



Back Bay Observer



The Official Newsletter of the Back Bay Amateur Astronomers

January 2006 Issue
 Edited by Barb Weiner

Please submit any articles for the
 Back Bay Observer
 to
 Barb Weiner at
barb.weiner@cox.net
 no later than

the **24th**
 of the month.

Please type
 "Newsletter Article"
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 article.

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Looking Up

Happy New Year!

I hope everyone had a very wonderful and blessed Christmas and Chanukah season, and best wishes for a CLEAR and DARK new year! I sincerely hope we do not have to suffer through months of rain and cloudy weather like we did the first half of 2005 and most of 2004. I don't mind rain, but I want it during the day, with clear nights. Or at least it can occur during the Full Moon. <Grin>

The latest *Reflector* newsletter from the Astronomical League has some BBAAers' names in it (as usual). Dave Sanderson got his Honorary Messier pin and certificate, and Ben and Gretchen Loyola were cited for earning the Lunar Club award. Congratulations! Club members, keep on pursuing those A. L. observing club lists.

Not only will you get your name in print, but it will help motivate you to get out and LOOK UP.

This month will be our last chance to see Mars very well, until its next opposition in December 2007, so take your last looks at the Red Planet for a while. As Mark Ost told us on Backbayastro, it's getting smaller every day.

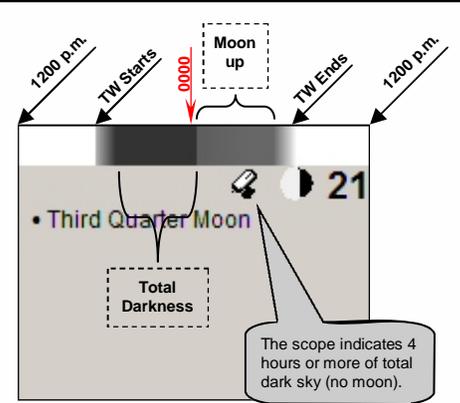
We had a great Annual Anniversary Luncheon December 17. Thanks to all who attended to wish the BBAA a "happy birthday".

Welcome to all our new members, and warm good wishes to all our current (not "old") members. Let's have a lot of astronomical fun in 2006.

George

A very special Thank You goes out to Greg Crinklaw the Astronomical Software Developer of SkyTools. Greg has granted us permission to use SkyTools and any screen shots of SkyTools in the production of the BBAA Newsletter. This month features a new newsletter calendar. For those of you familiar with SkyTools the calendar will be an old friend. For those of you not familiar with SkyTools, here are a few tips...

For more information visit:
<http://www.skyhound.com/skytools.html>
 or ask any SkyTools users.



BBAA JANUARY MEETING

Thursday, January 5, 7:30 p.m.

Cox Communications Building,

1341 Crossways Blvd, Chesapeake

Observing Globular Clusters

By Cliff Hedgepeth

Having just completed the requirements for the Astronomical League's globular cluster Club, I thought I would pass on some of the things I have learned.

First of all, the majority of globular clusters are located in a ring in the outer reaches of our galaxy. There are 150 of these and these are the galactic globular clusters. There are also globular clusters that are visible located in M31, M33 and Fornax. These are extra galactic. There are others but these are the ones that can be seen with amateur equipment.

The Astronomical League compiled a list of objects. There are 191 objects in it. All 150 of the clusters are galactic globulars and 41 extragalactic. I narrowed the list further, eliminating those dimmer than 15th magnitude and those below -40 Declination. Works out to be 133 objects.

Now of the galactic clusters, 29 are Messiers, so that means one only has to view 21 NGC to qualify. Piece of cake, right? Wrong! First off you need to revisit the Messiers and study them. Most of us just found them at low power and didn't really look at them. To qualify for the AL program, you need to use at least 100x to study them. I use 214X.

Globulars are classified by the Shapely-Sawyer System. There are 12 classifications. A type I is a very tight globular, type XII is very loose. M2 is a type II, M13 is a V, 107 is an X. Their scale is very unstructured and leaves a lot to the observer. Each observed globular must be classified.



M2 Type II



M13 Type V



M107 Type X

As you can see from the DSS images above M2 is denser than M13 and both are denser than M107. That's about all the guidelines there are for classification.

Another point is that the Messiers are, for the most part, large and bright. Even M107 is larger and brighter than most NGC globulars. Most will look like fuzzy stars at low power.

I found, though, that they are quite interesting to observe. Once you sharpen your observing skills. I found a high power, wide field eyepiece a must as most plossls of 10mm and smaller are nearly impossible to use. The Apogee wide view work very well and are inexpensive. My favorite cost me more than my first scope but is well worth it. It's a 7mm Type 6 Nagler . It gives me 214X with my scope with a 23' FOV. M13 fills it and makes you able to resolve stars so you can see how the globular is structured.

