

REFLECTIONS / REFRACTIONS

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University Lowbrow
Astronomers

February 2008

Volume 32 Issue 2

Gold Reflections

By Michael Kurylo

I am pretty sure that every once in a while we all have those moments when we reflect on our lives. Whether it is to ponder what it was, what it could have been, what it is, or what it will be. All of those situations refer to our individual circumstances, and in this particular instance my astronomical interests.

While sitting at the window in my home recently I had one of those moments. I was looking out at the night sky and remembered the incident that catapulted my interests in the NASA space program, astronomy, and eventually engineering. It all began 35 years ago this month at the Kennedy Space Center.

I had just turned 10 years old and was on a trip with my family to Florida. But this was no ordinary trip. IBM had arranged for a company group trip for a week-long stay at Disney World via an AMTRK train leaving near the IBM facility in New York where I grew up. The trip itself was quite eventful since what should have been a direct 12 hour ride turned into a major event for a kid. The door to our car, between train cars, would not close so the noise was unbearable after a while. Later on we saw fire trucks driving alongside the train and passing us. We then realized what was happening while looking out the window. The fire trucks were there to put out the fire in the engine up front. So after more than 24 hours cooped up in the train with a lack of food or water we finally arrived in bright, sunny Florida.

As luck would have it that happened to be one of the coldest weeks Orlando had seen in a while with frost and ice on the orange trees. My dad took this beach down-time as an opportunity to take us on a visit to the Kennedy Space Center.

It was only a couple of months since the Apollo 17 mission and my dad was probably more excited than I was to make the trip to the cape. I was a bit too young to realize what the trip was going to entail. My attitude sure changed as soon as I cast eyes upon the massive launch towers and toured the inside of mission control and the assembly buildings. But the most memorable part of the whole trip down south was yet to come.

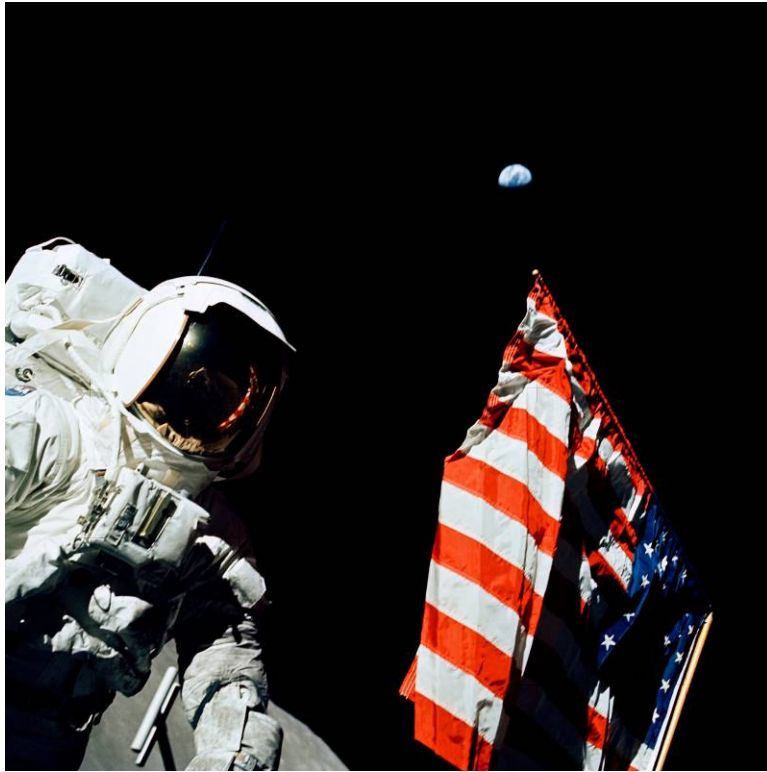
For those of you who have had the chance to experience it first hand, you may remember that on the grounds of the facility were the disassembled components of various Mercury, Gemini, and Apollo spacecraft. It became heaven (space) on earth for me as I ventured through it, all of it, over and over. Until I came upon something I found quite amazing.

A spacesuit! A truly American original Apollo mission spacesuit right before my very eyes! My mind couldn't stop racing with all kinds of images of me exploring everywhere possible outside of our atmosphere as I stared intently at that amazing gold tinted visor.

But didn't I catch a glimpse of this spacesuit in a different area of the grounds earlier? And why was it propped up against a railing? These questions had not yet really percolated to the surface of my consciousness, but they were there.

