

# Rochester Skies

*A publication of the Rochester Astronomy Club*

A Quarterly Newsletter

Issue #16 4th Quarter 2010

## Third Annual Star-B-Q

Host Dean Johnson gives the play-by-play from a fantastic event held under the stars at Flatin Farm.

Page 2

## Astronomical Patience

John Preston talks about how having a little patience goes a long way in keeping your pocketbook flush.

Page 6

## Avoiding Disaster

Guest writer Tom Koonce shares some tips on how to keep your next observing session from being a disaster.

Page 8

## Gallery

Club members share some of their best astrophotos!

Page 10

## Book Review

Editor Scott Regener reviews a guide to the SCT that no owner or potential owner of an SCT should be without.

Page 11



Randy Hemann

## From the President

Fellow amateur astronomers. I follow a discussion group on Yahoo that provides technical assistance for the Mallincam astronomy video camera. New techniques for using the camera are discussed and shared. Also, technologically savvy users contribute and refine software that enhance camera control. It's a great group that I visit often.

However, there was a recent thread that implicated a conspiracy or at least a dedicated disregard by major astronomy magazines for video astronomy (despite a recent very favorable review of the Mallincam by Gary Kronk in this past July's Astronomy Magazine!). The post generated several explanations for this phenomenon. The most agreed upon theory is that it came down to money, and since the Mallincam is not produced by a major manufacturer, and therefore not a major advertiser, the astronomy media mainstream has shunned video users. Ok, perhaps

that's true, maybe it's not, but hey, if it is – welcome to Business 101.

Now the above scenario is not unusual for these public internet forums, where any Tom, Dick, and Lunatic can post anonymous comments without expertise. However, the thread then degenerated into a common theme supported by some of the more respected “regular” posters. Their contention was that video astronomy will soon supplant all visual astronomy out in the field. Not only that, but to maintain public interest in amateur astronomy, it must!

Now, I have to admit, I love the Mallincam on my telescope. It has

*Continued Page 2*



The Rochester Astronomy Club is a non-profit 501(c)3 organization. All contents of the newsletter are copyrighted and cannot be reused or redistributed in any form without express written permission. ©2010



*President's Note ... continued from Page 1*

allowed me to see and share some objects I couldn't "get to" without it. And I consider it a "live" image even though it gets about 2-15 seconds of processing before it hits the video screen. (Yes, after a photon travels 30 million years from the Sombrero Galaxy, a 10 second delay doesn't count!) However, video astronomy, or astrophotography for that matter, is not necessarily a superior way to experience astronomy, it's just a different way. I haven't seen jaws drop showing a picture of Saturn or the Moon; I have seen it plenty of times at the eyepiece. Faint fuzzies,

averted vision, and light pollution are challenges that we work hard to overcome when sharing visual astronomy with others. You can't just show it, you have to explain it. You have to let them hold it in their hands (lightly please!), and aim into their eyes – right into their brains. I don't see visual astronomy going away; I think there's still enough curiosity out there that asks, "I wonder what it really looks like?" Besides, if this is not true, why don't we all just bring out a bunch of laptops for a public outreach, dial up [hubblesite.org](http://hubblesite.org), and tell everyone this is what you could see – if you had better vision – and if you look

somewhere – kind of up over there...

I'm not sure where amateur astronomy will be in the next 10 to 20 years or so. I wouldn't be surprised if there's not fantastic new equipment and electronics available to us that we never thought possible. (Celestron's interferometer – linking up all of our scopes into one giant 3 county telescope? Orion's holographic video eyepiece – projecting a 3-D galactic image right by your Dob?) I would be surprised if we abandoned the simple enjoyment of just pointing a telescope up into the cosmos, and taking a good long look.



# The Third Annual Star-B-Q



by Dean Johnson

One of the highlights of my observing year is the annual Star B-Q which I host down here in good old Spring Grove, Minnesota. The dark skies and clean horizons which I get to enjoy every night when I go out are enough to lure my colleagues from the RAC to drive the 70 miles necessary to

complete the pilgrimage. The location and the date aren't always written in stone, however, and that flexibility enabled us to bring this year's event off once again.

