



# OBSERVATIONS



A MONTHLY PUBLICATION OF THE  
**Chester County Astronomical Society**

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

**OCTOBER 2000**

(VOLUME 8, NO. 10)

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

[http://members.tripod.com/~ccas\\_2/ccas.html](http://members.tripod.com/~ccas_2/ccas.html)



## Some Photos from the April 2000 CCAS Meeting

Photos by Ed Lurcott, used without permission  
After the meeting, author Brother Guy Consolmagno, S.J., chatted with members and signed autographs. On the left, Donna Anderson has a copy of *Brother Astronomer*, and on the right Jim Anderson watches as Guy signs a copy of *Turn Left At Orion*.



## CCAS October Meeting

**DATE:** Tuesday October 10, 2000  
**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)

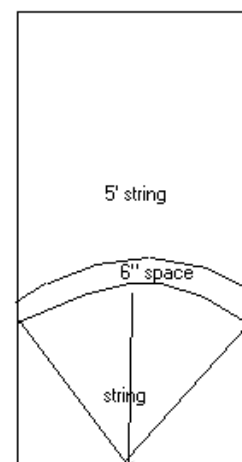
Parking is available behind Sykes Student Center on the south side of Rosedale Avenue, and behind the Bull Center at the corner of Rosedale Avenue and South High Street. If you arrive early enough, you may be able to get an on-street parking space.

CCAS meetings are always open to the public, and free of charge. Children are welcome as long as an adult accompanies them.

The presentation will be given by the CCAS Secretary, Doug Liberati. Doug will demonstrate and evaluate the freeware astronomy software package called *Cartes du Ciel*, a sky-mapping program. Don't miss this interesting demo of software you can download off the Internet for free!



Above, dome for Pete LaFrance's new backyard observatory. Right, layout of dome ribs on 4' x 8' plywood sheet.



## A Homemade Observatory, by Pete LaFrance, graphics also by Pete LaFrance

Part 1 of a series

CCAS member and Treasurer Pete LaFrance is constructing an observatory in his backyard. The dome seen above is 10 feet in diameter; it will sit atop walls that are 5 feet high. The interior skeleton of the dome was built using 3/4" thick CDX plywood, cut into curved strips 6" wide that are about 4 feet long (see diagram above right.) These were spliced together to form the skeleton. It was then covered in 28-gauge sheet metal, and the seams were covered with automotive body putty which will be sanded to eliminate any rough edges.

Pete decided to use a 3-section folded door for the shutter over the opening in the dome. This will allow any one of the three doors to be open or closed, depending on the wind and/or temperature.

Part 1, dome construction, is done. Next up: covering the dome in fiberglass.

## Member Observations: Large Sunspot Group of September 19 – 25, 2000

by Jim Anderson

On about September 19, I received an e-mail from *Sky & Telescope's* e-mail network they call "AstroAlert." This notification service for fleeting astronomical events is described more fully in the August 1999 issue of the magazine and also on their Website at <http://www.skypub.com/news/astroalert.html>. They have several different lists, one for comets, one for solar events, one for supernovae, etc. You can subscribe to these yourself if you have a PC and Internet connections. I'm currently on two lists, the comet list and the solar list. If I have an e-mail address for you, I add it to a distribution list I call "wiredCCAS." When I receive these "AstroAlert" bulletins, I forward them to the "wiredCCAS" list. Members on this list have received several advisories about possible aurora displays this year, and on September 19 we got the note about a very large sunspot group. It was reported as "possibly naked eye" when using safe solar-filter viewing glasses, of course. In the following days, I received observing reports from several members.

