

March - April 2002  
Volume 11, Issue 2

“A Newsletter for the Truly  
Outbound!”

Number 61 (New Series)  
<RMOLLISE@AOL.COM>

## Inside this Issue:

- 1 Lucky to See it!
- 2 Just Say “No” to Star Testing Your SCT
- 3 The Telescope Wars!
- 4 My Back Pages

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

Rod Mollise's

# Skywatch



## Lucky To See It!

*The December 14<sup>th</sup> Annular Solar Eclipse from Costa Rica*

Judy Anderson

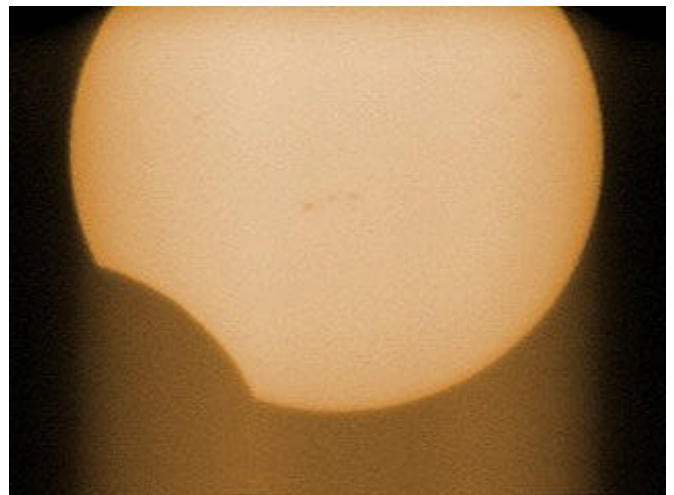
Several members of the Solar Eclipse Newsletter Group to which I belong have made the statement that they wouldn't "walk across the street to see an annular eclipse". I find *all* Solar Eclipses rewarding, but I was not too excited about making my first flight after September 11<sup>th</sup>. However, I couldn't have been more lucky or more fulfilled than I was on this trip. I was fortunate enough to again travel with Paul Maley's Ring of Fire Expedition from Houston, TX. We were able to view the annular eclipse even though it rained every day that we were in Costa Rica including eclipse day!

The only other Annular Solar Eclipse that I had observed was on May 30<sup>th</sup>, 1984, in Chatam, Alabama, and that was the first time that I actually traveled to see an eclipse, even though it was a mere 62 miles. Now that I think back, it was almost like walking across the street and it was worth it to see all of the half moon shadows under the trees. I have

always known that Paul Maley has backup observing sites so I was really counting on him to deliver the eclipse as he has done in the past.

It was a small, congenial group of 15 of us who traveled together to Costa Rica. There were 6 from Texas, 4 of which were from the Johnson Space Center Astronomical Society in Houston, 4 from California, 2 from New York, one from Illinois, one from Scotland, and of course, one from Alabama.

The sight-seeing trips were all wonderful and the food was very good. The first day, we went hiking in the Bosque de Paz cloud and rain forest, a privately owned nature reserve. The weather performed to suit the name, **rain** forest. We saw some of the largest and most beautiful hummingbirds that I have ever seen, and there was a *coatimundi* who had a little shed near the creek at the entrance to the forest. He was an adorable creature with a tail as long as his body held erect over his head, and spots around his eyes. After the morning hike and lunch, we went to the Tabacon Hot Springs Resort and soaked in the Arenal Volcano-warmed pools while it rained on us



*That OTHER recent "Christmas Eclipse": The 2000 Partial Solar Eclipse (image by Rod Mollise)*

some more. We dried off on large paper bath towels that we purchased and then were treated to a wonderful dinner of sea bass. No one seemed nonplused that we looked like a group of drowned rats!

When we reached our motel rooms for the night I took advantage of the *real* bath towels and the hair dryer. At last I was dry for the first time since I had left that morning. I wrote a couple of post cards that I had picked up along the way and decided to call it a night since it was midnight and there was no television or telephones in the rooms. I plopped on one of the beds in my room and was staring up at the beautiful variegated hardwood ceiling before turning off the light when I felt something drop on me. "What was that"? Then another drop of water dropped on me from the ceiling. I changed beds and placed a towel on top of a plastic bag under the leak to try and protect the mattress.

