

REFLECTIONS / REFRACTIONS

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University Lowbrow
Astronomers

November 2007

Volume 31 Issue 11

The Fifth Annual Great Lakes Star Gaze

By Charlie Nielsen, September 30, 2007

Although this was the fifth Great Lakes Star Gaze, it was rather shamefully, my first. I say shamefully because I used to go regularly to the former SMURFS star party, which as I understand the GLSG replaced. Also, I have thought of going to the GLSG in previous years, but for whatever reasons, did not. I attended the Black Forest Star Party last year, and even though I got very little observing time in, I still enjoyed getting back into star partying after a few years layoff. I thought about going to GLSG this year and not BFSP, so when I discovered they were going to be held the same weekend, that made the decision even easier. Last year we had a lot of rain and clouds at Black Forest and a couple weeks later I heard the woeful stories of the massive rainout at the GLSG. If it happened again, at least I did not drive as far to get rained out. I was optimistic however, that the weather would pay us back for last year, and it did indeed, as I understand, at both sites.



The GLSG was extended an extra day this year, so I took full advantage and drove up Thursday, arriving a little after 2:30 PM. I was afraid at first that I would have to wait around until 5:00 PM to be let on the field to set up camp. But as it turned out we were given the word to go ahead and select our spot at around 3:30 or 4:00 PM. I was very pleased to have the extra time since it looked like the skies were going to cooperate the very first night. All was well at this point except the 15 to 20 MPH wind that made setting up a tent single handed a little challenging (to state it politely). But set up camp I did anyway, and in plenty of time to walk around and meet some the other attendees. I noted no other Lowbrows yet, they not did appear until the next day. I checked out the food situation, which was

some of the folks that run the RV Park where the event is held, who were cooking and serving a limited variety of food. Though the menu was limited, the food tasted good and was reasonably priced. They also had various packages of food suitable to take back to camp and use at night. The building the food is in, as well the shower facilities, are located in a valley just north of the hill where the observing area is. The slope was pretty steep and maybe 100 feet long, so when you got back up to the top, you felt it, especially if you ate a lot down below. The trail was nicely lit after dark by red rope lights. There are permanent bathroom and shower facilities in the valley, and on the hill were several port-a potties.

The first night was almost totally clear. There were some clouds toward the northern horizon, and even some distant lightening, but they largely stayed away from us. The night was clear and very steady. I am guessing the magnitude limit was at least 5.5 if not 6. I was using my 12" Orion Intelliscope, and my 7" Intes Mak-Cass. The already excellent contrast provided by the Intes was especially stunning at this location. I think the object that particularly sticks in my mind from that night was M33. Even the 7" was showing some structure. The clouds finally did move in some time after 4:00 AM, at which point I folded. It even rained for a while around 6:00 AM.

I spent day two doing as little as possible. I visited the vendor tents and found myself purchasing a really potent (30mW) green laser, which are not allowed to be used at night here (well at least near the observing field, hint, hint). Hey, I had to test it! Other Lowbrows started showing up in the afternoon, and a couple more on Saturday, eventually putting nine or more of us on the scene. Friday night was mostly cloudy until almost midnight, and then it cleared off nicely. Not as steady as Thursday night, but very dark. This site is not as dark as SMURFS or Black Forest, but darker than I expected. I forget the reading John Causland got on his dark sky quality meter, but I believe it was much better than Lake Hudson, but not as good as one other site he found in the northern Lower Peninsula. It was a real good number though. Many of the attendees gave it up before the skies cleared that night, but the Lowbrows knew better. We had a great time until the wee hours of the morning.



