



OBSERVATIONS



A MONTHLY PUBLICATION OF THE
Chester County Astronomical Society

★ *President:* Mike Turco
★ *Treasurer:* Pete LaFrance

JULY 2001
(VOLUME 9, NO. 7)

★ *Vice President:* Steve Limeburner
★ *Secretary:* Doug Liberati

http://members.tripod.com/~ccas_2/ccas.html

CCAS Beginning Astronomy Class

And the winner is...Kaitlyn Rocklage!

About a year ago, John Black donated a 4.5" Newtonian telescope to the Society, with the stipulation that it be given to a young adult. The Education Committee decided to use the telescope as a giveaway to a young adult attending the Beginning Astronomy class taught this year from February through May. Each time a young adult attended the class, he or she put another entry into the drawing. At the last session on May 15, a winner was drawn. In the center of the photo at right, Kaitlyn Rocklage poses with her new telescope. Education Chair and Course Director Kathy Buczynski is on the left, and CCAS President Mike Turco is on the right.



Photo by Ed Lurcott

In the photo below, Nicky Popovich implores the Fates to let him win the telescope, as Mike Turco picks the winning ticket from the box held by Kathy Buczynski.



Photo by Ed Lurcott



Photo by Jim Anderson

On February 6, (below left) V.P. Steve Limeburner shows that he has five fingers, and therefore cannot possibly be a space alien as reported in the supermarket tabloid *National Enquirer*. In the other two photos below, taken on April 17, Kathy Buczynski demonstrates her mastery of hand-shadow pictures.

In the photo above, taken at the March 6 class, Bob Popovich demonstrates the motions of the Moon as it orbits the Earth, using two young substitutes for the Moon and Earth.

(Yes, some of these captions should not be taken too seriously...)



Photo by Jim Anderson



Photo by Ed Lurcott



Photo by Ed Lurcott

National Astronomy Day: April 28, 2001



Photo by Jim Anderson



Photo by Ed Lurcott

Every year, a Saturday in spring is designated as National Astronomy Day. On this day, astronomy clubs nationwide “take astronomy to the public” with a wide variety of programs. Each club devises its own program. This year the CCAS set up a display at the Exton Square Mall. In the photo at left above, Ed Lurcott chats with a passerby. Since it was a clear day, and a very large sunspot group was visible on the Sun, Nicholas La Para set up his TeleVue refractor outside to show people the Sun. In the photo at right above, Nicholas watches as a passerby takes a look at the Sun through the properly-filtered telescope. In the photo at right, Frank Angelini discusses astronomy and telescopes with another passerby (wearing a red hat). Frank’s new Zeiss refractor is in front of him, while Mike Turco’s AstroPhysics refractor is in the foreground. In the photo at left below, Kathy Buczynski chats with several people during one of the busier interludes at the display. In front of Kathy you can see several of the excellent pictures and diagrams supplied freely to the Society by NASA and the Astronomical League. These materials helped us explain sunspots, the solar cycle and solar storms, and how these events affect the Earth, causing auroras and radio interference. Finally, the picture at right below gives an overview of the display. It was located in the North Plaza, just outside one of the entrances to Strawbridge’s (near the Au Bon Pain Deli). The management of the Exton Square Mall provided us with four 8-foot tables, the blue cloth to cover them, several easels, and electrical power. The Society thanks the Mall management and merchants for their generous support of our National Astronomy Day program. We also extend thanks to NASA and the Astronomical League for the free educational materials they sent us.



Photo by Ed Lurcott



Photo by Ed Lurcott



Photo by Jim Anderson

Star Night at Westtown School



Photo by Ed Lurcott

In the photo above, CCAS members Kathy Buczynski and Bob Popovich discuss astronomy with a group of third grade students at Westtown School. The students and their parents had a campout on May 10, 2001 and invited the CCAS to bring telescopes and share astronomy with the students. Bob and Kathy were among the several CCAS members who provided this opportunity for the youngsters.

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CCAS July Meeting & Observing Session

DATE: **Friday/Saturday July 20/21, 2001**
TIME: sunset
PLACE: Brandywine Valley Association
LOCATION: PA Route 842
West of West Chester, PA (see map)

During the summer months of June, July and August we combine the Observing Sessions with the meetings. The July Observing Session will be on Friday July 20, 2001 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 21, 2001. 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 `scope. CCAS Observing Sessions are always free of charge, and open to the public. Children are always welcome as long as an adult accompanies them. Regrettably, there are no toilet facilities available at the observing site, so please keep this in mind.

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Errata

In the June issue of *Observations*, I listed my new address and phone number. The phone number was incorrect; two digits were transposed by mistake. The correct number is 610-857-4751.

I apologize for any problems this mistake may have caused anyone.

