REFLECTIONS
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of the University Lowbrow Astronomers

December 2002

The University Lowbrow Astronomers is a club of Astronomy enthusiasts which meets on the third Friday of each month in the University of Michigan's Physics and Astronomy building (Dennison Hall, Room 130 or 807). Meetings begin at 7:30 PM and are open to the public. Public star parties are held twice a month at the University's Peach Mountain Observatory on North Territorial Road (1.1 miles west of Dexter-Pinkney Road; further directions at the end of the newsletter) on Saturdays before and after the new Moon. The party may be canceled if it's cloudy or very cold at sunset. For further information call (734) 480-4514.

December 2002

- **Friday, December 20** (Starting at 7:30pm) University Lowbrow Astronomers' Club Meeting held in either room 130 or 807 in the Dennison Bldg. **Discussion of the "Revised Club By-Laws" Please bring this Newsletter.**
- **Saturday, December 28** (Starting at Sunset) Regular Scheduled Open House and Star Party at the Peach Mt. Observatory.

January 2003

- **Saturday, January 4** (Starting at Sunset) Regular Scheduled Open House and Star Party at the Peach Mt. Observatory.
- **Friday, January 17** (Starting at 7:30pm) University Lowbrow Astronomers' Club Meeting held in either room 130 or 807 in the Dennison Bldg. **Speaker or Topic TBD**
- **Saturday, January 25** (Starting at Sunset) Regular Scheduled Open House and Star Party at the Peach Mt. Observatory.

Astrofest 2002

From left: Tom Ryan Brian Close, and Jack Brisbin. It appears to be much better weather than in the past few years

BYLAWS OF THE UNIVERSITY LOWBROW ASTRONOMERS

Article I: Name
The name of this organization is "***University Lowbrow Astronomers"*** hereafter referred to as the Lowbrows or the Club.
Article II: Object
The objects of the Lowbrows are to

1. Maintain and operate the University of Michigan's 24" McMath telescope and other telescopes and equipment owned by the Lowbrows,

2. Care for the Peach Mountain Observatory facility for the use of the members and the public,

3. Learn about Astronomy from each other and guest speakers,

4. Share our knowledge of Astronomy with the public through Open Houses and other programs,

5. Promote the enjoyment and appreciation of Astronomy by the public, and

6. Have fun while accomplishing all of the above.

Article III: Members
A. All those who have paid their dues within the preceding 12 months will be considered members.
B. Membership dues shall be at one price for individual or family membership and at a lower price for students and seniors (age 55+).
C. Members are entitled to receive the monthly *Reflections* newsletter.
D. Members may use the 24" McMath telescope after receiving training and being certified by the Observatory Director. Untrained members may use their own telescopes on Peach Mountain once they understand the rules for entering and using Peach Mountain.
E. Honorary membership may be extended to deserving individuals by consensus of the officers; honorary members may not vote or hold office, except if they pay dues and become a regular member.
F. Those wishing to be on the mailing lists (newsletter, e-mail, etc.) must pay their dues.
G. The term of membership is for one year from the first of the following month after dues are paid.
H. As long as the Club continues to exist, dues will not be refunded.
I. Only dues paying members will be eligible to vote or run for office in the April elections.
J. Family membership includes only those in the immediate family. Only family members over the age of 14 are eligible to vote.

Article IV: Officers
A. The elected offices shall be:

1. President
2. Vice President(s)
3. Treasurer
4. Newsletter Editor
5. Observatory Director
6. Webmaster (optional)

1. Eligibility for office
a. The President must have previously held another Lowbrow office.
b. There shall be at least one and no more than four Vice Presidents to share the duties.
c. A member may hold up to two offices simultaneously, except that the President may not also be Treasurer or Vice President.
d. The Webmaster must have the appropriate ability. If no member has appropriate abilities, this office may be left vacant and the Treasurer must appoint someone to maintain the Club e-mail list.

B. Duties of Officers

1. The President is responsible for:
a. Establishing Club direction with the advice and consent of the elected officers and general membership.
b. Presiding over Club and officers' meetings.
c. Coordinating and overseeing the activities of the Club in accordance with its objectives.
d. Acting as Club representative to The University of Michigan, other organizations and public events.
e. Approving official Lowbrow correspondence.
2. Vice President(s) is(are) responsible for:
a. Organizing monthly programs and keeping other officers informed of monthly programs and changes.
b. Assisting the President with governance of the Organization and presiding over meetings in the President's absence.
c. Keeping a record of the meetings. This need not be word-for-word but rather an outline of what the program was, proposals, motions, voting results, announcements, etc.
3. The Treasurer is responsible for:
a. Keeping a record (including receipts) of all income and expenditures of the Club.

b. Monitoring the use of Club funds and reporting any misuse.