Originally set up for the Perseid Meteor Shower on Aug. 12/13, the hot humid temps and

stormy conditions of August led us to use the back up dates of September 10/11. Even then it was touch and go as clouds kept much of the skies unusable. Friday turned out to be cloudy, but Saturday turned perfect and some last minute contacts via the forum, phone and email, brought out

*Continued Page 3*

*Star BQ ... continued from Page 2*

plenty of astronomers to my favorite observing spot, the Flatin Farm hayfield.

The hayfield sits five miles south of Spring Grove, just across the Iowa state line, and is situated directly on top of a high ridge that gives observers a perfect unobstructed horizon in all directions. There is only one tree on the west end, a nice shady boxelder which I use to set the grill up nearby and if you move far enough east even that won't spoil your western view.

The format for the meal and event is pretty simple. Bring your own steak and beverage, and I provide the baked potatoes, beans, garlic bread and fruit. Others brought some cookies and side dishes, so there was plenty of good food to eat. This way there is no charge to attend the Star B-Q. I told Marlene Deschler, the Spring Grove Herald reporter that covered the event for the paper—"I absolutely love being part of the RAC. They are fun, talented and brainy. That's a hard combination to beat. So this is my one weekend to spoil them."

The attendees for this years event were myself, President Randy Hemann, James Benthall, Jeff and Gararda Newland, Don and Jan Schlosnagel, Chris, Julie and Joe Gawarecki, Treasurer Rebecca "Starbie" Bomgaars, John Preston, Roger Southwick, Luka Bazjer, Jerome and Jillissa Taubel, Secretary Brandon Wyman, Newsletter Editor Scott Regener, and Vice President Kirk Severson. That's 19 from the RAC. Later on we were

joined by Mike Rowlands and John Dannehy from the LaCrosse Area Astronomical Society, making a showing of 21 amateur astronomers!

Jerome Taubel and I had fun later on guessing how much money in astronomical equipment was on the field and we came up with a ball park figure of no less than \$100,000 dollars, helped enormously of course, by Randy's 30" EVO telescope from



OMI in Cedar Rapids, Iowa.

But the first astronomical coup of the evening was brought off by the naked eye. I had remarked that it was too bad the timing of the Moon/Venus conjunction of 9 a.m. that morning didn't favor the evening session. Roger Southwick glanced up at the Moon and asked, "What's that planet by the Moon? Is that Mars?" I replied

no, it must be Venus, and he said, "Yeah, it's right there."

I was astounded. I looked at my watch and saw that it was only 6:30 p.m. I went over to where Roger was and he pointed out where he could see Venus. It took me several seconds, but then I too, could see Venus clearly. On September 4, I found Venus while the Sun was still above the horizon at 7:23 p.m. with my binoculars and then stared for a full six minutes until I could see it naked eye five minutes before the Sun set. Here Roger just glances up and could spot it a full hour before that! He is one sharp-eyed fellow in my book.

By using two branches of Dean's Boxelder Bar and Bistro, several others could see it naked eye, nearly all for the first time, so that was the first excitement for the night and there was plenty more to come.

Jeff Newland, the RAC's expert on the ISS made the announcement that it was going to make a pass overhead shortly after 8:10 and sure enough the ISS came over at 8:15 p.m., splitting Ursa Major and Bootes, passed south of Vega and north of Altair, and started to fade once it hit the Earth's shadow at 45 degrees. It stayed visible to 15 degrees in binoculars and now that is completely built, its solar panels are just barely visible in 15X70 binoculars.

At 8:47 that night Jerome spotted our first bright meteor from Cygnus to Lacerta, mag. 0, color green, duration 3 to 4 seconds passing in a south to north direction. Many meteors, both bright and faint, were

*Continued Page 4*



*Star BQ ... continued from Page 4*

visible throughout the night, mostly from the Delta Aurigid stream that had its peak night on Sept. 9<sup>th</sup>.

Trying to be a good host, I made the rounds to nearly everyone that night, but I was real careful to set up my stuff near Randy's 30" EVO and 18" Obsession. That paid off when Randy dialed in the planetary nebula M27 in Vulpecula and I got to see more detail in that than I ever had. Not only the hourglass itself, but the extensions on either side were visible, something I had never seen telescopically before. There was lots more to come, too, some of it a little mysterious.