Saturday started early with a swap meet, more vendors, and the various talks that went on the rest of the day. Just before dark was the door prize drawing. If I remember correctly the Lowbrows showed their presence by John Causland, Jack Brisbin, and me winning door prizes. If I forgot someone, you are free to jump on my case about that. The first winner was someone that Jack knew. The winners had to draw the next winner, so Jack yelled out for his friend to give him some help, and Jack promptly won a 3.5mm Nagler. How did they pull that off? Saturday night remained clear most of the night. It was very dark, a little steadier than Friday night, but very cold. Eventually we had ice covering our eyepiece cases, telescope shrouds, etc. Keeping eyepieces from fogging was a chore. But the views made it worth the struggle. John Kirchoff was camped right behind me with a Televue 127, oh my! I spent some quality time with him and that scope, getting spoiled with a 31 Nagler, and the new Ethos. I walked away with the Ethos to try it in John Causland's mighty 61 CM Starmaster. A few hours of fun ensued, with a view of M33 with that combo that was just spellbinding. The galaxy filled the 100 degree field of view with embedded star clusters and gas clouds in plain view. M31 was also killer, sporting double dark lanes, and I think I may have spotted one of its

globulars. The hardy (if not hard core) Lowbrows kept it up until somewhere between 4:30 and 5:00 AM, not letting the ice and cold slow us down one bit. Yasu and Yumi arose in the middle of the night and took over second shift, which went well past dawn.

I thought this was a great star party in every respect, and yes, the weather did pay us back for last year. In fact this has been a great season for us when you think about it. I highly recommend the Great Lakes Star Gaze, and if you go next year, you will almost certainly see me there again.

Two Words

By Doug Scobel

You prepare for months. You gather up thousands of dollars worth of equipment, and drive it, personal goods, and yourself half way across the continent, spending hundreds of dollars on gasoline in the process. You live in a nylon and fiberglass shell for a week, putting up with wind, weather, dust, and critters all the while. What could possibly motivate an arguably sane person to do such a thing you might ask. The answer is a simple two words: *Dark Skies!*

Okay, maybe three words. *Extremely* dark skies. That's the big payoff of going to the Okie-Tex star party, which I attended this year, along with fellow Lowbrows Mark Deprest, Nathan Murphy, who made the trek from Brooklyn, NY, and Robert Wade, who came all the way from Connecticut. One of the nation's premier annual star parties, it's held at Camp Billy Joe, a Christian youth camp near Kenton, Oklahoma. It's at the tip of the Oklahoma panhandle – in fact it's about as far away from here as you can get and still be in Oklahoma. It's just south of the Black Mesa, a 4900 foot high plateau that lays claim to being the highest point in Oklahoma.

And the skies there are indeed *dark!* It's one of few areas remaining in the continental U.S. that is a true "1" on the Bortle sky darkness scale. On a good night (as most nights there are), most folks can see stars as faint as magnitude seven with the unaided eye. The Milky Way is as bright as you've ever seen it, which also makes more obvious the various dark dust lanes and patches that you may not know are even there.

But I'm getting a little ahead of myself. If I let myself I could easily write an entire newsletter's worth describing the Okie-Tex Star Party experience, but I'll save that for the presentation Mark and I are planning for the November meeting. Instead, I'll just describe what I consider the most appealing aspects of the 2007 Okie-Tex Star Party.

Fantastic scenery. The Black Mesa region of Oklahoma is different from southeast Michigan in almost every way. We have close horizons; there the horizons seem to go on forever. Here, it's cloudy and humid much of the time. There sunny, clear, and dry weather is the rule. Here we have large cities, lots of people, and a lot of light pollution. There there's more cattle and antelope than there are people – and light pollution is nil. The surrounding bluffs and mesas provide for some fantastic scenery by day, and add interest to the horizon by night.



Scenery around Camp Billy Joe

No cell phones. Yes this is a good thing, because part of the appeal of getting away from it all is, well, getting away from it all. For example the inability of your boss getting ahold of you. While there is no cell phone coverage, the organizers do provide wireless internet coverage so you can still communicate with the rest of the world should you choose to do so.

Flora and Fauna. We saw everything from four-inch long grasshoppers as thick as your thumb to a tarantula to varieties of flowering cactus to a stampede of tumbleweeds! Definitely not things you'll see around here. And there's also what I call the "Zoodiac"; but you'll have to wait for our presentation at the November meeting to find out about that one.