c. Appointing another officer to be co-signer on the bank account.

d. Preparing a financial report to the Lowbrows twice a year to be presented with the Annual Report in spring and at a fall meeting.
e. Proposing means for increasing the treasury funds to the Club.
f. Keeping a record of who has paid dues**.**
g. Notifying the membership, through e-mail or other means, of upcoming meetings and events,

h. Keeping the membership address list up-to-date. All changes of address and phone number should be reported to the Treasurer.
i. Paying for expenditures
1) Expenditures shall be considered as one of two types:
a) General Operating Expenditures
b) Special expenditures
2) General expenditures are the ongoing expenses incurred in the fulfillment of the duties of officers and the basic objectives of the Club. Receipts must be submitted within 90 days of the expense for reimbursement. These do not require a vote by the membership to pay. Examples:
a) Minor repair and upkeep expenses of the telescope and observatory.
b) Cost of printing the newsletter.
c) Cost of producing and mailing meeting and event announcements.
d) Cost of printing and disseminating posters and flyers.

e. Long-distance telephone charges by members on Lowbrow business and accounting to a maximum of $20 in one month.

f. Other ongoing expenses for activities approved by the Club.

3) Special expenditures are one-time expenses for a Special purpose or of a large sum (over $100). These do require a vote by the membership to pay. Examples:
a) Major expenses towards the repair and upkeep of the McMath telescope and observatory.
b) Purchases of equipment for the telescope or observatory,
c) Expenses of special events and activities planned by the Club.
d) Any telephone charges not covered in Article IV.B.3.h.2.e.
e) Any other one-time expenses over $15.
4. The Newsletter Editor is responsible for:
a. The appearance and technical details of the newsletter with input on contents from the officers and members.
1) The contents of the newsletter should be:
a) Visually appealing
b) Grammatically correct
c) Scientifically and factually accurate
d) Interesting
2) The contents of the newsletter should <u>not</u> be
a) Libelous
b) Plagiaristic
c) Offensive to members of any race or creed
d) Obscene
e) Inane
b. Printing the newsletter in an economical way consistent with the above specifications.
c. Publishing the Annual Report in the Newsletter in the first quarter of each year.
5. The Observatory Director is responsible for:
a. Chairing the Observatory Committee.
b. Reporting all progress and necessary expenditures on the telescope to the membership
c. Keeping track of the gate keys to Peach Mountain.
d. Maintaining and changing the observatory combination lock.
e. Keeping the public and membership informed on the status of the open houses via voice mail and the internet web pages.
f. Supervising the responsible use of Peach Mountain for observing by the membership.
6. The Webmaster is responsible for:

a. Maintaining the contents of the Lowbrow website with input from the officers and members.

1) The appearance of the website should be:
a) Visually appealing
b) Grammatically correct
c) Scientifically and factually accurate

d. Interesting

e. Up to date

b. Maintaining the club e-mail list or designating a subcommittee to do so.

c. The website shall include an e-mail address or some other mechanism for website visitors to contact the Club. The webmaster is responsible for answering this e-mail or designating a subcommittee to do so.

7. Officers shall prepare an Annual Report to be published in the Newsletter in the first quarter of the year (before the April elections).
8. All officers may be called upon from time to time to perform other duties.
9. If an officer is unable to perform a specific duty at a specific time, that officer may call upon another officer or member to perform that duty.
a. The substitute officer must follow the responsibilities for the original officer as outlined above.
b. The other officers must be informed of the change in responsiblities.

C. Interim Officers

1. All officers who will not be able to perform their duties

for more than three consecutive months must inform the Club so that an interim officer may be elected.
2. An interim officer's term will end when the regular officer resumes his/her duties or on the date of the next regular elections.

D. Resignations and other Vacancies

1. If an officer is no longer able to perform his/her duties, the office will be considered vacant.
2. The positions of officers who quit the Club, or resigns the office are considered vacant.
3. All vacancies will be filled as soon as possible by a special election which will proceed as a regular election would.

E. Removal of Officers

1. Officers may be removed from office for any of the following reason
a. Misuse of Club funds
b. Misuse and/or damage to Club and/or university property
c. Assault of a member or nonmember during a Club meeting or outing.
d. Failure to perform the duties of the office in an appropriate and/or intelligent manner.
e. Failure to pay dues.
2. A motion to remove the officer must be brought before the membership, if two-thirds of the remaining officers approve the motion.
3. Removal will be effective upon the will of two-thirds of the members voting and the position will be considered vacant. The vote will be taken by written ballot.

