SKYWATCH

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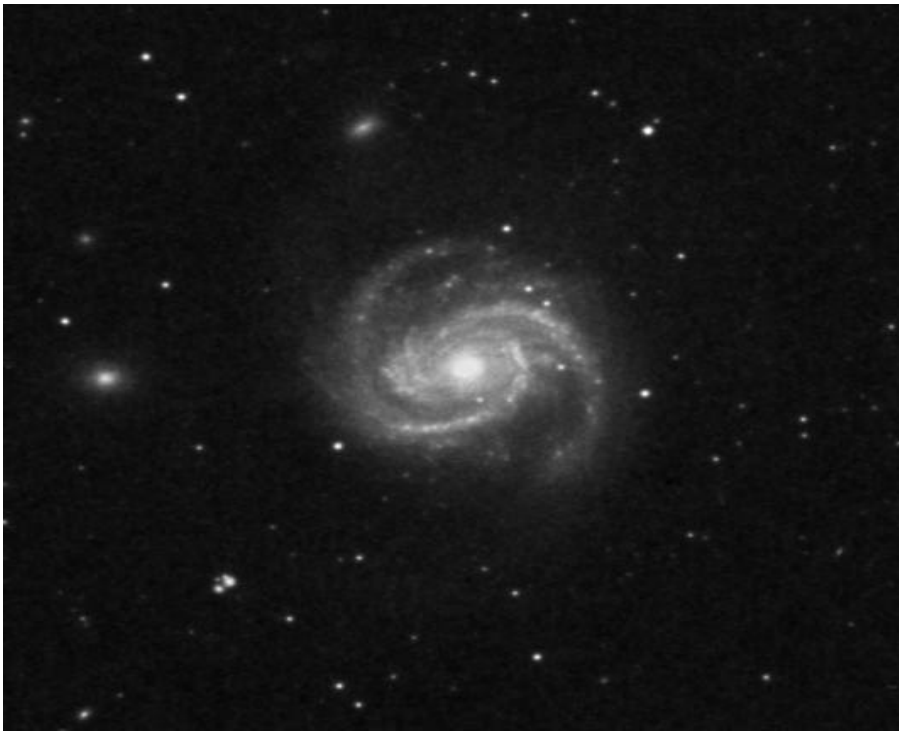
RAIN, RAIN, AND MORE RAIN....

Mid South Regional Star Gaze 1996

French Camp Mississippi's *1996 Mid South Regional Star Gaze* (MSRSG) can be summed up by: **rain, rain and more rain** (not to mention a few severe thunderstorms and nearby tornadoes). But the bad weather which plagued this year's MSRSG didn't prevent us from getting-in one nice evening of observing and several days of the wonderful comradery which is an integral part of this very friendly stargaze.

This year's MSRSG ran from 18 to 22 April, but, like last year, Dorothy and I were unable to leave Mobile before late Thursday afternoon. Since driving straight through would have put us in French Camp a bit late to do any observing, we decided to stay in Meridian for the night. Also, a quick look at the weather showed that it was unlikely that any observing would be done from French Camp Thursday night *anyway*. Indeed, tuning-in the **Weather Channel** cast some doubt as to whether there would be any clear nights *at all* for the stargaze.

Dorothy and I got a fairly early start for French Camp on Friday morning, and arrived at the stargaze at around noon. Driving up to Rainwater Observatory, it became obvious that attendance was down from last year. There *were* quite a few 'scopes set up, but nothing to compare to last year's crowd. I think this was due to a couple of factors. First, I understand that the person tasked with sending out the Stargaze mailings was unable to do so due to illness. Stargaze organizer **Jim Hill** was not aware of the problem, and, by the time he realized what was going on and mailed out registration materials himself, only a few weeks remained before the stargaze was scheduled to begin. Also, some people--whether they are registered or not--*will* cancel-out if star party weather doesn't look promising. On the up side, the fact that only about 60 or so people attended MSRSG gave the star party a very nice, friendly atmosphere! In other words, Jim Hill



M100 was one of the big treats at this year's MSRSG! *Photo courtesy Palomar Observatory Sky Survey/Stsci.*

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did his usual great job--thanks Jim!

After setting up our C8, I took a look at the sky, and was surprised to see that the clouds which had covered the sky all morning were **breaking-up**! While a constant 20+ mph wind made it impossible for us to set-up our tent canopy, it appeared to be driving those evil clouds away! Since we had an hour or so to wait before check-in time at the French Camp Bed and Breakfast Inn where we were registered (no drafty lakeside cabin for us this year!), we decided to take a look at the items that this year's vendor, Rex of *Rex's Astrostuff*, had for sale. Rex, some of you may recall, set up shop at the 1994 Deep South Regional Star Gaze. You may also remember that he had some **fantastic** prices! Before we left for French Camp, I had decided that if a vendor had a Lumicon OIII filter for sale for even $10.00 off list price, I was going to get one. Lo and behold, Rex not only had an OIII for sale, but he was willing to part with it for $79.00--**$20.00 less** than Lumicon's $99.00 list price! Needless to say I was very pleased.

