

Harford County Astronomical Society

Bel Air, Maryland
www.harfordastro.org



Volume 33 Issue 8

August 2007

Note:
General Meetings Have Been Changed to
THURSDAY NIGHTS

Public Star Party (Open House):
Aug 18, 2007 at dusk
At the Observatory

General Meeting:
Thursday, Aug 30, 2007, 7:00pm
At the Observatory

Club Calendar for 2007:

<u>Open House/Public Star Party</u>	<u>Meeting Night</u>
Sept 22, 2007	Sept 27 2007
Oct 20, 2007	Oct 25, 2007
Nov 17, 2007	Nov 29, 2007
Dec 15, 2007	Dec 27, 2007

Please check the website for possible schedule updates and changes:

<http://www.harfordastro.org>

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HCAS Business Meeting

Minutes of the July 28th Meeting

President Tom Rusek called meeting to order at 7:35.

Old Business:

- 1- Minutes of the June meeting were published in the last newsletter, dated 7/15. Roy Troxel motioned that we accept the minutes as published. Grace Wyatt seconded the motion. Motion passed unanimously.
- 2- Tim Kamel provided the Treasurer's report. There is \$5565.08 in the bank. Bills due soon are the insurance bill and the Astronomical League dues.
- 3- Tim Kamel provided the Membership Chairman's report. There are now a total of 34 paid up members. This includes 4 new members. There are still 24 members from last year that have not rejoined. The third and final follow up will be sent out around the beginning of August.
- 4- A brief discussion was held on the mailing of the newsletter to those six members that do not have e-mail. The issue at stake here is that the newsletter now reaches 20 pages. Cost of ink for 6 copies, in color, is high. This month, an abbreviated newsletter, with much of the content removed to reduce space, was to be sent out. We are now hoping that the College will print the full newsletter, likely in black and white only. Tim Kamel has volunteered to mail out the newsletters if necessary. We are hoping to try this out for the August newsletter.
- 5- Tom Rusek discussed the submission that he and Grace Wyatt have put together for the Astronomy Magazine contest on outreach programs. There is a 500-word essay on what our club has done in the way of outreach, to which various supplements and acknowledgements are attached. Required also is a 250 word essay on what we would do with the \$2,500 prize money. There is a copy of the submission in the library. Contest judging is in September.
- 6- We had a visit by a reporter from the Baltimore Sun on 7/25/2007. Several members met with the reporter to be interviewed and this included Leo Heppner, Sal Rodano, Grace Wyatt, Roy Troxel, Karen and Maggie Carey and Tim Kamel. The photographer arrived later and took several photos of the facility during a tour of the Observatory. We are hoping to see the article in the Sunday edition of the Sun on either 7/29 or 8/5

- 7- Tom Rusek has been in contact with the *Pennysaver* to see if they would like to do an article about the Club. Some interest was expressed but no specific dates were set.
- 8- Recent outreach activity was discussed. The session at Susquehanna State Park on 7/14 drew about 50 people. Mark Kregel provided an indoor session. Club members participated with scopes but the outside event was clouded out. Remarkably, the sky started clearing as the participants departed. Another session is being planned for the scout camp at Camp Sunrise in Whitehall, MD. Grace Wyatt is to do a session on making star wheels and Tom Rusek will do a presentation. Members will also set up scopes for an outdoor event after dark. Use of scopes will be for the younger scouts first as they have an earlier bedtime, followed by the older scouts. Grace was also able to secure some pictures with Braille relief so that a blind scout can follow along.
- 9- Tom Rusek observed that use of Broad Creek has been increasing. There were 3 sessions at BC during July, held during third quarter and new moon weekends.
- 10- Tom Rusek complimented Roy Troxel on the quality of the newsletters. It has grown to almost 20 pages and is now supported by photographs.

