



OBSERVATIONS

A MONTHLY PUBLICATION OF THE
Chester County Astronomical Society



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

APRIL 1999
(VOLUME 7, NO. 4)

★ *Vice President:* Kathy Buczynski
★ *Secretary:* Frank Angelini

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

CCAS April Meeting

DATE: Tuesday April 13, 1999
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. A map is included on a later page.

Our featured program will be a show provided by Prudence Shran in the planetarium at West Chester University. Pru is a professor at West Chester University.



Public Open House at F & C Observatory

The next public open house at the University of Pennsylvania's Flower and Cook Observatory in Malvern, PA is on Friday April 13, 1999. The Observatory is located at 753 Providence Road, which is located just west of the intersection of Providence Road and Warren Avenue. The FREE program begins at 7:00 p.m. EDT.



SNAFU! by Jim Anderson

The March issue of Observations said that our second annual Messier Marathon was on Saturday March 26 only. The problem with this notice was that we really intended to do our usual Friday/Saturday deal on March 26/27. After the March issue was in the mail, the Executive Committee members started a flurry of e-mail exchanges. We found that there was another problem with that weekend: the Moon was going to be nearly Full that weekend! That's very bad seeing conditions for hunting faint fuzzies like many of the Messier objects. It was decided that we would hold a regular observing session on March 26/27 dedicated to lunar observing, and hold the Messier Marathon on April 16/17. But due to a whole series of miscues and mistakes the likes of which you normally only see in TV sitcoms, I wound up with the impression that we were having the Messier Marathon on March 26/27, and sent out that bulletin that you all received in the mail. I was in a big hurry, you see, because I did this on the Saturday morning of the big snowstorm. I got it finished and to the Post Office just

as the snow was starting! Great job, huh? Duuuuhhh... Not until the next day did we discover this latest mistake. At that point we decided to cut our losses (in time and postage) and not send out yet another bulletin. After all, we were planning an observing session for Friday March 26 and/or Saturday March 27, and if anyone really wanted to stay all night and do a Messier Marathon then they could do so. If they wanted less moonlight, they could attend the real CCAS 2nd Annual Messier Marathon on Friday April 16, 1999 and/or Saturday April 17.



CCAS April Observing Session

The next CCAS Observing Session will be on Friday April 16, 1999 starting at about 7:30 p.m., in conjunction with the Messier Marathon. If it's too cloudy on Friday, we'll try again on Saturday April 17. 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. CCAS Observing Sessions are free of charge. Children are always welcome as long as an adult accompanies them. Dress warmly, because it gets cold quickly when you're standing around a telescope in a meadow!



Welcome New Members!

The Society would like to extend a welcome to Jack Krafchick of West Chester, who joined us in February. Jack, Hello and Clear Skies!



CCAS Calendar Notes

April 30, 1999: Possible star night for a youth group
May 11, 1999: CCAS Monthly Meeting (Elections) at West Chester University
May 14/15, 1999: CCAS Observing Session at BVA
May 21, 1999: Possible star night for Girl Scouts
May 22, 1999: National Astronomy Day



President's Message April, 1999

"It's Gotta Be White"

Ed Lurcott, Scott Hain and I attended the Mega Meet star party last September at Pulpit Rock. We all brought our equipment, and experienced a great night of observing. During the evening, Scott and I conversed lightheartedly about our Prontos, the Tele Vue 2.7-inch refractors that each of us own. I

mentioned to Scott that I ordered mine under the specific condition that it be white. This was shortly after Tele Vue announced the discontinuance of the white Pronto in favor of a teal green color. I told Scott that in no way was I going to buy a green telescope, particularly if I was planning on mounting it on my larger (white) refractor. We joked about it since Scott has one of the new green ones, but the shop where I ordered mine had to make a special purchase request of Tele Vue (purportedly to Al Nagler himself) in order to get the white one that I eventually bought.

This of course led Scott to needle me about the fact that not only are both of my telescopes white, but my equatorial mount is white, and even the Jeep I drove up to Pulpit Rock and parked next to my scopes was white. Scott asked, "Like, Mike, what's with the white? I knew what Scott wanted to say but didn't. *"Is this the result of some maniacal psychological disorder?"*

While some people may think it's the latter, the fact that the Jeep (my wife's) was white was strictly a coincidence. But after giving it some thought, I realized that maybe the color of the telescope equipment did have some deeper significance.

