REFLECTIONS / REFRACTIONS

University Lowbrow Astronomers

April 2020

VOLUME 44, ISSUE 4

Comet C/2019 Y4(ATLAS)

Above images taken March, 4, 10, 15, 17 and 21st. By Doug Bock

https://www.instagram.com/p/B-Cvx3iD-yT/

Brian Ottum Ph.D. wrote to members email March 22nd. Subject New Exciting COMET!

"This should brighten your day: Comet C/2019 Y4 (ATLAS) is brightening MUCH faster than predictions, and is at about mag 8 now. Here's my shot from last night (desert scope): (ed Left) Conservative estimates put it at mag 0 when it tightly rounds the sun in late May. IF it continues to brighten on its current rate, it will reach perihelion at mag -11!! YES, VISIBLE IN THE DAYTIME.

This comet is likely to have broken off from the parent of the Great Comet of 1847, which was so fantastic that you can Google engravings of its spectacular tail. This comet has the exact same orbit as the Great Comet of 1847.

Sooooo, we should all get out there and track this comet visually over the next 2 months. After perihelion, there's a good chance that it is gone (burned up because it got so close to the sun).

This comet is PERFECTLY placed for us Michiganders, right above Polaris at dusk. Not far from M81_82 in Ursa Major. Each night it moves down and to the left, closer to the setting sun. Use your trusty Sky Safari (though you cannot trust its magnitude estimates because they have not been updated with the latest "outburst")."

IS USING "GO-TO" FOR MESSIER MARATHONS CONSIDERED "CHEATING"?

By Adrian Bradley

The weekend before the official Lowbrow Messier Marathon, I went out to Lake Hudson and did a 'trial run' to see how well I could find as many objects as I could before I had to drive back home. I was beginning my commitment to record mass for my church, so I was unable to stay until sunrise and do a full marathon.

My 'half marathon' ended at M13, which hadn't risen above the trees in the Lake Hudson Picnic Area parking lot. But based on the Sky Safari 'Messier Marathon List' which defaults to Right Ascension order, I had worked my way from the northwest through the southwest, the southeast, and ended in the northeast. I visually observed a total of 66 Messier objects within a 2-hour span. I can't truly count M74 and M33, as they were too diffuse for me to properly identify, and astronomical twilight hadn't quite ended. But that ends in 68 objects total that I attempted.

With the notable exceptions of M45 (Pleiades) and M44 (Beehive), I saw all of those objects in the eyepiece. M42/43 (the Orion Nebula) was seen ahead of the others, as I had completed aligning my scope and tested go-to. So I counted those ahead of time. As for M45 and M44, I simply looked up, saw them naked eye, and considered it 'done!'. The same thing could hold true of M42 as well. You can even see it in the picture above.

Unfortunately I could not make it to the 'official' Messier Marathon night due to my commitment to be up early in the morning for my church. So I did not give myself a second chance to try and view M74/M33. I'll have to wait for darker summer skies to give M74 another shot. M33 is circumpolar so there will be other opportunities throughout the year.

IS USING "GO-TO" FOR MESSIER MARATHONS CONSIDERED "CHEATING"?
CONTINUED

Ok so those of you reading who have done Messier Marathons without the benefit of a go-to drive have all probably answer the question posed in the heading. If it took you some years to get familiar with exact locations of each Messier object to the point you know exactly where to look for each one, then I completely understand your answer of 'you are darn right it's cheating!!!' But to those who are newer to amateur astronomy and have embraced the technology that go-to utilizes, you may be on the opposite side of the fence, saying 'how else will I quickly learn what these objects look like for myself?!' Plus there is a newer element that has been introduced to Messier Marathons in the last decade – that of getting at least a 3-minute image of each Messier object as you go along. Despite the numerous deeply-imaged versions of each of these objects that are available online, there is nothing quite like getting your own images of these bright stellar objects in 'real time'.

So let's go over the pros/cons of each approach.

It's absolutely cheating!

There is a pride that comes with looking up at the night sky and knowing what's there without needing any sort of gadget to tell us. But back in human history it wasn't a matter of pride, it was 'how astronomy was done.' Until methods of tracking objects were developed in order to study those objects in better detail, the only way to find these objects was by observation, using guide stars, and having good night-adapted vision so that you could recognize a faint fuzzy glow in the eyepiece. If you had very good optics you would see shape, and in very dark skies even a hint of color.

