



# OBSERVATIONS



A MONTHLY PUBLICATION OF THE  
CHESTER COUNTY ASTRONOMICAL SOCIETY

★President: Edwin Lurcott  
★Treasurer: Pete LaFrance

**MARCH 1997**  
(VOLUME 5, NO. 3)

★Vice President: Emil Volcheck  
★Secretary: William O'Hara

## CCAS March Meeting

DATE: **Tuesday March 11, 1997**  
TIME: 7:30 p.m. EST  
PLACE: Department of Geology and  
Astronomy Lecture Room  
Room 113 Boucher Building  
**See Special Note below!!!!**  
West Chester University  
LOCATION: South Church Street  
West Chester, PA (see maps)

**Special Note:** This is the room we used for several months, up until last December. The University will be on Spring Break that week; that means that there may well be only one door unlocked on the Boucher Building for us to get in, due to security reasons. This will most likely be the door on the South Church Street side of the building. There will also probably be parking available on South Church St.

We will have two guest speakers this month, the President and Vice President of the Chesmont Astronomical Society. They will be discussing light pollution and solutions for it with us. Also, Kathy Buczynski will do a "constellation presentation" on the Zodiac.

We also have important Society business to take care of this month. An election committee must be formed to select candidates for the election in May. At our April meeting the election committee must present the names of the candidates in writing to the Society. We will be electing a new President, Vice President, Secretary and Treasurer. The President then appoints the Chairs for the various committees. Copies of the Society's Constitution, detailing the process, will be available at the March meeting.

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## March CCAS Observing Session

The next observing session will be held on Friday March 7, with a cloud date of Saturday March 8. It will be held at the Brandywine Valley Association (a map is included). At the observing sessions, there will be help available to set up and use your telescopes. All members are invited whether they have a telescope or not. Telescope owners are always glad to share the view through their 'scope. Remember to dress warmly, because you don't move around a lot when stargazing, so you can get cold real fast. Dress like you're going to see a football game at the Vet.

### Future Observing Sessions (at the BVA)

April 4, 1997 (or Apr. 5)  
May 2, 1997 (or May 3)

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## February CCAS Meeting

We wrapped up a number of business items that had been before the Society for several months. On the question of "Should the CCAS join the Astronomical League", the vote was unanimously in favor of joining. Jim Anderson volunteered to be the ALCor (Astronomical League Correspondent). The application was completed and submitted to the AL in the third week of February. CCAS members will receive the May (spring) 1997 issue of *The Reflector* in a month or so.

The Society also voted unanimously to purchase a 6" f/8 Dobsonian telescope. It will be for use by Society members only. There will be no rental fee for use of the telescope, but it will not be signed out to non-members. This should provide an opportunity for Society members without a telescope to join in the fun of telescopic astronomy.

Ed Lurcott brought some excellent slide programs that we watched. Two of them were collections of

pictures from the Hubble Space Telescope, complete with explanations. These were, needless to say, a big hit. Then it was "quiz time," as Ed challenged us to identify the famous female astronomers in the collection called "Women in Astronomy". Nobody got all the right answers, but we all had fun learning together about some talented scientists.



### **Astronomy Day 1997**

Astronomy Day 1997 is on Saturday April 12. Exton Square Mall has agreed to give us a table in the Mall on Astronomy Day, **with electricity** this year. Now we need members to sign up for an hour or two that day to be at the table to answer questions, talk about the Society, etc. Members are encouraged to think creatively about how we can promote astronomy in general, and the CCAS in particular. Submit all ideas to Ed Lurcott; bring them up at the March meeting. Remember, no idea is too crazy for consideration!



### **DelMarVa Star Party: May 2-4, 1997**

The DelMarVa Stargazers will be holding their third annual DelMarVa Star Party on the first weekend in May. This event, held in Tuckahoe State Park near Queen Anne, Md., will include dark-sky stargazing, guest speakers, vendor and swap tables, demonstrations, and door prizes. Solar observing through Hydrogen-alpha filters will be available during the day. Coffee is available all night long, and sodas and light snacks are also offered at nominal cost. There are no electrical or water hookups for campers. The registration fee of \$25 per person (\$10 for children under 16) also includes your camping fee, Saturday night supper, and continental breakfast on Saturday and Sunday morning. Registration forms will be available at the March meeting of the CCAS, or you can contact them through their Web site:

<http://www.udel.edu/dmiller/gazers.html>



### **March's Skies**

#### Moon Phases

Last Quarter	3/02
New Moon	3/08
First Quarter	3/15
Full Moon	3/23

#### **The Planets**

Mercury moves into the evening sky this month, and will get higher in the sky after sunset each week. This apparition will peak in early April; late March is a good time to start watching for Mercury if you have a low western horizon.

Venus is lost in the Sun's glare all month.

Mars makes its closest approach to the Earth in over 2 years this month, reaching opposition on March 17. This means Mars will be visible and easy to spot in the eastern sky each evening this month, and well placed for viewing all month. Don't get caught up in "comet madness" and forget Mars!

Jupiter is in the morning sky this month, rising earlier each day.

Saturn is low in the evening sky after sunset, and by mid-month it will be lost in the Sun's glare.

Uranus is in the morning sky, in Capricornus.

Neptune is in the morning sky, in Capricornus.

Pluto is in Ophiuchus, and high in the south by dawn.

#### **Partial Lunar Eclipse: March 23-24**

On Sunday, March 23 the Moon will pass through the Earth's shadow and become 92% eclipsed, and we in the Western Hemisphere have ringside seats! The eclipse starts at around 9:58 p.m. EST, reaches maximum at 11:39 p.m. EST, and ends at 1:21 a.m. EST. This will be a great opportunity to see Comet Hale-Bopp in the northwest without the Full Moon fading it out, and for viewing Mars. Not to mention watching the eclipse itself, which is always an awesome event.

