



## John Causland Remembered



AstroFest 2000

Longtime Member John Causland died suddenly on Tuesday evening August 13th. He regularly hosted ACNO (Any Clear Night Observers) evenings at his home where he shared his hospitality and telescope with all. He often participated in star parties, trailering his 24" DOB to events. He took every opportunity to enlighten people he met about the wonders of the night sky. His warm engaging manner endeared him to many Lowbrows who consider him a close friend. A nice memorial slide set can be viewed at

( <http://causland.kopmanis.com/> )

There will be a 4:30 pm Mass service Friday, Sept 6 at St. Mary's Student Parish (the corner of E. Williams and Thompson, about a block from campus). An obituary can be viewed at ( <https://obits.mlive.com/obituaries/annarbor/obituary.aspx?n=john-r-nd&pid=193760901> ).

Many Lowbrows gathered in John's driveway on Friday, Aug. 30th for a Memorial ACNO. They remembered John, had some refreshments and enjoyed viewing the wonders of the night sky thru thin clouds, just as John would have done.



John at a Star Party with his 24" (60cm) Telescope



2005 Washtenaw Science Olympiad



## From the Desk of the Northern Cross Observatory

Fall Objects

Doug Bock | Galaxies | August 24, 2019

### Objective:

This month I decided to image some more galaxies. This collection is from both now and last fall

### Process:

Both objects took multiple nights of data acquisition. Stacked with Deep Sky Stacker, processing performed in PixInsight.

### Equipment:

10" f/8 RC telescope,  
with the Asi071mc  
one shot color camera,  
Losmandy G11 mount.

The data acquisition  
was 12 hours 39 minutes  
over 3 nights  
(August 23-25, 2019).



IC 432 From Wikipedia: **IC 342** (also known as **Caldwell 5**) is an intermediate spiral galaxy in the constellation Camelopardalis, located relatively close to the Milky Way. Despite its size and actual brightness, its location in dusty areas near the galactic equator makes it difficult to observe, leading to the nickname "The Hidden Galaxy", though it can readily be detected even with binoculars. The dust makes it difficult to determine its precise distance; modern estimates range from about 7 Mly to about 11 Mly.

The galaxy was discovered by William Frederick Denning in 1892. It is one of the brightest in the IC 342/Maffei Group, one of the closest galaxy groups to the Local Group. Edwin Hubble first thought it to be in the Local Group, but it was later determined not to be a member. In 1935, Harlow Shapley found that it was wider than the full moon, and by angular size the third-largest spiral galaxy then known, smaller only than the Andromeda Galaxy (M31) and the Triangulum Galaxy (M33). (Modern estimates are more conservative, giving the apparent size as one-half to two-thirds the diameter of the full moon). It has an H II nucleus.



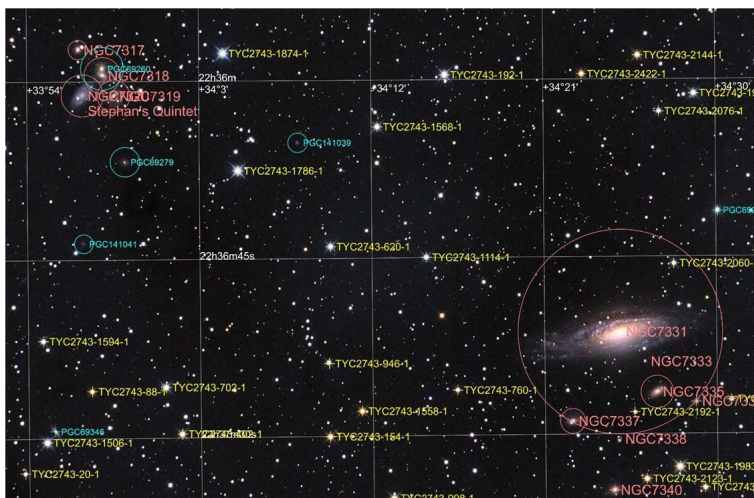
NGC 7331, the Deer Lick group and Stephan's quintet  
The data acquisition was 6 hours and 5 minutes



NGC 7331 and the Deer Lick group - Data Acquisition – 8 hours 21 minutes (editor cropped photo)

From Wikipedia: **NGC 7331 Group** is a group of galaxies in the constellation Pegasus. Spiral galaxy NGC 7331 is the brightest member of the group. This group is also called the *Deer Lick Group* and contains four other members NGC 7335, NGC 7336, NGC 7337 and NGC 7340, affectionately referred to as the "fleas".

