

REFLECTIONS



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January , 1991

R. Tanner, ed.

University Lowbrow Astronomers

The University Lowbrow Astronomers is a club of astronomy enthusiasts which usually meets in the historic Detroit Observatory on the corner of Observatory and Ann Streets. The meetings start at 7:30 on the third Friday of each month and are open to the public. For further information, call Paul Etzler at 434-2574.

This Month:

Meeting, Detroit Observatory, January 18 .
Tim Killen of the U of M Atmospheric Sciences Department will talk about a sky glow measurement experiment to be installed at Peach Mountain.

Next Month:

Meeting, Detroit Observatory, February 15.
Topic to be announced. (actually we have a dynamite program, we are just trying to heighten the suspense)

Dues are coming up !

All members must pay their dues by the end of April. The March newsletter will contain a stamped, addressed envelope which will allow you to pay your dues conveniently. Just place your check in the envelope and drop it in the mail. The subscription rates are detailed on the inside of the last page.

Public Open Houses for 1991

Because of the record number of open houses that were rained or clouded out in 1990, Paul Etzler has proposed that the club try having two open houses per month. The open houses would be the Saturdays on each side of new moon. This would give us twice as many chances to get clouded out. Bring your ideas to the meeting for the discussion.

Officer Elections

The election of officers for the next year will be held at the April meeting. Paul Etzler and some of the officers will not be running again. All offices (including the editor) are open and everyone is encouraged to try their hand at one of the jobs. This is everyone's opportunity to contribute to the club. You don't have to be an expert in astronomy or anything for that matter, certainly not Roberts Rules of Order. The responsibilities are not difficult and there are plenty of ex-officers to advise and help out.

The Continuing Saga of the 24" Repair

On December 15th and 29th, a large number of club members were out at the telescope disassembling the mount for repairs. The tube assembly was removed from the declination axis and the declination axis removed from the right ascension axis. The right ascension axis was tested and demonstrated that the mount would move freely for some time but, if let set for a few minutes, the axis would become very hard to move even with no weight on it. This led to disassembly of the right ascension axis to examine the bearings. The upper bearing is a ball bearing which proved to be in good shape when the old grease was cleaned out. The ball thrust bearing also looked in good shape. The bottom bearing, a six inch long bronze bushing, was also in good shape after cleaning.

Tom Ryan is considering reassembling and testing the right ascension axis with some good low temperature grease to determine if the problem is related to the grease. Another alternative is to replace the bottom bearing with a needle roller

bearing. Most of the money for this alternative has been pledged by Brian Close and Tom Ryan. The objective is to get the bearings in the condition where you don't have to be 6'6 and 250 lbs to move the scope around.

The mirror has been recoated and Brian Close has brought it back from Chicago. The mirror was recoated with their normal process and the coater reported no problems. Using the standard coating process will hopefully give the mirror a longer lasting coating.

D.C. Moons is taking care of the cleaning and repainting of the refractor tube. Tom Ryan is giving the refractor lens a careful cleaning. Doug Nelle is looking at getting the infrared heat lamps working again to prevent the moisture accumulation which is causing the corrosion of the scope.

The tube assembly is in need of paint and rust removal, and a volunteer is need to step forward and take up this work. A person with professional painting equipment has volunteered to paint the tube with some extra durable paint provided someone will prepare it first.

New 24' Drive and Electronics

Stuart Cohen has summarized the status of the work he and Tom Ryan are doing on the new drive system for the 24'.

The electronic control of the 24 inch telescope is nearing reality. Not only was the Dec Slew board finished and bench tested successfully, but parts of the Interface and Paddle have been done that were scheduled for next month. We are about one month ahead of schedule, so the R.A. Retrofit was moved ahead to allow complete bench testing of the entire system before installation.

Summary of Electronics made for 24 inch Telescope as of 12/21/90	R.A. Guide	Encoders	Dec Slew	Dec Guide	Interface	New Paddle	R.A. Slew	pwr Supply	R.A. Retrofit
Mechanical Design	✓	Jun	✓	✓	✿	✓	Sep	✓	Feb
Mechanical Built	✓	Aug	✓	✓	Apr	✿	Dec	Jan	Apr
Electrical Design	✓	Jun	✓	✓	✓	✓	Sep	✓	Feb
Prototype	✓	Jul	✓	✓	✓	✓	Oct	✓	Mar
Circuitboard Design	✓	Aug	✓	✓	✿	✓	Nov	✓	Mar
Circuitboard Hardware	✓	Aug	✿	✓	Jan	✓	Nov	✿	Mar
Circuitboard Built	✓	Aug	✿	✓	Feb	✓	Nov	Apr	Apr
Installation	✓	Sep	May	May	May	May	Dec	May	May

✓ = Previously finished.