New Business:

- 11- Tim Kamel mentioned that now that we are using the main scope for the open house session, having the eyepieces, filters and other supplies in the equipment room is awkward. Suggestion was made that some of the supplies be moved upstairs. After a discussion, it was moved that the safe itself be moved up to the observatory level.
- 12- Tim Kamel made a motion that we provide a gift of \$50.00 to the Clear Sky Clock. We sponsor 2 local sites (Broad Creek and the Observatory). Within the amateur community, there is a request for those organizations that sponsor sites to provide a financial offering to assist the site owner (Attila Danko) to recover from a recent attempt to sue him for trade name infringement. The suing company, Sky Clocks, has withdrawn the suit, but not before Attila incurred some legal expenses. The motion passed.
- 13- Additional discussion was held about obtaining 501C3 status as a non-profit organization. This will allow us to obtain donations from others. Indications are that this will cost about \$300.00 and about 4 months time. Incorporation is not required. The group moved that this status be obtained.
- 14- A motion was made by Tim Kamel, and seconded by Joe Manning, that the monthly business meeting be moved to the Thursday closest to the full moon. Further, the time of the meeting is to be moved forward to 7:00 PM. This change is to be a trial for a 6-month period, after which it will be revisited to decide if it should be continued or if it should be returned to the original schedule. The motion passed unanimously. The purpose of this change is to see if we can increase participation in the meetings, attendance at which has decreased to about 5-7 members. An informal survey completed over the last few months has shown that those that now attend would still attend a Thursday session though one would be inconvenienced and two would find it easier. It is hoped that the change would make it easier for those that cannot make it during the weekend to attend during the week. Dates for the meetings for the following four months are 8/30, 9/27, 10/25, 11/29 (to avoid Thanksgiving), and 12/27.
- 15- A discussion was held about the Lunar Eclipse on August 28th. Because it is a weeknight and is occurring very early in the morning, no one was interested in doing anything special at the observatory. Members may gather at Broad Creek but this is likely to be a spontaneous thing.
- 16- On the night of August 11/12, several members are planning on getting together at Broad Creek to look at the show and observe other objects.

17- Karen Carey inquired if Club T-shirts would be a worthwhile thing to do. After some discussion, Karen is going to investigate costs and what logo to use.

The meeting was adjourned at 8:45 PM

New Members – July 2007

Please welcome Michael Wise and family from Jarrettsville, MD. Michael has been interested in astronomy for 30 years and has a 3" Unitron and an 8" SE Celestron.

Please also welcome back Lucy Albert from Joppa, MD. Lucy was a member of our club and was president for several years.

Tim Kamel

President's Message

Folks,

I want to thank those of you who came out to the Outreach activity at Camp Sunrise on the 7th of August. It was a shame that the skies were clouded over. Our presence there was greatly appreciated. Grace spent a good part of the day with the kids making star charts. Thanks Grace for your valuable time. Here's something to think about:

There was a rather large rounded table around which were placed many chairs. Seated at the table were numerous former scientists including many astronomers. Mixed between them were many amateur astronomers alike because at this table, there is no distinction between the so-called "famed" professional astronomer and the amateur. Each adds a piece of the puzzle to their profession or hobby and each is as important as is the other. One member, Copernicus, holds up a model of the solar system and while pointing to the sun remarks "I told you so!" Another, Galileo, while raising his hands above his head says "How could I have mistaken Neptune as a star"? A few seats to the right Johann Galle and Louis D'Arrest look at Galileo and remark "We don't know but we are sure glad that you did". "Hey, wait a minute, not without my help" adds Urbain LeVerrier. Clyde Tombaugh, who is also seated nearby ponders aloud "Well, at least you have a planet to your credit. They re-classified mine". Sir Issac Newton, who is also seated at the table, rests his hands on it and says in a humorous manner "I gave them gravity and now they want dark energy". Smiling at him Albert Einstein agrees and adds, "You would think that my gift of relativity would be easily perceived but it took them so long to understand it". These were all friendly discussions at a very joyous gathering. However, everyone, including the amateurs who enjoyed the skies just as a friendly hobby all agreed on one aspect. They all said, "All of the answers to the questions of the universe that bothered us so very much throughout the ages were so very simple. Why did we make everything so complicated? If only we had put 2 plus 2 together to make 4 rather than trying to make it 3 or 5". You see, in the hereafter or heaven if you will all things are explained and answers revealed. When you next observe the heavens through whichever eyepiece you choose, think of those who have gone before us because they are now looking at the same heavenly objects as we are only from the other side of the universe. I wonder what they see?

