



Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

JUNE 2005

(VOLUME 13, NO. 6)

Visit our website at www.ccas.us

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Newsletter Deadlines

July 2005 issue..... June 27

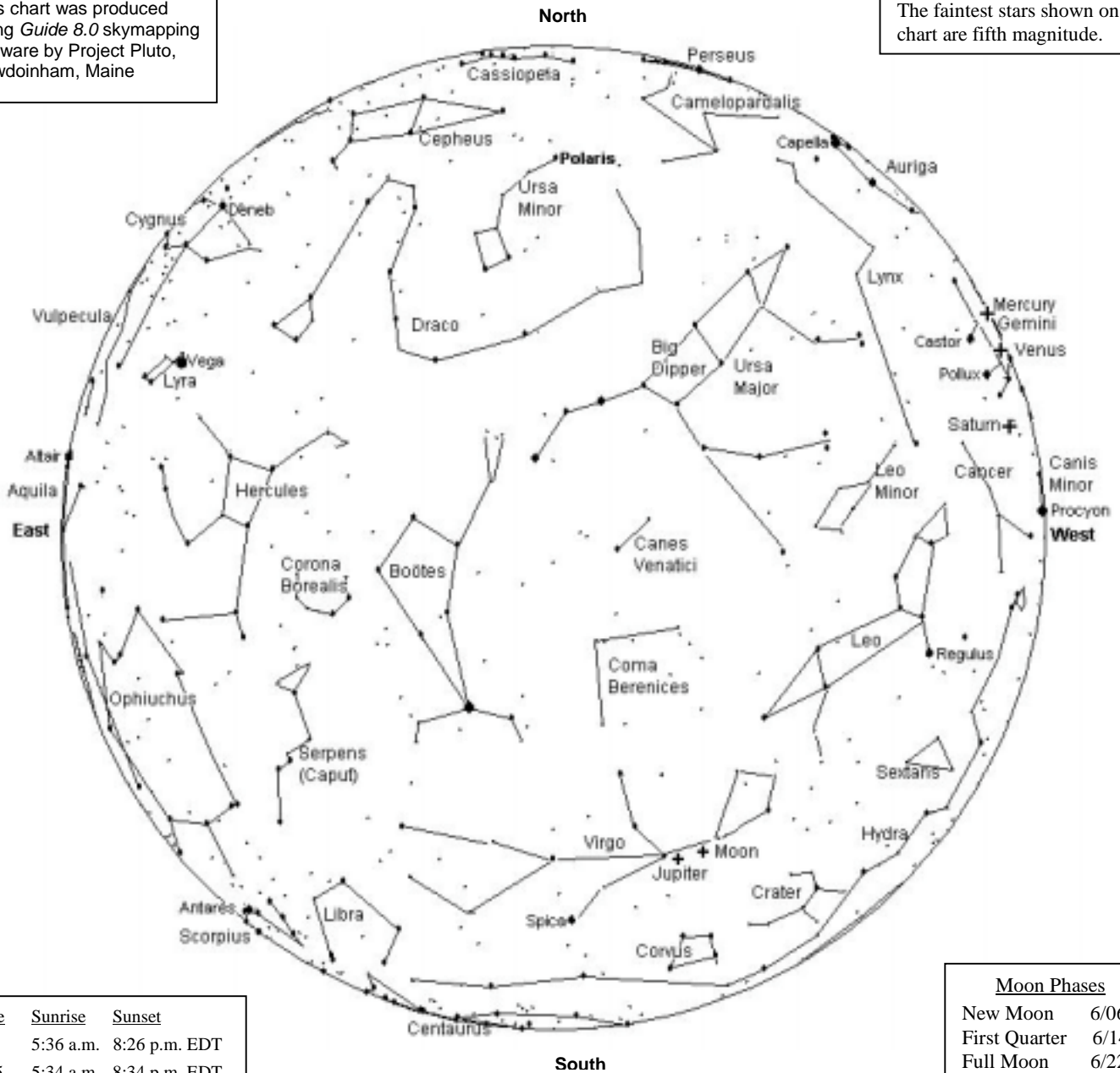


Important June 2005 Dates

- 5 Edwin and Evelyn Lurcott** were married **50** years ago today! Congratulations to a wonderful couple! May God bless you and keep you!
- 6** New Moon
- 10/** CCAS Observing session & meeting at Myrick
- 11** Conservation Center (BVA) starts at sunset. Map with directions is on page 12.
- 13** Pluto at opposition.
- 14** First Quarter Moon
Also: earliest sunrise of the year in Chester County at 5:34 a.m. EDT.
- 21** **June Solstice at 2:46 a.m. EDT.** First day of summer.
- 22** Full Moon
- 22** Venus, Saturn and Mercury are all within 5° of each other in our evening sky. Such a tight grouping of three celestial objects is called a trio. You should be able to see all three at once in binoculars.
- 29** Venus, Saturn, and Mercury all lie inside a 2° circle! Using a very wide field eyepiece you just might be able to see all three at once in a telescope.
- 25** Venus, Saturn, and Mercury all lie inside a 2° circle! Using a very wide field eyepiece you just might be able to see all three at once in a telescope.
- 26** Mercury within 1° of Venus; you will be able to see both at once in a telescope! Venus will be nearly fully lit, while Mercury will appear about half-lit. The closest approach is on the evening of June 27: only 0.1° separates them!
- 24** Mercury within 1° of Venus; you will be able to see both at once in a telescope! Venus will be nearly fully lit, while Mercury will appear about half-lit. The closest approach is on the evening of June 27: only 0.1° separates them!
- 30** Latest sunset of the year in Chester County at 8:36 p.m. EDT.
- 27** Latest sunset of the year in Chester County at 8:36 p.m. EDT.
- 28** Last Quarter Moon

This chart was produced using *Guide 8.0* skymapping software by Project Pluto, Bowdoinham, Maine

The faintest stars shown on this chart are fifth magnitude.



Date	Sunrise	Sunset
6/1	5:36 a.m.	8:26 p.m. EDT
6/15	5:34 a.m.	8:34 p.m. EDT
6/30	5:38 a.m.	8:36 p.m. EDT

Moon Phases	
New Moon	6/06
First Quarter	6/14
Full Moon	6/22
Last Quarter	6/28

The sky over Chester County
June 15, 2005 at 9:00 p.m. EDT

The Planets

Mercury is in the evening sky in the latter half of June, performing a close dance with Venus and Saturn. See page 1 for more details.

Venus is in the evening sky this month, setting 60 minutes after the Sun. Start looking for it about 30-45 minutes after sunset. See page 1 for details on Venus' encounter with Mercury and Saturn.

