



OBSERVATIONS



A MONTHLY PUBLICATION OF THE
Chester County Astronomical Society

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

MAY 2001
(VOLUME 9, NO. 5)

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

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

CCAS May Meeting

DATE: Tuesday May 8, 2001
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. A map is included on a later page.

At the May meeting, we will hold an election of officers for 2001-2003. Ballots were mailed to all current members. If you can't make it to the meeting, make sure you mail your ballot back early enough to be received by Tuesday May 8. Ballots received after that date will not be counted.

Our guest speaker, Dr. Allen Johnson of the Geology and Astronomy department at West Chester University will give us an illustrated talk on lunar geology. Dr. Johnson teaches historical geology, hydrogeology, geophysics, and origins of the universe (team taught with faculty from the Biology, Physics, and Chemistry departments). Don't miss what is sure to be a fascinating discussion!



CCAS May Observing Session

The next CCAS Observing Session will be on Friday May 18, 2001 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 May 19, 2001. 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.

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. A map showing the location of the BVA is included on a later page.



Steve Limeburner Earns Messier Award

At the April Society meeting, Messier Program Coordinator Frank Angelini had the pleasure of presenting Steve Limeburner with his Honorary Messier Certificate from the Astronomical League. The A.L. gives a "Basic" certificate for finding 70 of the 110 Messier objects, and an "Honorary" certificate and pin for finding all 110 objects. Congratulations, Steve!



Calendar Notes

June 15/16, 2001 (Friday/Saturday)	CCAS Meeting & Observing Session Location: BVA sunset
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June 22-24, 2001	Mason-Dixon Star Party Location: Spring Valley Park in York County PA
July 20/21, 2001 (Friday/Saturday)	CCAS Meeting & Observing Session Location: BVA sunset
July 25-28, 2001	ALCON 2001 Astronomical League National Meeting Location: Frederick, Maryland
August 11/12, 2001	Perseid Meteor Shower Location: everywhere early morning hours
August 17/18, 2001 (Friday/Saturday)	CCAS Meeting & Observing Session Location: BVA sunset

Observations Editorial Staff

Editor in Chief: James J. Anderson

Copy Editors: Donna G. Anderson
Edwin T. Lurcott

Contributing Members:

Kathy Buczynski, Steve Limeburner, Ed Lurcott, Bob Popovich

Newsletter Deadlines

These are the deadlines for submitting material for publication in the newsletter, through the August 2001 issue.

<u>Issue</u>	<u>Deadline</u>
June 2001	05/28/2001
July 2001	06/26/2001
August 2001	07/27/2001

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CCAS Beginning Astronomy Class

This series of eight classes is being held on the first and third Tuesdays of each month, starting at 7:00 p.m. and ending at 8:00 p.m. These are the dates on which the remaining three classes will be held, and the topics for each session:

May 1	Stars
May 15	Telescopes and Binoculars
May 22	Private Open House at Flower & Cook Observatory for class members only

Contact Kathy Buczynski (610-436-0821) with any questions you have about the class.

In the autumn, we will have an Intermediate Astronomy class.

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Help Needed With Society's 20" Telescope

The Society's 20" telescope belongs to the whole Society; it is intended to be available for use by members at Observing Sessions, and even for short-term borrowing by Society members. The problem we have with implementing this policy is, simply put, lack of mobility. We need a member with a big enough truck or minivan, and preferably with the storage space at home for the telescope, to volunteer to be the telescope's "custodian" and "chauffeur." The custodian would of course be able to use the telescope whenever it wasn't out on loan. The biggest part of the telescope is the bottom part; it weighs a couple hundred pounds. We have wheels and handles that convert that piece into a large "wheelbarrow" for moving it, though, and ramps so it can be wheeled right into a vehicle. Ed Lurcott is willing to keep storing the telescope in his garage, if someone can volunteer to be the chauffeur, but not the custodian. If you can help, please call Ed Lurcott. Thanks.

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Astronomus

A Journal for Young Astronomers

By Bob Popovich

"Your Precious Equipment"

The daytime sky was a deep, clear blue. There was hardly a breeze. "As soon as it gets dark, I'm going right outside and do some stargazing!"

Great idea. But first you need to prepare your precious equipment. "You mean my telescope?" No! Your really precious equipment: your body, your brain and your eyes.

First, your brain. Your very own on-board computer. Before stargazing, take a minute to "program" it. What do you want to observe? For constellations, pull out your handy CCAS planisphere, set the date and the time and see what the sky holds for you. Or perhaps the moon is up. If it is, the odds are that a lot of stars won't be because the moon's glow is so bright that you won't see many of the dimmer stars. Maybe even a planet. WWW.Finderscope.com gives a lot of information on what's visible from any place in the world. And don't forget your fellow astronomers have lots of resources, too.

