



## EPHEMERALS - JULY 2007

DATE	WHEN	WHAT & WHERE
6	Dusk	Skywatch @ NWRP Equestrian Area
7	Dusk	Cloverwatch @ Franklin Fairgrounds
13	7:00p	Nighthike @ NWRP Ranger's Station
14	11:00a	BBAA Picnic & July Meeting @ NWRP
14	Dusk	Nightwatch @ Chippokes Plantation
21	8:00p	Garden Stars @ Norfolk Botanical Gardens
<b>Get Ready For For The Summer Picnic This Month!</b>		

## LOOKING UP

Hello All,

July, heat, humidity, bugs, dew, but we're astronomers so we don't care. We see Hercules, the Triangle, Cygnus, planets, moon, clusters, galaxies; the summer sky is full of treasures that keep us busy all night. So get the dew heaters out and get ready for some all night ventures.

July brings the Green Bank Star Quest, the Mason Dixon Star Party, the BBAA picnic and our usual nights out. Of course we have to wait until 10 O'clock until we can get started but that's what astronomy is all about. Hope everyone can make an effort to make it to our monthly Nightwatch, Cloverwatch or Skywatch.

Of course the big July event is our Annual BBAA Picnic on Saturday, July 14th at the NWRP. Sign up on the Yahoo data-

## CONTENTS

Ephemerals	1
Looking Up	1
June Meeting Minutes	2
Summer Picnic	2
NASA Space Place	3
BBAA INFO	4
Dickson Cookout	5
Proposed BBAA Constitution Change	6
Book Report: "The Telescope..."	7
July Calendar	8

**That's All Folks!**

base if you think you can make it. Yours truly will be this year's cook so there will be plenty of burnt hot dogs and hamburgers. Side dishes are always needed and appreciated. The July BBAA Meeting will be replaced by a brief, informal meeting at the picnic. Remember to bring your squirt guns or umbrella, and no fair shooting the cook. Hope to see everyone there.

**Dale Carey**

## IMPORTANT NOTICE!

**A proposition for amending the club constitution to allow a free associate membership to be offered to youngsters was discussed at the May meeting. Attending members discussed the language of the amendment which appears later in the newsletter to be read by the general membership for approval or rejection by popular vote in August. Important details inside on page 6.**

# THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

## JUNE'S MEETING MINUTES

The June meeting of the Back Bay Amateur Astronomers was called to order by Vice-president Kevin Weiner on Saturday June 9th, 2007 at sometime around 7:00 PM at Richard and Karen Dickson's house in Dandy Virginia during their 6th annual summer cookout.

**Members in Attendance:** There were numerous people in attendance at the Dickson cookout including a quite a few guests. The guests happened to include the 2007 BBAA scholarship winner, Michael Billet, and his parents Saria & Adam. The remaining guests were made up of Darryl & Gina Douglas, and several spouses whose names that didn't get recorded upon my roster sheet legibly (gg!). BBAA members in attendance included: Rick Bish & family, Kent Blackwell, Bruce Bodner, Richard Dickson & Family, Cliff Hedgepeth & Taylor with her current boyfriend, Chuck Jagow, Karen Jagow, Georgie June, James Kresky, Ben Loyola, Mark Ost, Michelle Shinn, Lawrence Taylor, Barb and Kevin Weiner.

**Treasurer's Report:** Treasurer Barbara Weiner reported that we have money.

**Secretary's Report:** Chuck Jagow reported that we have members, and the minutes were wasting away.

**Astronomical League Correspondent's Report:** Georgie dropped the ball on an award for Cliff.

**Old Business:** The club awarded the 2007 scholarship to Michael Billet of Chesapeake. Michael was valedictorian for the Indian River High School class of 2007 and intends on pursuing a career in medicine.