Article V: Elections & Voting
A. Elections

1. Officers will be elected at the April meeting. Terms are to begin immediately after the meeting and end after the next annual elections.
2. Nominations will be taken by the President starting at the March meeting. Names of nominees will be published in the April Newsletter prior to the April meeting.
3. Voting will proceed by a show of hands at the April meeting.
4. The count will be tallied by a member not running for office.
5. The nominee for an office obtaining at least one more vote than any other single nominee will win that office.
B. Voting

1. Voting for officers will be by a show of hands of those members present at the meeting.

2. Voting for the removal of an officer will be by written ballot. Ballots will be mailed to current members with known addresses and members will have at least 15 days to return the ballot to a designated officer.

3. Voting for amendments to the Bylaws will be by show of hands plus any absentee ballots received by the date of the vote.

4. Voting for all other motions will be by a show of hands. A simple majority of those voting is required for a motion to pass.

Article VI: Meetings

A. Club Meetings
1. Regular meetings shall be held monthly at a day, time and place as convenient as possible to the membership, and shall be announced in the newsletter to all members.
2. The Lowbrows may plan other events and activities from time to time, to be held at the day, time and place decided upon by the membership.
3. Members are encouraged to attend meetings and other events, and to actively participate in all activities of the Club.
B. Officers' meetings

1. Officers shall meet, face to face, on a quarterly basis to
a. Plan Club functions and participation in other events.
b. Prioritize and set goals for each year.
c. Determine when major projects are needed on the McMath telescope or the Peach Mountain observatory.
d. Organize support as needed to assist the officers in completing their duties and to carry out the Club activities and projects.
e. Advise and consent on interaction with the public and university.
2. Officers may also make decisions by e-mail provided all officers respond.

Article VII: Committees
A. Standing committees are

1. Observatory Committee, chaired by the Observatory

Director, consisting of between 3-5 members. Responsibilities are:
a. Supervising the renovation, repair and upkeep of the 24-inch telescope and observatory.
b. Scheduling of observation time with the 24-inch telescope should an increase in demand cause conflicts to arise.
c. Publicity and organization of public open houses and events held at Peach Mountain.
d. Interfacing with the University on issues relating to the observatory and grounds, the McMath telescope, open houses and special events held at Peach Mountain.
e. Training of members on the operation and care of the 24" McMath telescope.
f. Keeping an inventory of equipment belonging to the Lowbrows.

2. Communications/Public Relations Committee, chaired by one of the Vice Presidents, consisting of between 3-5 members. Responsibilities are:

g. Greeting new attendees at monthly meetings.
h. Welcoming guests at star parties and providing Lowbrow information.
i. Organize annual elections.

B. Ad hoc committees may be formed and disbanded as needed.

Article VIII: Parliamentary Authority

Meetings shall be conducted according to the most recent edition of ***Robert's Rules of Order*** as interpreted by the presiding officer, and in which they are not inconsistent with the Bylaws or special rules of the Club.

Article IX: Amendment of Bylaws

These bylaws may be amended after the following conditions have been met:

1. All members have been notified, in writing (may be through the Newsletter) or by e-mail, at least one month before voting is to take place, of the exact wording of the proposed amendment.
2. All members unable to attend the meeting when the vote is scheduled to take place may send an absentee ballot to the Treasurer. The ballot must be received by the Treasurer before the date of the vote.
3. All members present at the meeting may vote.

4. A simple majority of those voting, including absentee ballots, is sufficient for passing the amendment.

A Christmas Carol

by Tom Ryan

Many years ago, when I bought my present house, I noticed that the house next door was rented to a couple of attractive women. Being unmarried at the time, I went over and introduced myself. In the course of being shown around their house, I asked them about the little typed notes taped everywhere, each saying, in effect, "Don't try to fix anything. I don't care if you get electrocuted, but you might damage the house". "Oh, that's just the landlord", one of the girls told me. "He's really mean. If the rent is even a day late, he's pounding on the door, threatening to evict us."

Over the next months, I occasionally saw him, either mowing the lawn, parking cars on the property on football Saturdays with a beer in one hand and a cigar in the other, or pounding on the front door of the little house. I never spoke to him, but as subsequent renters came and went, they all told me he was really hard to get along with.

One morning, after a night of heavy rain, I was late for work, and one of my night-shift roommates had parked his car between mine and the street. I backed around his car, leaving tire indentations in my neighbor's yard in the process. When I got home that evening, I found two parallel strips of grass had been diagonally removed from my front yard. Evidently, the landlord had used his rusty pickup truck to advise me to stay off his property. This incident caused my mother to name him Nasty McNarf.

I still didn't speak to him, but I would sometimes see him around town, usually coming out of a low class bar at 2:00 in the afternoon.

Years went by. I got married and my wife and I had a little boy. My son and I would feed squirrels in the back yard, and we trained one of them to take nuts out of our hands. One day, my son exuberantly toddled onto my neighbor's yard when Nasty was there cutting the grass. My neighbor took the cigar out of his mouth and shouted towards me, "Get that G--D--kid off out of my yard!". I quickly scooped up my son, and explained to him that it was not safe to play around operating lawn mowers.