I am, as always,
Tommy Rusek

Recent Open House and Outreach Presentations

Susquehanna State Park

July 15, 2007

On July 14, 2007, members of HCAS presented a program to approximately 50 people at the Susquehanna State Park Campgrounds. The presentation took place in the amphitheater. It was a very nice outdoor seating area encircled by trees with a screen in the front and electricity available for equipment we might use.



After an oral presentation with question and answer presented by Mark Kregel, visitors moved to an open area near the playground where almost straight up viewing was necessary due to the trees. Mark Kregel, Karen and Maggie Carey, Jim Garrett, Roy Troxel and Grace Wyatt assisted with the event. Due to the clouds not everyone set up their equipment for viewing. Karen set up her 4.5" reflector and Jim set up his binoculars on the parallel mount. Jupiter, Mizar and Alcor, Lyra (double double) and Cor Caroli double

star were viewed by some of the visitors. Later after most of the attendees left, the clouds opened up and some members stayed to view a few more sights including M57 (Ring Nebula) and M27 (Dumbbell Nebula).



Open House

Saturday, July 21, 2007



Maggie and Matthew Carey at Open House - July, 2007

On 7/21/2007, we had our open house session, and for a change, we had some pretty nice weather. Though the day had started off partly cloudy, with big fleecy clouds intermingled with bright blue skies, the sky cleared at night and we had clear skies till past 11:00 PM, well past the end of the session.

Temperature was mild, warm but not hot, and humidity was low. Transparency was good. Seeing was fair, with stars twinkling fairly obviously.

Participating this evening were Grace Wyatt, Mark Kregel with his 14" Dob, Roy Troxel with his 120 mm Refractor and Irv Koplovitz and his 8" dob. Karen Carey came with her 4½" GOTO reflector and Maggie Carey had her 10" Odyssey Dob. I brought along a Meade ETX-70 that I had picked up from a Mr. Paul Dent. Mr. Dent had donated the scope to the club when he relocated away from the area in June. I used the scope during this and last open house as a means of testing it (it works great, Goes To and tracks better than mine) but I have now left it in the equipment room, where it is available to be borrowed by a member. I did not spend a lot of time with this scope this night, as I was asked if I would like to run the big scope in the dome. I jumped at the opportunity.

Participation at this open house was good, on the order of 50 visitors. There were several visitors that came tonight who had been at the Outreach programs that we did for the scouts in early June and at Susquehanna State Park 2 weeks ago.

From the dome, I could not see what was going on at the scope pads next to the parking lot, but the line to view through the C-14 was continuous except for about a 15-minute break half way through. I had Jupiter in view through out the public session and initially started off using a 32 mm Plossl (about 123 power) that I had in my pocket instead of the 20 mm (198 x) that was in the diagonal. I thought the 32 mm eyepiece was too much power with some of our guests having a problem seeing all four Galilean moons in the wide field of view. I switched to a 50 mm Kellner

(79 X) that I also had in my pocket from setting up the ETX-70. Now mind you, this is a no-name ocular with uncoated optics sitting in a plastic collar that looks to be a piece of PVC pipe. I bought it on Astromart specifically to use on the ETX-70 to find alignment stars because it gives 7-power, which is less power than my finder! Nonetheless, I got fairly nice compact views of the Jovian system and a lot of "oohs" from viewers. Makes me wonder what I would have seen with a premium eyepiece. Too bad I did not have one. Three belts were readily seen but the South Equatorial Belt remains muted. No hint of the GRS though I specifically looked for it. The four moons focused nicely to points and we watched Io move closer to Jupiter but it clouded over before it got to the planet. This being an SCT, I was not sure if it was going to transit the planet or be occulted by it.

