

REFLECTIONS / REFRACTIONS

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University Lowbrow
Astronomers

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Image by Norbert Vance

Eastern Michigan University: Sherzer Observatory

The Slowing Pace of Invention

By Tom Ryan

In the early days of the Lowbrow Astronomer's Club, a bunch of us would make a yearly pilgrimage to Kankakee, IL, to spend a couple of days at Astrofest. Astrofest was the premier star party for Midwesterners at the time, and every year I went, I saw something new.

Regional star parties can be divided into two broad categories. There are the ones for observers, like Okie-Tex and the one in Florida, and there are the ones for hardware geeks, like Riverside, CA. Astrofest was unusual in that it had fairly good skies and also brought out the hardware guys, who wanted to show off their new inventions. Eventually, a lot of the manufacturers showed up there, too.

It was at Astrofest that I first saw some really big Dobsonians (20" range and up), first saw Dob drivers, first saw friction drives, first saw CCD cameras, first saw water cooling of CCDs, first saw the Pretoria eyepiece, first saw solar filters based on etalons, first saw voice-actuated telescope drives, first saw a Crayford mount, first.....well, you get the picture.

I went to every Astrofest that I could, and when attendance topped one thousand, the club that ran it had some internal disagreements and Astrofest split into two star parties, the "Official" and the "Traditional" versions

which, horribly, were held on different weekends. Attendees were confused, people didn't know which one to attend, attendance collapsed, and the manufacturers pretty much abandoned both events. Nevertheless, while it lasted, Astrofest was the place to be.

However, one thing I noticed in the later years was that the number of new inventions seemed to be dwindling. Early on, there seemed to be revolutionary inventions every year. Later, there was really nothing new. Instead, there were manufacturers who were making slick versions of the hacksawed and duct taped items that the amateurs first came up with.

Not that slick items are bad. I have actually come to prefer having things that work perfectly right now, rather than a plan for something I can build (possibly several times before I eventually get it right) when I find the time to get around to building it. Maybe that's a result of having more money than time, which nowadays is less about money than it is about time. But in any case, I admit, I miss the heady days of rapid invention.

It turns out that the pace of invention is something that can be measured, and has been. The result is that, over the centuries, the rate of new inventions, as measured in inventions per hour per person, has been increasing. You are more likely to invent something today than you would have been had you lived in ancient Egypt.

At first blush, it might seem that this shows that humans are getting smarter, but no, we're not. The volume of the average human cranium (the space into which your brain is folded) has actually shrunk over the past few thousand years. We can assume that it is easier for people with small brains to survive and have offspring in these modern times than it was many, many years ago. For one thing, the terrible "Hat Size" cult of Ancient Egypt, which was responsible for so much terror and death, is a thing of the past. Unfortunately, an unforeseen outcome of this increased security is that an "Idiocracy" may be in our future. Or perhaps the Hat Cult members did foresee this.

So if increasing intelligence can't explain the increasingly rapid pace of invention, what can explain it?

Since it is impossible to do experiments in this field, we'll just have to fall back on prejudiced guesses for our explanations.

My own guess is that early societies were closer to extinction than we are (there may be some who disagree with this idea: if so, Mark needs more articles), and because of that, anything which made a change to a marginally successful society was just as likely to sink it as to improve it.

If you whistled in the house at night, you would attract snakes. If a rat ran across your shirt, you had to burn it. If you butchered animals, you couldn't eat any of the meat from below the diaphragm. And if someone tells you that washing your hands before meals will prevent sickness, well, the Witch Doctor might have an opinion about that, and it will likely involve demonic possession.

Yes, one screw-up could take out the whole tribe, so don't change it if it isn't broken. And don't invent something new, because you are putting the rest of us in real danger.

Today, of course, the nature of invention hasn't changed. It still disrupts society. The difference is that, for the most part, today's societies generally have enough safety features built in to survive the changes, and are therefore more accepting of inventions. Also, if you have more building blocks, you can put them together in more new ways.

