University Lowbrow Astronomers
Ann Arbor, Michigan

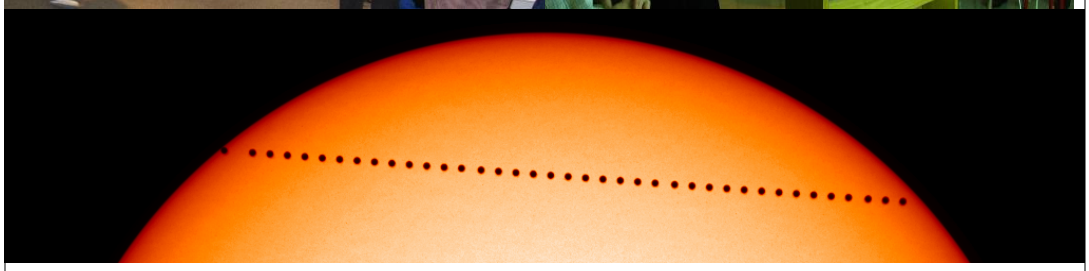
REFLECTIONS / REFRACTIONS

REFLECTIONS \ REFRACTIONS

University Lowbrow Astronomers

December 2006

Volume 30 Issue 12



Ann Arbor Hands-On-Museum, The University Lowbrow Astronomers & The Transit of Mercury, November 6, 2006

Some of the fun that was had at the Hands-On-Museum during the recent Transit of Mercury event co-hosted by The Ann Arbor Hands-On-Museum and The University Lowbrow Astronomers.

Images by Dave Snyder, Charlie Nielsen and Lee Vincent

In This Issue

Important Club Info

- **Friday, December 15, 2006.** (7:30 pm). Monthly Club Meeting.
- **Saturday, December 16, 2006.** *May be cancelled if it's cloudy or too cold.* (Starting at Sunset). Open House at Peach Mountain.
- NEW **Saturday, January 13, 2007.** *May be cancelled if it's cloudy or too cold.* (Starting at Sunset). Open House at Peach Mountain.
- **Friday, January 19, 2007.** (7:30 pm). Monthly Club Meeting.

One great dark sky star party!

23rd Annual Okie-Tex Star Party

By Robert Wade

Introduction

If you are not really interested in attending a modest sized star party in *very* dark skies, save yourself the trouble and read no further. I knew 2006 would be a special year when I joined the University Lowbrows. Any club that has an **A**ny **C**lear **N**ight **O**bserving email list on a list server is my kind of club. I couldn't attend WSP this past February due to moving into the area from Kalamazoo, so I was more than enthusiastic when Mark Deprest glowingly suggested the Black Forest Star Party as a Lowbrow event. Due to the rather inclement weather, this event was rather a 'depresting' letdown – this year at least. However, it was far from a total loss as I got to know many Lowbrows much better. The only thing more enjoyable than clear crisp skies is enjoying them with good friends. Meeting new friends under lousy skies comes a close second….

One weekend later I was sitting at the breakfast bar at home lamenting aloud the fact that couldn't see how to use the rest of my vacation in 2006 and would have to carry some over next year. Wendy (my gracious wife) then asked if there was any other star party I could yet attend in 2006. Quicker than Jack Flash I suggested Okie-Tex and asked if she's be interested in attending as well since we haven't traveled to that part of the Southwest yet. Much to my delighted surprise, she said "yes."

Why Okie-Tex (http://www.okie-tex.com)? I'd been to three Nebraska Star Parties since 1998, and I was really hooked on clear, dark, and dry skies. However, the weather at NSP is usually very hot with unpredictable prairie windstorms that can really ruin a good day. That left either the Texas Star Party or Okie-Tex at the farthest range of my desire to drive. I was (am) somewhat leery of TSP due to its infamous dust storms and I didn't relish dust infiltrating all my equipment and optics. So when Wendy suggested another star party, the choice was really a no-brainer.

The Place

For many years now, the Okie-Tex star party has been held at Camp Billy Joe just outside of Kenton, Oklahoma located in the Oklahoma panhandle just miles away from Texas, Kansas, New Mexico, and Colorado. It is dry high plains territory, nestled in between two low mesas which do not really affect the horizon. Kenton is a bustling metropolis of 26 – well, ok, not quite bustling. Camp Billy Joe is a Christian youth camp and the Okie-Tex organizers have signed long term contracts with them, in return for field upgrades such as electricity, DSL for internet, etc.

The star party was held from Saturday, September 16th-24th. For accommodations, there are six insulated/heated bunkhouses with beds. These are available on a first-come-first-served basis and are provided by registration and facility fees. One building is designated for women only and the rest are labeled for men or family use. Tent campers, trailers or RVs are asked to set up around the perimeter of the two observing fields. The camp *does not* support RV hookups at this time. There is a large community building that houses the showers and bathroom facilities for the camp. These are available as well as portable toilets scattered near the observing fields for the comfort of our guests. This building also houses the vendor hall, registration table and the kitchen area that is used by the caterers during the day. At night it becomes the *Cosmic Café* replete with the obligatory red lighting.

