



Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

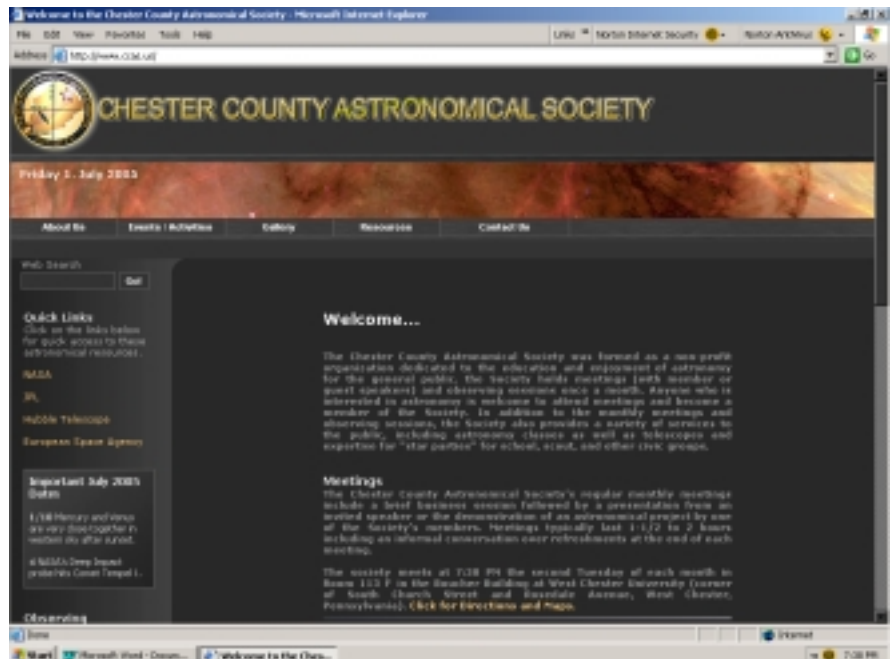
JULY 2005
(VOLUME 13, NO. 7)

Visit our website at www.ccas.us

John Hepler named A.L.'s 2005 Webmaster of the Year!



The Man.



The Website.

The Legend.

The website of the Chester County Astronomical Society and its Webmaster, John Hepler, have won first place in a nationwide website contest among amateur astronomy clubs. Bob Gent, President of the Astronomical League, announced John as the League's 2005 Webmaster of the Year on June 16. The award will be presented at the Astronomical League's annual convention in Kansas City, Kansas on August 12-13, 2005.

The websites were rated by a panel of judges on content, ease of navigation, and ability to attract people. The Astronomical League is a nationwide federation of amateur astronomy clubs, listing over 265 such clubs as members (the A.L. claims to be the world's largest organization of amateur astronomers). Literally dozens of websites from clubs across the country were nominated in this year's contest. John Hepler just assumed the Webmaster duties for our Society in the past year, and proposed and carried out a complete re-design of our website in just a few months. To win top honors the first time he was nominated in a nationwide contest is quite a compliment to John's abilities as a web designer.

Congratulations to John for his outstanding achievement!



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Newsletter Deadlines

August 2005 issue July 26



Important July 2005 Dates

3 Take a look at Comet Tempel 1 tonight (see finder chart on page 14). Early on the morning of the 4th it will be hit by a spacecraft and should get much brighter than its current tenth magnitude.

4  **Happy Independence Day!**

4 2:00 a.m. EDT, the *Deep Impact* spacecraft's impactor slams into Comet Tempel 1. Located in the constellation Virgo, the comet will be below our horizon at time of impact. Take a look at Comet Tempel 1 on the evening of July 4. Does it seem brighter than tenth magnitude, which is what it was on the previous evening when it was visible from our area before the impact?

5 Hercules Observing Cluster meets.

6 New Moon

8/9 CCAS Observing session & meeting at Myrick Conservation Center (BVA) starts at sunset. Map with directions is on page 13.