After breakfast, which included fresh pineapple, papaya, watermelon, and excellent local-grown coffee, we started out on another day's excursion. Since we couldn't see the top of the active Arenal Volcano for the clouds and rain, we went on another hike about 500 feet straight down a cliff holding onto a small chain while white-faced monkeys played in the trees around us. I need to inject right here that I have never been hiking in my life! The reward at the bottom of the cliff was two beautiful waterfalls that were breathtaking. Another tourist told me that they were in a scene from the first Jurassic Park movie. The climb back up was a big problem since there was a precarious spot where you had to maneuver a turn with a steep step up. A fellow from Houston offered to carry me up, but I could see both of us at the bottom of the ravine and declined that offer. However, with him pulling my one free hand (the other had a death grip on the little wet chain) and the lady in our group from Chicago behind me pushing on my backside,

I made it safely back up to the top. Thank goodness those monkeys didn't have cameras!

The next day it was time to come down out of the mountains and head for the Pacific Coast to prepare for the eclipse the following afternoon. On the way, we stopped and took a crocodile and bird safari ride on the Tarcoles River. Now I know where all the birds migrate for the winter. I have never seen so many beautiful varieties of birds gathered in one location in all my life. There were trees filled with brown pelicans. One memorable bird was a spoon-billed rosette, which was a beautiful rose color. I could not possibly remember the names of all the different species of birds, so I bought a card that was a field guide to Costa Rica's birds. We saw crocodiles too, but they were not very pretty!

That evening after we finished dinner, most of us gathered on the beach to check the sky and count Geminid meteors. The sky was only partly cloudy and no rain for the moment. Paul and Lynn counted 108 meteors in two hours from 10pm to midnight. I decided to go to bed and get back up after midnight to check on the meteors. I got up about 12:30 and went out towards the beach. The hotel had closed and padlocked a gate to the beach, so I sat down in the light on the patio and saw only two small meteors in a 15 minute period. I gave up and went back to bed.

Eclipse Day at last dawned cloudy again. There were a couple of planned activities in the morning like rappelling through the top of the cloud forest about 120 feet up in the air and another hike on a muddy trail. My muscles still ached too much for either activity, so I exercised in the pool and it was also exercise trying to pull on a wet bathing suit. I had to bring the thing home wet. I watched people ride horseback on the Black Sand Beach behind the hotel and then set up my tripod and binoculars with my new

Baader solar filters so that I would be ready for action in the afternoon.

After lunch, we left the hotel at 2:00pm to locate our eclipse viewing spots that had been picked-out the day before. Those who were going to take photographs needed to get their equipment set up first. Several members of the group were members and officers in IOTA, the International Occultation Timing Association, and they especially wanted to photograph Bailey's Beads. The weather grew progressively worse with clouds, rain and fog. We drove north from Jaco up the Pacific Coast about 10 miles until we found a sunny spot.

We stopped on a gravel road on the side of the highway, set all of the equipment up and caught "First Contact" at 3:13pm (by my watch). Several cars stopped to see what we were doing. In about ten minutes dark clouds rolled in. We all hopped back on the bus with some tripods still set up and held our gear, as our bus driver headed south again under Paul Maley's direction. The driver was going as fast as he could back towards Herradura Beach around the curves on a two-lane hilly road. We went through a sunny area that didn't look too promising with clouds all around. The weather was really bad as we continued towards the south, so the bus turned around again and once more headed north. We were running out of time as we ran up and down the road looking for clear sky. Just as we crossed a bridge the sun was shining at about 10 degrees above the horizon over the Pacific to the left and we could see a beautiful double rainbow to our right. We turned in and stopped, jumped off the bus and ran up the steps to an overlook that had cement picnic tables and electricity.

It was 4:10pm, with just 22 minutes to spare until the central eclipse. I set up my tripod with 9x63 Ultima Binoculars with solar filters. Second Contact was at 4:31pm and we viewed for about 75 seconds until

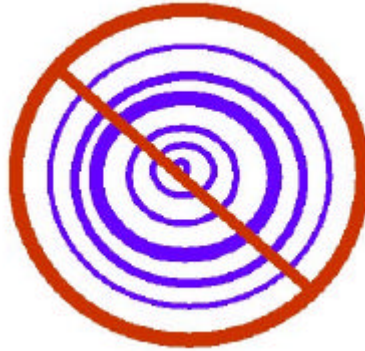
Third Contact. The clouds drifted in and out. The IOTA people were all able to video and photograph. Our final viewing location was Latitude 9.74 degrees north and Longitude 84.63 degrees west. A bus full of Costa Ricans pulled up about 4:20pm with their newly purchased eclipse glasses and joined us. The acting president of the Costa Rican Tourism Agency, Mrs. Elizabeth Odio, came over and I was honored to show her the eclipse through my binoculars. She also looked at the displays on the camcorders. A newspaper reporter took a picture of Frank Anet from California, and the photograph was on the front page of the local newspaper the next day. Richard Nugent from Houston and I were both interviewed by three news correspondents; however, we were unable to follow up on what news agency they represented. By sunset at 5:19pm the sun was clouded over and it was beginning to rain, so we were unable to see sunset. We packed up and headed back to Jaco for our farewell dinner. We all considered ourselves very lucky to have gotten to view the eclipse.

