



Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

Vol. 17, No. 7

July 2009

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CCAS Upcoming Nights Out

CCAS has several "nights out" over the next few months. Members are encouraged to help out during these events any way they can. See below for more information.

- ✧ Saturday, August 22nd, We have been asked back to Ridley Creek State Park for another night out with the public.
- ✧ Saturday, September 19th, we are hosting a night out at Anson Nixon Park in Kennett Square.
- ✧ Saturday, October 19th, we are co-hosting (with the West Chester Recreation Dept.) a night out at Hoopes Park, West Chester.

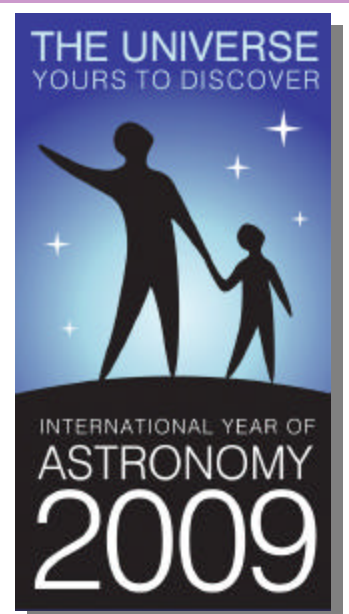


Need your Sagan fix? Watch the complete original series, "Cosmos", online for free at hulu™.

Go to <http://www.hulu.com/cosmos> to watch all 13 episodes.

Important July 2009 Dates

- 7th** • Full Moon at 5:21 a.m.
- 15th** • Last Quarter Moon at 5:53 a.m.
- 21st** • New Moon at 10:35 p.m.
- 27th** • The Delta Aquarid meteor shower is strongest this week.
- 28th** • First quarter Moon, 6:00 p.m.



Membership Renewals Due

07/2009	Goldader & Family Hockenberry & Family Rybski Tobery
08/2009	Fellwock Fragale Given Knabb & Family
09/2009	Bogucki Cooperman & Family De Lucia & Family Lurcott Renshaw

Summer 2009 Society Events

July 2009

1st • PA Outdoor Lighting Council monthly meeting, Bucktown Branch of National Penn Bank, 1111 Ridge Rd, (Rt. 23 just west of Rt. 100) in South Coventry Township, PA, starting at 7:30 p. m.

7th • Hercules Observing Cluster meets in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

14th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

21st • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

24th • CCAS Monthly Observing Session, Myrick Conservancy Center, BVA (inclement weather date July 25th). The observing session starts at sunset.

26th • Deadline for newsletter submissions for the August 2009 edition of Observations.

28th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

August 2009

4th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

5th • PA Outdoor Lighting Council monthly meeting, Bucktown Branch of National Penn Bank, 1111 Ridge Rd, (Rt. 23 just west of Rt. 100) in South Coventry Township, PA, starting at 7:30 p. m.

11th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

18th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

21st • CCAS Monthly Observing Session, Myrick Conservancy Center, BVA (inclement weather date August 22nd). The observing session starts at sunset.

21st • Reservations start for the September 11th planetarium show at the WCU Planetarium. For more information, please contact Dr. Karen Vanlandingham, Planetarium Director, via e-mail or visit the planetarium's webpage.

25th • Hercules Cluster meets at dusk in West Goshen Township, weather permitting. Contact Kathy Buczynski for directions and details.

26th • Deadline for newsletter submissions for the September 2009 edition of Observations.

Incoming President's Message

by Roger Taylor, CCAS President, 2009-

I am still amazed at you all having chosen me to become president of the Chester County Astronomical society. Kathy has filled this roll tremendously over the last four years and we owe her a tremendous debt of gratitude. Under her tenure, our membership has grown twenty percent and our outreach programs have blossomed. Thanks so very, very much. For such dainty feet, I can't understand why her shoes are so hard to fill.

As we look to our future, for look we must, we will be developing a clear direction. Without direction it is very easy for an organization to founder and to dissipate. We have the core, the nucleus to attract others to our fold.

Membership is not the be all and end all for an organization, but it is very important. It is the total resource that allows us what we do best. We teach, we foster, we spread the word about the night sky wonders that we all know and love.

I invite and look forward to hearing what you have to say about what we do well and what we might do even better. Hopefully before the summer is out, the executive board will be sending out a survey that will allow you to express your feelings about any of a number of topics. It will also allow open-ended answers in case you think we are not asking the right questions.

When we talk to others about CCAS, it should be with passion! We should be neither ambivalent nor complacent about how we feel. Energy and dynamism are the essential fuel to move our little starship forward.

I hope to be able to help us realize our true strength and to let that strength build a club that we can be even more proud of.

May starlight continue to fall upon our face.

