

BACK BAY observer

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



EPHEMERALS february 2011

2/03

Monthly BBAA Meeting

TCC Virginia Beach

Planetarium

7:30 PM

2/05

Nightwatch

Chippokes State Park

Surry, VA

2/11

Garden Stars

Norfolk Botanical Gardens

7:00 PM

2/25

Skywatch

Northwest River Park

7:00 PM

Looking Up!

Greetings, All! A belated Happy New Year. Sorry I missed the last meeting; I wasn't able to drive after my rotator cuff surgery. I hear that our Vice President, Courtney Flonta, did a fine job of filling in for me. I still had my right arm strapped up to a foam wedge and the Doctor wouldn't clear me to drive. I did return to work on the 10th with just a sling and could drive left handed (somewhat) from that point. I'm out of braces & slings now but still doing physical therapy three days a week.

Having missed all of the events since our luncheon in December, I don't have any info on attendance. The skies for January 28th's Skywatch were supposed to be fairly good, but I didn't see any observing reports about it. This month's Skywatch is on the 25th, a Friday, of course, and is a day after the last quarter Moon.

According to *Sky & Telescope*, Jupiter and the crescent Moon will only be about 6 degrees apart on February 6. It might be a challenge to try to get them both in the same field of whatever binoculars you may have. I know that my monster 25x100s couldn't do it. Their field is only about 3 degrees. You might be able to get them both in 7x35's or something on that range of size. I really don't know how to figure out the field of view for binocs. Do one of you know? (See "Reiteration" note, below).

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Planets in Strange Places

by Trudy E. Bell

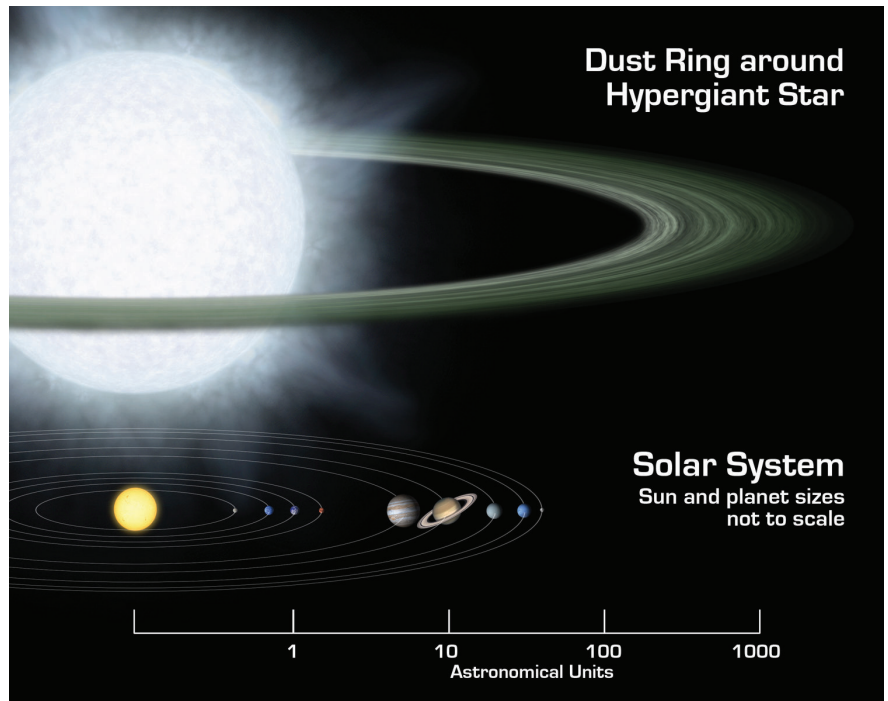
Red star, blue star, big star, small star—planets may form around virtually any type or size of star throughout the universe, not just around mid-sized middle-aged yellow stars like the Sun. That's the surprising implication of two discoveries in 2006 from the 0.85-meter-diameter Spitzer Space Telescope, which is exploring the universe from orbit at infrared (heat) wavelengths blocked by the Earth's atmosphere.