Mars is in the morning sky, high in the southeast at sunrise.

Jupiter is the very bright "star" in Virgo, not far from Spica. Jupiter is always a fascinating sight in any size telescope, and well-placed for telescopic observation as night falls..

Saturn is visible in the evening sky, forming a close group with Venus and Mercury. See page 1 for details and dates.

Uranus is in the morning sky at sunrise, best placed for observation just before morning twilight starts.

Neptune is in our morning sky also, best placed for observation just before morning twilight starts.

Pluto is reaches opposition on June 13. It will rise as the Sun sets, and set as the Sun rises, and be visible (theoretically) all night long. It takes at least an 8" to 10" telescope to find Pluto, dark skies, good charts, and lots of patience to find Pluto.

CCAS Election News

The following members were elected to serve as the indicated officers from June 2005 through May 2007:

President – Kathy Buczynski

Vice President – Jim Anderson

Secretary – Vic Long

Treasurer – Bob Popovich

We wish to thank once again the members of this year's Election Committee for doing a fine job running the election: **Ed Lurcott, Don Knabb and Bill O'Hara.**

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CCAS June Observing Session & Meeting

The next CCAS Observing Session will be at the Brandywine Valley Association's Myrick Conservancy Center (see map on page 10) on Friday June 10, 2005 starting at sunset; or earlier, if you can get there earlier. If it's too cloudy on Friday, then the Observing Session will be on Saturday June 11, 2005. At the observing sessions, there will be help available to set up and use your telescopes. If you're having trouble using your telescope, or finding your way around the sky, come on out and get some assistance. All members are invited whether they have a telescope or not. Telescope owners are always glad to share the view through their telescope. CCAS Observing Sessions are free of charge.

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Treasurer's Report by Bob Popovich

April 2005 Financial Summary

Beginning Balance	\$1,290
Deposits	338
Disbursements	<u>74</u>
Ending Balance	\$1,554

Membership Renewals Due

06/2005	Taylor
07/2005	O'Hara
	Quirk
08/2005	Knabb
	Fragale

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Membership Renewals

You can renew your CCAS membership by writing a check payable to "Chester County Astronomical Society" and sending it to our Treasurer:

Bob Popovich
416 Fairfax Drive
Exton, PA 19341-1814

The current dues amounts are listed in the *CCAS Information Directory* on a later page in this newsletter.

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CCAS Polo Shirts Available

You can purchase a classy polo shirt with the CCAS logo embroidered on the left breast. Price is \$30.00 per shirt. Adult sizes S, M, L, XL only. Contact our Treasurer Bob Popovich to purchase yours!

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Outgoing President's Message

by Mike Turco

I suppose it is appropriate that I write my last message as president of the Chester County Astronomical Society on Memorial Day. This is a time for remembrance of things good and not so good. Yesterday I traveled out to Wrightstown, NJ to a military cemetery and placed a flag on my father's grave. He was a Purple Heart veteran of the Eighth Air Force in WWII. On his 25th birthday his mission ended in a field in Belgium. Seems the Germans weren't taking prisoners at the time so instead of bailing out of their failing B-24 behind enemy lines, the crew decided to ride it in. The four-engine bomber went through a farmhouse as it skidded along the ground, tearing itself to pieces. The photographs are telling. Of the crew, two died, five walked away, three were injured. One of the latter was my dad. He carried those injuries for the rest of his life. His was just one minor contribution to the effort to defeat the Nazis. Thank you, Dad. You're welcome, Europe.

The stories of our veterans make this message rather unextraordinary. Nevertheless, I want to thank all those members of the CCAS who contributed to advancing the club over the past six years. I particularly want to thank those who gave me the inspiration to take up the amateur astronomy in more than a passing fashion.

To Frank Angelini for being the first to welcome my wife and I at a BVA club observing session in 1997, and allowing me my first look through an amateur scope. He showed us the Orion Nebula and as I peered through his 10" SCT, I got a shock as a satellite zoomed through the field of view! Thanks, Frank, for the friendly invite, the cold drink you offered, and the kind explanation of the "UFO".

To Steve Limeburner, innovator extraordinaire, who time and again was my walking reference book. I never needed to open a star atlas when he was around. You gotta love his makeshift equipment (it works!) and his enthusiasm, to say nothing of his great guitar playing. Thanks, Steve.

To Deb and Jeff Goldader, teachers in the truest sense, for bringing access to the Flower & Cook Observatory to the CCAS, and for their excellent contributions in their presentations and classes, both for the club and the public nights at the observatory. Oh, and also for your insistence that I send a couple of articles I wrote to *Astronomy* and *Sky & Telescope*. I would never have gotten them published without your positive reinforcement. Thanks, Deb. Thanks, Jeff. All the best to you and your little ones.

To Bob Popovich, and his family, for your hospitality and your thoughtfulness in appreciating mine. For your contribution as a club officer, for the pleasure of seeing a photograph of you and your son in front of my home on the cover of a newspaper supplement, and for the wonderful and educational articles in the newsletter written with humor and flair. You've done a great job. Thanks, Bob, to you and yours.

Thanks to Jim Anderson for sharing time behind his home searching the sky with his 10" reflector and for his extraordinary efforts at making the club newsletter an award-winning publication. I'm hoping this will be the year you jump from second to first-place in the Sterns Award voting. Thanks

to Vic Carlucci, whose professional artistic touch raised the bar on the club logo and the newsletter banner, and whose company traveling to, and during, observing sessions I enjoyed so much. To Nicholas La Para for the fine classroom sessions, the observing sessions and the clever cartoons that I love. To Pete LaFrance for all his work and his enthusiasm for astrophotography. To Roy and Elise Furman for their friendliness, fun, and dedication to both the club and to amateur astronomy. (I'll bet Roy's got some new astrophoto gear I haven't seen yet!). Thanks to Bill O'Hara for his contributions as librarian all those years and the fun of sharing observing time with him. Thanks to Doug Liberati, Jim Morgan, Emil Volchek, Rich Mitchell, Scott Hain, and all the other folks in the club from whom I've learned most all that I know about our shared passion.

And, of course, thanks to our amateur astronomy mentor, Mr. Ed Lurcott, without whom there would be no Chester County Astronomical Society. I will never be able to adequately express my appreciation to Ed for his thoughtfulness and expert advice whether at a club meeting, a casual conversation at the observatory, or under the stars. One of the proudest moments for me was when we awarded him the plaque dedicating the club's 20" scope to Ed. Sharing time with Ed always was, and always will be, a pleasure. Thank you, Ed, for all that you've done for the club, for its members, and for me. In your own quiet way, you are an inspiration. I will never forget it.

