



BACK BAY observer

The Official Newsletter of the Back Bay Amateur Astronomers
P.O. Box 9877, Virginia Beach, VA 23450-9877

EPHEMERALS june 2012

06/04, 7:00 pm
Boardwalk Astronomy
Near 24th St Stage
VA Beach Oceanfront

06/05, 4:30 PM
Venus Transit
Mt Trashmore, VA Beach
Huntington Park, Newport News

06/07, 7:30 pm
BBAA Monthly Meeting
TCC VA Beach
Building J, Room JC-12

06/08
Skywatch
Northwest River Park

06/16
Nightwatch
Chippokes State Park
Surry, VA

06/22, 7:00 pm
Night Hike
Northwest River Park

06/29, 9:00 pm
Garden Stars
Norfolk Botanical Gardens



Looking Up!

It's finally here! The Venus Transit! Astronomers all over the world will be turning their telescopes sunward, trying to see the coveted moment when Venus makes first contact, and then that sad, sweet time when it touches the Sun for the last time until the next century.

And where will BBAA be? We will be on top of Mount Trashmore, seeing something that only our grandchildren and great-grandchildren will see next! I hope that this will be an opportunity to do some great outreach. This is an event that 75% of the public knows about, and they are already excited and waiting!

This is a short article, I know, but I hope that throughout this month, with the Transit, the start of summer and the weather warming that we will keep outreach in our minds and be ready to show off our stuff this summer!

Courtney Flonta, President

Welcome New Members!!

Alex Woronow

Victory Gatling

CONTENTS

Ephemerals	1
Looking Up	1
Meeting Minutes	2
NASA Space Place	4
ECSP Report	5
May Outreach Reports	6
Venus Transit Info	9
Calendar	10

BBAA Meeting Minutes

May 3, 2012

The Meeting at TCC classroom was called to order by president Courtney Flonta at 7:32PM. Those in attendance were: Neill Alford, Kenny Broun, Bob Beuerlein, Courtney Flonta, Bill Holmes, Curt Lambert, Matt McLaughlin, Bill Newman, Andrew Reisenweber, George Reynolds, Bernie Strohmeier, Kevin Swann, 'Bird' Taylor and Larry Wade.

Treasurer's report: \$2601.23 General Fund, \$2719.92 Scholarship Fund, \$5371.15 total.

Outreaches:

- The last Garden Stars had approximately 35 people in attendance. Courtney Flonta & George Reynolds were present. Viewing was Saturn, Venus, Mars & the Moon.
- Yuri's Night – had many clouds
- 4/14 Camp Silver Beach – Bird Taylor & Paul Tartabini attended. The event was for 5th graders. About 45-50 people were present. Bird recommends returning for a new moon. There are campers there all summer.

Schedule:

- May 18 Friday, Cub Scout Belt Loop @ New Life Presbyterian Church on Dam Neck rd (near Farmers' Market) 8:15PM to 10:15PM
- May 19 Saturday, Nightwatch @ Chippokes
- May 25 Friday, Night Hike @ Northwest River State Park, 7PM
- May 25 Friday, Garden Stars @ Norfolk Botanical Gardens
- May 26 Saturday, Chippokes presentation – tentative primary
- June 4 Monday, Boardwalk Astronomy @ VA Beach boardwalk, 6PM
- June 5 Tuesday, Venus Sun Transit 5:03PM until Sunset. Will not happen again until 12/11/2117! TCC scope will be operational for this event.
- June 8 Friday, Skywatch @ Northwest River State Park, Equestrian area, 7PM
- June 16 Saturday, Nightwatch @ Chippokes
- June 22 Friday, Night Hike @ Northwest River State Park, 7PM
- June 29 Friday, Garden Stars @ Norfolk Botanical Gardens
- June 30 Saturday, Chippokes presentation – tentative alternate
- July 3 Tuesday, Boardwalk Astronomy @ VA Beach boardwalk
- July 13 Friday, Skywatch @ Northwest River State Park, Equestrian area, 7PM
- July 14 Saturday, BBAA family picnic, (location TBD) 11:30 AM to 3:00 PM.
- July 20 Friday, Night Hike @ Northwest River State Park, 7PM
- July 21 Saturday, Nightwatch @ Chippokes
- July 27 Friday, Garden Stars @ Norfolk Botanical Gardens
- July 31 Tuesday, Boardwalk Astronomy @ VA Beach boardwalk
- August 10 Friday, Skywatch @ Northwest River State Park, Equestrian area, 7PM
- August 18 Saturday, Nightwatch @ Chippokes
- August 24 Friday, Night Hike @ Northwest River State Park, 7PM
- August 24 Friday, Garden Stars @ Norfolk Botanical Gardens
- August 25 Saturday, Science Saturday, Blackwater Regional Library, Carrollton, VA, 10-11AM
- August 27 Monday, Moon Watch, Princess Anne library (Nimmo pkwy), 6:30-7:30PM
- August 28 Tuesday, Boardwalk Astronomy @ VA Beach boardwalk
- September 6 Thursday, monthly meeting @ TCC
- September 7 Friday, Skywatch @ Northwest River State Park, Equestrian area, 7PM
- September 15 Saturday, Nightwatch @ Chippokes
- September 21 Friday, Night Hike @ Northwest River State Park, 7PM
- September 21 Friday, Garden Stars @ Norfolk Botanical Gardens
- September 25 Tuesday, Boardwalk Astronomy @ VA Beach boardwalk
- June 20's Green Bank star party