Then the squirrel disappeared. The renter at the house explained that the landlord trapped them regularly. Since I had helped it to lose its fear of humans, I felt that I had had a hand in ending its life.

That year, a storm knocked down a lot of branches from the trees that grew along the indistinct property line. They lay in my neighbor's yard for several days, until my neighbor asked me when I was going to clean up the debris from my trees. I said I thought they were his trees, but I picked up the branches anyway. While I was doing that, I told him I was planning to plant a tree next to the driveway. He told me to forget it. A tree would interfere with the number of cars he could park on the yard during football Saturdays. As I gritted my teeth, I noticed that he had a glass eye, although it was hard to tell, because his ruined face reflected a lifetime of drinking, smoking, and murdering small animals. I asked him if he would consider selling a strip of land along the property line, so we could resolve the issue of ownership, and I could

plant new trees. He just looked at me and said, sure, if the price was right. But he was sure that that wouldn't happen, because I was too cheap.

More years passed. Dave Wall, a Lowbrow, asked me to help him align his 13" Coulter reflector. As we set it up in the driveway for a final test, I noticed my neighbor was watching us. Dave commented on him, but I said that the best thing to do with that guy was to ignore him. The less interaction, the less likelihood of a lawsuit.

A few weeks later, a new storm brought down more branches. My neighbor gathered up the fallen branches and started dumping them on my driveway. I resignedly went outside to move them to the curb, and he walked up to me with branch in his hand. What now, I thought. "Was that telescope you had out here a Meade or a Celestron?", he asked.

I was dumbfounded. He knew about Meade and Celestron. That meant he was an amateur astronomer. I absolutely couldn't believe it. He was a thoroughly bad guy, rotten to the core, but he knew about Meade and Celestron. In my entire life, I have known many amateur astronomers, and they have all been good guys. Without exception. Some of them have been a little strange, but they were, at heart, good guys. If he was an amateur astronomer, then I must have somehow misjudged him all these years.

I told him it had been a Coulter, more bang for the buck. Then he said something about thinking about buying one someday, and our conversation ended somehow, but I don't remember much else about it, because I was still thunderstruck by the size of the mental adjustment I was forced to make.

My wife and I had a picnic with the renter, who told us that D---W---, the landlord, captured squirrels and let them loose in a little treed property he owned by the golf course. I started waving to him when I saw him in passing. Relations between us underwent a sea change. He was still a grouch, but he wasn't a mean grouch. I started looking at him as if he were a human being instead of a monster, and I began to see why he did a lot of the things he did.

I asked him again about buying an eight foot strip of land. He again said the price needed to be right, and named a price that was probably more than he had paid for the whole property. Then he said, you're probably just waiting for me to die. I told him that, based on the way he was living his life, he would probably outlive me by twenty years.

A month later, I got a letter from his lawyer. D--- had died, and in his will, had given me first right of refusal on his property. I ended up buying it for twice what I thought it was worth, but for exactly what the market thought it was worth. The money went to his old college, since he had no family.

The property is a financial stretch. It'll be a boon when it's paid for in thirty years, but it costs a lot right now. I sometimes think, when I'm parking cars on the lot to pay the exorbitant taxes, or worrying about the rent being late, that D--- directed this property to me to remake me in his own image.

Doug's Deep Sky Challenge

by Doug Scobel

What's Up With NGCs 6882 and 6885?

[Author's note - I originally wrote this for the November newsletter, but I did not get it to Mark in time. Believe it or not, Vulpecula still should be high enough in the sky immediately after the end of twilight to be able to check these out. Otherwise, you'll have to wait until next summer!]

Many of you may already know that I am currently working on the so-called Herschel 400 list of deep sky objects. Two of them, cataloged as NGC 6882 and NGC 6885, are a bit puzzling. Both are located in Vulpecula (the Fox), and are literally one on top of each other. Supposedly, anyway.

These two open clusters are located very near each other, with NGC 6882 at 20h 11.7m +26 deg 33' and NGC 6885 at 20h 12.0m +26 deg 29', about five degrees north-northeast of M27 (the popular open house showpiece Dumbbell Nebula). In fact, they both "enclose" the 6th magnitude star 20 Vulpeculae (which is not considered to be a member of either cluster - it is rather believed simply to be a foreground star). Even in November, they should be high enough in the sky to observe, at least early in the evening after twilight ends.

