



An "Oddball" Christmas Gift

By Doug Scobel

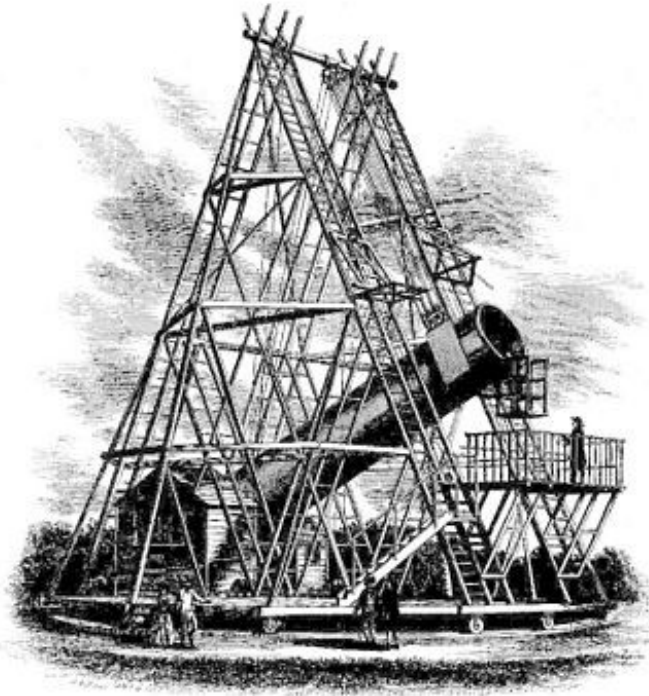


Photos by Author



Intrepid newsletter editor Don Fohey asks if we found anything under our tree this year. Santa indeed left a bit of an oddball astronomical item under the Christmas tree for me. In fact it actually was a ball - the entire planet Mars! Or at least a small scale facsimile of it. It's Sky & Telescope's Mars Globe. It's just a foot in diameter, making it a little easier to handle and display than the real thing. Its detailed depiction of Mars's surface features and albedo variations was created from over 6,000 images acquired by the Viking orbiters. The globe marks about 140 feature names, and also marks the landing areas of human-made landers such as Viking 1 and 2, and all the rovers from Pathfinder to Opportunity. In addition it comes with an updated 16-page booklet about the surface of Mars. Very cool!

Priced at \$99.99 it's not something I would have gone out and bought myself, but I'm really glad that my Santa thought of getting it for me. It makes a really handsome display item on my desk. You can check it out here: <https://www.shopatsky.com/mars-globe>



Sir William Herschel's 40 foot telescope. Image copied from https://en.wikipedia.org/wiki/40-foot_telescope
 File:Herschel_40_foot.jpg [Wikimedia Commons Licensing Policy](#)
 (Editor: He made several telescopes including one 20' long.)

The Herschel Hustle

by Jim Forrester

As many of you know, the club is staging a members and guests only observing session March 17. The "official" site will be Lake Hudson State Recreation area south of Jackson near the Ohio state line. For many this will be an opportunity to log all 110 objects in the Messier Catalog. A handful are difficult to pick out of the evening twilight and several are all but impossible to see in the approaching dawn.

But for those who have observed all the Messier objects or have done the Marathon, the "Herschel Hustle" might be a challenging alternative.

Sir William Herschel, scanning the night sky April 11, 1785 with his 18.7" diameter, 20' long telescope, observed 74 galaxies. Moving the huge instrument required several helpers, so Herschel usually pointed his scope at the meridian and observed what passed through the field of view within a narrow range of altitude, as he did this memorable night 233 years ago.

Visual observing in the 18th century often produced duplicates of earlier efforts, inaccurate locations recorded and more than a few things that weren't (and still aren't) there, it is amazing that during this incredible evening 72 of 74 objects Caroline Herschel logged for her brother still stand up today. And to blow your mind just a bit more, 70 of the galaxies were new discoveries!