Don Schlosnagel and I spent quite a few minutes looking towards Decorah and could see a string of evenly spaced tiny red lights rising from the horizon. They kept on for quite a spell, all staying close to the horizon, and we never could come to a conclusion as to just what they were.

Jupiter was a mainstay for the entire night. All four Galilean moons were visible, Europa and Ganymede to the east and Io and Callisto to the west. Much atmospheric detail was visible with one particularly bright festoon catching our attention.

All night long when a brilliant meteor went through, everyone knew it when the people spotted it would let out a big shout. "WOW!" "Did you see that!?" were heard often that night and at

10:23:14 p.m. Brandon Wyman and Jerome Taubel let loose as a brilliant mag. -2 meteor tore through Pisces lasting one and a half seconds, color blue-white, leaving a trail NNW to SSE and ending in a bolide. Cool!

I got to see how Starbie is turning into a real talented amateur astronomer. After sharing some conversation with her, Julie, Brandon and Luka, Starbie packed up her 8" Orion Dobsonian in the dark, with only a couple uses of her red flashlight. She looked very smooth doing it and I have to say, only someone that is very



M35/NGC2158, image by John Preston

comfortable with their equipment and observing can do that.

Then I got in some fine binocular observing with Luka. He has these killer 22X85 binoculars that are just sensational. We looked at M20, M8, M22 and M24 in Sagittarius and just marveled at the heart of our Milky Way galaxy. Then we wandered back to Randy's scope just in time at 11:19:00 p.m. for Randy and Luka to let out a holler as another brilliant meteor tore through the sky. This was a long one, going east-west from

Perseus to Lyra, color white mag. -5 that lasted a full 3 seconds

I was having a great time just cruising around, so I kept it up and went to visit John Preston and Roger Southwick. John was busy imaging the Helix Nebula, one of my very favorite astronomical objects. He was getting some great detail, but also took the time to show me another project that he had going on. John had set up his camera on a tripod in a clump of goldenrod that Ed Myrah had left standing. That was a good idea because a person could tell that you were walking up on something in the dark without knocking it over. John had set up his camera to overlook the Star B-Q facing west and had it taking an image every 30 seconds so that he could later stack them in his computer and make it into a time lapse film of the entire night. He ran out of battery power about 2:30 a.m. but had enough images to make a clip that just "WOW'ed" everybody at the next RAC

meeting. It showed the Moon and Venus setting, the Milky Way changing position overhead, Jupiter moved into the FOV during the last 15-20 seconds of the ninety second clip and with all the red flashlights going on and off on the ground and the green lasers being pointed at the sky, it had so much action that we had him play it again. It was EXCELLENT!!

By this time it was well past midnight and people were starting to get hungry again, so I fired up the grill at Dean's Boxelder Bar & Bistro. Most of the folks that

*Continued Page 5*



*Star BQ ... continued from Page 4*

remained on the field gathered at the picnic table to chow down some more baked potatoes, beans and garlic bread, so there was quite a few people gathered when one of the best meteors of the night tore through the sky at 1:33:33 a.m. This one lit up the sky from Eridanus to Cetus, heading ENE to WSW, mag. -5 or -6, color green, duration 2 seconds, but with a trail that took a full 15 seconds to fade. Those of us that witnessed it were myself, Julie, Mike, Kirk, Jerome, Scott, John and Brandon.

Post-midnight snack brought another astronomical first for me. I had never seen any of the moons of planet Uranus and wondered if Randy could pick off any of them with his 30" EVO. Sure enough, with some careful checking on his Sky Tools 3 Pro computer software, we were able to see at least two of the five biggest. What a thrill!

I walked over to where John was again, and while he had good luck earlier with the Helix Nebula, he now was having a devil of a time trying to track and image the Pleiades. Since I am woefully deficient when it comes to technical matters, I left him in a cloud of mounting frustration and cigarette smoke and visited Randy again.