From Wikipedia: **Stephan's Quintet** is a visual grouping of five galaxies of which four form the first compact galaxy group ever discovered. The group, visible in the constellation Pegasus, was discovered by Édouard Stephan in 1877 at the Marseille Observatory. The group is the most studied of all the compact galaxy groups. The brightest member of the visual grouping is NGC 7320 that is shown to have extensive H II regions, identified as red blobs, where active star formation is occurring.



(Right) Stephan's Quintet - Data Acquisition – 9 hours 5 minutes

## A Walk Across the Solar System

by Douglas Warshow

Back in the November 2018 issue of *Sky & Telescope*, there was an article about a scale-model Solar System located in Midland County, MI. This model especially intrigued me because the sizes of the planetary bodies were to the same scale as the distances between them. I decided to pay a visit.



Sun and Model Description

The starting point is in Coleman, a little west of the city of Midland. From Ann Arbor, take US-23 north to I-75, and continue on towards Bay City until you switch to US-10 west. Continue past Midland and exit onto North Colman Road heading south. North Coleman Road turns into North 6th Street. Stay on this until you come to the end, facing some grain storage units and turn left. Proceed down to 3<sup>rd</sup> Street then turn right. You should see a parking lot on your right and a very large yellow sphere on your left. You have arrived at the start of the Pere Marquette Rail Trail and the Sun. I don't own a bicycle so I knew that my journey would take some time so I got some liquids at the nearby Dollar store and started my trek.

In front of the Sun model is a sign giving the basics of the model. (There's a duplicate at the other end.) As for the Sun model itself, it is the only body that has any color (the others are bare metal). It is impressive at seven and a half feet in diameter, and would be easy to spot from a distance, up to a point. I took a picture of it and sallied forth.

The beginning of the walk starts off deceptively easy. I actually walked by the Mercury model without noticing since I thought it would be farther along. (You'd think an astronomy major would have calculated the distance beforehand. More on this later.) The post holding the Venus model clued me in that I had to go back for a short distance.

At this scale, the Mercury model is quite tiny, barely wider than the rod supporting it. To help get a sense of scale, I decided to photograph each model and the view back to Sun model from each planet's location. The path is arrow straight so I figured the Sun model should be visible for a while, at least until the curvature of the actual Earth became a significant factor.

The Venus and Earth models are closer in size to one's pinky nail. The Earth also has a Moon model at what appear to be the proper distance away. You really get a sense how far the Apollo astronauts travelled.

It was during the walk between the Earth and Mars models that the distance factor started to sink in. But I figured that I needed the exercise, so the mission continued. There is no model of Ceres, as it would be too small at this scale.



Venus view towards Sun

The Jupiter model is large enough that I could see the glint from the actual Sun off its surface while I was still at the Mars model. This was both a blessing and a curse as I thought I was approaching it much more quickly than what was the truth. Jupiter is depicted, but not the Galilean moons, nor, as it turns out, are the major moons of the other giant planets. Oh well.



Mercury view towards Sun



Earth and Moon

I looked back to my starting point and barely made out the Sun model. There was no point in taking distance pictures after continuing.

Just a little farther after losing the glint off the Jupiter model, I spied the glint off the Saturn model. Repeat of the Jupiter blessing/curse, but much longer.

I figured I was walking at about three kilometers per hour. Going by the scale of this setup, I was walking the equivalent of one and a half times the speed of light. The cyclists passing me would have been traveling just a bit slower than the C-57-D in *Forbidden Planet*.

I was definitely getting tired by the time I got to Saturn. Fortunately, there are some benches that are available farther down the trail. I made good use of them.



Mars Looking toward Sun



Jupiter looking toward Sun

While walking between the Saturn and Uranus models, I remembered an article I read in 1981 just after Voyager 2 flew by Saturn. The article mentioned that the probe wouldn't reach Uranus until 1986. I wondered what it would be like to be in free fall and alone for such a long time. I was getting a small taste of that , minus the zero-g.

Surprisingly, I found the "hop" between the Saturn and Uranus models to be hardest stretch. I think it may be that the change of distance between these two bodies is more severe than that between Uranus and Neptune. Also, there is an outhouse located between the later two. I cannot speak for the actual case.