Local flora and fauna

Interesting side trips. Within an hour's drive of Camp Billy Joe there's a volcano (extinct of course) the crater of which you can hike around and into, fossilized dinosaur tracks, a canyon with ancient native American drawings on its walls, the Black Mesa, and a late 19th century hotel where you can get a fantastic meal. Or you can take a short one half mile (or less) walk into Kenton to purchase a few odds and ends or a simple meal at "The Merc", or visit a little museum with various historical artifacts from the area.



View from the top of Capulin Volcano

Large scopes. If you want to see large amateur telescopes then this is the star party for you. My 13" and Mark's 12.5" are almost small in comparison to many we saw there. There were a lot of 20+ inch Dobs, mostly Obsessions, and we even had a 30 inch set up right next to us. There was no shortage of light gathering power.



Mark and Robert declare "It's gonna be clear tonight!" That's Robert's superb 20" Obsession.

Genuinely nice folks. While I've met with a lot of nice people at other star parties, I would have to say that by and large the Okie-Tex attendees are some of the friendliest folks you'll meet anywhere. Everyone seems to have a smile on their face and are willing to talk about their scope or what they were looking at the night before. I'm sure the amazing observing conditions have something to do with that. And of course it wouldn't have been nearly as good a time without fellow Lowbrow attendees Mark, Nathan, and Robert, barking spiders notwithstanding





Jim Lawrence and his twelve-inch binoculars

Near perfect weather. The weather there is so consistent you don't have to feel pressured into observing everything you can in one night. You can relax, and if you don't get that object you really want to see one night then you can be reasonably confident that it will be clear the next night so you can afford to wait. It certainly makes for a much more relaxed observing atmosphere. Another plus is the low humidity; we only had a couple nights where there was any dew, but even then it was minimal.

Cosmic Café. Since all-nighters are commonplace at the Okie-Tex Star Party, quite often you'll hear your stomach growling at you by midnight. The "Cosmic Café" is open every night from 9:00 until 3:00, so you can recharge with a made-to-order burger, fries, and soda, a bowl of chili, or just a candy bar or a cup of coffee. It makes for a great pick-me-up to keep you going.

Dark Skies. Did I mention that the skies are dark? What an understatement. Here's where I just have to provide a little more detail. The Black Mesa area provides the darkest skies I've ever observed under. It is amazing to see objects "the way they were meant to be seen". Case in point is the great galaxy in Andromeda, M31. We had no scope in Camp Lowbrow with a large enough field of view to fit it all in. This includes Nathan's 80 mm TMB refractor! The galaxy simply kept on going and going. Another example is B33, the Horsehead Nebula. Besides Mark's 12.5 inch and my 13 inch, it was even visible in Nathan's 10-inch Portaball with a UHC filter. You didn't even need a Hydrogen-Beta filter. Previously the only time we've managed to see it was in John Causland's 61 cm Starmaster with an H-Beta. And so it was with everything else. I had always thought that Patrick Moore was something of a sadist with some of the low surface brightness objects he included in his Caldwell catalog. But after revisiting many of them that I had considered difficult from around here they were rather obvious and almost easy. It was truly amazing – I sometimes found myself just shaking my head