I got fabulous looks at M27 the Dumbbell Nebula, M57 the Ring Nebula and could see the central star of the nebula with averted vision. Imaging through Randy's 18" Obsession brought out the central star clearly on the computer screen. We were getting a little bit

of a breeze at this time, so the big scope shook ever so slightly.

The Crab Nebula, M1 in Taurus was large, but faint in the 30" EVO but for the first time I could actually see the filaments in this supernova remnant. Another astronomical first!

We checked out IC405 in Auriga and while we could see lots of nebulosity, we saw no structure. Of course we had to look at M36, M37 and M38, and then we went on to M15 the famous fall globular in Pegasus. It was incredibly beautiful in the big scope. I told Randy to check out NGC 7789 in Cassiopeia. I don't think he had



ever seen this fine but often overlooked open cluster. Normally 7789 is just a sprinkling of diamond dust in a medium sized scope, but in Randy's monster glass it just exploded into detail with lane after lane of stars that just filled the eyepiece. Wow!

Now it was time to visit the LaCrosse boys, and they both have very similar 16 or 17" Dobsonians and were having a great time checking the sky out. The LCAAS had an outreach that night so Mike Rowlands and John Dannehy didn't

roll in until 11 p.m. with Kirk Severson right on their tail. But they were still up after 3 a.m. getting their licks in and I got a delightful view of M35 and companion open cluster NGC 2158 in John's telescope and Mike showed me a super view of the trapezium in his. He asked me to see if I could pick out the 'E' star. It took me nearly a minute, but correctly identified it. That was pretty cool.

One last surprise entered our night. A car horn started to go off about 3:30 or so and I thought that someone had bumped into a car in the dark and set off the alarm system. Instead our beloved newsletter editor had rolled over in his tent while settling down for a brief respite and had hit the button on his car alarm. No matter, it was off in a few seconds, leaving those of us on the field to wonder, "What was that all about?"

By now I was starting to fade but made it back to Randy's to get a guided tour of the Great Orion Nebula in the EVO and finished the night with the best look of the Horsehead Nebula that I had ever seen.

After a couple of hours sleep, Randy and I got up at 6:30 a.m. to make the survivors a breakfast of eggs, toast, potatoes, cantaloupe and apricot juice. I got everything back to town and everything put away by 9:30 a.m. I was one tired and happy astronomer that had enjoyed A Glorious Night For Astronomy, but to tell you the truth, I was the one who got spoiled that night.





# Astronomical Patience

by John Preston

**I GOT TO HAVE IT!** That is all my mind was telling me as I kept looking back at the Celestron website and taking in the electronic view of the new Edge HD 9.25 SCT. Yea, I need this in such a bad way. Knowing once it was pared with my CGEM mount it would open the imaging heavens to me like never before with edge to edge sharp stars that they touted and the photos of individuals that have posted from some of the first released OTA's (Optical Tube Assembly).

That was back on June 12, 2010 that I finally succumbed to the astronomy demons that danced in the black darkness of my mind teasing and taunting me every night for several months prior to ordering the new scope. I knew there was a 2-3 month wait time and yet as I prepared for the long ordeal of waiting for the shipping confirmation from B&H Photo Video I couldn't help thinking how glorious that day would be when it arrived neatly packed, perfectly wrapped and protected, and with that

new telescope smell. I could almost smell it on the day I ordered it, like an aphrodisiac. I patiently waited for the shipping confirmation, praying that I wouldn't have to be like the "other" astronomers, that the astronomy gods could and would hear my prayers for an early delivery and would graciously set my new OTA at my feet.

*July 15, 2010*, over 30 days later. No answer from the astronomy gods yet. Maybe they didn't hear me praying enough. Probably a lot of astronomers doing the same thing so I need to find a way to stand out from them all. Hmmm, I figured the best way was to be out at night as much as possible to channel my thoughts directly to them with minimum interference. Obviously the astronomy gods would only be out at night so I needed to use that time efficiently as possible. Though lying down in my driveway to focus at the night sky may not be the safest way of doing this and it's been so hot that the mosquitoes are eating me alive, I need to find a better way of getting my message out too them. I know! When I go to bed I will keep the blinds open so they can see and follow my telescope dreams all night long! Wow, I'm a genius.