Obviously, the optics of the scope worked quite well at this magnification, offsetting the flaws of my cheapo eyepiece. Tracking was also excellent with Jupiter holding its position once I set it in place. The finder is perfectly aligned

The GOTO feature, however, would not work. After the first batch of viewers went through, the last ones to view asked if I could put something else in the eyepiece. I tried for M4 and M80, both within 10 degrees or so from Jupiter/Antares and each time I got an error message that these objects were below the horizon! I returned the scope to Jupiter and left it there for the rest of the night.

Also, when the scope was cleaned a few months back, we removed the Telrad. I sorely miss this finder because the RACI now mounted on the scope just does not work for me. Clearly, others thought the same; otherwise the Telrad would never have been added. It needs to go back on.

Lastly, we also need to look at finding a good way to keep some eyepieces and accessories (filters?) up in the dome so that we do not need to run down to the equipment room to get them when we need them. A copy of the operations manual would be good also. This is not as simple a decision as it sounds. Issues here are bugs, temperature extremes and moisture.

Tim Kamel

Future Outreach Presentations:

Saturday, Sept. 15: Family Fun Weekend at Harford Community College

Tuesday, Sept. 24: Abingdon Library (Indoor and Outdoor)

Sunday, Oct. 14: Swanfest, Havre de Grace, MD.

We have some outreach opportunities fast approaching. The first event is a month away. It is The Family Fun Weekend at Harford Community College. This is an event sponsored by the college as part of its 50 year anniversary. We should definitely be a part of this celebration. Our club has been associated with the college for a large part of those 50 years. We need volunteers to help run a table on September 15 from 10 AM to 8 PM and also September 16 from 11 AM to 5 PM. You do not have to come for both days. You do not have to come for all day. You can sign up for whatever time you have on either days. But we do need some help with this event. Attending these kinds of events are fun and a great way to learn about astronomy and our club.

The second event is Swanfest. Swanfest is a family centered fun day for all ages. We have had great success at Swanfest attracting people to visit our open house events. Swanfest

is October 14, 2007, from 11 AM to 4 PM.

We will need volunteers to help at both events. If you have solar viewing capability, please sign up with your equipment. If you don't, we need people to help give out information and answer questions about astronomy and the club.

We recently applied for membership in the Night Sky Network (NSN). NSN is a program that provides free outreach materials to amateur astronomy clubs. While we have not been accepted, we did get the following response to our application:

"Your partnership with the community college and your desire to expand your membership's astronomy outreach are some of the main goals of this program. We salute your current efforts and hope to be able to help you in the near future."

As stated above we have not been accepted into the program, but it is our outreach services that will help us to get astronomy materials to be for future outreach and by the club members. Come out to have some fun and help keep our club going.

Contact Grace Wyatt at dgracew@comcast.net if you are able to help at either event.

The letter below was written to Mr. and Mrs. Inabinet, who recently donated a 10-inch reflector to the club. It is currently being enthusiastically used by Maggie Carey, one of our youngest members.

Dear Mr. Inabinet,

I want to tell you about Maggie.

Maggie is seven years old and will be attending second grade at Bear Creek Elementary School in Dundalk in the fall. She loves to learn, and has earned the school's PRIDE (Academic Excellence) award every quarter. She has been selected to participate in the PACE Program (which is Baltimore County's Gifted and Talented Student Program) in Language Arts and Mathematics. At the end of her first grade year, she was reading at the advanced 2nd or early 3rd grade level. She loves science. She's looked through my humble 4 1/2" reflecting telescope and can point out some constellations, spot the planets on subsequent nights, and can name a few stars. About 4 months ago, our family joined the Harford County Astronomical Society.

For Christmas, Santa Claus brought her a 40mm Meade Refracting telescope. I can tell you that at the retail level, it was under \$20. The lenses are plastic and it has a very disturbing "doubling aberration" of the image. But Maggie loves it. HCAS held an outreach event for some Boy Scouts in June. Not only did she want to wear her Brownie Scout vest to show that she was also a Scout, but she was eager to set up her small telescope to show what she could see - which was Venus. She wrote down the names of everyone who looked through her telescope at that event.