**New Business:** There was none.

**Rapid Response Robotic Telescope Project Report:** Kevin reports it is coming along.

**Presentation:** The food was great, Richard's 8" scope was great, the company was great, the entire night was great.

**In Conclusion:** The meeting was adjourned in about fifteen minutes flat.

*Chuck Jagow*

## SUMMER PICNIC

**Hello BBAA Land! It's time for the BBAA Family Picnic! BBAA has reserved the large picnic shelter at Northwest River Park for July 14th from 11:00 AM -3:00 PM!**

There's plenty of seating, plenty of shade, and best of all we're close to the bathrooms and the water pump.

BBAA will have hotdogs, hamburgers, and buns. YOU folks will provide the side dishes and all the fun!

Bring your family, a friend, a comfy chair, and maybe some bug spray.

Please be sure to RSVP either in the DATABASE section of the BBAA Yahoo site or you can give me a call at **547-3752**. You can also email myself or Chuck Jagow at:

**doublestarjune@msn.com**

**chuck@jagowds.com**

Hope to see everyone there!

Sincerely,

**Sharp Shootin' Georgie**

## SOAP BOX

I must engage groveling mode now. I started on the newsletter the Sunday after the Dickson's great cookout, but set it aside waiting for some images from the cookout to find their way to me. Eventually Michelle Shinn sent me an email and let me know that there was a folder up on Yahoo with some and I thought great I can finish.

One thing led to another and all of a sudden it was Monday or Tuesday of this week and my lovely bride Karen asked me if I had finished the newsletter yet.

Terror raced through my mind for a second or two, as I could not remember! I quickly examined my Microsoft Publisher file and discovered that I had not. So here I am late as I could possibly be putting together the newsletter on the last day of the month. Not exactly the most professional way of doing a newsletter, so I offer to have to my salary docked, in half for the month, but don't add any clouds...

*Chuck Jagow*



## Chew on This

By Diane K Fisher

The Mars robotic rovers, Spirit and Opportunity, are equipped with RATs, or Rock Abrasion Tools. Their purpose is to abrade the surface patina off the Mars rocks so that the alpha x-ray spectrometer can analyze the minerals inside the rocks, rather than just on the surface.

But future robotic missions to Mars will be asked to go even further below the surface. Scrapers and corers will gather rock samples of substantial size, that, in order to be analyzed by a spectrometer, will need to be crushed into a fine powder.

Crushing rocks on Mars? Now there's a problem that brings to mind a multitude of possible approaches: Whack them with a large hammer? Squeeze them until they explode? How about just chewing them up? It was with this latter metaphor that the planetary instrument engineers struck pay dirt—so to speak.

Thanks to NASA's Planetary Instrument Definition and Development Program, a small group of NASA engineers came up with the Mars Rock Crusher. Only six inches tall, it can chew the hardest rocks into a powder.

The Mars Rock Crusher has two metal plates that work sort of like our jaws. One plate stays still, while the other plate moves. Rocks are dropped into the jaw between the two plates. As one plate moves in and out (like a lower jaw), rocks are crushed between the two plates. The jaw opening is larger toward the top and smaller towards the bottom. So when larger rocks are crushed near the top, the pieces fall down into the narrower part of the jaw, where they are crushed again. This process repeats until the rock particles are small enough to fall through a slit where the two plates are closest.

Engineers have tested the Mars Rock Crusher with Earth rocks similar to those expected to be found on Mars. One kind of rock is hematite. The rusted iron in hematite and other rocks help give Mars its nickname "The Red Planet." Another kind of rock is magnetite, so-called because it is magnetic. Rocks made by volcanoes are called basalts. Some of the volcanoes on Mars may have produced basalts with a lot of a mineral called olivine. We call those olivine basalts, and the Rock Crusher chews them up nicely too.

Visit [www.jpl.nasa.gov/technology](http://www.jpl.nasa.gov/technology) to read the latest about other NASA technologies for exploring other planets and improving life on this one.

### Image Caption:

*Looking down on the jaws of the Mars Rock Crusher, we see a magnetite rock get crushed into smaller and smaller particles.*



# THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

## BBAA INFO

The BBAA meet the first Thursday of every month. While school is in session we meet at the VA Beach TCC campus in the Pungo building. The July meeting will be an abbreviated meeting held at our annual summer picnic on **JULY 14** at the Northwest River Park in Chesapeake.