New Guest: Andrew Reisenweber, USAF transfer from Las Vegas

Old Business:

- Larry Wade asked if we should incorporate. He has all the information. George Reynolds suggested we discuss at a future meeting with larger attendance.
- Kenny Broun mentioned the 20" scope at TCC is down for repairs. The wire got wrapped around it.
- The TCC planetarium is now fixed but lacks calibration. This is done remotely.

New Business:

- President Courtney motioned & Kenny Broun seconded to publish the fact that the Vice President is the BBAA official outreach coordinator. It should be posted on the web pages & changed on our pamphlets.
- To prepare for Venus transit 6/5, you can get welding goggles from local company ARCET (it only takes a few minutes to establish an account to purchase from them), or get welding lenses from "Harris" on Ebay.

Continued on page 5

The Back Bay Amateur Astronomer's

Observer

The BBAA Observer is published monthly; the monochrome version is mailed to members who do not have internet access. Members who do have Internet access can acquire the full color version on the Internet at <http://www.backbayastro.org/newslettersnewsletter.shtml>

Please submit articles and items of interest no later than the 15th of the month for the next month's edition. Please submit all items to: paultar@gmail.com or BBAA Observer, P.O. Box 9877, Virginia Beach, VA 23450-9877

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BBAA Meetings

The BBAA meet the first Thursday of every month except for July. While school is in session, we meet at the VA Beach TCC Campus. The May meeting will be held at TCC in Virginia Beach, Building J, Rm JC-12 at 7:30 pm. Directions available at www.backbayastro.org.

BBAA Internet Links

BBAA Website
www.backbayastro.org

Yahoo! Groups
tech.groups.yahoo.com/group/backbayastro

BBAA Observer Newsletter
www.backbayastro.org/observer/newsletter.shtml

Meeting Minutes, continued from page 2

- Auto darkening lenses are not recommended due to range only up to shade 13 max. you should have shade 14.
- You can also project onto a white board but remember, your secondary & tertiary lenses can get very hot & even possibly melt the glue off causing your lens to fall off! For further information ask someone in the club or Google "camera obscura". A funnel & standard projector screen can also be used. You can also use Baader solar film because it produces no ghosting but is very fragile.
- Before the presentation we viewed Astronomy picture of the day from 5/1. It was a comic style

short video called "Dark Matters" by PhD comics. It was very educational about quarks & leptons that gave an entry level understanding on the subject.

- The evening presentation was Astronomy Magazine's "Infinite Cosmos" / Gravity chapter 1, Life & Death of Stars.

Observers Report:

Bird Taylor says the sun is very active and has good sunspots.

The meeting was adjourned at 9:15 pm.

Thank Goodness for Magnetism

By Dr. Tony Phillips

Only 93 million miles from Earth, a certain G-type star is beginning to act up.

Every 11 years or so, the solar cycle brings a period of high solar activity. Giant islands of magnetism—"sunspots"—break through the stellar surface in increasing numbers. Sometimes they erupt like a billion atomic bombs going off at once, producing intense flares of X-rays and UV radiation, and hurling massive clouds of plasma toward Earth.