Jim Anderson

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Calendar Notes

July 20/21, 2001 (Friday/Saturday)	CCAS Meeting & Observing Session Location: BVA sunset
July 25-28, 2001	ALCON 2001 Astronomical League National Meeting Location: Frederick, Maryland
August 11/12, 2001	Perseid Meteor Shower Location: everywhere early morning hours
August 17/18, 2001 (Friday/Saturday)	CCAS Meeting & Observing Session Location: BVA sunset

Newsletter Deadlines

These are the deadlines for submitting material for publication in the newsletter, through the August 2001 issue.

<u>Issue</u>	<u>Deadline</u>
August 2001	07/27/2001

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Welcome New Members!

The Society would like to extend a warm welcome to Edwin Bogucki of Springfield, Bob Borowski of West Chester, Jeffrey Gildner & Family from Downingtown, and Kent Paterson of Malvern. Hello everyone, and Clear Skies!

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Astronomus: 3

A Journal for Young Astronomers

By Bob Popovich

“The Music of the Night”

Only 2 of the 88 constellations are named after musical instruments- Lyra the lyre (a small harp) and Triangulum, the triangle. OK, I suppose I'm stretching things a bit with Triangulum. But in any case, it's not much of a constellation and, let's face it, it's not much of a musical instrument, either. Lyra, on the other hand, plays a beautiful tune in our summer sky.

The skies darken, and a hush falls over the earth as our concert opens directly overhead. We look to find a very bright blue-white star with a small, lopsided rectangle made up of 4 dimmer stars just below it. That's Lyra. Of the 5 principal players in this quintet, the α star is by far the brightest. It is named Vega, a word that comes to us from the Arabic for “The descending one” (That is, a vulture).

Now Vega is a really “big star” that stands high in the sky in the summer and, in fact, is visible almost all year at one time of the night or another. But this “big star” is going to have a very special performance beginning in about 12,000 years. If you know what that is, e-mail me at b2n2@aol.com. Reserve your tickets now!

Our next musical number is a quartet. Look to the left of Vega and you'll see another star above the rectangle. With eagle

eyes, you may be able to make out that this one star is actually a double. But with a telescope, each of these stars turns out to be itself a double. This lovely tune carries a very technical astronomical name: “The double-double.” (Who says astronomy is difficult?) Let’s pretend we could watch the double-double move at light speed. What would we see? We’d see each star in orbit around its partner while the two pairs do a 1,000,000-year dance around a common center. How different life on Earth would be if they were our suns!

Now focus back on our “big star” Vega. Let’s hold out our right hand with fingers outstretched so our pinkies cover Vega. Our thumbs will then be pointing the way to our grand finale- the Milky Way. Even though the Earth is in the “suburbs” of our home galaxy, the stars are so numerous and relatively close together that we see it at night as a milky-white streak across the summer sky. With either a ‘scope or a pair of binoculars, the Milky Way shows us that it’s crowded with stars of all colors. There are solo stars and duets and trios. There are even spots made so dark by interstellar dust that starlight can’t pass through them.

Let’s just glide along up and down the Milky Way, enjoying the experience. And if it’s very quiet, we might hear the stars making music just for us.

Tonight’s concert is done. Let’s applaud the stellar performance of the music of the night.

Next time: The Birds!



July Skies

Moon Phases

Full Moon	7/05
Last Quarter	7/13
New Moon	7/20
First Quarter	7/27

The Planets

Mercury is in our morning sky in July. On the morning of July 13, it will be just 2 degrees away from Jupiter.

Venus is also in the morning sky this month, rising at about 3 a.m. EDT. It is close to Saturn and Aldebaran in July, forming a very attractive and bright grouping. On July 13, they form an equilateral triangle just above the Jupiter-Mercury conjunction mentioned above. On the morning of July 15, Venus will pass just 0.7 degrees from Saturn, and the apparent size of the two planets’ globes will be equal! You’ll have to use a telescope to appreciate this sight, but even the naked-eye appearance of this conjunction should be stunning! Venus and Saturn will fit in the same field of view in a telescope on July 15. If you get any images of this rare treat, please consider sharing them with the members of the CCAS via *Observations*. Thanks. Then on July 17 before sunrise the crescent Moon forms a tight group with Venus, Saturn, and Aldebaran. During the daylight hours of July 17, the Moon will occult Saturn (visible from South America only) and then later it occults Venus (visible from North America). So if it’s clear on the mornings of July 13 (a Friday) through July 17 (a Tuesday) it may be worthwhile getting up “before the birds” to catch the magnificent celestial show!

Mars is the big show in our evening sky in July. It is not hard to find, as it is a very bright reddish-orange “star” visible soon after sundown each night. Mars is very close to Earth this month, and patient observers can see surface details using telescopes. Mars is somewhat low in the sky, though, meaning we’re looking through lots of the Earth’s atmosphere to see it. That can make the image very blurry.