Catered breakfasts, lunches and dinners are available at the Camp Billy Joe Community Building during the star party. These meals are provided by Cimarron Heritage Center. The meals are priced separately and are in addition to star party registration. Breakfast is $5.00, lunches are $7.00 and dinners are $10.00. Wendy & I took advantage of these meals, and for the most part there was ample and tasty food. Supplies were a bit thin at times due to too many last minute walk-ups deciding they would rather not cook. Like at WSP or BFSP, the *Latenight Cafe* opens each evening from approximately 10:00 PM until 3:00 AM where you can get burgers, hot or cold drinks, snacks and other goodies.

The Trip

Granted, Okie-Tex is a long drive from Ann Arbor at approximately 1300 miles. That's two days of driving if you're going to break it up and not rush straight through. Since we were going to take our new Westie puppies (Merry & Pippin) we decided to take it in two days beginning Thursday morning. We wanted a choice spot on the field to camp, so needed to arrive bright and early Saturday morning.

I abhor Chicago traffic, and thus decided to take the Indianapolis to St. Louis route. All of Michigan, Indiana, and part of Missouri were under thick and wet cloud cover. I was fervently praying for no rerun of BFSP. From there, we got as far as Columbia, Missouri before we called it a day. The dogs adapted magnificently to the road trip, as we let them out once every 2 hours or so. From western Missouri through east and central Kansas was a study in geographical flatness - miles and endless miles of it. Very little traffic once you're off the interstate. So moving down the road, even towing a trailer, was never a problem. We arrived in Boise City (pronounced *boyz*), Oklahoma around dark and sought out our slightly less than 2 star motel. This was still rather flat territory, slightly more arid than Kansas.

The next morning, like the previous day, dawned bright and very clear. The sky was the kind of blue you see in Michigan *with* polarized sunglasses. We were about 36 miles from Kenton, and so hit the road shortly after a quick breakfast at a busy truck stop. Not far out of Boise City the terrain began to rapidly change from flat to mesa-like and to be visually interesting.

Saturday, September 16

We arrived at a mostly deserted Camp Billy Joe mid morning. The sky was blue and most of two observing fields were ours for the taking. We met some the friendly organizers still chalking the fields and arranging great clumps of extension cords in strategic spots. I asked about where we could set up to get electricity for scope drives, etc., and they said not to worry – they'll find us. Wow, what a nice place….

Wendy and I chose a strategic two-clump tree on the north end of the observing field. We hoped to be away from the main crowd, not knowing how the dogs would behave with lots of people and likely other pets as well. So much for being out of the way! It turns out we were at the strategic corner of dob-central. I have never seen so many Obsession telescopes at any star party. There must have been >30, easily – ranging from 12.5" to 30". Dave Kriege himself, along with James Mulherin of Torus optics, set up right behind as and he had 12 Obsessions in his van! Lots of them came out and were lined up, ready for delivery. He was making a combined star party & delivery run.

Next to Wendy & I was Bob Pitt from Alabama, with another 20" Obsession. He was soon joined by Peter Eschmann from Albuquerque with another 20" Obsession. Thus, there were three 20" in a row, Dave's 25" behind us, an 18" Obsession next to him by the UPers, a 20" next to that, and a 30" on the other side of him. There was so much glass arrayed around us that no photon could possibly be lost after dark.

As the sun went down it was still spectacularly clear, but with a slight wind that would make many of us glad we had ServoCat equipped Obsessions. One person began to complain about that pesky Gegenschein after it got completely dark. There was the occasional cloud – but they were black underneath and lighter on top from starlight. My subjective impressions for the sky were as follows: transparency 10 out of 10, darkness 9.5 out of 10, and seeing 4 out of 10. The seeing pretty much stayed like that the whole week, making really dim small objects a challenge and the only tarnishing aspect of the star party nights.

Since the seeing was less than optimal, I decided to spend that night, and eventually the following 3 nights, going after obscure dim objects and play around with magnification and filters. I decided to relax and enjoy what I was looking at, instead of behaving like it was a Messier Marathon. That turned out to be a very rewarding move. One of the memorable sights that night was B142 and B143. They are a pair of dark nebulae in Aquila in the rich summer Milky Way star fields near Tarazed (Gamma Aquilae) and are also known as Barnard's E due to the resemblance to that letter of the alphabet. The darkness against the stellar background was palpable. Despite the seeing, I went after and successfully found Palomar 8 and Palomar 11 – two of a series of very faint extragalactic globulars. In addition, I viewed some Collinder, Baikuran, and Stephenson open clusters – quite off the beaten path.

Sunday, September 17

According to Wendy, Sunday dawned clear and bright. I got almost enough sleep and the weather forecast portended that the cruel goddess of the night will be dancing tonight stark naked above us yet again, driving us to our eyepieces and depriving us all of needed sleep.