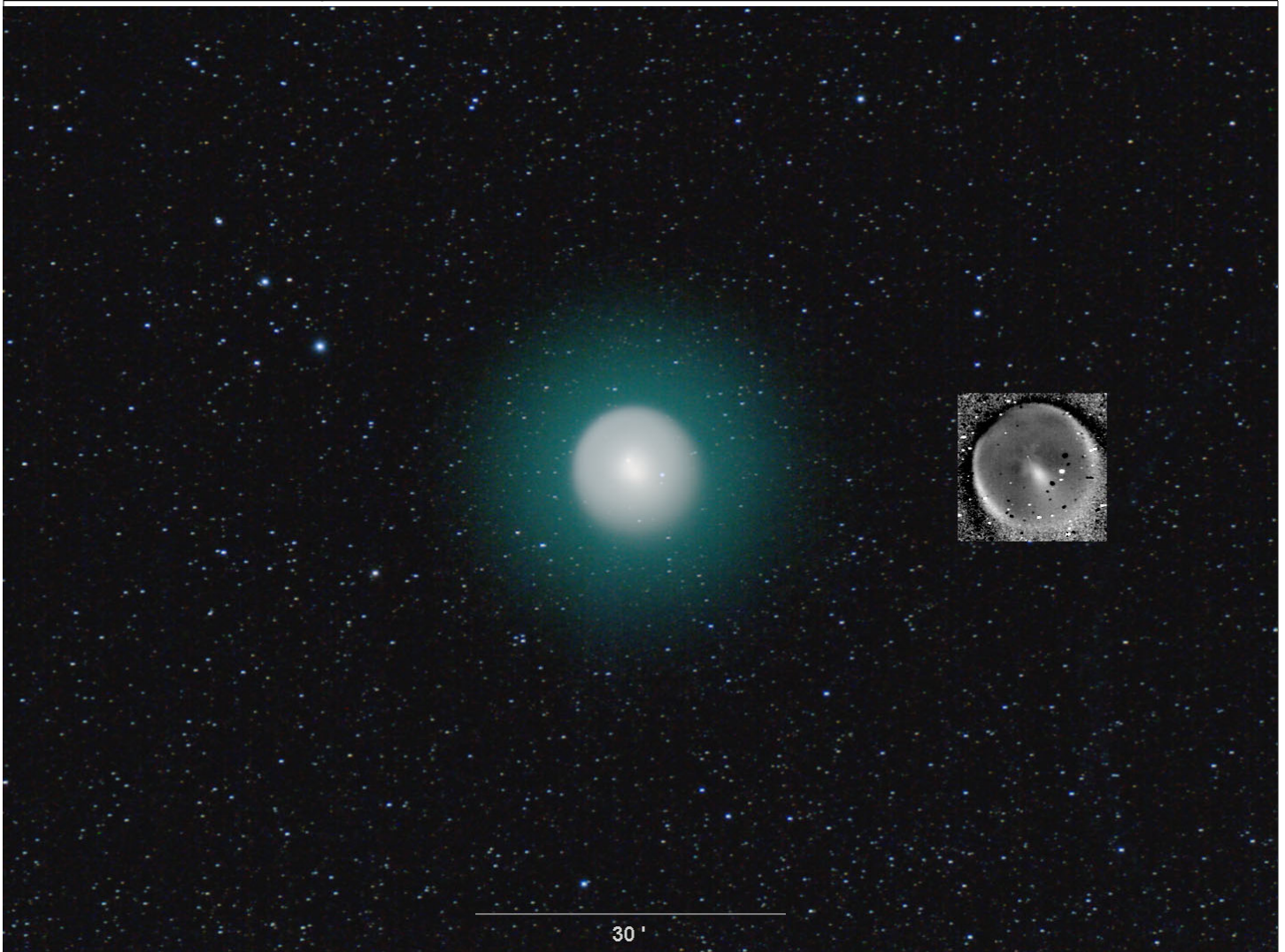
almost in disbelief.

And the naked eye view of the sky was nothing short of astounding. In the evening at the end of twilight the zodiacal light was obvious, hugging the ridge in the west, despite the low angle of the ecliptic during October evenings. The early morning sky was even better. The zodiacal light is a huge, obvious wedge of light following the ecliptic from the horizon at least halfway up to the zenith, rivaling the winter Milky Way in brightness. On the other side of the sky, the Gegenshein (German for counter shine) can be seen rising above the western horizon. Meteors were commonplace. More than once I took time out to lie back in my reclining camp chair to simply gather in the grandeur without optical aid.



