

Inside this Issue:

- 1 Room with a View
- 2 From City Lights to Deep Space
- 4 Astronomy on the Cheap
- 7 My Back Pages

Skywatch  
1207 Selma Street  
Mobile, AL 36604  
U.S.A.

# Skywatch

## Room With A View

**Pat Rochford**

On a recent trip to Disney World, we made an over night stop in Chiefland, FL. As some of you may know, this is the location of a small community of amateur astronomers known as the Chiefland Astronomy Village. A dozen or so people call this hundred acre sight home, with observatories quietly sitting near each house. My first visit here was last February, when the residents graciously volunteered their village as a temporary site for the Winter Star Party, which otherwise would have been cancelled due to extensive damage from hurricane Georges. Only a six hour drive from the Mobile area, it has room enough for a thousand people with scopes and some of the darkest skies I've ever seen. Some well known names can be found here like Tom and Jeannie Clark (of Amateur Astronomy Magazine & Tectron Telescopes) and Jack and Alice Newton of astro-imaging fame.

Jack and Alice have a bed and breakfast complete with a to-die-for observatory, which was the reason for our visit. The Newtons actually have two bed and breakfasts, the other in British Columbia, which is open for business in the summer (the Chiefland location is for winter guests). They, like all the residents of the village, are some of the nicest people you'll ever meet. No surprise

I guess, after all they're astronomers!

For a hundred dollars an evening, you get to operate a fully computerized 16" Meade LX200 Schmidt-Cassegrain telescope, complete with a very large ccd camera and Jack Newton as your coach. Or if you prefer, he also has 10" & 12" SCT's and a 7" Maksutav-Cassegrain (all LX200's as well, each ccd equipped) and a plain ol' 16" Dobsonian for just pushing around the sky the old fashion way. The roll-off roof observatory is huge and is equipped with a warm room containing four computers, one for each scope. This is comfortable astronomy as well as high tech. Something I'm beginning to appreciate in my mid forties.

The evening couldn't have been better weather wise - comfortably cool, clear as a bell and practically no humidity. We had about an hour and a half before the Moon came up to image in these inky black skies. It was dark enough that the zodiacal light could be easily seen. Jack had the 16" LX200 and the 7" Mak fired up and ready. The 16" is coupled with a Meade Pictor 1616XTE ccd camera, just about the largest and most blue sensitive camera available to the amateur today. The 7" was equipped with the Pictor 216XT, a small and inexpensive but very capable camera.

We spent several minutes getting the focus just right, something critical for ccd imaging. Then it was off to the races. Tell the computer what you want to see, click a button to begin imaging and right before your very eyes, beautiful spiral galaxies appear on the monitor's screen. And this is just a raw



image. With a few more key strokes (subtracting a dark frame and changing the background contrast) the images begin to look photographic like. Jack showed me some color images he has done that rival those of major observatories. I am not kidding.

Eventually the Moon did rise and that put an end to those very black skies. It did not however, slow down our session at all. Behold the wonder of digital imaging! Moonlight magically disappears with a few more keystrokes as was evidenced by M51's phenomenal detail. Light pollution can be subtracted in much the same way.

Breakfast included freshly ground coffee and home-made muffins & bread. What more could one ask for? Jack and Alice truly have a little piece of heaven (well, two actually) just down the road from us. I highly recommend it and fully intend to go back again. In the meanwhile I am in the process of obtaining a camera of my own to (hopefully) increase the number of galaxies I can observe in one night in my search for supernovae. Perhaps by the next visit I will understand enough about ccd imaging to ask some reasonably intelligent questions and not just look like a complete idiot. (Jack if you're reading this, thanks for being so patient with me.)