*August 10, 2010*. Well, it's been nearly two months since I ordered my new SCT. I've been on the road so much that the last month flew by and I

expect to see my new scope coming soon. I know this has affected my marriage as my wife has caught me several times late at night with my computer and my iPhone staring at pictures of the Edge HD and speaking sweet nothings to it. She thinks we may need professional help but I told her to have some patience; when the new scope arrives everything will be back to normal. She has her doubts, she questions me, and she doesn't understand our needs. She is jealous of what I really want late at night. Too much competition for her is what it is. She will never measure up to my Edge HD and she knows it. That's ok because no matter what happens, I will always have my telescope. A couple days latter I thought it would be best to remind those paper-pushing counter people at B&H that my priority order needs to be fulfilled with extreme prejudice and with no hesitation on their part. They knew I was no one to mess with and they replied within an hour stating; *Thank you for your order with B&H, once we receive confirmation with the supplier we will send out an email confirmation and estimated ship date...* DAMN THEM! Do they even have an inkling of whom they are dealing with! I can bring down the wrath of the telescope gods if they don't get my telescope here. I recheck Celestron's production wait times for the OTA and it's still 2-3 months. So I

*Continued Page 7*

*Patience ... continued from Page 6*

know it will be here in no longer than 2-3 more weeks at the most.

*September 13, 2010.* Three months have gone and passed, I don't know if I can still manage to get myself up in the morning. I've sent several more emails to B&H with the same response. I've broken down and called them and recited Celestron's wait times with no avail, still the same response. I don't know if I can continue on, patience dwindling, my life force seems to be failing. What will happen to me? My wife can see the heavy depression setting in and knows this may require outside help but I can muster no energy to seek any assistance. With what little energy I have I make several more calls to the supplier with no avail. The astronomy gods have forsaken me. What more must I give to make things right? My wife suggests that we look at houses, maybe somewhere that I can setup my own observatory. My spirits lift enough to make the search for a suitable place to setup my shop. We find several places and finally make an offer on a place in the NE, still light polluted but 10 times better than what I have now. We close on November 5, but still no word on the Edge HD OTA. I fall back into submission nearing the end... I can feel the coldness of death all around my body.

*Tuesday October 12, 2010 – 8:44am.* Not sure if I can keep this log of my attempts to receive my new OTA going. It's been such a perilous journey. My wife has left me...to go to work again. I know I've lost too much weight over this waiting

period...1.5 pounds and I've reconfirmed that my email is still working at least three times a day so there would be no delay on receiving notice of shipment. I've nearly exhausted every idea and strategy to get some type of confirmation on my order. All is lost. There is no need to go on in this cruel, cruel world. There is no astronomy god, I spite you all.

Later that same day...

*1:03pm* SWEET JESUS!!! I got the confirmation order!!!! The gods heard me thank you, thank you, and thank you! I knew they wouldn't forsake



me. It's on a two-day ship, will get here on Thursday. Crap, I'm in North Carolina, I better call my wife and tell her to take the day off work and sit by the door until the order comes. She argues. She doesn't think it is prudent for her to take the entire day off and sit by the door. I know, you think she would get it, but no. What is the big deal sitting in a chair for 8-10 hours and she is only 5-steps away from the bathroom door. I can't believe she wouldn't do this for me after everything I've been through. So close yet so far.

I don't get home until late Friday night and unable to pick up the OTA on Saturday as I had scuba diving plans. This is almost worse than waiting for the order.

*Monday October 18<sup>th</sup>, 2010 8:44am.*

In front of the townhome leasing office. UPS left the package there and now I have to wait until 9am for the office to open so I can get my new OTA that is just waiting there for me. I watch the minutes ever so slowly tick away and at 9am sharp no one is there. Dear god what more must I go through to have my new telescope?

This is cruel and inhumane. But finally at 9:03am they open the office and they can see from the gleam in my eye that I know my package is here. Two of the people in there have been trying to figure out what it is and finally ask me. My guard goes up, what's all this questioning about? What evil forces are at work here? I tell them it's the most important astronomy device EVER created in the name of amateur astronomy and they should keep five steps back if they don't want to suffer my wrath. Cool, they said. Yea, cool, keep your distance dude as I quickly exit the premises to make my way back to the sanctuary of my protected garage.

