



EPHEMERALS - October 2006

DATE	WHEN	WHAT & WHERE
5	7:30p	October Meeting @ TCC Campus
7	7:30a	TASE
7	1:00p	Cubs of the Caribbean @ Izaak Walton League Park
13	Dusk	Skywatch @ Northwest River Park
14	1:00p	Cub Scout Jubilee
14	Dusk	Cloverwatch @ Franklin Fairgrounds
21	Dusk	Nightwatch @ Chippokes Plantation
27—28	6:00p	East Coast Star Party @ Coinjock NC
28	8:00p	Garden Stars @ The Norfolk Botanical Gardens

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LOOKING UP

Gearing up for Fall

October is here, the harbinger of more opportunities to get out under the stars. The weather gets cooler and a bit less humid, the nights are getting longer, the mosquitoes less prevalent (we hope), and soon that dratted Daylight Saving Time will be at an end - except that the Federal Government is extending it some more - how foolish!

The BBAA already has some requests from Girl Scouts and Cub Scouts and schools to give some presentations and show the stars to the kids. There are many opportunities for YOU as a BBAA member to get involved in reaching out. There is no describing the satisfaction when you see the light in the eyes of a newly-starstruck child or adult who has looked through your scope and said, "Wow!"

All our stargazing needn't be at night. With "white-light" solar filters on our scopes and binoculars, or with a PST (Personal Solar Telescope) we can see and show others our nearest star, "old Sol", the Sun. He sometimes has "freckles" (sunspots) and with a PST

you can see solar flares and prominences streaming off the surface, at the edge, or "limb" of that dazzling orb.

This is the month for the East Coast Star Party, that favorite biennial event our good friend Kent Blackwell hosts at Coinjock, North Carolina. Great dark skies, good food, and good fellowship are the hallmarks of an opportunity for stargazing you won't want to miss.

The October skies feature some old favorites, like the mythical story of the hero Perseus, his winged horse Pegasus, the maiden Andromeda, Queen Cassiopeia, King Cepheus, and Cetus the sea monster. The great Andromeda Galaxy, the Double Cluster, and the abundance of sights to see within the "Summer Triangle" are just a few of the tempting targets of October.

So, by all means, dust off your telescope or binoculars (or your "M-1 eyeballs") and spend some time this month with stars in your eyes. And let's hope the weather cooperates.

KEEP LOOKING UP!

George Reynolds

How many words can you make from the word "PLANETS"?
(Find the answers elsewhere in the newsletter)

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

SEPTEMBER MEETING MINUTES

The September meeting of the Back Bay Amateur Astronomers was called to order by President George Reynolds on Thursday September 7th, 2006 at 7:30 PM at the Tidewater Community College.

Members in Attendance: Twenty one members were in attendance which was up from the fourteen of the previous month's meeting with the following members present: Neill Alford, Charles Allewelt, Rick Bish, Bruce Bodner, Kenny Broun, Dale Carey, Gerry Carver, Jay Garrard, Stan Hubbard, Steve Hamilton, Chuck & Karen Jagow, Georgie June, Matt McLaughlin, Bob Page, Mike Pereira, George Reynolds, Chuck Rippel, "Bird" Taylor, Kevin & Barb Weiner.

Treasurer's Report: Barb Weiner reported that there was \$4,934.70 in total funds. This included \$900.25 for the scholarship fund and \$4,034.05 in general funds.

Secretary's Report: Chuck Jagow reported that we had 114 members and sixteen folks were delinquent in paying their dues.

Astronomical League Corespondent's Report: The Astronomical League Corespondent, Georgie June, presented the Double Star award to Gerry Carver and was prepared to present the Honorary Messier award to Larry Channel if he would have been present. Congratulations to Gerry and Larry!

Old Business: Dale Carey made a motion that the club purchase a Coronado PST Personal Solar Telescope for club members to share. The motion was seconded, voted upon and passed with 18 votes for, 3 votes nay (one nay absentee vote cast for Ted Forte by Kevin Weiner).

The PST and a custom fitted case will be purchased by Steve Hamilton incorporating a hefty discount from Meade, Dale Carey will purchase a zoom eyepiece, Dale and Steve will be reimbursed from treasury funds. A tripod may be donated by Bird Taylor.

