



Website: blackriverastro.org

Newsletter submissions: Editor

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--Wednesday, August 5, 7 p.m.: Regular meeting, via Zoom. "The Mars Opposition" by John Reising. Sign-in code and passcode are included with newsletter delivery email.

--Thursday, August 13, 7 p.m.: Board meeting, via Zoom.

There are no public observing sessions in August due to the pandemic.

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Visit Our Website

Explore if you will the informative BRAS website and all its interesting, timely links, and join the interactive members-only BRAS Forum to better keep in touch.

Guidescope Contributions Wanted

If you have any astronomical wanted/for sale announcements, astronomical photos you've taken, interesting article links, equipment reviews, observing reports, essays, or anything that you think to which the local amateur astronomy community could relate, please send it to your humble Guidescope editor for inclusion in forthcoming issues.

BOARD SUMMARY

JULY 9, 2020

The meeting was called to order at 7:05 p.m. with nine Directors present. The minutes from the June Board meeting were accepted as read, and the Treasurer's report yielded a balance of \$5,338.94. Committee reports followed, with Bill Ruth, the Guidescope editor, reporting that all was well and that he had some submissions. The website chairman, Dan Walker, reported that all was well with the website, and John Reising, our Instrumentation Chairman, reported that all was well at the observatory the last time he had been there. The OTAA Chairman reminded everyone that the MVAS OTAA Convention in August has been cancelled, and the Metro Parks Liaison had no report.

Programming (via Zoom only until further notice) is as follows:

August	John Reising	The Mars Opposition
September	Laura Goyanes	Using the Stellina imaging system
October	Elections and a short video	
November	Dave Lengyel	Online planetarium program
December	Annual Holiday Party and pot luck dinner????	

Old Business came next with the upcoming election the first item. As members know, each October we elect people to serve on the Board of Directors. A Board term is for three years with one third of the Directors' terms ending each year. This year the terms of Tim Kreja, John Reising and Dave Levin will expire and all three have agreed to run again. Any club member who is up to date on dues is also welcome to run. If interested, please contact the President at BRASPres@gmail.com. The election will likely be online this year, and the Directors will discuss how to handle this at the next Board Meeting.

The next item of Old Business was appointing someone to finish out the Board term of Mickey Hasbrook who, sadly, has had to move to Atlanta for work. Dave Lengyel, who has been arranging all our Zoom meetings on the Oberlin College server, volunteered to serve and the Board voted unanimously to appoint Dave as a new Director.

The third item was a simple report by Schauer that CAA has cancelled all their events until at least September because the MetroParks facility, where they meet and have their observatory, is closed until at least that time.

Next came another reminder by Schauer that we have committed to doing solar observing and handing out club and astronomy related materials at two LCMP event that are currently still on their calendar. These are the Sunset Beach Festival at Lakeview Park on Saturday August 29th from 4:00-10:00 p.m., and the Black River Celebration at Bur Oak on Sept 26th from 2:00-6:00 p.m. Stay tuned in case these events are cancelled or postponed. UPDATE: Both Festivals have been cancelled.

The final item of Old Business was to display the BRAS Online Inventory and the Inventory Loan Out sheets to the screens of the participants. The Loan Out inventory is a list of all club property that is currently borrowed or is being stored at Directors' homes . We still have plans to re-inventory all club property when conditions permit. Once we know what we own and where everything is, we will decide what items to keep, what we might offer to club members, and what we might sell or discard. We will then decide what to store in the new storage building and how to arrange and rearrange our storage to make it as efficient as possible.

New Business followed with the first item being the reinstatement of our TNS service. TNS stands for Text Notification Service and is a perk offered to members who request it. We provide either a text or email message whenever we have a club activity coming up or when something unusual is about to happen. The TNS service stopped when Mick y Hasbrook had to move and transferred the club laptop upon which the TNS notices were sent. Then, in the confusion of moving the website to new servers and finding a new website Administrator, the TNS got lost in the shuffle. Dan Walker has the club laptop and will review the operation of the TNS system, and will report back at the next Board meeting. Since most of our activities except our monthly meetings have been cancelled due to COVID, this has been less of a priority than it normally would be it is, nonetheless, a service we need to reinstate. UPDATE: Lee Lumpkin, David Griffiths and Dan are currently working on a way to send out the text notifications via the web rather than having to use the club laptop. This would allow more than one person to send a TNS and would eliminate a single point failure concern. More info coming soon.

Next came the happy task of voting in a new member. The club welcomes Joshua McNary of Cedar Falls, Iowa to the club as his application was unanimously accepted. Welcome Joshua!