Finally, though, I would say that the pace of inventions is slowing down again. At least temporarily, until we can invent truly intelligent materials, for example. This is entirely my own opinion and, typically, has no research or facts to back it up. Nevertheless, that's the way it seems to me. I, personally, have several patented inventions to my name, but it seems to me that they are not really that innovative. Not the way inventions of the recent past have been. And I attribute it to the sad state of the economy. With declining incomes, there are fewer households that are able to afford forks with roller skates, heated eyepiece holders, or any of the other truly innovative things that would make our society better.

CLEAR III

By Don Fohey

The CLEAR (Club Lowbrow's Excellent Atlanta Retreat) was visited the weekend of October 1st by the following Lowbrow's: John Causland, Mark Deprest, Don Fohey, Jim Forrester, Brian Ottum, Mike Radwick, Doug Scobel and Dave Snyder. Please refer to the Lowbrow May 2011 newsletter for an article by Mark describing CLEAR.

Fortunately the planning for CLEAR III included a primary date of the weekend of September 24 with the next weekend as an alternate. That Lowbrow flexibility made CLEAR III a success. The September 24th weekend was cloudy and Oct 1st weather was clear skies and brilliant sunshine.

Mark had arrived on Friday afternoon knowing that clear skies were on the way. Unfortunately that evening the breaks in the clouds were not enough to entice him from his tent. The main Lowbrows contingent arrived on Saturday. Dave and I drove up together and arrived just in time to enjoy the barbecue rib dinner that Brain had prepared. We all gathered in Diane's kitchen and dining room for the wonderful meal.

We were busy setting up tents and telescopes as the sun set and temperatures dropped. Before twilight ended my metal tube scope was covered with dew and before the moon set it was covered in frost. During the evening one could hear the sound of 12Volt blow driers clearing secondary mirrors and the occasional howl of coyotes. The only telescope put out of action by the frost was the one John set up for Dave to use. Dave enjoyed views throughout both evenings in other member's telescopes. I heard voices of several visitors enjoying the views through the larger scopes. Debbie Smith was very inquisitive and challenged many with her questions.

The skies were good! I could see the Milky-Way from horizon to horizon. I counted all seven stars in the little dipper and was enjoying magnitude 12 objects in my 10" that I would never have seen from Peach Mt. or Lake Hudson. Others saw and Mike photographed, the Horsehead nebula! I knew the observing session transitioned to a star party when the Lowbrow Astronomers started singing along to Frank Zappa songs. Observers disappear into the house or tents at different hours of the morning. Mike's laptop screen was coated in ice. It was cold and I crawled into my sleeping bag wearing ski pants and a down jacket.

The morning sun lifted the fog from the valley below and brought out the blazing colors in the trees that bordered the field. The warmth was welcomed as we removed layers of clothing. We spent the morning drying off telescopes and everything else. It was a beautiful day and several of the group convinced me to stay and observe Sunday night.

It was another night of clear dark skies and being ten degrees warmer made for comfortable observing. There was no frost but there was much more dew. The moon didn't set until 11:30pm. Although the moon was younger than first quarter it's glare seemed oppressive. We all sat in chairs with our backs to the moon waiting for it to set. I felt like Gollum, shunning it's light waiting for darkness. As we were basked in the moon shadow of a building some ventured to their telescopes to study the details of Andromeda. After moonset I enjoyed comet Garradd, M101 and it' supernova, planetary nebula, gaseous nebula and faint fuzzy galaxies. In the dead of the night I heard the faint bugle like call of an elk.

We were entertained by a very friendly black and white horse who stood for hours with his head over the fence watching all that we did. Late in the evening I could just seem him as a shadow walking back and forth along the fence line. Cody, an Australian Shepard was also very friendly and was underfoot at all times. No food was safe and he loved to lie next to a telescope.

In conclusion, we all enjoyed CLEAR-III and I am sure that all attendees are looking forward to CLEAR-IV. Unfortunately Diane's has the property for sale and CLEAR-IV will likely be held at another location.