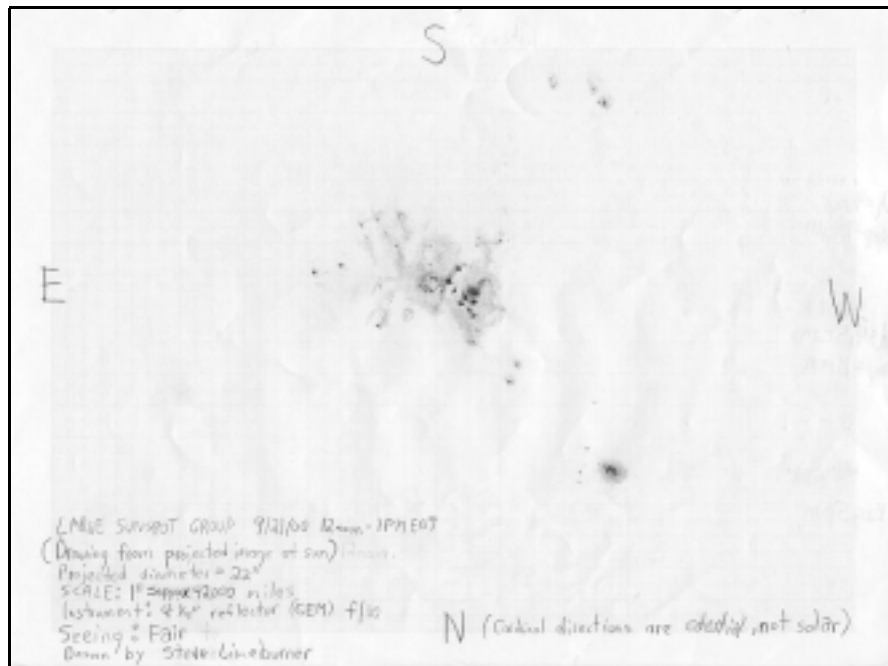
If you would like to be on the "wiredCCAS" list, just send me your e-mail address.

An e-mail report from Pete LaFrance on the afternoon of September 21, 2000: "Sure enough naked eye!"

An e-mail report from Kathy Buczynski at about noontime on September 22, 2000: "Thanks for the info. I just went outside with the club scope (I don't have naked eye filters) and saw the spots. My neighbor was walking by and she and I were amazed. These spots are huge. I tried showing her a few of the smaller ones to give her a comparison. I don't think she has as much of an appreciation as I did. These are amazing. Would love to see them projected from the siderostat at F+C. Hope to get some lights from a flare, also."

On the morning of September 23, my wife Donna and I tried seeing them using solar eclipse filter glasses. It was partly cloudy, which blocked the Sun from time to time, but in the breaks of clear sky we could see a grayish patch near the center of the Sun. The next day, I learned that was where the sunspot group was on September 23.

On September 24 at the FCO, Steve Limeburner gave me a drawing he made of the sunspot group on September 21 (reproduced below at 40% the size of the original). Steve used a 4.25" reflector to project an image of the Sun on the wall in his darkened bedroom; the resulting image of the Sun was about 22 inches in diameter. He held the paper against the wall to mark the locations of the darker spots accurately, and then removed the paper to finish sketching in the other lighter parts of the sunspots.



## CCAS Members Earn Observing Awards

**John Imburgia** has completed and been awarded his Basic Messier certificate by the Astronomical League. Congratulations, John, for finding and logging 70 of the 110 Messier objects! CCAS Messier Award Coordinator Frank Angelini reports that the certificate will be awarded at the October meeting.

Frank also reports that **Steve Limeburner** has completed his logbook for the Honorary Messier award (that's the biggie, for all 110 Messier objects). At press time, though, Frank was still reviewing the logbook, so we have to hold the official congratulations for a bit longer. Still, knowing Steve's good observing skills, we're issuing these low-key preliminary congratulations now!

