



OBSERVATIONS



A MONTHLY PUBLICATION OF THE
Chester County Astronomical Society

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

MARCH 2003

(VOLUME 11, NO. 3)

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

<http://www.ccasastro.org>

CCAS March Meeting

DATE: Tuesday March 11, 2003
TIME: 7:30 p.m. EST
PLACE: Department of Geology and
Astronomy Lecture Room
(Room 113 – Boucher Building)
West Chester University
LOCATION: South Church Street
West Chester, PA

Our guest speaker for February is Dr. Anthony Galatola, who will talk about "Eclipsing Binaries: The Measure of Stars." Dr. Galatola received his Ph. D. in astronomy from Penn and has a B.S. in physics from Brooklyn College. He has published a number of papers on the subject of eclipsing binaries and has taught at colleges and universities in the area, including La Salle and Villanova. He also served as director of Sperry Observatory at Union College in Cranford, NJ. Dr. Galatola recently retired from Lockheed-Martin, where he worked in orbital analysis, satellite altitude and coordinate systems. He is active in astronomical research as a guest astronomer at the University of Pennsylvania's Flower & Cook Observatory.

Also, **2003 is an election year** for the Society. The offices of President, Vice President, Treasurer, and Secretary are open for this election. The Society's constitution stipulates that the President should appoint a three member Election Committee to accept nominations, prepare a ballot, and count the votes when the election is held. Someone who is a candidate for one of the offices cannot serve on the Election Committee. In April, the Election Committee is to present the slate of candidates (the ballot) to the Society, with the election being held at the May meeting. The newly elected (or reelected) officers take office in June.

And... the Society's liability insurance policy is due for renewal (payment due date is 4/9/2003). The annual premium for this policy is the same for 2003 as it was in 2002: \$327.00. This policy is a one million dollar liability policy, purchased via the Astronomical League (using all the clubs nationwide as the "insured pool" helps keep the costs down). This policy protects the Society and its members in case of liability suits arising out of our activities, from Observing Sessions in dark fields to our Astronomy Day program at the Exton Mall. We need to vote on renewing the policy at the March meeting so Pete can send the payment out.



CCAS March Observing Session

The next CCAS Observing Session will be on Friday March 28, 2003 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 March 29, 2003. 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 always free of charge.



CCAS Bus Trip to Hayden Planetarium

Mike Turco is serving as our "Tour Guide" for a bus trip to the new Hayden Planetarium in New York City. The trip is planned for Sunday, March 23, 2003. We plan to leave at about 8:00 a.m. from the West Chester area and return there at about 8:00 p.m. It will cost about \$20.00 per person for the bus (assuming we get at least 40 people), and the group rate for adults at the Hayden is about \$20.00, so that's about \$40.00 per person, plus meals. We will be accepting reservations for people 11 years of age or above (those under 18 must be accompanied by an adult, i.e. someone over 21). To make a reservation contact Mike as soon as possible at 610-399-3423.

CCAS Beginning Astronomy Class

The Education Committee of the CCAS is offering a class intended to introduce people to basic astronomy. This series of eight classes will be held on the first and third Tuesdays of each month, starting at 7:00 p.m. and ending at 8:00 p.m. These are the dates on which the remaining classes will be held:

To be rescheduled from Feb. 18: The Moon
March 4 The Other Kids on the Block
March 18 Planispheres/Star Charts
April 1 Stars by Design
April 15 The Secret Life of Stars
May 6 Planetarium Field Trip (WCU)
May 20 Telescopes, Binoculars and Mounts

The classes will be held at the University of Pennsylvania's Flower and Cook Observatory in Willistown Township. The FCO is located just a few miles south of Malvern. It is located

near the intersection of Warren Avenue and Providence Road, just west of Warren Avenue on Providence Road.

The cost for non-members is \$15.00 per person, and \$25.00 per family (with the same address). **For current CCAS members, the classes are free!** Space is limited to just 40 people, so call Kathy Buczynski to reserve your space now (610-436-0821).



Members and Telescopes Needed

There is a star night scheduled for this month. We need help from our members with this event; even if you don't have a telescope you can help. Please contact Deb Goldader at 610-407-9213 if you can help. Thanks.

Monday March 10, 7:00 p.m.— Deb Goldader will be bringing her 9th grade class (from Friends' Central) to Flower and Cook. Any extra telescopes (weather permitting!) would be most welcome.