## From City Lights to Deep Space

Rod Mollise



*As we sit under the baleful gaze of the Scorpion on sweltering, hazy*

*nights, it's hard to remember those glorious chill evenings under the Winter stars! But they will come again! Until they do, let's cool off with....*

### A Hunter, a Dog, a Rabbit, a Bull and a Bear

In March it seems as if the burning Suns of Winter will hang on forever. But there are hints that the times they are a changin'. The Angry Bull, Taurus, who's been a fixture in the evening skies for quite a while, glaring at us with his single red eye, is now swinging high overhead and toward the west not long after darkness falls. Another sign is the sad fact that those delicious early-dark days are passing. Sunset is now growing noticeably later. Sure, the Spring skies are wondrous to behold with their uncounted galaxies, but let's take at least one evening to "clean up" the Winter Milky way, checking out a few subtle objects we may have missed as we trotted up and down Winter's starry road.

One late Winter's evening, I set out to both knock off a few of the less heralded Winter objects and to see how far I could push a small telescope, a *really* small scope, in semi light-polluted suburban skies. My observing site was Fairhope, Alabama and the grounds of Pat Rochford's wonderful Stargate Observatory. Conditions at Fairhope can still be quite good—certainly better than those of my urban home—but the skies are certainly more "suburban" than "country" now, thanks to the area's tremendous growth.

My tool on this evening was my Short Tube 80 f/5, one of the ubiquitous little wide-field refractors that have become an unmistakable icon for this generation of amateur astronomers. I've become so fond of this tiny scope that I've even given it a name, "Woodstock"—in honor of Charles Schultz's clueless little bird.

This achromatic-design refractor can do a fine job on the Moon and planets despite its short focal length, especially when placed on a lightweight equatorial mount, but its *real* beat is the deep sky. Taking full advantage of its wide-field nature requires dark skies, but its such a handy and well-made little thing that I wanted to see how it could for general deep sky observing from a less than pristine site. My targets?

**NGC2071/LBN 938**  
05h47m05s/+00deg18'00"

**M79/NGC 1904**  
05h24m11.2s/-24deg31'29"

**M41/NGC 2287/CR118**  
06h46m0s/-20deg45'18s

**M1/NGC 1952**  
05h34m34s/+22deg01'00"

**M81/NGC 3031/UGC5318**  
09h55m33.5s/+69deg04'00"

**M82/NGC 3034/UGC5322**  
09h55m04s/+69deg40'57"

With Orion nearing the meridian, *of course* I turned Woodstock to M42 and stared at the jaw dropping wonder of it all for a while. I'll view it every single chance I get with whatever scope's at hand. But I was really after fainter game within the bounds of the Celestial Hunter. The object of my desire was NGC 2071, a "companion" nebula to M78 visible in the same field. 78, you'll recall, is the faint reflection nebulosity located not far from the belt stars. It isn't exactly an eye-popper, but it's without doubt the best example of reflection nebulosity—a cloud composed of dust grains that reflects the light of stars instead of shining on its own—in the entire sky. It had been a while since I'd visited this area, and I really wasn't sure if I'd even be able to see M78 itself, much less NGC 2071, a fainter "detached" portion of the cloud, in a 3" refractor.

How do you find NGC 2071? You find M78, which isn't difficult at all. M78 forms a near right angle with the three bright stars, Alnitak,

Alnilam and Mintaka, in Orion's famous belt. It is located close to a line drawn through Alnitak (Zeta Orionis) and perpendicular to the other two belt stars. 78 is about 2.5 degrees North-Northeast of bright Zeta. M78 is somewhat small at about 5' across, but it should be easily detectable against from the starry background, even at low powers. 2071 is the "extra" patch of nebulosity about 15' North-Northeast of the brighter "main" nebula.

It did take some fumbling around to find 78 with Woodstock. I've used 50mm finders on my scopes for some time now, and it takes a little while to adjust to the dimmer field offered by the 30mm finders that are standard equipment with the inexpensive Chinese refractors. After a couple of false starts, though, I got this little cloud into my field. And was amazed. The nebulosity was easily visible by direct vision around two stars. I've rarely had a better view of this from suburban sites. In fact, what Woodstock was showing me this evening was easily the equal of what I've seen with 6" Newtonians from comparable skies. My eye moved around the field, and I realized that I was indeed easily picking up the considerably dimmer nebulosity patch, NGC 2071. Now that was impressive, since this is often invisible in my 8 inch SCT from light polluted areas. I marveled at this unexpectedly beautiful field—my best views came with a 7.5mm Plossl yielding 53x—for some time before moving on. Looking up, it was amazing how quickly the vault of heaven was moving on. Auriga had climbed the heights, and the Bear was beginning to move completely out of low-sky murk.