I lived the CCAS these past few years. We got so many phone calls for club info that my wife changed the voice message greeting on our telephone to "You've reached the Turco residence and the Chester County Astronomical Society." That confused more than a few people who weren't calling about the club! But it was a labor of love for the most part. I'll never forget the late-night-'til-dawn Leonid meteor shower party at my house a few Novembers ago. We must have had over a hundred people stop by that night, to eat and drink and see a once-in-a-lifetime sky show. The heavens didn't disappoint. I remember organizing the bus trip to the Hayden Museum in NYC. The radio spots on WCOJ. The thank-you letters from Kathy Horstmeyer's first-grade students after a star party at the observatory. The day I took off work to go to her class and present a slide show on the solar system. The fun of designing the club flyer. The Christmas Party with a certain astronomy professor whose hobby was brewing beer. Boldly predicting good weather for the Mars Opposition party at my house and then lucking out. Seeing my byline in the *Sky & Telescope* article that cited the Chester County Astronomical Society, and getting responses from across the country by people it touched. Gaining an appreciation for the sky by getting my Double Star certificate, which also enabled me to share the satisfaction and accomplishment of other club members when they received their awards. Working out the details of the club shirts with an embroiderer and finally getting it right. Visiting the observatories in the region. All the great lectures and presentations at the club meetings. These are but a few of the happy memories.

There were a few on the flip side. The bureaucracy that forces our local university's equipment to go unused, the demonstrated arrogance of another university in the sale of the

Flower & Cook Observatory despite the wishes of the benefactors, and the base, outlandish reprimand I got for ostensibly giving too much information to a Backyard Observing class. You had to be there for that one! Those will be hard to forget.

But the good far outweighs the not so good. On this Memorial Day I get not only to pay tribute to the veterans like my father that helped make this country great, I also get to recall the good times, the good work, the knowledge gained, and most of all, the people I was fortunate enough to know as an officer of the Chester County Astronomical Society.

See you under the stars.

Sincerely,

Mike Turco

June 2005



Incoming President's Message

by Kathy Buczynski

I would like to thank the membership for its vote of confidence in electing me to the office of President of your Society. I would also like to take this opportunity to thank the past officers:

Mike Turco, President, June 1998 to May 2005.

For the past seven years Mike has been a tireless leader; contributing to *Observations*, as a member of the Education Committee, writing and printing numerous Society informational brochures, even organizing the "Mars Party" at his own home – thanks Sharon and Mike for all the goodies that night! Mike was the driving force behind the CCAS polo shirts. Mike also reached out nationally with his article "It's Gotta Be White" that was published in the December 2000 issue of *Sky and Telescope*. Through that article Mike had correspondence with an individual in Africa. You never know how far we can reach! Mike assisted with numerous star parties for organizations across the area, and talked about astronomy on radio talk shows to promote the Society. Somehow he also found the time to earn the Astronomical League's Double Star award. Mike was also involved in trying to save the Flower and Cook Observatory from its final fate of sale to a private owner. He organized that great CCAS field trip to Hayden Planetarium in New York City. Thank you, Mike for your service to the club.

Steve Limeburner, Vice President, June 1999 to May 2005.

Not only has Steve been our Vice President, deftly handling the meetings when Mike was unable to preside, but he has done an **excellent** job as our Program Chair. In his tenure, he has planned field trips to such places as Eastern University, and booked such esteemed speakers as Brother Guy Consolmagno (co-author of *Turn Left at Orion* and author of *Brother Astronomer*); Bart Fried (president of the Antique Telescope Society); Dr. Rex Saffer (professor and researcher at Villanova University); James Mullaney (a local astronomer and author); and various other speakers including CCAS members and himself. When speakers weren't available, there

was always a video to watch. Thanks Steve: it was not an easy job, and you handled it very well. And, by the way, Steve also found time to teach classes for the Introductory Astronomy Course and Backyard Observing Course. I hope he continues to do so. Personally, Steve found time to earn the AL's Binocular Messier award, Messier Award, Lunar Award, and Double Star Award. Steve has justly earned his reputation as one of the best and most knowledgeable observers in the CCAS!

Caitlin Grey, Secretary, June 2003 to May 2005.

Caitlin came to us through what she cleverly called "Sky School," taking both our Introductory Astronomy and Backyard Observing Classes. Although we haven't seen much of Caitlin due to illness and travel, Caitlin has impacted our club in a few critical areas. Thanks to Caitlin, we are now officially a tax-exempt organization (501(d) I believe it's called) and have a sales tax exemption. She also gave us legal advice during the Flower and Cook sale. Thanks so much, Caitlin. We wish you better health in the future, and hope to see more of you.

Bob Popovich, Treasurer, June 2003 to present.

Bob has not only handled our finances over the last two years, and will continue to do so, he has taken over the Member Directory, become ALCOR (Astronomical League Correspondent), continued to work with the Education Committee. Of course, he has also written the monthly article "Astronomus" for the newsletter since May 2001. Your contributions to the society have been invaluable.

Now we have some new officers:

Jim Anderson has done an award-winning job writing and editing the newsletter; he will now take on the added responsibility of Vice President and temporarily, Program Chair.

Vic Long has been elected Secretary. As Vic is a relatively new member, I look forward to getting to know him a bit better and hearing what he has to contribute. We have already seen that he is a whiz with technology.

Bob Popovich will continue as Treasurer and again, I look forward to working with Bob and using our funds to add value to your memberships.

In addition to your elected officers, the Executive Committee includes **John Hepler**, Webmaster; **Ed Lurcott**, Founder of the Society as well as Observing Chair; and **Linda Fragale**, Librarian. I hope John, Ed and Linda will continue in the outstanding jobs they have been doing.

As for me, I have been a member of the Society since November, 1994 and held a variety of positions. I was Vice President from June 1997 to May 1999, and developed the Education Chair in 1999 to start the Introductory Classes in 2000. For a time, we also included an education segment in the regular meetings. Since I have been Education Chair my focus has been community outreach, education and star parties for the public. As President, my focus will shift to the membership. My astronomical experience is limited in some areas, like equipment, deep-sky observing and astrophysics. But I plan to work on those areas.

As I write this, the Executive Committee is planning to meet in the next week or two to discuss the immediate future of the club. These are some of the things we will be discussing:

- Finding a new place to meet. Although West Chester University has great equipment, the parking is a problem, and although the room is great for lectures, it's not conducive to discussions.
- Plan a field trip: possibly to the Naval Observatory in Washington, DC and/or a local observatory
- Obtain a new observing site
- Format of meeting
- Refreshments committee
- Promoting Astronomical League Observing Awards
- Forming Observing Clusters around Chester County
- Getting more members involved
- Developing a survey for members so we know what **you** want from your Society
- Featuring a library book a month in the newsletter/website to promote the use of our extensive library
- Adding members to the Executive Committee such as a Public Relations Chair, a Club Photographer, a new Program Chair, and possibly a new Education Chair.