The President next reminded the club that our OTAA Convention is still scheduled for Saturday, September 12th and that we will need to make a decision sometime soon about whether to cancel it or to go ahead. Dan Walker, our Treasurer, will phone the church to see if their hall rental status has changed, and to see if we can get a refund for the hall rental fee if we cancel. UPDATE: The church is glad to apply our rental fee to next year if we decide to cancel for this year.

Finally, we decided to have the August General Meeting on Zoom rather than in-person. Everyone on the mailing list should get an email with the meeting number and password a day or two before the August 5th meeting.

Dates for August were set, and the meeting was adjourned at 8:52 p.m.

~Steve Schauer

Planet Nine from Outer Space

Planet Nine could be a grapefruit-sized black hole, say astrophysicists

We can prove it by looking for the black hole's 'accretion flares', the astrophysicists say.

Read in BBC Science Focus Magazine: https://apple.news/ASbB2Ol_KRIWVQIFhEYEXVQ

~Len Jezior

E21 ——— Equator, Ecliptic ——— Summer Constellations

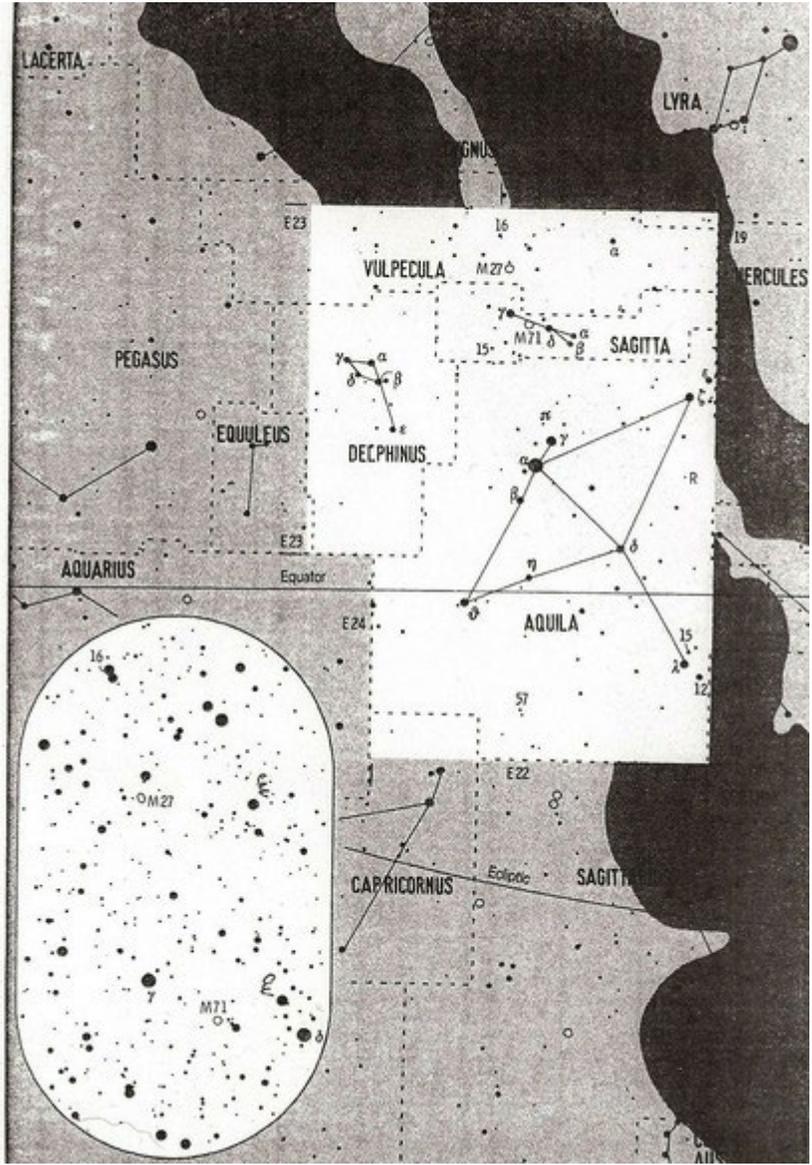
NEBULA	Position	v-Mag.	Size	Shap ^b	Type	Vis.	Dist.	R.A.	Dec.
6838 M71	Sge	8.1	12' x 5'	○ IX	GC	☑	13000 ly	19 53.8	18.78
6853 M27	Vul	7	10	7	0 A	PN	☐	19 59.6	22.72

6838 M71 Interesting features, triangular shape, resolved into stars in a telescope, low number of stars, looks similar to some open clusters.
 6853 M27 **Dumbbell Nebula**, may be the most beautiful planetary, shape visible in binoculars, more detail in a telescope, greenish color, south-western lobe is brighter, extended faint halo requires nebula filter.