NGCs 6882 and 6885 are both listed in The Deep Sky Field Guide to Uranometria 2000 as being at magnitude 8.1, with diameters of 18 and 7 arc minutes, respectively. Given their coordinates, and their listed diameters, they ought to overlap. But what we see on star charts is another story. Sky Atlas 2000 plots only NGC 6885, as a small cluster centered exactly on 20 Vul. Uranometria 2000 (first edition) plots both clusters, also with NGC 6885 centered on 20 Vul, and with the larger NGC 6882 completely enclosing it, and with its center to the northwest of 20 Vul. Millennium Sky Atlas also plots both, and also with NGC 6882 enclosing NGC 6885 (also centered on 20 Vul), but shows NGC 6882's center to the *south*west of NGC 6882. And, the totally revamped Uranometria 2000 second edition shows NGC 6882 only, and doesn't even plot its smaller companion! Obviously, there's confusion regarding these two objects even among the sky cartographers!

So what does one see when one looks at these in a telescope? In my 13" at the Black Forest Star Party this past September, NGC 6882 appeared as a nice, relatively "loose" cluster in a rich Milky Way field. Despite the rich background, it was still relatively easy to spot as a cluster. Yes, 20 Vul was there near the "edge" of the cluster, but I did not pay attention to which direction the star was from the cluster's center. [I did not notice the discrepancy in the positions of NGC 6882 relative to 20 Vul until I compared star charts while writing this article. I'll have to revisit them the next time I'm out observing.] At low power, around 55x, I saw no evidence of a smaller cluster centered on 20 Vul. At higher power, around 200x, I thought I detected a faint "circle" of stars surrounding 20 Vul. Was this NGC 6885? If so, then it's awfully small and hardly worth cataloging in the Herschel 400 list. The Herschel 400 is advertised not as having the most challenging objects, but rather to be a collection of objects reachable with moderate apertures from less than perfectly dark skies. If this is NGC 6885, then it seems out of place in it.

So what's up with these two clusters? Are they really two objects? Why does each sky atlas plot them differently? Why are they listed with identical brightness's, when obviously if one "encloses" the other, then they cannot be? And is NGC 6885 really a cluster? Is it even there at all?

Perhaps the next time you are looking at M27, you might want to take a little side trip and check these out for yourself. I'd like to know - what do *you* see?

A Bit of Great Space Adventures 2002

by Douglas Warshow

On Sunday, October 6 was another installment of Great Space Adventures, an annual space-related open house held at the Electrical Engineering and Computer Science building at the University of Michigan's North Campus. The main purpose of this event is to introduce the public to various aspects of astronomy and space travel, the former being provided mainly by the University Lowbrow Astronomers.

I will only relate a small portion of the events of that day since I was outside the building for the majority of my time there.

The weather report called for fairly clear skies until about 2:00 PM so I brought my Next Star 8 and solar filter to show the Sun. (The only other astronomical object that I could find at that time of day was Earth, but I didn't think a telescope would be necessary to see it.) The nearest parking lot was a bit of a walk from the site (when you have to port large equipment, anyway). Since I knew that only a limited amount of observing time would be available, I saved some time by driving on the sidewalk to EECS, unloading my gear, then driving the car to the lot. Thanks to Lorna Simmons, Bob Close and Dave Snyder for watching my gear as I was moving my car back to the parking lot.

Since I didn't need a lot of the extras (such as the finder scope), the setup time was fairly short. Despite the brevity, however, I had at least five visitors waiting to look through the scope by the time I was done.

The Sun was quite cooperative that day; even though we were at least one year beyond the maximum sunspot number period ("solar max"), there was a nice linear collection of sunspots just a little north of center. About four other spots were near the edge.

There was another surprise: the observing line was never very long, but it never disappeared! Reinforcements always replaced the viewers who had left (and some of the reinforcements were people who taken a glimpse earlier in the day). This was even the case during the guest lectures. Perhaps we have some new potential members.

One of the biggest kicks that I got out of that session was the expressions on the faces of the kids when I explained that the smallest spot that they could see on the surface was about the size of the Earth. That certainly put things in perspective!

Oh, a word of advice to others before attempting this yourself: make certain that you have had breakfast beforehand. The non-stop line prevented me from grabbing a bite until Charlie Nielsen graciously offered to take over operations for a while. (Thanks!)

As predicted (amazing!), the clouds stared getting thick at about 2:00. Within twenty minutes, viewing the Sun was impossible. Nonetheless, several people still wanted to peer through the scope. I ended up removing the filter and pointed the Next Star at the main glass pyramid atop the Media Union. The guests were still awed at the magnification - I was actually only at 50x - and I didn't have to worry about tracking!

Eventually, time came to pack up and leave. I didn't get to see much of the rest of the event, but I wouldn't mind repeating the observing session for future Great Space Adventures: even if I didn't get see anything else.