The mascots Okie & Tex were sighted above us on a ridge, so we took Merry & Pippin up for a light climb and got a great bird's eye view of the site. After a light afternoon slumber, we again prepared for what looked like a long night.

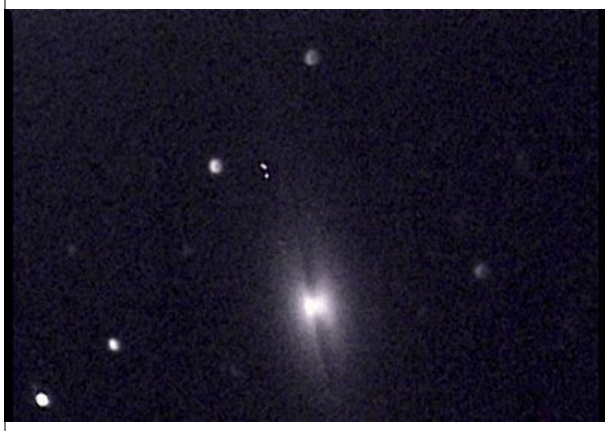
After twilight, we had stars from tree top to tree top across the bowl of the sky straight down to the ground for the rest of the night. Seeing started out dismal and improved steadily through the night greeting the moon rise with a acceptable 6.5 to 7 out of 10. The transparency and darkness were the same as the night before.

I decided to concentrate early on using the Mallincam Hyper Color video camera to try my hand at some more video imaging. The seeing was marginally better than the previous evening – so I wasn't expecting great results. This was just time set aside to educate myself on all the buttons, bells, and whistles.

It clouded up late in the evening (around midnight), so I crawled into the tent until about 4 am, at which time it was again clear so I climbed back out and observed some of the winter highlights until predawn – then back for a few more hours of shut-eye.

Monday, September 18

Another bright and clear dawn.....yawwwnnn…. I didn't roll out of bed until after 11 am, and even then took a nice nap in the afternoon. This was one lazy day due to accumulated photon fatigue. Late afternoon, there was a commotion a few feet from my scope, and we got to see our first tarantula slowly winding its way across the observing field. Wow – you don't get that every day back in Michigan.



As the evening deepened there was not a cloud in sight with the wind out of the southeast at about 1 to 4 mph. There was some dirt in the air coloring the last 5 degrees of the sunset along the horizon. Fans were starting to hum and banter was along the lines of "you didn't come this far to sleep did you?" I took a stroll around the observing fields and met new and old friends alike. It was very peaceful, and yet purposeful as folks fired up their computers or laid out maps with a single-minded determination to not waste a stray photon after dark.

This night was largely dedicated to Hickson galaxy clusters. I've always like faint fuzzies – so I used SkyTools earlier in the day to build an observing list of galaxy clusters with 4+ galaxies in the field of view. Hicksons 2, 10, 16, 96, 97 were among the objects bagged that night. Perhaps the most memorable was H16 in Cetus. At 250x with my 10 mm TeleVue Radian I noted this as "A beautiful string of 4 bright oval galaxies." Shining at magnitude 11.4, these should readily be seen in smaller scopes.

Tuesday, September 19

Another bright and clear dawn.....yawwwnnn

While Wendy went into the metropolis of Kenton (it's easily close enough to walk), I grabbed the camera and headed up to circumnavigate the observing fields by hiking up and down the small mesas surrounding the camp. I saw no nasty snakes, but did run across one curious chameleon-type lizard that eyed me for a few minutes before scampering into a hole in the rocks. It was another gorgeous day, bright and clear – warm enough for shorts, but not hot by any means.

It turned out to be a wonderful clear night – perhaps the best yet. There was only a slight wind with a temperature around 50°F. It was very dark and transparent. One intrepid observer counted 13 stars in the Pleiades naked eye!

I again concentrated on Hickson galaxy clusters, but decided to go after some Abell planetaries as well. These were quite challenging, to say the least. I bagged Abells 43 (mag 14.7), 61 (mag 14.4), 70 (mag 14.3), and 74 (mag 12.2). My favorite was Abell 43 (shown). Although A74 in Vulpecula was the brightest, it was the most difficult as it is large and spread out over a relatively large field of view.

Wednesday, September 20

I really slept in on Wednesday morning as it was an all-nighter Tuesday night. It was windy, and clouds were moving in by the time I got up for lunch. The forecast wasn't looking too hot for the night, so we decided to go sightseeing. About an hours drive away near Clayton, New Mexico a dinosaur track way was unearthed during dam construction – so off we went. There were literally hundreds of tracks in various states of preservation. Shown you can see me tredding in the footsteps of giants.

The forecast for the overnight and early Thursday steadily deteriorated, calling for wind and rain. Having experience with NSP, I packed everything away except for our backpacking tent. I felt rather conspicuous, but I really like my equipment and I didn't want to chase it into Kansas. Thus prepared, we hit the sack early under cloudy skies.