Upcoming Meeting Topics

April: Field trip to Eastern College Observatory



March Skies

Vernal Equinox: March 20

The Sun crosses the equator on March 20 at 8:00 p.m. Eastern Standard Time, marking the official beginning of spring in the Northern Hemisphere. In the Southern Hemisphere, it is the beginning of autumn. Equinox means "equal night," meaning that on March 20 the night is about the same length as the day. This year, spring can't arrive too soon for most of us!

Moon Phases

New Moon	3/2
First Quarter	3/11
Full Moon	3/18 "Full Worm Moon"
Last Quarter	3/24

The Native American name for this month's Full Moon was obtained from the *Farmer's Almanac* website. In March, the ground begins to thaw and earthworm casts appear on the ground again, heralding the return of robins. Tribes further north sometimes called it the Full Crow Moon, from the cawing of crows signaling the end of winter. It was sometimes also called the Full Crust Moon, because the snow melts during the day and freezes at night, forming a crust on top the snow. Another name is the Full Sap Moon, a sign meaning it was time for tapping the maple trees for syrup. Early American settlers also sometimes called it the Lenten Moon, as March is usually when the Christian season of Lent begins.

In case you were wondering, February's Full Moon was called the Full Snow Moon, because that's when the heaviest snows usually fall in the Northeast US. Big surprise, huh? It was also sometimes called the Full Hunger Moon because all that snow made hunting difficult and winter food supplies were getting low (squaws had to rush to the corner lodge to stock up on milk and bread).

The Planets

Mercury is behind the Sun for most of March, and thus lost in the Sun's glare this month.

Venus continues to dominate the morning sky this month, but is now low in the southeast at morning twilight.

Mars is also in the morning sky, in Sagittarius. It is so far away now that it is a tiny featureless dot in a telescope. Wait until August, when Mars will be at its closest to us in a lifetime!

Jupiter is the brightest "star" in our evening skies, blazing away in the southeast and south. Seeing Jupiter in a telescope is always an impressive experience!

Saturn is well placed for telescopic observations as soon as night falls. Furthermore, Saturn is at perihelion in July 2003, meaning that it is the closest it has been to the Sun (and therefore us) in 29 years. Plus, its rings are tilted at their greatest angle in the last 15 years. Don't miss this show!

Uranus is emerging into the morning sky in March. On March 28 you will be able to find it easily with a telescope: just point your telescope at Venus and you will see Uranus in the same field of view! This is the closest observable planetary conjunction since 1990.

Neptune is also in the morning sky this month. On March 12, it will be in the same telescopic field of view as Venus, but because Neptune is so much dimmer than Uranus it may not be possible to see it, even in a telescope.

Pluto is fairly high in the south as morning twilight breaks, but still very hard to find in March. June will be a better time to look for Pluto.

Asteroid: Vesta

This month, asteroid 4 Vesta is the brightest (magnitude 5.9) it will be from now until 2007! This is a good opportunity to find an asteroid using only binoculars. Ed Lurcott has provided finder charts on page 6.



Newsletter Deadlines

These are the deadlines for submitting material for publication in the newsletter, through the June 2003 issue.

<u>Issue</u>	<u>Deadline</u>
April 2003	03/28/2003
May 2003	04/25/2003
June 2003	05/23/2003



Membership Renewals

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

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



Calendar Notes

April 1, 2003 (Tuesday)	Beginning Astronomy Class Location: Flower & Cook Observatory 7:00 p.m. EST
April 8, 2003 (Tuesday)	CCAS Meeting Location: West Chester University 7:30 p.m. EDT
April 15, 2003 (Tuesday)	Beginning Astronomy Class Location: Flower & Cook Observatory 7:00 p.m. EDT
April 25/26, 2003 (Friday/Saturday)	CCAS Observing Session Location: BVA sunset
May 6, 2003 (Tuesday)	Beginning Astronomy Class Location: Flower & Cook Observatory 7:00 p.m. EDT
May 10, 2003 (Saturday)	National Astronomy Day
May 13, 2003 (Tuesday)	CCAS Meeting Location: West Chester University 7:30 p.m. EDT
May 20, 2003 (Tuesday)	Beginning Astronomy Class Location: Flower & Cook Observatory 7:00 p.m. EDT
May 23/24, 2003 (Friday/Saturday)	CCAS Observing Session Location: BVA sunset



Seven Strangers?