## WHERE IS THE MEETING?

This month the meeting will be held during the annual summer picnic at the Northwest River Park which is located at 1733 Indian Creek Road in Chesapeake. Watch for brown and white signs marking the route to the park. Driving directions are as follows:

- Take Interstate 64 towards Chesapeake.
- Take Exit 291-B. Once you take the exit, traverse to the left two lanes which become the Chesapeake Expressway the 168 Bypass South. Follow this for approximately 8 miles.
- Take exit 8-B, Hillcrest Parkway East, which is the last exit before the toll bridge. Continue to the second light.
- At Battlefield Blvd turn right on 168 S. You will go past the Hardees & through Hickory.
- In approximately 3.4 miles you will turn left onto Indian Creek Road. There will be a convenience store here on the corner.
- Follow Indian Creek Road approximately 4.2 miles to the entrance of the Northwest River Park on your right.

Once inside the park, bear to the left and look for area #3, Purple Martin, which is on the left. Drive to what looks like the end of the trees and you will see that it opens up into a larger area, the Cabana is to your right. Parking is along the side of the road as long the road is not blocked. Additional parking is provided in the larger lot.

## BBAA INTERNET LINKS

### BBAA WEB SITE

<http://groups.hamptonroads.com/bbaa/>

### YAHOO GROUP

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

### BBAA OBSERVER NEWSLETTER

<http://www.backbayastro.org/newsletters/newsletter.shtml>

#### President

Dale Carey  
757-431-8556  
vbstargazer@verizon.net

#### Vice President

Kevin Weiner  
757.548.4936  
Kevin.weiner@cox.net

#### Treasurer

Barb Weiner  
757.548.4936  
Barb.weiner@cox.net

#### Secretary

Chuck Jagow  
757.547.4226  
Chuck@jagowds.com

#### ALCOR

Georgie June  
doublestarjune@msn.com

#### Librarian

Gerry Carver  
popcarg@aol.com

#### Web Master / RRRT Coordinator

Ted Forte  
twforte@cox.net

#### Scholarship Coordinator

Ben Loyola  
benito@loyola.com

What do you want to do?

## OBSERVER INFO

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 20th of July for the August issue. Please submit all items to:

[ObserverBBAA@cox.net](mailto:ObserverBBAA@cox.net) / [chuck@jagowds.com](mailto:chuck@jagowds.com)

OR

BBAA Observer  
P.O. Box 9877  
Virginia Beach, VA 23450-9877

# THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

## Dickson Cookout

Richard and Karen Dickson graciously extended their hospitality and welcomed the area astronomers and their friends to their beautiful home in



Dandy for another real dandy of a cookout and stargazing event. This is the sixth year in a row they have put on this shindig for everyone to enjoy.

The BBAA have taken the opportunity to hold their June meeting here the last several years, and this year was no exception. However, this year marked



a first. The club had the pleasure of awarding the 2007 year Scholarship award to Michael Billet of Chesapeake who is a 2007 graduate of Indian River High School. Michael was also proud to be the class Valedictorian for the graduating class of 2007. Michael plans to study a career in Medicine taking af-

ter his father who attended the cookout with Michael's mother. After accepting the check, Michael



read his winning essay for us all. We all wish him the best in his furthering education, and we hope he keeps reaching for the stars!

Quite a few folks showed up to enjoy the hospitality of Richard and Karen, all were impressed by Richard's 8" refractor, not to mention Karen's spread of



goodies to eat! Richard's big scope kept a seemingly continuous eye on Jupiter most of the evening. The best seeing was had early in the morning after most folks had left, just ask Michelle.

The bugs were light, the skies were good, and the company even better. All in all making this evening the most enjoyable stargazing/socializing event of the summer so far!