The fact is that I love telescopes. All types of telescopes. They move me like no other inanimate object. I don't really know why exactly but I do remember one instance that may have triggered the start of my affection for these wondrous instruments. It dates back to a Sunday newspaper supplement I saw as a kid. Many of you may remember the *Philadelphia Bulletin*. (Okay, so go ask your parents). Anyway, the magazine supplement included with the *Bulletin's* Sunday edition was aptly titled *This Week*. There was one issue of *This Week* back in the late Fifties that was a special edition on outer space. (*Outer Space* is what it was called back then). I swore I'd kept that issue and recently went on a crusade in my house trying to find it. I remembered a picture on the front cover of a boy looking through a telescope, and I wanted to see it again. I looked for months but I couldn't find it for the life of me. After I gave up the search, of course, it turned up unexpectedly, on a shelf between some albums from my old stamp collection.

Wow, there it was! A little piece of history from October 1958. It was *This Week* magazine's "Key Guide To Outer Space", with a big close up of the quarter moon behind the title. The inside cover has a note from the editor about how the "dawn of the Space Age" has found many Americans unprepared to understand space flight. Below the editor's note are two endorsements for the publication with photos of the endorsers. One was Werner Von Braun (who else?) who wrote: "*My business is rocket engineering...Anyone who is interested in shooting rockets into space needs to understand something about space...*" (Yep, sounds like the Prussian from Peenemunde to me). The other was by George P. Sutton, President of the American Rocket Society, Inc. "*American youngsters are in need of the basic knowledge of astronomy and space technology....*" This holds true today, yet back during the Cold War it was deemed critical to America's

future. I guess we learned enough to become the premier nation in space anyway.

It contains some great material characteristic of the time. The heroes depicted in this publication didn't fly Space Shuttles or even Saturn 5s. The names of Armstrong and Glenn had yet to be written into history. It was the exploits of men like Air Force Captain Ivan Kincheloe, Jr., who in 1956 took the Bell X-2 (a *rocket* plane) to 126,200 feet and 2,000 miles per hour, that made me dream of the future. It was Redstones, Vanguard and Jupiter-Cs that were trying to catch up to the Russian advances demonstrated by the Sputniks. It was the International Geophysical Year when scientists from many countries cooperated in places like Antarctica in the name of scientific research. It was the time when Jupiter had twelve satellites and Saturn had nine. It was the time when a centerfold held a chart of the earth's atmosphere depicting altitude records and satellite orbits, not an airbrushed, topless 20-year-old babe. It was the Fifties, for me the days of rockets and *Space Patrol*, images of interplanetary travel, and the discovery of fabulous instruments to view objects that truly were out of this world, the instruments of science and science fiction, the instruments of Galileo, Newton and Hale. Telescopes. Beautiful, delicate machines of lenses and mirrors, eyepieces, tripods, and intricate mountings that were nothing less than windows to the universe.

On the cover of the Guide is a family right out of *Father Knows Best*. (Alright, go ask your parents again). There's Dad wearing a suit and tie and holding a map of the solar system. Mom's wearing a green dress, and a boy maybe 12 years old is looking through the diagonal of an 80mm or 90mm refractor on an alt-az mount and wooden tripod. **That's** what I remembered. It was that telescope. It looked a lot bigger to me in 1958 than it does now, but it is still stirs my soul. Boy, I **wanted** that 'scope.

There was one striking thing about it. It was white. That was the image stuck in my subconscious. That's the color a telescope has to be. **White**. White is beautiful, pure, elegant. White is smart, sophisticated, and scientific. The subliminal message was there, and it got me. If you're going to get a telescope, it's **gotta** be white.

Maybe this is why I couldn't pull the trigger and buy a scope all these years. I had reasoned it was the money, that I just couldn't afford it. But maybe it wasn't the money at all. In 1975, I considered buying a Celestron C-8 or C-11, but I decided it was too expensive. Maybe it wasn't the cost, maybe it was the color. For God's sake, it was **orange!**

A few years later I thought seriously about a Questar. I drooled over the little gem but finally decided it was too expensive. Was it truly the cost that stopped me or was it that damn little star chart all over the barrel?

Fast forward to mid-life crisis. Still no telescope. First pair of reading glasses. Time is running out. Crossed the big Five-O. Read a *Wall Street Journal* article about some guy named

Dobson. That sparked the old quest for a 'scope. I better get serious. Okay, this time I'm going to do it. I'm going to spend the bucks. I queried my spouse: "You know Dear, I always wanted to do some astrophotography. What do you think about that?" "I think that's really interesting, honey. Why don't you go ahead?" Whoa, baby, I didn't just steal the cookie, I got the whole jar!