✿ = Finished since last Meeting.

Jan, Feb, ... => Item to be finished before this Month's Meeting

In Search of a Carbonaceous Chondrite Meteor - Matthew P. Linke

On the morning of December 7th, 1990, while most southern Michigan inhabitants were still asleep, a small number of people were witness to an unusual event. The event was the entry, breakup, and possible impact of a larger than normal meteor. Just before six in the morning the phones of area law enforcement offices began to ring. Some claimed a plane had crashed, others that a U.F.O. had been sighted. An informed few recognized that the visitor came from beyond the Earth.

Near Gregory, a small town in the area of most of the sightings, a local farmer and members of his family were awakened by a loud noise which coincided with the shaking of their house. "The whole house shook" said the owner, "then I heard what sounded like a loud splash in my pond. It was the same sound and vibration we felt last year when a car missed the curve and hit the house. In fact that's what I thought happened, that another car had hit the house. I went outside but didn't see anything in the yard or pond." Later that morning the owner was outside when he noticed that a piece of aluminium flashing near the top of the roof was dented and peeled back. Something had apparently hit the house. There was no ice on the pond at this time, so there is no direct evidence on the impact in the pond.

Doug Murphy, at Michigan State University, is especially interested in this event. From the descriptions of the breakup it is possible that this meteor was of a type known as a carbonaceous chondrite. These meteors sometimes contain organic compounds, amino acids, brought with them from deep in space. This type of meteor plays a part in the theories of some astronomers that the makings for life on Earth came here from space. Brought to Earth by the meteors, these materials were dumped into the primordial soups that were the Earth's early oceans.

Plans are currently underway to search the

bottom of this pond in the spring with the help of a local dive club. In the meantime the investigation continues into reports made by other witnesses who say that pieces fell in fields and woods in an area which includes Gregory. Actual field work has been halted until spring.

If club members are interested in helping out in the field search, you can contact me at 747-1381 (office). I will be in contact with Doug Murphy to determine if additional people are needed. I will also keep you posted in the results of searches.