I began to strain and try to see eye-to-eye into the visor for several minutes as other kids gathered around when all of a sudden it turned its head to look directly at me, eye-to-visor, and stood fully erect over me. Well not to be outdone, my dad claims I leapt high enough in fear to dunk a basketball. I don't remember screaming, but it was most likely drowned out by the laughter of the surrounding adults who were watching the events unfold as the astronaut was only taking a short rest by allowing the weight of his pack to sit on the railing. I later found out that he couldn't resist surprising me any longer since I had been tapping at his visor non-stop to see if he was real.

To this day, 35 years after the fact, my family still reminds me of that episode.



AS17-134-20384 (December 1972) --- Scientist-astronaut Harrison H. Schmitt, lunar module pilot, is photographed next to the deployed United States flag during lunar surface Extravehicular Activity (EVA) at the Taurus-Littrow landing site. The highest part of the flag appears to point toward our planet Earth in the distant background. This picture was taken by astronaut Eugene A. Cernan, Apollo 17 commander. While astronauts Cernan and Schmitt descended in the Lunar Module (LM) to explore the Moon, astronaut Ronald E. Evans, command module pilot, remained with the Command and Service Modules (CSM) in lunar orbit.

The Further Adventures of a Frustrated Astronomer

By George Ferrier & edited by Mark S Deprest

Unable to do much observing due to the weather conditions, however on October 28, 2007 I went EMU's public viewing night at Sherzer Observatory. On tap for this night were Comet 17p Holmes, M57 – the Ring Nebula, and Double Stars in Ursa Major.

Observing Notes:

Comet Holmes was discernable to the naked –eye and very faint, but through the scope it was a bright sphere with a halo around it.

M57 – the Ring Nebula looked like a gray smoke ring, spherical, I could not make out any color in the rings (halos) which give it the name of the ring nebula.

Mizar and Alcor in Ursa Major thru a “monocular” were surprisingly further apart than I had realized.

On November 18th it was very clear and I was observing Mars, Gemini, Orion and the Pleiades. Rigel, Bellatrix and Betelgeuse were the bright stars of Orion. Castor and Pollux of Gemini, and much more but I was having trouble with my binoculars. I kept see double images, so I had to rely on me unaided eyes. I was able to see 6 stars in the Pleiades most of the time, however, with averted vision I would see as many as 8 stars.

Because of overcast conditions I was not able to do any observing until November 23rd & 24th, when the sky was really clear. I figured out what was wrong with my binoculars, the right tube section was partially unscrewed and cocked to the left. When I screwed it back into place everything was back to one image.

My biggest frustration with my 7x50 binoculars is that they have a “UV block coating” which seems to be causing a red or blue glow around the planets, but not so much around stars. I could not do much observing during the Full Moon phase but still when I used Aldebaran as a guide I could find the Pleiades.

I liked examining the moon with my binoculars and I imagined the darker areas to resemble a man carrying a football or basketball.

I talked to some of my neighbors and they said their children might like to do some observing with me. So the next time out I had some company, I showed the kids how to recognize Orion and I show them Mars and the Pleiades. I also explained to them that we live in a galaxy called the Milky Way and did my best to convey just how large the galaxy is. I told them that the galaxy was made up of everything they could see, all the stars, planets, comets, meteors, asteroids and nebulae. They seemed truly interested, hopefully they will join me again and maybe even come to an open house or two.

Observat'n Resolution '08

By Christopher Sarnecki

As we are sitting here in our annual cold-and-cloudy period otherwise known as December/January/February, I thought it might be more productive to research some observing challenges for the upcoming 2008 observing season. Yes, this is an Observat'n Challenge list. Most of these, I intend to pursue myself over course of this year. Some of these may need the combined talent of our club (John - Get the 61 ready). Many of these objects have been on my observing list for years. Do I expect to see every one of these? Who knows, but I'll be giving these objects my best efforts this year. In no particular order, other than right ascension, starting in February and in the total darkness of course.

Name/Cat No. Mag Size Coordinates - RA/Dec Constellation

Sirius B **8** - **06h45m/-16^43'** **Canis Major**

This 8th mag white dwarf is the companion to the brightest star in the sky, the -1.4 mag Sirius. Now separating in their 50 yr orbit, will be at maximum separation of 11" in 2029. This year the separation begins at 8.2" and ends the year at 8.6". Use the highest power the seeing will permit and observe when Sirius is highest in the southern sky. Check out page 33 of *Sky & Telescope's* February issue for more observing tips.