At the following Open House event at the Harford Community College Observatory, Dr. Mark Kregel asked the Membership of the HCAS if they minded if the Society loaned the 10" Odyssey Dobsonian Telescope to Maggie. They asked for my approval. Frankly, I was surprised. But, I also know that the value of an instrument is in its usefulness. Dr. Kregel and I set it up, and I called Maggie over to tell her to set up her telescope. She got ready to set up her 40mm. She

was surprised to learn that the Odyssey was hers to use as long as she wanted to. She lined it up to the Moon, and kept it there all night for the Public to see.

Several nights ago, Saturn and Venus were visible in one field, and we pulled out the Odyssey. Maggie was able to align it just about by herself. She is eager to use the telescope. She can not wait for future events to share her knowledge and show everyone the sights.

As Maggie's mom, I want to thank you for your generous donation to the Harford County Astronomical Society. Maggie enjoys exploring the wonders of the Universe through the use of the Telescope, as am I.

Very Truly Yours,

Karen Carey



Art: Maggie Carey

Recent HCAS Observing Sessions

Shenandoah Valley, Virginia

August 6 & 8, 2007

This will be a short observation report and is a little embarrassing for me.

I left on vacation on 8/5 to our timeshare in the Shenandoah Valley in Virginia. As I have done the last two years, I took along my ETX-70, just in case I had a chance to use it. The resort we were at was about 2500 feet up, offering the potential for some decent seeing. Light pollution, however, is bad. There are three sodium lights within 300 feet, and below my line of sight.

At about 11 PM on the 6th, as the rest of the family was occupied with a rather dumb movie, I took the scope out on the deck and set it up, hoping for maybe ½ hour of viewing. First target was Jupiter, with three moons on one side and one on the other, plus another pinpoint object on the same side as the three moons and slightly below it. I could get all of these objects in the field of view of a 7 mm eyepiece, at 50-power. This extra object was slightly brighter than the Galilean moons. I then remembered that I had read that Vesta would be passing near Jupiter in August, and it would look like Jupiter had a fifth moon. I just could not remember the dates but I was convinced that I was seeing this event and was pleased at my luck. After looking at this for a while, I tried for some other objects – M4, M80, M27 – but no luck. It was just too bright.

I had another opportunity on the 8th and again the 5th “moon” was there. It had moved position and was more in line with the rest of the moons but much further away. Though it occurred to me that Jupiter had also moved, my logic was that they both orbited in the same direction, and since Vesta was closer, it would be moving faster, thus opening up the gap. My other attempts to view other objects were again unsuccessful, and I gave up. Basically, viewing from the deck was limited by buildings and trees to about a third of the sky.

Upon getting home, I pulled my S&T magazine and was disappointed to find that close approach for Vesta and Jupiter will not occur August 30th. It seems I just saw a random star that was in the field of view. Bummer.

Tim

Broad Creek August 11, 2007



Phil Schmitz discusses his scope with Conrad Buelow and Jeff Schluederberg.

The initial purpose of this session was to observe the Perseid meteorite shower.

Although they are only the size of grains of sand, meteorites become hot enough to burn the oxygen around them, appearing as “shooting stars.” Traveling through the Earth's atmosphere, the meteorite produces a shock wave generated by the extremely rapid compression of air in front of it. It is this pressure (rather than friction) which heats the air which in turn heats the meteorite as it flows around it. What you are seeing is not so much burning rock, but burning oxygen.

The Perseids are so called because the point they appear to come from, called the radiant, lies in the constellation Perseus. More information is at <http://en.wikipedia.org/wiki/Perseids>

According to one source I had read: “The Perseid shower is visible from mid-July each year, with the greatest activity between August 8 and 14, peaking about August 12. During the peak, the rate of meteorites reaches a hundred or more per hour.”