The DSS images of the objects make finding them easier, along with software, such as WinStars, Astroplanner or SkyTools that gives you an accurate star field. Remember, these aren't going to hop out at you like the Messiers.

Another valuable aid is [Star Clusters](#), by Brent Archinal and Steven Hines also [Burnham's Celestial Handbook](#) is a valuable tool for any observing project.

I am by no means an expert on the subject but the AL program has made a better observer of me as have all of the ones I have done.

Welcome New Members

Brian Buchtel

Honorary Member Dr. Carlos Salgado

Meeting's minutes

December 1st, 2005

The December meeting of the Back Bay Amateur Astronomers was called to order by president George Reynolds on Thursday December 2nd 2005 at the Virginia Beach TCC campus.

Seventeen members were present including Dale Carey, Bill Powers, Benito Loyola, Steve Hamilton, Kevin Weiner, Barb Weiner, Robert Harris, Mark Ost, Stan Hubbard, Gerry Carver, Mat McLaughlin, Tom Pearson, Kenny Brown, Larry Channel, Chuck Jagow and new member Bill Setzer. Secretary Rick Bish was unable to attend the meeting due to a back injury sustained earlier in the week, this unfortunate event provided secretary-elect Chuck Jagow an opportunity take the meeting's minutes.

New member Bill Setzer introduced himself and provided a short bio about his scope and observing site to which the members immediately began asking about the observing conditions, how big a place he has and the amount of light pollution.

An abbreviated Alcor's report was provided by George, who whole-heartedly congratulated Cliff Hedgepeth upon his completion of the Globular Cluster program. Unfortunately, Cliff as well as Georgie June were unable to attend the meeting.

The treasurer, Kevin Weiner, reported that we have a bunch of money in the bank (\$4,026.06 total, \$786.27 scholarship fund and \$3,239.79 general) and that only a few deadbeats have not paid their dues.

Kevin informed everyone that the cost of the discounted Astronomy magazine subscription has increased by five dollars this year. The discounted Sky & Telescope subscription has not increased. Kevin also asked the membership to please keep this in mind when you are paying your dues this year if you so happen to include the subscription(s) costs with your dues.

Tom Pearson detailed the latest project Astro event at the north landing Elementary school. The group made a 1000 yard mockup of the solar system. Sol was represented by a basketball, the Earth a peppercorn 70 yards away, Jupiter 200 yards and Pluto was a thousand yards away.

They ran out of space heading to Pluto so they had to improvise and double back a bit. All in all, the children came to appreciate the scale of the solar system.

Steve Hamilton is to donate an LXD55 telescope to the North Landing Elementary School, the presentation will be made at the next Lunar Festival.

Steve also thanked everyone who participated in the last Garden Stars held at the Norfolk Botanical gardens. He reported that nearly a dozen telescopes were set up by my members and over 120 people peered through our glass. There were lines behind every scope with many Ooohs and Ahhhs being heard. Many of the adults enjoyed the views as well as the children, and as Steve pointed out, that for most of them they will never again see Uranus, Mars, Albireo or even the moon through a telescope. Steve concluded that he was glad that his last Garden Stars was a success and that next year the Botanical Gardens would like some support during the evening on next years Astronomy Day.

George opened the meeting up for old business, which none was mentioned, and then new business. Under new business George asked the membership what type of activities/presentations might be in order for the upcoming year. Steve Hamilton suggested that he could give a beginner's intro to CCD imaging, Benito Loyola promised to do a presentation on filters and Kevin Weiner indicated that he might be able to put together a presentation on the different astronomical software packages as well. Gerry Carver suggested that perhaps folks with high-end/exotic scopes/equipment could bring one in for a dog/pony style presentation.

George also had the final versions of the 2006 BBAA flyers for everyone to see. There are two flyers, one for members and one for prospective members.

Once the new business discussion ended, George opened the floor up for folks to share their recent observations. Mark Ost indicated that he had been enjoying hopping around looking at many double stars, Dale Carey suggested he undertake the Double Star list. Steve Hamilton reported that he caught five planets in one night, and that for a few more days all of the planets but Pluto may be observed during

the course of a single evening.

Mark Ost spoke of his latest improvements to his observing area in his back yard. Mark has graciously extended an open invitation for observing sessions in his back yard, which happens to be one of the darkest parts of Virginia Beach. Mark also spoke of Sue French's Guide as being very useful. He further suggested that if we become disoriented at the next observing event, that we might inquire with Dr. Bruce as to the whereabouts of Polaris.