Walking back up to the field we ran into **Ginny and Tony Kramer**. Ginny was proudly showing off the purchase *they* had made from Rex, a very nice Celestron/Vixen Polaris mount. Ginny's Edmund reflector was a perfect fit for the mount; the short focal length 6" and the Polaris seemed made for each other! Ginny and Tony told us that we hadn't missed anything Thursday night, since French Camp had been utterly clouded out. Just before we left the observing field to register at the Inn, **Leland Cox and Phyllis Dunnavant** drove up. Our little MAS family was almost complete.

We were very pleased with the accommodations at the French Camp Bed and Breakfast, which is housed in 100+ year-old log cabins which have been completely modernized. The Inn, located across the street from French Camp Academy proper, is very conveniently situated only about a mile from Rainwater Observatory. After unpacking, we returned to the observing field to **wait** for darkness and **hope** for clear skies. While awaiting sunset, I walked around the grounds, looking at the scopes being set up by my fellow MSRSGers and reacquainting myself with the observatory. The first time I attended this stargaze, I was literally *astounded* by the quality of Rainwater's facilities, which include a dome for an LX-200 12" (with an Hα filter), and shelters for a 32" Dob, a Meade DS-16, a 6" refractor, and a number of other instruments. Also a part of Rainwater observatory is a planetarium complex which is equipped with a Goto projector/observadome, and which features red-lit restrooms, and a warming room (with hot coffee!). In addition, the planetarium contains a well-stocked library with many books and audio-visual materials, and state of the art computer equipment. Rainwater *also* possesses some of the best, darkest skies I've seen in a long time. And a look at the sky quickly revealed that we *were* going to be able to do at least *some* observing Friday night!

By the time darkness finally arrived (curse this Daylight Saving Time) the skies had miraculously become clear (although they never approached the crystal clarity and velvety blackness which is usual for this site). And in the west, a great curtain seemed to rise as members of the Solar System began a show put-on especially for our enjoyment! With binoculars, SCTs, an Astroscan (**George Byron** had arrived earlier bringing his nice little telescope with him), and our wondering eyes, we observed a very young moon, a brilliant Venus, a shy Mercury, and a still-blazing Comet Hyakutake--all grouped on the western horizon within a few degrees of each other! I was particularly pleased to get one last look a the comet, who still sported a tail at least seven degrees long (in binoculars). I had an especially wonderful view of Hyakutake in George's Astroscan. In this low-power wide-field scope, the comet's tail just seemed to stretch-on forever! It was also shown to good advantage in Ginny's fast 6" reflector. Another beautiful vista was the low power view of Orion's rapidly setting Sword through Leland Cox's SCT. In a 50mm eyepiece the sight was stunning!

When darkness truly arrived, I turned from our Solar System to the Great Dark that lies beyond. Ursa Major was riding high, Virgo was rising, and I had but one thought on my mind: GALAXIES! Perhaps my most memorable object of the stargaze was a vision of Coma Berenices' M100. This huge near-face-on galaxy was almost unbelievable in my Ultima 8 telescope, and was accompanied by an astounding retinue of little NGC galaxies. The image of M100 and, in the same field, a more distant edge-on NGC galaxy gave me a wonderful feeling of the true depth and majesty of the Universe. Almost as wonderful was Ursa Major's M101. This distant giant was startlingly detailed. The more I looked, the more I saw! Next, I turned from the Great Bear to the Realm of the Nebulae, Virgo. As I became refamiliarized with my C8 (I use a Dob most of the time) I was able to move from galaxy to galaxy with the aid of a set of charts produced by Megastar. The combination of Megastar and wide-field eyepieces makes star-hopping easy, even in

crowded regions like Coma-Virgo! I had drawn up a list of 15 galaxies in Virgo-Coma that I especially wanted to observe, and I was really making progress (I was on #12) when, at about 11:30, Jim Hill walked onto the field and made the announcement that we were under a severe weather warning. I wasn't surprised, since I had noticed clouds building all around the horizon for the last half hour. While conditions didn't appear to be immediately threatening, the air had a 'feel' to it that suggested that really bad weather was on the way. Not wanting to take chances with our equipment, the entire MAS contingent packed-up and left the field immediately, heading for the Bed and Breakfast.

In the end, it turned-out that the severe weather was delayed, but the clouds that arrived on Friday night were still present when we got up on Saturday morning. After a delightful breakfast (the food at the French Camp Bed and Breakfast really has to be experienced to be believed), we puttered around the Inn for a couple of hours. I spent the time organizing my field notes and drawings from the night before and listening for weather reports. At 11:00am it was time to head for French Camp's 'Lodge' for one of the Academy's truly excellent meals. We also enjoyed a reunion with **Judy Anderson**, who had arrived earlier Saturday morning.