The seeing at Broad Creek was predicted to range from good to excellent on August 11th, so a dozen of us assembled there, just after sunset. Attendees included Jeff Schluederberg, Maggie, Bob and Karen Carey, Lynn Wilder and her daughter, Millie McCoy, Cathy Tingler, Grace Wyatt, Phil Schmitz, Conrad Buelow, and myself.

Note: The grass had been mowed as well. I don't know who did the job, but as a regular BC visitor, I would like to thank you on behalf of the club!

As the sky darkened, our scopes were turned toward the more familiar summer objects such as M13 and Albireo, as well as the planet Jupiter, now reaching its meridian point in the south. It appeared large in my refractor, at 250x, with a little atmospheric wobbling. The seeing wasn't that good in the south, but I did count four or five bands and an unusually dark northern pole.

As it turned out, there were only one or two meteors observed per hour, so the real focus of the evening became the Milky Way. Myself, I decided to concentrate on one constellation at a time, beginning with Scutum, I spent the rest of the night working my way northward toward Perseus.

Here's how it went:

First, I made several general sweeps across the areas covered by Cassiopeia, Cygnus and Scutum, not looking for anything special, but just spotting various clouds and clusters against the brightening Milky Way background – a great way to spend an evening. Viewed the Scutum Star Cloud, including M26 and M11. Also the Cygnus clusters and nebulae, including M29 and M39.

Made several attempts to locate the Veil and Crescent nebulae in Cygnus, using OIII filters, but no luck with any of the scopes, including Phil's reflector. The sky just wasn't dark enough.

Other objects:

Mu Cepheus (Garnet Star) - Actually a red supergiant variable, possibly larger than Betelgeuse. A beautiful sight in a 120mm refractor.

Delta Cepheus (Double and Variable Star) - First known pulsating variable. Its brightness changes not because of an eclipsing companion, but because of an expanding and contracting outer surface. It is a double star as well.

Cassiopeia – My refractor performs much better on clusters than on nebulae or galaxies, so I took this opportunity to explore the numerous clusters in Cassiopeia. In addition to M103, M52 and NGC7889, this constellation is filled with minor clusters, ranging from maybe five to over a hundred stars each. You could spend an hour or so here, viewing them all.

After midnight, the dew became thicker on my optics. I tried to dry the dew, using my zapper, but then the 12-volt battery's charge ran out. Coincidentally, however, the sky was becoming gradually darker.

Phil Schmitz invited us to gather around his 16-inch reflector, and we observed the following:

M27 Dumbbell Nebula (Vulpecula) - A planetary nebula, formed by ejection of material from the central star. This is the last activity of a dying star, and might be a prelude to a nova.

Pegasus:

M15 – A bright, compact, globular cluster. Resolved well this night, even in low power.

NGC7331 – An elliptical galaxy, believed to closely resemble our own Milky Way. In 1959, a supernova was observed there that was almost as bright as the galaxy itself!

While in Pegasus, we looked in vain for Stephan's Quintet:



*Photo: Gemini
Observatory/Travis Rector,
University of Alaska Anchorage*

Stephan's Quintet – Four galaxies trading stars and nebulosity, and jammed into a space smaller than the Milky Way. The two in the center are colliding. A fifth galaxy (reddish, in the upper right) has nothing to do with the other four; the association is only visual. The brightest of these is only 12.5.

To see and separate this odd group, you need at least a 10" aperture and very dark skies.

To learn more about this group, go to: http://en.wikipedia.org/wiki/Stephan%27s_Quintet

In Andromeda:

Blue Snowball (NGC7762)– A decaying star, emitting its upper layers of matter. Might eventually form a planetary nebula like the Ring or the Dumbbell.

In Cassiopeia:

M103, M52 – Star clusters. Both appeared dim but very compact. Difficult to separate from the Milky Way stars behind them.

NGC7789 – Dim, distant, but heavily populated cluster, viewed best under high powers.

Eta Cassiopeia - Double star, one to the right is lilac, the other is yellow. A beautiful contrast.

Iota Cassiopeia – Beautiful triple star, all of which appeared bluish to me.

In Perseus:

M76 – A planetary nebula, sometimes called “The Little Dumbbell” because of its resemblance to M27 nebula.