New Business: The annual BBAA Christmas Luncheon was discussed, several folks wanted this and several folks wanted that. The YAHOO database/poll was of little help so the issue was voted upon. The following cuisines were voted on with the following results:

SEAFOOD - 8
CHINESE - 4
STEAK. - 10

The astute individual will remember that someone voted for Ted Forte in absentee on the PST issue and so was it for the

luncheon vote as well (I know someone will count votes versus members present).

Chuck Jagow volunteered to contact the GRATE STEAK of Norfolk to secure lunch arrangements on Saturday the 9th of December at noon.

(POST MEETING NOTE it is a **GO** with the Grate Steak!)

The election for new BBAA officers will take place at the November BBAA meeting. BBAA officers hold office for one year, but may be re-elected for a second term. President George Reynolds is the only seat that must be filled this fall.

Seems like the Norfolk Botanical Garden has been exceedingly difficult to coordinate the Garden Stars program with the new individual in charge of such things. Kevin Weiner has made many attempts to straighten things out, but it is hard to milk an unconscious cow.

The annual VAAS will be held in Ashland Virginia up near Richmond on the 30th of September.

George Reynolds discussed the upcoming month's calendar of events.

Kevin Weiner put out that if anyone wants to become a NASA Solar System Ambassador that the application was daunting and not to be taken lightly, however in our area we are "light" and more ambassadors might be in order.

Rapid Response Robotic Telescope Project Report: It was reported that the work for the building might be going out for yet another bid. The blank for the mirror is rumored to be ready to grind, not much more information was available at this time.

Observer's Corner: Bruce Bodner spoke very highly of the East Coast Conference on Astronomical Imaging in Philadelphia that he attended in August.

Chuck Rippel lamented about the great time that was had up at Green Bank and spoke of their radio astronomy efforts with amateurs.

Dale Carey spoke of the Almost Heaven Star party in Spruce Knob very highly and how he wished that his new truck was a 4-wheel drive at times.

Chuck Jagow talked a little about his latest gadget the Skyscout from Celestron.

Presentation: There was no presentation this month.

In Conclusion: The meeting was adjourned at 9:00 PM.

Chuck Jagow

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER



Staggering Distance

By Dr. Tony Phillips

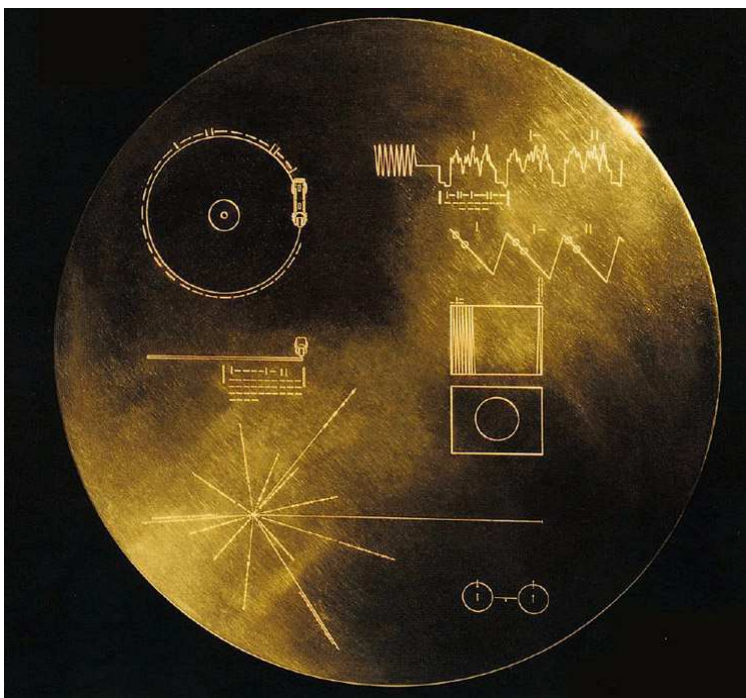
Tonight, when the sun sets and the twilight fades to black, go outside and look southwest. There's mighty Jupiter, gleaming brightly. It looks so nearby, yet Jupiter is 830 million km away. Light from the sun takes 43 minutes to reach the giant planet, and for Earth's fastest spaceship, New Horizons, it's a trip of 13 months.