Keeping Thing In Perspective

By Rudi Paul Lindner

As the nights lengthen and the temperatures drop, let us remember what it was like to observe here a few generations ago. When W.J. Hussey and Ralph H. Curtiss set up the "great reflector" next to the refurbished Fitz refractor, they were both highly pleased at the performance of the new equipment. A stellar spectrogram of the same quality as those coming from the 40" refractor at the Yerkes Observatory took only one third the exposure time, which meant that Michigan's telescope was far more efficient and productive, at ten to fifteen minutes per exposure. Curtiss kept a running record of spectrograms and, whenever Hussey was away, sent along the latest totals.

But the Observatory was only some hundreds of yards east of Ann Arbor High School, then located in what is now the Frieze Building of UM, and the school's heating system was coal fired. Smoke, soot, and heated air, drifting east with the prevailing winds, occasionally affected the seeing on the hill. But this was only the prelude to the planning of a great

heating complex for the central campus, set in motion after 1913. A tug of war began between the University's engineers, headed by Professor Cooley, and Hussey's benefactor, Robert Lamont, and his consulting engineers. Cooley wanted to place the stacks in the "cat-hole," a low-lying valley between North University Street and Palmer Field. Lamont favored a site down by the railroad tracks and the river, with longer pipes carrying steam south towards the University. The battle went on for a year, with Cooley the ultimate victor. You may admire his vision as you drive east on Huron or northwest on Washtenaw.

In those days there were no scrubbers, no internal means of halting the flow of soot and smoke, much less the heated exhaust.And the prevailing winds kept sweeping east, across Palmer Field and the observatory hill.

The effect of the "Cooley Memorial" was immediate. One of the great American observational astrophysicists of the next generation, Paul W. Merrill, was in his second year at UM, and his comments on the disappearance of good seeing were pithy and provocative; in two years Merrill himself had left for the National Bureau of Standards. Ralph Curtiss began planning for a new site on Huddy Hill, farther from the soot but too close to the railroad. And the smoke stacks in the cat-hole led to Michigan astronomers spending more time in their beds on cloudless winter nights.

New 'Scope' Review

By Christopher Sarnecki

Our Newsletter Editor is always on the look out for the next newsletter article for the Lowbrows Reflections. He has reminded me numerous times of the need to write an article about the new telescope I been using for the past year. Well, Mark; wait no longer. This new telescope review is for you.

About two years ago, I decided to retire the 13-Inch Coulter newtonian reflectector with its companion Telrad and finder scope. My old Mark Cray built f/5, 85-mm doublet finder was an awesome finder. It had a 90-degree star diagonal that produced an image that was up side down and reversed left to right. I would tell myself that I could figure out where I was in space; but most of the time, I was "lost in space" and I would just fish around and sweep up the desired object. The Coulter, Telrad, and Cray finder served me well for more years than I care to remember, but it was time to try something different. Along with a new scope and reflex finder (Rigel), I decided I would also try a different finder scope.

I purchased an 8 x 52-mm right-angle, correct image finder by Sky Instruments of Vancouver, BC. The finder is mounted on the traditional mounting rings with a quick release knife blade mount that makes set-up and tear down a snap. This arrangement cost me about $150. Orion Telescope & Binocular has a similar right-angle correct image finder that comes with an even simpler dove tail mount for about 90 bucks. The Sky Instrument finder comes with a focuseable eyepiece built in to the scope and is great for focusing the field of view to the individual needs of you eyesight. Both finders are good products for a fair price.

What is so important about using a right-angle finder? Traditional finders provide the view by looking straight through the scope like looking through the little collapsible spyglass you had as a kid. The straight through finder also produces an up side down view of the universe. Try using one of these finders on any style scope, whether it be a newt, cassigrain, or refractor, and one finds that in some orientations, like at zenith, the straight through view is difficult to impossible to use. The right-angle feature eliminates contorting your neck to use the finder at any scope orientation.

How do these right-angle correct image finders provide the corrected views you ask? Smoke and mirrors, well maybe only mirrors. Actually an amici prism provides the corrected view that matches the view of the universe you see when you look up in the sky with your own eyes. This is much more intuitive when comparing the sky against your star atlas. I usually use the Rigel to locate a bright star near to object I am looking for, then compare a path on the atlas to what I see in the finder scope. If I need to go left on the chart, I just look in the little scope and go left. No need to try and flip views in your mind top to bottom or left to right. WYSIWYG astronomy at its best.

How well do the right-angle correct image finders perform? After a season of use, I can testify that these little scopes are the best thing that has happened to observational astronomy since John Dobson. If the night's seeing will permit it, the telescope is up to the task, and given a decent atlas, I can find anything! The 50-mm finders locate stars to about 10^{th} mag on most nights.