I carefully set the package down on the garage floor. I couldn't chance putting it on the counter in case something shifted and the OTA was to tumble three feet to its death. No, every insidious measure was taken into account. I sat there in my chair and contemplated exactly how I would proceed. So I whipped out a Stanley knife and cut at the tape seams in about five seconds to open

*Continued Page 8*



*Patience ... continued from Page 7*

the box that held another taped box. Those tricky bastards, they are messing with me! How long could they keep this up? I hope they were prepared for a war unlike no other.

I cut open the next box expecting to see the same trick as before, but as I lifted open the flaps in all my vengeance the sounds of what I can only describe as angel voices glowed from within. I could smell the new telescope, and as I laid my eyes upon the protective wrapping of the tube I could see the emblem of the Edge HD peaking through like sheer lingerie. I felt

my face go warm at the thought, like I shouldn't be seeing this, and felt my heart race with excitement as I ever so gently slid my finger tips along it's long and curved form. I felt naughty, but good all at the same time. I gently peeled back the foam lingerie of protection to see the nearly blinding glare of the finish and it's seductive XLT coatings. She was a beauty. Nothing could compare to what laid upon me. I had to sit down again, head dizzy from all the emotions that had built up in me over this long-awaited time. In all it took over 4-months to finally receive my Edge HD 9.25, but now I can look

back knowing it was all worth it. I suffered many days and nights without knowing when she would arrive.

My wife Claudia is still with me. In all, she understood me better than I thought. She said this was a test of my patience and I suggested we not do that again anytime soon as I will need several weeks of recuperation to recover from all of these events. It was very traumatizing to say at least. Of course now she wants a baby... dear god, here I go again.



# Avoiding Amateur Astronomy Disasters

*by Tom Koonce*

The weather is turning cold and all of us want to maximize our observing time and minimize how long we're exposed to the bitter cold. In circumstances like this, we amateur astronomers tend to get in a hurry, or perhaps not think things through before doing something... and disaster can strike. Disasters come in many forms, among them, dropping an eyepiece to the ground because it wasn't held securely. Hearing the thud/crunch/tinkle sound is sickening, even for those observers around you. Having your secondary mirror come loose and drop onto your primary mirror is pretty bad, but what about dropping an expensive precision filter into the dirt? And then there are the

truly dangerous mistakes such as not making sure a step-stool or ladder is on firm ground or loading your dobsonian telescope lengthwise into the car with the secondary at the front and the primary at the back of the car. I'll explain each of these and how to reduce the risk of these happening to you.

The cold affects each of us to a differing extent. I'm assuming you already know to dress for weather 20 degrees cooler than weather reports predict. After all, you're going to be standing still in freezing weather, not chopping a cord of wood. I also assume that you know to remain hydrated since this can affect your thought processes and reaction times.

While some people get cold just thinking about going out at night, others must have a furnace built inside of them because they seem to remain warm with little notice of the thermometer. Most of us are in between these extremes. Fingers and toes get cold first, and then grasping objects becomes difficult, thought processes slow down, and our logic becomes blurry. The trick is to recognize how **you** respond and take steps to counteract it before you damage equipment.

Disaster: Dropped eyepieces. Think ahead about which eyepieces you will need for the next hour. Keep a fanny pack on over your jacket that makes

*Continued Page 9*

*Disaster ... continued from Page 8*

storing and switching eyepieces convenient and minimizes how long your fingers have to grasp them. Stick your hands inside of your jacket and under your armpits for a couple of minutes before you do the eyepiece switch. Another trick is to place a packing quilt or old rug under your entire telescope setup so that if something is dropped even after taking precautions it might survive the plunge.

**Disaster: Secondary Mirror Drop.** Always check your equipment. Before you start your evening's observing, do a "walk-around" of your telescope. Are there any frayed wires? Are there any loose bolts? If you have a Newtonian, is the secondary secured to its mount? Have you placed a small safety wire between the spider and the secondary... just in case? This is a disaster that can be avoided. I have seen/heard this happen to my buddies 6 week-old 14" dob at a public outreach event. It destroyed his primary mirror. During your walk-around, be conscious of any tools that you need to setup your telescope. Wrenches and screwdrivers can be devastating when applied to any optical surface. Tools tend to slip when brains and fingers are cold. Consider drilling a hole through the handle and affixing a cord loop to each tool to wrap around your wrist to eliminate the possibility of despair.