As a postscript, since I returned, I found out that only one other eclipse group out of the many who traveled to Costa Rica for the eclipse was also successful. That was Vic and Jen Winter, editors of the Astronomy League's "Reflector" and Olivier 'Klipsi' Staiger, another eclipse chaser from Geneva, Switzerland, who was with Vic and Jen.

I hate to brag but I still have my 100% record of seeing 8 out of 8 Total and Annular eclipses that I have traveled to see. Of course, when I get up to number 25 like Paul Maley or number 14 like Richard Nugent, I probably won't have the same record. It was a fun and exciting trip.

# JUST SAY "NO" TO STAR TESTING SCTS!

Rod Mollise



Thirty years after Tom Johnson introduced amateur astronomers to the Schmidt Cassegrain with his first mass-produced scope, the venerable "Orange Tube" C8, there are a lot of old SCTs out there looking for new homes. Some are good, some are bad and some are horrid—optically speaking. Thankfully for the used shopper, most are actually good. But some are downright rotten; especially those produced from 1985 to about 1990. During this time, the optical standards of both Celestron and Meade were, regrettably, at an all-time low. They'd ramped up production for Halley's Comet, a strange time when even people who couldn't spell "Schmidt Cassegrain" were willing to shell out a grand in big 80s dollars for an SCT. The result of this high production was that they pretty much wore out their tools and their workforces. And it took both companies until at least 1990 to recover.

Due to C and M's large production during these years, there are many scopes from this period up for sale used these days. Often for very good prices, and usually in good

shape—many owners used their scopes a time or two during the Days of the Comet and then stashed them away in a closet permanently, more or less. But *no* scope's a good deal if the optics are punk! How do you tell, though? How do you test one of these old birds? In previous years I would've said "star test it". For us amateurs raised in the 60s, star testing has been almost a holy ritual. As far as we've been concerned, the star test—observing and comparing the diffraction rings of an out of focus star on both sides of focus—has been the only way to be sure of a telescope's optical pedigree. But is this really true? Especially for a complex optical system like that of the SCT? The more I learn about CATs (and I am STILL learning all the time), the more I've come to believe that the answer to that question is a resounding NO. Why? Because the star test:

1. Is hard to interpret...sometimes even for "experts."
2. Requires better seeing than many people have much of the time...
3. Requires complete cool down/thermal equilibration; some scopes may *never* achieve total thermal equilibrium in some parts of the country at some times of the year.
4. Using an artificial star requires a large area. An 8 inch scope will require almost 50 meters separation between scope and artificial star to prevent the introduction of "false" spherical aberration; a larger aperture telescope will need even *more* room. And seeing is STILL a factor, even though you're using an artificial star, since you'll probably have to "shoot" over heated ground.
5. Finally, the nail in the coffin: May not yield "textbook results" no matter HOW good a given CAT really is due to the moving mirror focusing system and complex optics of an

SCT. Especially the former: the Schmidt Cassegrain focuses by moving the primary mirror back and forth. This works very well, but the corrector plate can only work most effectively at removing spherical aberration at one spacing of the primary and secondary mirror/corrector. If you're not lucky enough to hit this spacing when focusing during the star test, you WILL see spherical aberration, no matter how well made the optics of your scope are.

If the star test is hard to do and the results are doubtful, *what are you supposed to do?* Accept the word of the seller that the optics on the scope in question were "hand picked" by Celestron (or Meade) and that the scope was only used on Sunday evening's by a little old lady to observe variable stars? NO. You *can* determine the quality of the scope's optics with my radical new method: **using them to observe objects in the sky!**

In lieu of the star test, I suggest observing with the scope, especially observing the planets. Most of us REALLY DO KNOW the look and "feel" of a good SCT—or any telescope--the way focus snaps in, the way a planet looks (Cassini's Division obvious on Saturn, several belts in addition to the equatorial belts visible on Jupiter, etc.), and the way an *in focus* diffraction ring and airy disk appear! Some of these things may be subjective, I suppose, but when put together they READILY indicate whether a scope is a goodie or baddie. If you're not sure you know what to look for optically, corral a local CAT fancier and let her/him take a look at the candidate scope. Give the scope several hours in the field (let it cool/warm first, natch, and make sure it's collimated), and take notes if possible.

