



OBSERVATIONS



A MONTHLY PUBLICATION OF THE
CHESTER COUNTY ASTRONOMICAL SOCIETY

★ President: Edwin Lurcott
★ Treasurer: Steven Lurcott

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★ Vice President: Mike Tucker
★ Secretary: Nancy Armstrong

CCAS MARCH MEETING

DATE: Tuesday, March 14, 1995

TIME: 7:30 PM EST

PLACE: Planetarium (room 186)

Schmucker Science Center

West Chester University

LOCATION: South Church St. & Rosedale Ave.

West Chester, PA (see maps)

Following the business portion of the meeting, CCAS member, Pete LaFrance will provide our program for the evening by showing how he has taken photographs of many of the Messier objects. This will include the equipment used, the film and processing used, and the techniques. He will discuss some of the pitfalls encountered while attempting some of his first pictures. This will be a benefit to anyone who wishes to attach his/her camera to a telescope and capture these objects on film. Pete will bring his collection of fine photos to show the results of his efforts in this past year. Discover the fascinating world of astrophotography.

All members are invited and may bring friends. Following the presentation, members may socialize over coffee. In addition, if sky conditions permit, we may use the observatory on top of Schmucker Science Center. Members must proceed as a group to the observatory where Ed Lurcott will operate and demonstrate the 12" 'scope.

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FEBRUARY CCAS MEETING

Members and visitors who attended the February CCAS meeting were treated to an excellent presentation by our own, Emil Volcheck. Emil discussed the reality and limits to space travel by showing the fuel, mass and time estimations involved in manned space travel to planets and nearby stars. Travel to anything farther is just about impossible with our present technology.

Much discussion followed Emil's talk that showed the high level of interest by the members. After a hurried break, over a dozen people went to the observatory on top of Schmucker Science Center and observed with the 12" Cassegrain telescope. Due to the bright moon, observations were limited to Mars, M42, M35 and the moon itself.

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CCAS OBSERVING SESSION

DATE: Friday, March 10, 1995

RAIN DATE: Saturday, Mar. 11, 1995

TIME: 7:00 PM - ? EST

PLACE: Brandywine Valley Association

(location of our summer meetings)

1760 Unionville-Wawaset Road

West Chester, PA (see map)

The February observing session was also completely clouded out. (So what else is new?) I have it from a good authority that March will be clear. All CCAS members are invited to bring guests to the March 10th (or 11th) observing session at the Brandywine Valley Association (BVA) property on route 842 about 6 miles west of West Chester.

The moon and Mars will dominate the early evening sky for a few hours. As the moon gets lower in the west, many familiar objects will be more visible. Some minor planets (asteroids) are easily seen if you can pick them out against the stellar background. Good star charts are essential to their identification.

A limited number of electrical outlets are available. Those bringing 'scopes may drive up the farm road to the left of the parking lot. Members not owning 'scopes are encouraged to come and enjoy the views through the 'scopes. 'Scope owners are always pleased to have others look through them. Plus, binoculars will enable you to see many objects in the sky, bring a pair!

The BVA is allowing us to use their facilities and CCAS members are reminded that we should leave the area as clean as we found it. Your cooperation will be appreciated. DRESS WARMLY !!!

For further information call:

Connie Shapiro (296-0512) or

Ed Lurcott (436-0387)

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SPRING OBSERVING SESSIONS

Observing sessions for CCAS members at the BVA property this Spring are as follows:

Mar. 10; rain date, Mar. 11

Apr. 7; rain date, Apr. 8

May 5; rain date, May 6

June 2; rain date, June 3

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SKY & TELESCOPE

Those wanting to subscribe to Sky & Telescope Magazine at the group rate of \$20.00 * per year may send a check to Steve Lurcott. When he receives at least 5 checks, he will submit them to Sky & Telescope. After the initial submission, he will send requests for subscriptions as they are received from CCAS members. If you already subscribe, Sky & Telescope will extend your subscription 1 year.

*It's less than 1/2 the newsstand price(\$3.50/ issue)

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GALAXIES, ANYONE?