The afternoon featured several very interesting talks at the planetarium by various speakers. Subjects included: **CCD Astronomy, Video Astronomy, and Laser Collimation**. Unfortunately, by supper time, the sky showed no sign of clearing. For a little while, we felt that we might get a few glimpses of HYAKUTAKE with binoculars, but, as the evening wore on, even these slim hopes were *dashed*. During a very informative lecture on Vulcanism in the Solar System, the really severe weather arrived with a vengeance. It was immediately obvious that there was simply no chance of clearing Saturday night, so the entire MAS group adjourned to the Bed and Breakfast while tremendous storms raged outside. The lightning produced by these truly ominous storms was *awesome* (we were experiencing the southern part of the frightening storm system which devastated Arkansas)! We had a nice gathering, however, and enjoyed swapping stories and remembering old times.

When Sunday morning dawned and it was time to leave for another year (following one more tremendous breakfast), we departed, admittedly feeling a bit frustrated and disappointed that we hadn't been able to do a little more observing. But everyone who attended really had a wonderful time, and we are already looking forward to MSRSG '97!

Your Very Own Moon Pictures

Part 2--Conclusion

With From City Lights to Deep Space on its usual Summer hiatus, I had time and space to finish this article on simple Lunar photography. Our wonderful hobby has many, many interesting and rewarding aspects, but I'll admit that few things have given me as much pleasure and satisfaction as those first sharp 8x10s of the Lunar terminator THAT I'D TAKEN MYSELF….

Ready to take some nice Moon pictures? OK, good. First let's gather our equipment. As you'll recall from part 1 of this article, the bare minimum required to take satisfying photographs of Luna consists of a single lens reflex camera, a reasonably sturdy tripod, a good color or black and white film of about ASA 400, and (naturally) your telescope and a decent eyepiece. We'll assume that your telescope is set up and tracking (if it has a drive) or is at least pointed in the general direction of the Moon.

Before taking your camera equipment outside, remove the lens of your SLR and set it aside, since we'll be using eyepiece projection tonight and won't need the lens. Some authors suggest using the *afocal* method of photography for taking pictures of the Moon, in which the lens remains on the camera. I have, however, found that eyepiece projection almost always gives **far better results**. Once outside place your camera on its tripod and put an eyepiece in your focuser if you haven't already done so. You'll want to use an eyepiece of about 25mm (or longer) focal length, since we'll be controlling magnification by adjusting the distance between the eyepiece and the camera. Anything shorter than about 25mm generally provides too much magnification. I've had very good results with a 26mm Plössl eyepiece, but I've also successfully used inexpensive Kellners and even cheaper surplus Erfles. At this focal length and in this application eyepiece quality doesn't seem overly critical. With your eyepiece of choice in place, check to see that the Moon is centered in the field of view, but don't worry too much about focus at this point.

Next, position your camera/tripod combination so that the camera without its lens is in the position at the telescope normally occupied by your eye. For our first attempt, we'll aim for a nice wide-angle shot of the Moon, so get your

eyepiece fairly close to the SLR's mirror--taking care *not* to jam the eyepiece into the mirror or the focal plane shutter of your beloved camera (something I'm embarrassed to say I've done on a number of occasions!). Also, try to position things so that the camera is perpendicular to the eyepiece. Once you have things aligned, take a look through the camera viewfinder. Chances are, all you'll see is a bright blob. Bring the image into sharp focus by focusing your telescope. At first it may be difficult to see when the image is at best focus (depending on the type of focusing screen on your SLR). While the Moon is very bright, it isn't quite the same thing as focusing your camera on a bright terrestrial scene, so take your time until you have some sense of what a sharp image looks like in the viewfinder. Once you a have reasonably good image, make any adjustments necessary to the telescope to recenter the Moon. Check focus again, making sure that the image is in focus across the frame. If one limb of the Moon is in focus and the other fuzzy, you may not have the camera perpendicular to the eyepiece, and you must reposition the camera. Of course, with a driven telescope, particularly one with a camera mount, everything is much easier. Basically all you have to do is frame the image of the moon in your viewfinder and focus. With a Dobsonian, you must obviously be a little more careful, but it isn't as difficult as it sounds, and is easily doable. To summarize, the steps in preparing to take a photograph of the moon with an undriven equatorial or Dobsonian telescope are:

1. Position camera PERPENDICULAR to the eyepiece at a distance which gives proper magnification. The farther from the eyepiece your camera's film plane, the larger the image.
2. Focus (roughly). The Moon is bright, so focusing is fairly easy (compared to other celestial subjects, anyway).
3. Recenter Moon. By this time the Moon will probably have drifted out of the center of the frame.
4. Reposition camera (if necessary) so that it is still perpendicular to the eyepiece.
5. Without wasting time, focus critically.
6. Expose frame.

Lunar Eclipse, November 1993. Rod Mollise. 8"f7 Newtonian, Petri FT II, Eyepiece projection on Tri-X film. Because of its extreme contrast gradations, the full Moon, whether eclipsed or not, is a challenge for astrophotographers.