You might want to write down your targets for the evening. Maybe even draw what you see. This way you can look back and remember all the wonderful sights of the night sky. But keep your list of targets short. You don't just want to see them, you want to *enjoy* them. Astronomy is fun when you take the time to enjoy.

Looking at the objects, think about how far away they are. Think about astronomers like Galileo Galilei, Edwin Hubble, Carl Sagan and Jocelyn Bell who looked up at the night sky, and just like you, wondered.

Next, remember that it's always colder outside than you think. You'll be standing or sitting for an extended period so, unless it's a warm summer night, you need to wear a hat, coat, warm shoes & socks and maybe even gloves. Astronomy is fun when you're comfortable.

Lastly, your personal pair of .20 inch, 1-power built-in telescopes. "Hey, I thought you said this wasn't about telescopes!" You're right, it's not about 'scopes, it's about your eyes. They don't have the power of our 20-inch club scope, but they are blessed with a wonderful ability to see color and detail. And hooked up with your on-board computer, they make a super team!

But, you do have to give them time to get used to the dark. Inside your home where it's bright, the pupils of your eyes are small: they only need to let in a little light in order to see. Out in the dark, the pupils need to collect as much light as possible so they have to get big. And this takes time: 10 to 20 minutes, in fact.

"I can't wait that long!" All right, start with a constellation or two. You'll be able to see the brighter stars just fine, and over time the dimmer stars will come into view. It's magical: you don't even notice that more and more stars pop into the heavens as your eyes get used to the darkness. Astronomy is fun when you see a beautiful, starry sky.

With your equipment ready and in operation, you can relax and enjoy. And it's OK to shout out "wow" "cool" and "I found it!" ...we all do.

Next time: *Hey, It's #@&*\${}^+ Out Here!*



This Month's Observing Challenge

By Ed Lurcott

With Jupiter and Saturn rapidly approaching the Sun we need to turn to smaller solar system objects, asteroids. If you have yet to observe an asteroid, you have a fine opportunity this spring and summer. There are two asteroids well-placed for you in the evening skies.

Discovered by H. Olbers in 1802, Pallas (2) has an orbit inclined about 35° to the ecliptic, which often positions it in a favorable position high in our night sky. Such is the case this spring and summer when it will be seen to make a wide sweep around the star β Herculis (Beta, in the constellation Hercules). β Herculis is about 10° south of the famed "keystone" of Hercules. The brightness of Pallas will fade from magnitude 9.2 in May to magnitude 10 in mid-August, and will thus be visible in any telescope with an aperture of at least 3 inches. Pallas orbits about 2.8 AU from the Sun, taking about 4.6 years to complete one orbit, and is estimated to be about 334 miles in diameter.

Herculina (532) is elipsoidal in shape (similar to a rugby ball) with a minor axis 135 miles long and a major axis 163 miles long. Discovered by Max Wolf in 1904, it also revolves around the Sun in about 4.6 years, in an orbit inclined 16.2° to the ecliptic. While not as large as Pallas, Herculina appears just as bright to us, fading from magnitude 9.0 on May 1 to magnitude 10.0 on June 30. Its apparent path makes a wide curve among the stars of southern Bootes, crossing into Virgo on June 21. On the night of May 16-17 Herculina will pass between the stars 14 and 18 Bootis. These stars are 6.2° due south of Arcturus.

Finder charts, adapted from the computer planetarium program *Guide 7.0*, for both these minor planets appear on pages 4 and 5. See if you can track their progress over the next couple of months. When they pass close to a background star, you may be able to detect their movement in just an hour or two. Good luck!

Notes:

AU = Astronomical Unit, the average distance from the Earth to the Sun, which is about 93 million miles.

Asteroids are given numbers, in the order they are discovered. Some of the larger ones also get proper names. This is why many asteroids are referred to with both a name and a number. The forms Pallas (2) or 2 Pallas are both considered to be correct.



A.L. Youth Activities Committee

The Astronomical League has many programs to promote astronomy. One of these programs is the Youth Activities

Committee, whose Chair is Ryan Hannahoe. Ryan lives in Pennsylvania, and is a very active 9th grade amateur astronomer. Ryan may speak to the CCAS this year about the Youth program; Steve Limeburner is working with him on this. In the meantime, Ryan asked us to let everyone know that the A.L. plans to release a 30-page booklet in July entitled *How to Start a High School Astronomy Club*. Any interested teachers can contact him at hstinst@aol.com. The Y.A.C. Website is at: http://youth_in_astronomy.homestead.com/index.html



Youth Space Program at West Chester Univ.