My feet were an absolute mess by the time I reached Pluto. (Yes, the designer did consider it a planet.) Word of warning: the Pluto isn't right alongside the path like the other models. It is situated on the grassy berm on the right side as you head "outward." Fortunately, my Mercury experience prepared me to be more vigilant when scouting for the smaller bodies.

As it turned out, my outbound trip was a total of 5.6 miles; a distance that would be duplicated for the return journey. Again, had I done the actual calculation beforehand, I would have realized the extent of this walk. Then again, I also might have not attempted it.

Thus, the walk is doable, even for an out-of-shape person who needs extra shoe support. My advice, though, is travel the Solar System on a two-wheeled C-57-D.



## Event Summaries

By Don Fohey

**August 3rd:** A successful Open House at Peach Mt was co-ordinate by John Wallbank and Charlie Nielsen.

**August 8th:** The Saline Library event was lightly attended. Brian Ottum presented how to get started in astrophotography. Those attended were enthusiastic and he was able to answer all their specific questions.

**August 8th:** The Milan Library event was attended by 40 to 50 who enjoyed Adrian Bradley and John Walbank discuss all things astronomy with the group. Some points covered were:

- Light Pollution and why it is such a serious issue we're facing today.
- How to find north using Polaris / How to find Polaris using the Big Dipper.
- A demonstration of how the stars move in the night sky.
- An invitation to come to our open houses, and where to find more information on our group. (Brochures were present).
- General information on the solar system. (When the Pluto picture came up I could see the smiles going through the crowd)
- Why we use Sky Safari as our primary app for learning the night sky.
- How and why the Sun works.
- An invitation to come to Astronomy on the Beach.
- How their new telescope works.

Adrian set up the libraries 5" Newtonian mounted on an Equatorial Mount and demonstrated how to use it. John also set up his DOB and they showed views of the moon (including the Apollo 11 landing site), Jupiter, and Saturn.

**August 10th:** Salem-South Library event was attend by 8 people. Charlie Nielsen did a Power Point show about how our eyes and telescopes work, many things that you can see in the night sky without telescopes.

**August 23rd.** Joy Poling invited ACNO's to Lake Hudson. Joy reported the night improved with time and she saw Saturn, Jupiter, M24, NGC 436 and M81/82 before Adrian Bradley arrived. Adrian reported that they saw NGC457 (Owl/ET cluster in honor of John Causland), M101, M108, M17, M13, M15, M11. NGC6934 (globular cluster in Delphinus), and NGC7006 (even fainter globular cluster in Delphinus). He also imaged the Milky Way (right).

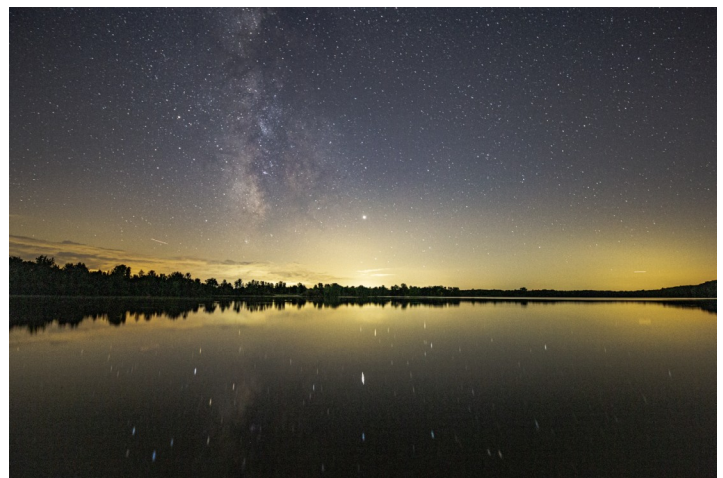
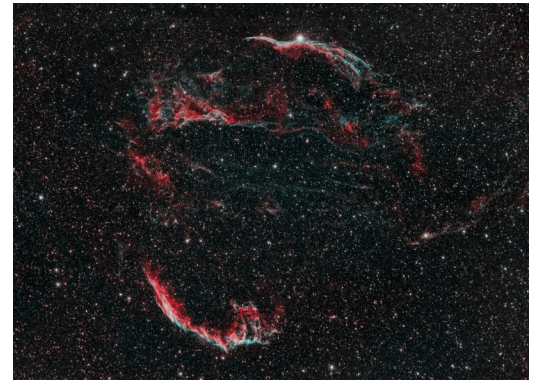


Image right by Adrian Bradley taken 8/23. 17mm Lens. Settings of f/2.8, ISO6400, exposure of 25 seconds.