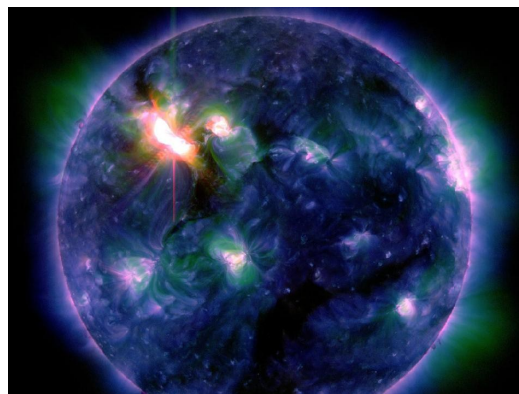
This is happening right now. Only a few years ago the Sun was in a state of deep quiet, but as 2012 unfolds, the pendulum is swinging. Strong flares are becoming commonplace as sunspots once again pepper the solar disk. Fortunately, Earth is defended from solar storms by a strong, global magnetic field.

In March 2012, those defenses were tested.

At the very beginning of the month, a remarkable sunspot appeared on the Sun's eastern limb. AR1429, as experts called it, was an angry-looking region almost as wide as the planet Jupiter. Almost as soon as it appeared, it began to erupt. During the period March 2nd to 15th, it rotated across the solar disk and fired off more than 50 flares. Three of those eruptions were X-class flares, the most powerful kind.

As the eruptions continued almost non-stop, Earth's magnetic field was buffeted by coronal mass ejections or "CMEs." One of those clouds hit Earth's magnetosphere so hard, our planet's magnetic field was sharply compressed, leaving geosynchronous satellites on the outside looking in. For a while, the spacecraft were directly exposed to solar wind plasma. Charged particles propelled by the blasts swirled around Earth, producing the strongest radiation storm in almost 10 years. When those particles rained down on the upper atmosphere, they dumped enough energy in three days (March 7-10) to power every residence in New York City for two years. Bright auroras circled both poles, and

Northern Lights spilled across the Canadian border into the lower 48 states. Luminous sheets of red and green were sighted as far south as Nebraska.



Multiple-wavelength view of X5.4 solar flare on March 6, captured by the Solar Dynamics Observatory (SDO) in multiple wavelengths (94, 193, 335 angstroms). Credit: NASA/SDO/AIA

When all was said and done, the defenses held—no harm done.

This wasn't the strongest solar storm in recorded history—not by a long shot. That distinction goes to the Carrington Event of September 1859 when geomagnetic activity set telegraph offices on fire and sparked auroras over Mexico, Florida, and Tahiti. Even with that in mind, however, March 2012 was remarkable.

It makes you wonder, what if? What if Earth didn't have a magnetic field to fend off CMEs and deflect the most energetic particles from the Sun.

The answer might lie on Mars. The red planet has no global magnetic field and as a result its atmosphere has been stripped away over time by CMEs and other gusts of solar wind. At least that's what many researchers believe. Today, Mars is a desiccated and apparently lifeless wasteland.

Only 93 million miles from Earth, a G-type star is acting up. Thank goodness for magnetism.

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

East Coast Star Party Report

May 18-21, 2012, Coinjock, NC

I want to thank everyone who showed up for the May 2012 ECSP. Attendance was down a bit, perhaps due to Mother's Day Weekend. Those who did come were treated to mostly clear skies Thursday night, spectacular skies Friday night and fair skies Saturday night. The view of Omega Centauri rising 4-degrees above the southern horizon was unforgettable. Watching the moonrise over the Currituck Sound Thursday and Friday nights was also memorable.



The Milky Way, taken from the East Coast Star Party by Keegan Morrison (<http://keeganm.com>).

We all agree the stars are not the only reason we attend the party. It's the people who make the difference. I owe a huge amount of gratitude to Roy & Dee Diffrient. Dee's Friday night spaghetti is now legendary. They drive a considerable distance from Monkton, MD as well. This year, we even had a nice couple that drove 12 hours from upstate New York. They had read good comments on the internet about East Coast Star Party and decided to attend. They said they would definitely return again for the next party.

Thanks also to those who contributed at the cookout. Each year the quantity of food seems to grow more and more. ECSP is certainly not a star party one walks away from weighing less than when one arrived. Except maybe Kent!

