



PARI

PISGAH

ASTRONOMICAL

RESEARCH INSTITUTE

# Astro Advisory

*Notice of an upcoming  
astronomical event.*

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## THE SUMMER SOLSTICE

**Rosman, NC (June 6, 2017)** – Astronomers at the Pisgah Astronomical Research Institute point out that at 12:24 a.m. EDT on Wednesday, June 21 the Sun will be at its most northern point in the sky for the year. This is the *summer solstice* and marks the first moment of summer.

What is the astronomical significance of this event? At this moment the Sun in its apparent path around the sky will stand directly over the Tropic of Cancer. For an observer at that latitude, the Sun will appear directly overhead at noon. However, from Western North Carolina, the noontime Sun will appear only about  $78\frac{1}{2}$  degrees above the southern horizon, its highest point of the year. What's more, the Sun rises at its most northern point along the eastern horizon and sets at its most northern point on the western horizon. Around this date the days are the longest of the year and the length of the night the shortest. For example, in Brevard sunrise occurs at 6:17 a.m. EDT and sunset at 8:49 p.m. Thus, the Sun is above the horizon 14 hours 32 minutes. And viewers in Asheville, which is slightly north of Brevard, will see the Sun for 2 minutes longer that day.

After the summer solstice the Sun begins its return to the south. The days will gradually shorten and the Sun will appear lower in the sky at noon. It will rise farther to the south along the eastern horizon each morning and set farther to the south in the west. This continues through the *fall* or *autumnal equinox* at 4:02 p.m. EDT on September 22. Following that date the Sun continues its southward journey until on the *winter solstice* (11:28 a.m. EST December 21) the Sun reaches its most southern point in the sky directly over the Tropic of Capricorn. At that point the noontime Sun in our area will be seen only  $31\frac{1}{2}$  degrees above the southern horizon.

### About PARI

PARI is a public not-for-profit public foundation established in 1998. Located in the Pisgah National Forest southwest of Asheville, NC, PARI offers STEM educational programs at all levels, from K-12 through post-graduate research. For more information about PARI and its programs, visit [www.pari.edu](http://www.pari.edu).

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