Thursday, September 21

We slept so soundly that we didn't hear the rainfall during the night. We awoke to cloudy skies, intermittent rain, and wind that only grew stronger as the morning progressed. It eventually gusted to 70+ mph – yep, hurricane force winds. We were right on the inside edge of a passing very low depression. There were shredded tents, motor home canopies, and tipped scopes all over the observing field – including and up to several 20" Obsessions showing their undercarriages. I helped many people secure or take down their scopes. Luckily, I don't think there was any major damage to optics and

there are a few wiser people that will pay closer attention to forecasts in the future. People thought I was prescient – I just retorted that I had been through these before, on the losing end in one case.

By 4pm the winds had abated, but not the skies. There was an early bird prize drawing Thursday evening, so Wendy & I decided to stay for that, then hit the road for a two day drive back home. Unlike Mark and Doug, I don't win prizes and that night was no exception.

Afterthoughts

This star party is a long drive from Ann Arbor – but for me was worth every boring minute of it. The skies are about as good as they get in the continental US. The weather gave us 4 nights in a row of superb viewing that could only be better if the seeing had improved. This star party is now on my annual list. It is later in the year, the weather is cooler, and the roads are less crowded. We met many wonderful people, and made many new friends. Lowbrows: mark your calendars for the 24th Annual OTSP to be held October 6-14, 2007.

"Astronomy in Holiday Season"

Collected and Arranged by Yasuharu Inugi

For astronomers living in Michigan, December isn't really the best time for observing. The long winter has just arrived, and the sky is covered with thick blanket of clouds most of the time. And if the sky is ever clear, we have to deal with frigid conditions.

Yet for many of us, December is special time of the year. The sun is low in south, moving from Scorpius to Sagittarius, and days are short. Soon everything gets dressed with white stuff from the sky.

Maybe because it's so grim, people use colorful lights to illuminate trees and their houses – which may cause some light pollution but we care less because the sky is mostly gloomy anyways.

December is also the holiday season: people take time off from the year's hard work and get together with their families. Outside, the air is cold, but somehow it feels warm inside with all the familiar faces around you. Children are all excited because they expect to receive presents from Santa.

Oh, I must warn you about Christmas presents. If you happen to be a Santa for your family, be very careful what you give to your children. What a child receives as a Christmas gift may have significant impact on their life path. Telescopes are especially very dangerous. Here is a good example, a story about a poor kid whose life had been forever changed because of a present from Santa:

'For Christmas, 1966, Santa left a large silver-foil wrapped box under our tree in suburban Allen Park. It took up one whole side it seemed while my brothers' and sisters' had smaller packages.

How did he possibly get it down the chimney? I tore it open Christmas morning to reveal a new Tasco 4.5" Newtonian, wow! (I later learned it cost Santa around $400 from Hudson's Northland store! That was a LOT of money in 1966.) Fearing that moisture and cold winter air might damage my new prize I would stay inside and aim through our large double pane picture window at whatever I could see. I read a story that Mars was in the eastern sky where I was looking, but it was with great disappointment I could see little detail other than a distorted orange colored point of light.... or so I thought. Mars, it would turn out, was really good ol' Arcturus- duh!

It would be a week or two before the real planet appeared to me, whew. I was hooked. Spring warmth eventually had me outside, recalling the Pleiades high in the west as the first deep sky object I would visit. How beautiful and sharp I thought compared to my indoor views, cool! Being near the eastern approach to Metro Airport however is what really honed my observing skills. I would get home from school and often spend an hour or more tracking jets on final approach, carefully recording the airline, type of aircraft, and time (Northwest did not have a monopoly then). Try tracking a moving aircraft with an ungainly equatorial mount.

The scope still resides here in my office at the University four decades later."

(Norb Vance, Director of EMU's Sherzer Observatory)

So don't ever give your child a telescope if you want him or her to be a lawyer or a doctor. Or they may end up making a life career in this geeky field of astronomy.

Speaking of December, I, as a "lowbrow" astronomer, also feel this month is very special. Where I grew up in Japan, the weather was quite different. The winter days were typically clear but cold and windy. I still remember a day in my childhood when I was sledding at dusk and it was getting dark around, and I no-

ticed the sky was filled with all the stars. Perhaps it was the first time when I noticed the beauty of the night sky. It was probably December, because I somehow have a Christmas tree somewhere in the same scene (yes, we do have Christmas trees over there.) Then in high school, a friend of mine had a department store 50mm refractor and we looked at Mars, Jupiter, Saturn, Pleiades, etc. I got hooked and later got a 100mm reflector and picked up star gazing for a while. Then I quit it – As a youngster my interest had shifted to other things. I was totally absent from star gazing for about twenty years. Then a couple of years ago, it all of a sudden came back to me again. I joined this club, went to John Causland's house (again it was this time of the year) to join a casual observing session, and boy, I got hooked again!