A bit of discouraging news is when Bob Hitt was driving home Sunday he hit a deer,

severely damaging his new Sante Fe SUV and killing the deer. Fortunately, Bob was not hurt. I hope to see you all in the Fall.

Kent Blackwell



Kent Blackwell and Georgie June enjoying a Margarita at the May 2012 East Coast Star Party.



At the ECSP, the Friday night dinner featuring Dee Diffrient's famous spaghetti is as popular with party-goers as Coinjock's 6th magnitude skies.

My First Star Party

By Nick Anderson

The recent East Coast Star Party was the first star party I had ever attended...and what a wonderful weekend it was. We all had very memorable views of many deep sky objects, some of the highlights being M51 (Whirlpool Galaxy) and M101 (Pinwheel Galaxy) in Kent's 25-inch.

Continued on page 7

BBAA Outreach Reports

Club members were busy sharing the sky during May

If you've followed the recent conversations at meetings or in the minutes regarding Garden Stars, BBAA's ongoing outreach event that is held at the beautiful Norfolk Botanical Gardens (NBG) each month, then you know that it has been awhile since this event has happened. The main reason being a low number of signups due to a lack of promotion by NBG.

A number of BBAA members have a special place in their heart for Garden Stars, and were determined to see it return. These dedicated folks made posters, brainstormed ideas to make the event less expensive and coordinated with NBG to increase interest. Thanks to their efforts, Garden Stars did return on May 25.

So how exactly did the first Garden Stars after the long hiatus go? Fortunately, George Reynolds gives us a well written answer. Also included are other reports from outreach powerhouses, Jim Tallman and Kent Blackwell. The enjoyment and satisfaction that each of these members receive from sharing the wonders of Astronomy with the public leaps off the page. If you haven't participated in one of these events, consider helping out in the future.

A Return to the Garden

By George Reynolds

We had a great "Garden Stars" event tonight, Friday, May 25 at the Norfolk Botanical Garden. About 16 people showed up, as well as six more of us BBAA members, with four telescopes. I kicked off the evening by introducing my slide show, *Animal Constellations*. About four slides into it, Matt McLaughlin burst in exclaiming, "We have Venus in our scopes, just above the trees. Better come out and see it while you can." So we all trooped out to observe a thin crescent Venus. It looked like a tiny replica of the crescent Moon above and to the east. People "oohed" and "aahed" to realize that Venus has phases like our Moon.

Back inside the classroom visitors were treated to representations of the 44 animal constellations -- fully half of the 88 official constellations are named after animals. We saw four-footed beasts, birds, sea creatures and snakes, insects, and mythical

creatures. After the slide show we went out and looked through the telescopes. Neill Alford had his 12-inch Dob, Matt McLaughlin his six-inch Starblast, Bill McLean his little SCT, and I had my Orion Short tube 80-mm refractor.

We viewed the crescent Moon with its craters and mountains showing in stark relief, tiny red-orange Mars high up in Leo, and Saturn in proximity to Spica in Virgo. I pointed out the Big Dipper, the Little Dipper and the North Star, and showed our guests how to follow the curve in the Big Dipper's handle to "arc to Arcturus, then spike to Spica".

We had a drawing for door prizes, and one lady won the current issue of Astronomy magazine, another lady won a copy of Starry Night software for her computer, and a young man received a large David Levy planisphere. After a brief Q&A session back inside the classroom, we packed up and went home, with another successful Garden Stars completed. Many thanks to Amy at the Garden, who coordinated the event, and much thanks to Bill, Matt, and Neill for bringing their scopes. Dino and Mary Giangregorio added their expertise and helped visitors understand what they were seeing.

Sharing Views of Saturn

By Kent Blackwell

I showed Saturn to 30 adults and children with developmental disabilities last night (May 24) at the Chesapeake Planetarium, and they were all overwhelmed. Despite rather lousy weather from a stalled front, the sky had occasionally cleared the past few evenings. Although transparency hadn't been great, the seeing was marvelous. Saturn was just beautiful, and more than one guest stated, "You have picture in there, don't you?" Cassini's Division and four of Saturn's moons were easily visible. It does one's heart good to show such a beautiful sight to an appreciative audience.

