



December 2017 Sky Events

December 21st, 2017 Winter Solstice

- ★ The northern hemisphere's winter solstice occurs on the morning of **Thursday, December 21st at 11:28 a.m. EST.**
- ★ It's the shortest day (and longest night) of the year in the northern hemisphere.
- ★ **The Sun's position on the winter solstice in the Asheville area reaches 2 extremes in altitude and azimuth (the following values are rounded):**
 1. First the Sun rises only 31° above the horizon at high solar noon on the winter solstice, compared to 78° on the summer solstice; that's a 47° swing ($23\frac{1}{2}^\circ$ axial tilt times 2).
 2. Next the Sun rises 30° south of east and sets 30° south of west on the winter solstice, compared to 30° north of east and 30° north of west on the summer solstice; that's a 60° swing.



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★ **Translation:** At the winter solstice the Sun takes not only a shorter path across the sky but also a much lower path across the sky, yielding a much shorter daylight period, with the Sun's radiation at a less intense angle.

