

# Harford County Astronomical Society

Bel Air, Maryland  
www.harfordastro.org



*Volume 33 Issue 5*

*May 2007*

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## **Public Star Party (Open House):**

**May 26, 2007 at dusk**

At the Observatory

## **General Meeting:**

**June 30, 2007, 7:30pm**

At the Observatory

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## **Club Calendar for 2007:**

### **Open House/Public Star Party**

June 23, 2007

July 21, 2007

Aug 18, 2007

Sept 22, 2007

Oct 20, 2007

Nov 17, 2007

Dec 15, 2007

### **Meeting Night**

June 30, 2007

July 28, 2007

Aug 25, 2007

Sept 29, 2007

Oct 27, 2007

Nov 24, 2007

Dec 22, 2007

*Please check the website for possible schedule updates and changes:*

<http://www.harfordastro.org>

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## **HCAS Business Meeting**

### **Minutes of May 5, 2007**

Treasurer Tim Kamel opened the meeting at 7:30pm.

The minutes of the previous meeting on April 7 were read and approved.

#### **Treasurer's Report**

Tim reported that there is now \$4,991.90 in the HCAS Treasury. The Society now has 53 members.

#### **Observatory Operations**

This month, HCAS members began cleaning and renovating the observatory dome and the 14" Celestron telescope. President Jim Garrett has been actively implementing a computerized system for controlling the scope and connecting it to computers in the observatory's meeting room. Sal Rodano has been our liaison with the college and has participated in several meetings with college officials in regard to the renovation project.

There are still some issues to be decided, however. The current dome still binds and catches along the wall as it is rotated. Mark Kregel is concerned about whether we should renovate the existing dome or purchase a new dome altogether. Also, Sal Rodano feels that the mechanism that raises the dome's opening is too large and heavy and should be replaced with smaller servo motors. The college engineers will be inspecting the dome this month to offer their opinions.

Finally, there was a discussion in regard to installing cable connections, hubs and wireless access points, for communication with the telescope. Jim Garrett, in absentia, said these can be installed by June 1.

Overall, the renovation project has generated much enthusiasm among club members, and the new mechanisms should be in full operation by the end of summer.

#### **Outreach Program**

Grace Wyatt and Tom Rusek spoke about the outreach sessions held over the past few weeks, as well as future presentations.

HCAS has received a check for \$100.00 from the Harford County Public Library system, in payment for the six outreach sessions held at the various libraries over the past fiscal year. There was also a letter of thanks from HCPL.

Tom met with about 12 Girl Scouts on April 20, while Grace reported that almost 400 people visited the club's booth on Earth Day, April 21.

Tom added that plans are being finalized for the events at the Whitehall Girl Scout event on June 2. The regular monthly meeting will be on June 30, rather than June 2, due to the club's involvement at Whitehall. [It was noted that on June 2, Venus, Saturn and Mercury will be sharing the eastern horizon – a fine conjunction.] The meeting scheduled for June 2nd is being deferred in order to participate in the Whitehall Girl Scout Program. However, if we have inclement weather, the meeting will be held at the observatory as usual, where election ballots will be counted and new officers announced. Otherwise, election results and announcements will be deferred to the next meeting on June 30<sup>th</sup>.

Two other outreach events will be held: At Susquehanna Park on July 14 and at Camp Sunrise during the first week of August.

HCAS will also be participating in Swanfest on October 14.

Mike Talbard has purchased a digital scrolling sign for use at our Open Houses and other events scheduled on the Observatory grounds.

### **New Business**

A change of the monthly meeting night was discussed, as some members prefer to meet on a different day other than Saturday. After several alternatives were proposed, it was decided not to pose the question to the membership at large. The incoming president, on June 30, can call a vote for changing the meeting night.

Membership Renewals are to go out this week and will be due by 6/1, as has been our practice in past years. Most will go out by e-mail and those members that do not have e-mail addresses will get theirs by USPS.

Grace Wyatt showed the group several printers' samples for HCAS membership cards.

HCAS member Phil Schmitz has offered a meeting room at the Science Center in Baltimore. This could be used for our next meeting; however, it would be for a fee of \$225. It was decided to respectfully decline the offer, due to lack of interest and the large fee.

Cathy Tingler has reported that HCAS has been approved for another year's use of Broad Creek.

Tom Rusek will contact local newspapers about advertising HCAS events, and explore the pricing of the ads. Papers will include *The Aegis*, *Pennysaver* and others.