12 Hercules Observing Cluster meets.

14 First Quarter Moon

19 Hercules Observing Cluster meets.

22 Full Moon

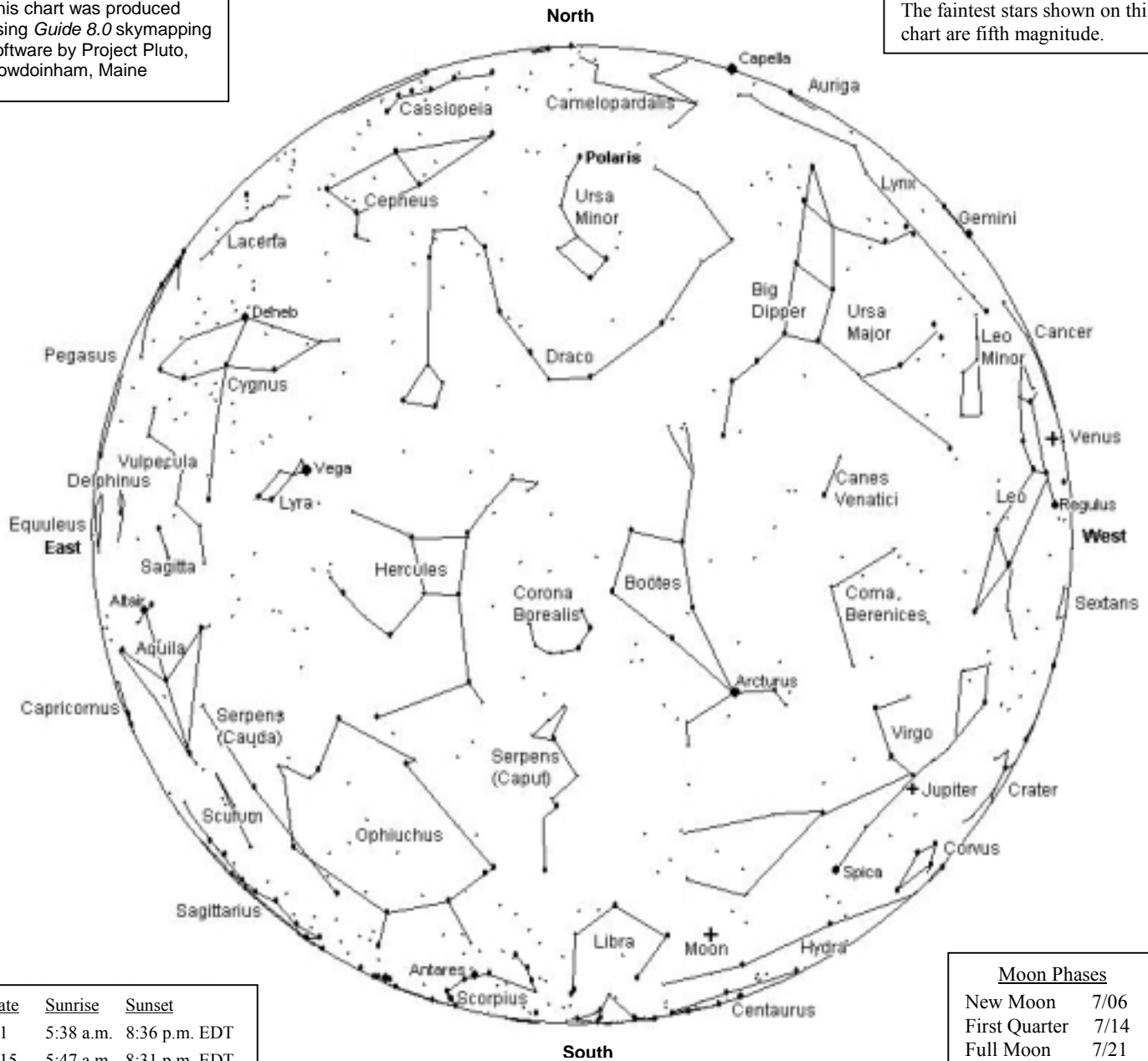
26 Hercules Observing Cluster meets.

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
7/1	5:38 a.m.	8:36 p.m. EDT
7/15	5:47 a.m.	8:31 p.m. EDT
7/31	6:01 a.m.	8:18 p.m. EDT

Moon Phases	
New Moon	7/06
First Quarter	7/14
Full Moon	7/21
Last Quarter	7/27

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

The Planets

Mercury is in the evening sky as July starts, near much-brighter Venus. By mid-month it will become to dim to see and disappear from our evening sky.

Venus is in the evening sky all month, setting about 90 minutes after the Sun. How soon after sunset can you pick out Venus?

Mars is in the morning sky, high in the southeast at sunrise. It's getting noticeably brighter now as it moves closer to Earth.

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 still visible, barely, in the evening sky as the month begins. By mid-month, though, it will be lost in the Sun's glare.

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 now well-placed in our evening sky if you want to find it. It takes at least an 8" to 10" telescope to find Pluto, dark skies, good charts, and lots of patience to find Pluto.

CCAS July 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 July 8, 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 July 9, 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

May 2005 Financial Summary

Beginning Balance	\$1,554
Deposits	83
Disbursements	<u>33</u>
Ending Balance	\$1,604

Membership Renewals Due

07/2005	O'Hara
	Quirk
08/2005	Knabb
	Fragale
09/2005	Bogucki
	Furman
	Lurcott

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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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Help Wanted (and Needed)

Your Executive Committee is looking for help in promoting the Society to the community. In the past, opportunities have just slipped by because we didn't have a person handling the situation. It will probably require about 10 hours/month, but you will set the limit. This position includes such tasks as making phone calls, writing and distributing (email, snail mail and faxing) flyers for special events, contacting newspapers and maintaining contact lists for such flyers.

The Executive Committee has several ideas to get you started; you will decide which ones you feel best promote the organization.

This position, which we are calling the PR Chair, will be a part of the Executive Committee. If you feel that you'd like to help promote astronomy to the community through the CCAS, we'd like to hear from you. Contact Kathy at president@ccas.us or 610-436-0821.

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Pedro Lopez wins *Nightwatch*



Pedro Lopez won the door prize for our sping class Introductory Astronomy, which was a copy of the excellent beginner's book *Nightwatch* by Terence Dickinson. In the picture above, Pedro is receiving the prize from Education Chair and President Kathy Buczynski at a recent meeting of the Hercules Observing Cluster. Congratulations Pedro!

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CCAS Trip to U.S. Naval Observatory

The CCAS is making plans for a trip to Washington D.C. in December to visit the U.S. Naval Observatory and the National Air and Space Museum.

The Naval Observatory is open for tours on Monday evenings (except national holidays) 8:30 to 10pm. We will tour the Observatory and be able to observe (weather permitting). We can reserve a date for up to twenty people. We're considering December 5th and or 12th. We must reserve 4-6 weeks in advance (around 10/1) and they will confirm via e-mail or phone, no later than the Friday prior to requested date. If we find that more than twenty members can commit to the trip, we could request both 12/5 and 12/12. We will have to send them a list of names and birthdates of those attending. Upon arrival (gates open at 8pm) we must have a valid photo ID and go through a security procedure. The security is required because the home of the Vice President is also located on the Observatory grounds.