Folks I really feel strongly about this. I feel SO strongly that I will definitely consider REMOVING the obligatory star testing instructions in my book,

*Choosing and Using a Schmidt Cassegrain Telescope*, for the next printing. I do have a "planetary test" section in the book already.

To sum up, my "method," if you can call it that, now involves:

1. Planetary appearance--appropriate details (you can use the Moon, too, but if you're not an experienced Lunar observer, the difference between a goodun and a badun may not be as obvious as it is on Jupiter, for example).
2. Focusing characteristics--I'm convinced that focus 'snap' really does mean something.
3. Appearance of an in-focus diffraction ring and airy disk (well-defined at high power during good seeing; the ring should NOT overwhelm the airy disk, and any rings present beyond the first diffraction ring should be *very* subdued).

Or course, this test agenda *does* require good seeing and at least a modicum of scope cooldown/warmup to ambient temperature, but I'm convinced that an experienced amateur can probably glean more info about a scope's optical health in periods of so-so seeing with a partially equilibrated scope by this method than with a star test—in spades. Oh, and I'll also say that all of this applies to MCTs or to any complex-optics telescope---even one that doesn't doesn't move the mirrors to focus. Naturally, if you have a Newtonian or an achromatic refractor, you may continue to star test happily!

# THE TELESCOPE WARS!

Does Every Day on s.a.a. and Astromart HAVE to be like Porkchop Hill?

Pat Rochford

I'm beginning to believe that we amateur astronomers are losing sight of what drew most of us into stargazing in the first place. I've just finished reading the equipment section of the Astromart Forum (which I do a couple of times a day) and, as usual, I leave wondering just why we allow ourselves to become so *stressed out* over the purchase of a telescope, eyepiece or some other accessory. Yes, folks, it's the day and age of **the Telescope Wars**, on Astromart, on s.a.a., and on most of the other burgeoning Internet venues where today's amateurs gather.

Today's heart attack in the making was the LX200 GPS, Meade's newest goto version of their Schmidt Cassegrain, which began hitting the streets just a few weeks ago. Not surprisingly, it appears there are some bugs that are going to have to be worked out. The thread began with one gentleman complaining that his brand-new, just out of the box 10" LX200GPS was both incomplete and disfigured. To add insult to injury, he apparently had a less than pleasant phone conversation with the Meade customer service rep. Well, the thread pretty much went downhill from there as the Meade bashing began, followed of course by counter-bashing against Celestron and on and on and on. By the time this thread plays itself

out, more than one person will have raised his or her blood pressure up to the threshold of a stroke.

What has happened here? It wasn't *always* this way. Remember (those of you old enough to) when your telescope choices could be counted on one hand? When about the only option available was a clock drive? Well, the choices are definitely here and a lot of us are no longer be satisfied with the humble 6" f/8 Newtonian beloved of several previous generations of amateurs. Like our cars, each new scope we get seems to have a few more bells and whistles than the previous one. Now don't get me wrong—I'm just as seduced by all the latest and greatest as everyone else - but maybe it's time for all of us to pause for a moment and reflect on why we actually go out at night and spend time under the stars. I'm thinking part of it has *something* to do with getting away from all the stress of daily living--job, boss, kids, traffic, and the myriad other annoyances that are "normal life"!

When I read someone's posting on a news group, complaining that there is "edge distortion in the outer five percent of a \_\_\_\_\_" (take your pick of any current wide field eyepiece), followed immediately by twenty angry people either agreeing with or staunchly defending that eyepiece, I have to stop and scratch my head a minute. *Excuse me, but did anyone happen to notice that fuzzy little thing in the **middle** of the eyepiece?* No, I'm not referring to some type of optical flaw--I mean the *galaxy* that you were *supposed* to be looking at in the first place. Or how about the complaint that "there is only 10mm of eye relief on the \_\_\_\_\_ eyepiece, and I find that **totally unacceptable**," again followed by a small lynch mob. Don't get me wrong, I am all for the improvement of the equipment in our hobby, but I fear that we are beginning to put way too much emphasis on what we are looking through and not enough on what we

are looking at. As proof I offer the number of daily postings in the "equipment section" of Astromart vs. the number in the **observing section**.