STAR	Position	V-Mag.	B-V	Te.	Abs.	Name	Dist.	R.A.	Dec.
13 ε	Aql	4.0	1.1	1	150 ^{ly}			18 59.6	15.07
12	Aql	4.0	1.1	1	150			19 01.7	-5.74
15	Aql	5.2	1.2	0	330,600			19 05.0	-4.03
17 ζ	Aql	3.0	0.0	1	84			19 05.4	13.86
16 λ	Aql	3.4	-1	0	125			19 06.2	-4.88
R	Aql	5.8-10	1.3	-1	700			19 06.4	8.23
30 δ	Aql	3.4	0.3	2	50			19 25.5	3.11
6 α	Vul	4.4	1.5	0	300			19 28.7	24.66
5 α	Sge	4.4	0.8	-1	460			19 40.1	18.01
6 β	Sge	4.4	1.0	-1	460	Sep. 35'		19 41.0	17.48
50 γ	Aql	2.7	1.5	-3	Tarazed			19 46.3	10.61
7 δ	Sge	3.7	1.3	-2	460			19 47.4	18.53
52 π	Aql	5.7	0.5	0	500			19 48.7	11.82
53 α	Aql	0.8	0.2	2	Altair, Atair		16.7	19 50.8	8.87
55 η	Aql	3.5-4.4	0.7	-5	1400			19 52.5	1.01
57 θ	Aql	5.3	-1	0	350			19 54.6	-8.23
60 β	Aql	3.7	0.9	3	Alschain		45	19 55.3	6.41
12 γ	Sge	3.5	1.6	-1	260			19 58.8	19.49
16	Vul	5.2	0.4	1	220			20 02.0	24.94
15	Sge	5.4	0.5	0	58,600			20 04.1	17.08
65 θ	Aql	3.2	-1	-1	280			20 11.3	-0.82
2 ε	Del	4.0	-1	-1	350			20 33.2	11.30
6 β	Del	3.6	0.4	1	100			20 37.5	14.60
9 α	Del	3.8	-1	-1	240			20 39.6	15.91
11 δ	Del	4.4	0.3	0	210			20 43.5	15.07
12 γ	Del	3.9	0.8	1	105			20 46.7	16.12

BINARY	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.
15	Aql	5.4	7.0	1.1	1.5	39"	☑
52 π	Aql	6.3	6.8	0.8	0.1	1.4	☑
57	Aql	5.7	6.5	-1	0.0	35.7	☑
16	Vul	5.8	6.2	0.3	0.4	0.9	☑
15	Sge	5.8	6.9	0.6	0.1	215	☑
12 γ	Del	4.3	5.1	1.0	0.5	9.2	☑
9 E Sge		5.5-9.0	0.2	0.2	2015	8.9	☑
9 E Sge					8.4		☑

VARIABLE STAR	Period	Max.	Min.
R Aql	☐	☐	☐
Period	≈ 280 d		
Max.	≈ 2451285		
55 η Aql	☐	☐	☐
Period	7.1767 d		
Max.	2451206.0		
Min.	Max. + 4.0		



Thanks to John Reising for Constellation of the Month.