Kevin Weiner provided a review of the astronomical software Starry Night Pro Plus version 5. The review was not flowery in the least, it was suggested to not even bother with the "Plus" version at all due to the extreme processing time required to render the additional graphics for that version. However, Kevin indicated that the "Pro" version 5.7 was very good and should be considered.

George next went over the busy calendar for the month of December that included:

Nightwatch at Chippokes on the 3rd.

The 4th Risk project at the North Landing Elementary School on the 5th.

Kent Blackwell will host a full-moon party on the 11th, rain or shine.

The 5th Risk project at the North Landing Elementary School on the 12th.

The 2nd Indian River Middle Schools astronomy club meets on the 15th.

The annual luncheon celebrating the BBAA anniversary is on the 17th.

Skywatch at the Northwest River Park is on the 23rd.

And last but not least, the first meeting in 2006 will be January 5th at the Cox campus in Chesapeake.

The main presentation involved viewing some very informative NASA clips that George had acquired. The first clip discussed the Space Interferometer mission and the second clip covered the far ranging Discovery Program, which included many missions.

The refreshments were provided once again by George Reynolds.

The meeting was adjourned a little after 9:10 PM.



Kent Blackwell's Full Moon/Christmas Party 2005

Kent Blackwell

Sunday, December 11 was the night chosen for my annual Full Moon Star Party. This time I combined it with an outdoor Christmas party. Now I ask you, how many people do you know who throw an outdoor picnic at night, and in the month of December? Better yet, how many people do you think would attend such a party? Well, in this case about 25 souls braved the cold weather.

The festivities began at 6:30 pm. The sky was clear all day, but clouds rolled in during the party. That's OK, because we were

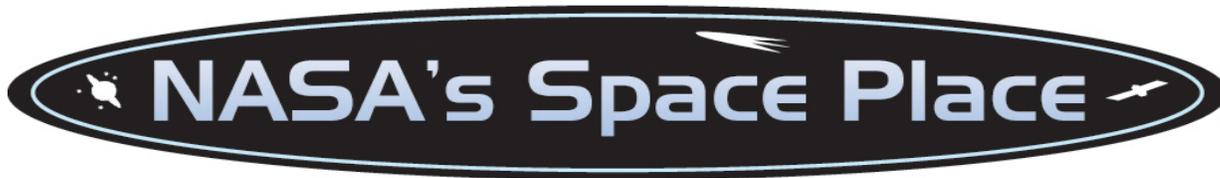
all gathered to have a good time rather than to observe. I think it's fun to get everyone together to socialize. If you can squeeze in a bit of observing, all the better. By 8:30 pm the clouds parted, and we were treated to viewing the end of an occultation of a 6th magnitude star by the moon.

In between viewing through my 1952 Uni-tron model 152 4" f/15 refractor everyone enjoyed steaming hot meatballs, cheese, donuts, hot coffee, tea and cocoa. The more brave of us indulged in ice-cold soft drinks, and the REAL brave ones indulged in a few glasses of white wine in real crystal goblets!

Since it was evident to us we weren't exactly presented with dark Coinjock-type

skies we got together lots of logs, tossed them in a big wash tube and gathered around a nice warm fire. Did we sing Christmas carols? No, because once again I had found the perfect Christmas music for the background. Who can beat listening to the '70's group Jethro Tull singing "Silent Night" or Yogi Yogeneson's, "Yingle Bells"? Or Tiny Tim strumming his ukulele and falsetto singing of "I Saw Mommy Kissing Santa Claus? And who can ever forget the beautiful lyrics to, "I'm Dreaming Of A Redneck Christmas"?

I sincerely hope everyone enjoyed Kent's annual bazaar Christmas party, and hope you attend next year. You may never be the same again.



Searching for the Invisible

Three blind flies land on an elephant. Each crawls over his part of the elephant and describes what he touches. The first one explores the trunk and says, "This creature is a wrinkled snake." The second one walks around on an ear and says, "This isn't a creature at all. It's a pancake." The third one hikes up and down the tail and says, "You are both crazy. This is nothing but a skinny rope hanging down from the sky."

If we are lucky enough to see the whole elephant at once, we understand how magnificent this animal really is.

So it is with astronomy. If we have only our poor eyes to look at the night, we see only a tiny part of the Universe. There is so much more to it than our eyes can see!

The light we see is but a tiny part of the light all around us. Therefore, humans have invented special telescopes that can see these different kinds of light. Using these new telescopes, both from the ground and from space, we have begun to see the entire elephant . . . er, Universe.