At one extreme are two blazing, blue "hypergiant" stars 180,000 light-years away in the Large Magellanic Cloud, one of the two companion galaxies to our Milky Way. The stars, called R 66 and R 126, are respectively 30 and 70 times the mass of the Sun, "about as massive as stars can get," said Joel Kastner, professor of imaging science at the Rochester Institute of Technology in New York. R 126 is so luminous that if it were placed 10 parsecs (32.6 light-years) away—a distance at which the Sun would be one of the dimmest stars visible in the sky—the hypergiant would be as bright as the full moon, "definitely a daytime object," Kastner remarked.

Such hot stars have fierce solar winds, so Kastner and his team are mystified why any dust in the neighborhood hasn't long since been blown away. But there it is: an unmistakable spectral signature that both hypergiants are surrounded by mammoth disks of what might be planet-forming dust and even sand.

At the other extreme is a tiny brown dwarf star called Cha 110913-773444, relatively nearby

(500 light-years) in the Milky Way. One of the smallest brown dwarfs known, it has less than 1 percent the mass of the Sun. It's not even massive enough to kindle thermonuclear



Artist's rendering compares size of a hypothetical hypergiant star and its surrounding dusty disk to that of our solar system.

reactions for fusing hydrogen into helium. Yet this miniature "failed star," as brown dwarfs are often called, is also surrounded by a flat disk of dust that may eventually clump into planets. (This brown dwarf discovery was made by a group led by Kevin Luhman of Pennsylvania State University.)

Although actual planets have not been detected (in part because of the stars' great distances), the spectra of the hypergiants show that their dust is composed of forsterite, olivine, aromatic

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/newsletters/newsletter.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: BBAAErica@yahoo.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 February Meeting will be held at TCC Virginia Beach Planetarium at 7:30 PM.** Directions available at www.backbayastro.org.

BBAA Internet Links

BBAA Web Site

<http://www.backbayastro.org>

Yahoo! Group

<http://tech.groups.yahoo.com/group/backbayastro>

BBAA Observer Newsletter

www.backbayastro.org/observer/newsletter.shtml

Space Place, continued from page 2

hydrocarbons, and other geological substances found on Earth.

These newfound disks represent "extremes of the environments in which planets might form," Kastner said. "Not what you'd expect if you think our solar system is the rule."

Hypergiants and dwarfs? The Milky Way could be crowded with worlds circling every kind of star imaginable—very strange, indeed.

Keep up with the latest findings from the Spitzer at www.spitzer.caltech.edu. Kids and their grownup friends can enjoy beautiful images from Spitzer while playing Spitzer Concentration at The Space Place (spaceplace.nasa.gov/en/kids/spitzer/concentration).

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



Welcome New Members!

Looking Up! Continued from page 1

The meteor shower outlook is pretty week for February. The American Meteor Society website (www.amsmeteors.org) lists the Alpha Centaurids which maxes on Feb 8. With a declination of -57 degrees, and an hourly rate of 1 or less, it's doubtful that it would be worth looking for, but one never knows.

S&T also reports that February 19 to March 6 may be a good time to see the zodiacal light, if you happen to be in a dark location and have a view of the western horizon.

On the 20th to 21st, Saturn, Spica, and the gibbous Moon will form an almost equilateral triangle. (Info also courtesy of S&T.)

Some early news of events to put on your calendar: Third Annual Mt. Trashmore Star Party will be April 15 and Yuri's Night is the next night, the 16th. Yuri's night is a great space-themed party at the Virginia Air & Space Museum in downtown Hampton. This is a grown-ups party, not for the younger set. Our friends in the VPAS arrange to have a number of scopes for attendees to look thru. George Reynolds and I were there last year. He had his Dob and I set up my then-new 25x100s. Jupiter will be out of sight by then, but we may be able to target Saturn.

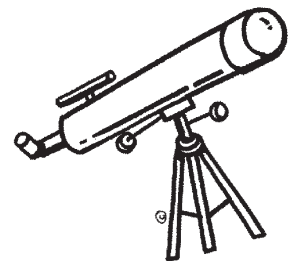
Reiteration of the Special Note from last month
George Reynolds created a calendar for presentations in our Yahoo! Group web page. I see that we have a sign-up for March. We are looking for some members to share their knowledge. I know that many of you are well-versed in areas of our hobby that others will also find interesting. Let's get "clicking" on this! I know you all really don't want me to do my stand-up comedy routine! Or, then there is always 'The Sky at Night' !