The 10" Odyssey reflector donated to the Society by Mrs. Ibanet will be cleaned and collimated by Mark Kregel. Tim will send Mrs. Ibanet a letter of thanks.

Mark Kregel offered to give a presentation on stellar evolution this fall.

### **Elections**

With the closing of the current fiscal year, it is time for the election of new officers. Nominations are still being made and ballots will be mailed shortly to all members. New officers will be installed at the next meeting, either on June 2nd or June 30th.

Those nominated are:

President - Tom Rusek  
Vice President - Grace Wyatt  
Treasurer - Tim Kamel  
Secretary - Monroe Harden

The meeting was adjourned at 9:00pm.

-Roy Troxel

### **Membership Renewals 2007-2008**

The Membership Renewal forms have gone out by e-mail to most of the members with the rest going out by mail. These are due by June 1 so if you have not yet responded, please do so soon.

If you are not a member but would like to be, please drop me an email and I will send you a copy of our application form.

Tim Kamel  
[hkamel32@comcast.net](mailto:hkamel32@comcast.net)



*New members visit HCAS President Jim Garrett at the Observatory*

### **New Members – May, 2007**

Please welcome the Carey Family – Karen, Robert, Maggie and Matthew as our newest members. Karen has been interested in Astronomy since 1984 and now has 1 4.5" Meade GOTO scope. She joined us during our last open house and attended our business meeting on May 4.

## Observatory Operations April and May 2007



*Mark Kregel, Sal Rodano and Jim Garrett at work on the observatory*

This is a quick report to bring the members up to date on recent activities related to the Observatory.

Over the last 2-3 months, we have received commitment from the HCC College to work with the Club to affect some upgrades to the Observatory. In order to better our chances for success, we will be using the Observatory for our open house functions. Basically, our intent is to have guests park at the rear of the HS parking lot and walk to the Observatory. We would have scopes set up in front of the Observatory and the main scope would be available for use by the public.

On Thursday, 4/24, several members met at the club with the intent of checking out the scope and making sure that we have all the controls that are needed and that the scope works. We also wanted to make sure that the dome itself was functional. This needed to be done before the open house on the 26<sup>th</sup>. After 2-3 hours, we were able to locate all the components for the scope, get it working and get it aligned. The dome does rotate that it has a tendency to snag at one point.

The following day, April 25<sup>th</sup>, we again returned to the observatory in an impromptu fashion. Our first intent was to see if we could get the scope to run under computer control. It does. However, the session evolved into a cleanup session. The Observatory Room was vacuumed and mopped, as were the entryway and stairway. The underside of the dome was cleaned to remove dirt and nests. The scope itself was cleaned. The classroom was vacuumed and rearranged. Leaves were removed for the behind the main doors.

Saturday, April 26<sup>th</sup>, was the night for the Open House. We arrived a little early to finish up the cleaning and get things ready for the open house. Unfortunately, it became overcast and, apart for a few glimpses of the moon; there was nothing to see. We did set up our new sign and the

entrance and the School donated the time of a watchman to man the gate. Visitors were very few. The Carey Family came early, looked through the scope and then joined the Club. One guest came later, had a tour and then left. The guard called on walkie-talkie to advise that there was another person at the gate but by then we had shut down the scope.

On Tuesday, 5/1, we met with representatives of the College IT department, who were there to assess our needs and see what can be done. As a result of this meeting, and hopefully by the end of May 2007, we are hoping to have some computer cable (Cat 5E) run from the scope down into the utility room on the first floor. We are expecting a switch to be placed there. We will then have cable run in the walls to give us four hardwired stations along the exterior walls for computers to be connected. We will have a wireless connection in the room for additional computer connections, and we will have access to the Internet from the classroom. We are also hoping to get a couple of modern computers from the College set up in the classroom. The end result of this is that we should be able to:

- 1- Use the computers to run the scope from the class room
- 2- Use a CCD eyepiece and see what the scope is seeing using a computer in the classroom
- 3- Use the internet to show what we are seeing to classrooms at the college.

There is now talk of possibly using the classroom for College classes.

It was a busy week and we were able to accomplish much. It was a real shame that the weather did not cooperate on Saturday. This open house was one week past Earth Day, where we handed out some 300-400 schedules. We were really hoping for a good turnout.