By Dr. Tony Phillips

At the dawn of the space age some 40 years ago, we always knew who was orbiting Earth or flying to the Moon. Neil Armstrong, Yuri Gagarin, John Glenn. They were household names—everywhere.

Lately it's different. Space flight has become more routine. Another flight of the shuttle. Another visit to the space station. Who's onboard this time? Unless you're a NASA employee or a serious space enthusiast, you might not know.

Dave Brown, Rick Husband, Laurel Clark, Kalpana Chawla, Michael Anderson, William McCool, and Ilan Ramon.

Now we know. Those are the names of the seven astronauts who were tragically lost on Saturday, Feb. 1st, when the space shuttle Columbia (STS-107) broke apart over Texas.

Before the accident, perhaps, they were strangers to you. But if that's so, why did you have a knot in your gut when you heard the news? What were those tears all about? Why do you feel so deep-down sad for seven strangers?

Astronauts have an unaccountable hold on us. They are explorers. Curious, humorous, serious, daring, careful. Where they go, they go in peace. Every kid wants to be one. Astronauts are the essence of humanity.

They are not strangers. They are us.

While still in orbit Dave Brown asked, jokingly, "Do we really have to come back?"

No. But we really wish you had.



Please see the NASA Home Page (<http://www.nasa.gov>) for more information on the Columbia Investigation.

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

The *Space Place* now offers a three-minute answer to a space-related question on a toll-free phone line. Dr. Marc Rayman, Deep Space 1 Manager (and an amateur astronomer himself), answers a question about space or space exploration. Call (866) 575-6178 to hear the monthly message.



Join the Fight for Dark Skies!

You can help fight light pollution, conserve energy, and save the night sky for everyone to use and enjoy. Join the nonprofit International Dark-Sky Association (IDA) today. Individual memberships start at \$30.00 for one year. Send to:

International Dark-Sky Association
3225 N. First Avenue
Tucson, AZ 85719-2103

Dark-Sky Website for PA

The Pennsylvania Outdoor Lighting Council has lots of good information on safe, efficient outdoor security lights at their Website:

<http://home.epix.net/~ghonis/index.htm>



Astronomus

A Journal for Younger Astronomers

By Bob Popovich

“The Milk Aisle”

You decide to go out. Sitting down first, a list is made. In your mind’s eye, you may even see the path you’ll take. It may be down one side and up the other. Or it may follow a zigzag pattern. Perhaps even random flitting here and there. But no matter how you decide to do it, you simply must go down the milk aisle.

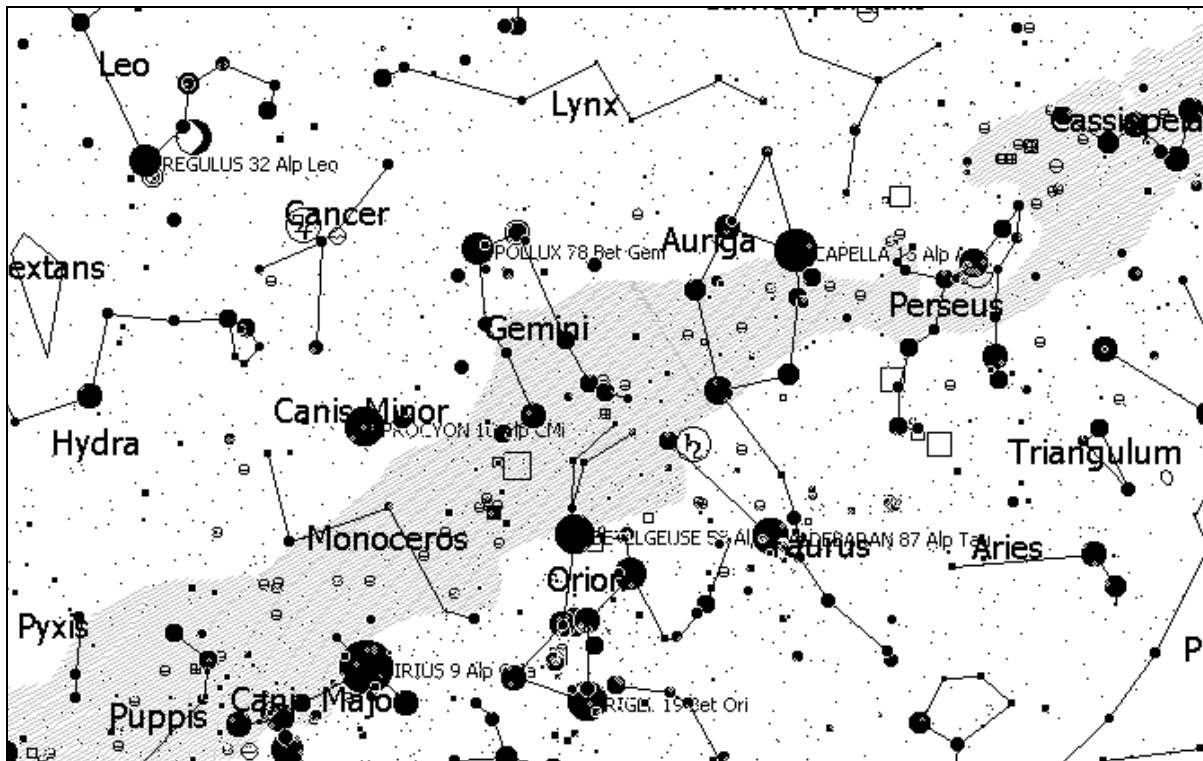
We’re all familiar with the milk aisle. It’s freezing cold on one side and warm on the other. It holds many of the basics. And it’s a place that every amateur astronomer comes back to again and again.