Night Hiking with the Stars

By Jim Tallman

The Night Hike event at Northwest River Park on May 25 was a lot of fun. I was glad that all went well since this was my first time doing this event. It was just Bill Newman and myself, ready to share some views of the night sky with the Hikers and determined to not feed the plentiful mosquitoes that were actually pretty big.

Continued on page 7

BBAA Outreach Reports, continued from page 6

We met at around 6:15 pm and headed down to the South Terminal where, after finding a fairly dry spot, we began to set up. Since I had the Celestron 8" SCT with me we were able to align on the moon and look at Venus for a bit which was really awesome, just a tiny sliver of light in its crescent. We even took a look at Castor again in the daylight and were able to split it nicely, as

As we waited for the hikers, we realized that there were a number of people around who had happened to be walking or fishing near where we were, so we ended up doing a little show and tell for them. The group was excited to see Saturn, Mars and the moon.

The hikers finally arrived around 8:00 pm and it was just dark enough to start seeing most of the brighter stars. This second group of about 20 was a mix of families with small children and older folks who were enjoying their visit. Bill and I each took different objects and started to get the scope set for the hikers. We showed them Saturn, Mars, the Moon, Mizar, and the globular cluster, M3. As the event was winding down I tried to get the Leo Triplet in the eyepiece but was only able to see M66 and M65, as there was just a bit too much sky glow to see the much fainter NGC 3628; but we tried. I'm not sure how many faint fuzzies the guests could pick out, but it was fun trying.

My First Star Party, continued from page 5

In my 8-inch scope I was finally able to observe two spectacular southern hemisphere objects in Centaurus: NGC 5128 (Centaurus A) and NGC 5139 (Omega Centauri). I was set up away from the main group so that I could get a clear view of the southern horizon. Against conventional wisdom, we were actually able to see Omega Centauri with the unaided eye! The view through my telescope was mind-blowing! It was resolvable at low power (48x) and looked like static because of the high stellar density.

My first star party was quite memorable and even had an "exciting adventure." I'll elaborate.

At the start of the final night, we were bombarded with clouds, so I opted to stick with the main group while hoping for clearer skies. As it started to get chilly once the Sun had set, I went back to my tent to grab a light jacket sometime between 9:00 and 9:30 pm. I also checked on my telescope to see that it was undisturbed. Later, when I checked on it again at 11:00 pm, I thought it was unusual that I couldn't find my telescope with my red light. Then I realized the problem...it wasn't there!!! I quickly went back to tell the main group. After the two seconds it took for everyone to appreciate that I was being serious, I could tell by the silence that everyone's hearts had just skipped a beat.

We all went as a group to try and find my missing scope. After searching in vain, even though it seemed inconceivable, we assumed it had been stolen. Disappointed, we all headed

back to the main observing area. By this point my mind was racing with thoughts of despair. After all, astronomy is currently my greatest passion in life and even though taking away my telescope wouldn't end that, I was still heartbroken!

After who knows how long (you tend to lose track of time when something like this happens), someone said that they had located a lone scope hidden in a nook in the trees. We were all relieved to see that it was indeed my scope, and that nothing was out of place. However it was bizarre that the Dobsonian's optical tube was pointed downwards. The way I see it, either the scope was moved by someone that thought they were doing me a favor, or it was a prank. Even though I am curious with what actually happened, at this point I don't really care and I'm just glad to be reunited with my scope.

I later overheard that if my scope had actually been stolen that night, my star party buddies would have made sure I had a scope the following night, even if it meant completely replacing it at their own expense. It was really heartwarming to see that my new friends would have actually contributed towards replacing my scope.

Even though my scope was ultimately found, you all have my most sincere thanks.

Getting Ready for the Venus Transit

June 5, 2012

If you are an avid amateur astronomer, then you've probably been waiting for June 2012 for a long time. On June 5, Venus will transit the sun, an event that won't happen again until 2117 and has only happened seven times since the telescope was invented. Indeed, if you view the transit, you'll see something truly rare, an event that has eluded even the most famous of Astronomers like Edmond Halley.

BBAA Members have at least two locations where they can view the transit with other club members. Details are provided here for viewing

at Mt. Trashmore on the Southside and Huntington Beach Park on the Peninsula. Also included are safety & observing tips from fellow club members.

Caution!

Never look directly at the Sun, even for a second! It will damage your eyesight forever!