If you have any input into any of these subjects, please get in touch with any of the members of the Executive Committee. You just might know the best place to observe and we'd like to explore the options.

In the past few months, we've added "Constellation of the Month" to the monthly meetings. This is similar to what we used to do some years back, and similar to the Backyard Observing Classes usually held in the fall. The current presentation format includes the objects in the particular constellation that are required for various Astronomical League Observing Awards, including a log sheet that can be used for submission for the award. In other words, some of the work is done for you; all you need to do is observe the objects and complete the logsheets in the handout. However, in order to observe these objects, you need to get out there. And so we are starting to develop "Observing Clusters" across the county. The purpose of the cluster is to have the opportunity to observe with others in the area that you live, or on the day of the week that is convenient, or in a darker sky location.

The first of these clusters has been formed. It is the "Hercules Cluster" forming in West Goshen, near my house. We will potentially meet every Tuesday evening at dusk. For more information on the exact location, please get in touch with me at 610-436-0821.

The Society has come a long way since its start in September 1993. But it can only continue to move forward with your involvement. There is plenty of room for your input. You have a skill that we can use. Maybe you can make the coffee at the meeting, or bring refreshments, or make some phone calls to ask members to help out with refreshments. Maybe you can start an "Observing Cluster" in your area. Maybe you can teach a class, do a presentation for the "Constellation of the Month", or learn a topic like celestial coordinates or comets and present it to the club. Maybe you like to take pictures and can come to a star party to take pictures for the

newsletter/website. I encourage you to get involved, we need you.

I look forward to leading the Society for the next two years, to creating a fun and educational environment for all; I hope you get involved.

Keep looking up,

Kathy Buczynski

President, Chester County Astronomical Society

June 2005



Impressive Sun Pillar Imaged

By Don Knabb



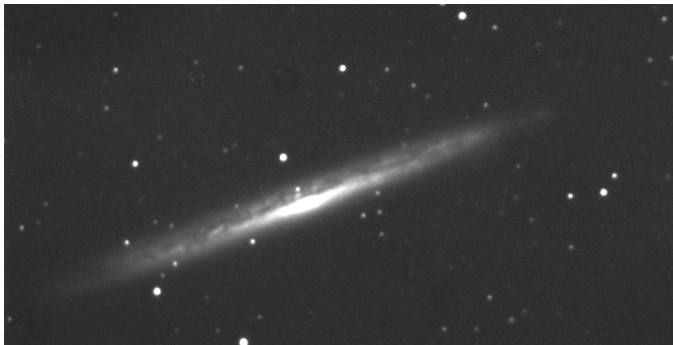
I know the photos in our newsletter are normally night sky shots, but since the Sun is an object in the sky I thought I'd send you this shot of a sun pillar I caught about 5:45 on May 10. It was an incredible sight.

Image is copyrighted by Don Knabb, 2005, and is published here with Don's permission.



Astroimages

By Pete LaFrance



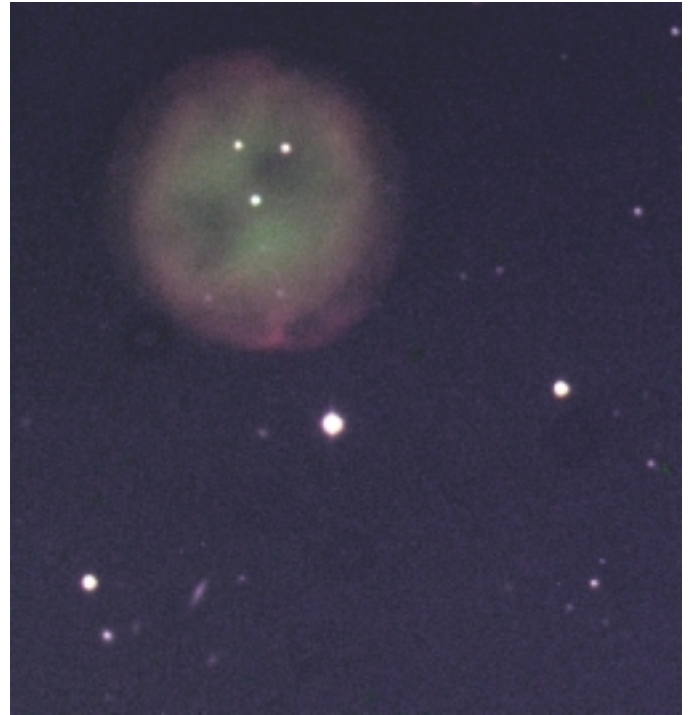
NGC 5907, a 10.4 mag. galaxy in Draco.

Celestron CGE1100 telescope operating at f/6.3

ST-7me CCD camera

Luminance exposures: 2 x 10 minutes

A dark subtract was done, and it was all combined and processed with Maxim DL.



M97, the Owl Nebula, located in Ursa Major
Below and to the left of M97 is a 17.4 mag galaxy,
PGC2490291

Celestron CGE1100 telescope operating at f/6.3

ST-7me CCD camera

LRGB exposures: 2 x 10 minutes for each color band
A dark subtract was done, and it was all combined and
processed with Maxim DL.

Both images are copyrighted by Pete LaFrance, 2005, and are published here with Pete's permission.



New Amateur Astronomy Web Resource

By Don Knabb

Here's a link worth putting in the newsletter and probably adding to the web site:

<http://www.jpl.nasa.gov/amateurastronomy/?msource=FL052705&tr=y&audid=911112>

It's a new NASA/JPL site for amateur astronomers. I'll forward you the NASA newsletter that mentions it. Also, be sure to check out the dust devils on Mars video!



Teflon Available

You can get pieces of Teflon plastic (often used in the bearings of astronomical telescopes and mounts, particularly in the Dobsonian style mount) from Pete LaFrance. Notes Pete: "I have assorted sizes and thicknesses from 8"x8" to 12"x24" free of charge." If you have a need for some Teflon, contact Pete at 610-268-2616 or by email at plafrance@verizon.net.





Seeing in the Dark with Spitzer

By Patrick L. Barry and Dr. Tony Phillips

Have you ever gotten up in the middle of the night, walked to the bathroom and, in the darkness, tripped over your dog? A tip from the world of high-tech espionage: next time use night-vision goggles.