I took advantage of the Internet and spent months collecting info on telescope designs and advances. What an incredible variety of stuff. Not exactly like the Fifties, that's for sure.

What did I want? What kind of observing? What kind of skies? You know the drill. Then I stumbled on the web site of a place called Company 7. Seemed like a place with some serious equipment. I'm serious, they're serious. Sounded like a match. I decided to check it out, so I made the pilgrimage to Laurel, Maryland. I walked in the door.

I stopped in my tracks.

They were lined up against a wall. Beautiful, elegant, and pure. Gleaming white barrels with black focusers mounted on white equatorials. Smart, sophisticated, and utterly scientific. All set up and angled upward, promising the viewer the wonders of outer space, sharp and true. Refractors. 5-inch and 6-inch f/7s and f/9s; even an 8-inch. This must be telescope Mecca.

That day I got the low down on the pluses and minuses of telescopes of all types. I twirled the focuser knobs, checked out equatorial mounts, and perused the spec sheets on everything in sight. The owner spent over two hours with me pointing out the features and capabilities of every instrument in the place, eliciting my preferences, desires and budget. But in hindsight, I think I had made up my mind well before the exchange of models, prices and performance specs began. The heart and soul decision was made as soon as the door shut behind me.

I realize now that I became the boy in the cover photo that day. From 12-years-old and 80mm to 50-years-old and 155mm. It took me 38 years to realize the dream.

I ordered it two days later. Then I waited another year to get it. But it was worth the wait. The boyhood dream finally came true. Even setting it up and taking it down is a labor of love, to say nothing of the views it provides. It's beautiful. It's elegant.

And it's white.

Mike Turco 3/25/99

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CCAS 20" Telescope News

Ed Lurcott reports that the 20" mirror is now back from being re-coated, and is safely stored at the CCAS Telescope Works (a.k.a. Ed's garage). We have the University of Pennsylvania to thank for that: they paid to have the mirror re-coated. Many thanks to Dr. Goldader for arranging that. Now we're just waiting for the Telekit from AstroSystems so we can start construction.

The Telescope Fund has a total of \$1600 of the \$1700 cost for the kit from AstroSystems. The Telescope Fund was

established to pay for the construction of a telescope around the 20-inch diameter telescope mirror given to the Society by the University of Pennsylvania.

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CCAS Constitution

The members approved all of the proposed changes to the Constitution. The biggest change from this is that the officers elected this year will serve two-year terms of office.

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April Skies

Moon Phases

Last Quarter	4/08
New Moon	4/16
First Quarter	4/22
Full Moon	4/30

The Planets

Mercury is visible in the morning sky during the last part of April, but it isn't easy to find it.

Venus will be the first and brightest "star" you can see in the evening sky in April.

Mars is rising shortly after sunset on April 1 and before sunset by month's end. We are now close enough to Mars for good telescopic viewing, although the best viewing won't be until Mars gets high enough above the eastern horizon to clear the light pollution and atmospheric turbulence. Mars reaches opposition on April 24, which means that April and May are the best months this year to see Mars in a telescope. After May, it's another 26-month wait for another close pass by Mars.

Jupiter is lost in the Sun's glare in April.

Saturn is now getting lower in the evening sky each day, and by the middle of April you'll probably lose it in the Sun's glare.

Uranus and Neptune are in the constellation Capricornus, in the morning skies before dawn.

Pluto is getting up around the meridian by dawn, in the constellation Ophiuchus, near Zeta (ζ) Ophiuchus. Determined hunters will need dark skies, at least an 8" telescope, and a good finder chart in order to bag Pluto (14th magnitude).

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Book Review Correction by Jim Anderson

The Messier Objects, A Beginner's Guide

Last month I said that the index in this book that shows which chart in *Sky Atlas 2000.0* you use to find each Messier object was based on the first edition of the *Atlas*. I also said that the chart numbers might not match up properly in the second edition, which is now available, and I would publish any corrections I found. Well, I should have looked in the second edition again before I wrote that sentence. The second edition has an index, right up front, detailing which chart you use for each Messier object. So if you get the second edition of *Sky Atlas 2000.0*, you don't need another index.