Now for the exposure. How long? Well, that isn't an easy question to answer. If you're lucky, the image of the Moon will be bright enough for you to use your camera's exposure (light) meter. Otherwise, the length of your exposure will depend on the phase of the moon and the effective focal length of your telescope (actual focal length plus the extra focal length added to it by projecting the image). **Michael Covington** has some excellent tables in *Astrophotography for the Amateur*, but probably the easiest thing to do is just bracket your exposures. Once you become experienced with your telescope and camera, you'll probably be easily able to estimate exposures, but until then, try everything from about 1/30 of a second ON UP (less than about 1/30 of a second exposure will lead to blurred pictures with an undriven scope). Actually, depending on the phase of the Moon (and the size of the image due to projection), you can probably start your exposures at about 1/125 second and be assured of getting it right somewhere along the line. Remember, too, that underexposed negatives will probably be easier to deal with in the darkroom than overexposed ones.

To actually make the exposures *just squeeze them off as you normally would*; a cable release or other aid is *not* necessary. Your exposures should be fairly short, and your camera is mounted on a steady tripod. Change shutter speeds and recenter the Moon as necessary as you go along. Once you have a sequence of various exposures, you may want to change the distance between your camera and the eyepiece widening the distance for some close-ups or moving the camera closer-in for some wide-angle shots. That's really all there is to it. I know that all of the above seems very obvious. But you'd be amazed at how many people (especially Dobsonian owners) think that any kind of astrophotography is impossible if you're not equipped with the latest hi-tech megabuck telescope.

Once you're done, the next step is to either develop the film yourself or send it out to your local

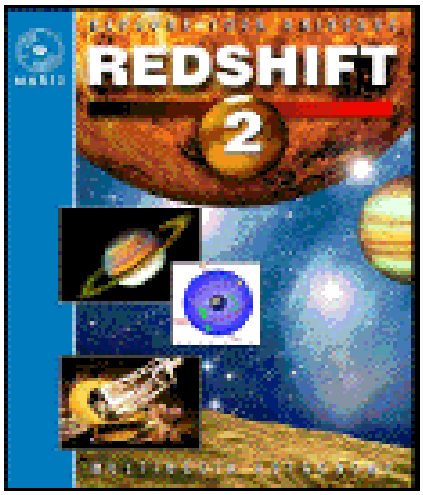


photo finisher. I can just about guarantee that you'll have gotten a couple of impressive images on your very first attempt if you've worked carefully and paid attention to details. BUT you'll *also* undoubtedly have gotten a lot of **duds**. That's why it 'pays' to shoot in black & white and do the processing yourself, especially considering the fact that a black & white darkroom can be assembled very cheaply, and that B&W processing is very easy. If you're doing the darkroom work yourself, your fun is just beginning (really). But that's a story for another time....

--Rod

Astrobytes

RedShift 2
Maris Multimedia

Program Requirements:
386SX or above (486 Recommended), 2x CD Rom, 8MB RAM minimum, Windows 3.1 or '95, Sound Card.

Price: Approximately $40.00-$50.00 depending on vendor.

When measuring the useful lifespan of most computer programs, even *dog years* are far too long. But there are some exceptions. And I always thought that Maris Multimedia's *RedShift* was one of these. I dearly loved this program when I received it back in the dark ages of astronomy software--1994. What impressed me about it was not so much its *usefulness* for the practicing observer, though it did have some reasonably practical features, but its GLITZ. This was the first really visually impressive astronomy program, with its infinitely zoomable planets, its hundreds of photographs, and its starry sky which was accessed by, of all things, TV remote-control-styled menus which looked for all the world like they'd escaped from the Zenith in your den.

This is certainly not to say that the original *RedShift* was without its faults. For example, I was always irritated that the developers had included stars only down to about magnitude 9 or so, but had filled the CD with soundless, grainy videos. Printing also left something to be desired. The only way to make deep sky objects print was to disable print manager and print directly to the printer port. And even then, they printed so lightly on my Canon printer that the charts were useless in the field. Another irritation was the fact that the program's database included thousands of UGC galaxies *but did not allow you to label them on screen or in print-outs.*

But I still got a kick out of *RedShift*. It was particularly useful for

impressing the uninitiated with how far astronomy software had come. But the program's lack of depth always left me feeling like the Wizard of Oz when I showed it off--i.e..: 'PAY NO ATTENTION TO THE MAN BEHIND THE CURTAIN!' So I was very pleased to see that Maris/Maxis were coming out with an update, *RedShift 2*. After making a phone call to the vendor, I received a brochure which advertised numerous improvements which had been made to the planetarium, including:

> **Guided tours:** '10 animated instructional videos for 'beginning astronomers.''
>
> **Improved star display:** 'Automatic magnitude scaling can be disabled, allowing all stars to be displayed at once. Stars are now in their appropriate colors.'
>
> **New photographs and Movies:** 'Now with sound.'
>
> **New Maps:** 'a map of Venus has been added.'