I believe some of you also have memorable star gazing stories around this time of the year. I wanted to know if others have any favorite objects they like to observe or associate with, particularly in holiday season.

To help me writing this article, I asked the lowbrow members to vote for their favorite deep sky objects for holiday season. I got a good number of responses with reasons why they like them (thanks to all who responded). I summed up the results and sorted them from the most popular one.

So here we go: The following is the list of favorite "deep sky" objects for the holiday season, chosen by the Lowbrows.

(Extracts of voters comments are shown *in Italic*):

******* No. 1 (8 votes) *******

The Great Orion Nebula (M42+M43)

Type: Emission nebula and cluster Cons: Orion Visual Magnitude: 3.7 (M42)

Dimension: 1.5°x1.0° Distance: 1500 l.y.

"The Orion Nebula is probably the most appropriate Christmas time object since it sort of resembles a Nativity or a manger scene--at least it does to me. And the nebula really has given birth to the glowing Trapezium. The beauty is metaphorically and visually astounding."

"The Orion Nebula because it looks like a celestial 'gateway to heaven"

"These are the first two nebulas I was introduced to some 25 years ago through a Celestron 90mm "first scope" refractor. I have been hooked ever since"

Without doubt, the great Orion's nebula (M42+M43) is one of the most spectacular deep sky objects in the winter sky. It is easily found by naked eyes, as being the middle "star" of Orion's sword. Through binoculars the nebulosity can easily be spotted. A small telescope reveals details of the nebula's structure and four new born stars (Trapezium) inside. Larger aperture can detect up to six (or more?) stars in Trapezium under a good condition. In low or high power, it is truly great looking, especially under a dark sky. I am sure that Orion's nebula had hooked many people into astronomy.

Above: M42 & M43; Below: M45 ; both by Clayton Kessler

******* No. 2 (5 votes)*******

Pleiades (M45)

Type: Open cluster Cons: Taurus Visual Magnitude: 1.5

Diameter: 2° Distance: 407 l.y.

"Easily found, easily seen, remember them from when I was a child (Xmas is a nice family time so those remembrances are nice). "

"I guess, because they (here he is talking about both M42 and Pleiades) *are naked eye objects that I've seen most of my life and have never seen through a telescope until just a couple of years ago. I've always been very curious about them. There have been many Christmas Eves on the way to the midnight church service where I've looked up and wondered what they are. The winter sky seems like an even smattering of stars until you run across these two objects. They almost appear as flaws or smudges like dead bugs on a windshield. But through a scope or binoculars on a clear winter night, they are absolutely amazing. The Pleiades is just dazzling to see through binoculars."*

Pleiades is one of the best objects for binoculars or naked eye observation. It is a bright cluster and can easily be found even under a light polluted sky. It is a good challenge to see how many stars in Pleiades you can recognize with naked eyes. Most people with good eyes can see six or seven, but some have seen more than ten!

Pleiades is also called “Seven Sisters”, the daughters of Atlas in ancient Greek myth. In Japan, Pleiades is called “Subaru”, meaning “gathering” or “unification” of stars (in old Japanese language).

******* No. 3 and No.4 (tie, 3 votes each) *******

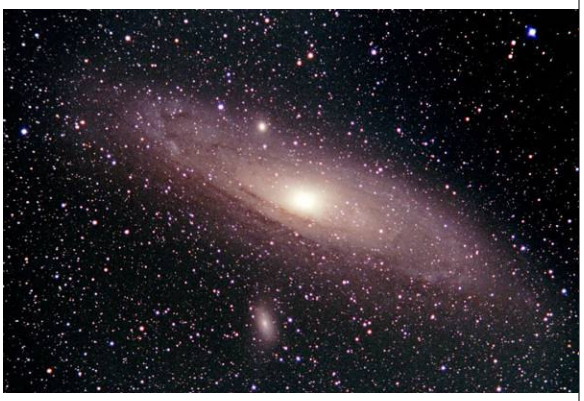
Double Cluster in Perseus (NGC’s 869/884)

Type: Open cluster Cons: Perseus Mag: 3.5/3.6

Diameter: 1.5°(each) Distance: 7100/7500 l.y.

“Stunningly beautiful in virtually any size scope”

Though virtually visible year around, the double cluster gets votes because it gets high in the early evening sky in this season. The splash of stars you find in the eyepiece is just astounding. With careful observation you will notice difference in colors of stars. You may find quite a few red ones also. This is an ideal object for a child (or anyone), first night out with a new telescope.



Andromeda Galaxy (M31)

Type: Spiral Galaxy Cons: Andromeda Visual Magnitude: 3.4

Dim: 3°x 1° Distance: 2.3 million l.y.