There are awards and prizes given for demonstrating knowledge of the night sky, and these awards prohibit the use of computerized methods being used to find those objects. It may not seem fair to those who have go-to until you understand the spirit of those awards; they are awarding knowledge of the night sky, not knowledge of tools and technology.

If you are an astrophotographer, and you were placed in a dark sky environment with no electronics to guide you, how many night sky stars/constellations/objects would you be able to find and identify with a simple dobsonian mounted scope? Or even better, an equatorial mount with no motor drive? If I point you at Cetus the whale, would you be able to make out it's shape? How about Monoceros or Lepus? Even more importantly, would you instantly know your north/south/east/west directions from looking up?

(Many of you astrophotographers are going to respond with an emphatic 'yes!' because as you started out imaging objects, you made note of where they were in the sky. Your ability to manage your equipment and use it properly didn't take away the love of the night sky itself; the night sky is what draws you to come out and gather images. Perhaps you were an observational astronomer and thenlearned about doing astrophotography to expand your knowledge and love for stellar objects.)

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I'm sure you all that are reading have many more personal reasons to add as to why using computerizedmounts to find objects for you would be considered cheating. After all, how quickly will you learnabout the night sky if you let something else find all of these objects for you?

To this day if someone asks me to trace out the constellations of Lacerta, Coma Berenices, or Canes Venaticci [sp?] not only can I not spell it but would struggle to tell you where they are. I can spot Ursa Major and Casseiopeia but not these three. But… the fact that I know of these constellations comes from the technology I use to observe things in the night sky, which leads me to the arguments for use of go-to as 'not cheating'.

IS USING "GO-TO" FOR MESSIER MARATHONS CONSIDERED "CHEATING"?
CONTINUED

It's not cheating, really!

Unless you are going for one of those awards I mentioned earlier, is there really a consequence to using go-to that is bad? I think it all depends on how you use go-to, rather than whether or not you are using it at all.

I've often looked up after letting go-to find something that I hadn't observed before. I looked through the telrad (1x finder) and noted where the telescope was pointing. I used it to get a general idea of where the object was that I was looking at. I especially did this for M76, the Little Dumbbell Nebula, as it was my first time observing it on my own.

David Levy once said 'it's not truly an observation until you write it down.' So even though I may have arrived at the object using go-to, it is up to me to write down my observations, or do a capture if I wish, and learn things about the object on my own. If I do not have the time nor patience to go to these objects manually, but I wish to see them for myself, then that is where utilizing the go-to helps me to see all of these objects without needing a more experienced astronomer along who may not want to sit and guide me all night anways!

So blazing through 68 objects in 2 hours (66 if you count what I positively identified) may be a prettygood pace for a seasoned Messier Marathon observer who knows where everything in the night sky is. I'd suspect a seasoned observer would move through the objects even faster than that, since they are not waiting on a drive motor to turn the scope towards the objects, they are using their memory, guide stars, keen observation skills, a finder, and maybe a star chart to get them to the object… wait a star chart?!? So, what's wrong with using a computerized star chart if we have the technology to do so? And what's wrong with having software that can utilize that electronic star chart and point our scopes directly at it in the night sky?

Ok so does it really matter if it's cheating or not?

This may be the ultimate question. In today's world where professional astronomers use motorized telescopes to slew to and track objects in the night sky, it is more common for even older dobsonian mounts to be fitted with motors and equatorial wedges so they can track objects in the night sky much like motorized equatorial mounts. What does it all amount to? It amounts to a continued enthusiasm for the night sky. People will continue looking up, and that is what we in astronomy clubs want. If people stop deciding that the night sky is worth spending their free time enjoying, we will gain fewer and fewer members of the general public coming to our open house events.

With the technology, it makes finding objects in a less-than-favorable sky condition possible as well. Perhaps there are a few wispy clouds covering the guide stars you normally use. With go-to you can still train the telescope on an object, and usually the object will stay in view through those wispy, light clouds. With heavy cloud cover there is nothing that can be done, of course.