That's nothing.

Not far to the left of Jupiter is Pluto. Oh, you won't be able to see it. Tiny Pluto is almost 5 billion km away. Sunlight takes more than 4 hours to get there, and New Horizons 9 years. From Pluto, the sun is merely the brightest star in a cold, jet-black sky.

That's nothing.

A smidgen to the right of Pluto, among the stars of the constellation Ophiuchus, is Voyager 1. Launched from Florida 29 years ago, the spacecraft is a staggering 15 billion km away. It has traveled beyond all the known planets, beyond the warmth of the sun, almost beyond the edge of the solar system itself.



Now that's something.

“On August 15, 2006, Voyager 1 reached the 100 AU mark—in other words, it is 100 times farther from the Sun than Earth,” says Ed Stone, Voyager project scientist and the former director of NASA's Jet Propulsion Laboratory. “This is an important milestone in our exploration of the Solar System. No other spacecraft has gone so far.”

At 100 AU (astronomical units), Voyager 1 is in a strange realm called “the heliosheath.”

As Stone explains, our entire solar system—planets and all—sits inside a giant bubble of gas called the heliosphere. The sun is responsible; it blows the bubble by means of the solar wind. Voyager 1 has traveled all the way from the bubble's heart to its outer edge, a gassy membrane dividing the solar system from interstellar space. This “membrane” is the heliosheath.

Before Voyager 1 reached its present location, researchers had calculated what the heliosheath might be like. “Many of our predictions were wrong,” says Stone. In situ, Voyager 1 has encountered unexpected magnetic anomalies and a surprising increase in low-energy cosmic rays, among other things. It's all very strange—“and we're not even out of the Solar System yet.”

To report new developments, Voyager radios Earth almost every day. At the speed of light, the messages take 14 hours to arrive. Says Stone, “it's worth the wait.”

IMAGE CREDITS / CAPTION

In case it is ever found by intelligent beings elsewhere in the galaxy, Voyager carries a recording of images and sounds of Earth and its inhabitants. The diagrams on the cover of the recording symbolize Earth's location in the galaxy and how to play the record.

Solution to the Planets Word Game

One hundred five words — A, Ale, Alp, Alt, An, Ant, Ante, Ape, Apse, Apt, As, Asp, Aspen Ate, East, Eat, La, Lane, Lap, Lapse, Last, Late, Lea, Lean, Leap, Leapt, Least, Lens, Lent, Lest, Let, Nap, Nape, Neap, Neat, Nest, Net, Pa, Pal, Pale, Pan, Pane, Panel, Pant (v.), Pants (n.), Past, Paste, Pastel, Pat, Pate, Pea, Peal, Peat, Pelt, Pen, Penal, Pent, Pest, Pet, Petal, Plan, Plane, Plant, Plat, Plate, Platen, Plea, Pleat, Sale, Salt, Sane, Sap, Sat, Sate, Sea, Seal, Seat, Sent, Sepal, Set, Slap, Slat, Slate, Slept, Snap, Spa, Span, Spat, Spate, Spent, Splat, Stale, Staple, Steal, Step, Tale, Tan, Tap (v.), Tape, Taps (n.), Tea, Teat, Teal, Ten.

George Reynolds

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

B B A A I N F O

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. Summer meetings are usually held at the Chesapeake COX campus. The October meeting will be on Thursday October 5th at 7:30 PM at the VA Beach TCC campus in Virginia Beach.

WHERE IS THE MEETING?

TIDEWATER COMMUNITY COLLEGE CAMPUS

The TCC Campus is located in Virginia Beach off of Princess Anne road. The following should help you locate the campus.

FROM Interstate I-64:

Proceed to the I64 / I264 junction and take I264 East .
Take the S. Independence Exit, 17A, right hand lane
(.000000048134 AU).

Turn LEFT onto Princess Anne road
(.000000010322 AU).

Turn LEFT onto Community College Place
(.000000002131 AU).

At the Stop Sign turn right and follow the road around to the left and park in one of the parking lots.

