

# REFLECTIONS / REFRACTIONS

University Lowbrow Astronomers

NOVEMBER 2017

**VOLUME 41. ISSUE 8** 

# REFLECTIONS / REFRACTIONS



**My New Telescope**By Jim Nelson

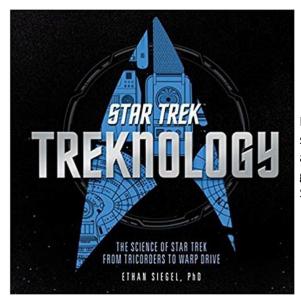




(Photos by Author)

Ever since Rob Teeter of Teeter's Telescopes introduced his "Solid Tube Series" (STS) line a few years back, I've had my sights set on getting one. A few years later it was time to finally follow through. I settled on the 11-inch f4.5 model, with Lightholder optics. I view this as "The Scope" that will last me for the foreseeable future (supplemented with my 90mm refractor). The scope's tube color is, so far, unique. Rob Teeter worked with me to create this new custom color, which he's calling "Midnight Purple". I think it's beautiful, although how blue vs. purple it looks, especially in photos, can depend on local lighting conditions.

The scope was very easy to put together - other than installing the mirror cell and initial collimation, assembly wasn't much different than setting up the scope on a typical night. At just about 60 pounds total weight, and with well placed slots in the mount, it's surprisingly easy to carry around. The motions are very smooth and I have no problem at all tracking at 330x (the highest magnification I currently have) and the views were worth the wait. Over my eight inch scope, I'm especially impressed at the extra detail I'm seeing in smaller planetary nebula. And while I didn't get this scope with double stars in mind, with the curved spider vanes it really shows off tight double stars wonderfully when the atmosphere cooperates. On a recent Peach Mountain session, views of the great triple lota Cassiopeiae really impressed!



## **Book Offer**

# from Ethan Siegel Ph.D.

Ethan is one of our favorite speakers and is our scheduled speaker for June. He has a new book and has offered to hand-autograph his book for Lowbrow members. He will sell, autograph and ship the book to a USA address for the cover price of \$30 USD.

Simply go to PayPal, send the \$30 (use "Send money to friends/family") to ethan.siegel@gmail.com, and include:

- -Number of copies.
- -Name(s) for the autograph(s) to be made out to.
  - Include that you are a University Lowbrow Astronomer member.
- -Shipping address.

PayPal may add a small service fee to the \$30 for handling the friends/family transaction. The book release is just in time for the holidays!

#### **Upcoming Events**

Lowbrow Open House at Peach Mt. Lowbrow Monthly Meeting, Speaker: Ken Bertin "Eclipses and Syzygy" Lowbrow Open House at Peach Mt. Saturday Nov. 11th. 5pm—11pm Friday Nov 17th. 7:30pm Angel Hall

Saturday Nov. 18th. 5pm—11pm

Both the October 14th and October 21st Open Houses were canceled due to weather.

### **Leslie Science Center Event**

Reported by Charlie Nielsen

We canceled. Adrian did not see the email and showed up anyway. He said is was partially clear so he decided to set up equipment, and a couple of people showed up. But as he was doing alignment the clouds rolled in and he got packed up just before the rain.

# **NOVEMBER 2017**

# Beginning Astronomy Photographer.

Dave Jorgensen wrote in an email to members on Oct 2nd.



(Photos by Dave Jorgensen)



First shot with camera piggybacked on my telescope in early Sept. I used a 300 mm zoom lens on my camera. (Editor performed additional cropping.)



Second shot last night with my camera lens set at 55mm looking through a 40 mm eyepiece into my 1200mm f/5.9 scope, effectively giving me a 1650mm camera lens. North is up on this photo. The photo is cropped. (Editor performed additional cropping.)

This is an improvement, but still more work to be done to improve tracking, focusing, and magnification.



# CONSTELLATION MUG

By Jack Brisbin

Last Christmas, I spent the week end with my wife's family in Kalamazoo,Mi. For a Christmas gift my wife's niece bought me a Constellation Mug. Look at the picture on the left. It shows the stars plotted on the mug. You are looking at the Constellation Orion. When you fill up the mug with a hot beverage (coffee, tea, chocolate, etc), the mythological outline of the constellation Orion appears on the mug, *pretty cool*. See picture on the right. The star patterns are very similar to what you would see in the night sky for general observing. There are star patterns on the other side of the mug.

It is obvious the design is based on a heat sensitive dye/ink. This means you "Do Not" do the following; Machine Wash, Soak for Long Periods of Time, Use a Scouring Agent. What you are supposed to do, is wash gently with warm water and soap. The mug is microwave safe and meets FDA approval and California Prop. 65 Compliant.

#### **BUT WAIT! THERES MORE!**

If you go to their web site @ www.philosophersguild.com you will come to a web page that says;

THE UNEMPLOYED PHILOSOPHERS GUILD. On the left side of the page it will say "MUGS", click on it and you will see all kinds of mugs with all kinds of heat induced designs. Search the web site and you will find many interesting items relating to Space and Science, including a "MARS Passport"..!!





# NOVEMBER 2017

# **Peach Mt Members Night**

Tuesday October 17th.

Jim Forrester wrote in an email to members:

"Last night was successful from an observing stand point as I was able to log about 40 objects and Adrian Bradley obtained some remarkable views with the 6 inch "George Scope." From an attendance standpoint, though, the evening was not stellar as I was joined only by Adrian.