Planetary observing has never been my forte. Many of these objects are small and hard to find. If one can't find the spot where a smallish planetary is on the celestial dome, it is useless to apply the magnification. With the right-angle correct image finder locating these little gems is an enjoyable experience. I know exactly were I am at most of the time by just using the view in the finder.

A couple of no cost tricks I use to keep the dew of the finder's eyepiece and objective are worth mentioning. I connected the eyepiece plastic lens cap to a piece of elastic thread and then to the finder. If dew is expected, I cover the eyepiece with the cap when not in use. I never have to go looking for the cap because it is always attached to the finder. To keep dew from forming on the objective I made a simple insulated dew cap from the black foam plastic stored in the observatory. Dew has never been a problem on the finder's objective since I installed the foam dew shield.

If you enjoy finding objects from a star chart and don't like to strain your neck, try one of these little scopes. It will open up more of the universe and provide the next level of observing challenges you may find you need to keep you looking forward to the next night out under the stars.

For Sale

Hewlett Packard ScanJet 5p scanner and all software and connection cables and interface card.

Minimum System Requirements:

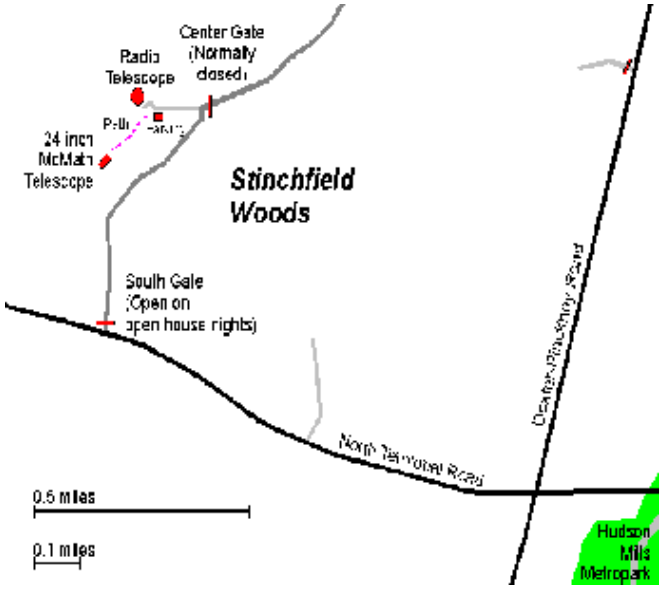
- 80486 or higher processor
- 8 Mbytes RAM
- 20 Mbytes available hard disc space
- Windows-compatible pointing devise (mouse)
- Video Graphics Array (VGA) Monitor
- Either: DOS 5.0 or later and enhanced mode Windows 3.1x **or** Windows 95
- One available expansion card slot for the HP Interface Card

This is my old scanner and has served me very well. It is a flatbed scanner with a maximum document size of 8.5" x 11.66" and its selectable resolution is from 12 dpi to 1200 dpi at 100% scaling.

If you are interested ... Make me an offer.
Mark S Deprest (734)223-0262 or email: msdeprest@comcast.net

Places and Times:

Dennison Hall, also known as The University of Michigan's Physics and Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. It is found in Ann Arbor on Church Street about one block north of South University Avenue. The meeting is held in room 130. Monthly meetings of the Lowbrows are held on the 3rd Friday of each month at 7:30 PM. During the summer months, and when weather permits, a club observing session at Peach Mountain will follow the meeting.



Peach Mountain Observatory is the home of The University of Michigan's 25 meter radio telescope as well as the University's McMath 24 inch telescope which is maintained by the Lowbrows. The observatory is located northwest of Dexter. The entrance is on North Territorial Road, 1.1 miles west of Dexter-Pinckney Road. A small maize-and-blue sign marks the gate. Follow the gravel road one mile to a parking area near the radio telescopes. Walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.

Public Star Parties:

Public Open House/Star Parties are held on the Saturday before and after each new Moon at the Peach Mountain Observatory. Star Parties are canceled if the sky is cloudy at sunset or the temperature is below 10 degrees F. Call 480-4514 for a recorded message on the afternoon of a scheduled Star Party to check on the status. Many members bring their telescopes and visitors are welcome to do likewise. Peach Mountain is home to millions of hungry mosquitoes - bring insect repellent, and it does get cold at night so dress warmly !

Amateur Telescope Making Group meets monthly, with the location rotating among member's houses. See the calendar on the front cover page for the time and location of next meeting.

Membership:

Membership dues in the University Lowbrow Astronomers are $20 per year for individuals or families, and $12 per year for students and seniors (age 55/+). This entitles you to the monthly REFLECTIONS newsletter and the use of the 24" McMath telescope (after some training).
Dues can be paid to the club treasurer **Charlie Nielsen** at the monthly meeting or by mail at this address:

6655 Jackson Road #415
Ann Arbor, MI 48103

Magazines:

Members of the University Lowbrow Astronomers can get a discount on these magazine subscriptions:
Sky and Telescope: $29.95 / year
Astronomy: $29.00 / year

For more information contact the club Treasurer. Members renewing subscriptions are reminded to send your renewal notice along with your check when applying through the club Treasurer. Make the check payable to "University Lowbrow Astronomers".