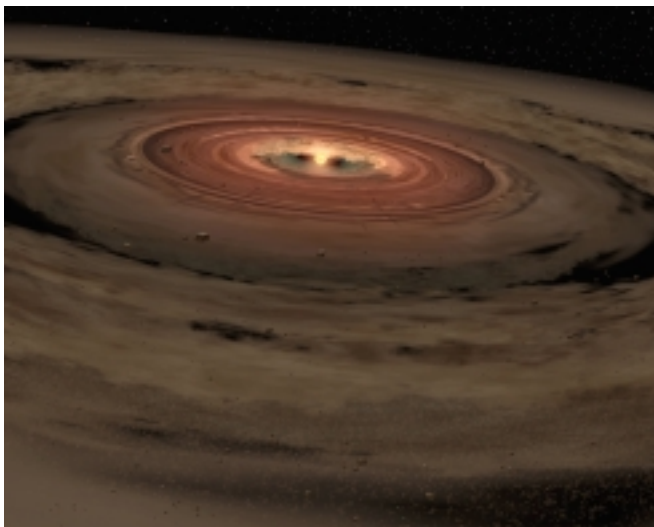
Night vision goggles detect heat in the form of infrared radiation—a “color” normally invisible to the human eye. Wearing a pair you can see sleeping dogs, or anything that’s warm, in complete darkness.

This same trick works in the darkness of space. Much of the exciting action in the cosmos is too dark for ordinary telescopes to see. For example, stars are born in the heart of dark interstellar clouds. While the stars themselves are bright, their birth-clouds are dense, practically impenetrable. The workings of star birth are thus hidden.

That’s why NASA launched the Spitzer Space Telescope into orbit in 2003. Like a giant set of infrared goggles, Spitzer allows scientists to peer into the darkness of space and see, for example, stars and planets being born. Dogs or dog *stars*: infrared radiation reveals both.

There is one problem, though, for astronomers. “Infrared telescopes on the ground can’t see very well,” explains Michelle Thaller, an astronomer at the California Institute of Technology. “Earth’s atmosphere blocks most infrared light from above. It was important to put Spitzer into space where it can get a clear view of the cosmos.”

The clear view provided by Spitzer recently allowed scientists to make a remarkable discovery: They found planets coalescing out of a disk of gas and dust that was circling—not a star—but a “failed star” not much bigger than a planet! Planets orbiting a giant planet?



Artist’s rendering of brown dwarf OTS44 with its rotating planetary disk

The celestial body at the center of this planetary system, called OTS 44, is only about 15 times the mass of Jupiter. Technically, it’s considered a “brown dwarf,” a kind of star that doesn’t have enough mass to trigger nuclear fusion and shine. Scientists had seen planetary systems forming around brown dwarfs before, but never around one so small and planet-like.

Spitzer promises to continue making extraordinary discoveries like this one. Think of it as being like a Hubble Space Telescope for looking at invisible, infrared light. Like Hubble, Spitzer offers a view of the cosmos that’s leaps and bounds beyond anything that came before. Spitzer was designed to operate for at least two and a half years, but probably will last for five years or more.

For more about Spitzer and to see the latest images, go to <http://www.spitzer.caltech.edu/spitzer>. Kids and grown-ups will enjoy browsing common sights in infrared and visible light at the interactive infrared photo album on The Space Place,

http://spaceplace.nasa.gov/en/kids/sirtf1/sirtf_action.shtml.

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



Calendar Notes

June 2-5, 2005	Almost Heaven Star Party Location: Spruce Knob, WV see article below for more details
June 10/11, 2005 (Friday/Saturday)	CCAS Observing Session & Meeting Location: BVA sunset
July 6-10, 2005	Mason-Dixon Star Party Location: Shreveport Airport & Footlight Ranch in York County, PA see article below for more details
July 8/9, 2005 (Friday/Saturday)	CCAS Observing Session & Meeting Location: BVA sunset
August 12/13, 2005 (Friday/Saturday)	CCAS Observing Session & Meeting Location: BVA sunset
August 12-13, 2005	AlconExpo 2005 A.L. National Convention Location: Kansas City, MO contact: carroll-iorg@kc.rr.com Website: www.astroleague.org
Sept. 9-11, 2005	Black Forest Star Party Location: Cherry Springs State Park in Potter County, PA see article below for details
Sept. 29 – Oct. 2, 2005	Delmarva No-Frills Star Party Location: Tuckahoe State Park, MD website: www.delmarvastargazers.org/archives/nofrills2005/index.html



John Stolar, CCAS Advisor, Retires from WCU



John Stolar, Professor of Geology and Astronomy at West Chester University, retired at the end of the 2004-05 academic year. John’s wife also decided to take early retirement from her position as a high school teacher in the West Chester School District this year. It seems she could not stand the thought of John facing the awful burden of all that free time alone! The Stolars are planning numerous backpacking trips for the near future.

Dr. Stolar is one of the co-founders of the Chester County Astronomical Society, along with Ed Lurcott and Professor Hugh Harber (also now retired from WCU). Hmmm. The Society must be getting old; all the founders are retired! Many CCAS members (if not all of them) remember Dr. Stolar from the wonderful planetarium shows he has provided over the years for CCAS classes. His knowledge, friendliness, and warm sense of humor were enjoyed by all. In the picture above, John is displaying the CCAS polo shirt we gave him as a retirement gift at the planetarium show on May 3. We greatly appreciate all he has done to promote astronomy in the local community, and all his time and effort organizing and supporting the CCAS. John, we wish you and your wife nothing but the best as you start this new chapter in your lives. We hope to hear about some of those backtripping trips sometime: you’re always welcome at any CCAS function whenever you’re in the area. Once again, many many thanks from all of us in the Chester County Astronomical Society!



Just in case you were wondering what Ed Lurcott’s address is, after reading the calendar note for June 5 on page 1, here it is:

1384 Station Place
West Chester, PA 19380



Almost Heaven Star Party: June 2-5, 2005

The Northern Virginia Astronomy Club, in partnership with the Virginia Outdoor Lighting Taskforce, will host the first annual Almost Heaven Star Party on June 2 through 5 at The Mountain Institute in Spruce Knob West Virginia. For those of you who haven’t been there, Spruce Knob is one of the premier dark sites in the eastern United States. Plus, The Mountain Institute offers amenities not often found at star parties. In addition to camping, all registrants will have access to hot showers, rest rooms, and meal service. This event is dedicated to those who seek the darkest conditions available for their observing or astrophotography sessions.