Jupiter and Saturn are in the morning sky, as mentioned above.

Uranus is in Capricornus this month, and highest in our sky around midnight.

Neptune is also in Capricornus, reaching opposition on July 29.

Pluto is in Ophiuchus in July, to the north (above) much brighter Mars. You’ll need at least an 8” telescope, dark skies, good finder charts, and patience to find Pluto.

Comet C/2001 A2 (LINEAR)

This comet, discovered earlier this year, has passed around the Sun and is now appearing in our morning sky. It has generated some excitement because it has experienced another outburst, meaning it has gotten brighter than expected. As of July 2, it was about magnitude 4.2 in brightness, and therefore visible to the naked eye as a “fuzzy” star. Naked eye observers are not reporting any tail on the comet, although telescopic observations show it to have a faint tail. These are the projected coordinates for the comet, along with the newly revised projected magnitudes, for the month of July:

<u>Date</u>	<u>R.A.</u>	<u>Decl.</u>	<u>Mag.</u>
8	23 23.16	+06 48.1	4.7
10	23 03.51	+09 32.5	4.9
12	22 45.22	+11 55.6	5.1
14	22 28.32	+13 57.7	5.3
16	22 12.82	+15 40.0	5.5
18	21 58.65	+17 04.3	5.8
20	21 45.75	+18 12.8	6.0
22	21 34.05	+19 07.5	6.2
24	21 23.45	+19 50.5	6.4
26	21 13.87	+20 23.3	6.6
28	21 05.22	+20 47.7	6.9
30	20 57.42	+21 05.0	7.1

As you can see, on about July 18-20 the comet will drop below naked-eye visibility. If your eastern skies are not very dark, it may fade from naked-eye visibility even sooner for your site.



Education Committee Planning Fall Class

Kathy Buczynski and the Education Committee will be meeting soon (“soon” as in “July 17 or July 24”) to start planning an Intermediate Astronomy class for the autumn months. If you’re not on the Education Committee, but would like to help with the classes, contact Kathy at 610-436-0821. We can also use some administrative help (taking care of registrations, etc.), as well as teaching help. Please consider helping out. Thanks.



CCAS Information Directory

CCAS Lending Telescope

Contact Kathy Buczynski to make arrangements to borrow the Society's lending telescope. CCAS members can borrow the 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, Bill O'Hara, to make arrangements to borrow one of the books in the CCAS lending library. Copies of the catalog are available at CCAS meetings. Bill's phone number is 610-696-1422.

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 email message and send it to

jimanderson1956@aol.com

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 by 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:

jimanderson1956@aol.com

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): Frank Angelini
(610-873-7929)

Lunar: Ed Lurcott
(610-436-0387)

Double Star: 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 Officers

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

President: Mike Turco
(610) 399-3423

Vice Pres: Steve Limeburner
(610) 353-3986

Treasurer: Pete LaFrance
(610) 268-2616

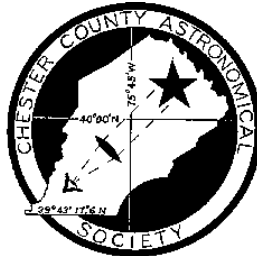
Secretary: Doug Liberati
(610) 827-2149

**ALCor and
Newsletter:** Jim Anderson
(610) 857-4751

Librarian: William O'Hara
(610) 696-1422

Observing: Ed Lurcott
(610) 436-0387

Education: Kathy Buczynski
(610) 436-0821



CCAS Membership Information

The present membership rates are as follows:

REGULAR MEMBER.....\$20/year
SENIOR MEMBER.....\$10/year
STUDENT MEMBER.....\$ 5/year
JUNIOR MEMBER.....\$ 5/year
FAMILY MEMBER.....\$ 30/year

Membership Renewals

Check the date printed on the address label of this issue of *Observations*; "exp." appears in front of it, just after your name. If you are due to renew, you may send your renewal check made out to our Treasurer, Pete LaFrance. Mail to:

Pete LaFrance
413 Church Rd.
Avondale, PA 19311-9785

Sky & Telescope Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$29.95** which is much less than the newsstand price of \$54.00, and also cheaper than individual subscriptions (\$39.95)! Make out a check to the Chester County Astronomical Society, note that it's for *Sky & Telescope*, and mail to Pete LaFrance. Or you can bring it to the next Society meeting and give it to Pete there. Buying a subscription this way also gets you a 10% discount on other Sky Publishing merchandise.

CCAS Website

Pete LaFrance is the Society's Webmaster. You can check our Website at:
http://members.tripod.com/~ccas_2/ccas.html

Pete 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 Pete LaFrance (610-268-2616) or e-mail to lafrance@chesco.com