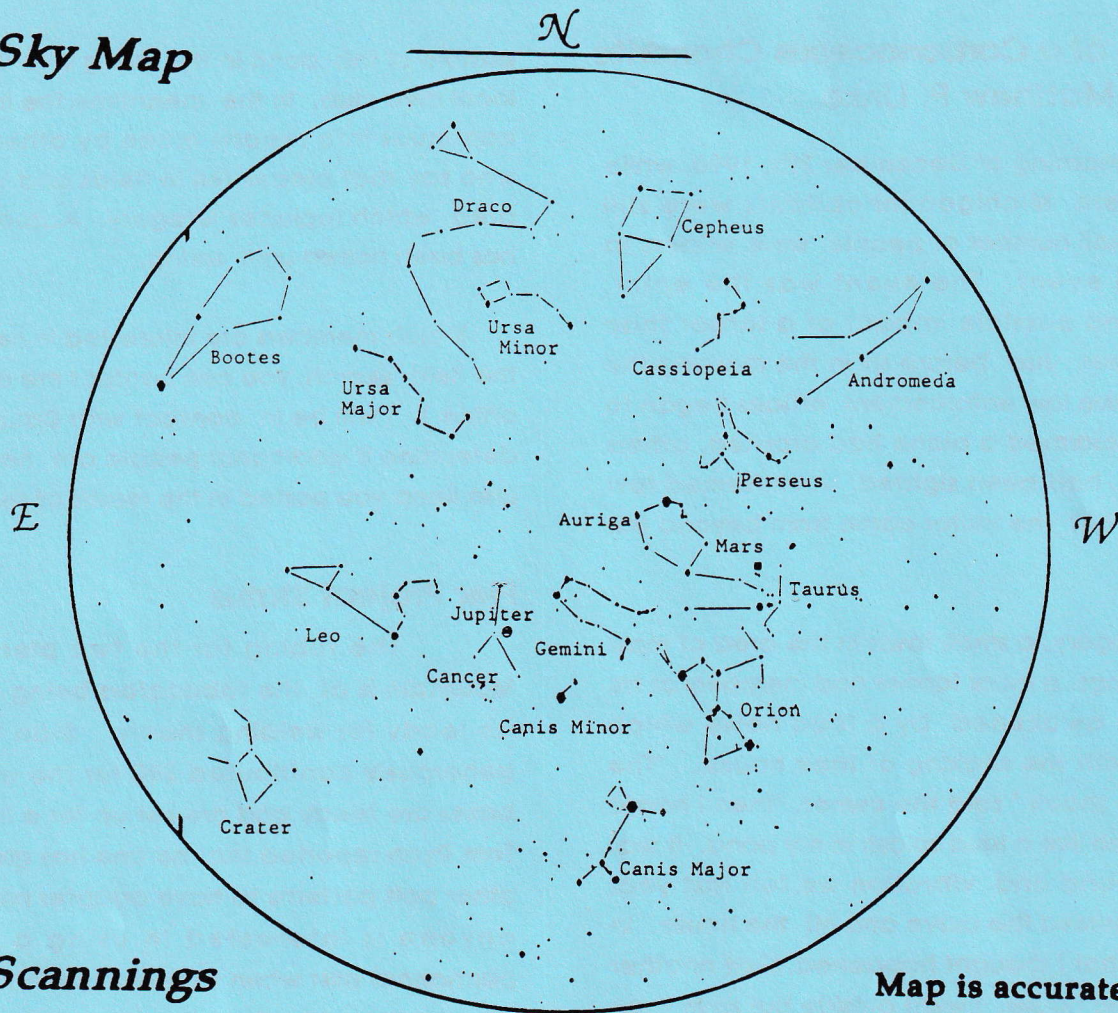
Pier Project Status

The tubing for the two piers at Peach Mountain is at the fabricators being cut and will be ready for welding shortly. Stan Watson has generously contributed \$80 for the welding. The bases are ready and are set up for a 8" Celestron. Tom Ryan reported that no one has given him any other bolt patterns to have adapter plates built. If anyone is interested in using a nice solid permanent pier when they are observing at Peach Mountain, give Tom Ryan your bolt pattern requirements.

Discussing the height of the piers with Tom, I mentioned that it might be advantageous to build one pier tall for standing observing and one short for seated observing. Several members of other astronomy clubs have commented on the pleasure and ease of observing while seated. Observing fatigue is much reduced and you are much steadier at the eyepiece, which is ideal for sketching, astrophotography, and those long planetary observations just waiting for that moment of good seeing. Most people have not tried seated observing because it is not very practical with a normal tripod.

The other advantages of short piers are that they can be used by owners of small newtonian telescopes, they are much stiffer, and have lower vibration levels. Tom is looking for some input from the members on this matter.

Sky Map



Sky Scannings

Map is accurate for:
Midnight on January 15
10:00 p.m. on Feb. 15
8:00 p.m. on Mar. 15

Sun Data

Date	Sunrise	Sunset
01-01-91	8:06 AM	5:04 PM
01-15-91	8:03 AM	5:19 PM
01-30-91	7:52 AM	5:38 PM
02-01-91	7:49 AM	5:40 PM
02-15-91	7:32 AM	6:59 PM
02-28-91	7:13 AM	6:15 PM
03-01-91	7:11 AM	6:17 PM
03-15-91	6:48 AM	6:33 PM
03-30-91	6:27 AM	6:50 PM

Moon Data

Date	Phase	Rise	Set
01-07-91	3rd Qtr.	1:20 AM	11:44 AM
01-15-91	New	8:07 AM	5:24 PM
01-23-91	1st Qtr.	11:27 AM	3:10 AM (24)
01-30-91	Full	6:41 PM	8:38 AM (31)
02-06-91	3rd Qtr.	2:16 AM	11:11 AM
02-14-91	New	7:30 AM	6:25 PM
02-21-91	1st Qtr.	10:52 AM	3:18 AM (22)
02-28-91	Full	6:43 PM	7:27 AM (1)
03-08-91	3rd Qtr.	2:50 AM	11:19 AM
03-16-91	New	6:43 AM	7:31 PM
03-23-91	1st Qtr.	11:53 AM	3:42 AM (24)
03-30-91	Full	7:49 PM	6:44 AM (31)

Rise and set times for the visible planets at mid-month

All times are Eastern Standard Time

Planet	Date	Rise	Set
Mercury	01-15-91	6:28 AM	3:39 PM
Venus	01-15-91	9:08 AM	6:54 PM
Mars	01-15-91	1:09 PM	4:15 AM (16th)
Jupiter	01-15-91	6:33 PM	9:04 AM (16th)
Saturn	01-15-91	8:15 AM	5:36 PM
Mercury	02-15-91	7:16 AM	5:03 PM
Venus	02-15-91	8:41 AM	8:14 PM
Mars	02-15-91	11:38 AM	2:59 AM (16th)
Jupiter	02-15-91	4:10 PM	6:51 AM (16th)
Saturn	02-15-91	6:25 AM	3:52 PM
Mercury	03-15-91	7:18 AM	7:46 PM
Venus	03-15-91	8:02 AM	9:22 PM
Mars	03-15-91	10:37 AM	2:10 AM (16th)
Jupiter	03-15-91	2:07 PM	4:53 AM (16th)
Saturn	03-15-91	4:44 AM	2:16 PM

Places:

The Detroit Observatory is at the corner of Observatory and Ann Streets in Ann Arbor, across from the old U of M Main Hospital. The Detroit Observatory is an Historic Building which houses a 19th century 12-inch refractor and a 6-inch transit instrument.