Leo I **10** **10'** **10h08m/12^18'** **Leo**

Low surface brightness Dwarf Galaxy. 1/3 degrees north of the bright star Regulus, which shines at 1.3 mag. Keep Regulus outside the FOV. I think I overheard Doug Nelle claim he has seen this one; but, hey I don't believe everything I hear.

Wolf 359 **13.7** - **10h54m/07^19'** **Leo**

Red Dwarf. Third closest known star, 7.75 LY, after the Alpha Centauri system and Bernard's star. I have always wanted to say I have seen a red dwarf star. Red dwarf stars are the most numerous stars in galaxy. This red dwarf is one of the smallest stars known, at about 10% the mass of the Sun and about the size of Jupiter.

3C273 **11.7 - 13.2** **12H26M/02^19'** **Virgo**

The brightest Quasar (visually) as seen from the Earth that is. On a clear day you can see 93 million miles, or about 8 light seconds to the Sun. On a clear night, you can see about 2.2 million miles naked eye to the Andromeda galaxy. Wouldn't it be nice to say on a clear night, you can see almost 2 Billion light years in your scope by sighting quasar 3C 273? See page 83 of *Sky & Telescope's* May 2005 issue for maps and observing tips. Now come on folks, no complaints, this one is doable.

Abell 39 **13.0** **2.9'** **16h27m/27^54'** **Hercules**

Billed as possibly the most spherical of all planetaries. This planetary has been on my must see list for some time. I did see Abell 39 at last summer's Black Forest Star Party in Robert Wade's excellent 22" Obsession. I failed to glimpse it in my 18", both at Peach and BFSP last year. So it's still on my '08 list.

Intermission - Wintertime is 'Stout' time, and this winter, I've had some good-uns:

Black Chocolate Stout, Brooklyn Brewery, Utica, NY - Deep chocolaty goodness. Can't tell you how many sixers I had of this one over the course of the winter (5). If this stuff wasn't in a bottle, I would have thought it was a chocolate bar.

Breakfast Stout, Founders B.C., Grand Rapids, MI - Chocolate, smoky and toasted malts. Thick without being too filling. This brew is what we beer snobs strive for. Very close to perfection!

Bid Eddy Russian Imperial Stout, Leinenkugel B. C., Chippewa Falls, WI - Deep toasted malt nose at arm's length. Rich raisins, dark molasses, smooth w/o any bitters. Mmm, my mouth must be in heaven.

NGC 1049 13 0.5' 02h40h/-34^17' Fornax

Extra-galactic globular cluster in the (unobservable) Fornax galaxy. Looking for this object is 'grazing in the grass', as I can attest when I went looking for it at the Black Forest Star Party a few years ago. I intent to try again on this one. This time I will be equipped with the nice sky photo locating this 13 mag, ½ arc minute spot very low in the southern sky. See page 104 in the October 2002 (I told you I have been following some of these objects for some time...) *Sky & Telescope* for a fine photograph locating NGC 1049 that I intend on using to help locate this one.

Davy Crater Chain 45 Km 11.S lat./7W long. Moon

Who said the objects on this observing list had to be difficult? I always wanted to see this string of craterlets just north and west of the famous crater Alphonsus. You know the large crater with the small but distinct volcanoes or cinder cones. Approximately 2 dozen craterlets formed in a row inside the squared off Crater Davy Y. Possibly formed when a comet or asteroid that was torn apart by Earth's gravity just before slamming in to the Moon. See the excellent picture/map locating this object on page 112 in the November, 2002 *Sky & Telescope*. If you need a copy, see me and bring cash, the folding kind. The Davy Crater Chain is also highlighted in *Sky & Telescope's* October 2007 issue.

Challenge objects for an Observat'n Challenge list:

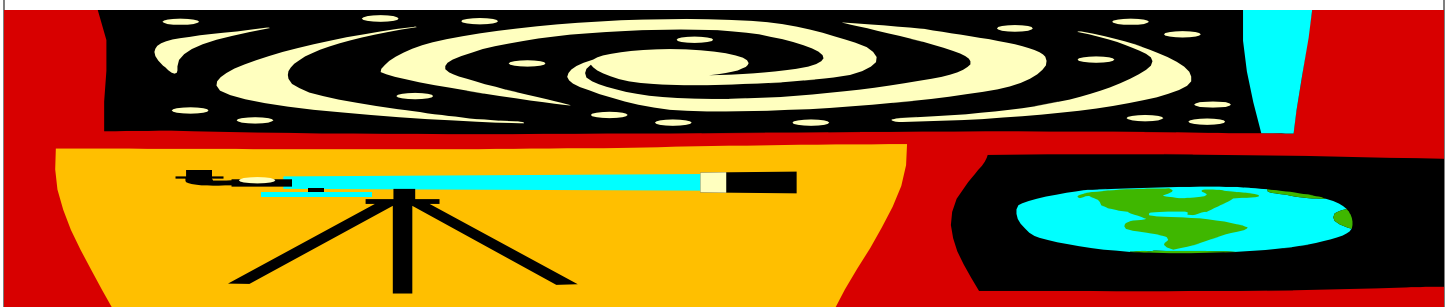
OK, I get it. Some of these objects I am probably not going to see, but hey, what about using the combined efforts of our club to pursue these?

Polarissima Borealis - that diminutive 13 mag galaxy that is within one degree of Polaris. I did try and locate this one at a Black Forest Star Party a few years ago and failed. I'm probably giving up on this object. OBTW, this object is Doug Nelle's signature object. He can find it even from the southern hemisphere!

G1 in the Andromeda galaxy - Another extra-galactic globular cluster. Reportedly a 13.5 mag non-stellar smudge southwest of M31. Consult the finder charts on Sue French's December 2005 *Sky & Telescope* article for more information on this one.

The jet in M87 - A relativistic plasma jet produced by the galaxy's black hole. This one is not on my personal list as it would take a BIG scope, high magnification (higher than the Tasco limit of x600), and steady seeing of course. Too bad we don't attend a southwestern US star party in the spring.

Perhaps I'll report latter in the year on how well I fared on this list of challenge objects. I'm sure many Lowbrows have their own list of challenge objects and I would like to hear about other targets that we may want to pursue in our Observat'n Resolution '08.



Night Sky Network

"Astronomy clubs bringing the wonders of the universe to the public"



Do you remember the image of Doug's neighbor's house? The house being all aglow, well, Christmas has past but light pollution hasn't. Other than laughing about how to fix it, who said paint the snow black?! I've got a better idea!

Here is a great opportunity to get the public informed and involved with the fight against light pollution. Join a timely teleconference with one of the biggest advocates for dark skies, Constance Walker of the GLOBE at Night project and the National Optical Astronomy Observatory (NOAO). She will talk about how to participate in this worldwide citizen science project and what you can do to increase awareness about light pollution.

So when is it and how does one join the teleconference? The conference is February 5 at 9:00 our time, call the toll-free conference call line:

1-800-779-8164 anytime after 8:45 pm.

An operator will answer and - You will be asked for the passcode: NIGHT SKY NETWORK

You might be asked for the call leader: MICHAEL GREENE

You will be asked to give your NAME and the CLUB you belong to, and number of people listening with you.

If you have any problems accessing the teleconference or any questions, please email: nightskyinfo@astrosociety.org

Then after the conference help report your nightly star observations to: GLOBE at Night Campaign Event from February 25th - March 8th, 2008. There are four easy star-hunting steps:

- 1) Find your latitude and longitude.
- 2) Find Orion by going outside an hour after sunset (about 7-10pm local time)
- 3) Match your nighttime sky to one of the magnitude charts (more information is found on the website: <http://www.globe.gov/GaN/>)
- 4) Report your observation to: <http://www.globe.gov/GaN/>

You can compare your observation to thousands around the world! Please join the fight against light pollution!

An Invitation to a Grand Marais

By Belinda Lee

The Great Lakes Sea Kayak Club invites the Lowbrows to come star watching and paddling! July 17th to the 20th is the date for the 24th Annual Great Lakes Sea Kayak Symposium in Grand Marais, MI. Although the event is geared toward paddlers the Lowbrows are invited up to share in the fun. The idea is to have star watching on the beach Thursday July 17th. The Lowbrows are also encouraged to setup on the beach or surrounding area during the time the symposium is going on.

If you are interested in trying paddling kayak rentals and instruction is available but reservations must be made in advance. Kayak rentals must be accompanied with instructions. or more information on the event see the website:

<http://www.glsks.org/>

Accommodations:

Camping is available at Woodland Park Township Campground overlooking Lake Superior and Agate Beach. This modern campground has sites available on a first come, first serve basis and overflow, primitive tent camping is available on the ball field adjacent to the campground. Woodland Park is up the hill from the Harbor Beach and adjacent to the Recreation Center, the hub of many symposium activities. For information contact the Park Office at (906) 494-2613 or Burt Township at (906) 494-2381. For additional information on Woodland Park and local motels see www.grandmaraismichigan.com. A quick note on accommodations hotel rooms book quickly during the symposium. If you are not planning on camping booking a hotel room as soon as possible is encouraged.