On these March evenings, the Big Dipper is high in the northeastern sky where there are a number of noteworthy galaxies. Among them are M81 and M 82, which precede the dipper's course across the sky. To locate them, find the Big Dipper, draw an imaginary line from Gamma Ursa Majoris (the SE corner of the bowl) through Alpha Ursa Majoris (the NW corner of the bowl) and extend it a distance equal to that from Ursa Majoris and Ursa Majoris. Binoculars will show M 81 easily at magnitude 6.8. M 82, a little more than 1/2 a degree north of M 81 is more difficult at magnitude 8.4. They are very pleasing to view together in a low power eyepiece of just about any telescope when you realize both are reported to be 11 million light-years away.

M 81 is a spiral galaxy and is noted for having a supernova erupt into visibly at magnitude 10.5 in March 1993. It faded rapidly during the following months and no longer visible in amateur telescopes. The December 1993 issue of *Sky & Telescope*, describes this event and the problems it presented to professional astronomers.

M 82 is a very peculiar galaxy and emits very strong radio energy and x-rays. Astronomers suggest that this galaxy is in the process of exploding with some material moving away at 600 miles per second. Halton Arp, in his book *Quasars, Redshifts and Controversies*, uses M 82 to demonstrate that some high-redshift quasars are likely to be associated with relatively nearby galaxies, thus raising the possibility that quasars are not necessarily very distant objects as most astronomers believe.

Another famous galaxy in the Big Dipper area is M 51 known as the "Whirlpool Galaxy." It is found 3.6 degrees southwest of Eta Ursa Majoris (the star at the end of the dipper's handle). Shining at magnitude 8.6, it too can be spotted with binoculars, but it is best seen with moderate sized telescopes. James Mullaney (last June's speaker at CCAS) and Wallace McCall point out in their book *The Finest Deep-Sky Objects* that this was the first galaxy in which the spiral form was recognized, by Lord Rosse in 1845. A bright area of nebulosity 4 arc minutes from the center of M 51 makes it appear as a double

galaxy in smaller 'scopes. Images of M 51 are often used in advertizing various astronomical instruments.

Look at these and let Ed Lurcott know your impression. Draw a picture and indicate optical aid used.

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BVA CALENDAR OF EVENTS

As a family member of the Brandywine Valley Association (BVA), the CCAS members are invited to any of the BVA events. Join the fun!

Discovering Lenape Lifeways- Sat., Mar. 18, 10-11:00 AM, educational & entertaining storytelling and talk on the Lenape Indians.

-register by Mar. 10, cost \$5/mem. \$8/non-m.

Guide Training-Mar. 21,23,27,29,31, 9:30 AM-12:30 PM, 15 hour training program in environmental education.

-register by Mar. 13, free of charge.

Brandywine Hills Point to Point-Sat. Apr. 1, 12-5:00 PM, a horse and rider competition, food/beverage vendors available or bring a picnic lunch.

Delectable Edibles/ Natural Remedies in Backyards Sat. Apr. 8, 10-12:00 noon, walk and discover nature's own tasty and useful local plants.

-register by Mar. 31, cost \$5/mem. \$8/non-m.

For more information call Connie Shapiro 296-0512

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ASTRONOMY MENTOR

Our vice president, Mike Tucker is volunteering as an astronomy mentor to two fourth grade students, Steven Lucy and Mary Beth Penjuke, at Springfield Elementary Gifted Program, coordinated by Barbara Metford, also a CCAS member. This is a program which is comprised of individuals who volunteer their time and expertise to the children in the elementary level enrichment program for mentally gifted students. This program gives the students an avenue for higher achievement opportunities, giving them a chance to interact with skilled adults who provide support and helps guide the students in their individual development.

Mike and the students will meet once a week for several weeks, where Mike will share his knowledge of astronomy. By the end of the program, they will develop a project that exhibits the students' knowledge gained from the experience.

After attending Space Camp herself and teaching a Space Unit to her gifted class, Barbara Metford was pleased, but not surprised when two of her students chose astronomy for their personal area of study with a mentor. As CCAS members, it is a thrill to see young people express interest in astronomy. We are glad we could be a part of the 'mentor search' and will continue to support Mike, Barbara, Steven and Mary Beth in their 'astronomical' efforts.