Bypassing the big shopping cart (telescope), let’s grab a basket (binoculars) and stock up on our favorites in the Milky Way.

This time of year we’re on the freezing cold side of the milk aisle. Cutting high in the sky from south-southwest to due north, the Milky Way is chock full of wonderful things that are the staples of amateur astronomy.

It’s sad to say that the Milky Way is no longer visible to the naked eye in most of Chester County. But just like when the store is overcrowded with people stocking up before a big storm, we will forge ahead determined to acquire everything in the milk aisle that’s on our list—despite the obstacle of light pollution.

They say you shouldn’t go shopping when you’re hungry. But when it comes to stargazing though the winter Milky Way, it’s actually preferred! Bundle up, get out and take your fill—it’s all there just for the pickin’.



Starting near the northern horizon, we see Cassiopeia. Forming a familiar “W” shape, this alphabet-soup refugee lies in a beautiful star field that invites an extended visit. Moving down the aisle a bit we pass through Stock 2 and come upon the Double Cluster. Though we’re on the cold side of the milk aisle, this sight is sure to warm our hearts and is nothing short of breathtaking. And at 2-for-1, it’s a bargain, too!

Passing through Perseus, don’t forget to grab Melotte 20 and, if you’re really lucky, perhaps a bit of a hard-to-find delicacy—the California Nebula.

We can’t pass up two special displays positioned so close to the milk aisle—the Hyades (near Aldebaran in Taurus) and, just to its northwest, the Pleiades. One is a loose item that you just scoop up with binoculars while the other is a neatly packaged treat that everyone loves.

Returning to the milk aisle, be sure to pick up Auriga’s Messier objects—M36, M37 and M38. Do spend some time examining all that this constellation has to offer—it’s a top of the line product. Worried about the basket filling up or becoming too heavy? Don’t worry—it’ll neither fill up nor become a burden. Ah, the beauty of the night sky!

And when you’re finished with Auriga, don’t forget to toss in a real gem found at Castor’s foot—M35. There aren’t many clusters tastier than this one. Enjoy!

Next we come upon another display that draws our attention a bit off of the milk aisle—Orion. The Great Nebula and red, ripe Betelgeuse are just too tempting to pass up. And as you know, Orion is part of a 3-pack that includes his dogs Canis Minoris and Canis Majoris. I find the big dog more to my liking with its piercing star Sirius and still another wonderful Messier object—M 41.

Maybe we had better cruise back up the milk aisle and see if we've missed anything. Ah, I can't believe we flew right past Jupiter and Saturn! Do you see them?