Observers in southern Michigan will see all the objects transit between 70-75 degrees altitude. The first on the list hits its highest point just after midnight. Half the objects are dimmer than mag13 and some could require a 16" aperture instrument or larger. "Could" because there are discrepancies in visual magnitude estimates between the attached list and Sky Safari. The first galaxy is the most dim of all--NGC 3196 (in Leo near the Leo Minor border) at either mv14.9 or 16.19. At the lower figure, a 12.5" instrument could pull it in, if the higher a 16" scope (and a lot of magnification) could just make this tiny object visible.

However, given the reflectivity advantage of modern reflectors (at least 88% compared to Herschel's 68%) even an 8" scope will pull in most of the list from a dark site. Many of the objects are located in areas particularly rich in galaxies. Within a few degrees of the line extending between beta and gamma Coma Berenices are many faint fuzzies not on this list. Who knows? You might come up with a total of 110 objects observed by spending some extra time in the part of the sky alone!

All the objects on the list transit before the beginning of astronomical twilight. The last, NGC 6001 (either mv13.7 or 14.3) is highest at 05:43, and lies in the area of the sky enclosed by the arc of Corona Borealis.

For more information, look here:

<http://www.aseonline.org/members-pages/steve-boerner-s-page/herschel-hustle>

or you can dig up a copy of the April, 2015 Sky and Telescope. Mark Bratton's article is very informative.

2017 Year in Review

By President Charles Nielsen

The year 2017 was yet another successful one for the University Lowbrow Astronomers. Membership at the end of the year was 140 strong, and our treasury remained healthy. We did not build any telescopes this year, but after the prime observing and open house season was over, we started an improvement project on our 17.5 inch DOB. When this project is complete the telescope will be full Go To with tracking, and wireless interfaces. We previously had a wireless interface and digital setting circles, but having the Go To ability and therefore not having to frequently adjust the scope when guests are looking through it...will be a vast improvement.

We continued holding our monthly meetings in G115 Angell Hall, except for our July meeting which we hold at Eastern Michigan University. That is a tradition that we started many years ago to avoid the Art Fair and the massive parking problems it causes. It turns out that we had so much fun there that we decided to do it even in the years when Art Fair and our July meeting do not clash.

Our meeting speakers were as follows:

January was long-time club member Paul Walkowski. Paul did a presentation about his 10 inch DOB telescope project. Paul built a beautiful 10" wooden telescope many years ago, but this newer telescope is much, much more portable. We had 28 in attendance.

February brought us a presentation by U of M Professor Keith Riles. Keith is one of the main collaborators on the LIGO project. He did an excellent job describing how LIGO works and what its observations look and sound like. His talk was very timely due to the recent detection of gravity waves. We had 35 people attending.

March featured U of M post doc, Megan Reiter, who spoke to us about how the formation of our solar system required a "messy" environment to have it turn out the way it did. Meagan also attends some of the ACNO events that John Causland hosts in his driveway. We had 20 people at the March meeting.

April brought 37 people into our room for a long and very detailed presentation about the latest research and experiments at CERN and Brookhaven, by Dr. Claude Pruneau of Wayne State University. Claude has become a regular speaker for us, and we have the honor of having him now signed up as a club member! We have seen him at several meetings and events since then. April was also our annual officer's elections, with a couple of changes from the previous year. VP Ken Ruble decided not to run again and he was replaced by Adrian Bradley. Thanks to Ken for his service to our club; and he is still present very often to help us at events. Adrian is a relatively new member and he got very involved with the club immediately. He has taken on several club management functions and brought us some fresh energy. Former VP Don Fohey was elected Newsletter Editor, and former Newsletter Editor, Jim Forrester was elected VP.

For our May meeting, 21 of us heard a presentation about the Rosetta Mission to Comet 67P by Dr. Mike Combi, U of M Professor. Comets are popular with the Lowbrows and always an interesting subject for us.

In June we had two speakers, so we moved the meeting start time to 6:30 PM, and hour early. One speaker was club member Brian Ottum, who spoke to us about the trials and tribulations of owning and operating a remote observatory. Brian's is in western New Mexico, very close to the Arizona border. We could see how this is a serious endeavor and should not be taken lightly, neither technically or financially. Our other speaker was club member Kurt Hillig, who spoke to us about image processing software "Hugin", which is particularly well-suited for stitching images into a panorama. A total of 21 of us were there to enjoy the talks.