### CCAS Messier Certificates:

Jim Anderson, Basic  
Frank Angelini, Honorary  
Ed Lurcott, Honorary

### CCAS Lunar Certificates:

Jim Anderson  
Elise Furman

### CCAS Double Star Certificates:

Jim Anderson  
Steve Limeburner  
Ed Lurcott  
Mike Turco



## Public Open House: F & C Observatory

There will be a **FREE** public open house program at the University of Pennsylvania's Flower & Cook Observatory in Malvern, PA on Friday October 27, 2000. The program starts at **8:00** p.m. EDT with the annual Halloween Party. Wear a costume! If the skies are clear, there will be observing with the Observatory's telescopes. The Observatory is located on Providence Road, just west of the intersection with Warren Avenue. A map is included on a later page.



## Telescopes and Members Needed: October 15

The CCAS is giving a program on Sunday October 15 for Keshet Israel Congregation, just north of West Chester along PA Route 100 (at 1000 Pottstown Pike). The purpose of this event is to help youngsters and parents find directions and identify constellations at night. Some may bring telescopes. Needless to say, we need everyone who can make it to help with this large a group. This event will start at about 7:00 p.m. EDT. If it is cloudy that night, the event is cancelled. If you have any questions, contact Ed Lurcott at 610-436-0387. A map is included on a later page.



## Telescopes and Members Needed: November 3

The CCAS is giving a star night program on Friday November 3 for about 100 Girl Scouts and parents in Cochranville PA. That's right: **100** people! The viewing site for this event will be Needless to say, we need everyone who can make it to help with this large a group. This event will start at about 7:30 p.m. EST at the West Fallowfield Community Center. The rain date will be the next Friday, November 10. If you have any questions, contact Steve Limeburner at 610-353-3986. A map showing the location of the meeting place is included on a later page.



## Calendar Notes

November 14, 2000 (Tuesday)	CCAS Meeting, West Chester Univ. Topic: "Astronomical Vacation Spots", by Elise and Roy Furman 7:30 p.m. EST
November 17, 2000 (Friday)	Free Public Open House at Flower & Cook Observatory in Malvern, PA Topic: "Autumn Night Skies by Deb Goldader's Astro 250 class 8:00 p.m. EST
Nov. 24/25, 2000: (Friday)	CCAS Observing Session Brandywine Valley Association Sunset
Dec. 4, 2000	One night this week the CCAS will entertain a group of 3 <sup>rd</sup> graders and parents at the Shamona Elementary School in the Lionville area Sunset
December 12, 2000 (Tuesday)	CCAS Meeting Location: TBA Topic: "Blue Stragglers Part 2" by Dr. Rex Saffer, Villanova Univ. 7:30 p.m. EST
December 15, 2000 (Friday)	Free Public Open House at Flower & Cook Observatory in Malvern, PA Topic: "Photo of the Millennium" by Jeff Goldader 8:00 p.m. EST
Dec. 22/23, 2000: (Friday)	CCAS Observing Session Brandywine Valley Association Sunset
December 25, 2000 (Monday)	Christmas! Give a child a telescope or a star book! All day!
January 1, 2001 (Monday)	Happy New Year! Watch the film "2001!" All day!

## CCAS October Observing Session

The next CCAS Observing Session will be on Friday October 27, 2000 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 October 28, 2000. 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 `scope. CCAS Observing Sessions are always free of charge. Children are always welcome as long as an adult accompanies them. Make sure to dress warmly, as it gets cold rather quickly at this time of year.

To get to the observing site at the BVA, 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.



### You Can Help With a Young Person's Program

There has been a lot of discussion lately about starting a program for young people in the CCAS. This program should be coordinated by the Education Committee. Anyone interested in helping with such a venture please get together at the October meeting to get organized. I'll print here two e-mail messages I received in the last month, to give you a better idea of what's been thought of so far.

From Nicholas LaPara: "Something else I would like to see the club consider addressing is involving young people. Perhaps a free basic course in observing, that is, how to find things to observe that are appropriate for your equipment, and then actually see them; instruction plus hands-on help from experienced observers. Maybe offer this to the community for families before they buy a telescope, using decent but entry-level equipment to demonstrate, so they won't get stuck with junk and disappointment."