We would go to the National Air and Space Museum on Sunday, possibly staying overnight and have all day Monday in Washington as well. If you are interested in going, please contact Linda Fragale at 610 269-1737 so we can determine if need to reserve one date or two dates. Thanks.

About the Naval Observatory:

The U.S. Naval Observatory is one of the oldest scientific agencies in the country. Established in 1830 as the Depot of Charts and Instruments, its primary mission was to care for the U.S. Navy's chronometers, charts and other navigational equipment. Today, the U.S. Naval Observatory is the preeminent authority in the areas of Precise Time and Astrometry, and distributes Earth Orientation parameters and other Astronomical Data required for accurate navigation and fundamental astronomy.

The U.S. Naval Observatory performs an essential scientific role for the United States, the Navy, and the Department of Defense. Its mission includes determining the positions and motions of the Earth, Sun, Moon, planets, stars and other celestial objects, providing astronomical data; determining precise time; measuring the Earth's rotation; and maintaining the Master Clock for the United States. Observatory astronomers formulate the theories and conduct the relevant research necessary to improve these mission goals. This astronomical and timing data, essential for accurate navigation and the support of communications on Earth and in Space, is vital to the Navy and Department of Defense. It is also used extensively by other agencies of the government and the public at large.

The USNO 26-inch refracting telescope is located on the grounds of the Observatory and is included as part of the Monday night tour when skies are cloudy.

This telescope has a rich history. Completed in 1873 at a cost of \$50,000, it was the largest refracting telescope in the world for a decade. The lens and mounting were made by the renowned firm of Alvan Clark & Sons of Cambridgeport, MA, and the great telescope was erected on the grounds of the old Naval Observatory site in the Foggy Bottom section of Washington.

It was from this site, in August of 1877, that astronomer Asaph Hall discovered the two moons of Mars, Phobos and Deimos, with the "Great Equatorial Telescope", bringing the attention of the world to the USNO.

The move to the Observatory's present site in 1893 allowed the 26-inch lens to be re-mounted in a new dome with a new mounting designed by the Warner & Swasey Company of Cleveland, OH. This design incorporated a rising floor to facilitate access to the eyepiece. This floor is still the largest elevator in the city!

Today, the telescope is used on every clear night to measure the parameters of double stars. Over the years, visual observations by astronomers using micrometers have been replaced by electronic imaging techniques. By taking very short exposures with a Charge-Coupled Device (CCD) camera, astronomers can actually use the blurring effect of Earth's atmosphere to their advantage to measure the separations and position angles of double star components. The technique, known as "speckle interferometry" is ideally suited to the 125 year-old optics

of the great telescope, and relatively unaffected by the urban location of the Observatory. Several thousand stars are measured annually, and the database of such observations, added to the visual observations dating back over a century, provide for one of the most concise double star catalogs in the world.

The telescope is also used to measure the positions of the moons of the outer planets to help refine their orbital parameters. These data are vital in planning missions to such distant worlds.



First Night Report from Hercules Cluster

By Kathy Buczynski

Initial meeting of the "Hercules" Observing Cluster

Tuesday, May 31, 2005

The day was warm with high puffy clouds. The weather report was encouraging for a clear night. This would be the first meeting of the "Hercules Cluster" in West Goshen. As it turned out, the skies at dusk were wispy with clouds, the humidity started to rise, and a few clouds rolled in and out. This may sound discouraging but it wasn't a bad night. We DID get out. We shared our views through our scopes and binoculars and we helped each other find objects in the sky.

Many members were there. Keith Padgett (a.k.a. Tom Jones) had his scope plugged into his car and tried out many of his filters. Diane Renshaw used her binoculars to scope out the sky, and also helped with the club scope when it was aimed at Jupiter. Ed Lurcott brought his homemade 6" Newtonian and of course his extensive knowledge. Steve Limeburner (talk about extensive knowledge!) found objects with his 10" Dob that were just impossible with smaller scopes in light polluted skies. Included in the crowd were neighbors from the community. All seemed happy we were there to show them the sky. Some showed interest in coming back and some even mentioned joining the club. And a few said they will talk to the neighbor that left his lights on!

As the night went on, more people dropped by. High school students, college students, adults and their children, and then, as we were packing up, friends brought friends back because they thought this was "cool" and had to share the experience.

We showed them Saturn, before it set, Jupiter and its four Galilean moons (we also saw one of the moons disappear into the limb of the planet—cool!), some doubles like Gamma Leo and Alberio, and of course, the Hercules Cluster. But one thing everybody gets a kick out of is the green laser pointer. We pointed out constellations like Bootes, Corona Borealis, Hercules, Lyra, and Cygnus. We pointed at Castor and Pollux, Saturn, Jupiter, Arcturus, and used the laser to help each other find objects in the sky once they were spotted by another person. That was so much fun to look through binoculars and see the green laser pointing out your target object!

Our purpose, as a club, is to get out there and look at some of the things we talk about in the Society meetings and classes, maybe work on an Astronomical League Observing Award, or just observe with others. As preparation for this first observing night of an observing cluster, we have started presenting a Constellation of the Month (COM) at Society meetings. Lepus was our first entry, but sadly it will not be seen in our evening

sky until next fall/winter. Gemini was the next entry and we split Castor, observed Pollux and Saturn on May 31st but the remainder of the constellation was obscured by horizon and light. Coma Berenices was the third COM with its famous star cluster of Berenice's Hair, clearly visible in binoculars, if you knew where to look. Admittedly I needed some help with that one since the stars of the constellation were not visible—the alpha star is only fourth magnitude and therefore not at all visible with the naked eye under these conditions. The fourth entry in Constellation of the Month was Leo. Not a good binocular constellation with its many galaxies but it's fun to find in the sky with its backward question mark and triangle. Unfortunately, as the clouds passed in and out of Leo's area it was not easy to draw the constellation for the Constellation Hunter's Club Award. But you know what, I'll be back next week... and I hope you will be, too.