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May 16, 1999: NE Astronomy/Telescope Show

On Sunday May 16, 1999, the 8th Annual Northeast Astronomy Forum and Telescope Show will be held in Suffern, NY. The Rockland Astronomy Club sponsors this event. There will be a number of talks at the Forum by different people, including Richard Berry, Leif Robinson, and Carolyn Shoemaker. There is also a Telescope Show where you will find vendor displays (vendors such as Celestron, Meade, TeleVue Optics, etc.) as well as club and swap tables. The event is held at the Holiday Inn & Conference Center in Suffern; overnight accommodations are available. Contact Jim Anderson for a copy of the brochure.



June 1, 1999: East Goshen Star Night

East Goshen Township has invited the CCAS to a "return engagement" at the East Goshen Township Park on Paoli Pike. The rain date will be June 3. Mark your calendars now; more details will be published next month.



June 11-13, 1999: Mason Dixon Star Party

The 10th annual Mason Dixon Star Party will be held on June 11-13 in Spring Valley Park near York, PA. This event features on-site camping, as well as nearby motels. May's Munchables will be providing a 24-hour catering service providing a variety of food. Several speakers will deliver talks on a variety of subjects during the day on Saturday. Door prizes will be given out, including an Orion 8" Deep Sky Explorer Dobsonian telescope. There's a vendor's display area, an astronomical flea market, movies for kids (at night), contests, etc. Copies of the star party handout and registration forms can be obtained by contacting Ed Lurcott.

Or check the Website:

<http://home1.gte.net/dmdewey/mdsp.html>



July 1-7, 1999: ASP Meeting in Toronto

The Astronomical Society of the Pacific is holding their annual meeting in Toronto. This will be a joint meeting with the Royal Astronomical Society of Canada (RASC) and the American Association of Variable Star Observers (AAVSO). The meeting will "focus specifically on partnerships in astronomy research and Education." Ed Lurcott from our Society is planning on attending. If you're interested in going, contact Ed or Jim Anderson for more details. We have brochures describing the meeting, the speakers, conference topics, etc., in much more detail than can be provided here.



News from Neighboring Societies

From *The Delaware Valley AMATEUR ASTRONOMER*, the newsletter of the Delaware Valley Astronomical Association; upcoming Meeting Topics and speakers:

Apr. 9	"Collimation"	Vince Scheetz
May 14	"Galaxies"	DCCC professor
June 11	"Is There Astronomical Evidence for the Existence of God?"	Dr. Deborah Haarsma
July 9	"The Big Bang Never Happened"	Eric Lerner, author

DVAA meetings are held at the Schuylkill Center for Environmental Education, Hagys Mill Road, Philadelphia. Meetings start at about 7:30 p.m., with the main talk held at about 8:00 p.m. DVAA meetings are open to the general public, free of charge. Contact Mike Turco (610-399-3423) for more information or directions, or for a ride to the meeting. Or check the DVAA Website at

<http://www.libertynet.org/~dvaa/>

From *Focus*, the newsletter of the Delaware Astronomical Society; upcoming Meeting Topics and speakers:

Apr. 20	Spectrometry at Mount Cuba Astronomical Observatory	Jack Fisher
May 18	Dinner Meeting Black Holes	Dr. Harry Shipman
June 15	TBA	

DAS meetings are held at the Mount Cuba Observatory in Greenville, Delaware. For more info contact President Warren Jacobs (610-566-0510). Or check their Website at:

<http://www.physics.udel.edu/>



Education Committee

Members: Kathy Buczynski
Deborah Goldader
Steve Limeburner
Ed Lurcott
Mike Turco

A Note from the Vice President and Education Committee Member:

I believe our Mission for the Education Committee of CCAS is two-fold. First, and most importantly, it is to educate the public about Astronomy and its related subjects; and to bring the skies down to Earth for a wide range of interested people. The fear about Astronomy Day presentations is that the information will be too advanced or too elementary. That's always a risk; but if we can tailor a curriculum for the middle school level, I believe we can get young people and adults interested in this very worthwhile subject.

I also see this component of the Society as a revenue-generator. There's no reason why we cannot charge for the knowledge and enthusiasm we all hold. This may need further investigation into tax-exempt status, but the more revenue we generate, the quicker our 20-inch telescope will be built.

The Education Committee is starting to fulfill its mission with a titanic task. We are planning a day-long outing for the public on National Astronomy Day; Saturday, May 22, 1999. It will be held at the University of Pennsylvania's Flower and Cook Observatory in Malvern, starting at 3:00P.M. Below is a tentative schedule of the day's events. We are looking for topics and volunteers to be presenters. If you are not interested in presenting we are also looking for people to man tables with door prizes, consultants for the telescope workshop, cleanup before and after, and other related tasks. If you or any of your friends or family have an interest in volunteering or in presenting a topic, please give me a call or email. We'd be happy to hear from you. From here, we can use these topics to continue our curriculum development.