The Odyssey 2 Continues

By Jack Brisbin



On Saturday January 26th, Mike Kurylo, Jim Forrester and me, four wheeled their way to the Peach Mountain Observatory, home of the Big Red 17.5 Inch Coulter Telescope. That crisp cold morning air added a quickened pace to our removal and disassembly of the Big Red Monolith. Mike Kurylo took the rocker box and base home to salvage the usable hardware. We partially disassembled the end cap and mirror cell/mirror from the 75-inch long telescope tube. The mirror was placed in its new storage box and the half inch thick, 21-inch diameter telescope tube was transported to my house for disassembly and disposal. The usable hardware was salvaged and saved for further use.

The picture to the left shows the 17.5-inch Coulter telescope at a Peach Mountain Open House. The telescope tube assembly alone weighs 120 pounds. I weighed the tube parts as I disassembled the tube. This does not include the rocker box and base that Mike has.

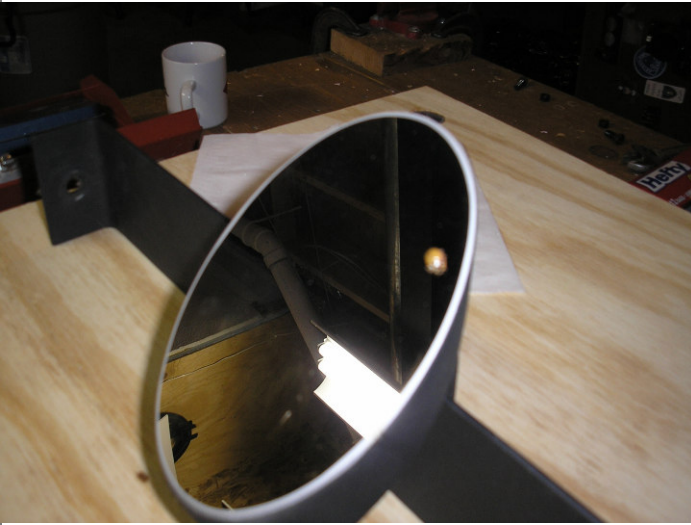
Mike Kurylo and I would like to thank Jim Forrester for giving up his Saturday morning to open up the observatory for us.

This is not the end of the Coulter telescope, but the beginning of the club's new telescope that will utilize the Coulter 17.5" mirror and the secondary mirror. Last year at a monthly club meeting a proposal was approved to go ahead with the new telescope. Two tasks that were outlined in the proposal are, Disassembly of the Coulter Odyssey and Cleaning and storage of the primary mirror. These tasks are in the process of being completed.

The following picture shows the primary mirror is taped to the mirror cell with duct tape. There were two metal bands around the duct tape to hold the mirror in place. No mirror clips were used. The mirror is actually 17.7 inches in diameter or about two tenths of an inch bigger than stated by the manufacturer. The mirror is about 1.5 inches thick and weighs about 30.5 pounds. The particleboard combination end cap and mirror cell weighs 23 pounds. There were about 4 to 5 layers of duct tape rapped around the mirror. I'm currently cleaning off the sticky residue left on the side of the mirror.



I found ladybugs in the tube, mirror cell and secondary holder. Apparently bringing the tube assembly into a warm basement must have revitalized



them, because they just appeared out of nowhere and started crawling around.

As you can see from this picture of the secondary mirror, the ladybugs started to get frisky. So I had to dis-



pose of them. The primary mirror and secondary mirror are in good condition, after being stored in the observatory for about 6-7 years.

The last photo on the right shows the remains of the telescope tube assembly.

So, where do we go next? I will be bringing the primary mirror, the secondary mirror and the remaining parts from the tube assembly to the club meeting on February 15, 2008. Interested in learning more? ***Be there!***



2007 marked the first year of the University Lowbrow Astronomers involvement in the Night Sky Network, and special recognition awards for their active participation in NSN approved events went to some of the Lowbrows those awards (pins and certificates) were presented by NSN Coordinator Belinda Lee.

From left to right: David Snyder, Yasuharu Inugi, and Charlie Nielsen. Images by Clayton Kessler.