Winter Milky Way (right) and Zodiacal Light (left) intersect in the pre-dawn eastern sky

The Bible says “The heavens declare the glory of God”. I don’t know if you believe in a Creator, but there’s no other place else I’ve been that illustrates that more personally to me than at the Okie-Tex Star Party. I can’t wait to go back!



17P/ Holmes

On October 23, 2007 periodic comet 17P/Holmes was a 14.5 magnitude insignificant little comet that had already made its way through a typically insignificant orbit. As it reached perihelion on May 4, 2007, its over all magnitude (m1) was only about 15.0. This was very typical of this insignificant little comet that only measures about 3.5 km in diameter, and spends most of its 6.88 year orbit out beyond Mars. In fact other than its initial discovery year when it had some sort of a cataclysmic outburst and reached a magnitude of 4.0 on November 6, 1892 when it was discovered by E. Holmes of London, England. (for more info check out Gary Kronk's Cometography website at <http://cometography.com/pcomets/017p.html>)

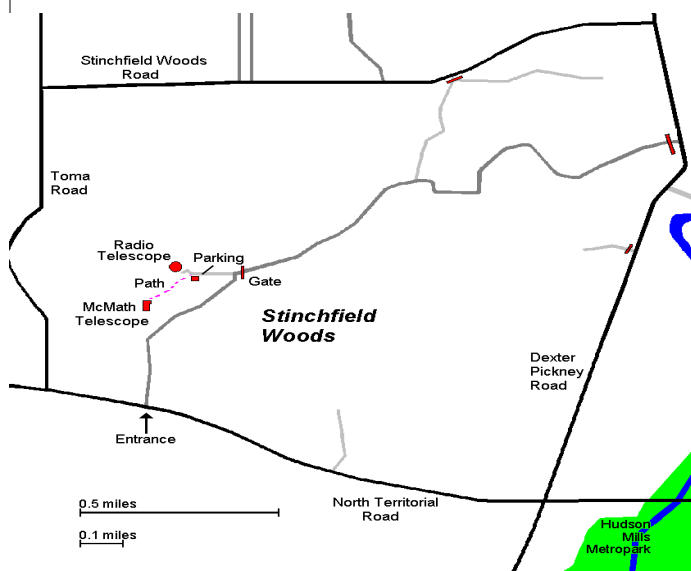
However, on October 24, 2007 periodic comet 17P/Holmes became the most *atypical* comet anyone had ever seen! When it had another cataclysmic outburst and brighten over 1,000,000 times! And has the comet experts clamoring for explanations. I'll leave that up to them and spend my clear nights observing the comet with telescopes, binoculars and naked-eyes for as long as I can, as it is well placed in the evening sky in the constellation Perseus.

Article by Mark S Deprest, Image by Adrian Jones of Maidenhead, UK

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 Astronomer c/o Yasuharu Inugi

**1515 Natalie Lane #205
Ann Arbor, MI 48105**

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. Members renewing their subscriptions are reminded to provide the renewal notice along with your check to the club Treasurer. Please make your check out to: "University Lowbrow Astronomers"

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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Lowbrow's Home Page

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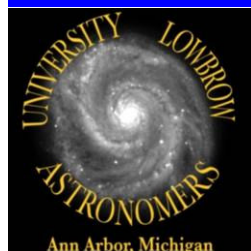


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Reflections & Refractions



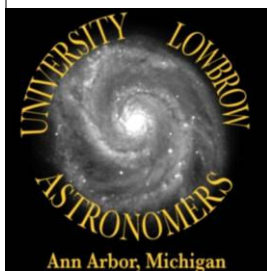
Website

www.umich.edu/~lowbrows/



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M. Jäger image obtained on 2007 October 31.8. This is a combination of three 180-second exposures obtained using a 30-cm Deltagraph, a Sigma 6303 CCD camera, and a blue filter. Although a few overly-processed images from October 29 and 30 hinted at this type of tail, which led to excessive discussion on the internet, this is the first image to conclusively prove its existence. The tail appears extremely short, because the tail is heading almost directly away from our line of sight.



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