

Resources for  
bringing out  
the astronomer in  
you and your  
family

April 2006

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# RIVERS CAMERA AND TELESCOPE'S *EYE ON THE SKY* *Bringing the universe to your backyard*

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## Glossary

### Terrestrial:

Relating to Earth based things..

### Prism:

A cut-glass object that is used for either reflecting or separating light.

### Field of view:

The area, usually measured in either degrees or arc minutes, that the object is visible.

### Aperture:

The diameter of the mirror or lens.

## Are two lenses better than one?

***Binoculars are usually used for terrestrial viewing but as we will see, they can play a big role in celestial observing***

We are going to discover the usefulness of the binocular in celestial observing. Binoculars are great for beginners, offer good optics, and are a cheap alternative to a telescope.

### Binoculars vs. Telescopes

“The bigger the aperture the better” is a phrase usually used when giving advice to someone interested in buying a telescope. Although there is truth in that saying, you need to evaluate what you’re actually looking for. Here are some questions to ask yourself: Are you new to this hobby? Do you only plan on spending a few minutes a night observing? Are you looking for a quick setup and ultra portability? If you answered yes to any of these, you may want to consider what binoculars have to offer you.

In contrast to telescopes, binoculars use two eyepieces, if you will, and uses a combination of lenses and prisms to direct the light to your eye. The average binoculars (I say “average” because some companies are making binoculars the size of small telescopes) are much smaller than a telescope.

Even though they’re much smaller, there are still many good reasons why binoculars may suit you best.

### What can you see?

Objects like star clusters, bright galaxies and nebulas, the Moon, and the Sun are all in reach with a pair of 7x50 binoculars. Binoculars also have a wider field of view compared to a telescope, which allows you fit in the rest of that open cluster that always seems to span out of view in a telescope.

Stars will always remain just a point of light— even in the most high powered telescope — therefore I tend to find binoculars preferable when observing clusters and prominent double star systems. I prefer this because of the binoculars large field of view and low magnification which still offer sharp views of the stars.

I do not want to mislead you in thinking that binoculars are capable of viewing everything that telescopes are, because they’re not! I am simply stating that binoculars do a fine job with their optics compared to the size and cost of a telescope.

### The right pair

Most amateur astronomers recommend either the 7x50’s, 8x56’s, or 10x50’s. The first number corresponds to its magnification and the second number gives its aperture size, in millimeters. You will find that if you increase the

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## *Binoculars are great for beginners*

magnification above 10 the object will become too shaky to view without the aid of a tripod. Similarly, if you increase the aperture size much over 56 the binoculars will become quite heavy and awkward to hold.

A good price range to shoot for is between \$75 and \$200. Every company makes their binoculars slightly different so when searching for the right pair take into account how they feel in your hands. Play around with several pairs to judge their comfort level.

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## Conclusion

Binoculars are a great way to get out there and experience the night sky. Remember, if you are new to this hobby binoculars are a cheap but great way to get started. And, if all goes bad, your binoculars can be used for bird viewing and other such terrestrial things.

*Please call or E-mail us to find the telescope design that best fits your viewing needs.*

## **News of interest to the astronomy community**

### New arrivals

The Celestron Skyscout is a new and revolutionary design that will bring ease and simplicity to amateurs, professionals, and even children. Just slightly bigger than a cordless telephone it packs in all the information you need to know and more about astronomy.

The Skyscout can locate over 6,000 objects such as stars, constellations, and planets. It also provides text and audio information about astronomy either via its LCD screen or headphone jack. The Skyscout also has an SD memory card slot and USB connection. The SD slot gives you the option of adding audio presentations and the USB connection can be used to update your Skyscout with new objects.

### Upcoming events

Jupiter has a new red spot! This new spot is called Oval BA or, as others call it, Red Jr. Red Jr. is about half the size of the Great Red Spot and pretty much the same color. Jupiter rises around 11pm in the constellation Libra.

Saturn, the ringed planet, is high in the night sky around 10pm. Be sure to awe the family with this beautiful planet. You also may want to try a yellow #11 filter to help bring out the contrast.

***Rivers Camera and Telescope is proud to announce another Astroday on April 8th. There will be guest speakers, reps, and manufacturers present to bring you the latest astronomical news and products.***

Be sure to check out the UNH observatory online at [www.physics.unh.edu/observatory](http://www.physics.unh.edu/observatory) for public sessions dates.

We invite you to submit items for this column to [Rod@riverscamera.com](mailto:Rod@riverscamera.com).

### Out of this world specials.

Mention you saw this newsletter and get a Meade Deep Sky Imager for \$259.95 and 20% off any in-stock Meade series 5000 eyepieces.

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