

The Night Sky

The night sky, such as stars, star trails, the Milky Way, and Northern Lights, is a fun and fascinating shooting experience. With a few simple tips, you can be out there capturing the heavens!

Which Lens to Use?

The simple answer is the fastest lens you have. The ideal lens is F2.8 or better. Why? We're trying to capture very faint light with long exposures. We also recommend a wide-angle lens. A 12-14mm lens lets you capture a large swatch of the night sky. If you're looking for a great night-sky lens, we recommend the Rokinon 14mm F2.8. It's used by many night-sky photographers and best of all, it's inexpensive!

Camera Settings and the 500 Rule

Regardless of the lens you choose, you need to know the optimum settings for night-sky photography. You'll want to shoot wide open (so F2.8 or your lens' maximum aperture). Regarding ISO, you will want to experiment. We recommend starting in the ISO 2000-3000 range.

For your aperture, you will use the "500 Rule." Since the earth is moving, we can only expose for a specific period of time before the stars show movement in the image. This is dictated by the focal length of your lens. The 500 Rule tells you the maximum number of seconds you can expose the image. Simply divide 500 by the focal length of your lens. Let's use the 12mm lens as an example. Divide 500 by 14. This gives us a maximum exposure of 35 seconds.

The Milky Way, Northern Lights, and Star Trails

- There are great phone apps to help you identify optimal times to photograph the Milky Way Core and to be alerted to possible Northern Lights activity.
- For the Northern Lights, find the darkest northern sky you can find with a good view of the horizon. Again, use the fastest, wide angle lens you have. Exposures will be between 5 and 15 seconds at ISO 1200-1600. Experiment!
- Star trails are accomplished using a series of 30-second exposures over at least 90 minutes. You then merge the images in Photoshop or with a star-stacking program. Follow the rules above.