For July we took our annual trip to Sherzer Observatory at Eastern Michigan University, to be entertained by Norb Vance. We usually have a larger turnout (this time 40) for this meeting. Could the free food have something to do with it? Our presentation was by Sandra Macika about meteorites. Sandra is a fan and collector of meteorites and she brought along her collection for our inspection at the end of her talk. Norb Vance did a short presentation about some of his trips to other universities and their astronomy facilities. The sky was cloudy so we did not do any observing at Sherzer Observatory. As is typically the case at EMU, it was an enjoyable evening despite the sky!

Year in Review Continued

Our August meeting was the easiest Lowbrow meeting I ever ran! Attendance 0! That is because we canceled it. Our speaker was going to again be Sandra Macika, to do the second part of her series of meteorite talks. But she realized that she could not fit the meeting around her travel plans for the Great American Eclipse on August 21. We also realized that a huge number of club members would also be out of town around our meeting date, and that we had little chance of coming up with a replacement speaker on short notice. We literally had club members spread across the country to view the eclipse, yet some of us had to stay here. But you can be sure that even those that stayed here got out and enjoyed the deep, but partial eclipse viewable in our area. I could write much more about the experiences reported by club members, but that would be an entire, long article by itself.

September was headlined by a presentation about dark matter from Professor Stacy McGaugh of Case Western Reserve University, and it drew more people than even our July meeting. The total was 45! One of the themes of Stacy's talk was the possibility that we have not figured out what dark matter is made of because it does not actually exist. The research and questions roll on.

Our October meeting brought 32 of us to G115 to enjoy a presentation on instruments and sensors used to detect and measure space plasmas and pick-up ions. Dr. Jason Gilbert is from the U of M College of Engineering and he brought several examples of the instruments he discussed with him for us to check out. Don't you still enjoy "show and tell"?

Our November meeting featured a presentation by Ken Bertin on Syzygy. Ken loves doing presentations and has provided us with many of them over the years. "Syzygy" is the science of how, when, and why solar eclipses happen. I am pretty sure that all 32 attending enjoyed it, especially since it was not long after the August eclipse.

We wrapped up in December with our last meeting of the year. Actually, I have yet to see an exception to December being the last month of the year, and that is likely a good thing. Our speaker was Sandra Macika. Sandra was rescheduled from August and did part 2 of her meteorite series. She brought her collection again and I think we could see it better this time because the room light-

We attempted to start our open houses for the 2017 season on March 25, but the weather had other ideas and they were not compatible with our plans. We tried to "fool" Mother Nature by scheduling an open house on April Fool's Day, and it worked! We had 10 Lowbrows show up to entertain and enlighten 75 guests, and the weather was great. Nice way to get started! I think I was OHC for this one.

Our next open house was April 22. Adrian Bradley was our OHC and we had a team of 12 Club members to help out with the 30 guests that showed up. We dared to schedule three open houses last April, but the one scheduled for April 29 had to be cancelled. John Manney was OHC and made the right call. Two out of three for the month of April is not bad for around here!

We had two open houses on the schedule for May. The first one was May 20, but the weather took us out of that one. We did run the May 27 event, co-coordinated by Adrian Bradley and myself. We had 8 Lowbrows for the 10 guests that showed up. Just as well it was a light turnout because the weather turned on us and all we saw was about ten minutes of Jupiter.

Jim Forrester took on the June 17 open house, and he had to cancel due to weather. Jim also took the June 24 open house and had better luck. He and 7 other club members were there to help with 50 guests. Though it started out clear, the night clouded up and the observatory was shut down. Our guests went home, and then it cleared back up... so several of the club members stayed until dawn.

We had to cancel our July 22 open house, but July 29 was better. Jim Forrester was OHC and had 6 club members helping him. We had pretty good weather for the 70 guests that made it. We would have scheduled an open house on August 19, but decided not to due to the large number of club members heading out of town for the August 21 Great American Eclipse.

Year in Review Continued

We did schedule August 26 and OHC Jim Forrester (what would we do without him!) made what sure seemed like the right call. But unexpected clouds rolled in just as we arrived at the gate. Every bit of information we could get online indicated the clouds were going to stick around for the evening, or at least most of it. We did not open the gate and had to turn away about 8 guests that showed up. One person got irritated with me because we were cancelling. She thought we should have sent some notice out before we arrived, or do the open house anyway. All I could do was apologize and explain that we could not show her anything anyway.