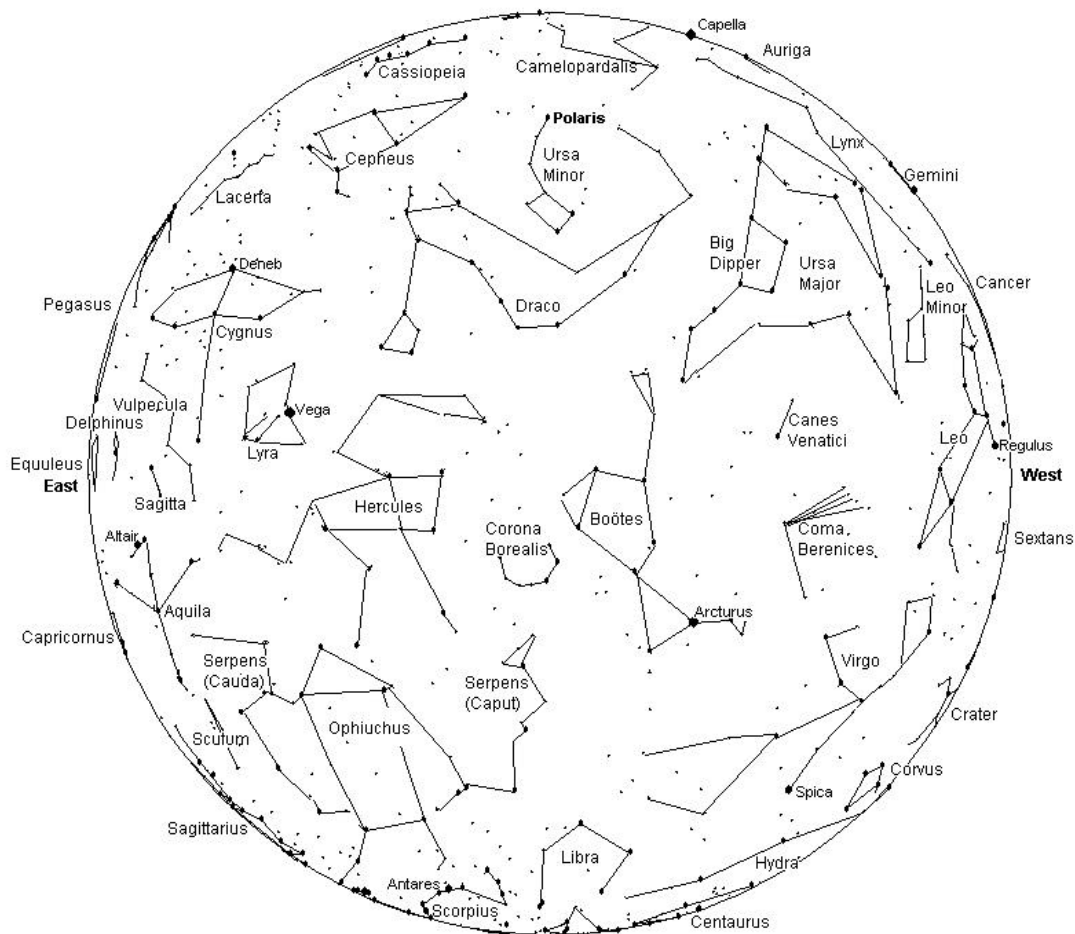
Roger



*The passing of the torch: past and present CCAS Presidents
Kathy Buczynski and Roger Taylor*

The Sky Over Chester County July 15, 2009 at 9:00 p.m. EDT

Note: the constellation stick figures used on the chart above were adapted from the book *The Stars: A New Way to See Them*, by H. A. Rey. This excellent guide to learning the constellations can be purchased at many area book stores, or from online booksellers.



This chart was produced using *Guide 8.0* skymapping software by Project Pluto, Bowdoinham, Maine

The faintest stars shown on this chart are fifth magnitude.

Date	Sunrise	Sunset	Moon Phases		
07/01/2009	5:36 a.m. EDT	8:33 p.m. EDT	First Quarter	07/28/2009	6:00 p.m. EDT
07/15/2009	5:45 a.m. EDT	8:28 p.m. EDT	Full Moon	07/07/2009	5:21 a.m. EDT
07/31/2009	5:58 a.m. EDT	8:15 p.m. EDT	Last Quarter	07/15/2009	5:53 a.m. EDT
			New Moon	07/21/2009	10:35 p.m. EDT

July 2009 Observing Highlights

by Don Knabb, CCAS Observing Chair

July 7	Full Moon, 5:21 a.m.
July 9/10	Jupiter is on the left of the Moon on the 9 th and on the right on the 10 th
July 15	Last quarter Moon, 5:53 a.m.
July 18/19	The Moon, the Pleiades, Mars, Aldebaran, and Venus are in a nice group 1 to 2 hours before sunrise.
July 21	New Moon 10:35 p.m.
July 25-31	The Delta Aquarid meteor shower is strongest this week
July 28	First quarter Moon, 6:00 p.m.

