

June 2019 Sky Events

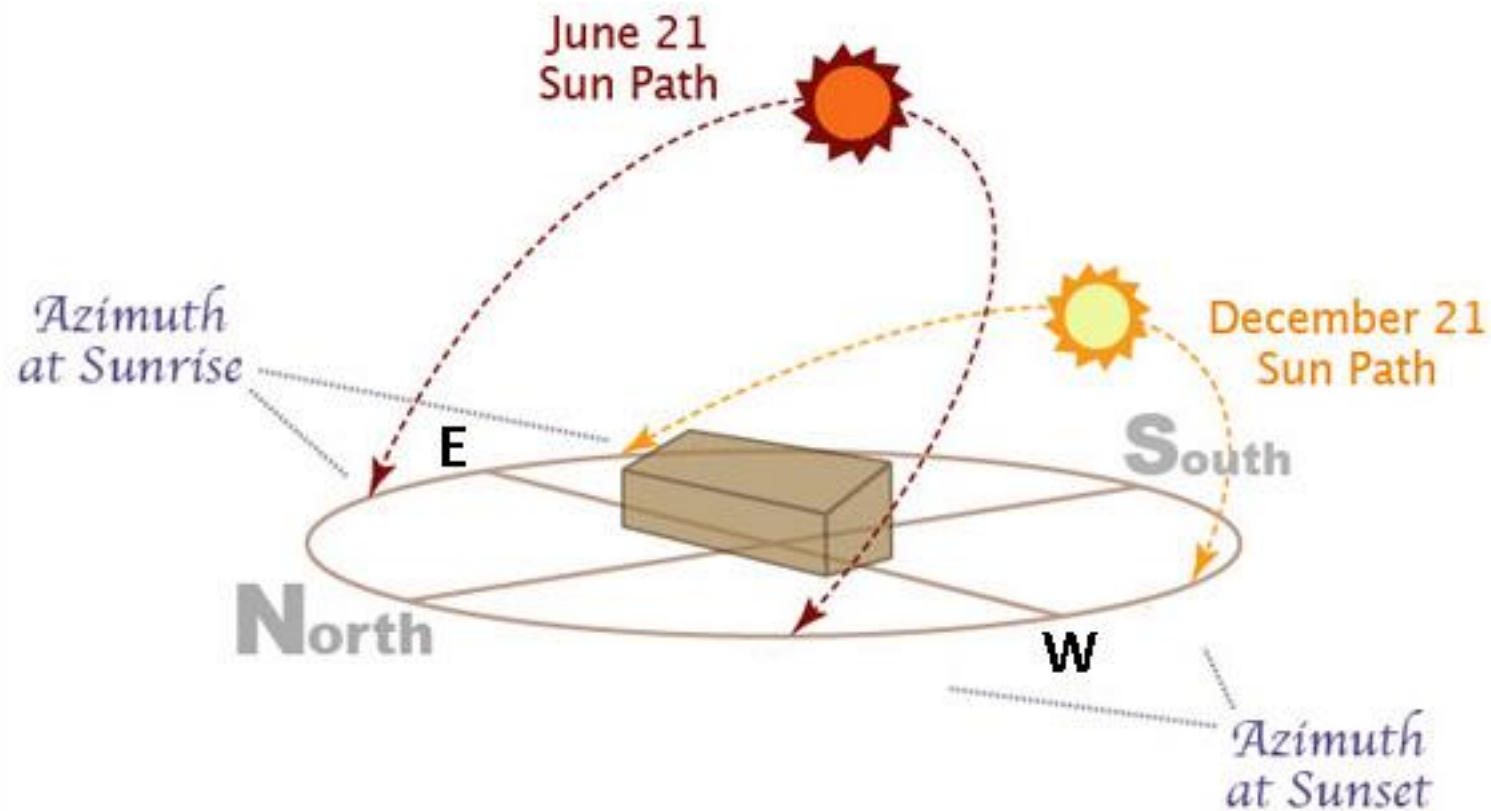
June 21st, 2019 Summer Solstice

- ★ The northern hemisphere's summer solstice occurs on **Friday, June 21st, at 11:54 a.m. EDT**. This marks the first day of summer in the northern hemisphere, but it's the first day of winter in the southern hemisphere.
- ★ It's the longest day (and shortest night) of the year in the northern hemisphere.
- ★ **The Sun's position on the summer solstice in the Asheville area reaches two extremes in azimuth and altitude (the following values are rounded):**
 1. First, the Sun rises 30° north of east and sets 30° north of west on the summer solstice, compared to 30° south of east and 30° south of west on the winter solstice; that's a 60° azimuth swing over 6 months.
 2. Next, the Sun rises 78° above the horizon at high solar noon on the summer solstice, compared to only 31° above the horizon on the winter solstice; that's a 47° altitude swing over 6 months (Earth's $23\frac{1}{2}^\circ$ axial tilt times 2).

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- ★ **Translation:** At the summer solstice, the Sun takes not only a longer path across the sky but also a much higher path across the sky, yielding a much longer daylight period, with the Sun's radiation at a more intense angle.



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Reason for the Seasons:

It's both the Earth's $23\frac{1}{2}^{\circ}$ axial tilt and its orbit about our star that cause the seasons.