On September 16, Adrian and I coordinated an open house with the help of 10 other club members. We had 50 guests show up for what looked like would be a fine evening. But the sky hazed up pretty badly and we could only show some of the brighter objects. On September 23 the weather did not bite us and we had great skies to treat the 50 guests that made it up the hill. I coordinated this one and had 5 other Lowbrows assisting. We had the weather take us out of the two open houses scheduled for October. It seems like we usually get at least one of the October events to go our way, and maybe one in November. So, I now expected we would get at least one of the November events in but we had to cancel both of them also. Therefore our open house season actually ended in September last year.

We had other events scheduled last year, starting with the Ann Arbor District Library loaner scope maintenance and cleaning session on March 4. We had 7 club members there to do the work, or take pictures of the event in progress. Amy Cantu coordinated the event, which lasted about three and half hours. Lots of repairs were needed. One scope was rather comical. It looked like someone broke the base assembly...so they built a new one! I wonder what happened, but maybe just well I do not know.

On July 18 we held our first event for the Michigan Math and Science Scholars. We had 15 students, a U of M Professor, and 7 club members at Peach Mountain for a pretty good night for astronomy. I coordinated this one. Jim Forrester and Jack Brisbin coordinated another MMSS event on July 25, with the help of 3 other Lowbrows. This was a different group of 15 students, and 3 adults. We were very fortunate to have the weather cooperate for both groups!

On August 5 we found ourselves at Cromaine Library, which is in Hartland, Michigan. We were there for an early celebration of the upcoming solar eclipse. I did a presentation about stellar evolution and then went outside to join the other 7 Lowbrows that had various telescopes set up to show the Sun. Dave Snyder also did eclipse demonstrations using one of our NSN toolkits. We showed the Sun in filtered white light, Hydrogen-Alpha light, and even had one telescope using an old fashioned, but very effective, Herschel Wedge. We only had 10 members of the public show up, but at least the Sun cooperated (for the most part) with us.

On August 11 we made a trip to Tecumseh Parks and Recreation. We had tried several times to do an event there but the weather kept messing us up. We finally got one in during 2016 but it was one of coldest nights of that winter season, which was otherwise mild. This time we had much warmer weather, and we were lucky to catch some clearing after thunderstorms rolled through earlier. What was even better than the objects in the sky was the lightening display from the storms pulling away from us in the east. The lightening became the main attraction for the 3 Lowbrows there, and for the 26 guests.

The next night, August 12, we held our first observing event at Rolling Hills County Park. Adrian Bradley was our coordinator for this event, and had the help of 5 other club members. We had a great time at this venue, and the 75 guests that showed up were very pleased and very friendly. We were surprised that our southern horizon was relatively dark, considering our close proximity to Ypsilanti. I am pretty sure we will be returning there in the future.

Our annual two-day event "Astronomy At The Beach" took place on September 29 and 30. This was the first year at a new location; Island Lake State Recreation Area. We had a large contingent of Lowbrows there to help us and the other astronomy clubs involved, and showed the night sky to about 500 members of the public on Friday night, and 3500 on Saturday night. This is a fairly typical attendance for this event. It will be hard to break our record of 10,000 in 2003! Some rain moved in for a short period of time Friday night and caused a scramble for cover by telescopes and their owners! But it cleared up after that. The majority of club members attending expressed that they like our new location better, though it may be a bit smaller; and the area for vendors and demonstrations was much smaller. If that area gets too crowded we could probably do setups around the outside of the building.

Year in Review Continued

On October 7 we were scheduled for Leslie Science and Nature Center, but the weather did not let us do it. This was especially sad because we love this venue and usually get a good turnout of club members and guests. To make it worse, I had to turn down at least two other proposed dates because they clashed with either open houses or club meetings. So we finally found one that worked and the weather erased it! Sad, but we hope for better luck this year.

In conclusion, 2017 was another active and mostly successful year for our club, and we expect the same for this year.