In Memoriam

On a sad note, we lost a fellow astronomer recently. Mr. Cecil E. Nichols passed away in January at the young age of 81. He was a former NASA scientist and reportedly a member of our club some time back. George Reynolds and Bruce Bodner donated their time and effort to helping Cecil's daughters organize and pack several scopes. Raise a toast to a fellow astronomer: Back to the Stardust, Cecil!

Mark Gerlach

Mark Gerlach



Star Light, Star Bright

George Reynolds

Remember that children's rhyme? "Starlight, Star bright, first star I see tonight; I wish I may, I wish I might, have this wish I wish tonight." I think the wish of most amateur astronomers is for clear skies, with no rain, no clouds, no bugs, no light pollution, and no cold weather.

But has anyone ever asked you, "What is the brightest star in the sky?" I sometime ask this question of the audience when at an outreach event. Invariably, someone volunteers the answer, "The North Star".

Is the North Star, Polaris, the brightest star in the sky? Not by a long shot! It is a common misconception, of people who are unfamiliar with the night sky, because it is probably the most well-known of the stars. I explain that the North Star is important for its location almost directly above the North Pole, and invaluable for navigation (at least before the GPS era), but it is not even among the forty brightest stars in the sky.

To answer the question, the star Sirius in the constellation Canis Major, the Big Dog, is the

BBAA Meeting Minutes: January 6, 2011

The January, 2011 meeting was called to order at 7:30 p.m. by Vice President Courtney Flonta. President Mark Gerlach had undergone shoulder surgery and cannot drive. Those in attendance were Neill Alford, Jordan Bramble, Gerry Carver, Nick Depaulo, Chuck Dibbs, Elizabeth Dougherty, Kevin Dougherty, Courtney Flonta, Jeff Goldstein, Chuck Jagow, Curt Lambert, Ben Loyola, Matt McLaughlin, Bill Newman, George Reynolds, Mark Shaw, Kevin Swann, Jim Tallman, and "Bird" Taylor.

Treasurer's report: General Fund, \$3297.80; Scholarship Fund, \$3686.12; total, \$6983.92.

Secretary's report: The membership list is in the process of being updated. There are approximately 100 members at present. Many members' expiration date is 12/31/2010.

Georgie June, who has vigorously performed the duties as ALCOR (Astronomical League Correspondent) has turned that job over to Bill McLean. Thank you, Georgie, for all your hard work and "cheerleading". There was no ALCOR report, since Bill was not at the meeting.

Chuck Dibbs introduced a fellow teacher at Plaza middle School, Mark Shaw, who visited tonight's meeting and joined the club afterwards.

New business: Courtney reported that BBAA got a request from the Great Bridge Kiwanis Club for a member to make a presentation to one of their Tuesday morning breakfast meetings. George Reynolds volunteered, since he is retired. Courtney will tell the Kiwanis point of contact to get in touch with George. There was some discussion of obtaining a dark sky observing site similar to Chiefland, Florida. Chuck Jagow told about visiting such a site in San Diego and obtaining information about it from the San Diego astronomy club. Jim Tallman suggested that a separate meeting be convened of just the

people interested in pursuing such an option.

The office of BBAA librarian is available for a new volunteer. Gerry Carver, who has ably filled this position for many years, would like to step down. The BBAA library list is posted on the BBAA Web site. Any member wanting to check out a book should contact the librarian, who will bring that book to the next meeting.

A database in Backbayastro has been established for members to volunteer to present a monthly meeting feature. Please sign up on the database with the date and subject you would like to present.

Jeff Goldstein gave a presentation on SLOOH remote observing and astroimaging. Jeff joined SLOOH online between 5 and 7 years ago, and has taken hundreds of astroimages, using the remote telescopes in the Canary Islands, Chile, and Australia. He showed the online SLOOH interface and demonstrated how to reserve time on one of the scopes, and how to observe and take pictures. Jeff showed many of the pictures he has taken over the years, including M37, the "Gold dust Cluster", and M51 the Whirlpool Galaxy, with a supernova that occurred there back in June-July 2005.

Jeff showed how he detected the elusive former planet Pluto by taking pictures on successive nights and then "blinking" them to compare and see which object appeared to move. He passed out handouts explaining SLOOH and illustrating how to find Pluto.

The meeting was adjourned at 8:52 p.m. by Vice President Courtney Flonta.