Lepus the Hare is one of the northern sky's most unprepossessing constellations. It is small in area and its brightest star is the lackluster Arneb, Alpha Leporus, which is a relatively pale magnitude 2.6, Lepus is very easy to find,

though. It lies near the feet of Orion, which is fitting, as it represents a frightened little hare crouching at the feet of the Hunter, hoping to be overlooked as Orion and his faithful hounds, Canis Major and Canis Minor, pursue bigger game. As you might expect, Lepus doesn't look *anything* like a hare. To my eyes, he appears as a slightly skewed capital letter "L." No, not much of a constellation, that's sure. But within the Hare's boundaries, surprisingly enough, is a *Messier object*, the deep Winter's only "bright" globular, M79.

M79 is rather easy to find, even with a very small finderscope. All you need to do is draw an imaginary equalateral triangle. Bright Beta (mag 2.8) and Epsilon (mag 3.2) form the base of the triangle. The apex, which points "down" or to the southeast, is marked by our target, M79. Position your scope in the approximate location (a Telrad or other "zero power" sighting device, really helps as a supplement to your finder) and take a look through your main scope. At 6' across at a maximum (the most you'll see in an average amateur scope is about 3' of cluster), M 79 is pretty small. It's not overly bright either, clocking in at Magnitude 7.7. So your best course is to use at least medium power for finding. On this evening, the 53x provided by the 7.5mm plossl seemed about right.

M79 is what hard core deep sky observers call "spectacular." That is, it's brighter than magnitude 12 and is actually resolvable into stars if you've got enough aperture! I'll admit that it does look quite good in my 12.5 inch scope. But I certainly didn't expect much out of a 3 inch refractor. In addition to the subdued nature of this glob, I noticed that some haze was now apparent along the southern horizon. Nevertheless, putting my eye to the eyepiece, revealed the little glob *right away*. Easy enough to see, even if it looked more like the prototypical "fuzzy star" than a humongous ball

of Suns. Staring at it for a while did, however, reveal *some* graininess. I swapped out the 7.5mm Plossl for a 4.8mm Nagler to see if I could come any closer to resolving the beast. Nope. The grainy look was more pronounced, but I definitely couldn't detect any individual stars. This is not overly surprising, since the *brightest* stars in M79 are at magnitude 13+. In addition, its Shapley-Sawyer class is V (5), meaning that it's fairly compressed—making it even harder to resolve.

Canis Major, Orion's "big dog," was clear of some of the worst of the horizon mess, so Woodstock and I want fluttering over that way in quest of another M, the Dog's glorious open cluster, M41. This object lies is very easy to find, lying just a smidge less than 4 degrees due south of glorious Alpha Canis Majoris, storied Sirius, the brightest star in the sky. M41 is bright enough that it should show up as a definite fuzzy patch in even a small finderscope.

For whatever reason, M41 is one of those objects I just don't look at very often. But on this evening it was *stupendous*. Despite it's still fairly low altitude it was a giant nest of stars in the 10mm Plossl at 40x! At times I felt as if I were falling into this tremendous litter of newborn Suns. The object was perfectly framed at this power, but since Woodstock *is* a wide field instrument I popped in a 26mm Plossl to see how this beautiful group would look at 15x. Nice. Many, many cluster stars were nicely resolved. Not quite as many as at 40x, though. The sky to the southeast was just too bright. A combination of light pollution, haze and high clouds conspired to give the wide field a very washed out appearance.

Tired of the iffy conditions of the low altitude southern sky, I pointed my little spyglass as high as he would go. M1 was in prime position near the meridian—I knew I'd need all the

help I could get to track down this faint supernova remnant with my small scope. From dark skies, M1 isn't really much of a challenge, even with a Short-tube style 80mm refractor. But it *is* a little dim—appearing much fainter than its published magnitude of 9 would suggest—and like nebulae of any kind it is *devastated* by light pollution.