Member Photos

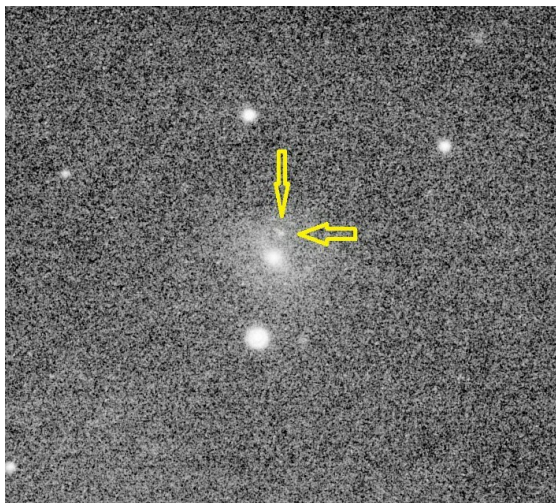


Photo by Doug Bock. (Editor cropped, rotated and mirror imaged photo.)



Photo by Brian Ottum Ph.D. (Editor cropped photo.)
Photo taken from instagram

<https://www.instagram.com/p/Bfq-yCEhjrY/?hl=en&taken-by=astropicsdaily> .

Members Brian Ottum Ph.D. and Doug Bock imaged a supernova. Brian from his observatory in New Mexico and Doug from his observatory in Michigan.

Brian Ottum Ph.D. wrote in an email to members on Feb 26th. "Last night I got a shot of supernova SN2018iq, in NGC 2746, a barred spiral in Lynx: Galaxy is mag 13.1, so I bet that SN is mag 15. Fading slowly. This is well-placed for us northerners, above Ursa Major. There are also at least 2 other active and visible supernovae right now in Ursa Major or nearby! Sounds like an observing challenge."

Doug Bock wrote in an email to members "This is probably the max I can do in tonight's skies. But it is there. Stretched as much as I can, 20 x 1 minute stacked, turned to gray scale for contrast."

Upcoming Events

Family Astronomy at Techumseh

Tuesday March 6th. 7pm to 8pm

Techumseh West Steam Center

West, 401 N Van Buren St. Techumseh, MI

Open House at Peach Mt.

Saturday March 10th.

Lowbrow Monthly Meeting,

Friday February 16th, 7:30pm Angel Hall

Messier Marathon

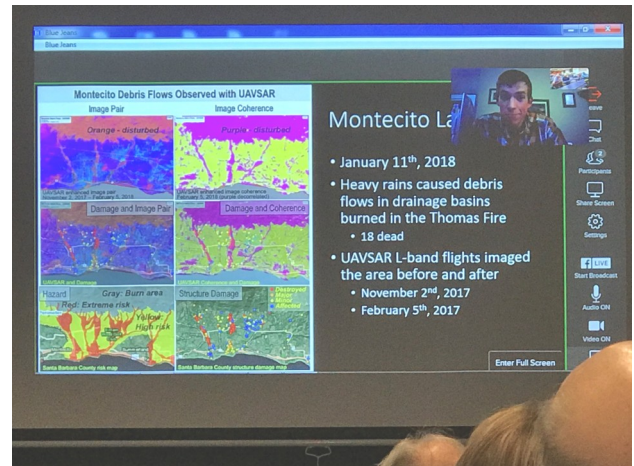
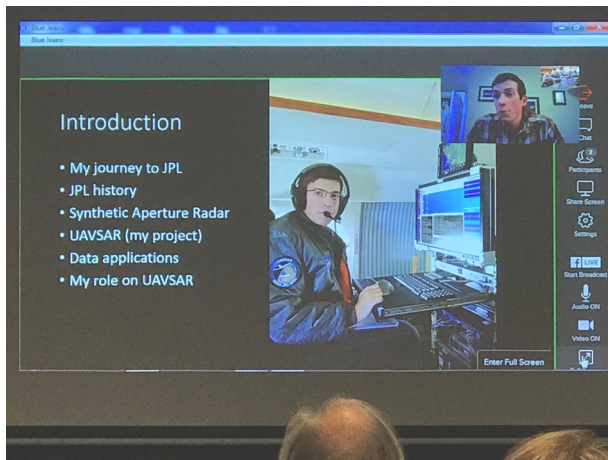
Saturday March 17th. Lake Hudson Rec. Area