My take on the whole thing

I once did an outreach event at a park in late December. It was mostly cloudy so the ability to find objects was tough. Using go-to helped me to figure out which objects I could show the public, and which ones I could not. In the end, Orion rose and I attempted in vain to display the Orion Nebula. All I got was the trapezium and the three stars that arc away from it. But the 20 or so guests that were there really enjoyed seeing objects through the eyepiece.

A couple of them started talking about the equipment they had acquired. As I sat silently and listened, they got into the technical capabilities of what they had at home. It was one of those discussions where, had I chimed in, I would have wound up name dropping some of the very cool instruments I have had the opportunity to view or use, such as Dr. Brian Ottum's remote observatory, The McMath at Peach Mountain, John Causland's 61, or even viewing what a Planewave scope can do. I might have mentioned that 'oh by the way this mount I'm using is a world-famous G11 Losmandy Mount. Used, they go on sale for about $2000!'

IS USING "GO-TO" FOR MESSIER MARATHONS CONSIDERED "CHEATING"?
CONTINUED

It's these discussions that I think go off of the rails of what astronomy is about. It's what I had to learn the hard way when I first came bounding into the astronomy club with a gadget called the Revolution Imager 2. Here I was showing seasoned astronomers how good a view of DSOs I could get with just a 5" scope and this imager. Who needs to spend buckets of money on aperture and a well-built telescope? Just get a cheap ol 6 inch with tracking and this live imager, and BAM you're all set!

As my maturity level finally grew a bit, I came to the realization that it really shouldn't be about the equipment. My feeling on it is: If you care more about how your equipment works than what the night sky has to offer, you are missing the point. The telescopes and mounts we have are merely tools for us to be able to enjoy the night sky as we wish to enjoy it. That includes Messier Marathons, Herschel Hustles, and other night sky challenges. It is up to us how to use our equipment to observe and enjoy these objects in the night sky. Ironically enough, I don't use the Revolution Imager anymore – it has developed some problems and has become more cumbersome to use than a DSLR attached to my scope. I've also learned to appreciate the idea of a DSO's photons hitting my eyes directly, rather than hitting a sensor and giving me a crude but effective image of what the DSO looks like.

MY FINAL ANSWER: The only time Go-To is cheating is when a group of astronomers get together during a Messier Marathon night and lay down ground rules for the evening that prohibit using automation to find objects. Otherwise, use it and learn about these and many other objects in the night sky, as well as how the night sky progresses from Fall to Winter to Spring to Summer. There should be no limit as to how we use our equipment to observe any of the catalogued DSOs in our night skies.

Annual Treasurer's Report FY 2019-2020
By Doug Scobel

Here's the balance sheet for fiscal year April 1, 2019 to March 31, 2020. (Ed: Next Page)

As of March 31, 2020 we have 151 memberships, a decrease of 4 over last year.

The minor disparity between newsletter payments and outlay is simply round-off. We nailed it pretty well.

Magazine subscriptions should break even, but do not. A member paid for an Astronomy magazine subscription renewal that I neglected to send in. I am currently reconciling this with the member.

This year 20 Lowbrows are also Astronomical League members (we have been an A.L. member society since 2017). The difference between what members paid and what we paid out is the nominal $10.00 annual fee that the A.L. charges its member societies, and a couple payments received early for next year (July 2020 through June 2021).

The bulk of the donations we received this year were $120.00 and $100.00 "thank you"s from Cromaine and Westland libraries, respectively, for outreach events we did for them. The rest is composed of smallish donations from various members that include them with their dues payments. Those donations are greatly appreciated!

We had two donations going out, our annual $400.00 donation to GLAAC for Astronomy at the Beach, and $100.00 to the International Dark Sky Association. Our annual donation for the Peach Mountain Clear Sky Chart for will be paid in April 2020.

Our shirt/cap sales are much higher than in most past years because we purchased a batch of shirts and caps from our supplier to shore up our inventory. Many members purchased a number of those items.

The difference between what we collected for shipping and mailing and what we actually paid out includes the cost to mail a t-shirt to guest speaker Dan Durda and to purchase stamps.

RASC handbook and calendar sales have been steadily going down in recent years. This year we fell short of ten handbooks to get the best price. This along with the donation of an Observer's Handbook to your club president Charlie Nielsen, and one for use in the observatory, caused our expenses to exceed what we collected.

Our miscellaneous income is from the sale of red Rubylith screen filter sheets that were donated to the club by members David and Mary Shindell.