Search for M1 just a little more than a degree North-Northwest of magnitude 3 Zeta Tauri. Zeta forms one of Taurus' "horns"—if you extend a straight line from the Bull's bright red eye, Aldebaran for 15 degrees you'll come upon Zeta. Try to position your scope as accurately as possible, because this little cloud will be quite easy to miss if your skies aren't perfect. It's also just about mandatory to use higher power to help make this thing pop out from a bright sky background. On this evening, the 4.8mm Nagler did the job for me at 83x. Move slowly, checking every part of the field while searching for M1.

Once it is in your field, you'll have to be satisfied with a small dim oval smudge of nebulosity rather than the intricate mess of filaments and streamers—the remnants of an ancient supernova—you see in the long exposure astrophotos. I was just thankful to be able to pick it up *at all*. It was there with direct vision, but just barely. This is one DSO which will really benefit from aperture. A C8 will show at least some hints of the "S" shape of M1's central bar of nebulosity, even from pretty poor skies.

Brrrrr. While I'm looking through the eyepiece, I'm never cold. But between star hops the chill was really beginning to sink into my bones! Time for at least one more beauty, though. Or maybe two. As the evening grows old at this time of year, there's no ignoring the fact that the Great Virgo Cluster of Galaxies is rising. We'll save Coma-Virgo for a warm Spring night. But let's close

with a couple of galaxies plucked from another fertile field, Ursa Major. What's better than two galaxies for the price of one? The Great Bear is riding high, and not far from his head and forelimbs is the wonderful pair, M81 and M82. This is usually a very easy target for me. But not on this particular night! A combination of scudding mist and light pollution made my search frustrating for a while.

Look for these two great night creatures about 10 degrees North-Northwest of the dipper's "end bowl star," glorious mag 1.8 Dubhe, Alpha Ursae Majoris. A glance at a star atlas will reveal that reasonably bright (magnitude 4.9) 24 Ursae Majoris is located about 1.9 degrees from M81, providing a convenient signpost that should be easily visible in your finder scope.

Even if you have to search around a bit, the trip really is worth it. This is really a perfect destination for a wide field scope like the 80 f/5. Here, you have a monstrous near-face-on galaxy, M81, with a magnitude of 7.9 located only 35' from another marvel, M82, a close-to-edge-on galaxy, with a strange, disturbed character. Under really dark skies, M81 shows off two delicate pinwheel-like spiral arms. I've marveled at these with my 12.5" truss tube dob from the super clear and dark skies of the Prude Ranch and the Texas Star Party. Naturally, this Sb spiral didn't look anywhere near as grand from this city light strewn area with my tiny refractor, but it was nice, anyway. Likewise, M82. It showed mere hints of the strange dust lanes that make it so interesting from dark sites, but it was easily observable and identifiable as an edge on specimen.

The distant disks of M81 M82 stick in my mind as I disassemble my tiny but wonderful telescope. Their rising heralds Spring and rebirth. This contrasts with the somber notes struck by M1 and malevolent Taurus, now plunging into the

mournful west. M1 is a tombstone, the last marker for a star that has ended its glories forever. M81 and M82 seem to signal hope, both for the coming of Spring and the coming of age of humankind in the larger universe.



## Astronomy on the cheap!

Rod Mollise

Over Over the last 35 years, the time I've been involved in amateur astronomy, the hobby has been a lot of things to a lot of people. One thing it's never been described as being, though, is "cheap." Astronomy has always been a pursuit that has been helped along by deep pockets in addition to a deep curiosity about the cosmos. That began to change in the 1980s with the introduction of big, inexpensive dobsonian telescopes. Today, a medium sized "sonotube dobsonian" or one of the new imported Chinese refractors is well within the reach of most aspiring observers. In a turnabout that would have seemed incredible even 25 years ago, folks of modest means can easily budget for a 12" reflector or a 6 inch refractor or an 8 inch Schmidt Cassegrain. A 3 inch refractor or a 6 inch reflector, the telescopes many amateurs wanted badly but couldn't quite afford in the

1960s, can now be easily acquired by a teenager willing to mow a few lawns.