Master Plan Released for Back Bay Wildlife Refuge

George Reynolds

Several years ago, Dale Carey, Bruce Bodner, and I attended a public meeting sponsored by the U.S. Fish and Wildlife Service to help provide input for an updated 15-year management plan for the Back Bay National Wildlife Refuge. That planning process went on for years, and finally they have released their "master plan", which is called the CCP - Comprehensive Conservation Plan.

The comments they received from us and others in the community included such topics as wetlands, habitat diversity, public participation (like stargazing and hiking), hunting, and other public uses. An evaluation of all the comments received and the responses to them are

included in an appendix to the CCP. Under the new 15-year plan, they say they will enhance the conservation of wildlife through habitat management, as well as provide additional visitor opportunities. Public use would be enhanced through the expansion of current activities, such as the deer hunt, and addition of new activities and facilities including waterfowl hunting, hiking trails, and a medium-sized headquarters/visitor contact station at a new location.

The whole CCP may be viewed online at this Web address: http://www.fws.gov/northeast/planning/Back_Bay/ccphome.html. Interested parties may obtain a printed copy or a CD version by contacting the refuge headquarters. Their contact info is as follows: <http://www.fws.gov/northeast/backbay> online, or by telephone at 757-721-2412 or by email at fw5rw_bkbnwr@fws.gov. The mailing address is Back Bay NWR, U.S. Fish and Wildlife Service, 4005 Sandpiper Road, Virginia Beach, VA 23456-4325.

Remembering Cecil E. Nichols

George Reynolds

Former BBAA member Cecil E. Nichols Jr., 81, passed away Jan. 20, 2011. He had worked for many years as an engineer for NASA and was an instrumental part of the space program including the Viking mission to Mars. He enjoyed his retirement as a gentleman farmer in scenic Pungo. He volunteered his time playing music with his friends at local senior care centers. An accomplished musician, he shared his love of classical music with family and friends.

He was also an avid amateur astronomer and a former member of the Back Bay Amateur Astronomers club. He left an abundance of telescopes and accessories to his five daughters.

After a courageous battle with a recently diagnosed heart condition, he passed away peacefully surrounded by his loving family. Left to cherish his memory are his wife, Agnes Shealy Nichols; and five daughters, Beth (Wally) Metzen, Deborah Nichols, Karen (Karl) Hoopes, Kristin (John) Kazenas and Angela Nichols; six grandchildren and four great-grandchildren. He was predeceased by his parents, Cecil and Mable Nichols. A celebration of Cecil's life was held Saturday, Jan. 22, in the Altmeyer Funeral Home, Southside Chapel.

In lieu of flowers, memorial contributions may be made to Cecil's favorite charity, Abundant Joy and Blessings, c/o: Kristin Kazenas, 319 S. Walnut St., Itasca, IL 60143. Condolences may be shared with the family at www.altmeyer.com.



"Doc" Bruce and I had an adventure Wednesday morning, Jan. 26. We trekked out to the hinterlands of Pungo in the south of Virginia Beach to help the daughters of the late Cecil Nichols organize and dispose of his astronomy equipment. It took us a good three hours to get it all together, inventory it, explain to the two sisters Beth and Kristin (from Minnesota and Illinois, respectively) what accessories go with which scope, and package some of it for shipping and carry the rest away to sell.

One scope was a Meade LX200GPS, an 8-inch scope, tripod-mounted on a 3-wheeled Scope Buggy. That scope will stay for one of the other sisters who lives locally. We found all the parts that go with it, and grouped them all together with the scope. All the sisters divvied up the scopes, and each got one, to do what they want with it. Karen, from Denver, CO, had already returned home, taking an Orion ShortTube 80 refractor with her. One of the local sisters will get a Meade 4" iOptron scope with mount and accessories. Beth will take a 6" Meade Lightswitch smart scope with her. Beth and Kristin asked Bruce and me if we could sell the rest of the equipment and remit the money to them, keeping 10% as a donation to the club. I will post a list of the available equipment, and offer it first to BBAA and backbayastro members. Anything not sold to local folks will be offered on AstroMart.

A GREAT BIG thanks must go to "Doc" Bruce Bodner for meeting me there to go through all the astronomy gear. Mr. Nichols had a lot of it, much of it Meade equipment on equatorial mounts. Bruce's expertise with that type of stuff was invaluable!. Being a Dob man, I was less helpful, although one of the scopes was a Dob, and there were other accessories I was familiar with.