**Disaster: Filter Drop.** Think ahead about the dexterity you're going to

need to take the small filter out of its case and screw it onto the eyepiece. It's possible that filters can be only partially screwed onto the eyepiece and may drop off onto the primary mirror during observing. In my dobsonian, I can vouch for the fact that a two inch O-III makes a heart-stopping sound when it bounces off of the primary mirror. Not good. To remedy this



*A filter slide provides safe and easy access to your filters. Photo used with permission. [www.Astrocrumb.com](http://www.Astrocrumb.com)*

situation, take the time to make sure that your fingers are warmed up and the filters are fully screwed on. Alternatively, consider installing a filter slide on newtonian or dobsonian telescopes. I have made this modification on my dob and it makes using filters simple, convenient and safe. If you have this type of telescope, check out <http://www.astrocrumb.com/> for the best filter slide I've found.

**Disaster: Stepstool and Ladder Tilt.** Anyone who is showing the night sky to the general public or who has a larger dobsonian knows the pitfalls of using stepstools or ladders. They need to be sturdy and lightweight, but rarely are they made to be placed upon bare earth. Sometimes ground can be frozen hard on the surface, but mushy just

an inch or two below. Take the time to be sure of the placement of their feet to avoid a fall in the darkness. Test the stepstool with your full weight with someone standing in the safety position to catch you before trusting it to anyone else.

**Disaster: Mirror Missile.** Avoid this disaster by loading your newtonian / dobsonian telescope correctly into the back of your SUV. Think of what might happen during an emergency stop or front crash. If the tube is loaded so that the primary mirror and mirror cell are forward and the secondary mirror closest to the rear of the vehicle, an emergency stop will just press the primary mirror more securely into the mirror cell. However, if the secondary mirror is forward and the primary mirror is closest to the back of the vehicle, such a stop will likely rip the mirror from the three small protrusions that keep it centered on the mirror cell, sending it crashing forward, through the secondary mirror and likely into the back of the head of a person sitting in the front seat. Having your life saved in a crash by an airbag only to have your telescope's mirror kill you in a shower of glass shards milliseconds later is a serious disaster easily avoided.

OK... Take a deep breath... there is only a miniscule chance that any of these disasters will happen to you, and they are even less likely to happen if you take a few simple precautions involving just a bit of forethought and cost. Stay warm and keep safe out there.



# Gallery



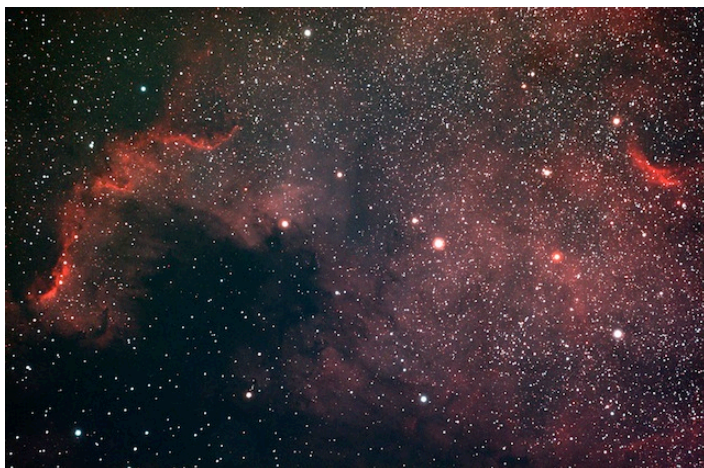
**Left:** Roger Southwick caught Comet Hartley 103P with a piggybacked DSLR at 200mm f/4, ISO 1600.