From Steve Limeburner: "Basically, the idea would be to advertise a free monthly or twice-monthly course in conjunction with our meetings and observing sessions. The course would be for young people, and one of the incentives would be to have a drawing for a free telescope (we have a 4.5" Celestron donated specifically to be given to a young individual). Suggestions were made to notify Science teachers, and post messages at places like the YMCA, etc. Anyone on the Education Committee should participate if possible. Don't know when (or if) we would start. It would depend upon our publicity and interest from the community."



## October Skies

### Moon Phases

First Quarter	10/05
Full Moon	10/13
Last Quarter	10/20
New Moon	10/27

### The Planets

Mercury is low in the evening sky in the first half of October and tough to see, setting about 45 minutes or less after the Sun.

Venus is also low in the evening sky this month, but somewhat higher than Mercury.

Mars is low in the east at daybreak during October.

Jupiter is rising in the northeast in our evening skies this month, after Saturn, and close to Aldebaran. The trio make quite a sight, especially with the Hyades and Pleiades star clusters close by. In early October they rise about 10:00 p.m. EDT, and by month's end they are rising at about 7:00 p.m. EST.

Saturn is near Jupiter all month, making it easier to find.

Uranus and Neptune are well placed for telescopic observations at dusk in October. They are in Capricornus, high in the south as the Sun sets.

Pluto is getting low in the southwest at dusk this month, making it pretty much impossible to find.

### End of Daylight Saving Time: Sunday October 29

Daylight Saving Time officially ends at 2:00 a.m. on Sunday October 29, 2000. For most people, that means turning the clocks **back** one hour before going to bed on Saturday night. For the astronomer, it also means we change the number of hours we subtract from Universal Time to get local time values. When we're on Daylight Saving Time, you subtract 4 hours from UT to get local time (Eastern Daylight Time, or EDT). The rest of the year, you subtract 5 hours to get Eastern Standard Time (EST).



### **Help Needed: Positions Available**

Here's your chance to enhance your resume by serving on the staff of the award-winning CCAS monthly newsletter, *Observations*. We currently have openings for Associate Editor, Contributing Editor, and Contributing Photographer. As soon as I dream up job descriptions, I'll tell you what those jobs entail... Salaries are, of course, equal to the magnificent salary given the Editor in Chief, Jim Anderson: \$0.00 per annum, but the benefits are heavenly...

Seriously, yes I would like some help with the newsletter on a regular basis. A Contributing Editor would be like a reporter,

attending events and submitting brief reports for publication in the newsletter. Preferably this person (or persons) would have a computer and Internet access so they can submit articles electronically, to make it easier to include the report in the newsletter.

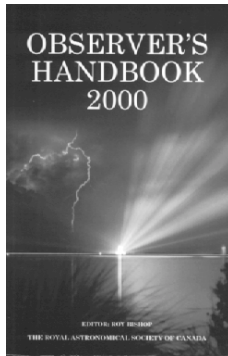
Contributing Photographers would also be like reporters, but would take pictures at events and submit those for publication. These would not necessarily be astrophotographs, although those are nice to have too. Photos of meetings, observing sessions, educational events, and the like are the kind of photos I'm primarily thinking of here: like the two on the front page of this issue that Ed made the mistake of giving me at last month's meeting. Snapshots are fine; you can submit photos in "hard-copy" format and I can scan them into my computer for inclusion in the newsletter (that's the easy part, really). You would of course also have to tell me what the photo shows, when it was taken, who is in it, etc.

Associate Editor is a bit more involved and less desirable. This job entails working directly with the tyrannical Editor in Chief, editing articles, assisting with formatting and layout of the newsletter, proof reading, and any other crummy stuff The Boss doesn't want to do...

If you'd like to apply for any of these positions, contact Jim Anderson for an interview. Just kidding, there are no interviews, just make the mistake of calling and the job is yours.