Space is limited, so registration is capped at 250. Visit the website and register online today:

<http://www.novac.com/AHSP/register.php>

There will be no on-site registration! You must register in advance. If you have any questions, please contact

ahsp@novac.com



Mason Dixon Star Party: July 6-10, 2005

The 16th Annual Mason Dixon Star Party, hosted by the York County Astronomical Society, has been moved to a new and improved site: Shreveport Airport & Footlight Ranch in York County, PA. This new site offers some amenities not available at the old site: swimming pool, bath houses, a bunk house, showers, horse trails, hiking trails, horseshoe pits, sand volley ball courts, bathrooms, 24 hour food service (May's Munchables), great astronomy vendors, swap meets, event speakers, and camping along a 2,600 foot grass runway. It also has darker skies at night! Parking and camping are available at this fine family-type event. Several motels are nearby for those who don’t want to “rough it” camping on-site. Pete, Ed Lurcott, and Steve Limeburner are three Society members who have attended this fine star party before and can attest to how much fun it is. For more details and registration, see the website at www.MasonDixonStarParty.org.



Black Forest Star Party: September 9-11, 2005

The Annual Black Forest Star Party, hosted by the Central Pennsylvania Observers, is being held at Cherry Springs State Park in Potter County in northern Pennsylvania on the weekend of September 9 through 11, 2005. Cherry Springs is Pennsylvania’s first official Dark-Sky Park. Seeing at this site is, to put it mildly, superb: probably the best astronomical seeing anywhere in the northeastern United States. Previous BFSP attendees from the CCAS have included Pete LaFrance, Ed Lurcott, and Steve Limeburner. More details, including registration information, can be found at the website www.bfsp.org. As of May 30, there were 234 slots still open for this star party. All registrations must be made in advance for the BFSP; they will not accept any “on-site” registrations. Steve Limeburner can provide information about motels in the area if you don’t want to camp on-site.

Astronomus

“Straining for the Heavens”

By Bob Popovich

I confess that it crosses my mind only infrequently. But it did during a recent Sunday church service when a lesson referenced the stars of the heavens. That set me to reading and pondering. What’s become clear to me is that astronomy has a long and noble legacy and that it occupies a unique place in our being. From time immemorial people have used the celestial heavens to express awe and reverence. Until very recent times this was driven not so much by scientific curiosity, but rather by a yearning rising from our very soul. This straining for the heavens isn’t learned; it is, if you will, instinctive. It is within us.

From that Sunday morning to the drafting of this article, I find myself retuning to thoughts on the connection between astronomy and us. Now, by way of example I present for your consideration three passages from Hebrew scripture. As you read and think about them, bear this question in mind: why, when trying to communicate the word of God to the people of ancient Israel, would writers use the night sky? After all, if you were trying to communicate an idea to an agrarian people who lacked formal education and who lived anywhere from 300 BC to about 1500 BC, wouldn’t you use references to things closer to home? But often, they didn’t. They strained for the heavens. Here is the first of the three:

“...can you bind the chains of the
Pleiades or loose the sweet
bands of Orion?”

Job 38:31

Job is asked whether he has the power to gather the stars of the Pleiades together (“bind” them) or to scatter the stars of Orion (“loose” them). And by using the word sweet, it paints a picture not only of the permanence of the stars but of their beauty as well.

The next passage speaks to infinity:

“...as numerous as the stars of heaven
and as the sand that is on the
seashore...”

Genesis 22:17

This fascinating passage equates the quantity of stars in the heavens to the quantity of sand grains on the Earth. It states that the universe is infinite. Doesn’t seem like they were thinking about a fixed, finite firmament, does it? Depending on visual acuity, the people of Biblical times could see 3,000 – 5,000 stars with the naked eye. (Wouldn’t that be nice!) Some modern estimates I’ve come across state that there are somewhere between 10^{22} - 10^{24} stars out there. For those of us Carl Sagan fans who don’t have the time to count the grains of sand on Earth, the estimate is about 10^{21} grains.

Lastly, consider this description of our home in space:

“...He hangs the earth on nothing.”

Job 26:7

Here the author states that God has placed the Earth in a location without any foundation. Literally, on nothing. Doesn’t this convey the notion of how isolated we are in the vastness of space? And how on Earth did the author of Job come to use this phrase?

As we know all too well, the residents of our pale, blue dot do, on occasion, go through bouts of insanity. These eruptions make us feel ill at ease with where we are and who (collectively) we are. But it is just at moments such as these that we look to the heavens. Why strain for the infinite rather than embracing the finite? Well, we appear to have been doing this since at least Biblical times so it’s clearly not a new reaction for us human beings. Think about it on some clear, still night...

Even as the notion of organized science developed, people have understood astronomy’s unique place and have acted with that understanding in mind. Universities (in Europe, at least) evolved for the teaching of Latin, Greek, philosophy (theology), mathematics and science. But not just any science. Astronomy. And astronomy alone.

Languages gave the student access to the great philosophical/theological writings. Join these disciplines with mathematics and astronomy and presto!, the educated person understood the universe and their place in it.

Sad to say, a college campus of today is more likely to offer extensive training in business and computers than in astronomy. But this makes it all the more important for us to be good stewards of our legacy. In this respect, CCAS is doing a great job!

So the next time you find yourself savoring an especially fruitful observing session, perhaps you'll find this a suitable quote:

"Astronomy compels the soul to look upwards and leads us from this world to another"

Plato

Next time: Strongman.



Cartoon by Nicholas La Para



CCAS Information Directory

CCAS Lending Telescopes

Contact Kathy Buczynski to make arrangements to borrow one of the Society's lending telescopes. CCAS members can borrow a lending telescope for a month at a time; longer if no one else wants to borrow it after you. Kathy's phone number is 610-436-0821.

CCAS Lending Library

Contact our Librarian, Linda Lurcott Fragale, to make arrangements to borrow one of the books in the CCAS lending library. Copies of the catalog are available at CCAS meetings, and on the CCAS website. Linda's phone number is 610-269-1737.

Contributing to *Observations*

Contributions of articles relating to astronomy and space exploration are always welcome. If you have a computer, and an Internet connection, you can attach the file to an e-mail message and send it to stargazer1956@comcast.net

Or mail the contribution, typed or handwritten, to:

Jim Anderson
1249 West Kings Highway
Coatesville, PA 19320-1133

Get CCAS Newsletters via E-mail

You can receive the monthly newsletter (in full color!) via e-mail. All you need is a PC or Mac with an Internet e-mail connection. To get more information about how this works, send an e-mail request to Jim Anderson, the newsletter editor, at:

stargazer1956@comcast.net

CCAS A.L. Award Coordinators

These are the members to contact when you have completed your observing log for the Messier, Binocular Messier, Lunar, or Double Star Awards:

Messier (both): Jim Anderson
(610-857-4751)

Lunar: Ed Lurcott
(610-436-0387)

Double Star: Jim Anderson
(610-857-4751)

Constellation Hunters: Jim Anderson
(610-857-4751)

CCAS Purpose

The Chester County Astronomical Society was formed in September 1993, with the cooperation of West Chester University, as a non-profit organization dedicated to the education and enjoyment of astronomy for the general public. The Society holds meetings (with speakers) and observing sessions once a month. Anyone who is interested in astronomy or would like to learn about astronomy is welcome to attend meetings and become a member of the Society. The Society also provides telescopes and expertise for "star nights" for school, scout, and other civic groups.