University Lowbrow Astronomers

Meeting Minutes

February 16, 2018

President Charlie Nielsen opened the meeting at 7:40pm. He introduced our speaker David Austerberry. David joined the club 2 or 3 years ago and was an active club member. He has moved to California and now works for JPL. He is the operator of a Synthetic Aperture Radar system flown by JPL in an instrumented Gulfstream III aircraft. He gave a video conference presentation titled "41,000 Feet Over Earth: My First Eight Months at JPL." He explained how the radar worked with capabilities at three different wavelengths. He shared some of his flight experiences and explained some uses for the data collected.



Photos by Harry L. Anderson

David's presentation continued with questions until 9pm when we learned that another group had reserved the room for 9pm.

Business Meeting:

President Charlie Nielsen asked for an abbreviated business meeting asking officers to report important issues only. He deferred his report and provided it the next day in an email to members, see below.

VP Jim Forrester reported that he would manage the March 10th open house. He asked for volunteers to operate the McMath telescope, John Wallbank volunteered. Jim also reported that a messier marathon was planned for March 17th and the consensus of emails he received were in favor of having it at the Lake Hudson State Recreation Area.

The Formal meeting adjourned at 9:15pm.

Treasurer Doug Scobel reported via email.

"After the meeting, we had 139 memberships and \$5718.00 in the treasury. I reimbursed Don Fohey \$39.14 for newsletter printing/ mailing costs, and \$94.39 for 17.5" and McMath expenses."

Meeting Minutes Continued

President Charlie Nielsen reported via email.

"I had a telephone conversation with Ken Root Friday afternoon. He is the Executive Director of Mi-Light; a photonics industry group. Our club is an affiliate member of them. Though photonics is not exactly what we do, we do have the fact that we both use optics in common, and we obviously love light photons. Ken sees an organizational model that is very wide in its scope of interest and involvement. We are invited to attend their meetings to hear their speakers and network with their other members. What could come out of this down the road is getting conversations with people that are involved in such things as LED design. Ken and I agreed that there is often a disconnect between designers, manufacturers, and customers or users. Our contacts and conversation could help bridge that gap and maybe as a result we can influence the designs and implementation of light fixtures.

We are invited to the next meeting of M-Light, which is April 19 at Noon, at Baker College in Flint. I am almost certain to have customers and/or future customers to attend to during that time, so I am hoping there are people readings this that can attend. I will have details and confirmations coming soon and will update you."

"I received three requests for events; one a few days ago and two more on Friday. I had to turn down the first one since it would have been on one of our meeting nights.

I was contacted by a person who is asking us to do a presentation on a select Tuesday evening in Howell. Most Tuesdays are open for them between now and the middle of June. It would be at a Howell public school for 20 to 30 Boy Scouts. They want a presentation that would involve identifying constellations and stars. Technically, they want us to teach the scouts a "skill". If the weather is clear this would occur outside starting at 7:30 PM and going till 8:30 PM, but if it is not they would like and indoor slide show to accomplish the same. According to the dates spreadsheet I was sent our time is only 15 to 20 minutes if we are inside, though it states extra time may be possible upon request. You may question the time allotment difference, and I have no answer at this time. The question first at hand is if their is some one or more that can do this? Is it worth going to Howell for this short a time? It is unlikely I would be able to do this so I am looking for response before I give any commitments.

The other event came via a request sent to Norbert Vance about a family astronomy event at an unknown school in Tecumseh on the night of March 6, a Tuesday night. It is a request for telescope observing, and for just one hour. I ask the same questions as above.