Thank you very much for your participation.

Kathy
610-436-0821
Kbuczynski@aol.com

Tentative schedule of events

National Astronomy Day

Saturday, May 22, 1999

The sun will set at approximately 8:30 PM EDT, the moon will just past first quarter. Observations should begin at about 9:00 PM, topics should be covered in 30 minutes. There will be two sessions occurring at the same time.

Time	Classroom:	Outside (Ongoing):	
3:00 PM	Start/Greeting		
	<u>Topic:</u>	<u>Presenters:</u>	<u>Telescope Workshop:</u>
3:15 PM	HST Slides: Recent Discoveries	Ed Lurcott Mike Turco	Visitors are asked to bring their own telescopes and volunteers will help to set up and show visitors how to use them.
4:00 PM	Sun facts, Solar Observing, Eclipses	Deb Goldader ?	
4:45 PM	Indoor Orrery	Ed Lurcott ?	
5:30 PM	Open		<u>Observing:</u> Venus, Moon, Sun.
6:15 PM	Lunar Observations	?	
7:00 PM	Deep Sky Observing	Steve Limeburner ?	<u>Food/Vending:</u> Tables will be set up with snacks for sale along with items for fund raising.
7:45 PM	Current Sky May 22, 1999	Kathy Buczynski Jim Anderson	
8:30 PM	End of Classroom Activity – Break		
9:00 PM	Observing Starts		<u>Donations Table:</u> We can ask for donations to build the 20” telescope!

These times and topics are tentative. Presenters will be responsible for their own presentations including supplies and photocopies. Remember this is a fund-raiser so any expense is a tax write-off for you.

You can see the need for more volunteers. Would you or someone you know like to attend or volunteer at this event? It should be a fun day.

The Moon – Re-Discovered

Yes, I know. You hear it all the time. The moon is boring. It has nothing new to offer. It has been photographed, walked upon, has had several hundred pounds of rocks examined by various experts who all say the same thing. However, I feel that I have rediscovered an appreciation for our nearest astronomical companion.

The Moon is the closest astronomical object to the Earth. The Moon has a diameter of 3,476 km and orbits the Earth at a mean distance of 384,000 km. It orbits the Earth in 27.322 days, and always keeps the same face pointed towards the Earth. The Moon shines by reflecting the light from the Sun and shows the characteristic phases during each orbit of the Earth.



Waxing Gibbous Moon
21:00, 3/26/99
BVA
Kodak Royal Gold 800
At prime focus
LX-200 @f/6.3

FJ Angelini

You may recall that our Messier Marathon weekend was preempted this year by a visit to the Bradstreet Observatory of Eastern College. The next Friday, March 26th, happened to coincide with a waxing gibbous moon. Hardly the best opportunity to search for 11th magnitude fuzzballs. Arriving at our “dark sky site”, the BVA, about 1 hour before sunset, conditions were perfect. The sky was clear and the humidity was low, and the BVA gnats and mosquitoes had not yet awakened from their winter slumber. Venus was brilliant in the western sky and Saturn was easy to spot. So what does the intrepid amateur do? Well, why not point the trusty LX200 at old luna? I did just that.

Near New Moon, when the sunlit portion of the Moon is small, the phenomenon of 'the old Moon in the young Moon's arms' is often seen. This is caused by sunlight being reflected towards the Moon by the Earth and being reflected back again to the Earth. We are seeing Earthshine, the equivalent of moonlight on the Earth. The orbital plane of the Moon is inclined to that of the Earth about the Sun and so eclipses are only seen when New Moon or Full Moon occur when the Moon is near to the crossing points of these planes.

It had been many months since I had observed the moon. I guess the first thing that always surprises me is how bright it can be. At this phase, waxing gibbous, it was at approximately 70% illumination, and through the scope at 50x it was almost painful. It was time to use a neutral density filter (moon filter) to cut down on the brightness and enjoy the view. If you are serious about observing the moon and intend to use a telescope or

binoculars, it would be a good idea to invest in a filter. The best place to look when observing the Moon is near the terminator, where the Sun is either rising or setting on the Moon. Here the shadows cast by mountains and crater walls are longest and can give very dramatic views. After as short a time as an hour, changes in the shadows can be seen, as the sunlight reaches or leaves peaks near the terminator. As the moon transitions from 1st quarter to waxing gibbous to full, the look and feel of the various maria, craters, rills and rays change. For example, one of the most prominent features of the 1st quarter moon the Mare Crisium (Sea of Crisis). In the 1st quarter phase this sea shows depth and character. By full moon, however, much of this depth is washed out.

