



OBSERVATIONS

A MONTHLY PUBLICATION OF THE
CHESTER COUNTY ASTRONOMICAL SOCIETY



★President: Edwin Lurcott
★Treasurer: Pete LaFrance

SEPTEMBER 1997
(VOLUME 5, NO. 9)

★Vice President: Kathy Buczynski
★Secretary: William O'Hara

CCAS September Meeting

DATE: **Tuesday September 9, 1997**
TIME: 7:30 p.m. EDT
PLACE: Department of Geology and
Astronomy Lecture Room
(Room 113 - Boucher Building)
West Chester University
LOCATION: South Church Street
West Chester, PA (see map)

Parking is available behind Sykes Student Center on the south side of Rosedale Avenue, and behind the Bull Center at the corner of Rosedale Avenue and South High Street.

Our presentation will be given by Jim Anderson, who will talk about the Astronomical League's various Observing Programs, and about how the CCAS will implement these programs. The constellation presentation will be given by Frank Angelini on the constellation Sagittarius.

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CCAS September Observing Session

The next Observing Session will be on Friday September 26, 1997, with a cloud date of Saturday September 27. If the weather is bad both days, there will not be an observing session in September. The session 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. As always, CCAS Observing Sessions are free of charge. Children are always welcome as long as they are accompanied by an adult.

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CCAS now has a Lending Telescope!

The telescope is a 6" f/8 Dobsonian reflector from Orion Telescopes. Ed Lurcott donated three old eyepieces to be used with the telescope. Ed also collimated the `scope and got it ready for use. It is now available for Society members to borrow for use. **We are accepting applications for the position of Lending Telescope Coordinator (just call Ed Lurcott).**

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Upcoming Events

October 30 - November 3: Ed Lurcott and Pete LaFrance are going to the Mid-Atlantic Star Party '97 at Boy Scout Camp Reeves, near Robbins in North Carolina. If anyone is interested in joining them, contact Pete for more details.

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Autumnal Equinox: September 22

The Autumnal Equinox occurs at 7:56 p.m. EDT on Monday September 22, 1997. This is the moment when the Sun passes over the Earth's equator on its way south for the winter (in the Northern Hemisphere, that is). It is called the equinox because the night and the day are the same length; 12 hours between sunrise and sunset. In the Southern Hemisphere, it is their first day of Spring. Here in the Northern, of course, it is the first day of Autumn.

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August Quiz Winner

What is the distance from the Earth to the Moon in light-years?

Frank Angelini was the winner of a FREE ticket to the September CCAS meeting.

Answer is: 0.000000041 light years

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September's Skies

Moon Phases

New Moon	9/01
First Quarter	9/09
Full Moon	9/16
Last Quarter	9/23

The Planets

Mercury is low in the morning sky in September, with the best mornings for viewing on September 16 and 17. About 30 minutes before sunrise (sunrise is at about 5:41 a.m. EDT on 9/16), Mercury should be relatively easy to find (for Mercury). Look about 10° above the horizon, looking due east. The star Regulus (in Leo) will be nearby; Mercury is the brighter of the two.

Venus is low in our evening sky in September and easy to spot due to its brightness, but it will not get high enough above the horizon for good telescopic viewing. It will be the first bright "star" you see in the west after sunset.

Mars is in the evening sky, a bright orange or red "star" in the southwest at dusk. It will be above (east) and to the left (south) as you are facing much-brighter Venus.

Jupiter, the king of planets, reigns in splendor in September. It is the brightest "star" in the evening sky, easy to find in the faint constellation Capricornus, in the southeast in the early evening. Jupiter is the most fascinating planet to study with even the smallest telescopes. See below for some special notes on observing Jupiter this month.

Saturn is rising around 9 p.m. in the east as September opens. The rings are now tilted nicely, about 10°.

Uranus, in Capricornus this month, is a bit west of much-brighter Jupiter.

Neptune is also in Capricornus, not far from Uranus.

Pluto is on the border between Ophiuchus and Scorpius, in the southwest at nightfall. You need a 8" or 10" telescope, good detailed star charts, and patience to find it. Dark skies help a lot, too.

Jupiter's Moons in September

In the June 1997 issue of *Sky & Telescope*, there is an article about some interesting events occurring this year for the moons of Jupiter. Every six years, the plane of the orbits of the four largest moons turns edge-on to Earth and the Sun. What this means is that from Earth we can see these moons eclipse and occult (pass in front of) each other. What you can see of an occultation, even in small telescopes and binoculars, is two moons getting ever

"closer together", and "merging" as the one disappears behind the other. For an eclipse, you can see one moon's apparent brightness dip by a noticeable amount as it passes through the shadow cast by another moon. There are two good events listed for September, that occur when Jupiter is in the nighttime skies for us in North America. The next one is on Monday September 8. From 6:56 p.m. to 7:12 p.m. (EDT), Ganymede will eclipse Europa, with Europa's brightness dropping by about 99%. This eclipse will be a partial eclipse, although to most observers it may appear to be total. Then on September 28, from 7:16 to 7:19 p.m. EDT, Ganymede will eclipse Io, with Io's brightness dropping by 48%. This eclipse is a partial eclipse. There are more events like this in September, and some more good ones in November.



For Sale:

2 Orion *Sirius* Plossl eyepieces, fully coated, 50° apparent fields, fold down rubber eyeguards, one year old and in new condition, 26mm & 17mm focal lengths: \$90.00 for both.

Also, author-autographed copies of the 32-page Sky Publishing booklet *The Finest Deep-Sky Objects*: \$5.00 each, which includes 1st class postage.

Jim Mullaney
P.O. Box 1146
Exton, PA 19341
610-280-7183

Four 0.965" Orion multi-coated eyepieces, 2 years old, not used much, excellent condition; a 25mm FL Kellner, 18mm FL Kellner, 9mm FL Orthoscopic, 7mm FL Orthoscopic: \$20.00 each or all four for \$75.00. Good "upgrade" eyepieces for many beginner telescopes.

Jim Anderson
19 Bluff Road
Thorndale, PA 19372
610-380-4512



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 **Jim.Anderson@hbc.com**

Or mail the contribution, typed or handwritten, to:

Jim Anderson
19 Bluff Road
Thorndale, PA 19372-1104

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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

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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.

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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

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

- President:** Edwin Lurcott (610) 436-0387
- Vice Pres:** Kathy Buczynski (610) 436-0821
- Treasurer:** Pete LaFrance (610) 268-2616
- Secretary:** William O'Hara (610) 696-1422
- Program:** Kathy Buczynski (610) 436-0821
- ALCor and**
- Newsletter:** Jim Anderson (610) 380-4512
- Librarian:** William O'Hara (610) 696-1422

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Finder Chart for Uranus and Neptune
From *Observer's Handbook 1997*