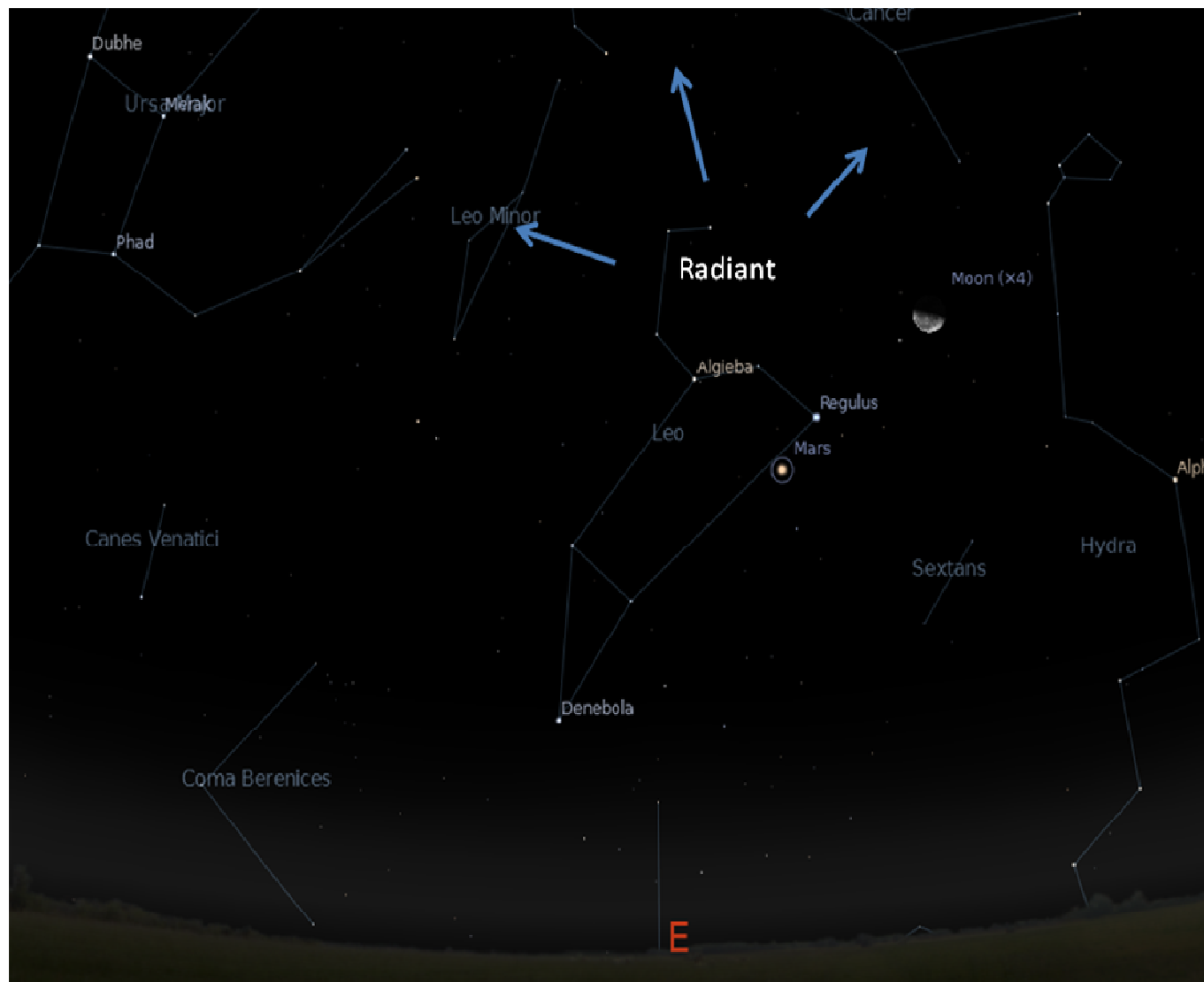
LEONIDS Meteor Shower

By Jack Brisbin

The Leonids meteor shower brings excitement to the November sky. This year the Leonids will start their activity on the night of Thursday November 17 and continue into the early morning sky. Maximum activity occurs before dawn on the morning of Friday November 18. Some of the fainter meteors will be lost in the glare of the Last Quarter Moon. The Sky map below shows the early morning Eastern Ann Arbor sky about 3 am Friday, November 18. The constellation of Leo the Lion is shown in the middle of the Sky map with the radiant point. The radiant point is the area that meteors will be seen shooting from, in the different arrow directions. Sunrise is about 7:29 am on Friday November 18. Go outside a couple hours before sunrise, you might see a few of the brighter meteors even though the Last Quarter Moon is still shining brightly.