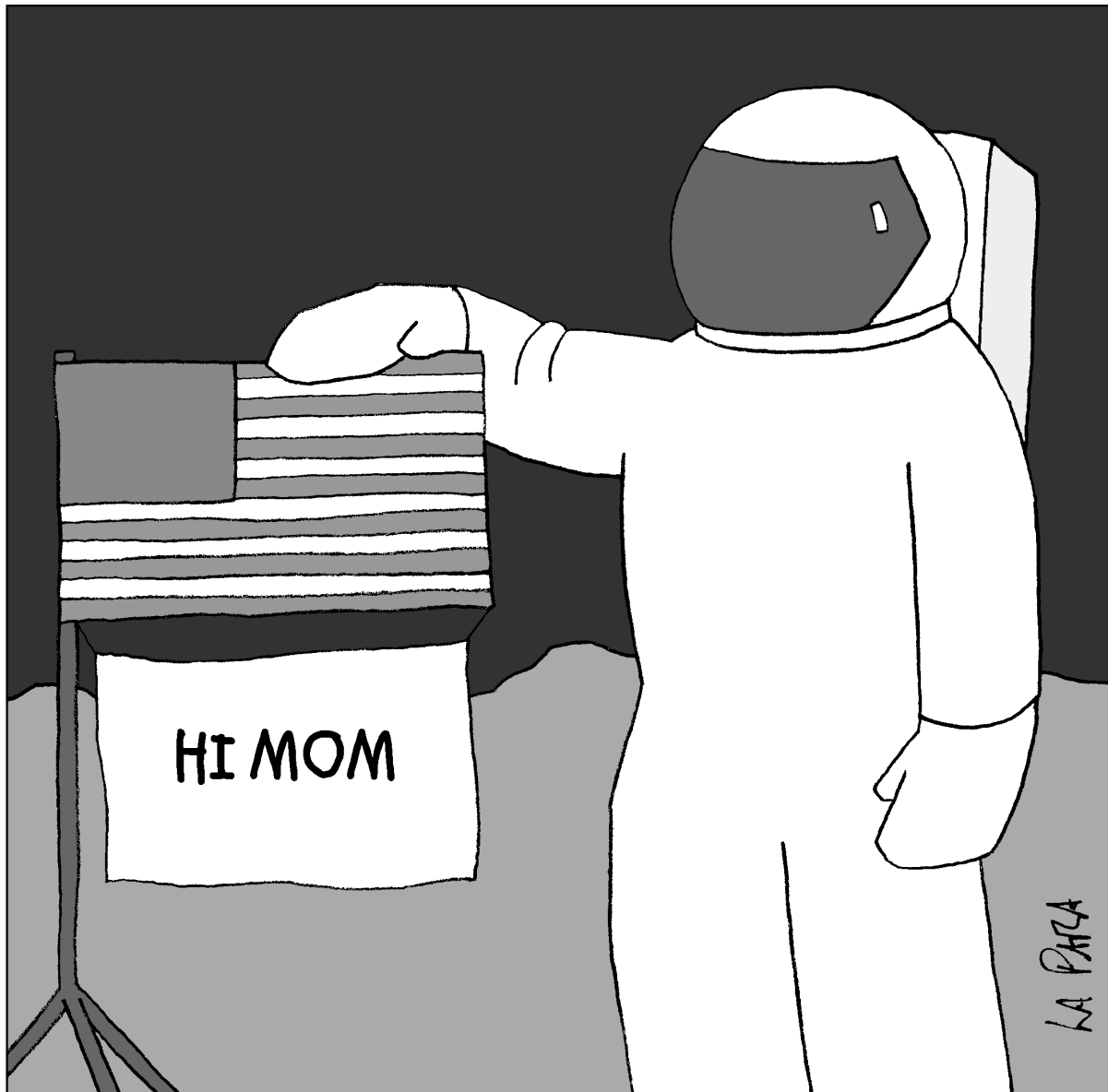
Jupiter is half way between Pollux and Regulus while Saturn is about half way between Pollux and Aldebaran. And just look at all the lovely star groupings that are seen as we look up and down the milk aisle.

Well, like most trips to the milk aisle, it seems that our basket contains lots more goodies than the list we made before venturing out. How lucky we are...

Next time: "Astronomy From the Other Side."