While telescopes have nose-dived in price, most accessories have been slow to follow. But this is now changing. The trend began with eyepieces. Sure, you can still spend 500 dollars or more on the wide field monster of your dreams, but good, usable eyepieces are now appearing for almost ridiculously low prices. As with refractor telescopes, the Chinese are leading the way, with Plossl eyepieces that are of incredibly good quality selling for about 30 dollars now. And it isn't just the big Chinese factories that are delivering the goodies. The incredible growth of amateur astronomy coupled with the explosion of the Internet has allowed new astro-entrepreneurs to market wonderful and inexpensive astro accessories. A good example is Paul Rini, who's turned a stack of surplus optics into surprisingly good and cheap eyepieces. And there's much more to come.

This is the first in a series of articles that will show you how to put together an incredible astro kit on a shoestring. We'll round-up inexpensive--but capable--telescopes, eyepieces, books, computer programs, and more in coming months. But our first find is an accessory that many newtonian reflector owners have lusted after, but one which many couldn't really afford.

Have you wished for a laser collimator? A tool that would help you keep your Newtonian telescope's optics in spot-on alignment? Good collimation is very critical for reflector performance, especially with today's "fast," short focal length telescopes. It has really become clear in recent years that the laser was the way to go for critical adjustment. Not only can one of these devices allow you to accurately align your optics, one can

allow you to collimate anytime, at noon or at midnight. Unfortunately, the high prices these lasers have heretofore commanded—200 dollars or more for some models--have kept them out of reach for many of us. Well, get rid of that old 35mm film canister with the pinhole in the bottom! Here's a laser collimator that you can have!

When the Mobile Astronomical Society's Greg Thompson mentioned to me that he was thinking of turning out some laser collimators, I quickly asked him to do one for me. Greg is one of those people, unlike your editor, who is a wizard at the mechanical arts. I also knew that Greg had the tools to do this job right, including a lathe. Despite my knowledge of Greg's skills, though, I was surprised when he handed me a finished laser collimator less than a month later.

The Thompson Laser Collimator looked good—but quite different from the others I'd seen. I'd expected the usual: a black, machined aluminum tube containing a diode laser. But Greg had taken a different path. The "Thompson Collimator" is, instead, machined out of a single piece of dense, white, nylon-like plastic. According to Greg, this has several advantages. First, the plastic stock is cheaper, meaning he can pass on the savings. It is also easier to work with, so collimators are quicker and easier to make accurately. Finally, the Semi-translucent plastic around the business end of the laser glows red in the dark making it easy to insert the collimator into a focuser in the dark.

The laser itself is a common red "keychain" style pointer. While these units are not usually noted for tight, low-dispersion beams, this particular brand presents a good, tight dot at the distances needed in telescope collimation—even for the largest truss tube telescopes. It is held in the body of the collimator by three knurled-head bolts that allow it to be

aligned as necessary. This is initially done by Greg using his lathe, and the laser should not normally need further adjustment. Should realignment become necessary, Greg has mentioned that he'll be glad to take your laser for a spin in the lathe for free anytime it's needed. The on-off switch is formed by another knurled head bolt. You tighten it slightly, which causes it to press against the pushbutton switch on the laser barrel, turning the beam on. In normal use as a telescope collimator I'd expect the beam's batteries to last a very long time.

The collimator looks nice, but how well does it *work*? I'd seen laser collimation done a time or two, but had never attempted it myself. Nevertheless, using the sheet of instructions provided with the unit, I was able to align my 12.5" truss tube's optics in no time. The procedure is really simplicity itself.

To perform a collimation, turn the unit on and insert it into the telescope's focuser as you would an eyepiece. The next step is to observe the point where the beam strikes the telescope's secondary mirror. Before beginning, you may want to check your focuser to see that it is square-on to the telescope tube. You can do this by loosening the focuser set screw slightly, rotating the collimator in the focuser and observing the red dot from the laser on the secondary. If it stays in one place as you rotate the focuser, all is well. If it describes a little circle as you rotate the laser, you may need to shim the focuser for best results. It may be easier to align the focuser by removing the secondary altogether and observing the laser's dot on the "far wall" of the scope tube.