Don't forget the planet Mars, it's brighter than most of the stars. Looking at the Sky map, Mars is just a couple of degrees below the star Regulus in the constellation of Leo. If you have binoculars then check out the Moon and Mars.

Sky map generated with Stellarium software.



Okie-Tex 28, Sept. 24 - Oct. 1

Text and Images by George Piner

You've got tarantulas instead of squirrels shuffling across a road so empty they make it with time to spare. Packs of coyotes yelp after sunset, upstaged by the frantic squeals of an unlucky cow. Here in the real No Man's Land of high desert mesas carved out by Pliocene Age lava, you're more likely to stumble across allosaurus tracks in an ancient riverbed than anything more mundane.

But it's really about the sky. Don't worry that you're tucked in a low horseshoe canyon where 1/2 mile in any direction lie vistas that stretch from horizon to horizon. The canyon acts as a partial windbreak, although this 28th anniversary party featured mostly calm nights. Setting up tents on Day One however proved a challenge with wind gusts that blew tents 30 yards down the road if they weren't seriously hammered into the dry, compacted soil that rendered all but heavy-duty stakes useless. Past Okie-Tex events had offered storms that blew tents into the next county, followed by downpours that forced the party goers into their vehicles for two days or more, followed by sub-freezing temps. Enough to make you wish you'd bought the DVD instead.



Fortunately not this year. The Oklahoma City Astronomy Club choreographed all the details: food services, shower facilities, vendors, speakers, and even the weather. Every day presented a beautiful blue sky and a low 80s temp, but the main event for the 200+ starpartyers from all over the U.S. & Canada was the night sky, only one of which was totally obscured by clouds. Routinely at midnight on three nights scattered clouds rolled in but dispersed by 3:00 a.m. as indicated by the satellite radar. Some hightailed it to the Cosmic Cafe. A few napped. Others played in the sucker holes waiting for the break.

The vendors were helpful & pleasant. John, the stand-up comedic rep from Televue, brought an array of lenses from Radians through Ethos, any of which could be checked out for a test drive for the night. As a relative newbie, I was impressed. Other vendors included S&S Optika from Denver, Astro Systems, Dave the Meteorite Man, as well as a small number of 2-D and 3-D artists. George Kepple, one of the authors of the Night Sky Observer's Guides, was promoting his updated versions of volumes 1-3, with vastly improved digital photos compared to the 1998 editions, and vol. 3 showing the Southern Constellations. Lastly, members of the Astronomical League including the current president Carroll Iorg brought an interesting assortment of books & manuals. I was surprised as well as they that we're not affiliated.

