

## Re: Newbie with a twist

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- *From:* "David Sleeter" <[d.sleeter@xxxxxxxxxxxxx](mailto:d.sleeter@xxxxxxxxxxxxx)>
  - *Date:* Tue, 3 Jan 2006 16:02:13 -0800
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"Yogi" <[artw.no.spam.at.all@xxxxxxxxxxxxx](mailto:artw.no.spam.at.all@xxxxxxxxxxxxx)> wrote in message  
[news:6s0uf.237566\\$015.140029@xxxxxxxxxxxxx](mailto:news:6s0uf.237566$015.140029@xxxxxxxxxxxxx)  
> I've been lurking here for a while....

- > Anyway, I'm thinking of getting a telescope. I'm coming up on 10 years
- > with my company and the gift catalog lists three telescopes I can get with
- > my reward points...
- >
- > Meade Polaris – Motorized Autostar® computer controller automatically
- > moves the telescope to the object selected. Features precision polished
- > 114mm lens with 1,000mm (f/8.8) focal length, two 1¼" eyepieces, 5x24mm
- > viewfinder, and fully adjustable aluminum tripod with accessory tray.
- > StarLocatorT software on CD-ROM displays more than 10,000 celestial
- > objects. Requires 8 AA batteries (not included).
- >
- > Any opinions on which I should get?
- >

First off, as a "newbie", I THINK you've incorrectly described the scope that I would recommend, and that's the 114 mm. Meade scope. As far as I know, the 114 mm. diameter Meade scopes are all Newtonian reflectors. Therefore they do NOT use a "lens" to form the image. They use a "mirror".

As a general rule you get alot more telescope for your dollar with a simple Newtonian reflector (a mirror-based telescope) than you get with a refractor (a lens-based telescope). And the reason is that, for any given aperature (i.e. lens or mirror diameter) it's a lot cheaper to make a mirror than it is to make a lens. Therefore, when you describe the 114 mm. Meade scope with the 1,000 mm. focal length, I THINK what you're describing is actually a small Newtonian reflector with a 114 mm. dia. mirror with an f-8.8 focal ratio, and a computer-controlled mount. And THAT sounds pretty good.

If this is what you're talking about, then this is the one I'd recommend WITH ONE MAJOR CAVEAT. In any given telescope, half the quality of the image is generated by the lens or the mirror, and the other half by the eyepiece, which is actually a small, low-power microscope used to examine the image created by the lens or the mirror. To save money, the manufacturers of these inexpensive telescopes will often give you the CHEAPEST eyepieces they can get away with. The little Japanese eyepieces labeled "H" for (Huygens) are

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the worst. The view through these eyepieces is absolutely TERRIBLE, and ALL amateur astronomers consider them worthless. The Meade "MA" eyepieces are noticeably better, but still disappointing compared to a standard "Plossl"-type eyepiece.

For my own use I consider the "Plossl"-type eyepiece as the modestly-priced standard against which I measure all others. A Plossl eyepiece is more complicated and expensive to make, but the view is good-to-excellent, and some of these inexpensive scopes come with one good Plossl eyepiece (normally a 1-1/4" dia. eyepiece with a 25mm. focal length). If the 114 mm. Meade Newtonian reflector you're considering comes with at least one good Plossl eyepiece, then you're home-free. If the eyepiece or eyepieces are the "MA" or "H" type, I'd advise you to replace them, so over-and-above your purchase, you'll have to buy at least one good Plossl eyepiece.

If you buy the 114 mm. Meade scope you describe, I'd advise a 1-1/4" dia. 25mm. focal length Plossl eyepiece as described above. You'll see MANY being sold on eBay both new and used. For a new eyepiece, the name-brands like Meade and Celestron are excellent, and they cost around \$60. But as telescope-officianados will tell you, their lenses are made in China, and the NON-brand-name companies sell Plossl eyepieces with THE SAME lenses for half the price (about \$30). The only difference is cosmetic. The name-brand eyepieces have chrome-plated steel barrels, and the no-name eyepieces barrels' are typically made of aluminum. The view through either is THE SAME! If you want to save about \$30, buy the no-name Plossl. Actually they're not a true "no-name". They're sold by numerous telescope dealers on the Internet who typically market them under their own brand. A good and honest dealer that I've dealt with for several years is Mark Estes of [digiteoptical.com](http://digiteoptical.com). Gary Hand of Hands-on-Optics is also a reputable dealer, and the prices quoted by both these dealers are typical and reasonable.

A PERSONAL EXPERIENCE. About 5 years ago my next-door neighbor bought one of the 114 mm. Meade scopes that was made at the time. Though it lacked the computer-controlled mount, the optics were probably identical to the ones described above. Disappointed with the view, he asked my advice. When I saw that the scope came with Meade's cheaper "MA" eyepieces, I loaned him one of my 25 mm. Plossls, and the difference was STARTLING. As it turned out, his little Meade 114 mm. scope had a good mirror, and as I describe above, the problem was the cheap eyepieces. Per-my-advice, he bought a 12 mm. Plossl, and a 25mm. Plossl. He bought them "used" on eBay, and his total cost was about \$50. The 25mm. eyepiece gave him a magnification of 40 power, and the 12 mm. eyepiece gave him a magnification of about 80 power. From that point on, he LOVED his telescope.

The bottom line was that the 114 mm. Meade mirror was fine. All the scope needed to make it a good-one was a good pair of Plossl eyepieces.

Regarding the Bushnell scope, my impression is that just about everything made by Bushnell today is of questionable quality. Hope this helps,

David Sleeter

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