

Tele Vue's Ethos

If Tele Vue introduced an eyepiece with a wider apparent field of view, it would have to come with a rear-view mirror!



By Vic Menard

I've always been a big advocate of Tele Vue's Nagler eyepieces and the Paracorr coma corrector. I find that combining the two with modern fast focus Newtonians delivers a synergistic optical improvement that's difficult, if not impossible, to duplicate with other eyepieces.

I purchased my first Nagler eyepiece at the 1987 Texas Star Party (TSP), a 13-mm Type 1 that would change my expectations of wide-field performance forever. As I recall, two years later, back at the Texas Star Party, Tom Clark and I got a sneak peek at an early production Paracorr. But at $f/5$, in my 20-inch Dobsonian and Tom's 25-incher, I didn't realize the full impact of how this new accessory would help evolve the Dobsonian telescope. Ten years later, I sold my custom 20-inch Tectron Dobsonian and took delivery on a 22-inch $f/4$ StarMaster - and with a Paracorr and a 31-mm Type 5 Nagler - enjoyed the ultimate "richest field" experience.

Over the years my Type 1 and Type 2 Naglers have been replaced with Type 5s and Type 6s, and I replaced my StarMaster 22 with a new StarStructure 22 last year. But in April of 2007, the discussion boards were hinting that something special from Tele Vue would be announced at the

Northeast Astronomy Forum, and on the 28th of April, the 100-degree apparent field of view 13-mm Ethos eyepiece was introduced, and Tele Vue had "done it again."

Field reports followed from TSP and the Riverside Telescope Makers Conference in June, and I read my first Ethos review a few days later in Cloudy Nights Forums, an online discussion board. It took three more months to find out the anticipated selling price, \$620. Ethos reviews continued to filter in from select "testers" across the country, and in late August, Sky and Telescope magazine rated the Ethos optical performance as 5 stars, "Sensibly perfect. No meaningful improvements possible." I hadn't looked through one yet - but I already wanted one!

I attended the Peach State Star Gaze (PSSG) from October 10th through the 14th. This was the first year the event would be held at the Deerlick Astronomy Village about 90 miles east of Atlanta, and the weather gods were kind - the skies were spectacular! The scuttlebutt at the site was that one of the PSSG attendees had an Ethos with him, and I was motivated to find out who, and to see if I could beg, borrow, or steal a few minutes of "Ethos time." As luck would have it, John and Jane

Kuehn were quite interested in my new 22-inch StarStructure, and we ended up spending several hours observing together. What's particularly interesting about this chance meeting is that John had made his Ethos purchase, from Camera Concepts, at the star party on the day I arrived! What's even more interesting is that he didn't buy just one - not when he could have two at twice the price - John and Jane are Denkmeier fans! We observed until we were exhausted, and then we observed some more. I think the most memorable view was M57, it truly felt like I was floating in space above the nebula - the telescope had disappeared! I ordered my Ethos eyepiece when I returned home, an early Christmas present from my wife, Lynne. Unfortunately, success breeds backorders, and mine arrived after Christmas, but well in advance of The Winter Star Party.

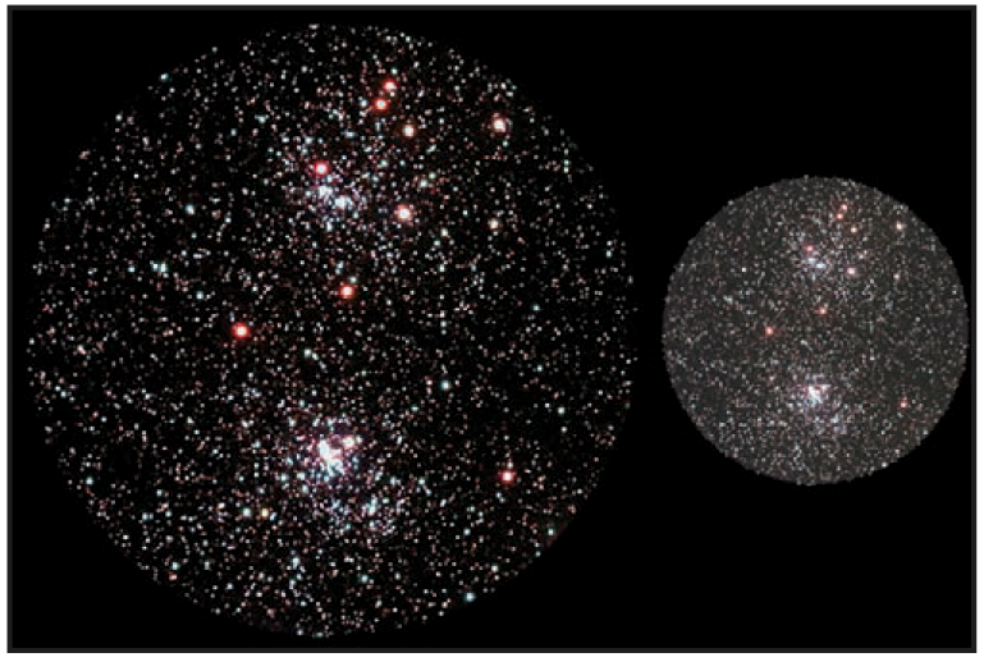
At the 2008 Winter Star Party, I hooked up with Bob Gulley, a fellow Local Group astronomy club member who was also at the PSSG and who, like me, ordered and took delivery of his Ethos eyepiece within days of mine. Together, we approached Mike Harvey and convinced him to remove the MallinCam from his 28-inch StarStructure and load up our two