CCAS Executive Committee

For further information on membership or society activities you may call:

President: Kathy Buczynski
(610) 436-0821

Vice Pres: Jim Anderson
(610) 857-4751

**ALCor and
Treasurer:** Bob Popovich
(610) 363-8242

Secretary: Vic Long
(610) 399-0149

Newsletter: Jim Anderson
(610) 857-4751

Librarian: Linda Lurcott Fragale
(610) 269-1737

Observing: Ed Lurcott
(610) 436-0387

Education: Kathy Buczynski
(610) 436-0821

Webmaster: John Hepler
(610) 363-0811



CCAS Membership Information

The present membership rates are as follows:

REGULAR MEMBER..... \$25/year
SENIOR MEMBER \$10/year
STUDENT MEMBER..... \$ 5/year
JUNIOR MEMBER \$ 5/year
FAMILY MEMBER \$35/year

Membership Renewals

Check the Treasurer's Report in each issue of *Observations* to see if it is time to renew your membership. If you are due to renew, you can mail in your renewal check made out to "Chester County Astronomical Society." Mail to:

Bob Popovich
416 Fairfax Drive
Exton, PA 19341-1814

Sky & Telescope Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$32.95** which is much less than the newsstand price of \$66.00, and also cheaper than individual subscriptions (\$42.95)! Make **sure** you make out the check to the **Chester County Astronomical Society** (do **not** make the check out to Sky Publishing, this messes things all up big time), note that it's for *Sky & Telescope*, and mail to Bob Popovich. Or you can bring it to the next Society meeting and give it to Bob there. **If you have any questions by all means call Bob first (610-363-8242).** Buying a subscription this way also gets you a 10% discount on other Sky Publishing merchandise.

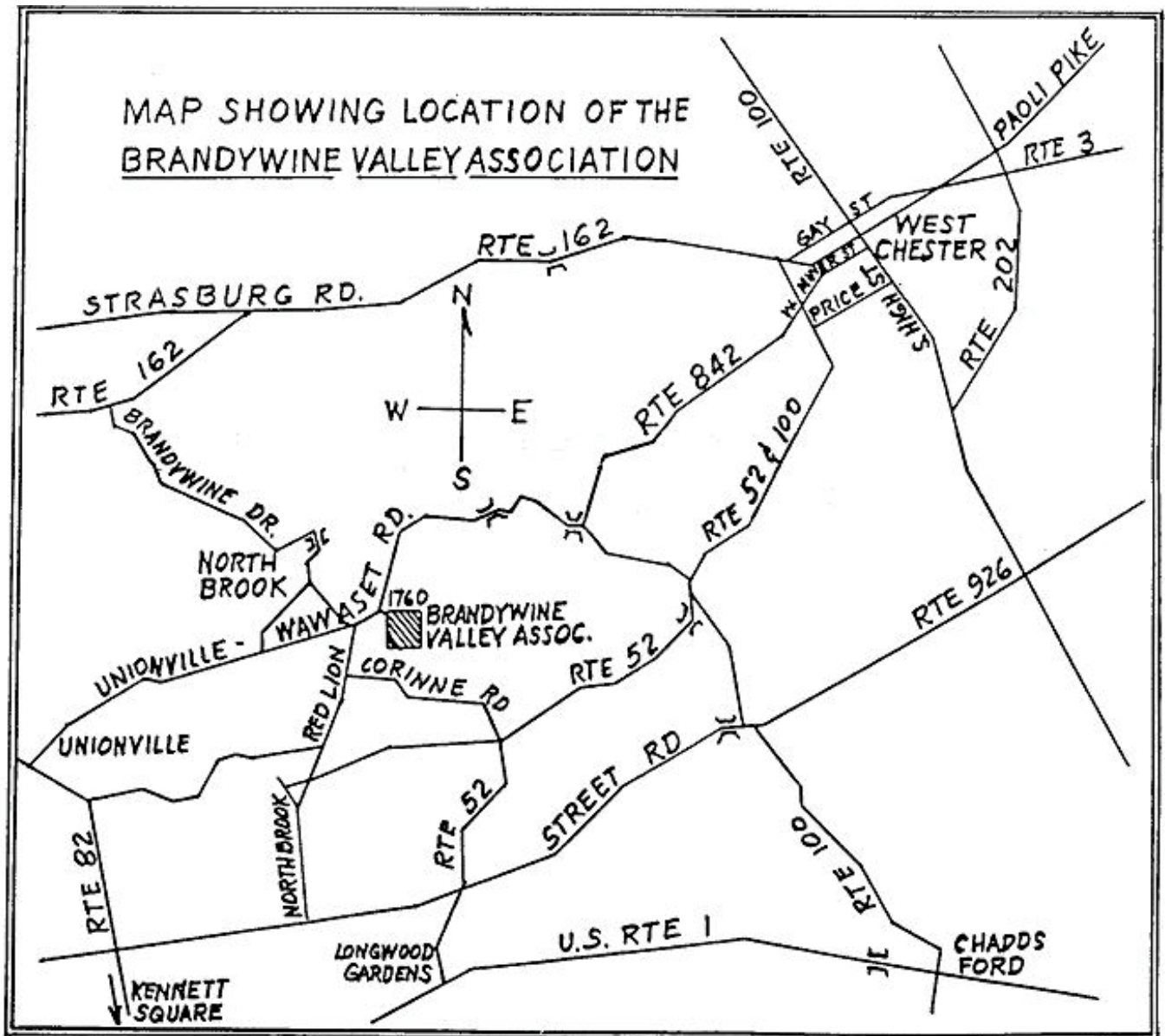
CCAS Website

John Hepler is the Society's Webmaster. You can check our Website at:

<http://www.ccas.us/>

John welcomes any additions to the site by Society members. The contributions can be of any astronomy subject or object, or can be related to space exploration. The only requirement is that it is your own work; no copying copyrighted material! Give your contributions to John Hepler (610-363-0811) or e-mail to