**Right:** Luka Balzer caught this transit of Io's shadow on Jupiter on Friday, October 8th at Eagle Bluff.

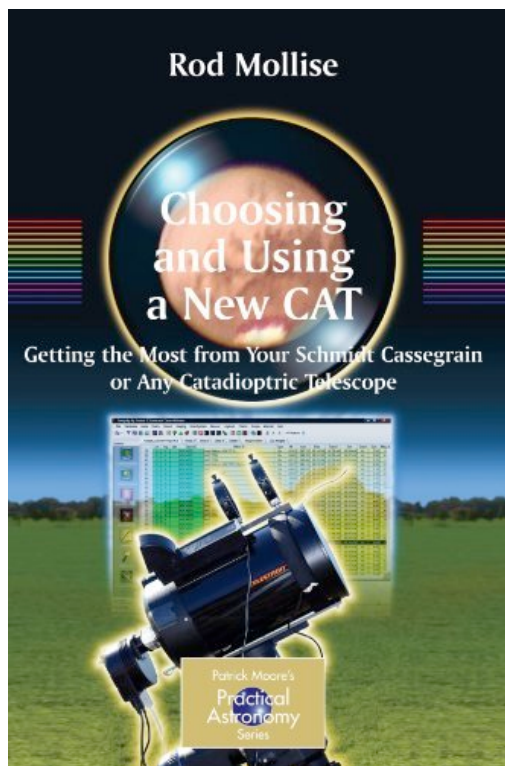


**Below Left:** John Preston captured the North America Nebula (NGC 7000, Caldwell 20) with 4x1200 second exposures.

**Below:** John Preston captured several hours at the Star-B-Q using a DSLR with a wide lens including this amazing 30 second shot of the Milky Way over Flatin Farm.







Known to his many fans as “Unc’ Rod”, Rod Mollise is also known as “Mr. SCT” and with good reason. Rod has long been a booster of the virtues of the Schmidt-Cassegrain style telescope. Whether you need aperture, a computerized mount, a portable package, or want to get into astrophotography, the SCT is a jack-of-all-trades. The primary drawbacks to the SCT design are the inherent long focal length, which makes the field-of-view rather limited, and the complicated optics are hard to produce to the perfection of the simpler Newtonian mirrors.

This book starts simple and goes about as far as any book can: from picking the right telescope for you to doing basic maintenance and troubleshooting the most common problems that crop up with regular usage. Sprinkled throughout are Unc’ Rod’s many anecdotes from years in the field with his telescopes.

# Book Review: Choosing and Using a New CAT

*by Scott Regener*

Even astrophotography is covered, including the newer trends of webcam and video imaging. No moral high-horses here, either; if anyone wants to do something related to astronomy, Rod is in their corner.

In short, the book “Choosing and Using a New CAT” is a book that should reside on the shelf of every owner or potential owner of an SCT.

As a side note, this was the first Kindle book I purchased for reading on my iPad. The iPad is a color, touch-screen, portable computer which does many things besides reading a book. Some may be familiar with the Amazon Kindle, a dedicated, black-and-white reader with an ink-like display. Amazon has not stayed proprietary with their products, however, releasing applications for use on just about every device out there, including desktop computers running Mac OS X or Windows. On the iPad, however, the pictures were in glorious color, not the limited black-and-white of the Kindle device itself. This nice touch meant that the Kindle edition was in many ways superior to the printed page. A side benefit to the electronic

version is that storage is not an issue - it takes up no additional room on my shelf. It is my hope that more astronomy references become available in this format in the future.

But for now, in print or on screen, Unc’ Rod’s southern, friendly style combined with an encyclopedic knowledge of his subject matter makes his books an excellent addition to any library.

-Scott Regener



# Rochester Skies

## Upcoming Events

November 17th	-	Leonid Meteor Shower
November 30th	-	Community Ed class: Rochester at Night 7PM, Mayo Planetarium
December 3/4	-	Dark Sky Weekend at Eagle Bluff*
December 12/13	-	Geminid Meteor Shower
December 14	-	Annual Holiday Meeting (Members Only)
December 31/Jan 1	-	Dark Sky Weekend at Eagle Bluff*
January 11	-	Monthly Meeting @ RCTC

\* Events subject to change due to weather. Check [Rochesterskies.org](http://Rochesterskies.org) for updates

Rochester, MN 55903-0513

P.O. Box 513