## Comet Hale-Bopp

You can now find Comet Hale-Bopp very easily without any optical aid! It is as bright as a first-magnitude star, and getting steadily brighter. Comet Hale-Bopp moves from Cygnus through Lacerta and on over into Andromeda this month. In the process, it will make its closest approach to Earth on March 22, when it will be 122 million miles away. By comparison, the Sun is 93 million miles away; Comet Hyakutake (last spring's comet) passed us at a distance of 10 million miles. Yet Hale-Bopp will be brighter than Hyakutake, even though it is further away, both because it is a bigger comet, and because it is developing a good strong dust tail (Hyakutake's dust tail did not develop until it was well past the Earth, and so it seemed fainter than Hale-Bopp will). Get out there and look!

At the beginning of the month the comet is in the morning sky. Then around March 7, the comet will move into our evening sky, low in the northwest. For several weeks after that, we will be able to see it in both the morning sky (northeast) and the evening sky (northwest). People in Alaska will be able to see it all night long!



## Pioneer 10: 25 years and still going!

Pioneer 10 was launched on March 2, 1972, and in 1973 it became the first spacecraft to fly by Jupiter and its moons. Its biggest discovery there was the presence and intensity of magnetic fields and charged particles around Jupiter and its moons. Since then it has been sailing outward through the Solar System, becoming mankind's first messenger to the stars. In about 30,000 years the 570 pound spacecraft will pass through the neighborhood of Ross 248, a star in the constellation Taurus.

One after another of Pioneer 10's eleven instruments has fallen silent over the years, but its cosmic ray detector, designed by space pioneer James Van Allen (discoverer of Earth's Van Allen radiation belts) is still working. Its batteries and radio are also still working, transmitting back data on the intensity of cosmic rays from our Milky Way galaxy. At a distance of 10 billion kilometers, it takes over 9 hours for the 8-watt signal to arrive. The spacecraft's remarkable longevity has led NASA personnel to refer to Pioneer 10 as the "Energizer Bunny" of inter-planetary spacecraft.

"When we're all gone, it will still be out there..."



## ASTRO FACTS by Frank Angelini

Some of the world's largest telescopes:  
**REFLECTORS**

<u>Observatory</u>	<u>Location</u>	<u>Aperture (inches)</u>
Mauna Kea - Keck I	Hawaii	396*
Zelenchukskaya	Russia	236
Palomar	California, USA	200
La Palma	Canary Islands	165
Cerro Tololo	Chile	158
Kitt Peak	Arizona, USA	158
Siding Spring	Australia	153
La Silla	Chile	158
Mt. Stromlo	Australia	150
Mauna Kea-NTT	Hawaii, USA	150
Mauna Kea-UK	Hawaii, USA	150
Mauna Kea-CFHT	Hawaii, USA	143
Lick	California, USA	119
Mauna Kea-NASA	Hawaii, USA	119
McDonald	Texas, USA	106
Crimean	Russia	103
La Palma	Canary Islands	100
Las Companas	Chile	100
La Palma	Canary Islands	100

\* - consists of 36 hexagonal segments

## REFRACTORS

<u>Observatory</u>	<u>Location</u>	<u>Aperture (inches)</u>
Yerkes	Williams Bay, WI, USA	40
Lick	California, USA	36
Meudon	Paris, France	32.7
Potsdam	Germany	32
Allegheney	Pittsburgh, PA, USA	30
Nice	France	30



## Join the Fight for Darker Skies

Consider joining the International Dark-Sky Association. Run by volunteers, this 10 year old organization is dedicated to promoting better outside lighting everywhere—lighting that will reduce energy wastage, truly enhance security, and restore the stars to our sky. The membership dues go to producing a quarterly newsletter, and to the costs of

maintaining a library of information that can be used by members in light control efforts. For more info, you can check out their Web page at <http://www.darksky.org>

Annual dues are \$20.00 for an individual (more if you can afford an additional contribution). The IDA is an IRS-registered non-profit organization, so donations (but not dues) are tax-deductible. Checks can be made out to IDA, Inc., and sent to:

International Dark-Sky Association  
3545 North Stewart  
Tucson, AZ 85716



**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 the editor at [skywalkr@voicenet.com](mailto:skywalkr@voicenet.com)

Or mail the contribution, typed or handwritten, to:  
Jim Anderson  
1086 W. King Road Apt. I312  
Malvern, PA 19355

The deadline for receiving contributions is the 27th of the preceding month.



**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**

**Sky & Telescope Magazine Group Rates**

Subscriptions to this excellent periodical are available through the CCAS at \$27 per year, about half the newsstand price, and also cheaper than individual subscriptions! 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 Membership Information**

The present membership rates are as follows:

- REGULAR MEMBER**  
(18 years or older) .....\$20/year
- SENIOR MEMBER**  
(65 years or older) .....\$10/year
- STUDENT MEMBER**  
(full-time college student) .... \$ 5/year
- JUNIOR MEMBER**  
(under 18 years old) .....\$ 5/year
- FAMILY MEMBER**  
(husband, wife & children) ....\$ 30/year

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

- President:** Edwin Lurcott (610) 436-0387
- Vice Pres:** Emil Volcheck (610) 388-1581
- Treasurer:** Pete LaFrance (610) 268-2616
- Secretary:** William O'Hara (610) 696-1422
- Program:** Kathy Buczynski (610) 436-0821
- Obs Chm:** Mike Tucker (610) 584-8236
- Newsletter:** Jim Anderson (610) 993-0261