Participating in this effort were Jim Garrett, Mark Kregel, Grace Wyatt, Roy Troxel, Mike Talbert, Sal Rodano and myself.

-Tim Kamel

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## Recent Open House and Outreach Presentations



*Setting up scopes at the Darlington Elementary School*

## Darlington School

4/20/2007

On April 20<sup>th</sup>, we provided an outreach program for Mr. Mark Dagher's science class at the Darlington Elementary School. Originally scheduled for 4/13, it was postponed due to high winds and chilly weather.

The 20<sup>th</sup> turned out to be an exceptional viewing night. Transparency was great and seeing was much better than what we have been getting for the last several months. There was not a cloud to be seen. Weather was mild and the school was able to cover up the flood light in the back of the school. The students were well behaved and the school staff did a great job of organizing the event and keeping things moving. Though originally planned for some 30 students, participation was about double that when counting the parents and siblings and also others that were using the playground when we started setting up and decided to participate.

Participating from the club this time were Mark Kregel (14" reflector), Roy Troxel (5" refractor), Grace Wyatt (binoculars) and myself (5" Mak). We each picked a target and basically kept it throughout the session, allowing the viewers to cycle through the equipment and not see duplication. Major attractions were the moon, Venus (in a bright gibbous phase) and Saturn. Towards the end, we looked at some star clusters also - M44 (Beehive), M3 and M13 (Hercules).

The session ended at about 10:30

Tim Kamel

## Carroll Manor Elementary School

May 4, 2007



On May 4<sup>th</sup>, we had an outreach program for Carroll Manor Elementary School in Baldwin, MD. This program was arranged by a parent group at the school. Our contact was Effy Lamp.

It was again a beautiful night, with better than average seeing and transparency and mild temperatures. Unfortunately, the school was unable to shut off the exterior sodium lights and we were unable to take full advantage of the nice skies.

Participation was well in excess of 100 students and their parents. The students were well behaved for the most part and parents doing a good job of controlling the kids that got out of line (both figuratively and literally).

Participating from the club this time were Mark Kregel (14" reflector), Roy Troxel (5" refractor), Mike Talbert (11" SCT), Irv Koplovitz (8" Dob) and I (5" Mak). Grace Wyatt arrived an hour earlier and participated in an indoor program as well for the students and showed them how to make star wheels. Initial plan was to have the scopes pick different topics but this night at least two scopes were pointed at Saturn due to demand. We also viewed Venus and Alcor/Mizar. I also had M44 in my scope but had a disappointing view due to the lack of a wide field view. A 21 mm eyepiece on an F/15 scope just doesn't cut it. There was no moon this night so that was an opportunity that was missed.

Overall, this was a successful event judging by the comments from the students and the parents. Several returned for second views.

The session ended at about 10:30.

Tim Kamel

## Earth Day April 21, 2007



*Observing the Sun through Grace Wyatt's 6" Dobson*

Earth Day was a huge success, with more people and more booths than in previous years. Weather was perfect--sunny and not too hot. Mike Talbard, Tom Rusek, Grace Wyatt, Sineglinde Wilson and Clarence Wilson all came to help out. We had close to 400 people stop by during the day. Mike ran Grace's 6" reflector for solar viewing and moon viewing. Craters, although faint, could be seen on the moon in the middle of the day. Clarence was there with his 4" reflector and

his new solar filter. His mom, Sineglinde, ran that telescope for solar viewing. Of course not a sunspot was to be seen. Just perfect, clear white disks in the eyepieces. We gave out club information, Hubble prints and had a number of people who seemed interested in attending the open houses, and two who might join. People were very interested in the idea of coming to the observatory for viewing.

In addition to the other recent outreach programs, a program was held at the Chapel on the Edgewood Proving Grounds on April 20th for a group of Webelo Scouts. A group of 15 scouts and adults were treated to a lecture and an evening of observing a glorious sky. Venus and the crescent moon were wonderful along with Saturn on a windless-clear evening. Also, on April 26th, a presentation was given to the kindergarten class at St. Joan of Arc Elementary School in Aberdeen. A discussion of the solar system and the moon was enjoyed by all. Our thanks to all who invited us to share our knowledge with them.

Also, the Harford County Library lecture series has now been completed. Over the last year we have visited the Bel Air, Abingdon, Fallston and Whiteford Libraries. In all, we gave six programs at these four libraries. The programs included indoor lectures and some outdoor viewing events. Well over 200 people attended. Thanks to Roy, Jim, Tim, Grace and everyone who helped with the outdoor viewing sessions. The Whiteford Library also donated \$100.00 to our club as part of a science grant they had received.