This flyer *also* announced that there was a $19.95 charge for upgrading from the original *RedShift* to the new *RedShift 2*. That gave me pause. It seemed a rather high upgrade price for a program that usually retails for only about $40.00. And Maris' competitor VRLI had been only too happy to upgrade me to the new version of *First Light* for FREE. But the new *RedShift* did seem to be a major upgrade, and it *had* been almost two years since I'd purchased the original CD. So I finally convinced myself to part with my $19.95. Before too long, I received a package from Maris which contained a CD in a jewel box and...nothing else! No manual, no data sheet, nothing. Come on guys! I know I only paid for an upgrade, but when I upgrade *WordPerfect*, for example, I at least get a pretty box and a new manual! I installed the program over the original *RedShift* and began the process of trying to deduce the program's new features by trial and error with a little assistance from the CD's help files.

Actually, this wasn't too hard a task, since very little has really changed since the program's initial release in 1994. In truth, this should be labeled *RedShift 1.2* rather than *RedShift 2*. Some of the few changes to the program were welcome, though. The fact that stars of a specified magnitude can be displayed no matter what the zoom, is a help, for example. But the program *still offers too few stars to make it of use to an active observer*. And the stars are *still* represented by symbols which are all nearly the same size. a first magnitude star is about the same as a 6th magnitude star, and there are few 'in-between' sizes either. This 'binning' makes for a somewhat pretty display, but it certainly won't help the student trying to learn the constellations! The ballyhooed addition of sound to the program really amounts to very little. a short 'splash' musical piece is played when the program starts, the grainy videos now have distorted audio tracks, and the Guided Tours feature narration. Another prominently advertised new feature, the map of Venus, was interesting, but of little practical use considering the data space devoted to it. An additional disappointment was the fact that the program still doesn't give you a way of adding your own comets to the database. But it wasn't all doom and gloom. I was quite impressed by the above-mentioned 'Guided Tours.' I found them to be very well done, very useful for the student, and almost worth the price of admission alone *if* you have a young one in the house.

As you can probably gather, I was a little put-out that the advertised new features for *RedShift* really didn't amount to much. But, on the other hand, there WERE some worthwhile updates, and this was still the program I had liked so much...wasn't' it? Unfortunately, it soon became obvious that the answer was 'no.' In the process of updating *RedShift*, some bugs had crept in. The first problem I noticed was that I couldn't see Sirius. No matter how I zoomed or played with the magnitude filters, the star just wouldn't appear. Then I realized that it was just about impossible to make some deep sky objects appear on the screen. Nebulae, especially, seemed to be a problem. It was only by a great deal of tinkering with the mag filter and the zoom controls that I was finally able to make M42 appear. It seems that the automatic magnitude filter for deep sky objects is touchy, and that some objects will only appear when higher values of zoom are applied, making the field somewhat small. I have also noticed that some spurious deep sky objects, mostly open clusters, seem to be present. Finally, some of my contacts who use Windows 3.1 have reported numerous program crashes. *RedShift 2* does, however, seem very stable under Windows '95. All in all, I was rather disgusted about the shoddy treatment that I felt that a basically solid program had received. In fact, I was just about ready to remove *RedShift 2* from the hard drive and reinstall the original *RedShift*. As a last resort, though, I decided to visit Maris' web site and see if any of the bugs were being acknowledged, and, if so, whether any fixes were available.

I was glad that I did, since I discovered that Maris was being very

upfront about the problems with the program. The company explained, for example, that Sirius' invisibility was due to an error in the stellar database which placed the star outside the range of the program's magnitude filter. a program patch which cures this particular problem is available for download on Maris' site at http://www.maris.com. Most of the other bugs were also acknowledged, and, where possible, 'work arounds' were given. While none of this quite left me with a 'clean' program, it was nice to discover that Maris is actively supporting their product.

The bottom line is, I guess, *do I recommend this program?* The answer is...MAYBE. If you have a faster, Pentium class, computer, I think VRLI's *First Light* is a better choice. It has all of the features that I'd hoped a follow-on to *RedShift* would have. But, *RedShift 2* does have some nice options, and it DEFINITELY runs faster on a '486 than *First Light* does! It is also more attractively priced, going for about half what VRLI charges for their program. But be sure that *either* of these programs is what you're *really* looking for. If you want something which will help you with your real-life observing, look elsewhere (maybe at *Deep Space*, *The Sky*, *Guide*, or *Megastar*). If you want a nice, general interest planetarium with enough multimedia features to keep the average youngster or teenager interested, though, *RedShift 2* may be just what you're after.

--*Rod*

Product Review

Lumicon Oxygen III Filter
$99.50 (1.25")
Lumicon, 2111 Research Drive #5, Livermore, CA 94550

'The ultimate in filter performance! The Lumicon Oxygen III filter has a contrast twice as high as the high performance UHC filter. Use the OIII filter for observing the very faintest planetary and diffuse emission nebulae. Also gives incredible views of bright nebulae (like M27, M17, etc.) from urban locations.' --Lumicon catalog

After having been involved in amateur astronomy for over thirty years, I've spent a lot of money on accessories--all of which were *naturally* described by their manufacturers in the most GLOWING terms. Only occasionally, though, have I found a piece of equipment--of any type--which has lived up to its HYPE. The Teleview eyepieces are one example of a product which is as wonderful as the manufacturer claims it is (or maybe even better). And I've finally found another accessory that is as good as its publicity: the Lumicon Oxygen III filter.