Once the focuser is squared to the scope tube, you'll check to see if the dot from the laser is centered on the secondary mirror (or offset a bit for some fast newts) If the dot is landing



in the center of the mirror, all is well. If not, the secondary should be adjusted so that the beam strikes it dead center. Usually this is done by moving the mirror on its stalk back and forth. Or, you may need to rotate the mirror. Once the dot's in the center, tighten down the secondary holder.

If you have a truss tube scope, it's easy to view where the beam strikes the secondary by removing the scope's shroud and observing the secondary from below the upper cage assembly. If you have a solid tube scope, though, you may find it helpful to use an inspection mirror to observe the secondary's surface. If one is not available, you should be able to observe the point where the laser hits the secondary by looking at its reflection in the telescope's main mirror.

Your next job is to check to see if the beam is striking the center of the primary mirror. In order to do this accurately you should have marked the exact center of the primary with a dot of ink, or, even better, a paper reinforcer. If the red dot from the laser is not striking the mirror dead center, adjust the tilt adjustment screws on the *secondary mirror* until the red dot coincides with the dot on your mirror or hits in the center of the paper reinforcer.

But when do you adjust your scope's primary mirror? That's next. What you'll look at now is the point where the return beam from the reflector's optical system hit's the end of the laser collimator. Look up into the scope end of the focuser. If you have a truss tube scope, this is easy. If you have a solid tube like a sonotube dob, you may need the inspection mirror again. Move the focus control until the focuser is as far "in" as it will go to make things as easy as possible. If the laser dot is visible on the end of the collimator, you need to adjust your primary mirror. Turn the primary's three adjustment bolts until the return of

the laser coincides with the laser itself. That is, turn the adjustments until you move the dot onto the laser's output beam in the center of the collimator and the dot "disappears." The laser should now be reflecting directly back upon itself. I found that the white surface of Greg's collimator, unlike those of black aluminum units, made the return dot really show up well!

That's it. You're done! If you're like me, you may find that your scope's collimation, despite your best efforts with cheshire and sight tube, was off. I can say this: my 12.5" has *never* produced such sharp, tight star images as it has following the use of this laser. Ever. In the field, I checked the diffraction rings of a star just to be sure, but it was obvious quickly that the Thompson Collimator had put my optics exactly in collimation.

Greg is hoping to gear-up and start producing his collimators in numbers if the interest is there. Frankly, I don't see how there can fail to be a lot of interest in the Thompson Collimator once the word gets out. It is a superior product that does a fine, fine job. Oh, and did I mention the best part of all? The price. The last time I spoke to Mr. Thompson, he told me that he plans to sell these units for \$40.00 a piece—or perhaps even less. The collimator will be available in either 1.25" or 2" versions, and will come with complete instructions. For further information, contact Greg at [comethead@aol.com](mailto:comethead@aol.com). Next time? A wonderful computerized star atlas/planetarium that does just about everything you could wish, and which couldn't get any cheaper—it's FREE!



**Skywatch® is published bi-monthly as a service to amateur astronomers by Rod Mollise and Skywatch Publications. Submissions are always welcome. Address correspondence to:**

**Skywatch  
C/O Rod Mollise  
1207 Selma St.  
Mobile, AL 36604  
(334) 432-7071**

**E-mail: [RMOLLISE@aol.com](mailto:RMOLLISE@aol.com)**

**Visit the MAS World Wide Web (WWW) Site at:  
<http://members.aol.com/RMOLLISE/index.html>**

**If possible, submit materials for *Skywatch* in machine-readable form Word 97 (Office 97) format is preferred, but a wide range of word processors is supported. Members of the Mobile Astronomical Society currently receive their issues of *Skywatch* at no cost at Society meetings, but mail subscriptions to *Skywatch* are available for a nominal fee. Unless otherwise noted, the entire contents of *Skywatch* is copyright ©2000 by Rod Mollise. If return is desired, postage must accompany all manuscripts, drawings, photographs, etc.**

**July-August 2000 Volume 9 Issue  
Number 4  
Whole Number: 51  
New Series**

# My Back Pages



## Editor's Musings: Once Upon a Midnight Dreary

Hi Gang...not a whole lot to relate this time. I would like to thank all of you for a very nice astronomy Summer. Due to my teaching schedule at USA, I'm unable to attend club meetings September-April, so it sure is a treat to get back to the old MAS for a while!