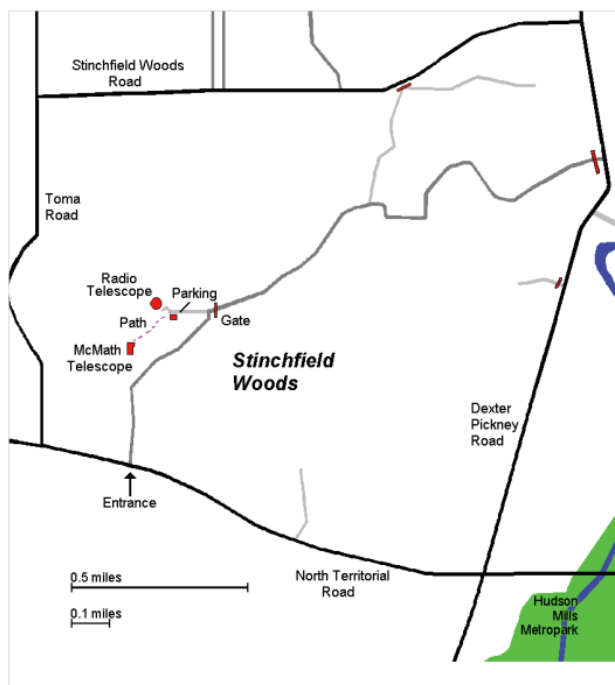
Please let me know if you are interested in either of these and are willing to help. Thank you!"

Submitted by Don Fohey

Places & Times

Monthly meetings of the University Lowbrow Astronomers are held the third Friday of each month at 7:30 PM. The location is usually Angel Hall, ground floor, Room G115. Angell Hall is located on State Street on the University of Michigan Central Campus between North University and South University Streets. The building entrance nearest Room G115 is the east facing door at the south end of Angell Hall.

Peach Mountain Observatory is the home of the University of Michigan's 25 meter radio telescope and McMath 24" telescope which is maintained and operated by the Lowbrows. The entrance is addressed at 10280 North Territorial Road, Dexter MI which is 1.1 miles west of Dexter-Pinckney Rd. A maize and blue sign marks the gate. Follow the gravel road to the top of the hill to a parking area south of the radio telescope, then walk about 100 yards along the path west of the fence to reach the McMath Observatory.



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 Mt. Observatory, but are usually cancelled if the forecast is for clouds or temperature below 10° F. For the most up to date info on the Open House / Star Party status call: (734) 975-3248 after 4pm. Many members bring their telescope to share with the public and visitors are welcome to do the same. Mosquitoes can be numerous, so be prepared with bug repellent. Evening can be cold so dress accordingly

Lowbrow's Home Page

<http://www.umich.edu/~lowbrows/>

Membership

The University Lowbrow Astronomers membership dues are \$30 per year for individuals or families, \$20 per year for students and seniors (age 55+) and \$5 if you live outside of the Lower Peninsula of Michigan. Membership entitles you 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 \$18 annual fee to cover printing and postage. Dues can be paid at the monthly meetings, by PayPal, or be check made out to University Lowbrow Astronomers and mailed to:

The University Lowbrow Astronomers
P.O. Box 131446
Ann Arbor, MI 48113-1446

Lowbrow members can obtain a discount on these magazine subscriptions:

Sky & Telescope - \$32.95/year or \$62.95/2 years

Astronomy - \$34.00/year, \$60.00/2 years or \$83.00/3 years

For more information about dues or magazines contact the club treasurer at: lowbrowdoug@gmail.com

Newsletter Contributions

Members and non-members are encouraged to write about any astronomy related topic. Contact the Newsletter Editor: Don Fohey donfohey@gmail.com to discuss format. Announcements, articles and images are due by the 1st day of the month as publication is the 7th.

Telephone Numbers

President: Charlie Nielsen (734) 747-6585
 Vice President: Adrian Bradley (313) 354 5346
 Jim Forrester (734) 663-1638
 Larry Halbert
 Dave Jorgensen
 Treasurer: Doug Scobel (734) 277-7908
 Observatory Director: Jack Brisbin
 Newsletter Editor: Don Fohey (734) 812-3611
 Key-holders: Jim Forrester
 Jack Brisbin
 Charlie Nielsen
 Webmaster: Krishna Rao

A NOTE ON KEYS: The club currently has three keys each to the Observatory and the North Territorial Road gate to Peach Mountain. University policy limits possession of keys to those who they are issued. If you desire access to the property at an unscheduled time, contact one of the key-holders. Lowbrow policy is to provide as much member access as possible.

Email to all members

Lowbrow-members@umich.edu



University Lowbrow Astronomers



Member Club



Astronomical League Member Society
#201601, Great Lakes Region

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