So what should we do? I've got it! How about getting back to looking at objects **in focus** and perhaps even *enjoying* said objects for the sake of their ethereal beauty?! Instead of spending the night trying to convince the person who bought that crummy Super Ramsden eyepiece that she or he is an *idiot* for not having bought the same MegaVue Kellner you did, perhaps you could spend some time **using your** eyepiece and describing the delicate intricacies of that object you were observing? May I further suggest finding a copy of Chet Raymo's *The Soul of the Night* and read it the next evening you find yourself clouded out? *If this book doesn't move you, then I'm thinking you may be missing out on what this hobby is really all about.* Here is an example of just what I mean:

"What I saw in the telescope was hardly more than a blur of light, more like a smudge of dust on the mirror of the scope than the shards of a dying star. But seeing through a telescope is 50% vision and 50% imagination. In the blur of light I could easily imagine the out-rushing shock wave, the expanding envelope of high-energy radiation, the torn filaments of gas, the crushed and pulsing remnant of the skeletal star. I stood for a quarter of an hour with my eye glued to the eyepiece of the scope. I felt a powerful sensation of energy unleashed, of an old building lapsing onto its foundations in a roar of dust at the precise direction of a demolition expert. As I watched the Crab Nebula, I felt as if I should be wearing earplugs, like an artilleryman or the fellow who operates a jackhammer. But there was no sound."

So why not give your heart and nerves a well deserved rest? Go

out on the next clear night with a little less concern about the glass you're looking through ... and a little more appreciation of what you are seeing in that glass. The Crab Nebula doesn't care if you're looking through a refractor or reflector or whether the eyepiece is a Nagler or a Kellner. Its beauty is there for the taking regardless.

# My Back Pages



## Astropoem

### Into the Night

In realms of night we fly,  
Dark coursing before our eyes,  
In search of some hidden prize.  
Far we travel night by night it seems,  
As if in waking dreams,  
Rulers of the night.  
All the kingdom of day  
Lost and unmourned always.

The sky reddens, a soft breeze blows,  
Aurora brings her dawn, the heavens lit with rose;  
Poetry gives way to prose.  
And begins the mundane day.  
But the golden orb will sink again, surrendering its light  
As we revel  
And devour the night!

--Rod Mollise

## Club Notes

### Mobile Astronomical Society (MAS)

We're continuing our monthly suburban group observing sessions (Members Only Star Parties) at the Environmental Studies Center as conditions allow (they haven't been very favorable the last couple of months). If you'd like to attend, check my web page <http://members.aol.com/RMOLLISE/index.html> for details. And remember, if you haven't made a meeting in a while, the MAS meets on

**THURSDAY NIGHTS now. Same time (7pm) and same place (ESC) as before.**

**If you didn't make the last meeting, you missed a good one! The highlight was Judy Anderson's excellent talk and presentation on her trip to Costa Rica to view the December annual Solar eclipse (see the story in this issue). Judy showed us an excellent videotape of the eclipse so that us less adventurous types could enjoy it!**

### SCT-USER

**The BIG NEWS is that it's almost time for the GRAND SECOND ANNUAL SCT USER Imaging Competition! The contest will open for entries on April 1 this year, just like last time. If you're interested to see what you can expect as far as competition goes, see my web site at the url above for the INCREDIBLE images by last year's winners! If you're interested in participating, you need to join the SCT User Mailing List. You'll find a link to allow you to do this on the web page as well. Or email me for details/instructions at [RMOLLISE@aol.com](mailto:RMOLLISE@aol.com).**

*In the process of retrieving the latest edition of Rumours from **Beavis and Butt-head**, I was puzzled at their assertion that:*

*"Huh-huh, we're gonna get a gips telescope, dude.*

*"Heh-heh, heh-heh, yeah, yeah, **GIPS DILLWEED!**"*

*It then dawned on me that the new GPS Schmidt Cassegrains are on everybody's minds...even those of*

us with very little in the way of minds, those all too susceptible to strange...