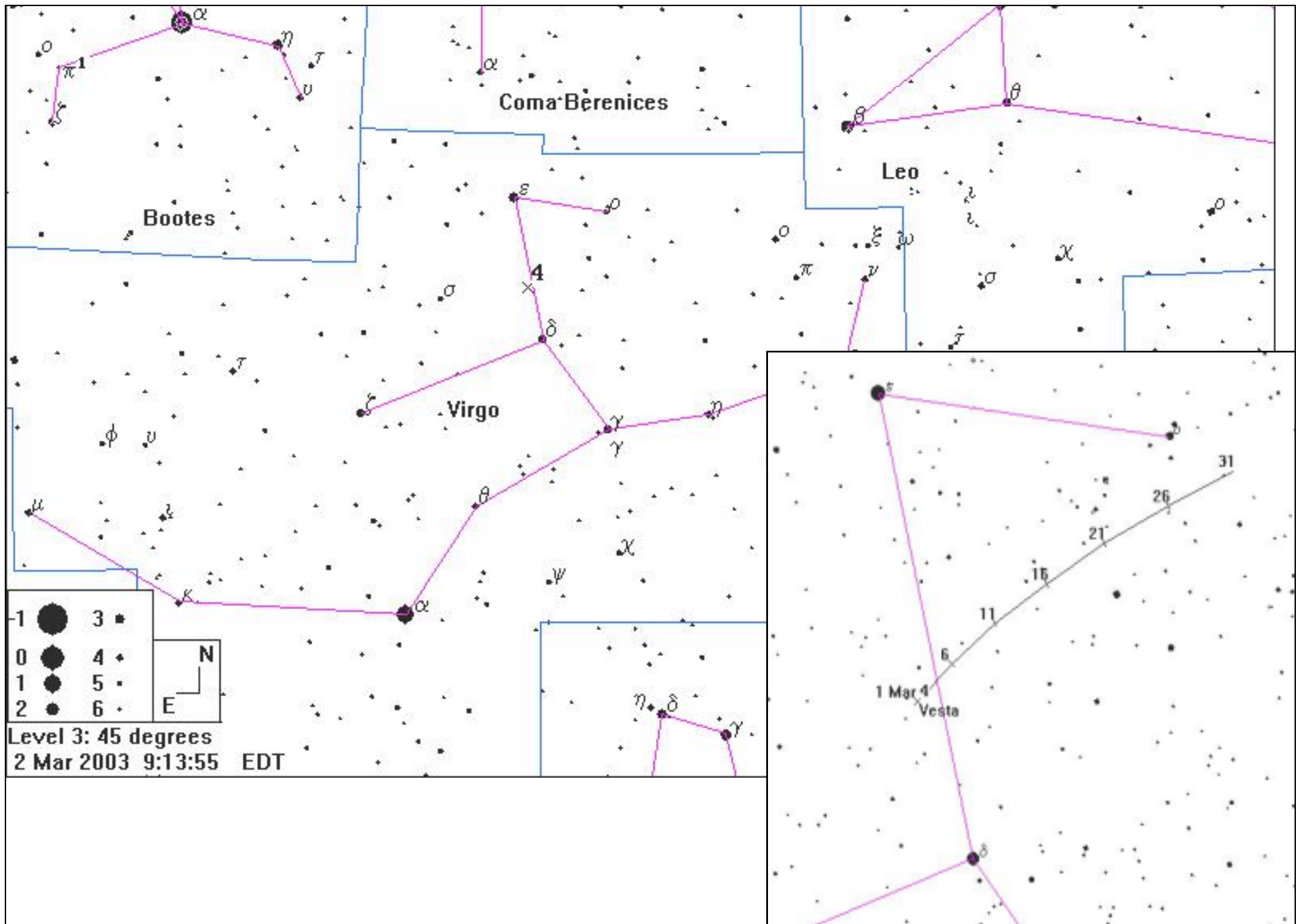


LITTLE KNOWN ASTRONOMY HISTORY



NEIL ARMSTRONG'S ORIGINAL PLAN

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, 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 e-mail message and send it to jim.anderson@mckesson.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:

jim.anderson@mckesson.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

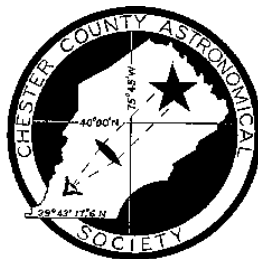
**ALCor and
Newsletter:** Jim Anderson
(610) 857-4751