John from Televue*George Kepple*

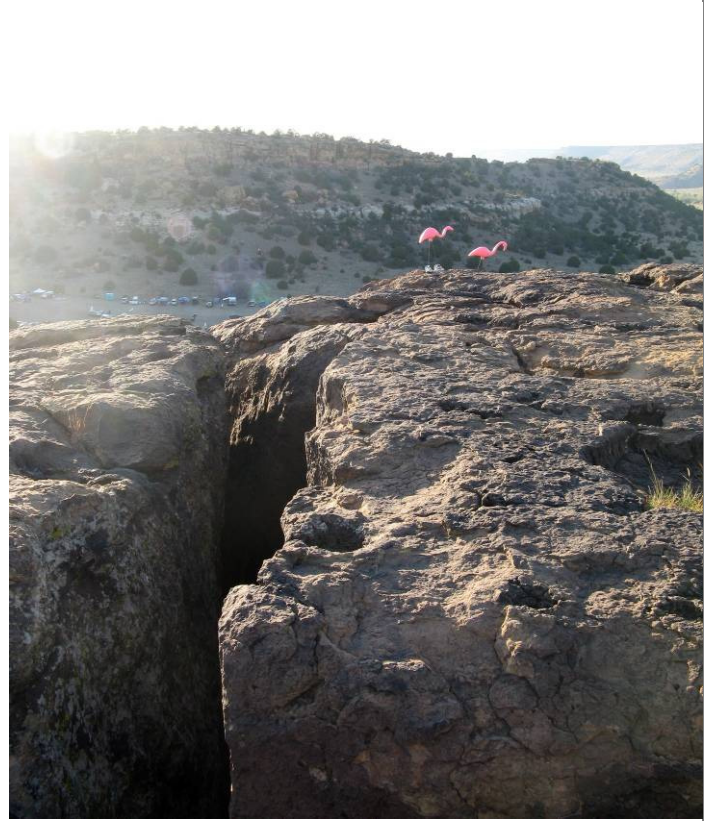
As you would expect, OT featured a number of speakers, most of whom were active attendees, exploring topics from E.E. Barnard's life & photographs, through Visual Double Star Research for Amateurs. (A note to future presenters: if you're scheduled to appear before the "Great Okie-Tex Giveaway," keep your talk brief, no matter how informative. DO NOT run over your allotted time. The 100 new audience members pouring into the last four rows and massing like cattle by the entrance half way through your show aren't there to see you).

For the first three nights a busload of high school astronomy students from Norman, OK invaded the campground for a class outing. Teachers had provided each with a checklist of deep-sky objects they needed with our help. We were to initial their viewings. Their sneaky instructors included various M & NGC objects that were impossible to find this time of year to keep them honest. Generally the students were a fine group, with several exhibiting genuine excitement, and a couple anonymous knuckleheads showed their skill with lasers.

Which brings us to Kenton, OK, the official location for the Okie-Tex Star Party, which sits just outside to the left of the campground about a 1/2 mile down the road and has fallen on hard times again. Bob Anderson, an affable retired farmer formerly of Guymon, OK, acted as my local tour guide & historian. He mentioned that most of the kids grew up and left, and all that remains now are 20 or so youngsters who will have brighter futures elsewhere.

*F. Jack Eastman w/ H.S. students**Ex-Kenton Mercantile*

If you've been to Kenton, you'll probably remember the Mercantile Store that served as a general store, information center, and a B&B. Under cloudy circumstances, it closed its doors about a year ago, the owner having plunked down \$168,000 to buy this gem with little chance to recoup on a future sale; and the only other restaurant has also bailed. The bank is long gone & is little more than a three-walled ruin. The locals I met were all very friendly with seemingly little to be friendly about.

John Anderson & Dinosaur Tracks*Flamingo Sentinels**Kenton Museum**Open-air Banking? With a little foliage in the lobby!*

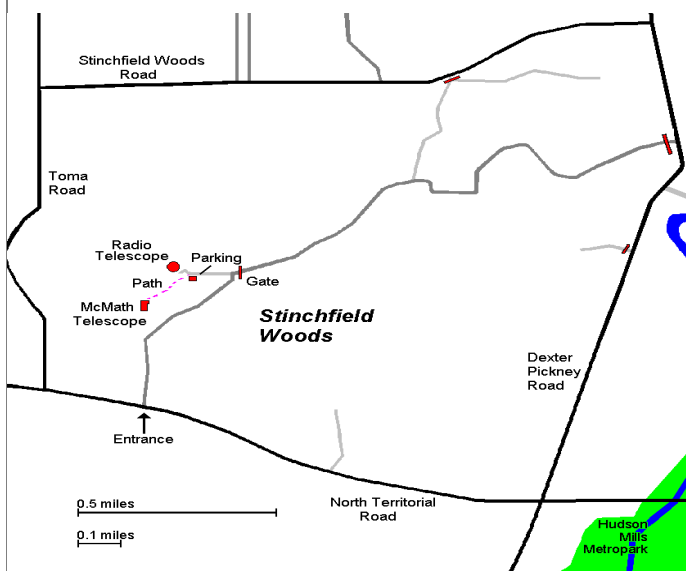
The nearest food source was 30 miles to the east in Boise City, a town founded around 1908 on complete fraud, according to author Timothy Egan in his book about the Dust Bowl, The Worst Hard Time. Its name came from a French word meaning “trees,” which were nowhere to be found in a city that didn’t exist. Brochures at the time boasted aged trees, an artesian water source, and nice houses on paved streets. Well-dressed buyers arrived with their families to see nothing in the middle of nowhere. They decided to stay in spite, and the fraudulent land dealers eventually did jail time. 100 years later they boast of a Boy Scout Camp and a Star Party 15 years running, catered by the Cimarron Heritage Society. They are proud sponsors of a beautiful backdrop with some of the clearest skies in the country.