Deep-Sky Objects for August

Objects for Binoculars							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
20 ^h 18.1 ^m	-12° 33'	Alpha-1 & 2	3.6, 4.2	378"	291°	Cap	Double Star
20 ^h 21.0 ^m	-14° 47'	Beta Cap	3.4, 6.2	205.3"	267°	Cap	Double Star
20 ^h 23.9 ^m	+38° 32'	M29	6.6v	6'		Cyg	Open Cluster 50*
21 ^h 30.0 ^m	+12° 10'	M15	6.0v	12.3'		Peg	Globular Cluster
21 ^h 32.2 ^m	+48° 26'	M39	4.6v	31'		Cyg	Open Cluster 30*
21 ^h 33.5 ^m	-00° 49'	M2	6.4v	12.9'		Aqr	Globular Cluster
Objects for Small Telescopes (2-6 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
19 ^h 30.7 ^m	+27° 58'	Beta Cyg	3.1, 5.1	34"	54°	Cyg	Double Star, "Albireo"
19 ^h 44.8 ^m	+50° 31'	NGC 6826	8.8v	>25"		Cyg	"Blinking Planetary" Nebula
20 ^h 46.7 ^m	+16° 07'	Gamma Cyg	4.3, 5.1	9.6"	268°	Del	Double Star
21 ^h 43.5 ^m	+53° 47'	Mu Cep	3.4, 5.1	730 days	Var.°	Cep	"Herschel's Garnet Star"
22 ^h 15.3 ^m	+49° 53'	NGC 7243	6.4v	21'		Lac	Open Cluster 40*
23 ^h 11.5 ^m	+60° 34'	NGC 7510	7.9v	4'		Cep	Open Cluster 60*
Objects for Medium Telescopes (8-14 inch)							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
19 ^h 41.3 ^m	+40° 11'	NGC 6819	73.v	9.5'		Cyg	Open Cluster
20 ^h 22.4 ^m	+20° 05'	NGC 6905	11.1v	39'		Del	"Blue Flash" Plan. Neb.
20 ^h 23.1 ^m	+40° 52'	NGC 6910	7.4v	7'		Cyg	Open Cluster 50
20 ^h 45.7 ^m	+30° 43'	NGC 6960	-	70' x 6'		Cyg	"Veil Nebula", W. Segment*
20 ^h 56.4 ^m	+31° 43'	NGC 6992-95	-	60' x 8'		Cyg	"Veil Nebula", E. Segment
22 ^h 10.5 ^m	+52° 50'	IC 1434	9.0p	7'		Lac	Open Cluster 40*
Objects for Larger Telescopes (16-inch & larger) Challenge Objects							
RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
20 ^h 12.0 ^m	+38° 21'	NGC 6888	-	18' x 13'		Cyg	"Crescent Nebula"
20 ^h 16.4 ^m	+30° 34'	NGC 6894	12.3v	>42"		Cyg	Planetary Nebula
21 ^h 00.6 ^m	+54° 33'	NGC 7008	10.7v	83"		Cyg	Planetary Nebula
21 ^h 04.2 ^m	-11° 22'	NGC 7009	8.3p	>25'		Aqr	"Saturn Nebula"
22 ^h 54.3 ^m	+60° 50'	NGC 7419	13.0p	2'		Cep	Open Cluster 40*
00 ^h 44.4 ^m	+85° 20'	NGC 188	8.1v	13'		Cep	Open Cluster 120*

Print and use the [Deep-Sky Interest Group - Observation Form](#) to record your observations.

Thanks to Len Jezior for Deep Sky Objects of the month.

Comet NEOWISE Gallery



I took this 7/13/20 from East 55th street Marina. Olympus camera ISO 2500 14mm f4 8 seconds
~Laura Goyanes



Comet NEOWISE, wide-angle, 7/14/20, Amherst, Ohio

~Denny Bodzash



Comet NEOWISE, 300mm, 7/14/20, Amherst, Ohio

~Denny Bodzash



Here's NEOWISE 7/17/20 using the Larryscope.

10:25 p.m. 1600 ISO, 350mm, 21s with the Pentax K3ii and astrotracer on a fixed tripod.

~Dave Lengyel



Now here's a lucky shot. I didn't find out when the International Space Station was going to be visible last night, 7/19/20, and, due to the weather forecast, I wasn't really planning to go out and photograph Comet NEOWISE. But, the skies cleared after the storm and I went out to my driveway to take a few photos of the comet. As I was in the midst of a long exposure (114s) I was also viewing the scene in my binoculars when I saw the ISS to the left of the comet. It looked like it was heading towards it, and BAM, it crossed right in front of the "head" or coma of the comet. Of course, the ISS was about 1500 km from me, and the comet was 105 million km away. ~Dave Lengyel

MIT Releases Eerie Apollo 11 Disaster 'Deepfake' Video

It has long been known that then-president Richard Nixon already had an alternate speech prepared in the event that the Apollo 11 mission should end in disaster. Now, thanks to technology, the world now has the chance to see Nixon give the speech that, thankfully, he never had to make in real life.

Artificial Intelligence (AI) experts at the Massachusetts Institute of Technology (MIT) spent over a year creating alternate history by using advanced computer technology. By taking historical audio and video and running it through a computer, the MIT team was able to create an eerily convincing video of what history may have looked like if things had gone differently in July, 1969. Part of the video was released a year ago but only now has the full 7-minute video been made available. For anyone wanting to see the 'speech,' it starts at around the 4:30 minute mark:

<https://www.cnet.com/news/mit-releases-deepfake-video-of-nixon-announcing-nasa-apollo-11-disaster/>

While the project owed its impetus to the 50th anniversary of Apollo 11, the MIT team had a more present goal in mind: educate the public about the concept of 'deepfakes,' defined as video forgeries designed to make people look like they're doing and/or saying something that they aren't.

While in years past restricted to special effects studios, video manipulation technology capable of making a convincing fake video of a real person is now well within reach of amateurs. With its video, MIT hopes to educate about what deepfakes are, how to spot them, show how they can be used/misused, and what is being done to combat their misuse.

As if 2020 wasn't crazy enough already . . .

~Denny Bodzash