The Peach Mountain Observatory is the home of the U of M radio telescope and the 24-inch McMath telescope used by the Lowbrows. This observatory is located northwest of Ann Arbor, off North Territorial Road, West of Dexter-Pickney Road. The entrance is just west of Sportsman's party store and is marked by a small maize and blue university sign. Go through the gate and follow the gravel road. Once parked at the observatory parking lot, follow the path away from the radio telescope and around the fenced in compound to the telescope.

Times:

The monthly meetings are held on the 3rd Friday of each month at 7:30 pm. Meetings are either at the Detroit Observatory or at the Peach Mountain Observatory. Meetings held at Peach Mountain are cancelled if the sky is not clear at sunset.

Public Star parties (Open Houses) are held on the Saturday nearest the new moon at the Peach Mountain Observatory. Star parties are cancelled if the sky is not clear at sunset. Many members will bring their own telescopes. Your scope is welcome. Wear warm clothes for the season and bring insect repellent. The next scheduled Open House is probably in March of 1991.

☆ Planetarium:

The Lowbrows are interested in putting a advertisement (poster) next to the U of M Exhibit Museum Planetarium. If there are any artists in the group that would to design and create the poster, please call Paul Etzler at (313) 434-2574.

Dues:

Membership in the Lowbrow Astronomy Club is \$12/yr for individuals and \$15/yr for families. Among other things, this entitles you to use the club telescope after some training.

Magazines:

The Lowbrow Astronomy Club offers discount subscriptions to popular astronomy magazines:

Sky and Telescope : \$16/yr, \$18/yr aft Jan 1.

Astronomy : \$14/yr., 12 issues.

Deep Sky : \$8/yr., 4 issues.

Odyssey : \$10/yr., 12 issues.

Telescope Making : 48/yr., 4 issues.

All except Sky and Telescope require 5 club members to subscribe for the discounts. Contact Dick Sider (663-3698) for more info.

Sky Scannings:

The *Sky Scannings* and *Sky Map* section in the issues of the *REFLECTIONS* are produced by Matt Linke of the U of M Exhibit Museum.

Newsletter Contributions:

Please send any information, short articles, or drawings to the address below. The closing date is February 5th. The more you contribute, the better the newsletter.

University Lowbrow Astronomers Reflections
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Important Numbers:

President: Paul Etzler 434-2574
Treasurer: Richard Sider 663-3968
Observatory: Bob Klose 761-8488
Newsletter: Roger Tanner 981-0134
Membership: Ron Avers 426-0375

Peach Mountain Keyholders:

Tom Ryan 662-4188

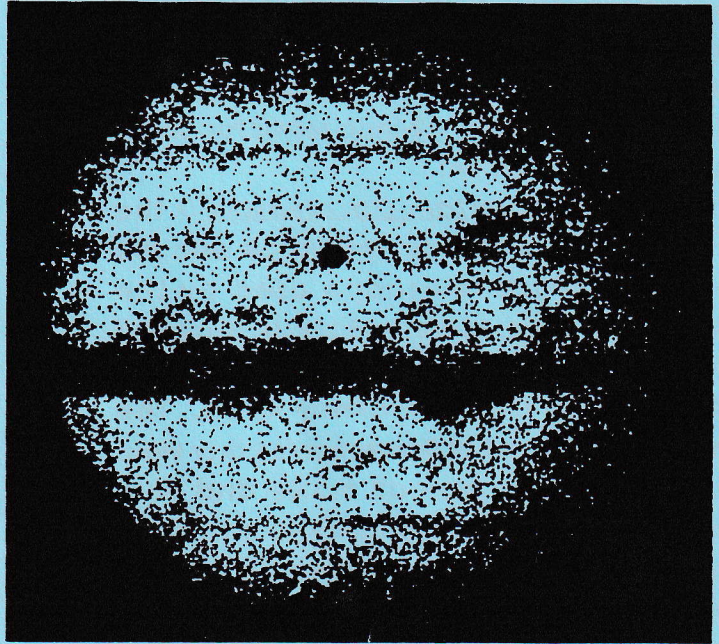
Fred Schebor 426-2363

Doug Nelle 996-8784

Monthly Meeting:

SKY GLOW
EXPERIMENT
AT PEACH
MOUNTAIN

Detroit Observatory
Observatory & Ann St.
Ann Arbor, Mich.



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