Our observatory and equipment expenses consist of $236.67 for primer and paint for the observatory building, $67.15 for a new focuser for the 8-inch f/7 Cave reflector, and $800.00 to purchase the 60mm Coronado solar telescope from the late John Causland's estate.

Our guest speaker expenses were $50.00 dining gift cards to Dr. Claude Pruneau and Matt Linke for presentations they made at our April and September meetings, respectively.

Miscellaneous expenses include the annual fee for our post office box, the cost of food and soda at the July meeting at EMU, the cost to print our club brochures, expenses for maintaining our web presence, and the cost for winter storage of the 17.5" Dobsonian.

We ended the fiscal year with $359.39 less in the treasury than the same time last year.

If you have questions or would like further detail then simply contact me. Also, I always bring the hard copy version of the ledger with me to our monthly meetings should you wish to take a look.

University Lowbrow Astronomers Balance Sheet 01 April 2019 - 31 March 2020				
Income			**Expenses**	
Dues	$2,720.00		Phone hotline (AT&T Messaging)	$190.20
Extra for mailed newsletter	$162.00		Newsletter printing/mailing	$163.46
Magazine subscriptions	$34.00		Magazine subscriptions	$0.00
Astronomical League	$157.50		Astronomical League	$152.50
Donations/Gifts	$281.50		Donations	$500.00
Shirt/Cap member sales	$883.00		Shirt/Cap club order	$1,792.96
Shipping/mailing	$8.20		Shipping/mailing	$38.10
RASC publication sales	$510.00		RASC publications cost	$566.25
Miscellaneous	$12.00		Observatory/equipment	$1,103.82
			Guest speaker expenses	$100.00
Total Income	**$4,768.20**		Miscellaneous	$520.30
Balance 01 April 2019	**$7,888.03**		**Total Expenses**	**$5,127.59**
Plus Income	**$4,768.20**			
Minus Expenses	**$5,127.59**		**Shirt Inventory**	**61**
Balance 31 March 2020	**$7,528.64**		**Cap Inventory**	**24**
Net Increase (Decrease)	**($359.39)**			

Upcoming Events

DATE	EVENT	LOCATION	
Friday March 20th. 7:30 pm	Monthly Meeting	By Video Conference. Instructions will be emailed to members	Professor Michael Meyer, U/M LSA Astronomy, Topic: Exoplanets

University Lowbrow Astronomers
Officers Meeting Minutes
20 March 2020, 7:39pm, Individual Live Connections via conferencing tools

Attendees

President Charlie Nielsen
Vice Presidents Adrian Bradley, David Jorgensen, Jim Forrester, Joy Poling
Treasurer Doug Scobel
Observatory Director Jack Brisbin
Newsletter Editor Don Fohey

Absent

Webmaster Krishna Rao

Agenda Items

Name	Topic
President Charlie Nielsen	• Doing meetings on-line • Climbers on the Peach Mountain radio telescope • How to handle April elections
Observatory Director Jack Brisbin	• Heat lamp repair/ maintenance • Radio telescope climb • Open house schedule • Main road repair
Vice President David Jorgensen	Notification to our April speaker
Vice President Adrian Bradley	Virtual or streaming for future club meetings

Findings

Issue	Result(s)
Virus related scheduling concerns	Having our typical style meeting in April will not be possible as UofM campus will likely remain closed. • Elections will be postponed until our standard face-to-face election format can occur within a regular meeting. • We will attempt to broadcast our April meeting online and accommodate our guest speaker as much as possible. Many factors come into play that could sabotage this effort entirely and individual results may vary. • March and April Open Houses will be canceled • Officers have communicated well via email in the past and will primarily use that method.
April speaker	Adrian agreed to contact our April guest and work with them to achieve their desired comfort level for the meeting.
Continue broadcast efforts after virus issues have cleared for long distance or ill members, bad weather, or just plain archival purposes?	Our level of success aside, this could be done but would be up to someone or a couple of people who want to do this each month. If those individuals were not present at that specific meeting no episode would be made. Having intermittent coverage could lead to member complaints if they become accustomed to this new benefit. Also, if more members were to adopt the streaming option this could lead to small audiences. Speakers might not feel as welcomed or appreciated. A reasonable middle ground could be to make recordings available but not live. *Was left for further consideration.*
Observatory update	• The electronics for the McMath in the heated cooler have maintained a reasonable temperature this winter and their settings should be intact unlike last winter. • The light fixture that was burning through bulbs seems to be ok for now. • The latest adventure hobby for area teens seems to be to climb the radio