*Summer nights... Beautiful, but often hot and hazy. Or, down here on the Gulf Coast, completely cloudy. On one of these weekend nights, old Rod was ensconced in his favorite local bistro, enjoying a few cold beers and a good old cheeseburger "with everything on it." Seemed as if my waiter had forgotten to bring the mayo, though. But before long he trotted back up bearing an entire jar and mumbling, "Heh...heh...you'll need this, dillweed!" With that, the server, who turned out to be none other than BEAVIS, deposited what was indeed a mayo jar upon the table with a crash. It did not contain the popular condiment, though, merely the latest edition of...*

## Rumours

**A long time fixture in the amateur astronomy world is preparing to retire.** Roger Tuthill, who's been selling telescopes and accessories for many years, is winding down his business. Roger was particularly noted for his "certified" telescopes. For a nominal fee he would open that new Meade SCT's box and give it a through checkout rather than just shipping it on to the customer as most other dealers do. Tuthill also offered some unique accessories available nowhere else, including his Isostatic tripod/wedge, his Solar-Skreen filters, and a much-loved polar alignment telescope.

According to Roger, he plans to continue selling his own products for the time being, but his days as a Meade dealer are, sadly, over. Hope somebody picks up the slack and starts selling "certified" Meade scopes (Company 7 does this with Celestron telescopes)...

**What was all that brouhaha about the Stellarvue 80mm f/6 refractor** that embroiled the Internet astronomy venues for days and days? It seems that Vic Maris' little company, Stellarvue, was selling a "special" Short Tube style refractor, one with a longer focal length and an hand-picked optics set. According to the company's website, <http://www.stellarvue.com>, these scopes were a cut above the average Chinese short tube in every way. And early reports seemed to indicate that this was indeed the case. The scope was very sharp and surprisingly color free for an f/6 achromat. We soon heard that the little scope appeared to be the "equal of the Tele Vue Ranger and Pronto" for "only" \$280.00! Sadly, as Ed Ting discovered when he reviewed the scope for his Scopereviews web site at <http://www.scopereviews.com>, there was a *catch*. The 80's too-long focuser tube effectively reduces the objective aperture to about 67mm! Naturally this "stopping down" tends to help the scope with sharpness and excess color reduction. There was a great deal of outrage over this on the Net. After all, *the scope is advertised as an 80mm, not a 67mm*. But Vic Maris has promised to make things right, doing what's necessary to make his cutomers happy. And there's no doubt that many are happy *already*, feeling that a little less aperture than they've bargained for is a small price to pay for a budget scope that out Prontos a Pronto! Other's, though, feel a bit disappointed, if not ripped off! If you're interested in a full account of this mess, Rod has written a column for The Practical Observer Magazine outlining the whole sad affair...

**Trouble in s.a.a. land?** The freewheeling atmosphere of the sci.astro.amateur newsgroup is what draws many amateur (and even professional) astronomers to this Internet hangout.

Unfortunately, the sometimes out of control nature of this place tends to make the newsgroup its own worst enemy. Roland Christen has become the latest in a long line of amateur astronomy luminaries to make clear that due to the foolishness (if you read s.a.a. regularly, you know what I mean by this) he is ending his participation in the discussions there--he's bowing out of s.a.a. completely, apparently. Sad, but I really don't know how you keep s.a.a. free and open and also discourage the "nuts" who've run off some of the best minds in amateur astronomy over the last six years...

**We've now seen the new Meade LX-90** (or advertisements for it, anyway). This scope is aimed at *killing* the Celestron Nexstar 8. And it may succeed—it is cheaper and *supposedly* features a better drive and fork mount than the NS8. But the big question is still "what happens with the LX-200s?" The design of this scope makes it a near-antique. I still expect to see an "LX-300" before Christmas...

### ***The Anonymous Astronomer***