The meeting is held in the Pungo Building which is on the right hand side of the pathway that splits the two major parking lots. The Astronomy classroom is in the far back right hand corner of the building.

COX COMMUNICATIONS CAMPUS

The COX Communications Campus is located in Chesapeake's Greenbrier section. The following should help you locate the facility.

FROM Interstate I-64:

Take exit 289B (between the Indian River & Battlefield exits).
South on Greenbrier Parkway (.7382 miles).
Turn RIGHT onto Eden Way West (.9231 miles).
Turn RIGHT on Crossways Blvd (.88901 miles).
Turn Right into the Cox Campus

The meeting is usually held in the Silver room located on the North side of the facility. Enter and tell the guard that you are with the BBAA and they will issue a badge and direct you to the room.

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

George Reynolds
757.497.0755
pathfinder27@yahoo.com

Treasurer

Barb Weiner
757.548.4936
Barb.weiner@cox.net

Vice President

Kevin Weiner
757.548.4936
Kevin.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 Lyola
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 October for the November issue. Please submit all items to:

ObserverBBAA@cox.net

OR

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

THE BACK BAY AMATEUR ASTRONOMER'S OBSERVER

Great Debate – Refractor or Reflector? The Intangible “Feeling”

Recently on the BackbayAstro Yahoo group forum, we saw a series of posts discussing the relative merits and the "feeling" of using a small refractor instead of a large reflector to observe the stars. Here are some of the comments, somewhat edited to fit.

Mark Ost started it, talking about observing close double stars in the constellation Cygnus: "These are really nice targets for small refractors and scopes." Dale followed it up with a comment, "What a difference from 12" x 1200mm and the 80mm x- 460mm. Now they split, I think I saw a triple triple. Drag that Dob of yours out and look at'em." Then the debate began.

Mark replied: "You raise a good point here. Why use a small scope which has much less light grasp than a larger scope? Objects which are a challenge in a small scope are a breeze in a larger one. I'm not sure I can answer that question with any authority. I have found personally that I really enjoy the ease of set up and lack of 3 hour cool down time. The large Dob is definitely the only tool for dim galaxies etc., and even wins on planets very often. It also splits the tighter doubles better. Yet there is a real pleasure in using a small tool whose heyday was the 19th century. Doesn't make sense but I find it to be true. The challenge is the same, just a different playing field. 8th magnitude or 13th they all look the same ultimately. I still like the Dob but don't take the same pleasure in its use. Not scientific but aesthetic. What do you all think? Astrophysics is boring anyway. Poetry is much more fun."

Ted Forte: "Now you've done it Mark, opened the floodgates for one of the great debates of amateur astronomy. Refractor or reflector ... it's right up there with Meade or Celestron? Enhanced coatings or standard? Laser or Cheshire? Offset or no offset? Star-hop or Go-to? Visual or imaging?"

"So here is how the debate is usually framed: Point: the unobstructed aperture of a refractor yields better resolution than an equal size reflector. Counterpoint: the reflector can maintain optical quality in a better aperture-to-dollar ratio.

"I think you touch on another aspect too Mark, that speaks to the tactile satisfaction of holding a finely crafted piece of equipment in your hand. It's not really about the view, admit it ... aperture always wins, always. So why buy less than you can afford, handle? It's all about enjoying the beauty of the form, the appreciation for the craftsmanship, quality and reputation. I think we are drawn to a finely crafted refractor for itself alone and it hardly matters if it has optics at all if the machine work is fine enough."

Richard Dickson: "That may be part of it, but I can't see my scope, pretty or not, easily in the dark anyhow. Finely crafted instruments, Dobs or otherwise, don't need to be seen to be appreciated. They have a feel in use that sets them apart and makes them a joy to use rather than a challenge. I have a very good 18" Dob seven feet from my refractor in my observatory, and it stays capped most of the time. It's of old vintage and undriven, but provides good service. Perhaps if it had a drive system I might use it more, but the fact is that I simply derive more enjoyment from the *view through* my modest aperture refractor than I do my larger SCT's and Newtonians. There's

an intangible to the view that I find hard to explain. The best I can do at explaining it is to say that there are times with my refractor and binoviewer that is as if I am looking through a window at the real thing. There is no telescope in between. This is a special thing when it happens. It gives me pause for the beauty of what I'm looking at even if that last wisp of faint detail is not noted. I have never had that experience (yet) with my larger reflectors."

