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Altitude and Azimuth of the Sun

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Altitude and Azimuth of the Sun: **Jun 21, 2007**

Altitude		Azimuth(E of N)			
h	m	o	o		
02:00	-10.6	25.9	13:00	59.7	204.0
03:00	-5.6	38.9	14:00	54.3	227.4
04:00	1.2	51.0	15:00	46.6	245.4
05:00	8.7	62.5	16:00	37.8	259.8
06:00	17.1	73.6	17:00	28.7	272.1
07:00	26.1	84.8	18:00	19.6	283.4
08:00	35.3	96.7	19:00	10.9	294.4
09:00	44.3	110.3	20:00	3.1	305.7
10:00	52.3	127.2	21:00	-4.0	317.7
11:00	58.5	149.0	22:00	-9.4	330.4
12:00	61.3	176.0			

Altitude is the angle up from the horizon. Zero degrees altitude means exactly on your local horizon, and 90 degrees is "straight up". Hence, "directly underfoot" is -90 degrees altitude.

Azimuth is the angle along the horizon, with zero degrees corresponding to North, and increasing in a clockwise fashion. Thus, 90 degrees is East, 180 degrees is South, and 270 degrees is West. Using these two angles, one can describe the apparent position of an object (such as the Sun at a given time).

The altitude and azimuth values are for the center of the apparent disk of the Sun or Moon. The altitude values include the effect of standard atmospheric refraction when the object is above the horizon. The azimuth values are computed with respect to **true north** (not magnetic). A break in the output table indicates the object has dropped more than 12 degrees below the horizon and is not near the horizon again until the next indicated time.

Altitude and Azimuth of the Sun: **Dec 21, 2007**

Altitude		Azimuth(E of N)			
h	m	o	o		
07:00	-10.3	115.1			
08:00	-2.4	126.5			
09:00	4.6	138.4			
10:00	9.8	151.2			
11:00	13.2	164.8			
12:00	14.5	178.9			
13:00	13.5	193.1			
14:00	10.4	206.7			
15:00	5.4	219.7			
16:00	-1.3	231.7			
17:00	-9.0	243.2			