Part of our great adventure was Doc getting his Chevy Tahoe stuck in the soggy mud in back of the house. It took some ingenuity and some heavy pushing to get him unstuck, and the ruts he left look like a couple of plowed furrows. I am thankful for my 4-wheel drive Jeep. I had no problems on the saturated ground.

In addition to the 10% the family is going to donate, they also gave the club a donation of \$110, and donated a SkyShed XL3 polyethylene POD (Personal Observatory Dome) to the BBAA. Now we have to find a place to store it, at least temporarily. We can either sell it to an interested party or keep it toward the day the club (or a consortium of club members) acquires some property for a dark-sky observing site, like we have briefly talked about online and at the last monthly meeting.

A Dark-Sky Island

by Mike Krumboltz

Stargazers now have their Graceland. The Channel Island of Sark, located 80 miles south of England, has been designated as the world's first dark-sky island.

Dark-sky communities are places with very little to no light pollution. As a result, the stars are far easier to see and more fun to look at. According to a buzzy article from SPACE.com, Sark is just 4.5 square miles and has "no public street lighting, no paved roads, and no cars." In other words, save for the occasional flashlight or matchstick, there aren't a lot of things to interfere with the nighttime display, which includes "meteors streaking overhead and countless stars on display."

The International Dark-Sky Association (IDA) makes the call on whether or not a community deserves to join their movement. And plenty would like to. The Burlington Free Press explains that dark-sky legislation "has been embraced by about 300 countries, cities, and towns." At first this might sound like something only nature enthusiasts

would really care about, that's not so. The United States military is also getting behind the legislation. Too much light can interfere with drills at military bases.

And while they don't exactly get a say in the matter, it's worth noting that creatures big and small would likely also be in favor of more dark-sky rules. Again, according to the Burlington Free Press, there is evidence that "nighttime lights disturb animals and ecosystems."

You can learn more about the dark-sky movement at the IDA's official site. The organization is about a lot more than looking at stars. Members are also active in educating the public about the hazards of unnecessary artificial light. The site includes information on how to become a member and steps that can be taken to reduce light pollution, lower your CO2 emissions, and save a fair bit of money on your electric bill in the process.



Star Light, continued

brightest star in our sky. And since Canis Major is largely a winter and early spring constellation, Sirius can only be seen (in "prime time") during the colder months, and not in the summer. The brightest star we see in the summer in the Northern Hemisphere is Vega, in the constellation Lyra. In most lists, however, Vega is usually ranked as the fourth brightest star after Sirius, Canopus, and Rigel Kentaurus (a.k.a. Alpha Centauri). Centaurus and Canopus in the constellation Carina are mostly visible in the Southern Hemisphere.

You can surf the Web and find lists of the brightest stars, and they will often disagree on exactly where to place some of the stars, but Sirius

and Canopus will almost always be 1 and 2. Vega and Arcturus will vie for 4 and 5, Betelgeuse in Orion and Achernar in Eridanus will compete for 8, 9, or 10.

To find out the brightest stars in the sky, do a Google search on "brightest star" and you will get a wealth of information. I particularly recommend Dr. James B. Kaler's Web site at this URL address: <http://stars.astro.illinois.edu/sow/bright.html> He lists the 152 brightest stars.

Oh, by the way, Polaris the North star is usually listed between 45th and 49th in brightness.



BACK BAY ***observer***

February 2011

BBAA Events	Special Outreach	Astronomical Events
		02 New Moon
03 BBAA Monthly Meeting at TCC VB		
05 Nightwatch at Chippokes	04 Girl Scout Presentation 7 pm	
		11 First Quarter
08 Garden Stars at Norf. Bot. Gardens		
		18 Full Moon
25 Skywatch at NWRP		24 Last Quarter



Sneak Peak into March

Thursday **03/03/2011** Meeting at TCC VA Beach, Building J, Room JC-12 at 7:30 p.m.

Saturday **03/05/2011** Nightwatch at Chippokes State Park, Surry VA.

Friday **03/11/2010** Garden Stars at Norfolk Botanical Gardens at 7:00 p.m.

Friday **03/25/2011** Skywatch at Northwest River Park