Ethos eyepieces in his Denkmeier binoviewer, recreating the PSSG experiment. The rest, as they say, is history, and is why I find myself writing this review. Of course, Lynne and I, and several friends from the Charlotte Amateur Astronomers Club, spent a fabulous night observing with the new Ethos in the 22-inch StarStructure (single eyepiece, monocular view), collecting views of diffuse nebulae (NGC2467, 2359), galaxies (NGC3115, 4565, 4631, 5128, M51, M83), globulars (M5, M13, M92, Omega Centauri), planetary nebulae (NGC2437, 2440, 3132, 3242), a variety of open clusters, a few carbon stars and color doubles, and of course, Saturn (but we bumped the magnification up to 370X with a 7-mm Type 6 Nagler for a tack-sharp, Winter Star Party, planetary view.) I feel pretty confident we'll be discussing this observing session with the Ethos eyepiece in great detail at the Southern Star star party hosted by CAAC this April.

Looking back over my "Ethos time", I have a few personal observations.

First, there's been a lot of discussion about Ethos reviews containing too much emotion and the need for more dispassionate, objective commentary. Don't count on it. The immersive view delivered by the Ethos' 100-degree field of view combined with its amazing clarity and pinpoint definition is like putting an IMAX in your telescope. Simply stated - nothing compares. Until you've actually looked through one, you can't imagine the difference. Al Nagler calls it "The Majesty Factor." I call it "The Tele Vue Advantage" - and it keeps getting better, and better...

Second, there's been some discussion about the eye relief of the Ethos (15mm) and the ability of the observer to "see" the entire field of view. My first experience with the Ethos at the Peach State Star Gaze was moving into the field of view, and at about 80-degrees apparent field of view - you know, a Nagler field of view - realizing I hadn't moved in all the way yet! As I moved fully into the pupil, I could clearly see a sharply defined edge encircling the field of view. I could still see parts of the front cage of the scope peripherally beyond the edge



Majesty Factor Visualization: 13-mm Ethos (left) and 26-mm Plössl (right) have same true field of the Double Cluster. But Ethos has twice the power factor and four times the contrast factor. Ethos therefore has a Majesty Factor of eight relative to the Plössl's Majesty Factor of one. For reference, the 0.9° true field shown could be produced by a 14" f/4 telescope using the 100° Ethos at 109x with a 3.2mm exit pupil or the 26-mm 50° Plössl at 55x with a 6.5mm exit pupil. (Image and text courtesy of Tele Vue.)

of the field of view. I also noticed that the entire field of view was so well resolved that I naturally started "looking around" to critically examine the abundant detail. At the Winter Star Party, Mike Harvey and I compared views in a 20-mm Nagler and a 13-mm Ethos and were surprised to find the true field differed by about 0.1-degree, while the magnification with the Ethos was fully 50-percent greater! The increase in detail and contrast was so obvious it left us both a bit overwhelmed.

Finally, yes - you can binoview two Ethos eyepieces. But if you want to look at

anything other than the bright stuff, you're going to want to have some serious aperture to throw at this combination. I felt like the light was being drained out of my 22-inch scope. Mike's 28 seemed to have more than enough aperture to really go deep with the binoviewer Ethos combo. Be forewarned - with the binoviewer Ethos combo, the edge of the field of view seems to expand out beyond the peripheral view of the front cage and the scope really does get out of the way. It's a view you may decide you absolutely must have. It's certainly a view you'll never forget! ☐



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