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### **Observer's Handbook 2001: Save Money!**



The cover of last year's issue

The *Observer's Handbook* is a very valuable reference tool published each year by the Royal Astronomical Society of Canada. As the information and data presented really covers just about all of North America, it is just as valuable here in Chester County PA as it is in Toronto. This book contains many sections of information. One section is a two-page calendar-type synopsis of the astronomical events visible that month. Full articles, complete with path & totality maps, are published for every solar and lunar eclipse that occurs in the covered year (regardless of where it is visible!) There are sections on each planet, with planetary satellite tracking data,

an asteroid section, and an occultation section that covers all occultations visible that year from North America. And that's not all, but I'm not going to list everything.

Best of all, there is a substantial price reduction available for bulk orders. If you buy 1-4 copies, the price is \$21.95 (all prices are in US dollars.) 5-19 copies are only \$13.50 each, a savings of \$8.45 each. An order of 20-99 copies costs \$13.00 each, and 100+ copies are \$12.50 each. It seems we should be able to get at least 5 people in the CCAS who want a copy, so we should be able to secure the \$13.50 price without any trouble. If you'd like a copy, contact Jim Anderson by [sny114@aol.com](mailto:sny114@aol.com), and tell me how many copies you want. The books will start rolling off the press in November; I'll place the order and collect the payments when the books arrive.

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### **Web sites on Choosing a Telescope**

Bob Murray has done some research on the Internet and provided us with the URLs (addresses) for several Web sites that offer information and guidance on selecting a telescope. If you're not interested in these yourself, you might want to keep these URLs around to give to friends and neighbors who ask for guidance in this area.

<http://space.about.com/science/space/gi/dynamics/offsite.htm?site=http%3A%2F%2Fwww.scopereviews.com%2Fbegin.html>

That is all one URL, so make sure it looks like one piece in your Web browser's address window.

<http://www.skypub.com/tips/telescopes/choosing.html>

[http://www.astronomics.com/Content/how\\_to\\_pick/how\\_to\\_pick.htm](http://www.astronomics.com/Content/how_to_pick/how_to_pick.htm)

<http://216.55.26.24/telescope/>

<http://www.prairienet.org/cuas/scphow2.shtml>

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### **Book Update Available from Jim Mullaney**

CCAS Friend Jim Mullaney has published the second edition of his book *Celestial Harvest – 300 Plus Showpieces of the Heavens for Telescope Viewing and Contemplation*. There are several new entries, and some new "Thoughts for Contemplation." Anyone who purchased the first edition (1998) can receive complimentary updated entries from Jim directly. Just send a self-addressed envelope (66 cents postage for the 9 pages) to:

James Mullaney  
P.O. Box 1146  
Exton, PA 19341

His e-mail is: [jimullaneyms@msn.com](mailto:jimullaneyms@msn.com)

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## CCAS Information Directory

### CCAS Lending Telescope

Contact Kathy Buczynski to make arrangements to borrow the Society's lending telescope. CCAS members can borrow the 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 email message and send it to the editor at [skywalker56@earthlink.net](mailto:skywalker56@earthlink.net)

Or mail the contribution, typed or handwritten, to:

**Jim Anderson**  
19 Bluff Road  
Thorndale, PA 19372-1104

### 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:

[skywalker56@earthlink.net](mailto:skywalker56@earthlink.net)

### 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  
(610-380-4512)

### 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

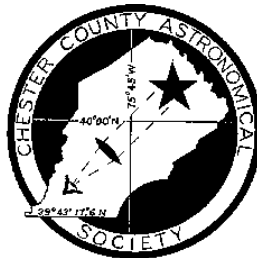
**Treasurer:** Pete LaFrance  
(610) 268-2616

**Secretary:** Doug Liberati  
(610) 827-2149

**ALCor and  
Newsletter:** Jim Anderson  
(610) 380-4512

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

**Observing:** Ed Lurcott  
(610) 436-0387



### 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

### 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://members.tripod.com/~ccas\\_2/ccas.html](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) or e-mail to [lafrance@chesco.com](mailto:lafrance@chesco.com)