**August 24th:** The Open House on Aug 24th was well attended by the public and Lowbrows. Liz Calhoun and Margret greeting visitors and directed parking. The McMatch telescope was manned by Charlie Nielsen, Joy Poling, and Adrian Bradley. Chuck Ward set up the Club 17". In the upper field John Wallbank, Mike Radwick, Jim Forrester, Don Fohey, Barry Wissman and Ken Ruble set up telescopes. The sky was about as dark as it gets at Peach Mt with a nice view of the Milky Way. All attending seemed to have a good time. ( I may have missed the operator of one other telescope set up mid field).

**August 27th:** Jim Forrester opened the gates for the PMSP (Peach Mt. Star Party) attended by Jim Forrester, Don Fohey, Jack Brisban Adrian Bradley, Frederico Spotti, and Dave and Mary Shindell. Frederico set up his camera and took images (right) of the Veil Nebula. It was the first light event for my 14 1/4" F4.1 DOB. Jack and Adrian worked with the McMath. The evening was punctuated by clouds moving in an out.



Veil Nebula imaged by Frederico at PMSP  
HA + OIII filters

**August 28th:** Jim again opened for the PMSP. Don and Jim set up on the hill. Jim's right rear tire was found to be flat with a bolt sticking out of it! Adrian arrived and replaced the flat tire with Jim's donut spare. Joy and Adrian worked with the McMath. The evening was mostly cloudy with occasional breaks in the clouds. Adrian insured Jim maneuvered the rutted road on the way down the hill and followed him home. Way to go Adrian!

## Upcoming Events

### Astronomy at the Beach

Brian D. Ottum, Ph.D. in an email on Aug 7th wrote: "Fellow telescope enthusiasts, The biggest astronomy outreach event of the year is coming up September 13 and 14. The theme is the 50th Anniversary of Apollo 11, and the public will be primed by the media to want to see the full Harvest Moon. Jupiter will be prominent (with the Great Red Spot viewable Saturday!), as well as Saturn. Last year we had 60+ telescopes and nearly 5,000 people across the two nights. We expect similar numbers this year.

The location is the Island Lake State Recreation Area in Brighton – the "Island Lake picnic grounds" on Google Maps. You'll need a recreation passport on your license plate to enter (or pay the \$15 daily fee). Our hosts, the DNR, are highly excited to have us and will be directing traffic and telling us where to park.

We need you, your telescope and your passion for sharing the night sky. Please put Sept 13-14 on your calendar."

DATE	EVENT	LOCATION	
Saturday Sept. 7th . 8 pm—11:30 pm	Rolling Hills Star Party	Rolling Hill County Park 7600 Stony Creek Rd. Ypsilanti Mi.	Star Party for campers at Rolling Hills County Park. This is not a general public event.
Friday Sept. 13th Saturday Sept 14th 6 pm-Midnight	Astronomy at the Beach	Island Lake Statre Park 6301 Kensington Rd, Brighton, Michigan 48116	Family friendly astronomy activities. Volunteer Telescopes Needed!
Friday Sept. 20th, 7:30 pm	Monthly Meeting	Room G115 Angell Hall 435 South State Street Ann Arbor, MI.	Visit to the "Museum of Natural History Planetarium and Dome Theater" <b>ARRANGEMENTS ARE STILL BEING MADE WE MAY MEET AT THE MUSEUM</b>
Saturday Sept 21st. 9 pm	Open House	Peach Mt. Observatory 10280 North Territorial Road	Coordinator TBD Volunteers Needed.
Saturday Sept. 28th 9 pm	Open House	Peach Mt. Observatory 10280 North Territorial Road	Coordinator TBD Volunteers Needed.

**University Lowbrow Astronomers**Monthly Club Meeting Minutes *Aug 16, 2019 7:30pm*

This month's meeting was held in our temporary room 2306 Mason Hall.