The Planets: July is your last chance to catch Saturn before it dives behind the Sun and becomes an early morning planet. Or stay up quite late to see Jupiter rising in the east. If it is Venus and Mars that you would like to see, you'll need to get up an hour or two before dawn.

Mercury: July does not present good viewing opportunities for Mercury.

Venus: Our sister planet rises about 3 hours before that big, bright yellow ball of hydrogen and helium in the sky.

Mars: The red planet rises before Venus but is only one-hundredth as bright. It is to the upper right of bright Venus. Both Venus and Mars are near the Pleiades and the Hyades star clusters in the morning sky. On the mornings of July 17-19 there will be a nice grouping of the Moon, Venus, Aldebaran in the Hyades, Mars and the Pleiades. Look for this about an hour before sunrise.

Jupiter: Bright Jupiter is still a late night/early morning object during July, but if you want to see Neptune it is very close to Jupiter on July 9th.

Saturn: Saturn is falling into the sunset throughout July. By the end of the month it will be only 10° above the western horizon an hour after sunset.

Uranus and Neptune: Use the finder charts on the Sky and Telescope website to find Uranus and Neptune this month: <http://www.skyandtelescope.com/>

[observing/highlights/41561382.html](http://www.skyandtelescope.com/observing/highlights/41561382.html) . You'll need to stay out late but to find Neptune you will have Jupiter to help point the way!

Pluto: Tiny, dim Pluto was at opposition on June 23rd, placing it high in the sky around midnight. The June issue of Sky and Telescope has a finder chart if you would like to seek out this distant ex-planet.

The Moon: Full moon occurs on July 7th. Native Americans called this the Full Buck Moon because July is normally the month when the new antlers of buck deer push out of their foreheads with coatings of velvety fur. It was also often called the Full Thunder Moon, since thunderstorms are most frequent during this time of year.

Constellations: Ah, the warm July nights! Settle back in a lounge chair on a clear July night and enjoy the wonderful stars of summer! In the west is bright Arcturus in Boötes with the beautiful Corona Borealis, the Northern Crown, just to its east. Then we pass through Hercules to the Summer Triangle with the Milky Way filling the spaces within the triangle. Lean back with a pair of binoculars and gaze into the triangle and you will see hundreds of stars in your eyes! It just doesn't get any better than this!

Messier/Deep Sky: While the southern constellations of summer, Sagittarius and Scorpius, are visible don't miss the chance to gaze into the heart of the Milky Way. The Lagoon and Trifid nebulas in Sagittarius, M8 and M20, are two of my favorite objects. They are just off the spout of the "teapot". Then look high overhead with binoculars and find the coat hanger cluster between Vega and Altair. This is a great object to share with friends.

Comets: There are no bright comets visible during July.

Meteor Showers: The Delta Aquarids peak on the night of July 27/28 in the early morning hours. Although this shower favors viewers at more southern latitudes we should still be able to see some good shooting stars.