The Moon has no atmosphere. Any early atmosphere that the Moon might have had, has escaped from the Moon's feeble gravitational pull. This is only one sixth that at the surface of the Earth. Because of the lack of any atmosphere, the temperature of the Moon's surface varies between -180° C and +110° C.

The Moon offers little protection from the solar wind, cosmic rays or micrometeorites, and so it is not surprising that there is no form of life on the Moon. The Moon's surface is characterized by light mountainous regions interspersed with dark maria. The 'Man in the Moon' is formed from patches of these two types of terrain. The maria are vast impact basins which have been filled with basaltic rocks some 3,000 million years ago.

The CCAS has many members who are just beginning to enjoy the many fruits that our hobby has to offer. There is no better place to start than the Moon. You don't need a fancy telescope to enjoy the moon. The Moon is a very satisfying object to look at with or without optical aid. Most interesting features are visible through a simple pair of 7x35 binoculars. There is no better way to learn more about the moon than by pursuing the Astronomical League Lunar Certificate. Members with internet access try <http://www.astroleague.org/> for details. Since the CCAS is an Astronomical league member society these league challenges are available to you.

It's now starting to get darker. Several other members are starting to arrive. There's Ed with his 6 inch Newtonian and Barry with his new AP refractor. The moonshine is so bright you can read your charts without a red flashlight. Someone says he can see the 5th Trapezium star but I'm still moon gazing.

FJ Angelini 3/26/99

For further delving:

Atlas of the Moon
by Antonin Rukl

Professor Rukl is the famous scientist, astronomer, and director of the Prague Observatory. This book is the quintessential source of detailed information regarding the Moon and its features. This book is available from Sky Publishing for \$34.95.

Hint: contact Amazon.com (<http://www.amazon.com/>) like I did and get the same book for \$24.47. I have found Amazon.com to offer consistently lowest prices for many of the scientific and engineering books that I have purchased in the past year.

AL Observing Programs

One of the benefits of joining the CCAS is that you also become a member of the Astronomical League, a national federation of astronomy clubs. The AL has a series of Observing Awards, and 4 observing clubs based on these awards have been started in the CCAS. These are the Messier Club, the Binocular Messier Club, the Lunar Club, and the Double Star Club. Working on these awards also gives you a plan of observing: "What will I look at tonight?" becomes "Which Messier objects are visible tonight that I haven't seen yet?" Each club has a volunteer coordinator:

Messier Clubs (both): Frank Angelini (610-873-7929)
Lunar Club: Ed Lurcott (610-436-0387)
Double Star Club: Jim Anderson (610-380-4512)

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CCAS Lending Telescope

You can make arrangements to borrow the telescope for a month by contacting Steve Leiden (296-3793). Club members can borrow the 6" f/8 reflector for a month at a time; longer if no one else is waiting to borrow it.

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CCAS Website

Pete LaFrance has set up a Web page for the Society on the World Wide Web (Internet). He has included some pictures taken by CCAS members. Check it out 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).

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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
3545 N. Stewart
Tucson, AZ 85716

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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 19311-9785

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CCAS Lending Library

Our Librarian, Bill O'Hara, has the books in our library all ready for members to borrow. You can drop by Bill's place (call first, of course) to borrow a book. Or you can call Bill before a meeting and ask him to bring a book to the meeting for you. Copies of the catalog are available at CCAS meetings. Bill's phone number is 610-696-1422.

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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 **SNY114@aol.com**. Or mail the contribution, typed or handwritten, to:

Jim Anderson
19 Bluff Road
Thorndale, PA 19372-1104

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Sky & Telescope Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of \$27.00, which is much less the newsstand price of \$48.00, and also cheaper than individual subscriptions (\$37.95)! 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.

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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

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CCAS Officers

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

President: Mike Turco (610) 399-3423
Vice Pres: Kathy Buczynski (610) 436-0821
Treasurer: Pete LaFrance (610) 268-2616
Secretary: Frank Angelini (610) 873-7929
ALCor and Newsletter: Jim Anderson (610) 380-4512
Librarian: William O'Hara (610) 696-1422
Observing: Ed Lurcott (610) 436-0387

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