Newsletter Contributions:

Members and (non-members) are encouraged to write about any astronomy related topic of interest. Call or E-mail to Newsletter Editors at:
Mark S Deprest (734)223-0262 msdeprest@comcast.net
Bernard Friberg (743)761-1875 Bfriberg@aol.com to discuss length and format. Announcements and articles are due by the first Friday of each month.

Telephone Numbers:

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Vice Presidents:	Dave Snyder	(734)747-6537
	John Causland	(734)747-8437
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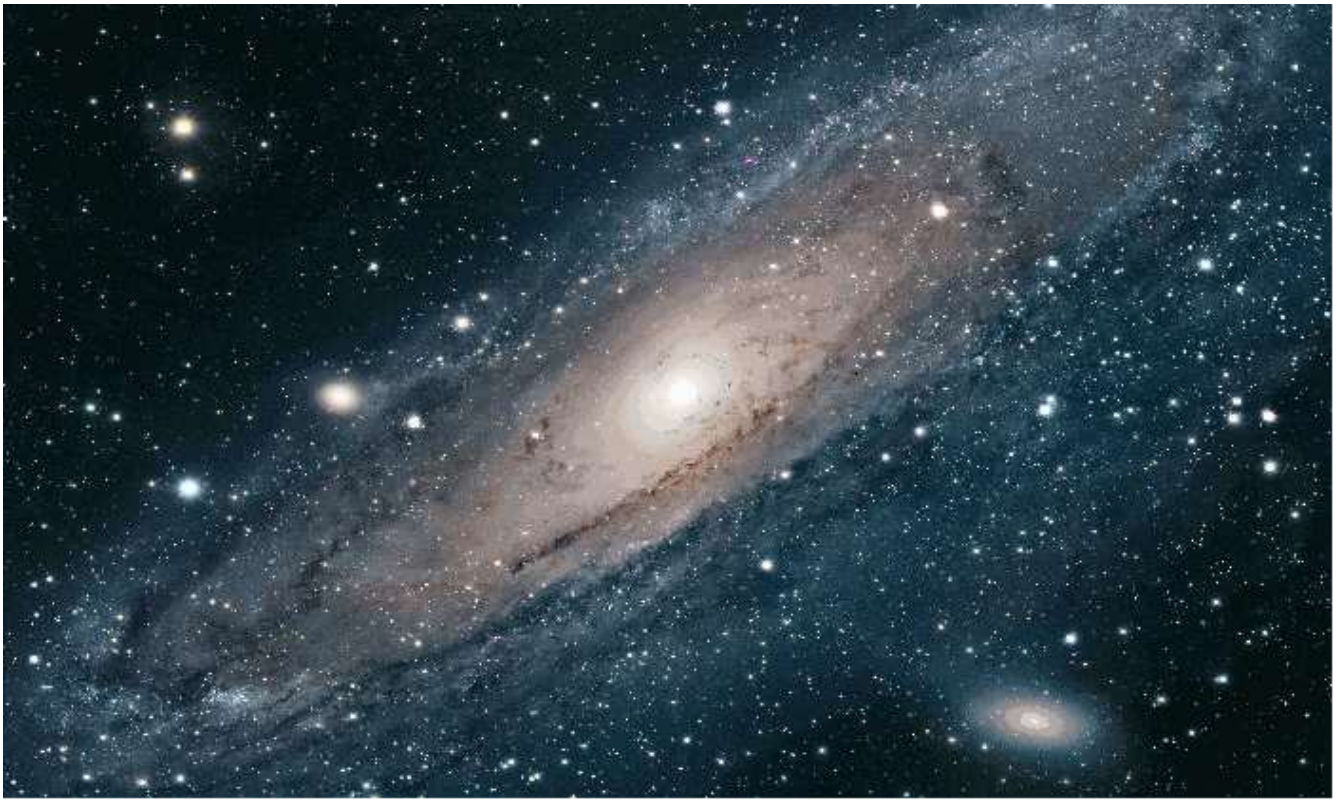
Keyholders:	Fred Schebor	(734)426-2363
	Chris Sarnecki	(734)426-5772

Lowbrow's Home Page:

http://www.umich.edu/~lowbrows/
Dave Snyder, webmaster



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ASTRONOMERS
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Lowbrow's WWW Home Page:
www.umich.edu/~lowbrows.html
Check your membership expiration date on the mailing label !