This summer, West Chester University will present a program for students aged 9 through 16 entitled "Journey Into Space." This program will run from July 2 through July 13, 2001 (excluding July 4). Daily class time is 9:00 a.m. to 4:00 p.m., except on field trip days. Cost is \$500.00, and enrollment is limited. A "resident option" is available at \$850.00 per person based on double occupancy, with breakfast, lunch, and dinner included. The theme this year is "Off to Mars!" Activities will include working with satellite imagery and processing, weather tracking satellites, computer labs, building and launching your own rockets, learning the basic principles of rocket design and flight, life support technology, weightless training (underwater SCUBA), Mars habitat design, and more! The only "prerequisite" is an "interest in space." Contact Jim Anderson for a copy of the brochure (610-380-4512). For an application, contact the Director, Nancy McIntyre at West Chester University (610-436-2393) or e-mail at nmcintyre@wcupa.edu



A.L. Observing Awards Updates

CCAS Members also belong to the nationwide Astronomical League, which means they are eligible to receive observing awards in recognition of their development as observational astronomers. Below is a list of awards already awarded to CCAS members. Is anyone else working on an A.L. observing award? Let *Observations* know how you're doing.

CCAS Messier Certificates:

Jim Anderson, Basic (now has 87 of 110 objects)
Frank Angelini, Honorary
John Imburgia, Basic (now has 84 of 110 objects)
Steve Limeburner, Honorary
Ed Lurcott, Honorary

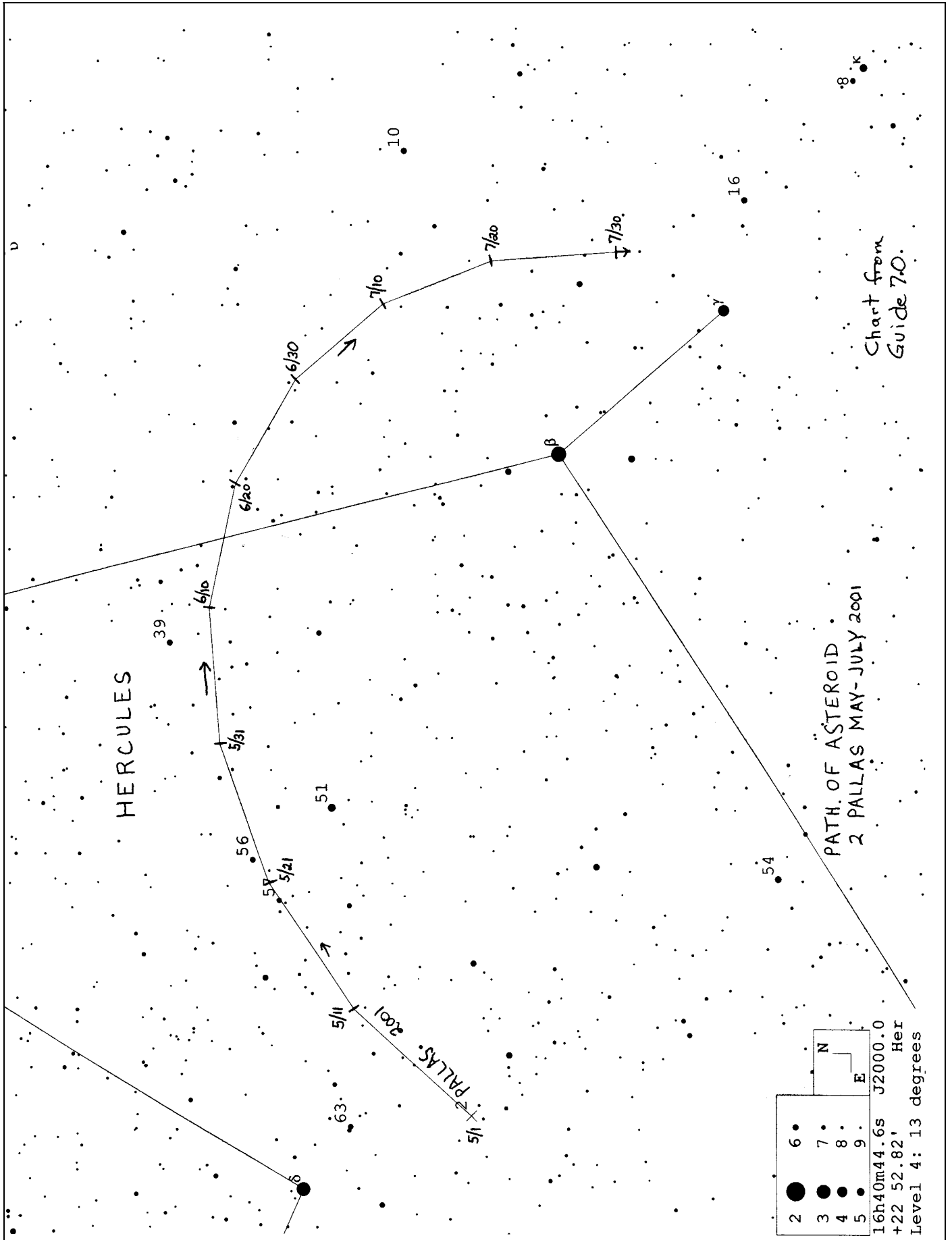
CCAS Lunar Certificates:

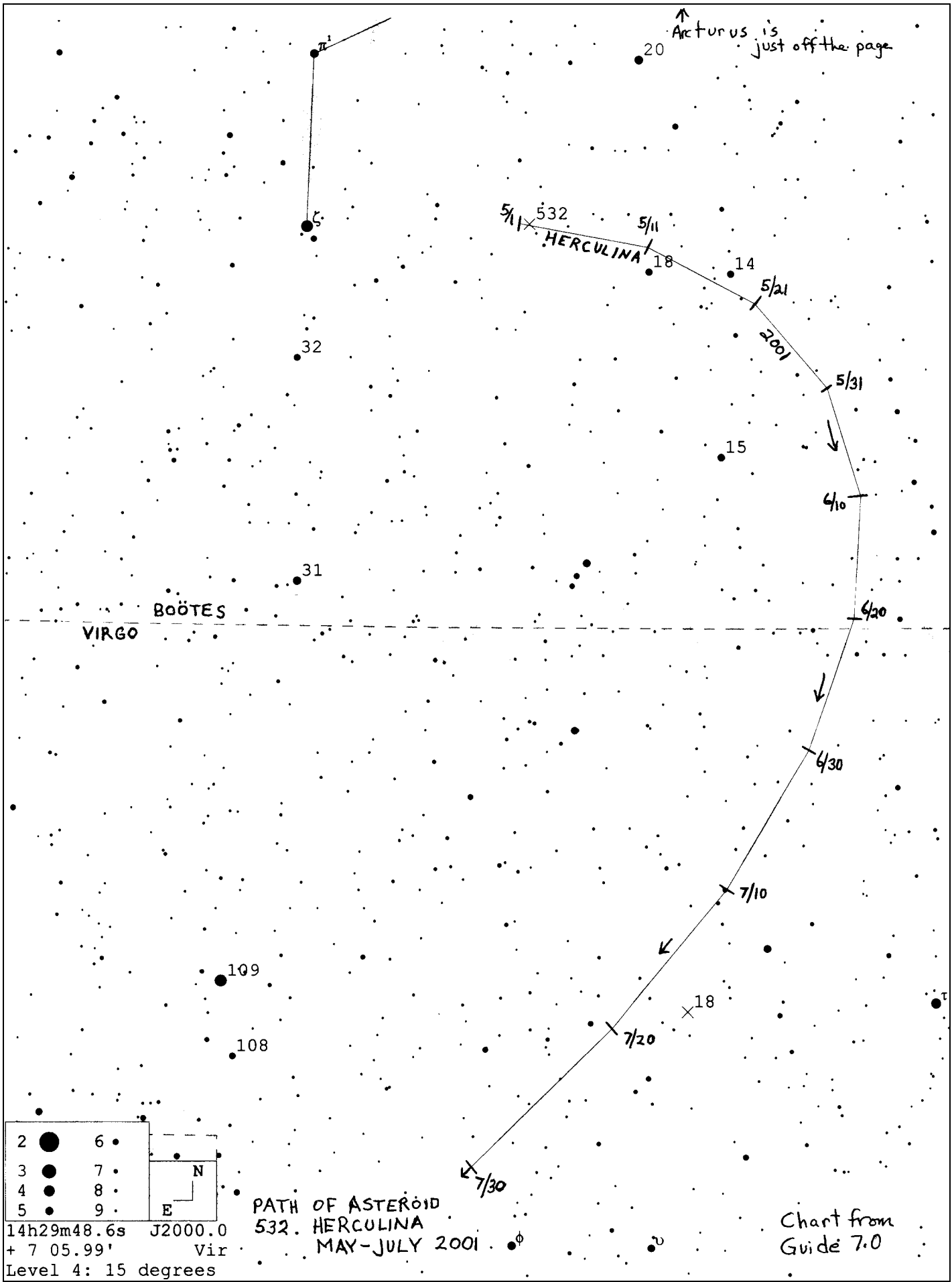
Jim Anderson
Elise Furman
Steve Limeburner

CCAS Double Star Certificates:

Jim Anderson
Steve Limeburner
Ed Lurcott
Mike Turco







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

jimanderson1956@aol.com

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:

jimanderson1956@aol.com

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

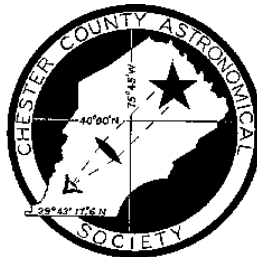
Treasurer: Pete LaFrance
(610) 268-2616

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

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