To view a Venus transit or a solar eclipse, use special solar viewing glasses. Get them from a camera store or online.

Welding goggles will also work (rated 14 or higher)

Sunglasses DO NOT WORK. Even if you stack many of them together.

Transit Viewing at Mt. Trashmore

Dale Carey and a few others are setting up on top of Mt. Trashmore to view this last ever (in our lifetime or our kids lifetime) event. Mt. Trashmore is off S. Independence Blvd.

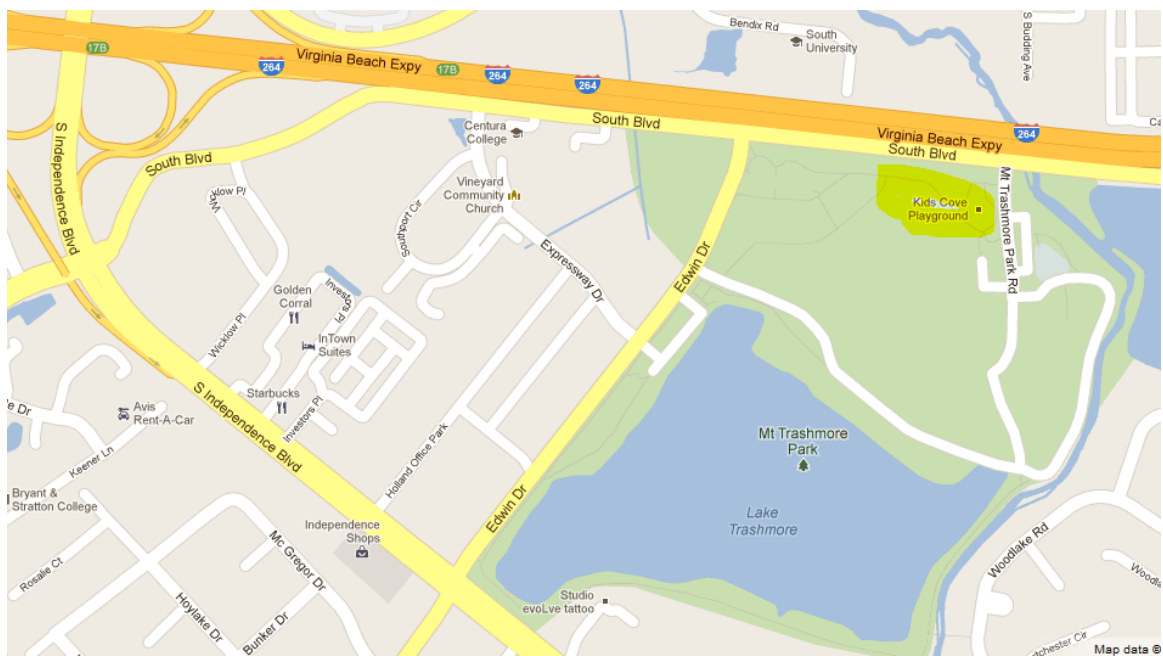
Dale plans on arriving at the park between 4:00 and 5:00 pm. BBAA club members and their family and friends are invited to join them and are welcome to bring their own equipment. If you don't have any equipment, or only a small amount, come anyway because Dale and his crew are glad to share their views.

Transit observers should park in the lot in front of the park that faces I-264 and take the

stairs up to the top of Mt. Trashmore.

Dale is planning on parking by the kids playground (also facing I-264) and will be pulling his wagon full of equipment from there. He will have his Coronado 60 set up along with a white-light filter as well as a couple pair of viewing "glasses" to see if anyone can spot Venus' silhouette with only their unaided eye.

Public interest is extremely high for this event, and Dale has indicated that the local news station called and wanted to know where they could film the transit and interview people observing it. So, come and lend your expertise so everyone can enjoy this rare event!



Transit Tips from BBAA Members



A practice image taken by Chuck Jagow in preparation for the June 5 Venus Transit. The image was captured with Chuck's 80mm Orion Semi-Apo attached to an iOptron Mini-Tower. He used ASA 100 at 1/500th of a second for the exposure. With this outstanding "practice" image, let's hope the clouds stay away on June 5 so we can see the money shot!