George Piner

Places & Times

Dennison Hall, also known as The University of Michigan's Physics & Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. Dennison Hall can be found on Church Street about one block north of South University Avenue in Ann Arbor, MI. The meetings are usually held in room 130, and on the 3rd Friday of each month at 7:30 pm. During the summer months and when weather permits, a club observing session at the Peach Mountain Observatory will follow the meeting.

Peach Mountain Observatory is the home of the University of Michigan's 25 meter radio telescope as well as the University's McMath 24" telescope which is maintained and operated by the Lowbrows. The observatory is located northwest of Dexter, MI; the entrance is on North Territorial Rd. 1.1 miles west of Dexter-Pinckney Rd. A small maize & blue sign on the north side of the road marks the gate. Follow the gravel road to the top of the hill and a parking area near the radio telescopes, then walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.



Public Open House / Star Parties

Public Open Houses / Star Parties are generally held on the Saturdays before and after the New Moon at the Peach Mountain observatory, but are usually cancelled if the sky is cloudy at sunset or the temperature is below 10 degrees F. For the most up to date info on the Open House / Star Party status call: (734)332-9132. Many members bring their telescope to share with the public and visitors are welcome to do the same. Peach Mountain is home to millions of hungry mosquitoes, so apply bug repellent, and it can get rather cold at night, please dress accordingly.

Membership

Membership dues in the University Lowbrow Astronomers are \$20 per year for individuals or families, \$12 per year for students and seniors (age 55+) and \$5 if you live outside of the Lower Peninsula of Michigan.

This entitles you to the access to our monthly Newsletters on-line at our website and use of the 24" McMath telescope (after some training).

A hard copy of the Newsletter can be obtained with an additional \$12 annual fee to cover printing and postage. Dues can be paid at the monthly meetings or by check made out to University Lowbrow Astronomers and mailed to:

**The University Lowbrow Astronomers
P.O. 131446
Ann Arbor, MI 48113**

Membership in the Lowbrows can also get you a discount on these magazine subscriptions:

Sky & Telescope - \$32.95 / year

Astronomy - \$34.00 / year or \$60.00 for 2 years

For more information contact the club Treasurer at:

lowbrowdoug@gmail.com

Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest.

Call or Email the Newsletter Editor: **Mark S Deprest (734)223-0262** or msdeprest@comcast.net to discuss length and format. Announcements, articles and images are due by the 1st day of the month as publication is the 7th.

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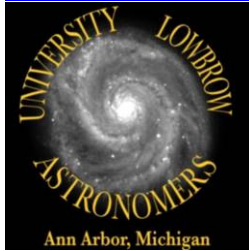


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Reflections & Refractions

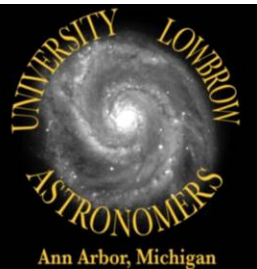


Comet Garradd C2009 P1 by Clayton Kessler from Manchester MI
Orion 8" F5 Newtonian, Baader MPCC, Canon 10D Modified DSLR, G11 Mount
Guided using Orion Starshoot AG and WO ZenithStar 66SD, 10 X 180 seconds @ ISO800

C2009 P1 Garradd

Website

www.umich.edu/~lowbrows/



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