Chris Ayers: "I'm not nearly at the level most (if not all) of you are in this hobby when it comes to knowledge, but I can say from personal experience that I'd take a nice refractor over a reflector, SCT, Mak, etc, any day. Not too long ago I bought (which is now the most aperture I own), a 12" Orion Dob. The views it offers on the faint stuff is admirable, but it also depends on how much you use it.

"That old saying holds true for me `Your best scope is the one you use the most'. With that being said, my best scope would be my cheap-o Orion ST80 as it's seen the most time in the night sky since I've joined BBAA. I also think the mechanics of a refractor draw me to its design. Simple, straightforward, and easy to set up and minimal cool down times.

"The other night at Mark's house, I looked through both Mark's and Stan's refractors numerous times. I was never un-impressed with the views I saw and I also noted on how simple and efficient their setups are. Easy to move, slew and focus. When you have the right gear for your personal requirements, that's all you can ask for. I was seriously thinking about getting a GoTo mount with some money I came into from a couple sales recently, but now I'm rethinking that. Do I risk buying a mount to have it fail on me 2 weeks from now when an encoder craps out? Do I use the GoTo capability as a crutch to find my way around the night sky? My answer to that at this point is NO. Instead I'm looking at a Televue Tele-Pod mount to use with either my ST80 or possibly a William Optics 80 of some sort. I'm also going to invest in a Sky Atlas 2000 and learn the sky the old fashioned way instead of relying on modern technology to do it for me. For me, this hobby is the satisfaction of knowing how to find these faint objects so many light-years away, not letting a computer show it to me for ten seconds to move on to the next object."

Cliff Hedgepeth: "OK, I gotta respond to that. I can set up the Orion 12 in all of five minutes. It's the one I use most. An 80mm refractor won't show the detail of a 12" reflector. As far as simple, to me there's nothing more simple than a reflector. I study star clusters and an 80mm just won't show the faint ones.

"And on top of that, I am a puny 62 year old guy and I can unload the scope from my van and have it running in less than 5 minutes and that includes setting the COL [Orion Computerized Object Locator]. Yes, I would love to have a nice 6" APO but don't have 15 grand to spend on one."

So, the debate goes on. And on and on. But the bottom line is that most of us are in this avocation to see the beauty of nature, the glory of the stars, the poetry of the heavens. Whether it is the hunt for that elusive cluster or nebula or galaxy, or the thrill of splitting that difficult double, or an astro-imager getting that perfect shot, or the opportunity to relax in the dark under a star-strewn sky, conversing with friends, we are all in this together, enjoying the wonders of creation, grateful for the ability to be "astro-nuts".

George Reynolds

Observing Open Clusters

After completing the Astronomical League's Globular Cluster program, I decided to work towards the newly created Open Cluster program.

Viewing open clusters requires a different technique than does observing globulars. Open clusters range in size from several degrees to a couple of minutes. So they range in size from naked eye such as the Ursa Major Moving Cluster (Collinder 285 at 1400') down to high power such as the tiny King 12, which is only 2' across.

The Astronomical League picked 125 of these to include in their observing program. Some are quite common, such as Messier 44, while others are quite obscure such as Dolidze 9. Some are easy to spot and others just blend into the background of stars.

The clusters in this group of 125 range in size from 170' (IC 1396) down to 1' (Collinder 401). For the big stuff I used a 2" 41mm wide view GSO eyepiece that gave me a 1.8-degree FOV. For the tiny stuff, I used a 7mm type 6 Nagler, which gave me 214X. This is also my favorite for globular clusters. Plossls of this size are very hard to use because of the tiny exit pupil. The Apogee wide view is a good cheap alternative to Naglers and other high dollar eyepieces.

Like the Globular Club, it isn't just finding the cluster; it is about looking at it. The method of classifying them is more comprehensive than the Shapley-Sawyer method for globular clusters. It is the Trumpler system that is used to classify open clusters.

The Trumpler system groups clusters first according to their concentration and detachment from surrounding star field. Next it classifies it by the brightness range. Lastly it classifies by the number of stars.