Tom Rusek

### **Future Outreach Events**

**Scouting Camporee**  
June 2, 2007 at 7pm.  
Camp Hidden Valley  
4722 Mellow Road  
Whitehall, MD

Location: North of Bel Air on Route 165

Directions, Heading north from Bel Air on U.S 1 / Hickory Bypass:

- Turn left (northwest) onto SR-23/East West Highway and continue onto Rt.-165 (Federal Hill Road) for 11.1 miles.
- Turn left (northwest) onto Mt. Horeb Road for 1.4 miles.
- Bear right (northwest) onto Madonna Road for 1.4 miles.
- Turn right (east) onto Mellow Road (a very small road with a small sign) for 0.3 miles.
- Turn into camp ground.

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### **HCCC Astronomy Class Support**

April 21, 2007, 4AM

We provided support for the HCCC Astronomy class tonight and this would prove to be the last support for the semester. The following Monday was clouded out again, followed by a full moon and the end of the school year.

In all, there were few clear Mondays and those we had were at or near full moon.

On this particular night, however, it was beautiful. This was the morning session, scheduled for 4 AM. Transparency and seeing were better than average and certainly much better than we get around here. Primary target was Jupiter, which, though low in the sky, was still spectacular. The 4 moons were evident. The belts and zones were clearly seen.

In the 1-hour session, we were also able to hit several open clusters as well as globular clusters. The Ring Nebula was well featured. There was also Alberio and Alcor/Mizar.

Participating tonight from the club were Roy, Mike, Mark and myself. Dr. Thomson and about 5 of his students were on hand from the astronomy class.

A nice way to end the semester, on a high note.

-Tim Kamel

By 5am, the August/September sky was clearly visible. Despite some haze, our scopes were turned southward toward the Sagittarius/Scorpio region, which revealed some of its more remarkable sights: the star clusters M4, M11 (Wild Duck) and M22, as well as the Lagoon Nebula, M8.

A special surprise was viewing the Trifid Nebula (M20), with a narrowband filter, through Mark's 14" reflector. We easily saw the dark lanes dividing it into 3 parts, plus the accompanying star cluster, M21.

-Roy Troxel

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## Messier Objects for Summer

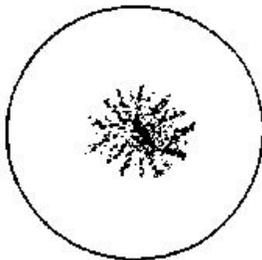
*By Steve Krall*

*Steve uses a 10-inch, F/5 reflector unless otherwise noted. The observations were made in Kingsville, Md.*

### **M13**

7/20/95, 12:15am

8" F/6 reflector, 90x



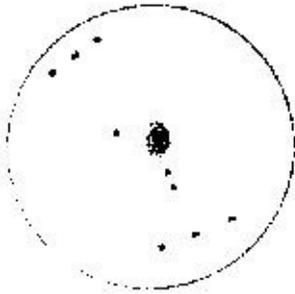
I easily found this grand globular cluster lying just a few degrees below Eta Hercules straddling the western edge of the constellation, where it appeared at first glance as only a small, unresolved globular cluster. However, by increasing my magnification two-fold, the effect was enough to take my breath away. It suddenly materialized into a powerhouse of swarming stars in absolute chaos, streaming outwardly in spiraling tendrils in uncountable numbers. I liked M13's large size, extreme brightness, generous abundance of stars, easy resolvability and the conspicuous knot of stars concentrated at the center. You can find another spectacular cluster, similar in every

way, only about ten degrees to the northeast, also in Hercules, namely M92.