Second Night Report from Hercules Cluster

By Kathy Buczynski

Second meeting of the "Hercules" Observing Cluster
Tuesday, June 7, 2005

Note: I'd like to say that I would report on every meeting of the Hercules Cluster, but it's just not going to happen. That said, I'd like to tell you about the second meeting of the group.

Attendees: Kathy Buczynski, Keith Padgett, Nicholas LaPara, Diane Renshaw, Barbara Hillenbrand, Don and Barb Knabb and a few Fresh Meadows neighbors.

Official summer is getting ever closer and the heat has set into Chester County. It was a hot and humid day and the evening promised to be the same. Not as many clouds as the first week but the sky was definitely thick with moisture.

I promised myself that I would dust off my own telescope and bring it out. See, I could not split Castor with the club scope and thought I'd give mine a try. I have an 80mm Tasco refractor. Not a bad scope once I got an adapter that would accept 1.25" eyepieces and a decent set of Plossls. Problem is, it has an equatorial mount and a terrible finder scope. I'm not very good at equatorial mounts and I got used to the Dobsonian club scope that is so easy to set up and so easy to move around. I had to work pretty fast because at this time of year, Castor and Pollux are setting at about 10:00PM and I had to set up, find them and try the best eyepiece. I brought out my "Gemini" handout from the Constellation of the Month presentation and realized I had two doubles on the list; Castor (alpha Geminorum) and delta Gem. Had to get to work.

Castor was easy enough to find in the sky, but that darn finder scope. Even in the daylight I aligned it, but it wasn't quite right. Eventually, I found it in the eyepiece. AND THERE IT WAS. Or should I say, THERE THEY WERE! I was able to split Castor at 90 power. (That is 900mm focal length / 10 mm eyepiece.) It was a Wow moment. I recorded it in the logbook and tried to find delta.

Delta Gem is actually the star that designates the waist of Pollux. It was just above the roof tops/horizon and in very murky skies. I know the position pretty well, but couldn't find

it naked eye, in the finder, or in the scope. But there's always next week.

Since I was on a doubles hunt, I thought I would try to split gamma Leonis. Piece of cake! Since I'm on a roll, I will get out tonight and try for alpha Leo, delta Gem and to draw Leo for the Hunter's Award. Are there any other Clusters out there that I can attend tonight?

At two or three objects a night, I figure it will take me about three years to complete the awards I'm going after: Constellation Hunter, Messier, Messier Binocular, Double Star and Urban. Once I get better at it, I'm sure it will go faster. Wish me luck and join me next Tuesday for some Lunar observing.



Constellation Stamps to be Issued in October



The U.S. Postal Service plans to release these four stamps for First Class mail (37 cents) in October 2005. I'll publish a reminder in the October newsletter so you don't miss the chance to get some.



Moving a Mountain of a Dish

By Patrick L. Barry

Your first reaction: "That's impossible!"

How on earth could someone simply *pick up* one of NASA's giant Deep Space Network (DSN) antennas—a colossal steel dish 12 stories high and 112 feet across that weighs more than

800,000 pounds—move it about 80 yards, and delicately set it down again?

Yet that's exactly what NASA engineers recently did.

One of the DSN dishes near Madrid, Spain, needed to be moved to a new pad. And it had to be done gingerly; the dish is a sensitive scientific instrument full of delicate electronics. Banging it around would not do.

“It was a heck of a challenge,” says Benjamin Saldua, the structural engineer at the Jet Propulsion Laboratory (JPL) who was in charge of the move. “But thanks to some very careful planning, we pulled it off without a problem!”

The Deep Space Network enables NASA to communicate with probes exploring the solar system. Because Earth is constantly rotating, a single antenna on the ground can communicate with a probe for only part of the day, when the probe is overhead. By placing large dishes at three locations around the planet—Madrid, California, and Australia—NASA can maintain contact with spacecraft around the clock.

To move the Madrid dish, NASA called in a company from the Netherlands named Mammoet, which specializes in moving massive objects. (Mammoet is the Dutch word for “mammoth.”)

On a clear day (bad weather might blow the dish over!), they began to slowly lift the dish. Hydraulic jacks at all four corners gradually raised the entire dish to a height of about 4.5 feet. Then Mammoet engineers positioned specialized crawlers under each corner. Each crawler looks like a mix between a flatbed trailer and a centipede: a flat, load-bearing surface supported by 24 wheels on 12 independently rotating axes, giving each crawler a maximum load of 194 tons!



Giant Deep Space Network antenna in Madrid is moved using four 12-axle, 24-wheel crawlers.

One engineer took the master joystick and steered the whole package in its slow crawl to the new pad, never exceeding the glacial speed of 3 feet per minute. The four crawlers automatically stayed aligned with each other, and their independently suspended wheels compensated for unevenness in the ground.

Placement on the new pad had to be perfect, and the alignment was tested with a laser. To position the dish, believe it or not,

Mammoet engineers simply followed a length of string tied to the pad’s center pivot where the dish was gently lowered.

It worked. So much for “impossible.”

Find out more about the DSN at <http://deepspace.jpl.nasa.gov/dsn/>.