The Astronomical League manual for the program does a pretty good job of explaining the system. I have reproduced the page from the manual, which is available on line in pdf format at http://www.astroleague.org/al/obsclubs/opencluster/OC_Manual.pdf.

Trumpler Classification System

In order to complete this program, the observer must classify the selected open clusters based on the Trumpler classification system. This system is the most widely used and accepted classification of open clusters because it independently assesses the nature of the cluster. Trumpler identified three features in an open cluster:

Degree of Concentration:

- I. Detached clusters with strong central concentration.
- II. Detached clusters with little central concentration.
- III. Detached cluster with no noticeable concentration.
- IV. Clusters not well detached, but has a strong field concentration.

Range of Brightness

1. Most of the cluster stars are nearly the same apparent brightness.
2. A medium range of brightness between the stars in the cluster.
3. Cluster is composed of bright and faint stars.

Number of Stars in Cluster

- p. Poor clusters with less than 50 (fifty) stars.
- m. Medium rich cluster with 50-100 stars.
- r. Rich clusters with over 100 stars.

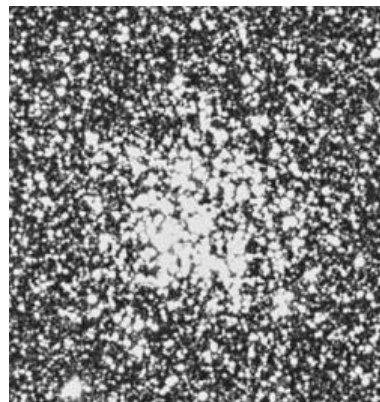
Some open clusters may be in, or are surrounded by nebulosity. Trumpler denoted open clusters with any type of nebulosity (including light and

dark nebula) with an "n" at the end of the classification. For example, the official classification for NGC 3293 is I 3 r n because it is imbedded in a nebula. If you find that any of the selected clusters in this program are in or around nebula, denote that in your classification of the cluster.

Since this requirement is needed to complete the program, previous observations of open clusters in this program will not be accepted, unless you classified the cluster under the Trumpler system when you first observed it. If you have already observed all of the open clusters in this program, then you just need to go back and classify the cluster and make a sketch of any 25 of the 125 selected objects. Below are some DSS examples from the site Messier45.com:



This is Messier 44, a very large cluster. It is classified as II3m.
II= Detached clusters with little central concentration
3= Cluster is composed of bright and faint stars
m= Medium rich cluster with 50-100 stars



This is Messier 11, It is classified as I 2 r.
I= Detached clusters with strong central concentration
2= A medium range of brightness between the stars in the cluster
r= Rich clusters with over 100 stars

It is worth noting here the difference in size of these two clusters. M 44 is 85' across which requires binoculars or a wide field eyepiece to see, while M 11 is only 13' across and is best viewed at powers of 100x or more in order to view the detail.

Once beyond the Messier objects, web site Messier45.com becomes quite useful as it has full description of all NGC/IC objects, along with Berkeley, King and all the various clusters in our galaxy, along with the globulars in M 31. So give it a try. Don't just find them, really look at them. Each one has its own personality.

Cliff Hedgepeth

The RRRT Polarimeter

One of the primary goals for the Rapid Response Robotic Telescope (RRRT) is to image the optical afterglows of gamma ray bursts and to investigate the polarization of the light coming from these objects.

I will try to briefly explain what polarization is, why it could be important to the study of GRBs and how we will accomplish the measurement with the RRRT.

Light is an electromagnetic wave; it has an electric field component and a magnetic field component that are perpendicular to each other. We will ignore the magnetic field here for simplicity and imagine just the electric field component. If you could see these fields as a light wave coming at you, you would see them vibrate back and forth in multiple planes. There is no preferred plane; there are as many vibrations moving up and down as there are right and left (and every angle in between). Polarized light, however, does have a preferred plane. Light that is 100% polarized vibrates in only one plane; we might see, for instance, the incoming light vibrate up and down only. In practice, polarized light from astronomical objects will never be 100% polarized. We would say that the light is polarized if an appreciable percentage of the light is oriented in a particular plane.