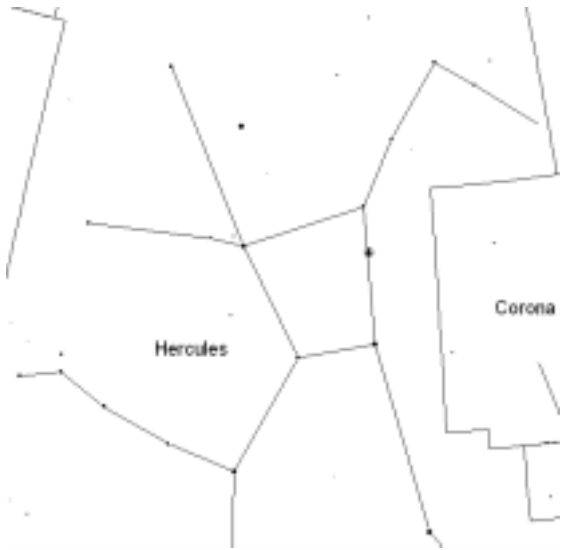
JohnHepler@comcast.net



To get to the Myrick Conservation Center of the Brandywine Valley Association from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site at the BVA property, turn off Route 842 into the parking lot by the office: look for the signs to the office along Route 842. From that parking lot, go up the farm lane to the left; it's about 800 feet or so to the top of the hill. If you arrive after dark, please turn off your headlights and just use parking lights as you come up the hill (so you don't ruin other observers' night vision).

CHESTER COUNTY ASTRONOMICAL SOCIETY

Is forming “observing clusters” around the county



Starting at dusk on Tuesday, May 31, 2005 and every Tuesday thereafter, The Hercules Cluster will meet in **West Goshen Township.**

For more information on location, call Kathy Buczynski at 610-436-0821

Additional Information

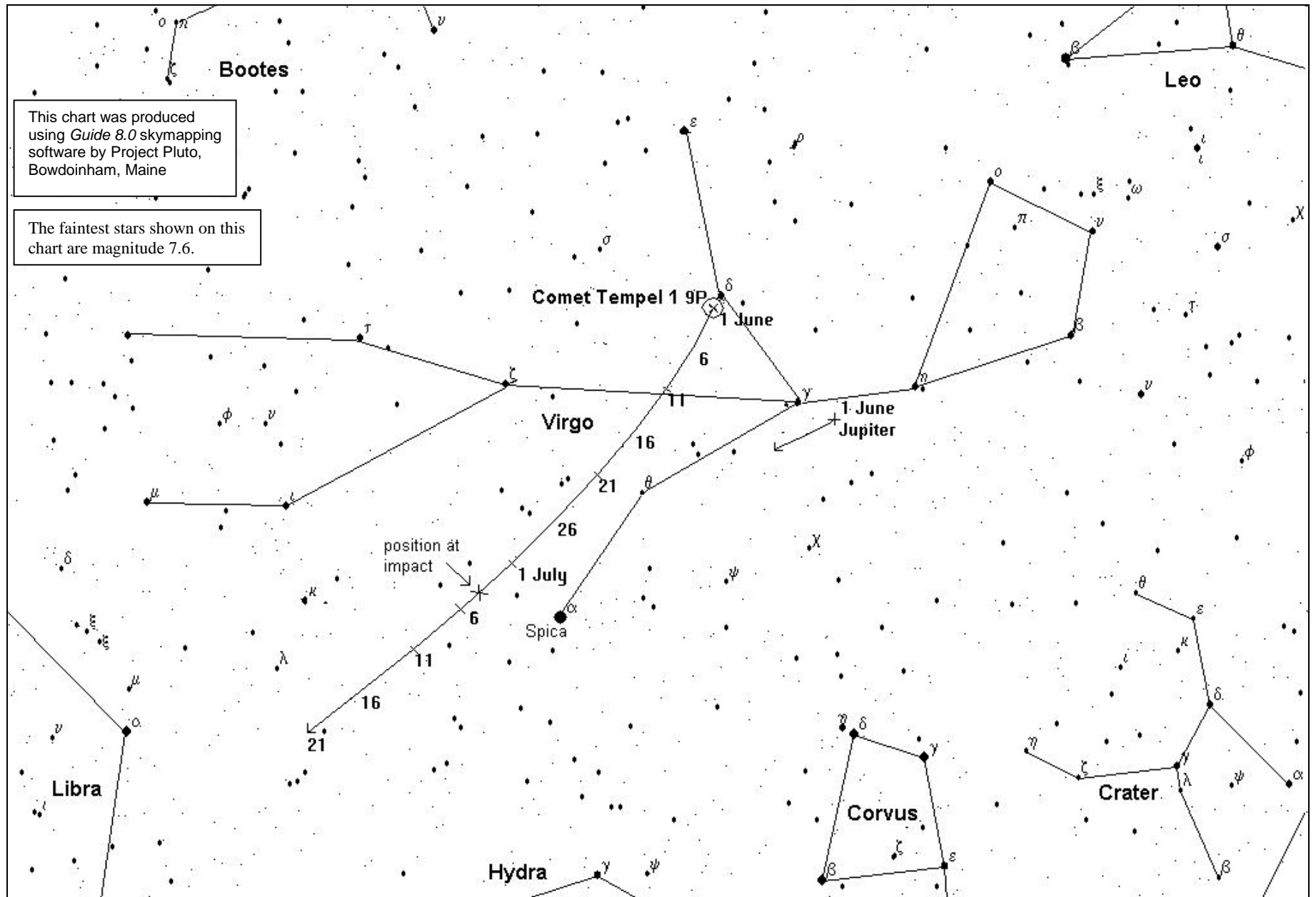
- ✓ Serious observers are encouraged to attend
- ✓ Astronomical League Awards lists will be available, bring pencil and paper
- ✓ Telescope owner's are always willing to share their view, but if you have a telescope or binoculars please bring them (if you are working on the Constellation Hunter's Award, only naked-eye observing is required)
- ✓ Bathroom available only a block away

Observing Hints

- ✓ Please bring star charts; a list of the objects you want to observe will be helpful
- ✓ Bring red flashlight for reading charts
- ✓ Dress appropriately; consider bug spray, but use it before you get there

Check out our newsletter “Observations” and our website www.ccas.us for more clusters forming

If you are interested in helping others with their observations or need help with your observations, consider attending a cluster near you



Path of Comet Tempel 1 (9P) from June 1 through July 21, 2005. Path of Jupiter is shown for the same time interval.

The *Deep Impact* spacecraft will smash a probe into the comet on July 4, and the comet may brighten from magnitude 10 or 11 to magnitude 6 or 5 after the impact. We can't see the comet at the time of impact (it will be daytime here), but look at it before and after impact.

Did you see any brightening? Let us know what you see!