Kids can learn about the amazing DSN antennas and make their own “Super Sound Cone” at The Space Place, <http://spaceplace.nasa.gov/en/kids/tmodact.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

July 5, 2005 (Tuesday)	Hercules Observing Cluster meets
July 6-10, 2005	Mason-Dixon Star Party Location: Shreveport Airport & Footlight Ranch in York County, PA
July 8/9, 2005 (Friday/Saturday)	CCAS Observing Session & Meeting Location: BVA sunset
July 12, 2005 (Tuesday)	Hercules Observing Cluster meets
July 19, 2005 (Tuesday)	Hercules Observing Cluster meets
July 26, 2005 (Tuesday)	Hercules Observing Cluster meets
August 2, 2005 (Tuesday)	Hercules Observing Cluster meets
August 9, 2005 (Tuesday)	Hercules Observing Cluster meets
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
August 16, 2005 (Tuesday)	Hercules Observing Cluster meets
August 23, 2005 (Tuesday)	Hercules Observing Cluster meets
August 30, 2005 (Tuesday)	Hercules Observing Cluster meets
Sept. 9-11, 2005	Black Forest Star Party Location: Cherry Springs State Park in Potter County, PA
Sept. 29 – Oct. 2, 2005	Delmarva No-Frills Star Party Location: Tuckahoe State Park, MD website: www.delmarvastargazers.org/archives/nofrills2005/index.html



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.

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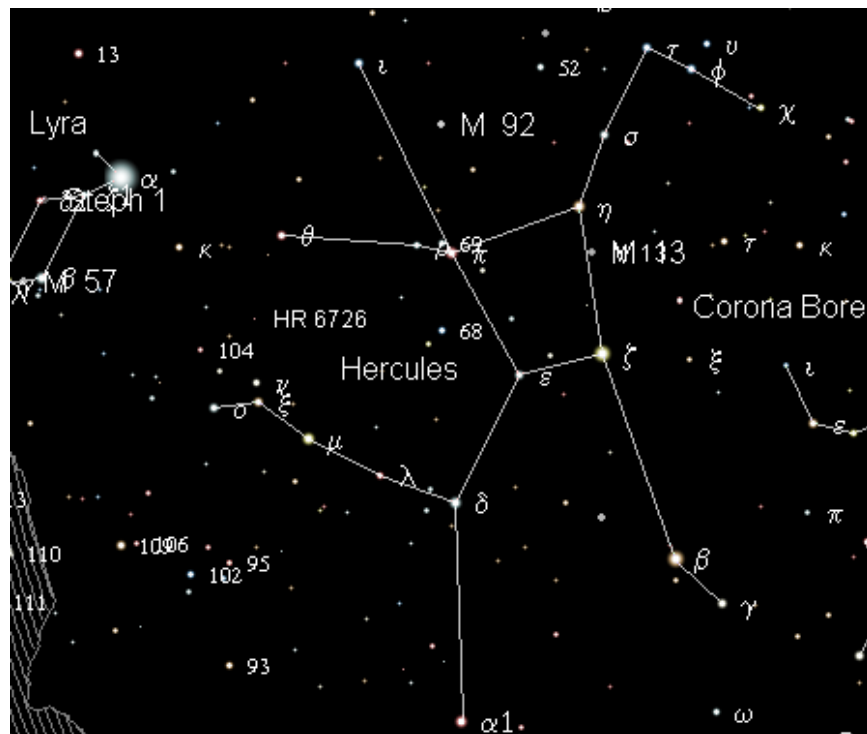
Astronomus

"Strongman"

By Bob Popovich

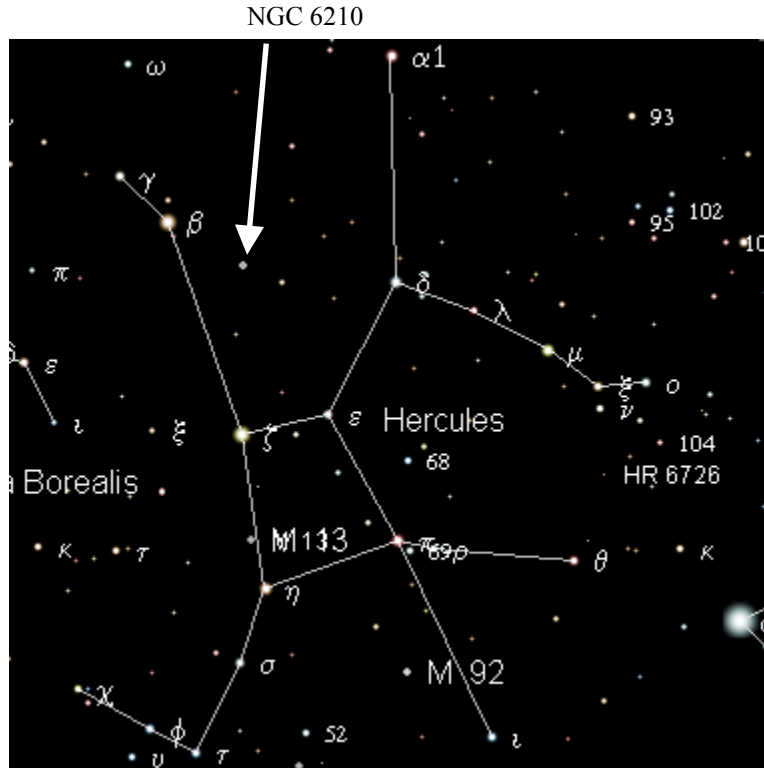
Amongst the 88 officially recognized constellations there are only a handful with mythological stories worthy of the ages. Of these, I'd have to say that Hercules must be the *primus inter pares*. A legendary character known since antiquity, he occupies a choice spot in the summer sky and stands heroically as the fifth largest constellation. Strong as Hercules is, however, Chester County's light pollution is a labor that's putting him to the test. With its brightest star (Ras Algethi) being 3rd magnitude, it can be a challenge for our hero to emerge on a hazy summer night. But, fellow Pennsylvanians, if we scan diligently for a keystone of 4 stars lying nearly overhead, we will have zeroed in on our hero's torso. But even after orienting ourselves to this asterism, we still need a healthy dose of imagination to gather together the remainder of this constellation. Can you envision our strongman kneeling with an outstretched arm clutching a mighty bow? And can you remember that, depending on which way you're facing as you look overhead, that our hero may appear upside down?