*Note: Messier described M13 as "a nebula which I'm sure contains no star, with a round and brilliant center, brighter than the edges."*

### M107

6/16/96, 12:40am  
8" Reflector, 100x



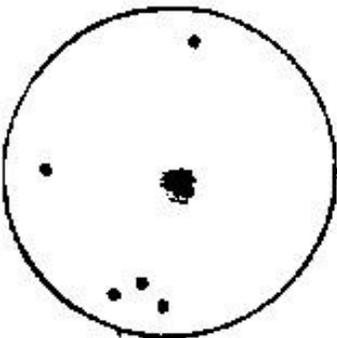
Using low power, M107 appeared as a fairly large, round, nebulous, faint patch of light somewhat difficult to find. Fortunately, with some resolve, it can be spotted near the radiant star Zeta Ophiuchi on the western edge of the constellation Ophiuchus, a very large conspicuous constellation whose polygon shape is amply outlined by second-magnitude stars, and is readily discernible with the unaided eye. While low power was not adequate to resolve this globular cluster, higher power did brighten it and I could finally resolve some stars toward its center. Although it is not an impressive-looking cluster by any stretch, I think it's just a

fine object to observe and is certainly worthy of further contemplation.

*Note: Messier's assistant, Pierre Mechain, described M107 as "a small nebula on the left flank of Ophiuchus between Zeta and Phi Ophiuchi."*

### M14

7/30/95, 11:30pm  
90x



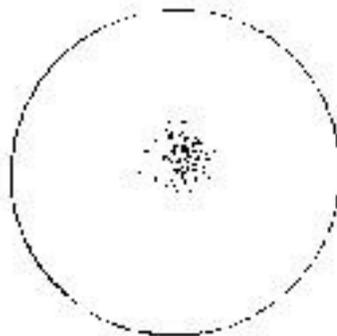
Located within the inner, barren confines of Ophiuchus, M14's pale, soft glowing disk can be a trick to track down. However, using low power, with your Telrad and Atlas in hand, you can ferret out this faint cluster by taking advantage of the conspicuous pattern of bright stars that define this constellation. Look for M14 in a line running from Chi Ophiuchi to about 2/3rds of the way to Nu Ophiuchi, where you can encounter M14's round, moderately-sized, powder puff image. Although not resolvable, I sensed a hint of resolution at higher power. You can also find M14 by sliding eastwardly on a parallel line for about one hour from a couple of similar but easy-

to-find clusters, namely M10 and M12. I found moderate power a good compromise to view this one, but wait for a good night when M14 is on or about the meridian to appreciate it. It is interesting to note that M14, 23 thousand light years away, is destined to fall in with us as it closes the gap between us at 77 miles/second on approach.

*Note: Messier described M14 as "a nebula without a star, not large, faintly visible in a 3-1/2 foot [long] telescope."*

### M10

6/16/96, 1:00am  
8" f/6 reflector, 100x



A large, pretty, bright, compact, globular cluster, I could resolve its numerous brilliant stars almost to the core. Located within the boundaries of the constellation Ophiuchus, closer to its western edge and halfway north to south, M10's milky-white image can be readily espied while sweeping in that area but be on guard lest you confuse M10 with its nearby twin-like sister, M12, residing

only a pulse away to the northwest. M10 is easily resolvable, easy to find and easy on the eye and I consider this lovely object as one of the finest examples of globular clusters in the heavens.

*Note: In ancient Greek mythology, Ophiuchus represented Aesculapius, the renowned physician, grappling with Serpens, the symbol of mankind's maladies. Toady, the caduceus, the badge of the medical profession features these serpents coiled on a staff.*

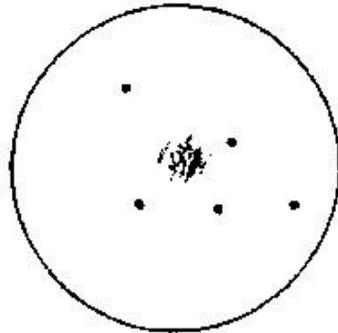
*Note: Messier described M10 simply as a "nebula in the belt of Ophiuchus."*

### M12

7/31/95, 11:50pm

100x

Somewhat isolated in our galaxy's halo, a rather sparse region just beyond the main band of the Milky Way, M12's obscure image may be a challenge to find.



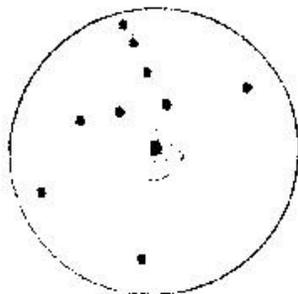
Look for it, using low power, about halfway on a line connecting Zeta Ophiuchi and Chi Ophiuchi (use your Telrad) where M12 appears rather faint, rounded, silver-gray in color and wrapped in considerable nebulosity. Higher magnification will penetrate that haziness and reveal a moderately compact cluster - large, easily resolvable and pleasurable to view. You can double that pleasure by moving a couple of eye blinks away to the southeast where you find M12's twin, M10, a remarkably similar cluster in every sense of the word. Both clusters cut from the same galactic cloud, I suspect.