Just a quick note for solar observers. If you have an old mylar filter with some miles on it, look hard at the filter to see if there are any spots that show wear. I learned that lesson a couple of years ago as I had a Baader that developed a bad spot. I knew something was wrong the moment I put my eye to it; no doubt. Did no injury, but you could feel the heat on the eye. If in doubt, don't. New or glass filters should not have this problem but old mylar can get defects after a few years of wear. Take just a moment to check before use, and have fun at the transit! - *Mark Ost*

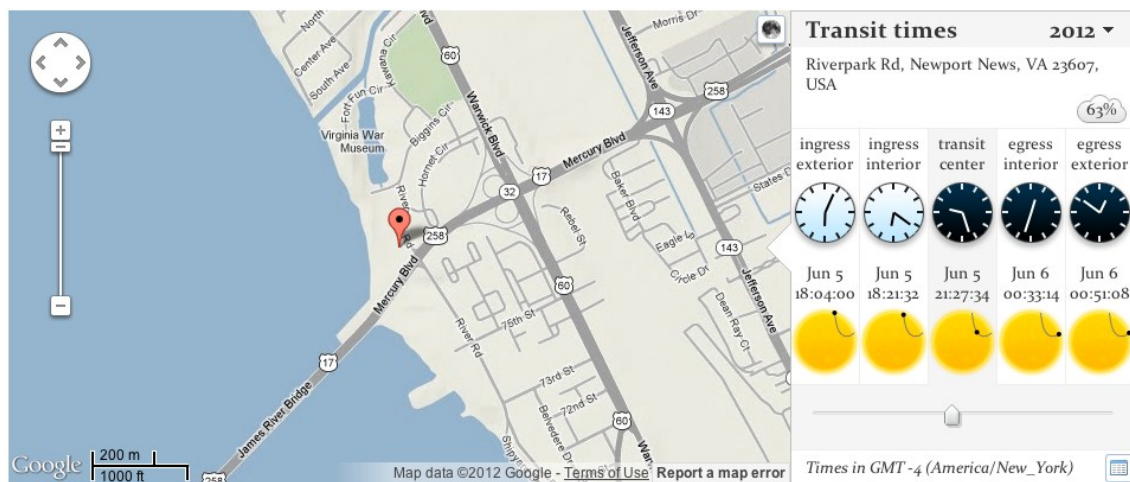
I just discovered that the Astronomical League has a Venus Transit program that is easy to snag! Go to the AL site to get the rules. - *Jim Tallman*

http://astroleague.org/PlanetaryTransit_Venus2012

Observing the Transit on the Peninsula

BBAA Member, Bird Taylor is organizing a Transit observing session on the Peninsula at Huntington Beach Park in Newport News that is free and open to everyone. Huntington Park Beach is at the Northwest end of the James River Bridge. Take a right at the light before the James River Bridge and keep taking lefts until you see Bird and the others. Follow signs to the Crab Shack / Fishing Pier / Huntington Park. They'll be in the parking lot that is adjacent to the beach and is shared with the Crab Shack restaurant.

Bird will have a hydrogen-alpha scope, a Baader AstroSolar film scope, a projection image with the Astroscan, and a few pairs of #14 welding goggles. A number of other BBAA folks are planning on being there as well as members of the Virginia Peninsula Astronomy Stargazers (VPAS). If the weather doesn't cooperate, we can even use the free wi-fi in the Crab Shack to watch it on our iPads.





June 2012

BBAA Events	Special Outreach	Astronomical Events
7 BBAA Meeting	4 Boardwalk Astronomy	3 Full Moon
8 Skywatch at NWRP		5 Transit of Venus
		10 Last Quarter
16 Nightwatch @ Chippokes State Park		18 New Moon
	22 Night Hike @ NWRP	20 Summer Solstice
29 Garden Stars at Norfolk Botanical Gardens		26 First Quarter

Sneak Peek into July

Tue 07/03/2012 Boardwalk Astronomy, Virginia Beach Boardwalk near 24th street stage, 7:00 pm
 Fri 07/13/2012 Skywatch at Northwest River Park
 Fri 07/14/2012 BBAA Family Picnic, Location/Time TBD
 Fri 07/20/2012 Night Hike at Northwest River Park, 7:00 pm
 Sat 07/21/2012 Nightwatch at Chippokes State Park, Surry VA.
 Sat 07/27/2012 Garden Stars at Norfolk Botanical Gardens, 9:00 pm