One kind of light we can't see is radio waves. We have learned to make our own radio waves for sending TV, radio, and cell

phone signals through the air. Radio waves also come from stars (including our Sun), planets, clouds of gas in space, black holes, and other strange objects in space.

The telescopes that see radio waves don't look anything like the telescopes that see visible light. Radio telescopes are large dish-like antennas that can point to different parts of the sky. In addition to radio wave astronomy, NASA also uses this type of antennas—equipped with transmitters—to communicate with its unmanned spacecraft out there exploring the solar system.

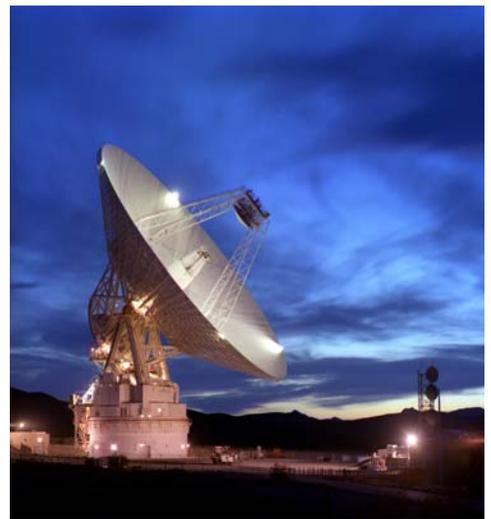
Telescopes for seeing some kinds of light, such as x-rays and ultra-violet light, work best in space, because Earth's atmosphere blocks most of these kinds of light from reaching the surface. Several space telescopes now orbit Earth, each seeing a different kind of light.

Astronomers can now study images and data from all different types of telescopes just to understand one star or galaxy. They know that looking at the Universe in only one kind of light is like touching only the ear of the elephant.

Use the "Cosmic Colors" viewer at The Space Place, spaceplace.nasa.gov, to see places in the night sky through the eyes of many of these very special telescopes.

This article was written by Diane K. Fisher. It was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

This giant dish antenna is about the size of



a soccer field! It is part of NASA's Deep Space Network and is used to send and receive messages from its robotic space explorers.

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LIBRARY NEWS

By Gerry Carver

The year 2005 has been a quite one at the BBAA Library, probably too quite. Because of the lack of noise in the Library, your Librarian now takes the opportunity to make some announcements as we enter a new year.

First of all, I operate the Library on a rather informal basis for the benefit of the BBAA membership. I ask anyone checking out books or other media to provide their signature, telephone number, and e-mail address. The return date of the item is flexible depending upon the member's needs and the requests made by others for the same particular item. In 2005 such a policy worked very well since only one item was checked out from the Library during the entire year. The item was checked out in February and returned in November at the patron's discretion. As you can see, it was a quite year at the Library. The contents of the Library is listed at the BBAA website, <http://groups.hamptonroads.com/bbaa>. Of the items listed by the website, three items are missing since prior to 2005. These are - "Understanding the Universe: An Introduction to Astronomy, Part III" (two video tapes), the video tape titled "HST", and the book, Astrophotography for the Amateur by Michael Covington. If anyone has these items, their return would be appreciated.

The Library received two new book during 2005. Received in June was The Grand Tour: A traveler's guide to the solar system by Ron Miller and William K. Hartmann and in December The Astronomical League Planetary Nebula Club Observing Guide by Ted Forte assisted by several other BBAA club members. The Miller and Hartmann book was a promotional gift from the publisher, Workman Publishing Company which offers bulk purchase discounts to the club or its members. The book is a pretty eight by ten inch book of 295 pages printed on high quality paper which features quality astronomical art work and photography. To quote the publisher. "The Grand Tour is an astronomy classic that takes readers on an imaginative trip through every corner of the solar system. With revised and updated drawings of recent discoveries made by Voyager I and II, the Hubble Space telescope, the Mars Global Surveyor Mission, and other space initiatives. The Grand Tour is a dazzling journey that combines lush art and up-to-the-minute science. One hundred new paintings give travelers an unprecedented view of phenomena such as Saturn's rings from Saturn itself, the rusty red dune fields of Mars, the craters of

Mercury, and the Kuiper belt of planetesimals." Wow ????. The book is somewhat similar to The Universe and Beyond by Terence Dickinson which is also held by your BBAA Library. I like the Dickinson book better.