*Note: Messier described M12 as "containing no star, round and faint."*

### M83

5/10/99, 10:50pm

8" reflector, 50x



The amateur observer contemplating a search for M83 would be well advised that a moonless night, a clear southern exposure and a dark observing site are the basic essentials needed in place before expecting to come up with the goods on this elusive object. Lying in Hydra, a huge, sprawling constellation in a desolate part of the sky, very low on the horizon and at a time of the year when hazy southern skies seem to be the norm, M83 can be a challenge to detect requiring the full measure of your observing skills. One way to find M83 is to first determine when bright Spica transits the meridian (a line running directly overhead from north to south),

then target an intersecting point on that imaginary line with a declination line (running east and west) 7 degrees below Gamma in Hydra, putting it on the same parallel with M83. Then simply allow M83 to drift about ½ a degree into your field of view (courtesy of the earth's rotation).

Obviously, this kind of measuring and maneuvering can be trying and may exact major anxiety stress on you but who said finding M83 would be a piece of cake?

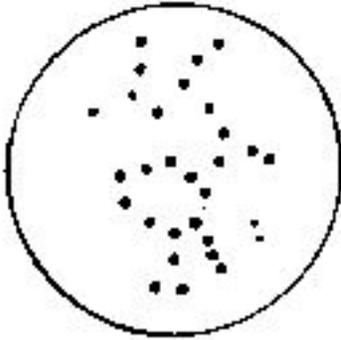
Unlike some Messier objects, M83 appeared quite impressive-looking, rather large and bright, and the color of gun-metal blue. I could not resolve any stars or lanes of this galaxy, but I was immediately attracted to the bright, starry glow in its very center, a unique feature of this galaxy. At my first glimpse of M83, I could scarcely contain a delicious sigh of satisfaction as I realized that with this final discovery, I have now found and sketched all of the 110 Messier objects!

Note: Messier said of M83, "only with the greatest concentration is one able to see it at all."

**M6**

7/30/95, 11:45pm

50x



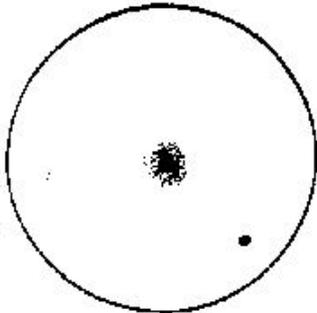
Also known as the Butterfly Cluster, this eye-popping, wide, open cluster contains a bounteous assortment of bright and fainter stars loosely held in an undefined helter-skelter pattern which some have perceived to be the outline of a butterfly's outstretched wings. Lying very low in the southern sky and often concealed by urban glow, it might seem to be a labor to detect, but on a clear, moonless night, with a little perseverance you can locate this cosmic spectacle between Scorpius and Sagittarius on a line about two-thirds of the way from  $\epsilon$  Scorpii to  $\delta$  Sagittarii. The overall brilliance of this cluster, the sparkling blue-white stars, its vast size and its ease of resolvability makes this a popular Messier object.

Note: Messier described M6 as "a small cluster of stars between the bow of Sagittarius and the tail of Scorpius, resembling a nebula to the naked eye."

**M80**

7/23/95, 10:35pm

8" F/6 Reflector, 160x



Lying low in the southern sky in Scorpius - a bright, prominent constellation - I found M80 to be an easy target. Look for this fine globular about 4 degrees north of Antares, an excellent starry beacon, where it shows up only as a fairly small dim patch of light. Tolerating higher power, extremely well, M80 appears larger, rounder, brighter, well compressed and packed with numerous stars in the center. M80 is an impressive sight and I have no doubt that on a good night it would be a fantastic view if it were only higher in the sky. While you are here, you might want to compare M80 with nearby M4, a similar cluster, only a hiccup away to the west of Antares. Use higher power and a

larger aperture (if at all available) on this gem for best viewing.

Note: Messier described M80 as "a nebula without a star in the Scorpion, it is round, brilliant in the center. Resembles a comet surrounded with nebulosity."

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This newsletter is the official publication of:

**Harford County Astronomical Society**

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*Items for the newsletter are due to the editor by the 13<sup>th</sup> of the month  
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