“Beautiful in a wide field shot”

This is another marvelous object in fall and winter sky. M31 is huge, the visual dimension is actually longer than five moons put together! In low power, you can see its companion galaxies M32 and NGC 250 in the same field of view. Under a black sky, you will be able to see the dust lanes even with a small scope. This galaxy is rushing towards us at 185 miles per second and will eventually collide into our galaxy.

******* No. 5, No.6, and No.7 (tie, 2 votes each) *******

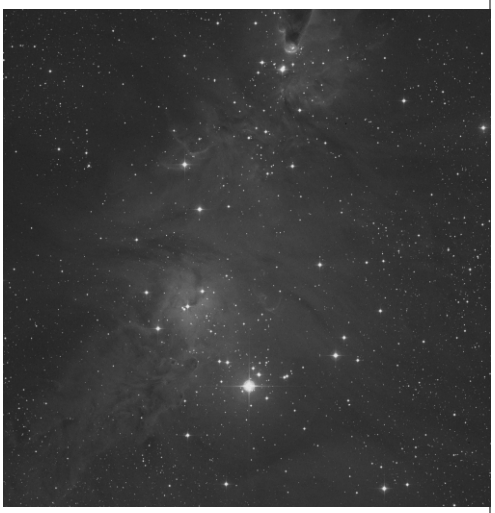
Kemble’s Cascade

Type: Asterism Cons: Camelopardalis Visual Magnitude: Approx. 8

Dim: 2.5° Distance: -

“Break out your widest field eyepiece or your binoculars for this "cascade" of 25 10th to 7th magnitude stars that form a NW to SE line spanning 150 arc minutes that seem to pool into the small open cluster NGC1502. If this one doesn't bring a smile to your face then find a new hobby!”

Well, I cannot agree more. This elegant asterism appears to consist of two parts, upper and lower cascades and lower one flowing into NGC1502. To find it, connect Beta and Eta Cassiopeia (two end stars of Cassiopeia’s “W” shape), and extending about the same distance downward (i.e., left of Capella) and look there with a pair of binocs.



Christmas Tree Cluster (NGC2264)

Type: Open Cluster Cons: Monoceros Visual Magnitude: 3.9

Dim: 20’ Distance: 2400 l.y.

“Stars in this large and bright cluster are arranged in the shape of a Christmas tree. The brightest star is at the base of the tree at the north end, with the tip of tree pointing south, making it upright in an inverting telescope. Very nice cluster!”

Not knowing NGC2264 well, I had always thought that M103 was the best Christmas tree looking cluster. I had seen NGC2264 only once before and didn’t remember how it looked. I was curious which one, M103 or NGC2264, was a better Christmas tree mock-up, so one night I compared them one after another in the same scope. Well, for my surprise, I found that NGC2264 was a lot larger and brighter! In NGC2264, you can see the shape of a Christmas tree even in

Top down: Double Cluster, M31, Kemble’s Cascade, By Clayton Kessler and DSS image NGC 2264

binocs, with a bright star being the trunk. Compared to that, M103 was certainly much smaller (Mark Deprest insulted it by calling it a "Charlie Brown Christmas tree".) So I decided to vote for NGC2264. But I'd like to give M103 a credit too: With larger scope in medium power, M103 stands out very well, with colorful stars inside, with a bright star at the top of the Christmas tree. Which one do you prefer?

Constellation of Orion (2 votes)

Type: Constellation

"I always look for Orion's belt and sword in the winter. It just stands out on cold, clear nights"

"During the winter months each day I look forward to seeing it"

Though not normally regarded as an "object" to observe, the constellation of Orion got votes here. Orion is probably the most distinct and well known constellation in the entire sky. It consists of many bright stars and lots of interesting objects. Orion certainly represents the winter sky, gracefully and prominently.

******* No. 8 thru No.15 (tie, 1 vote each) *******

There are so many beautiful objects to observe in the winter sky. The following objects, though they got only one vote each, are all very nice. I sorted them in the order of the length of the attached comments.

M35 and it's faint companion NGC 2158

"I was able to get both(M35 and NGC2158) in the same field of view of my old Coulter 13-inch Dob. With M35 less than 3,000 light years away, and NGC 2158 being 16,000 light years away, the view was truly three dimensional. I highly recommend that object for viewing in a fast dob on a clear and steady night if you haven't seen it. I think of this pair of open clusters when the weather turns cold."

HJ 3945 in Canis Major

"I like colorful double stars and this is one of the best! The 4.8 magnitude primary is reddish orange and it's 6.8 magnitude secondary is a beautiful sapphire blue, they have a fairly wide separation of 27 arc seconds. Its less than two degrees due north of the "The Mexican Jumping Star Cluster" and it just seems to prove how truly beautiful nature can be"

The Mexican Jumping Star cluster (NGC2362)

"I like this cluster for it's apparent symmetry, being triangular in shape with the 4th magnitude Tau CMa at its center. This cluster is just "dog-gone pretty!"