President Charlie Nielsen called the meeting to order at 7:35pm and introduced the evening's speaker, Lowbrow Member, Jeff Kopmanis. The title of his presentation was "Diving into Astrophotography" (without needing to sell a kidney).

The presentation first reviewed the pros and cons of telescopes, mounts and camera types. That was followed by explaining the process of capturing images with precision control of exposure time and sensitivity. Post processing was reviewed with a demonstration of software to align and stack images. Final processing and sharing of images was also covered. A robust question and answer session followed the presentation.

**Business Meeting**

President Charlie Nielsen began the meeting with a moment of silence for John Causland who died in the past week. He was a long time member, an avid astronomer who hosted ACNO nights at his home and friend to many in the club. Memorial service information will be sent to members via email when they become available.

Charlie canceled the Leslie Science and Nature Center (LSNC) urban camper event for Saturday night because nobody responded to his request for help.

Next month's meeting will be in the newly refurbished Angell Hall room G115.

Vice President Jim Forrester reported that there were successful Camp Burt Shurly viewing every week of their summer camp. It is always a great experience, 400 to 500 kids saw astronomical sights thru member telescopes that most adults have never seen.

Peach Mt. Star Party will be the last week of August. Jim will attempt to open Peach Mt. every night weather permitting. Don Fohey will assist and may open on nights when Jim is not available.

Observatory Director Jack Brisbin attended the Ann Arbor City planning commission meeting. They approved a sign lighting ordinance. The next step is a lighting ordinance for the city.

Jack has been leading work sessions on the observatory to remove rust and paint the steel roof support structure. The structure is primed and will be painted a blue. The roof rails still need work. He thanked Doug Nelle, Dave Jorgensen and Larry Halbert for their help.

Treasurer Doug Scobel reported a membership of 157 and \$5966 in the treasury.

Newsletter Editor Don Fohey asked members to submit event reports for activities they attend.

Brian Ottum asked for volunteers for Astronomy at the Beach Sept 13th and 14th. Targets will be the Moon, Jupiter and Saturn. Jupiter's great red spot will be prominent on Saturday. Brian will have his astrophotography booth at the event.

Submitted respectfully by,

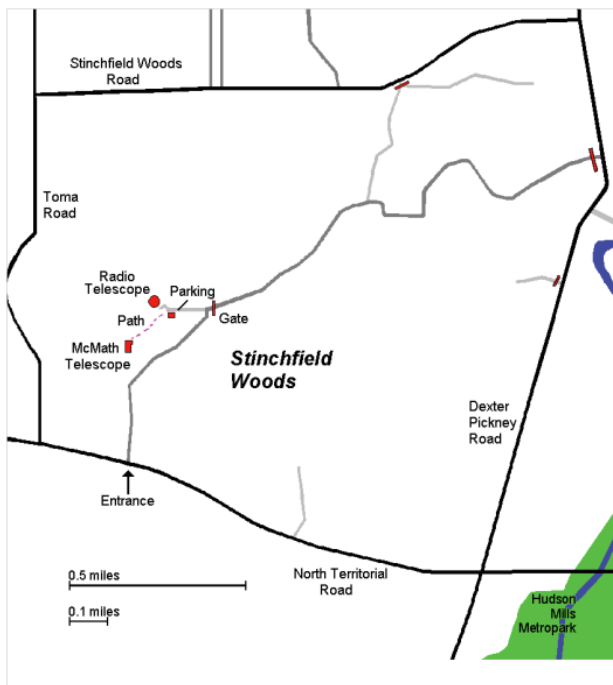
Don Fohey



### 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

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 or \$83.00/3 years**

For more information about dues or magazines contact the club treasurer at: [lowbrowdoug@gmail.com](mailto: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](mailto:donfohey@gmail.com) 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>.

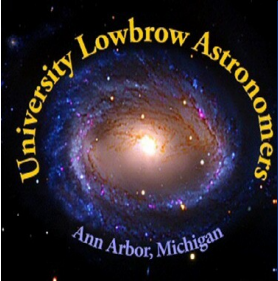
### Telephone Numbers

President:	Charlie Nielsen (734) 747-6585
Vice President:	Adrian Bradley (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](mailto:Lowbrow-members@umich.edu)



## University Lowbrow Astronomers



Member Club



Astronomical League Member Society  
#201601, Great Lakes Region

University Lowbrow Astronomers  
P.O. Box 131446  
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