Through the Eyepiece: NGC 6231, the Northern Jewel Box in Scorpius

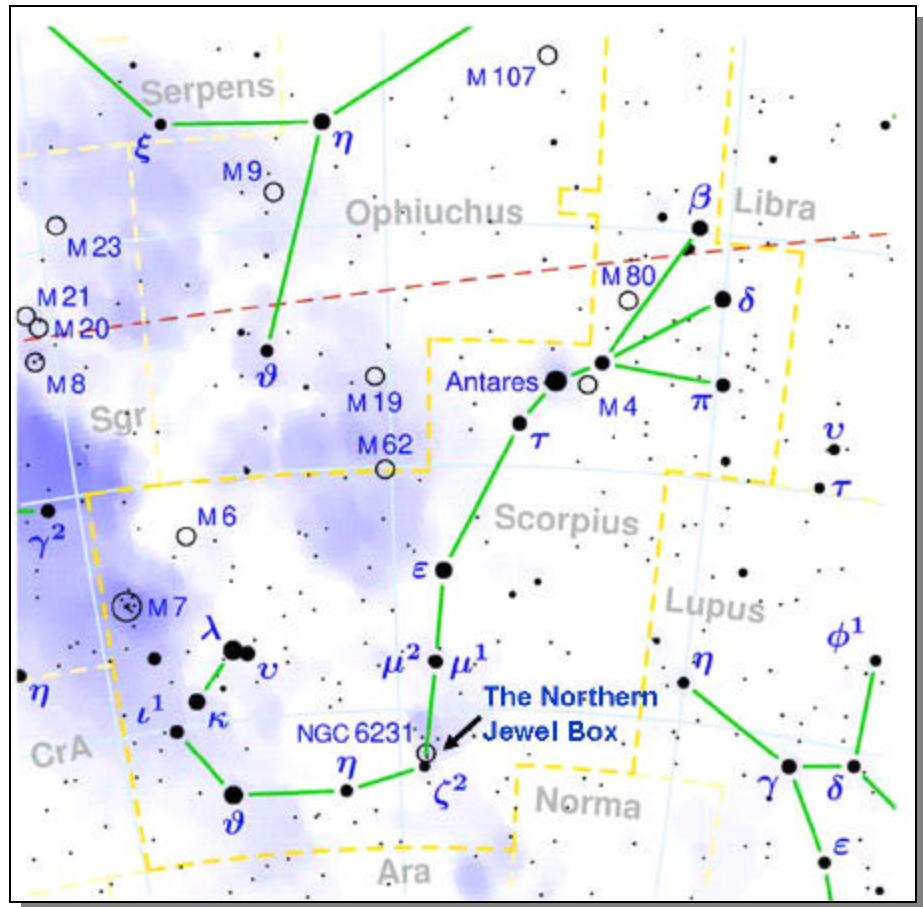
by Don Knabb, CCAS Observing Chair

Summer nights provide us a few weeks of gazing into the constellations of the southern hemisphere. This area of the sky has many interesting and beautiful objects, but one that I had not heard of before is the Northern Jewel Box in Scorpius. This open cluster is called the Northern Jewel Box to differentiate it from the Jewel Box in Crux, the Southern Cross.

It is easy to find The Northern Jewel Box if you have a low southern horizon. During July look due south about 10 p.m. NGC 6231 is located where the Scorpion's tail makes a sharp left turn near Zeta Scorpii. Zeta1 and Zeta2 Scorpii are members of this star cluster. It was first recorded by Giovanni Batista Hodierna in 1654.

NGC 6231 has been given many names. Besides the Northern Jewel Box, it is also called The Table of Scorpius and the Lizard. The Northern Jewel Box is also part of what is called The False Comet. That name was most likely coined by Alan Whitman's description of it at the 1983 Texas Star Party. He subsequently wrote about it in Sky Publishing's *Total Solar Eclipse 1998 Sourcebook*.

He described it as "A striking comet-like structure streams north from the colorful naked-eye double Zeta Scorpii." The 'comet' consists of Zeta, NGC 6231, the elongated cluster H12, and the background glow of in-



NGC 6231, The Northern Jewel Box
and its position in the constellation Scorpius.

numerable distant stars of Scorpius, all contributing to the cometary illusion.

An open cluster is a group of up to a few thousand stars that were formed from the same giant molecular cloud, and are still loosely gravitationally bound to each other. In contrast, globular clusters are very tightly bound by gravity.

Open clusters, also called galactic clusters, contain fewer and younger stars than globular clusters. Also unlike globular clusters, open clusters are generally

confined to the plane of our Galaxy.

Open clusters are very important objects in the study of stellar evolution. Because the stars are all of very similar age and chemical composition, the effects of other more subtle variables on the properties of stars are much more easily studied than they are for isolated stars. A number of open clusters, such as the Pleiades and the Hyades are readily visible with the naked eye.

(Continued on page 6)

NGC 6231, the Northern Jewel Box in Scorpius



*NGC 6231, The Northern Jewel Box. Photo courtesy of the Capella Observatory, located on the island of Crete.
Image credit: Dr. Stefan Binnewies and Josef Pöpsel.*

(Continued from page 5)

Some others, such as the Double Cluster, are barely perceptible without instruments, while many more can be seen in binoculars or telescopes.

Above is a beautiful picture of The Northern Jewel Box. This photo is used with the permission of the Capella Observatory on the island of Crete. It was

taken with a 24 inch Cassegrain telescope. You can learn more about this observatory at their website: <http://www.capella-observatory.com/>. There are many stunning photographs to see on their website!

So before the big bug of summer (the constellation Scorpius) ducks below the horizon and heads south for the winter, grab your binoculars or telescope and

hunt down the Northern Jewel Box!

Information credits:

<http://www.universetoday.com/2007/08/13/whats-up-this-week-august-13-august-19-2007/>
<http://www.perezmedia.net/beltofvenus/archives/000820.html>
http://en.wikipedia.org/wiki/NGC_6231
http://en.wikipedia.org/wiki/Open_cluster
<http://www.seds.org/messier/cluster.html>

CCAS Member Astrophotography

by Steve Siskind

My brother, Dave, and I visited a “Bed & Telescope” Inn in Mayhill, NM, called New Mexico Skies, October 24-31, 2008. We brought along our own telescopes and imaging gear, and used them for several nights, and also rented some of the inn’s available equipment on other nights.