Rosette nebula/cluster (NGC 2244 and NGC 2237-9,46) in Monoceros

"It's a beautiful cluster, and with a good nebula filter it's embedded within a wide ring of nebulosity. It looks like a Christmas wreath!"

Helix Nebula (NGC 7293)

"It is so grand in a large telescope, showing lots of stars embedded in the nebulosity"

Crab Nebula (M1)

"It was one of the first winter objects I observed over 40 years ago"

Eta Persei

"A beautiful optical double yellow and blue"

M33

"A classic object"

Top: Orion by Clayton Kessler; Middle DSS image NGC 2362; Bottom: Rosette Nebula by Clayton Kessler

******* Other Objects *******

Here are other objects that got votes. Except for Capella, they are not really "deep sky" objects. But I listed them here because the reasons are quite interesting. (The same person picked all these objects – can you guess who that would be?)

Saturn

"My wife bought me my first scope for Christmas two years ago. I fiddled around with it for a bit, moving it randomly from star to star, and realizing that looking at singular stars through the telescope just made that singular star look brighter and gave it a little more color. Being somewhat disappointed, I then put in the highest power eyepiece I had at the time and pointed it at the brightest 'star' I could find. I tweaked the focus a bit and that luminous doughnut (I have a Mak) turned into a very sharp, clear, ringed planet. I was awestruck. I was so excited I had the urge to crawl through the telescope in order to get a closer look. I had seen many photos of Saturn before, but there is nothing like seeing it on a cold clear winter night. My fingers were almost numb from the cold that night, but it was well worth it."

The Sun

"For old Sol to be up during the day can herald a possible clear night to follow. We have so few clear days this time of the year, so it is nice to see the Sun. A few years ago we even had a partial solar eclipse on Christmas day. What a good reason to excuse yourself from a visit with the relatives to go out side and do some observation."

The Moon

"Another memorable night near the holiday season was when there was a lunar eclipse. A handful of Lowbrows showed up, and soon it started snowing. Not a little, but a lot. Great big chunks of wet snow. We still managed somehow to see the Earth's shadow creep across the face of the Moon. We all agreed that we were true 'lunatics' on that evening"

Capella

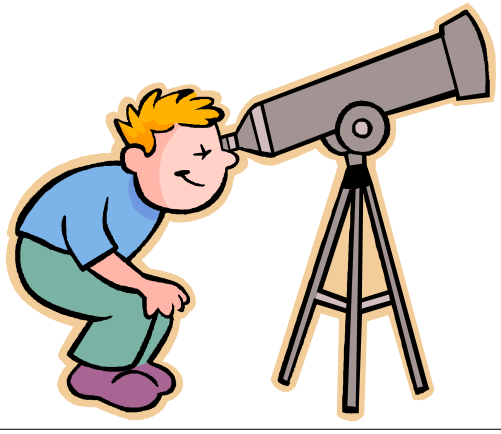
"My interest in observational astronomy was kindled by reading the then best seller, A Brief History of Time by Stephen Hawkings. Having done a bit of reading about cosmology, Hawkings book actually made me go outside and look up at the night sky and think about some of the ideas he was discussing in his book. The bright star Capella up; and, was exactly the same number of light years away as my age at that time. The light I was seeing at that moment left the star when I was born. How neat! Space-time explained on a personal level. "

The Weather

"I have been observing with telescopes since 1992 when I first joined the Lowbrows. I can honestly say that with November being the cloudiest time of the year and December being a close second, that observing around the Christmas season is a rare occurrence. All the shopping, travel, partying, visiting, partying, and partying adds to reasons for not observing during this time of year. But, observatin does happen... ...sometimes. I remember once when Doug Scobel and I when out to Peach Mountain on a night in December when, for the reasons above, nobody else showed up. It could have also been because there was a wind storm a brewing. What were we thinking? We commenced to do our observing right up against the side of the observatory, and still we had to fight to keep the scopes under control. We managed to eek out a limited list of objects before giving up for the night."

****

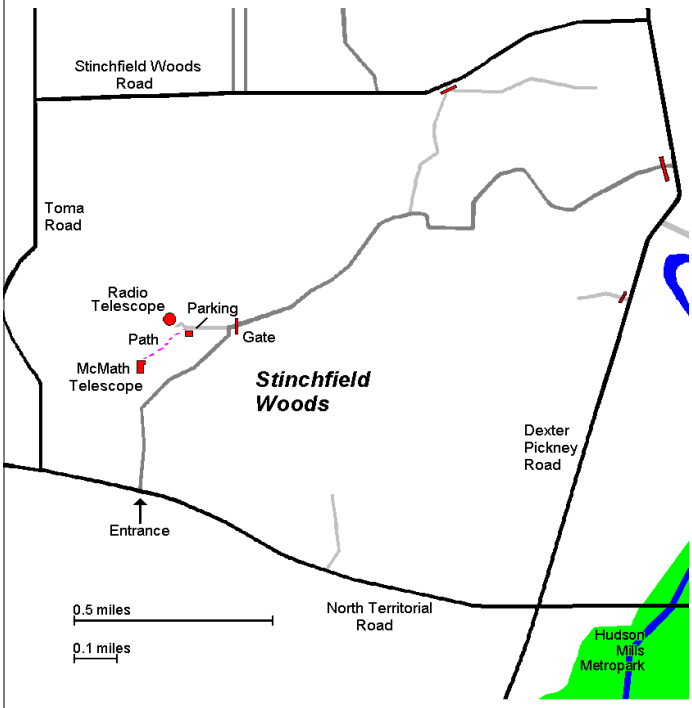
Though rare in this season, there certainly will be some clear nights. If it is so, take your scope or binocs out, invite your family and friends, and explore and show them the night sky. It's packed with jewels. I wish you all happy holidays and clear skies.