M34 – Open, sparsely-populated star cluster which might be best viewed in binoculars. Resembles M36 in Auriga.

Double Cluster (NGC869, 884) – Mind-boggling through a 16-inch. Both clusters are about the same distance from earth (7000 light years) 300 or 400 light years apart, with 869 being a little closer. They are believed to be on or near the next “arm” of the galaxy from where our solar system is located.

NGC40 in Cepheus – Planetary nebula, very bright in the center, but fading as it goes outward

M74 Galaxy in Pisces, the dimmest of all Messier objects, but easy to find if you know just where to look.

M2 in Aquarius – Globular cluster with over 100,000 stars.

Alpha Herculis – Rusty-red giant with a blue companion (which some see as green).

M92 – Rich globular cluster in Hercules, but often overlooked because of the brighter M13.

Mars cleared the trees about 12:30am, but appeared as an orange ball, with no features.

We packed up at 2:36am. By this time, the temperature had cooled and the sky had become darker, with the Milky Way very bright at the zenith, between Cassiopeia and Cygnus.

But what about The Perseids? Well, we saw only about a dozen between 9pm and 2:30, not the hundreds that some observers have reported over the years. Nonetheless, it was a very successful evening of observing, under unusually good conditions at Broad Creek. In addition to the objects listed above, our scopes were trained on the Sagittarius/Scorpius region, M11 (Wild Duck Cluster), and other better-known summer objects.

-Roy Troxel

Cherry Springs, Pennsylvania



The Lagoon and Trifid Nebulae,

Photo by Jeremy Kirkendall

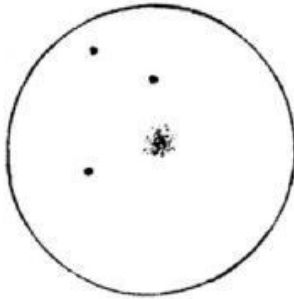
May, 2007

Canon Digital Rebel piggybacked, 200mm, f/5.6, ISO 800,
One single 6-minute image, with minor edits in Photoshop.

Messier Objects for Summer

By Steve Krall

Steve uses a 10-inch, F/5 reflector unless otherwise noted. The observations were made in Kingsville, Maryland. He prefers the star-hopping method over using a go-to device.

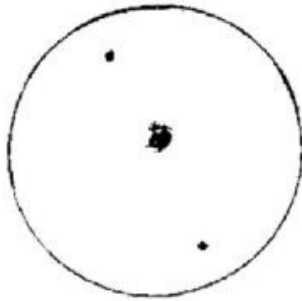


M28

8/16/95, 11:30pm
100x

Hidden in Sagittarius, deep in the midst of the Milky Way's massive clouds of obscuring dust and stars, M28 can be a demanding object to find. Fortunately, you can search out M28 by first locating Lambda Sagittarii, a 2.8 magnitude star, and then move your scope an eyblink to its northwest. My first glimpse of this cluster

appeared to me as being only a small, bright, highly-compressed milky-white ball. With a little more magnification, I could resolve some stars in the cluster even though they were somewhat obscured by faint nebulosity. I found medium power best to appreciate this distant globular cluster.

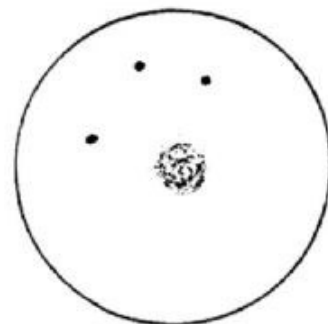


M54

8/19/95, 11:10pm
100x

Situated only about twenty degrees above the horizon and plagued by the thick atmospheric layer low in the sky, this globular cluster in Sagittarius can be a challenge to locate. Try for it on a moonless night when it is on or near the meridian, just west of Zeta Sagittarii, an excellent naked eye guide star. On first sight, M54 impressed me as being very bright but very small, without stars and surrounded by a narrow, faint halo.