We viewed and imaged a number of deep sky objects with their equipment, as well as our own. Here are two of our best.

The first shot, of the Horsehead Nebula, was taken on October 28th, 2008 at 3:00 AM (local time) with the inn’s equipment: Takahashi FCT-150 triplet fluorite Apo at f/5.0; SBIG STL-11000CM CCD camera; 2 15 minute exposures (the original acquired shots were 62 Mbytes). The processed, finished, and subsequently e-mailed image is 1.8 Mbytes.

The second shot, of M31, was taken (10/31 11:15 PM local) with my equipment: Orion 80ED doublet APO, FL 600mm, on an Orion Sirius EQ-G GoTo mount; unmodified Canon XT Rebel DSLR; single 241 second exposure at ISO 1600 (original acquired shot was 4 Mbytes, processed finished emailed version is 655 Kbytes).

The image of M31, taken with my own Orion 80mm APO, was unguided, and also had not had any PEC correction applied. I



Horsehead Nebula, courtesy of Steve Siskind



Andromeda Galaxy, M31, courtesy of Steve Siskind

relied merely on the basic tracking of the Orion Sirius mount, which says something about the quality of the mount

(as well as the care I took in pointing the mount at the start of the evening).

Scoring More Energy from Less Sunlight

by Jet Propulsion Laboratory

Alien life on distant worlds. What would it be like? For millennia people could only wonder, but now NASA's Spitzer Space Telescope is producing some hard data. It turns out that life around certain kinds of stars would likely be very different from life as we know it.

Using Spitzer, astronomers have discovered the organic chemical acetylene in the planet-forming discs surrounding 17 M-dwarf stars. It's the first time any chemical has been detected around one of these small, cool stars. However, scientists are more intrigued by what was *not* there: a chemical called hydrogen cyanide (HCN), an important building block for life as we know it.

"The fact that we do not detect



hydrogen cyanide around cool stars suggests that that prebiotic chemistry may unfold differently on planets orbiting cool stars," says Ilaria Pascucci, lead scientist for the Spitzer observations and an astrophysicist at Johns Hopkins University in Baltimore, Maryland.

That's because HCN is the basic component for making adenine, one of the four information-carrying chemicals in DNA. All known life on Earth is based on DNA, but without adenine available, life in a dwarf-star solar system would have to make do without it. "You cannot make adenine in another way," Pascucci explains. "You need hydrogen cyanide."

M-dwarf and brown dwarf stars emit far less ultraviolet light than larger, hotter stars such as our sun. Pascucci thinks this difference could explain the lack of HCN around dwarf stars. For HCN to form, molecules of nitrogen must first be split into individual nitrogen atoms. But the triple bond holding molecular nitrogen together is very strong. High-energy ultraviolet photons can break this bond, but the lower-energy photons from M-dwarf stars cannot.

"Other nitrogen-bearing molecules are going to be affected by this same chemistry," Pascucci says, possibly including the precursors to amino acids and thus proteins.

To search for HCN, Pascucci's team looked at data from Spitzer, which observes the universe at infrared wavelengths. Planet-forming discs around M-dwarf stars have very faint infrared emissions, but Spitzer is sensitive enough to detect them.

HCN's distinctive 14-micron emission band was absent in the infrared spectra of the M-dwarf stars, but Spitzer did detect HCN in the spectra of 44 hotter, sun-like stars.

Infrared astronomy will be a powerful tool for studying other prebiotic chemicals in planet-forming discs, says Pascucci, and the Spitzer Space Telescope



Do alien planets around other stars have the right ingredients for a pre-biotic soup?

(Continued on page 9)

Less Sunlight

(Continued from page 8)

is at the forefront of the field. Spitzer can't yet draw us a picture of alien life forms, but it's beginning to tell us what they could—and could not—be made of. "That's pretty wonderful, too," says Pascucci.

For news of other discoveries based on Spitzer data, visit www.spitzer.caltech.edu. Kids can learn Spitzer astronomy words and concepts by playing the Spitzer "Sign Here!" game at spaceplace.nasa.gov/en/kids/spitzer/signs.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

New CCAS President Wins Award

On May 19, 2009, at the White Clay Creek at Delaware Park Restaurant, CCAS President Roger Taylor was awarded the Delaware Astronomical Society's annual Luther J. Porter Educator of the Year Award.

The Delaware Astronomical Society (DAS) created the Luther J. Porter Award in 1999 to be presented to an individual who has been a strenuous advocate of and active participant in astronomy education and/or related subjects to the larger community over a significant period of time.