Places & Times

Dennison Hall, also known as The University of Michigan's Physics & Astronomy building, is the site of the monthly meeting of the University Lowbrow Astronomers. Dennison Hall can be found on Church Street about one block north of South University Avenue in Ann Arbor, MI. The meetings are usually held in room 130, and on the 3rd Friday of each month at 7:30 pm. During the summer months and when weather permits, a club observing session at the Peach Mountain Observatory 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" telescope which is maintained and operated by the Lowbrows. The observatory is located northwest of Dexter, MI; the entrance is on North Territorial Rd. 1.1 miles west of Dexter-Pinckney Rd. A small maize & blue sign on the north side of the road marks the gate. Follow the gravel road to the top of the hill and a parking area near the radio telescopes, then walk along the path between the two fenced in areas (about 300 feet) to reach the McMath telescope building.



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 Mountain observatory, but are usually cancelled if the sky is cloudy at sunset or the temperature is below 10 degrees F. For the most up to date info on the Open House / Star Party status call: (734)332-9132. Many members bring their telescope to share with the public and visitors are welcome to do the same. Peach Mountain is home to millions of hungry mosquitoes, so apply bug repellent, and it can get rather cold at night, please dress accordingly.

Membership

Membership dues in the University Lowbrow Astronomers are $20 per year for individuals or families, $12 per year for students and seniors (age 55+) and $5 if you live outside of the Lower Peninsula of Michigan.

This entitles you to the 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 $12 annual fee to cover printing and postage. Dues can be paid at the monthly meetings or by check made out to University Lowbrow Astronomers and mailed to:

The University Lowbrow Astronomer c/o Kathy Hillig

7654 W. Ellsworth Road
Ann Arbor, MI 48103

Membership in the Lowbrows can also get you a discount on these magazine subscriptions:

Sky & Telescope - $32.95 / year

Astronomy - $34.00 / year or $60.00 for 2 years

For more information contact the club Treasurer. Members renewing their subscriptions are reminded to provide the renewal notice along with your check to the club Treasurer. Please make your check out to: "University Lowbrow Astronomers"

Newsletter Contributions

Members and (non-members) are encouraged to write about any astronomy related topic of interest. Call or Email the Newsletter Editor: **Mark S Deprest (734)223-0262 or msdeprest@comcast.net** to discuss length and format. Announcements, articles and images are due by the 1st day of the month as publication is the 7th.

Telephone Numbers

President:	Charlie Nielsen	(734) 747-6585
Vice Presidents:	Jim Forrester	(734) 663-1638
	Nathan Murphy	(734) 395-1043
	Kurt Hillig	(734) 663-8699
	Bob Grusczynski	(734) 461-1257
Treasurer:	Kathy Hillig	(734) 663-8699
Observatory Director:	D. C. Moons	(586) 254-9439
Newsletter Editor:	Mark S Deprest	(734) 223-0262
Key-holders:	Bernard Friberg	(734) 761-1875
	Fred Schebor	(734) 426-2363
	Charlie Nielsen	(734) 747-6585
	Mike Radwick	(734) 453-3066
	Paul Walkowski	(734) 662-0145
Webmaster	Dave Snyder	(734) 747-6537

Lowbrow's Home Page

http://www.umich.edu/~lowbrows/

Email at:

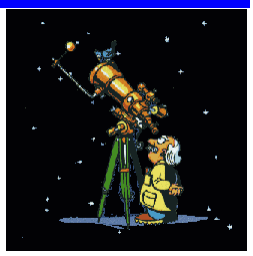
Lowbrow-members@umich.edu

University Lowbrow Astronomers

Kathy Hillig
7654 W. Ellsworth Road
Ann Arbor, MI 48103

Phone: 734-663-8699
E-mail: hilligk@hotmail.com

Reflections & Refractions



Website
www.umich.edu/~lowbrows/

Yes … we know it's suppose to be a cannon!
But it is on a "Dobsonian" mount!

University Lowbrow Astronomers
7654 W. Ellsworth Road
Ann Arbor, MI 48103

Check your membership expiration date on the mailing label