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RIDER'S
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The 5th Annual

Astronomy Expo & Swap

Hosted by Ford Amateur Astronomy Club (FAAC) & Rider's Hobby – Livonia

Saturday, Feb 16, 2008 9:00 am - 3:00 pm

Holy Cross Church Gymnasium, 30650 Six Mile, Livonia

Included: FAAC Speakers

10:00 am: Astronomy 101 – G. Hansen

11:00 am: The Leap from Film to Digital Image – C. Kessler

12:00 pm: How to Succeed in Astronomy without Going Broke – J. Schroer

1:00 pm: How to Safely Maintain Telescope/binocular/eyepiece Optics – J. Kirchhoff

2:00 pm: Binocular Observing – J. Frisbie

Broader Astronomy Subjects

10:30 am: Preserving the Night Sky in Our Neighborhoods – F. Ancona

11:30 am: How to Make a Star – Dr. K. Bjorkman, U of Toledo

1:00 pm: The Future of the Universe – Dr. F. Adams, U of M

Planetarium Lectures @ 10am, 11am, 1pm, 2pm – T. Cervenak

Earn Cash By Selling Your Extra:

Telescopes - Eyepieces - Cameras - Binoculars - Mounts - Tripods - Software - Publications - Accessories, etc.

Admission: \$5.00 at the door or presale (children 15 and younger – Free)

Table Fee: Individuals \$15 in advance, or as available at the Door, \$20 (one person)

Advanced Registration ends January 21, 2008.

Vendors, Manufacturers, Commercial, Contact below for table, exhibit space and fees.

Doors Open: 8:00am setup only. **Complimentary Coffee & Donuts provided by Rider's Hobby.**

Make Checks Payable: to FAAC for advance admission or table registrations.

Send payment to:

Ford Amateur Astronomy Club, P.O. Box 7527,

Dearborn, MI 48121-7527 - by Jan. 21, 2008.

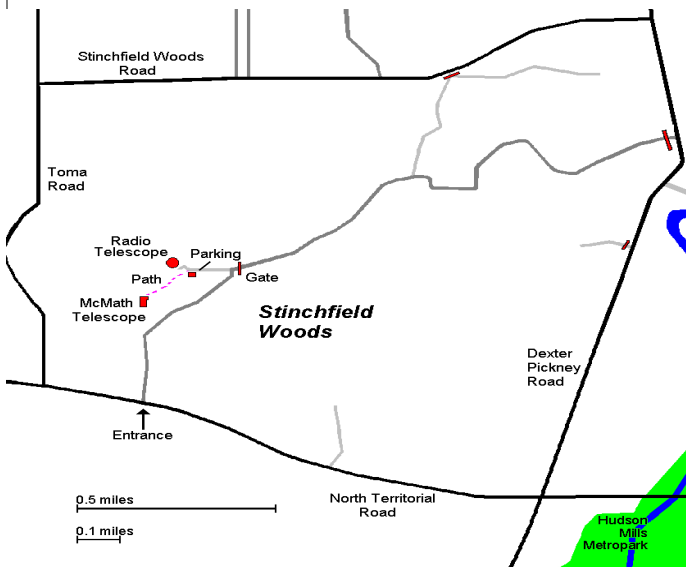
For More Tom Blaszak via email: key_string_guy@yahoo.com or call (734) 425-9720, or

Information: John Kirchhoff via email: riderslivonia@aol.com or call (734) 425-9720

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.

Telephone Numbers

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	Ken Cook	(734)769-7468
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	Bob Grusczyński	(734) 461-1257
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	Fred Schebor	(734) 426-2363
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Webmaster	Dave Snyder	(734) 747-6537

Lowbrow's Home Page

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

Email at:

Lowbrow-members@umich.edu

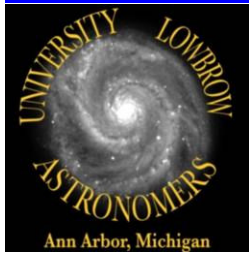


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Reflections & Refractions

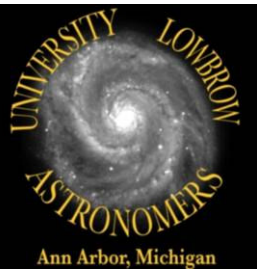


Website

www.umich.edu/~lowbrows/



Comet 17P Holmes taken by Rolando Ligustri remotely from RAS-NM (USA) 02/01/2008 at 05:16 UT with System G14. Apo Takahashi 106/430 ccd STL 11000 LRGB = 4 x 600s
Field size cropped to 196' x 196' North is at top, East is left.



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