A real work of art is the Planetary Nebula Observing Guide. The guide is 86 pages of ordinary paper eight and one-half by eleven inches and spiral bound. The guide was donated to the Library by George Reynolds who was a participant in its creation. The guide is available for sale by the Astronomical League for \$12.00

and its purchase is required by those who aspire to complete the Planetary Nebula Observing Program. In its Introduction, the Guide advises the reader - "The list of 110 objects include examples of all the various classes of planetary nebula. You will see a wide variety of shapes... disks, rings, hour-glasses, and a multitude of irregular configurations and they will exhibit a wide range of brightness, from the showpiece objects to some of the faintest ghosts in the sky. Nearly every object on this list has been observed in 8-inch aperture or less. That's not to say it will be easy. A few of these objects may elude even experienced observers with large scopes. A narrow-band filter will be an essential accessory for most visual observers to complete this program; a few of the objects are all but invisible in less than pristine conditions without a filter." Approximately eighty percent of the objects are 10 magnitude or fainter so look for dark skies somewhere.

During my quite year, I found a book in the Library which was interesting to me. The book is small, five by seven inches and short, 57 pages. The book is Sun, Moon & Earth by Robin Heath. Mr. Heath is a mathematician from the British Isles. Whereas, I avoid math at every opportunity. His little book gives mathematical play to the motion of the Sun, Moon, and Earth. He introduces the Venus of Laussal, a nude human female figure carved/drawn circa 18,000 BC, linking the moon with the number 13. He tells us of scored animal bones of 40,000 BC which display lunar number cycles. He tells us how to construct a stone age calendar and eclipse predictor like Stonehenge. He tells about the astronomical design of the Great Pyramid and that Mayan megaliths had 364 steps to the high altar which then constituted 365 steps to the place of human sacrifice or other appropriate ceremony. Approximately one-half of the 57 pages are hand drawing by the author to illustrate his points. The book cover states "that it reveals the poetic cosmology that lies within the cycles of the Sun and Moon as seen

from Earth".

If you want to borrow an item from the Library, let me know via e-mail, telephone, messenger, or face to face, and I will respond when next we meet. My new e-mail (popcarg@aol.com). Most of the books and media held by the Library were donated to the Club by it members and former members. As you may know, BBAA is a tax-exempt educational organization and gifts to the Club of tangible property or money in a calendar year is deductible upon the donor's federal income tax return for the same calendar year.

Planetarium Info:

Chesapeake

"Astronomy for Everyone (An Introduction to Astronomy)"

If you have ever wanted to understand more about the night sky, this is a chance to expand your knowledge. This month you can explore the hobby of astronomy under the planetarium sky. Learn how telescopes function and how to read star maps and charts. The planetarium will become a classroom for budding astronomers...

For information call (757) 547-0153
For recorded message (757) 547-STAR

Virginia Beach

NASA's Discovery Program

This month we examine NASA's Discovery Program. This endeavor has been underway for many years and includes 10 missions to explore the far reaches of our solar system. Some have been successful while others have failed, and still others are unfolding in January 2006 and throughout the rest of this year. The Stardust mission returns to earth this month bringing with it material it collected from a comet, and the New Horizons spacecraft is scheduled to begin its long 10 year journey out to Pluto in January as well.

For information call (757) 431-4067

Su	M	T	W	Th	F	Sa
☾ ● 1	☾ ● ● 2	☾ ● ● 3 • Quadrantids peak	☾ ● ● 4	☾ ● ● 5 BBAA Meeting	☾ ● ● 6 • First Quarter Moon • (4) Vesta Opposition	☾ ● ● 7 GARDEN STARS Norfolk Botanical Gardens 7 p.m.
☾ ● 8 • Moon and Mars 26' apart	☾ ● 9	☾ ● ● 10	☾ ● ● 11	☾ ● ● 12	☾ ● ● 13 • Venus Inferior Conjunction • Full Moon	☾ ● ● 14
☾ ● 15	☾ ● ● 16	☾ ● ● 17	☾ ● ● 18	☾ ● ● 19	☾ ● ● 20 Skywatch NWRP 7.p.m.	☾ ● ● 21 • Third Quarter Moon Cloverwatch 6 p.m.
☾ ● 22	☾ ● ● 23	☾ ● ● 24	☾ ● ● 25	☾ ● ● 26 • Mercury Superior Conjunction	☾ ● ● 27 • Saturn Opposition	☾ ● ● 28 • New Moon Nightwatch Chippokes State Park 6 p.m.
☾ ● 29 • Moon and Mercury 2.7° apart	☾ ● ● 30	☾ ● ● 31	<p>Want to Join BBAA? Send your check for \$18 payable to "BBAA" to: P.O. Box 9877 Virginia Beach, VA. 23450-9877</p> <p>With your name, address, phone, and email address.</p>			