*Chuck Jagow*

# THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

## PROPOSED AMENDMENT TO THE BBAA CONSTITUTION

During the April BBAA meeting it was discussed to setup some form of a youth membership for the club. Initially it was envisioned as a free membership for kids to encourage young people's interest in astronomy. Ted Forte took up the challenge of initially looking at the BBAA Constitution and making a recommendations for an appropriate change.

At the May meeting the recommended changes were presented and hashed over until all were pretty much in agreement that it was sound.

In order for the changes to be made to the BBAA Constitution, the changes must be presented to the membership and then the changes must be voted on by the membership.

Since the meetings draw only about a third of the membership at any time, the changes will be presented here for the membership to review. Then next month a special email campaign will commence to solicit the member's vote upon the subject. The club Secretary shall conduct the email voting campaign.

The following text has been taken from the current Article III of the BBAA Constitution for reference:

### ARTICLE III - MEMBERSHIP

**Section 1. Types of Membership.** Membership shall be of one type: Regular.

**Section 2. Eligibility.** Subject to the limitations contained in this and other Articles of the Constitution and By-laws, a person with an interest in astronomy or a related science is eligible for membership. The BBAA shall not discriminate with regard to age, sex, race, creed or national origin.

**Section 3. Regular Membership.** A regular member shall be entitled to hold office in the Organization, vote on Organization matters and receive the Organization publications. Directly related family members of the regular member shall be permitted to participate in meetings and other activities, but shall not be entitled to hold office in the Organization or vote.

**Section 4. Guests.** Meetings are open to the public. Guests are invited to attend Organization meetings, but shall not be entitled to hold office in the Organization, vote on Organi-

zation matters or receive the Organization publications.

**Section 5. Expelling of Members.** The elected officers of the Organization shall have the power to expel any member by majority vote of the officers for conduct damaging to the property or reputation of the BBAA or its members. Failure to pay financial obligations due the Organization shall result in termination of membership.

**Section 6. Disposition of Dues and Fees.** Any member who resigns or is expelled from the Organization shall also forfeit dues, fees or money paid to the Organization, subject to waiver by a majority vote of the Organization Officers.

The following text represents the proposed changes to the BBAA Constitution with the changes in red:

### ARTICLE III - MEMBERSHIP

**Section 1. Types of Membership.** Membership shall be of **three types.**

- a. **Regular Membership**
- b. **Associate Membership**
- c. **Honorary Membership**

**Section 2. Eligibility.** Subject to the limitations contained in this and other Articles of the Constitution and By-laws, a person with an interest in astronomy or a related science is eligible for membership. The BBAA shall not discriminate with regard to age, sex, race, creed or national origin.

**Section 3. Regular Membership.** **Upon payment of annual dues a member becomes a Regular Member for a period of twelve months.** A regular member shall be entitled to hold office in the Organization, vote on Organization matters and receive the Organization publications. Directly related family members of the regular member shall be permitted to participate in meetings and other activities, but shall not be entitled to hold office in the Organization or vote **without payment of annual dues.**

**Section 4. Associate Membership.** **Any person under the age of 18 shall, upon application, be an Associate Member of the organization without payment of annual dues. Associate membership shall remain in force until the person attains their 18th birthday or upon graduation from high school. Associate members shall be entitled to participate in meetings and other activities, but shall not be entitled to hold office in the Organization or vote. Associate members shall not be**

*(Continued on page 7)*

# THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

(Proposed Amendment Change, Continued from page 6)

counted for purposes of determining a quorum or for determining the number of members required to achieve an approval percentage of members. Organization publications may not be mailed to Associate Members at club expense. Upon payment of partial dues equal to the current Astronomical League dues, an Associate Member shall be reported to the League as a Regular Member, but shall have no other privileges of Regular Membership without payment of full annual dues.

**Section 5. Honorary Membership.** Any individual nominated and approved by majority vote at a regular meeting in which a quorum as defined by Article II Section 2 of the Organization By-Laws is present, shall be considered an Honorary Member for life. Honorary Members shall have all the rights and privileges of Regular Members without payment of dues.

**Section 6. Guests.** Meetings are open to the public. Guests are invited to attend Organization meetings, but shall not be entitled to hold office in the Organization, vote on Organization matters or receive the Organization publications.