What causes light to be polarized? There are several possibilities. Light can become polarized when it passes through a medium that only passes light vibrating in a particular plane, like a Polaroid filter. It can also be polarized by reflection, refraction and scattering under just the right conditions. The point is that by measuring the polarization of the light from an astronomical object, both the direction and the amount of the polarization, we can begin to construct (or at least constrain) the geometry of the object emitting the light. It will be one piece to a puzzle that just might help define and describe how GRBs propagate.

A good example of the value of these measurements is provided in the study of a particular type of B class stars called Be stars because of their unique emission ("e") spectra. Examination of the polarized light from these objects helped to establish that these rapidly spinning stars were flattened into disks. This proved to be a major breakthrough toward understanding them.

With the RRRT we will use double refraction to measure the degree of polarization in the optical afterglows of gamma ray bursts.

The method employs a type of optically clear calcite crystal known as Iceland Spar that has some unique polarizing characteristics. When cut at the proper angle, the crystal splits incoming light into two orthogonally polarized rays called the ordinary and the extraordinary. Essentially one ray passes straight through the crystal while the other is refracted producing a double image with each image differing in polarization. When polarized light enters the crystal, the dual images will be of differing brightness and we can use the relative brightness of each to determine the amount and orientation of the polarization.

The telescope will employ two Savart Plates, the second rotated 45 degrees from the first, in the first filter wheel. Each Savart Plate incorporates two calcite prisms to normalize the rays. Since one ray travels farther than the other through an Iceland Spar crystal, they would not come to focus together. A second stacked crystal that reverses the path (the ordinary becoming the extraordinary and vice versa) corrects the disparity and allows both spots to travel the same distance and come to focus together.

The second Savart Plate is necessary to determine the particular orientation of the polarization. One Savart Plate will allow us to compute the relative brightness of the dual images in an X-Y axis. The second plate (rotated so that its beam displacement is 45 degrees from the first) will enable us to discriminate between quadrants of that axis. We will therefore image the afterglow through two positions of the filter wheel and use the relative brightness of the doubly refracted images to compute the degree and orientation of polarization of the incoming light.

We will get two double images of the entire field of view; one for each plate. This approach to polarimetry is a budget compromise, and is not the very best way to accomplish the task, but it has a good chance of success. Dr. McDavid hopes that the scope's relatively fast focal ratio will preclude the possibility of differing image quality over the field of view which could be a major drawback to the procedure. More expensive schemes would employ a collimating lens, a complete reimaging camera and devices called Wollaston prism analyzers. We should, however, still be able to detect the presence of very weakly polarized light in the mainly unpolarized afterglow of GRBs.

Ted Forte

2006 EAST COAST STAR PARTY & HALLOWEEN PARTY

OCTOBER 27 & 28

BRING YOUR SCARIEST MASK
\$20 AWARD FOR BEST ADULT COSTUME
\$15 AWARD FOR BEST CHILD COSTUME (under 16 years of age)

AGENDA

FRIDAY:

REGISTRATION: BEGINS AT 2:00 PM
7:00 CASUAL STARGAZING BEGINS
Coffee & snacks served all night





SATURDAY:

REGISTRATION: BEGINS AT 10:00AM
4:30 PM COOKOUT AT OBSERVING SITE
KENT WILL SUPPLY HAMBURGERS, HOT DOGS, SOFT DRINKS -
YOU MAY BRING A DISH IF YOU WISH
5:30 PM DOOR PRIZE DRAWINGS
OBSERVING BEGINS AFTER DOORPRIZE DRAWING
Coffee & snacks served all night.

Jeff & Grete from Camera Concepts will return and set up shop selling telescopes, binoculars and accessories.

Directions: See BBAA Website or email kent@exis.net

OCTOBER 2006

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5 BBAA MEETING @ TCC	6 Full Moon 	7
8	9	10	11	12	13 SKYWATCH @ NWRP Last Qtr 	14 CLOVERWATCH @ FRANKLIN
15	16	17	18	19	20	21 NIGHTWATCH @ CHIPPOKES
22	23 New Moon 	24	25	26	27 E C S P @ COIN JOCK	28 GARDENSTARS @ NORFOLK BG
29 First Qtr 	30	31				