This is the way Hercules is usually shown in star charts:



Notice the star at the bottom labeled α 1. That's Ras Algethi- I'll come back to this star in a moment. Notice also Lyra in the upper left and Corona Borealis to the right. If you're struggling with finding the Keystone, these two constellations can be useful **skymarks**.

Now look at the inverted view:



As you can see, Ras Algethi is now, of course at the top. So which of these two is the “right side up” view? You can answer this question by knowing the translation of the Arabic words Ras Algethi. They mean “kneeler’s head.” So, it’s the second of the two above images that’s actually the correct depiction. I guess those ancient people had a funny way of looking at things, didn’t they?

Well, upside down or not, Hercules deserves a lot of attention for he’s chock full of many excellent observing targets for binoculars and telescopes. Certainly the first among these objects has to be M13- a fabulous globular cluster that is, under good conditions, visible to the naked eye. As you can see, it’s located about 1/3 of the way between the ζ and η stars. This astounding conglomeration of some 500,000 stars is a wonder to behold summer after summer. You’ll need jumbo binoculars or a telescope to begin resolving its stars, but this neighbor of ours (it’s only 23,000 light years away) is well worth a long look. As if one globular wasn’t enough, Hercules has a second one- M92. While not as big or as bright as the more famous M13, it is of equal beauty. If you’d like to compare the two directly, binoculars with a 10° field of view, and a cooperative sky, will actually let you see them both.

Hercules also has a planetary nebula (NGC 6210) that is tough to find though it is within the reach of good (big) binoculars and has a distinct bluish tinge. (See the chart immediately above)

Before you run outside to observe our summer strongman, I think it would be a good time to offer an observing target that also doubles as a tongue twister. Located less than 1° west of 104 Hercules is a loose cluster of about 15 stars of which 10 can be resolved by binoculars. This cluster bears the name of Dolidze-Dzimsejshvili 9. In case you’re wondering, these names are Georgian. Try saying them three times very quickly. Try saying them even **once** very slowly!

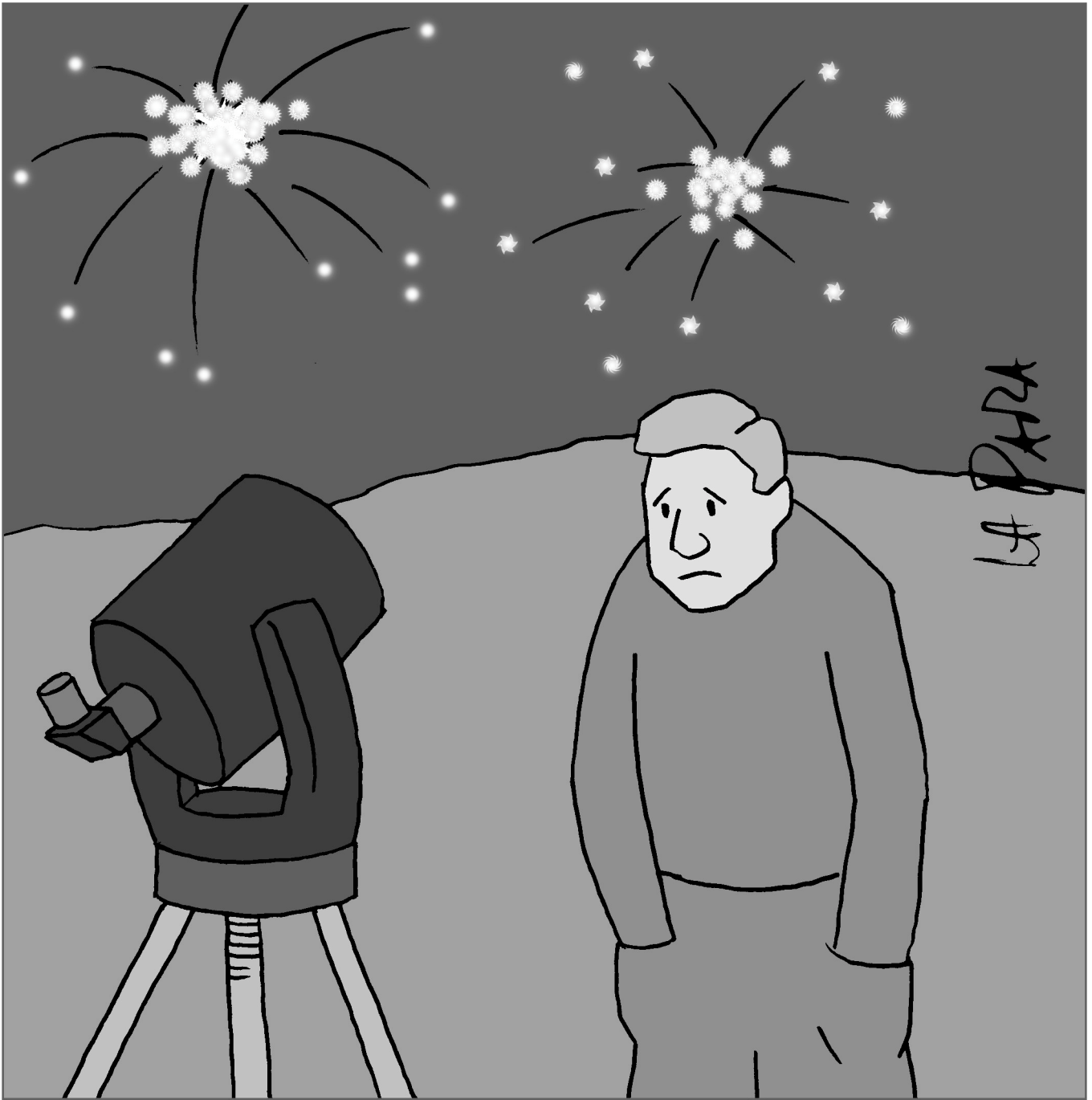
Lastly, for those of you who like to wheel out the big guns, how about these observing targets:

- Ras Algethi is a red variable with a greenish telescopic companion that poses a challenge to resolve as the companion lies only $5''$ away from the α star.
- Try resolving the stars of M92. I’d like to hear how large a telescope you used before you were able to do so.

Summer is a wonderful time for relaxed stargazing. So pull out the beach chair, grab the refreshing beverage of your choice and your binoculars and take time to enjoy a leisurely visit with our mighty friend.

Next time: **Prettier** Than a Picture.





"YOU JUST CAN'T OBSERVE ON THE FOURTH OF JULY"

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

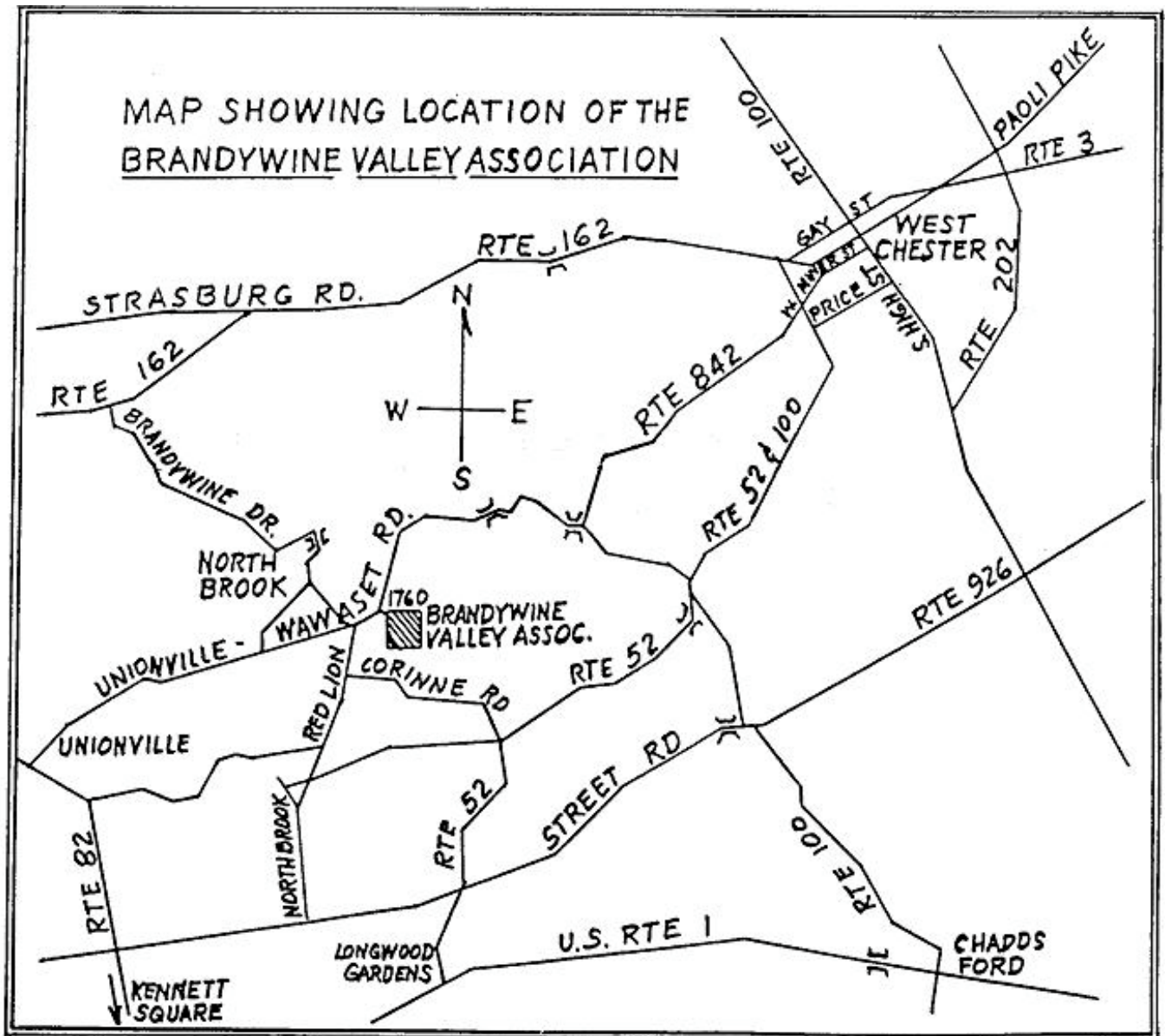
John Hepler is the Society's Webmaster. You can check our Website at:

<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

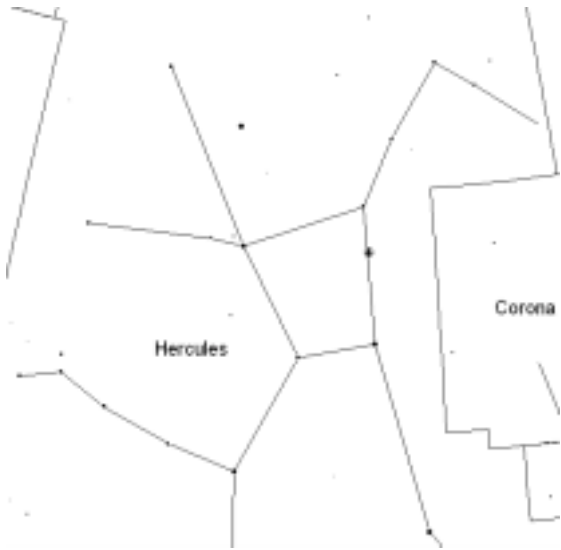




To get to the Myrick Conservation Center of the Brandywine Valley Association from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site 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

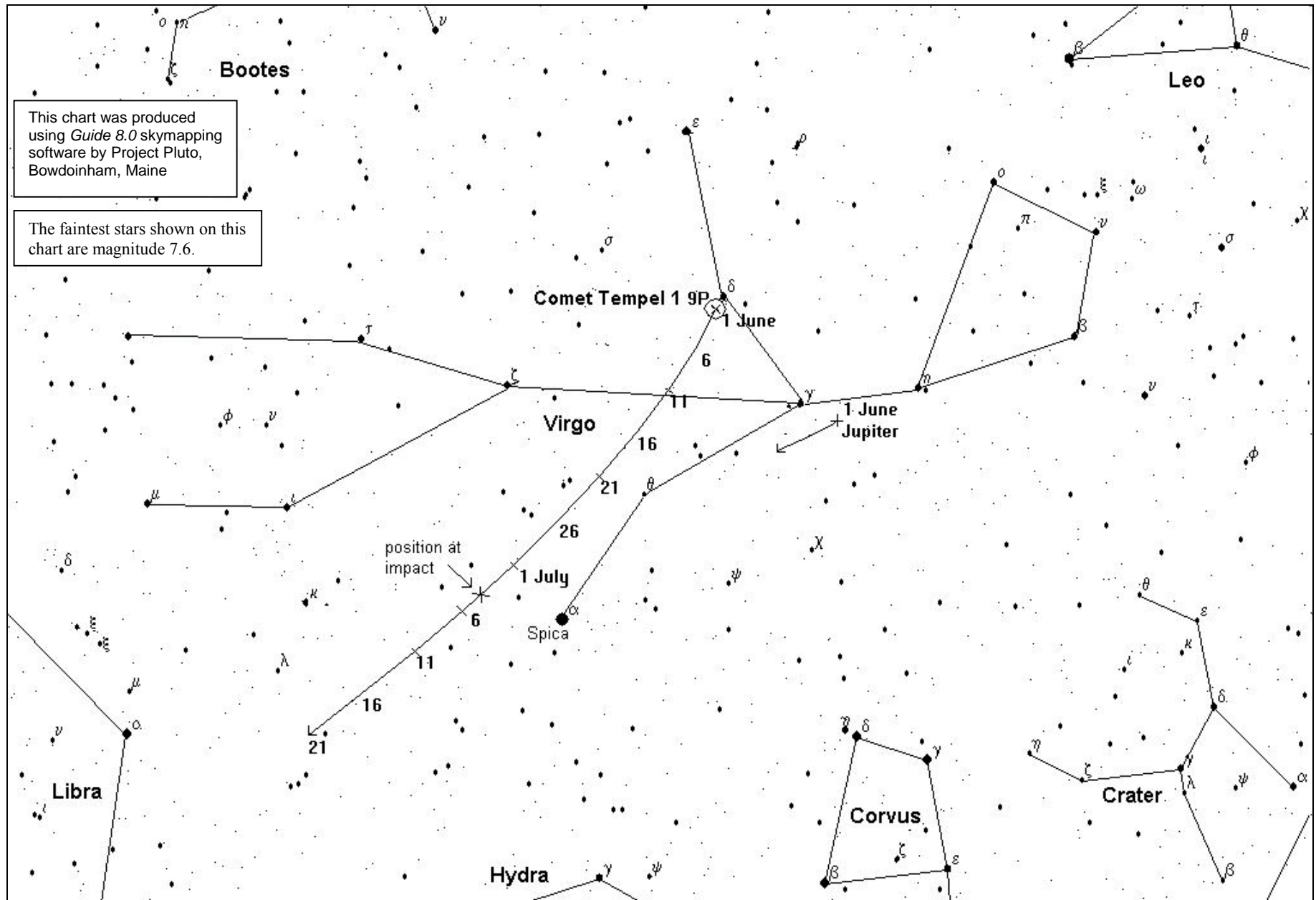
- ✓ Serious observers are encouraged to attend
- ✓ Astronomical League Awards lists will be available, bring pencil and paper
- ✓ Telescope owner's are always willing to share their view, but if you have a telescope or binoculars please bring them (if you are working on the Constellation Hunter's Award,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