I'd tried quite a few 'light pollution filters'; both those of Lumicon and those of the other vendors who've popularized these observing accessories over the last ten years. And I'd been somewhat impressed by their performance in a variety of observing conditions from light polluted backyards to dark sky sites. But, while the best filters did seem to improve my views *somewhat*, I was never really blown away by their performance--at least not enough to pay for one--though I did come close to investing in a Lumicon UHC a couple of times. The limited utility of these filters--they are really only useful on planetary and emission nebulae--made me hesitate to spend the $100.00 or so that most of these filters command.

But then, over the last couple of years, I started hearing more and more about Lumicon's 'incredible' OIII filter. And it was not just in the Lumicon ads that I was hearing things like 'amazing', 'a must-have,' 'unbelievable', 'spectacular.' I was hearing these raves from my fellow (normally SKEPTICAL) amateurs. However, for a variety of reasons, I just didn't seem able to get a look through an OIII. And I was hesitant to 'buy-without-try' an accessory of this type, especially one whose performance was, in my opinion, somewhat *subjective* (based on what I had seen of other light pollution filters) anyway. Moving back into the heart of our light-polluted city, though, really convinced me that I needed a light pollution filter of *some kind*, and after reading reviews in a number of magazines (*Astronomy*; the late, lamented, *Deep Sky;* etc.) I settled on an OIII. While the pieces in the magazines seemed to waffle a bit on which filter was the 'best.' I sensed that the reviewers had been impressed by the OIII. Still, though, my skepticism hung on. I'd BUY an OIII, but I WOULDN'T PAY FULL PRICE. I'd either find a used filter or one discounted by a vendor at a stargaze. $100.00 for a tiny piece of glass just seemed ridiculous. But finally, at the 1996 Mid South Regional Star Gaze, I was cornered. a vendor was offering an OIII for $79.00. So, still a bit reluctantly, I whipped out my checkbook.

Before talking about my results with this remarkable device, though, I guess a few words about how these filters work are in order, since, to the uninitiated, the claims made for them seem *very* hard to believe. Actually, the theory behind these filters is very simple. The light sources in our night sky, which include the 'good' light from stars, galaxies and nebulae and the 'bad' light from sodium and

mercury vapor streetlights (for example) all have peaks at specific wavelengths. That is, most of the energy from a light source is strongest in a certain, usually fairly narrow, part of the spectrum. Therefore, if we could devise a filter which would only allow light in the 'good' parts of the spectrum to pass through it, we would be able to block-out harmful manmade light, enabling us to see objects from the city just as they appear under dark skies. And modern LPR (light pollution reduction) filters go a long way toward achieving this goal. But, as you might have guessed, there are some 'catches.' First, these filters, while amazingly well thought-out and made (usually), are naturally not 100% effective. Also, more seriously, the peaks of some celestial objects overlap with the peaks of light pollution sources. Unfortunately, the light of the stars coincides with the spectral peaks of manmade lighting and is blocked by these filters along with the bad light. Star clusters and galaxies are, of course, composed of stars, and this is why LPR filters really can't do anything to enhance the appearance of these objects. Some very mild filters such as the Deep Sky seem to occasionally enhance the appearance of galaxies and clusters a little bit, but the effect is minimal. Narrow band filters like the UHC, the Orion Ultrablock and the OIII only pass a very narrow range of wavelengths (those emitted by nebulae) and thus really dim the stars. The OIII, in particular, which has most of its response in a *very* narrow frequency band, attenuates stars to a high degree. But this is an unavoidable trade-off if you want maximum performance. Sigh. I'm just waiting for some genius to invent a magical galaxy and globular filter!

Why are these filters so blooming *expensive?* Mechanically, they are truly a wonder of modern technology, and are far more complicated to manufacture than a 'normal' color filter. They are produced by depositing many layers of coatings on an optically flat piece of glass. Each layer serves to reflect a certain range of wavelengths. By controlling how many and what kinds of layers are deposited on the glass, the manufacturer can determine the *bandpass* of the filter (the range of frequencies of light which are allowed to *pass*). Quite a number of companies are offering some type of LPR filter, but Orion and Lumicon are the major players. Lumicon is currently the only vendor offering a line (very narrow) filter.

The April stargaze where I purchased my filter just didn't give me much of a change to try it out. By the time darkness arrived, the obvious nebular target was really low in the west. I did take a look at **M42**, but it was so close to the horizon that it was really impossible to tell much about the filter's performance--though some improvement over the unfiltered image *was* obvious. And before any more likely targets (M57, etc.) could rise, clouds moved in. It was actually almost a month before I could give my OIII a good work out. But what a work out! Pat Rochford was close to completing his new observatory (housing a 24" Newtonian!), and he suggested that we give this new facility a try-out. This seemed the perfect opportunity to see what the OIII could do!