There are precious few clear nights in Michigan and less than that occur in autumn. As Dylan sang: "Take your chance now, it won't come again..." At least until next fall."

# **Peach Mt. Members Night**

Thursday October 19th.
Report by Don Fohey



We setup near the Radio Telescope.

Photo by Brian Ottum Ph.D.

Jim Forrester again open the gates about 6:45pm. Jim Nelson joined us with his new beautiful 11" DOB telescope. Brian Ottum brought his lawn chair and a new pair of Surplus Shed 20X 80mm binoculars for evaluation. Jack Brisbin arrived to do some observatory maintenance. The evening did not meet our transparency expectation so we were limited to bright objects. I enjoyed my first views this year of Uranus and Neptune I was particular touched by the pairing of Mirach and Mirach's Ghost (NGC404). With filters the Pacman Nebula (NGC281) and the Veil Nebula were just visible. Brian and I retired about 11:30pm and Jim locked the gats about 2am.

# REFLECTIONS / REFRACTIONS

# **Big Cheap Binocular Review**

By Brian Ottum Ph.D.

Back in July, Doug Scobel forwarded an email from Surplus Shed, offering a special price on big binoculars for an amazing price. I could not resist 20X 80mm binoculars for \$80! Here is the story:

- ♦ Very impressive out of the box!
- ♦ Unbranded, but looks just like Orion and Celestron's 20x80's (which are about \$120).
- Multi-coatings look great (but what about the inside surfaces? They are unlikely to be coated).
- ♦ Cheap plastic eyepiece holders, causes flex and loss of focus.
- ♦ Nice tripod-mounting mechanism, with adjustable balance.
- There is no "snap" into focus. Just a gradual tightening of stars with no obvious focus point. Back and forth, back and forth. Yet, focus point is good.
- ♦ Stars good within the ½ FOV (3.7deg total field of view). Otherwise they start to distort, turning into tiny seagulls at the very edge. This is not highly objectionable, however. This is to be expected.
- Stars are not tack sharp, even in the middle. Bright stars have tiny flares, have to work left vs. right focus carefully. HOWEVER, when you get it focused you can see good detail. Mizar is barely but definitely split, at 14.4". Saturn is a nice little oval (but 20X is insufficient to see rings separate from planet).
- There is a very slight yellowish color cast to everything. Many stars appear yellow or even reddish. Blue stars like Vega don't have any blue, just white. This is subtle, have to look for it.
- Astigmatism did not look bad, racking in and out of focus did not seem to change the star shapes a whole lot.

Under light-polluted skies, with excellent transparency so Milky Way was slightly visible overhead, the binoculars performed well. Ring Nebula clearly spotted, Dumbbell shows oblong shape, M13 looked big, M5 globular cluster showed strong central concentration, really fun to start at the Sagittarius spout and work upward to see everything (Lagoon, Trifid, M24 cluster, Swan, Eagle, Wild Duck). The perfect object for these is Andromeda, as it fills the 3.7deg FOV. Can see companions M110, M32.

Putting these on a tripod is absolutely necessary. They cannot be handheld for any length of time, plus the 20X creates quite a shake. Tripod mounting mechanism cannot be tightened down, but worked. Have a 5.5' tripod that worked well standing. While sitting, just pull the tripod toward your face, using just the front two legs. Worked well to see the zenith without ruining neck.

#### PEACH MOUNTAIN TESTING

On October 19, I took the binoculars up to Peach Mountain for a critical head-to-head test against my \$750 Canon image-stabilized 15X45mm binoculars. The results were not surprising. The 15X45's were much darker, much wider apparent field of view, and the stars were sharper (across the entire field). Messier objects were no easier to spot in the 80mm aperture (on a tripod) than in the hand-held 45mm binoculars. The surprising thing was the apparent magnification. When I compared the width of the antenna mast in the two binoculars, it was obvious that the big 20X binoculars produced a SMALLER antenna! So Jim Forrester came over with the fine Leica 10X42mm binoculars. After a bit of testing with all three, we both concluded that these Chinese binoculars were actually about 12X, not the stated 20X!

#### CONCLUSIONS

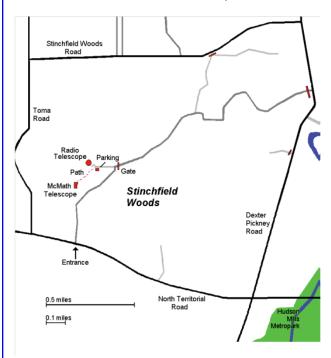
For \$87 delivered, these 20X80mm binoculars are a bargain. They provide very good views of deep sky objects, and distant wild-life. They require a sturdy tripod (adding to the cost). Care would have to be taken not to hit the fragile floating eyepiece mechanism. Plus, they look darned impressive.

# **NOVEMBER 2017**

#### **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 of \$83.00/3 years
For more information about dues or magazines contact the club treasurer at: <a href="mailto:lowbrowdoug@gmail.com">lowbrowdoug@gmail.com</a>

# **Newsletter Contributions**

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

## **Telephone Numbers**

President: Charlie Nielsen (734) 747-6585 Vice President: Adrian Bradley (734) 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

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# **University Lowbrow Astronomers**





Member Club



Astronomical League Member Society #201601, Great Lakes Region

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

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