A long-time member of DAS, Luther J. Porter was born in Wilmington, DE, in 1908 and died in 1999. He served as DAS Secretary from 1967-68 and again

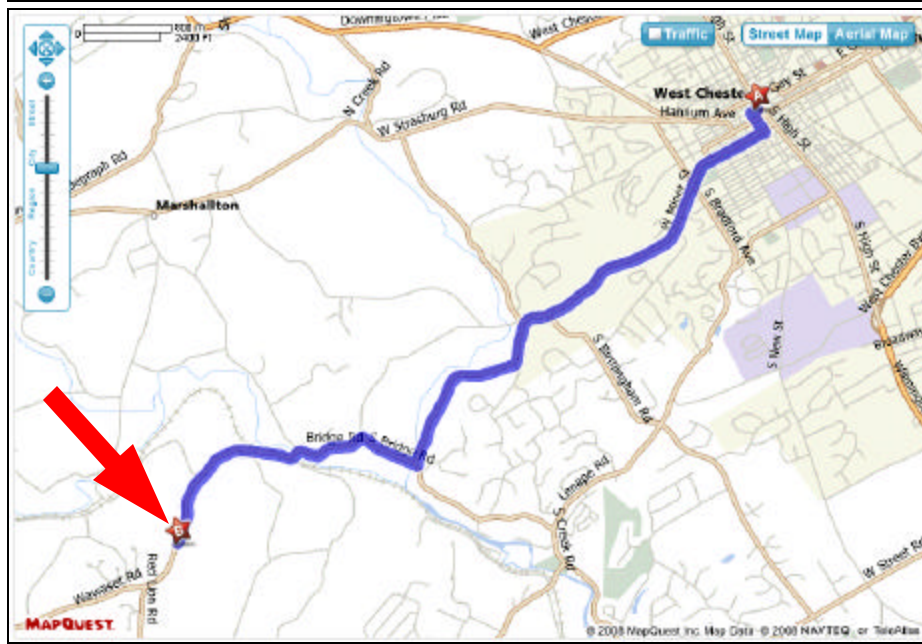
from 1972-76. He also served as the Society's Treasurer from 1977-80 and was an outstanding educator and citizen of his native city.

For 30 years, Luther taught mathematics and civics at Howard High School, inspiring thousands through his common sense and values of service, frugality, and learning. During his thirty-one year retirement, Luther pursued his favorite pastimes: bridge, reading, and astronomy. For many years he was treasurer of the Delaware Chapter of the NAACP, and also served on committees of its national office.

During the presentation, DAS President Hank Bouchelle high-

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CCAS Directions



Brandywine Valley Association

The monthly observing sessions (held year-round) are held at the Myrick Conservation Center of the Brandywine Valley Association.

To get to the Myrick Conservation Center from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site at the BVA property, turn left 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 left through the gate and drive up the farm lane about 800 feet to the top of the hill. The observing area is on the right.

If you arrive after dark, *please turn off your headlights and just use parking lights* as you come up the hill (so you don't ruin other observers' night vision).

Brandywine Valley Association

1760 Unionville Wawaset Rd
West Chester, PA 19382
(610) 793-1090
<http://brandywinewatershed.org/>

BVA was founded in 1945 and is committed to promoting and protecting the natural resources of the Brandywine Valley through educational programs and demonstrations for all ages.

International Year of Astronomy 2009 in Australia

submitted by Bob Fuller, President, Northern Sydney Astronomical Society

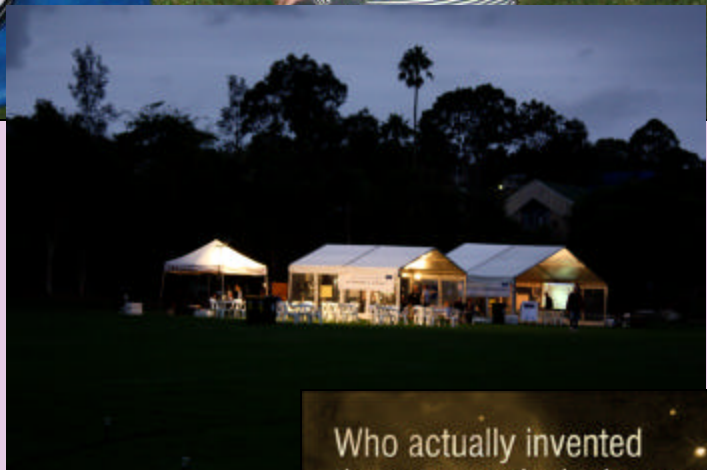
[Last month we heard from the Astronomical Society of the Montreal Observatory and the organization's outreach program for IYA2009. Here is the second response, this time from the other side of the world. —Ed.]