The first object of the evening which seemed a likely candidate for the filter was NGC 6210 in Hercules. I had seen this little puffball many times before, and was familiar with its usual appearance in a variety of apertures. The combined power of a 24" Newtonian and the OIII, though, turned the fairly bland object I remembered into a *spectacular* one! With the filter and a 12mm Nagler eyepiece, the nebula was large, elongated, and strikingly blue in color. Faint, heretofore totally invisible details seemed almost on the verge of resolution. I was particularly surprised that the bluish color of the nebula seemed relatively true and unaltered by the filter. While we didn't have a UHC filter to compare with the OIII, we did have a Deep Sky filter to test it against, and the increase in contrast in the OIII was quite obvious.

Our next target was M57, and **what a treat** the Ring was with the OIII in this large scope! The shape of the nebula was easily discernable--both its elongation and its 'flaring' at the ends. Again, the performance of the OIII was substantially better on this object than that of the Deep Sky filter. However, it must be said that the Deep Sky did provide us with a prettier field, since with this 'milder' filter the many stars in this beautiful area were not as attenuated as they were in the OIII.

Our final nebula for the evening was M97. I knew from experience that the Owl can be dim even in a 24" in the semi-light-polluted skies of Fairhope, so I left the OIII in place while I was searching for this object. But I didn't have to search long. With this filter, the Owl was very bright and obvious. It really popped right out at me! Only a moment's scrutiny was enough to reveal *both* of the Owl's 'eyes'--easily! But the real stunner came when we removed the filter: M97 just about disappeared--in a 24"! I was amazed!

After this remarkable evening, I'm anxious to try my new friend on my 12.5" reflector. I'm also anxious to see how the OIII performs on Diffuse nebulae--I'm convinced about its *remarkable* performance on planetary nebulae! On the basis of these limited tests, I'm willing to go out on a limb

and say: 'Yes, the Lumicon OIII filter is a remarkable tool for visual observers--even those blessed with fairly good skies. It is indeed a 'must have.'

--*Rod*

My Back Pages

AstroPoem

The Beginning

Dressed in my *proud*
Blue and Gold Cub Scout Uniform
I climb the tall ladder
Uncertain about what I'll see,
And a little unhappy.
I wanted to sit through
The Saturday Matinee
In the kid-laden theatre
One more time
(it was SCIENCE FICTION!).
Now, in the darkness of the dome,
I heed adult words
Of caution
And press my young,
Skeptical eye to the cold eyepiece
And see:
A great spiral city of stars.
In that moment, my world changed.
The *beauty of it*
Is still true in my mind.
Never has a vision been clearer.
And still I seek
The crystal embrace
Of that First Look.

--*Rod Mollise*

Club Notes

The May 1996 meeting of the Mobile Astronomical Society was held at the club's meeting place at the Mobile Public Schools' Environmental Studies Center. While we had a decent turn-out for this meeting (most of the 'regulars' were present), the health of our club is dependent on the participation of us all. In any event, we had a very nice meeting (conducted by President Pat Rochford). Following discussion of our experiences at the recent Mid South Regional Star Gaze, we retired to the parking lot for some observing through a new member's Meade 10" LX-50 SCT. We were all excited to get a chance to try this new model from Meade, and were duly impressed by the quality of the images and the ease of use of this modern motorized marvel!

RUMOURS

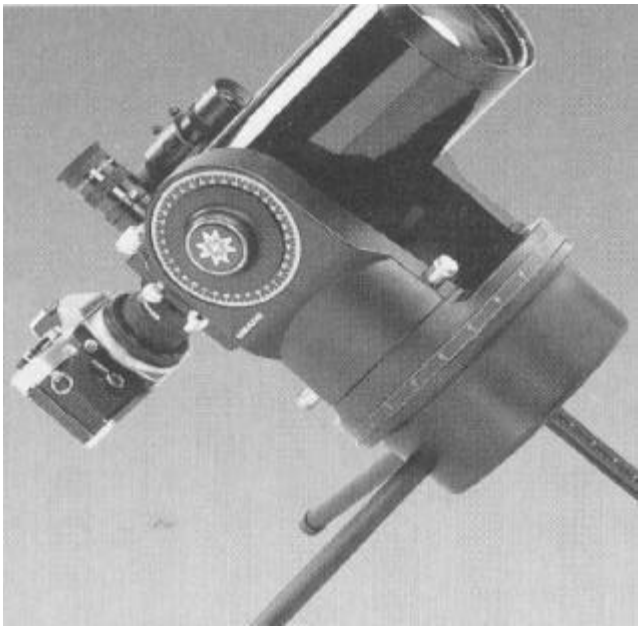
*As the time neared for putting **another issue** of **Skywatch** to bed, I found myself waiting in (nervous) anticipation for the sound of a **hermetically sealed mayonnaise** jar impacting my front porch. I had given up on discovering the identity of this so-called 'anonymous astronomer.' I just wanted to hear what dark secrets he would next reveal about the **strange** world of amateur astronomy....*

VRLI's Planetarium program, *First Light*, is changing its name. The program's developer put out a call over the Usenet's sci.astro.amateur asking for suggestions. Apparently the powers that be at VRLI are *not happy* with the program's current name, feeling that 'First Light' is not **evocative enough** of the 'wonders of space' to catch the eye of the average buyer. This should be an indication to you that this program **is not aimed at the astronomical community** (though it's not *too* bad as general interest planetariums go)....