**Section 7. Expelling of Members.** The elected officers of the Organization shall have the power to expel any member by majority vote of the officers for conduct damaging to the property or reputation of the BBAA or its members. Failure to pay financial obligations due the Organization shall result in termination of membership.

**Section 8. Disposition of Dues and Fees.** Any member who resigns or is expelled from the Organization shall also forfeit dues, fees or money paid to the Organization, subject to waiver by a majority vote of the Organization Officers.

## WHAT THE HECK?

### Why is this amendment stuff posted again?

Well, the timing for amending the BBAA Constitution just worked out this way. The vote needs to be taken at a regular meeting and the next regular meeting won't be held until August at the earliest. So the plan is to send out ballots for the amendment prior to the next scheduled regular meeting and have them returned so they can be tallied with the actual votes taken at the regular meeting. So once again I am printing the changes so everyone can read it and be clear on it.

### Why all the fuss?

Because it takes a 2/3 majority vote of ALL of the members, not just those present at a meeting to change the BBAA Constitution.

## The Telescope. Its History, Technology, and Future

### A Review

The Telescope. Its History, Technology, and Future, by Geoff Andersen, Princeton University Press. Hardbound, 248 pages, \$29.95

We received a free copy of "The Telescope" for our library in return for agreeing to review this book. I was nominated to do the deed.

I found it an easy and enjoyable read. Mr. Anderson evidently adheres to the skirt principle of writing which dictates that, much as a women's skirt, a technical composition should be long enough to cover the subject but short enough to be interesting. The narrative is casual and very down to earth, yet highly instructive.

The novice astronomer in particular will learn a great deal from this book which is written for popular consumption and contains but one formula. I would highly recommend it to any beginner trying to grasp the essential concepts of observational astronomy, optics, and the design of the telescope. Experienced astronomers too, even those of you that have read many other books on the subject, will uncover valuable tidbits and interesting concepts that make The Telescope well worth reading. There are also treatments of areas that may be new to you such as the role of the telescope in surveillance. The book explains the cutting edge techniques employed by the world's great observatories to overcome the blurring effects of our atmosphere. It details the inevitable tradeoffs between cost, practicality, and function that must go into the construction of a large telescope, and speculates realistically on the capabilities of future observatories.

It was difficult for me to lay the book down. I received it in Friday's mail and by lunch on Sunday I had read it cover to cover. By chapter four, I had decided to purchase my own copy to keep after I surrender this one to our library. If you are new to astronomy or weak on the science behind the telescope this book will get you up to speed fast. If you are an old hand at this, you'll surely enjoy this fresh approach to a familiar subject.

*Ted Forte*

## NIGHT SKY GUIDES

The night sky guides we ordered this spring are in and are available for all, and we are asking for a \$4.00 donation to cover the cost of acquisition and distribution. Retail price for the guides is \$5.95. To see a representation of the Night Sky Guides, zip on over to the files section of the BBAA YAHOO group and look for the C5 NIGHT SKY GUIDE folder. See Chuck Jagow for your copy at the next meeting.

## JULY 2007

BBAA EVENTS	SPECIAL OUTREACH	ASTRONOMICAL EVENTS
<b>06</b> = SKYWATCH @ NWRP, Dusk		<b>07</b> = LAST QUARTER
<b>07</b> = CLOVERWATCH @ Franklin Fairgrounds, Dusk		
<b>13</b> = NIGHT HIKE @ NWRP Ranger Station, 7:00 PM, Ted Forte POC		
<b>14</b> = BBAA SUMMER PICNIC @ NWRP 11:00 AM—3:00 PM Georgie June POC =====		<b>14</b> = NEW MOON
<b>14</b> = NIGHTWATCH @ Chippokes State Park, Dusk		
<b>21</b> = GARDENSTARS @ The Norfolk Botanical Gardens, 7:00 PM		<b>22</b> = FIRST QUARTER
		<b>29</b> = FULL MOON