While you are here, you can seize the moment and sweep about ten degrees due east to pick up M55, another globular cluster, larger and more impressive-looking.

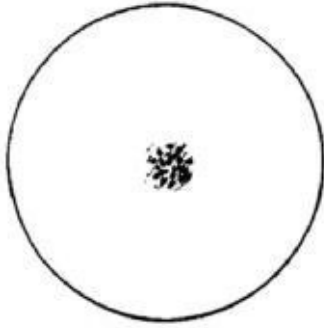


M55

8/19/95, 11:35pm
50x

This fairly large, moderately bright globular cluster is located in a vacant part of the sky, void of any bright guide stars. It is one of the southernmost Messier objects and can be a challenge to detect, so look for it when the Teapot asterism is clearly apparent to the naked eye. It is on a line drawn from Nunki through Tau Sagittarii (two guide stars in the Teapot's handle), extended for about ten degrees to the east.

At first sight, this unusual-looking cluster appears as a white, soft-glowing, slightly compressed and mottled globular cluster.



M56

11/02/94, 7:05pm
300x

You can easily find this cluster located on a line about one-third of the way from Albireo in Cygnus to Sulafat in Lyra. In a small telescope, it appears as only a small, faint, ashen-gray, starless patch – hardly an impressive sight. In a larger scope, M56 appears as a larger but hazy disk. I could barely see the starlight glistening through the haze. Although not a notable sight by any stretch, I did like its soft glow and I preferred using my 10-inch scope to observe this cluster as it hurtles through

space toward our sun.

Miscellaneous

Astronomy Web Links

Submitted by Karen Carey

Cass A Supernova Remnant:

http://gallery.spitzer.caltech.edu/Imagegallery/image.php?image_name=ssc2005-14c

Spitzer's Site: <http://www.spitzer.caltech.edu/spitzer/index.shtml>

Size comparison of the Solar system objects:

<http://kokogiak.com/solarsystembodieslargerthan200miles.html> (I'd love to have this in poster form!)

Space.com <http://www.space.com/>

Interactive sky map: <http://www.sky-map.org/>

Monthly skymaps: <http://www.skymaps.com/downloads.html>

Spaceweather: <http://spaceweather.com/>

Live Science: <http://www.livescience.com/>

Cassini's site: <http://saturn.jpl.nasa.gov/home/index.cfm>

Mars THEMIS Images: <http://themis.asu.edu/latest.html>

Daily Update for Space Viewing: <http://www.universetoday.com/>

If you sign up for the e-newsletters, you can receive the newsletter (almost) every day.

“Where is M13?”

A Three Dimensional Galactic Atlas

Where is M13? is a graphic application that helps you visualize the locations and physical properties of deep sky objects in and around the Galaxy.

Using paired face-on and edge-on views, the app shows you where a particular cluster or nebula is actually located, relative to the center and plane of the Galaxy, providing a unique 3-D perspective.

To download this free software, visit: <http://www.thinkastronomy.com/M13/index.html>

Whitaker Center in Harrisburg

The Whitaker Center for Science and Arts called about a program they are currently running called the science of aliens. The person thought members of our club might be interested in taking a tour. Here is the information if anyone has an interest in attending. The Center is located in Harrisburg. The cost to get in is \$16.00 per person. Until the end of August they have a special for groups of 10 or more. The admission is buy one get one free.

Call Debbie at 717-221-8201, Ext. 2513 at the Center for tickets if you are interested, or viit their web site at: <http://www.whitakercenter.org/home/index.asp>

Vesta Passes Jupiter, Aug. 29

On the evening of August 29th, the asteroid Vesta (mag 7.2) can be seen 0.4 degrees north of Jupiter.

Vesta has a diameter of 525 kilometers (326 miles) and is smaller than the state of Arizona. It rotates about its axis in 5.34 hours. It is the most geologically diverse of the large asteroids and the only known one with distinctive light and dark areas -- much like the face of our Moon.

For more information on Vesta, visit this site: <http://www.solarviews.com/eng/vesta.htm>

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Webmaster: Charles Jones