In a follow up to last issue's bit on the revival of the Odyssey telescopes, I have word that MURNAGHAN (apparently the company has an all-caps fixation where its name is concerned) Instruments hopes to have a 'new and improved' range of Odysseys available by **August**. The line, which now consists of 6"f8, 8" f4.5 and f7, and 13.1" f4.5 Dobsonians, is now advertised as having primary mirrors figured to **'...1/8 wave or better.'** In addition, the focusers, mirror mounts and mountings are said to have been upgraded. The prices have also been 'upgraded,' with the 8"f7, for example, now going for $399.95. You'll recall that Coulter sold a *lot* of these

telescopes for $239.50. The prices on the Odysseys are now comparable to those of the Orion and Meade Dobs, so I think the upgrades to these telescopes **had better make them at least as attractive as an Orion or Meade 'scope** or we *may* see Coulter disappear again....

How about those nutty guys at Meade? They've actually gone and done what I *suspected* could have been done years ago. **They've produced a 3.5" Questar clone for $499.95(!).** While this little telescope, the **Meade ETX**, is not *quite* as pretty as a Questar, it is very impressive nevertheless. The sub-$500.00 fee basically gets you everything (good and bad) that you got with the Questar: table-top equatorial mounting (with, *like the Questar*, a too-short fork which makes it hard to view southern objects), a cordless RA drive, and a good eyepiece (a Meade series 4000 in this case). About the only things missing are a nice case like the one which used to come standard with the Questar 3.5, and (I'm happy to report) the **bizarre** through-the-main-eyepiece finder arrangement that Questar owners always had to endure. Early reports indicate that the optics on the ETXs available for testing are every bit as good as those on a Questar and *far* superior to the Meade scope that it replaces, the 2045D. Mechanically, while this $500.00 scope is not quite as solid as a Questar, it is close, featuring, for example, a lovely anodized aluminum tube. **If Meade can actually produce this scope in numbers, keep the price down, and maintain quality, they may have a winner....**



Meade's new ETX. a $500.00 Questar 3.5" in Meade's clothing? Only time will tell, but right now this scope is getting raves --and many orders, so don't even *think* about ordering one for a while!

Meade, meanwhile, continues to struggle in the customer relations arena. a latest example of what many consider **Meade's shortsightedness**, are *rumors* of foot-dragging on Meade's part when it comes to honoring **life-time warranties** on its telescopes. According to SOME *(please keep in mind the name of this column)*, the company is very adroit at finding ways to circumvent these warranties, always coming up with a way to make the unfortunate user **PAY** for repairs. *If true*, this obviously makes the much-advertised 'limited lifetime warranty' **completely meaningless.** While I can't vouch for the truth of these stories, it is clear that Meade is getting a poor reputation for taking care of its customers. If you're wondering whether this reputation is deserved, I suggest you call Meade's customer support line and see *how long* it takes you to get a 'call-back' (if you ever do, apparently) after leaving a message on the company's voice mail system. While competitor **Celestron** is not totally faultless in this area, when you call their support number, you *do* get to **talk to a human** (though not necessarily a human who knows very much about Celestron telescopes). This is all **very sad** because Meade has some remarkable (or potentially remarkable) products....

And speaking of Celestron....It turns out that they **almost** made the 'late Spring' release date for their much-delayed 'Ultima 2000' answer to Meade's LX-200. In fact, advertisements for this much-speculated-about SCT did make the late-Spring **Orion catalog.** The telescope itself (only an 8" version is being advertised at this point) will *probably* be available late-Summer early-Fall. This is, I think, realistic since it seems that some **working pre-production models** are in the hands of Orion and others. The advertisements themselves appeared to be **nearly identical** to those which Celestron initially ran. **With one important change**. There is **no longer any reference to a 'revolutionary gearless roller drive'**; now the ads refer to **a 'highly accurate worm gear.'** (!) This lends credence to speculation **we heard** that what was behind the delay on this scope was **trouble with torque and pointing repeatability** on the roller drive (along with some RUMORED firmware problems). While I'm not a big fan of the 'Goto Telescope' concept, I wish Celestron the best with the

Ultima 2000. Let's hope they got it right...
--The Anonymous Astronomer

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Astronomy, amateur or professional, is a gadget lover's paradise. But while you're enjoying the computers, the robotic telescopes, the mega eyepieces and all the other technological trappings which make our hobby so interesting today, please don't lose sight of what first drew all of us to the stars: the ineffable beauty of our universe!

Peace,

Rod & Dorothy

DON'T LET THIS HAPPEN TO YOU! Are you ready for Hale-Bopp? Telescopes ready? Cameras in good repair? If not, start preparing now! Obviously this unfortunate group arrived at their dark site only to realize they'd forgotten their eyepieces and film!!