The Northern Sydney Astronomical Society (NSAS) is a quite small organization, just building back towards 60 members, with an aging membership until recently. We've picked up about 15 members since Christmas, most under 30, and there are a couple of very savvy IT people amongst them.

Our area of recruitment is the northern half of Sydney, and one of our main goals is outreach via schools and some of the local municipalities, as we don't have the size and strength to compete with some of the large groups like the Astronomical Society of New South Wales, which has around 500 members.

However, we have an active observing group (when it's not cloudy for two months, like recently!), try to make it out to some dark-sky sites, and some of us are climbing the ladder of expertise in astrophotography. We also get very good speakers from the Australian professional astrophysics community.

Our involvement with IYA has been somewhat limited by our size, but we did participate in the 100 Hours of Astronomy Global Star Party on April 4, through a joint program with Willoughby



Photos taken at the 100 Hours of Astronomy Global Star Party on April 4th, 2009, hosted by the Willoughby City Council and the Northern Sydney Astronomical Society. All photos courtesy of NSAS

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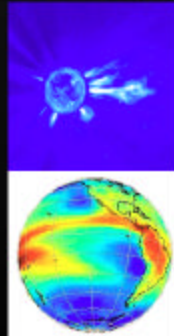
IYA2009 in Australia (cont'd)



Astronomy Impacts our Daily Lives

Climate research: Manmade climate changes are at the top of scientific and political agendas, but need to be disentangled from certain astronomical phenomena that have long-term influences on Earth's climate on our Earth.

- The variability of the amount of solar radiation changes the total energy input to the Earth's atmosphere.
- The variability of the solar ultraviolet emission affects the ozone layer and the temperature on Earth.
- High-energy particle events affect the ozone layer.
- Cosmic rays may affect cloud coverage.



(Continued from page 10)

City Council. The evening was an event of the National Trust Heritage Festival, as a part of the theme, "Our Place in Space under the Southern Cross".

The event was open to the public, and an estimated 200 people participated. 16 NSAS members provided 12 telescopes and binoculars available for general viewing, including 10" & 16" Dobsonians, 8" & 10" Newtonians, and 8" SCTs. In addition to the planned observing session, three presentations were made by NSAS members. The presentations were: "What is Astronomy?", "Who Actually Invented the Astronomical Telescope", and "The Solar System: Our Corner of the Universe".

Unfortunately the evening was totally clouded out, but the council was so pleased with our support that we'll be doing it again in September.

IYA2009 has been the source of a lot of our new members, and we will continue to use the year to generate interest. We just started our first New Astronomers Group in many years, and expect this to grow into a long-term technical group in the Society.

CCAS members can e-mail us at nsas@nsas.org.au. For any of your members who happen to be in Australia, NSAS has a cell phone contact, which is: +61 423 971374.

President Bob Fuller. Although taken on the other side of the globe, these pictures should look familiar to CCAS members who have participated in similar public events.

Former CCAS President Honored with Founder's Award

by Ed Lurcott, Founder, Chester County Astronomical Society

[At the May 12th, 2009, CCAS monthly meeting, elections were held to select the next president of CCAS. Moments afterwards, member Jim Anderson presented the following letter from founder Ed Lurcott along with the Society award that bears his name. —*Ed.*]

“This is an open letter to Kathy Buczynski to be read to the members of the Chester County Astronomical Society. I am presenting the Edwin T. Lurcott Founder's Award to Kathy for her exemplary service to the Society.

In my judgment there has not been a member who was more deserving of this award than Kathy. She more than anyone else has inspired the members and carried the Society forward to the successful position we enjoy today. As President of the Society for the past four years, her leadership efforts have resulted in national recognition for the Society by the Astronomical League. Our newsletter *Observations* won the Mabel Sterns Award for the best Society newsletter. Our Society website won the League's Webmaster Award for the best website among the League's member societies. We were recognized for our National Astronomy Day program at Flower & Cook Observatory. Several articles featuring the Chester County Astronomical Society were published in the nationally-distributed

(Continued on page 13)



CCAS member and former Vice President, Jim Anderson, presented Kathy Buczynski with the Edwin T. Lurcott Founder's Award at the May 12th, 2009 meeting.

CCAS Observing Chair Recognized with Founder's Award



Former CCAS President Kathy Buczynski and CCAS Secretary Don Knabb.

Another Edwin T. Lurcott Founder's Award was announced at the May 12th, 2009, CCAS meeting. CCAS Observing Chair and Secretary Don Knabb was

identified by out-going CCAS President Kathy Buczynski as a leader in public outreach. Don's dedication to the science of æ-

(Continued on page 14)

New President Wins Award

(Continued from page 9)

lighted Roger's contribution as follows:

"For the last 14 years, Roger has been the writer of the "Starstuff" feature for The Kennett Paper. He has also served as Vice President of the Amateur Telescope Makers of Boston and a Director of the Downingtown Area School District. He presently serves on the Board of the Pennsylvania Academy for Performing Arts. A motivated problem solver, coach, mentor, and public speaker, Roger is a facilitator of positive change who has been an avid advocate for Astronomy and also promoted a strong public education system."