# RUMOURS

**Yes, the LX200s are here!** The LX200 GPSes, that is! Meade is now shipping the 8, 10 and 12" SCTs, with the 16" due by the Fall and the MCT "soon". What's the verdict? *Still too early to tell*, with the scopes having been in the hands of most users for only a couple of weeks at this point. **But** it's *abundantly* clear that this won't be *quite* as trouble-free an introduction as that of the LX90. Difficulties I'm hearing of include: problems obtaining a GPS fix (some people say that the finder blocks the GPS antenna, which is on the top of one fork arm), problems executing the initial alignment, problems with the microfocuser, problems with QA (mainly various minor cosmetic scratches, one bent (!) tripod leg, and a couple of gearing problems reported). Is any of this a real **show-stopper**? Probably not. I believe the root of most of these problems lies in the software, and I have no doubt that Meade will get it right—in time. This is, however, a demonstration of what *happens when the Pencil Pushers insist on getting a product out the door before it's truly ready*.

**In other Meade news...say goodbye to f/6.3 SCTs.** Meade had initially planned to issue f/6.3 versions of its new LX200s just like they had for the LX200 "classic" (which everyone is now calling the older scopes to distinguish them from the new GPS birds). In February, however, a Meade press release announced that the 6.3s are being discontinued, and that when the units produced to fulfill outstanding orders are gone, there will be no more. I can understand Meade taking this action, since the 6.3s have never attained the popularity of the ubiquitous f/10s—in part because of the long memories of amateurs concerning Meade's initial 6.3 scope, the LX6, many of which were bad optically. But this is rather unfortunate, since the latter day Meade LX200 6.3s I've seen have been just outstanding optically and offer some real advantages over an f/10 scope equipped with a reducer/corrector.

**I'm sure many of you are acquainted with Ed ("Crazy Ed") Erbeck**, astronomy dealer par excellence and all-around nice guy and crazy-man astronomer. Ed's Mother has just passed away, and I'm sure that you'll join me in offering condolences to Ed and Wife Carol ("Mrs. Crazy Ed"). Ed states in a recent email that he hopes to have Crazy Ed Optical, "CEO," back in operation in about 3 weeks.

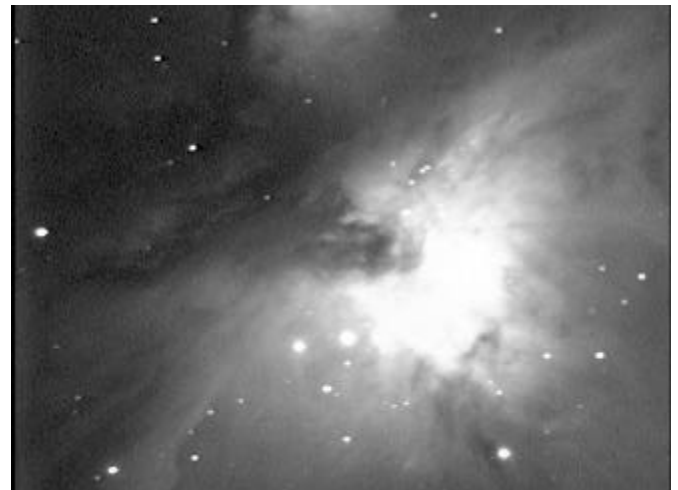
**Oh, still wondering about Meade's LXD55 goto Schmidt Newtonians?** Expect these nice-price 6, 8 and 10 inch goto scopes to begin shipping in early April/late March. One

insider report I have says that the mount is "beefier than it looks in the pictures." We'll see.

**Worried about Celestron** vis-à-vis the lack of advertisements by the Big C in the last couple of *Astronomy* mags? Well, **little birds who nest in the right places** have chirped to me that this has nothing to do with the health of the company and to expect a new advert campaign in the next month or two.

**Are you excited about Comet Ikeya-Zhang?** It's possible that this new comet may put on a rather nice show. If it attains naked eye visibility, be prepared for weird public reactions. You see, there's a large group of nut-cases promoting the idea that a huge "**Planet X**" is about to enter the inner Solar System and wreak all kinds of havoc (this is the same crowd who took it into their heads that Hale-Bopp was really a SPACESHIP). These silly folks make good fodder for the news media on slow days, so you can be sure their message will get out. So expect panicked questions from people about whether the End of the World is at hand if the comet becomes even barely visible without optical aid!

## The Anonymous Astronomer



**Believe it or not, it'll be gone into the west soon: M42, that is! Get out and enjoy it every chance you can before that happens...OH HOW YOU'LL MISS IT WHEN IT'S GONE! CCD Image by Rod Mollise**