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

Observing: Ed Lurcott
(610) 436-0387

Education: Kathy Buczynski
(610) 436-0821

Public Relations: Vic Carlucci
(610) 458-7457



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 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

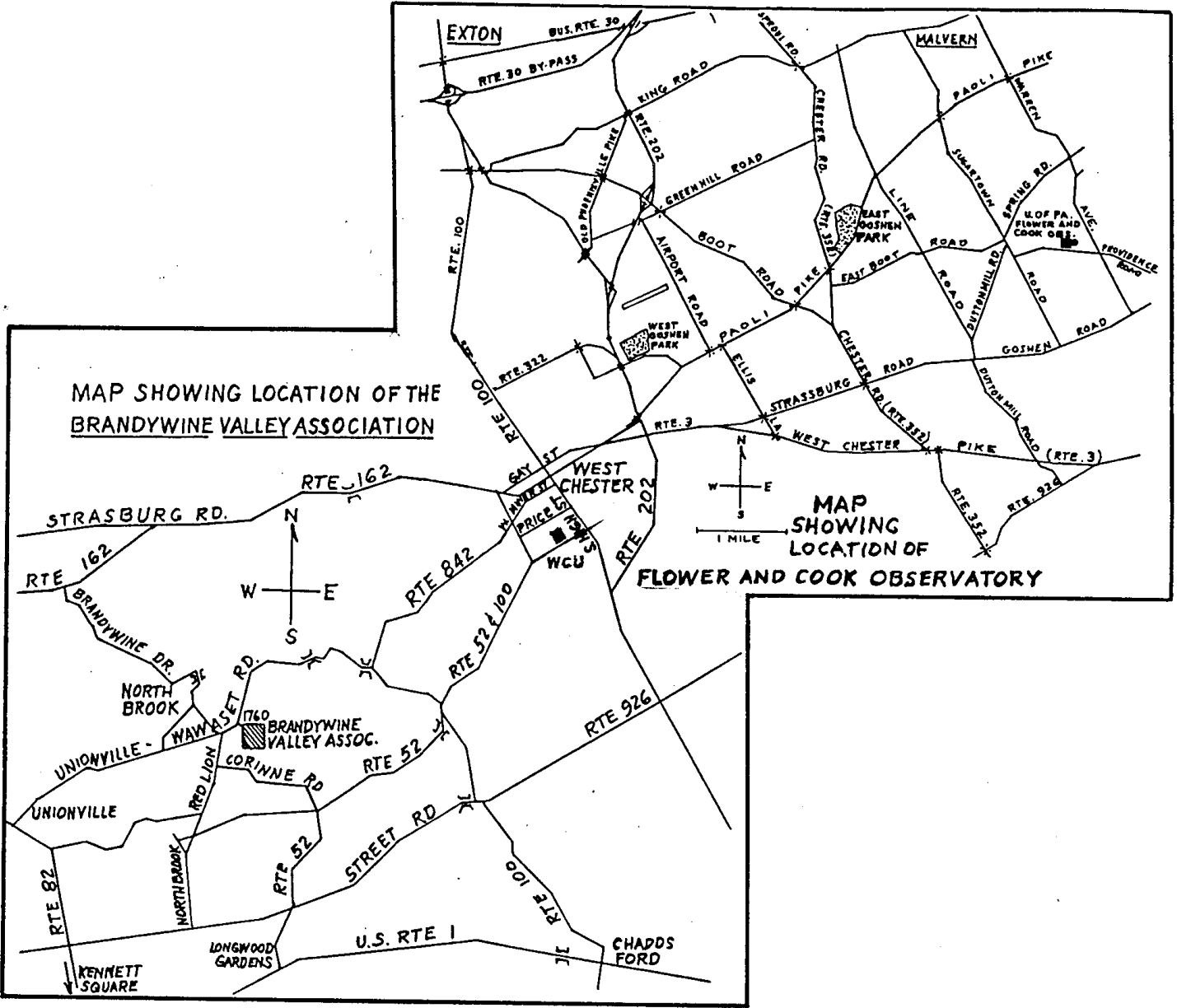
Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$29.95** which is much less than the newsstand price of \$54.00, and also cheaper than individual subscriptions (\$39.95)! Make out a check to the Chester County Astronomical Society, note that it's for *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://www.ccasastro.org/>

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@kennett.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).