	telescope. Jack's report of an incident with photos to University admin was met with mixed reactions. One response stated that currently everyone is too busy with virus related things right now and another felt he should have made effort to detain the youths till police arrived. All officers agreed that none of us would ever attempt this and that reporting the incident to them was all that we could possibly be responsible for. The University will be addressing it and security measures will be taken in due time. • Road repair has not be done. With the average size of the ruts being about the width of a car tire it might not be advisable for some vehicles. This makes encouraging the public to come out to open houses difficult. • It was agreed that our email relationship with University staff is often unproductive and once able to, a couple of members would attempt to pop in and meet with them in an effort for more detailed explanations. • The new focuser for the Cave scope needs to be installed and in the coming warmer weather Don will be making plans to install it. • Plans to return the 17.5 from Dave's shop will be made in the coming weeks.
Messier Marathon?	While not officially canceling it attendees should practice social distancing and participate at their own risk.
Debbie expressed a need for help to store astronomy equipment while the house is being shown	Joy has room to park a locked trailer but can the trailer make a trip like that? Is Debbie willing to have it that far away as setting up visits with interested customers would be more difficult? No matter where it goes it still has to travel so Charlie will go over and check out the situation. Specifically, if the tires look like they could handle a drive on the highway and if any scopes could be dissembled and be stored safely in the front part of the trailer. Anyone who can help was encouraged to email Debbie.

Addendum

Name	Topic
Treasurer Doug Scobel	"As I didn't want to extend tonight's officers' meeting any longer, I thought I'd send my monthly report via email: • We have 151 memberships. • We have $7428.64 in the treasury. • I paid Dave Jorgensen $35.00 to cover his heating expenses for storing the 17.5" in his workshop. • The end of our fiscal year is coming up at the end of March. Look for my annual financial report April 1 or 2. Doug"

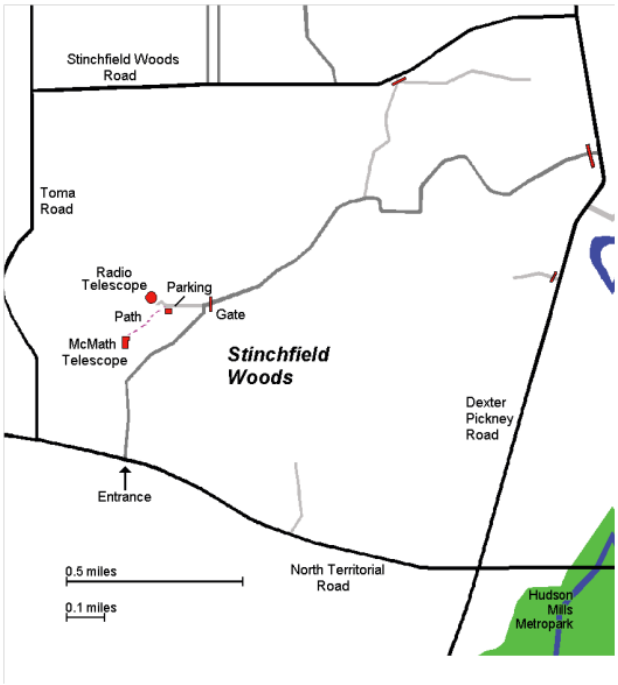
Adjourned
9:19pm

Minutes taken and transcribed by
Joy Poling

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

Annual dues are $30 for individuals and families, $20 per year for students and seniors (age 55+) and $5 if you live outside of the Lower Peninsula. Membership entitles you online access to our monthly Newsletters and use of the 24" McMath telescope (after some training). A mailed copy of the newsletter can be obtained with an additional $18 annual fee to cover printing and postage. Dues can be paid by PayPal (contact the treasurer to find out how) or by 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 $65.90/2 years
Astronomy -$34.00/year, $60.00/2 years of $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
	Joy Poling	
	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

Night Sky Network

Member Club

Astronomical League Member Society
#201601, Great Lakes Region

University Lowbrow Astronomers
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STAMP