate alt/az (time)					
date	rise	0/X	9:00	X/180	3:00	0/X	set
9-29	6:06	/92	32/122	50/	33/236	/267	5:57
10-13	:18	/99	29/127	45/	28/233	/260	:36
-27	:31	/106	25/131	40/	24/230	/254	:19
11-10	:46	/111	22/134	36/	21/227	/249	:05
-24	7:01	/116	19/135	32/	18/224	/244	4:55
12- 8	:14	/118	16/136	30/	17/222	/241	:53
12-22	:23	/119	15/135	29/	17/220	/240	:57
(12-22 winter solstice)			GO4CORNERS.COM				

The MOON has several cycles – from 28 days to 18.61 Years. In about 27.3 days the moon travels from northern most to southern most (low arc) and back. In about 29.5 days the full moon will go to the new moon and back.

For 9.3 years, the arc of the moon is inside of the arc of the sun (maximum of 6 degrees inside) and for 9.3 years the arc is outside of the sun’s arc (Major), a maximum of 6 degrees. This slow movement is known as the **Lunar Standstill**.

!

GO4CORNERS.COM

Moon (lunar standstill is an 18.61 year cycle)
 major moon 2005-6 (2024-5) minor 1996-7 (2014-5).
 Compare northern to summer solstice, southern to winter.
 From 2008 to 2012 and from 2017 to 2021 the limits will be very close to the summer and winter solstice Alt/Az.

	Major Moon	rise	trans	set (Alt/Az)
northern most	0/54	82/	0 /306	
Southern most	0/126	23/	0 /233	
	Minor Moon			
northern most	0/67	70/	0/293	
southern most	0/113	35/	0/246	

EQUIV DATES Information !

The Sun moves from Summer to Winter and then back over the same path. The sun position on October 27 will be the same as February 16.

Summer Sun set of numbers are three months of positions through fall equinox (9-22, the same Alt/Az as the spring equinox, 3-22). The Alt/Az is Altitude/Azimuth in true degrees. The arc change of the Sun is due to the spin and tilt of the earth as it travels around the sun. High arc in summer and low arc in winter.

mo-day	summer sun							approximate alt/az (time)
date	rise	0/X	9:00	X/180	3:00	0/X	set	
6-21	4:53	/59	47/ 94	76/	52/261	/300	7:33	
7- 7	:55	/60	47/ 96	75/	52/260	/300	:31	
-21	5:10	/63	44/ 97	73/	52/255	/296	:26	
8- 4	:21	/66	42/100	70/	49/252	/292	:14	
-18	:32	/73	40/105	66/	46/248	/287	:00	
9- 1	:44	/79	38/111	61/	42/244	/280	6:39	
-15	:55	/86	35/117	56/	38/240	/274	:19	
-22	:59	/89	34/120	53/	35/238	/271	:09	
				6-21 summer solstice				9-22 fall equinox

Fall to Spring **equivalent dates** (two week periods)

Eg: August 4 sun approximate position is the same as
 May 10, Sept 22 (Equinox) = Mar 22 (Spring Equinox).
 Leap year and other variables make these numbers change.

```

>> July  Aug   September >> Oct   Nov  Dec >>
>>  7  21  4  18  1  15 (22) 29 13 27  11 24  8 >>
    21-22 June (Summer) / Solstice) / (Winter) Dec 21-22
<< June  May  April  << March   Feb     Jan <<
<<  7  24 10 26 12 29 (22) 15 28 16  2 19  5 <<
    
```