Congratulations, Roger, for the recognition of your years of service to the community and to the science of astronomy.

Nicholas's Cartoon Corner

by Nicholas La Para



"JUST WHEN THE UNIVERSE IS ACCELERATING, I'M SLOWING DOWN."

Former President Honored (cont'd)

(Continued from page 12)

League newsletter *The Reflector*.

At the same time, as Chair of the Education Committee, she has practically single-handedly initiated, designed, and carried out the very successful public outreach programs *Introductory Astronomy* and *Backyard Astronomy*. These programs have contributed to the increase in the Society's membership during the past four years.

She also initiated and continues the Tuesday evening observing sessions called the 'Hercules

Cluster', attracting many of her local neighbors to see the moon, planets, and stars. For many of these lucky people it was their first-ever look though a telescope at the heavens.

There have been so many other contributions to the Society by Kathy, both large and small, that they are truly too numerous to list.

It is with much regret that I am unable to present this award personally. I have asked the Society's Vice President, Jim Anderson, to make the award presenta-

tion at this May 2009 meeting of the Society. I hope Kathy will continue her very effective leadership in whatever capacity she chooses.

I'm sure I speak for all the members when I thank you for all your many efforts in making this Society so successful. I myself will never again look at the Hyades Cluster without seeing 'Kathy's Triangle.'"

Congratulations to Kathy for earning the Edwin T. Lurcott Founder's Award. Her dedication to CCAS is admirable.

CCAS Directions

West Chester University Campus

The monthly meetings (September through May) are held in Room 113 in Merion Science Center (formerly the Boucher Building), attached to the Schmucker Science Center. The Schmucker Science Center is located at the corner of S. Church St & W. Rosedale Ave. Parking is generally available across Rosedale in the Sykes Student Union parking lot (Lot K).



Knabb Award

(Continued from page 12)

tronomy and to educating the public via “nights out” and monthly observing sessions are just part of his contribution to CCAS.

Each month Don publishes via this newsletter observing highlights covering what’s visible in the night sky. He also writes two original articles, “Through the Eyepiece”, and “Looking Up”, which call attention to celestial bodies and earth-bound phenomena.

Congratulations Don, on your well-deserved award!

CCAS Membership Information and Society Financials

Treasurer’s Report

by Bob Popovich

May, 2009 Financial Summary

Beginning Balance	\$1,841
Deposits	\$255
Disbursements	<u>\$782</u>
Ending Balance	\$1,314

Welcome New Members!

This month we welcome new members to the Society: Michael Joniec, from Woodlyn; Ashley Duffey, from West Chester; and Ardi Baci, from Paoli.

We’re glad you decided to join us under the stars! Clear Skies to you!

Membership Renewals

You can renew your CCAS membership by writing a check payable to “Chester County Astronomical Society” and sending it to our Treasurer:

Bob Popovich
416 Fairfax Drive
Exton, PA 19341-1814

The current dues amounts are listed in the *CCAS Information Directory*. Consult the table of contents for the directory’s page number in this month’s edition of the newsletter.

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
3225 North First Avenue
Tucson, AZ 85719

Phone: **520-293-3198**
 Fax: **520-293-3192**
 E-mail: **ida@darksky.org**

For more information, including links to helpful information sheets, visit the IDA web site at:

www.darksky.org

Note that our CCAS Webmaster John Hepler has a link to the IDA home page set up on our Society's home page at www.ccas.us.

Dark-Sky Website for PA

The Pennsylvania Outdoor Lighting Council has lots of good information on safe, efficient outdoor security lights at their web site:

www.POLCouncil.org

Find out about Lyme Disease!

Anyone who spends much time outdoors, whether you're stargazing, or gardening, or whatever, needs to know about Lyme Disease and how to prevent it. You can learn about it at:

www.LymePA.org

Take the time to learn about this health threat and how to protect yourself and your family. It is truly "time well spent"!

CCAS Event Information

We've set up a special phone number you can dial to find out if our monthly observing session and other scheduled events will be held or postponed. Call **610-436-0829** after 5 PM ET to hear a recording to find out the latest news.

Good Outdoor Lighting Websites

One of the biggest problems we face in trying to reduce light pollution from poorly designed light fixtures is easy access to good ones. When you convince someone, a neighbor or even yourself, to replace bad fixtures, where do you go for good lighting fixtures? Check out these sites and pass this information on to others. Help reclaim the stars! And save energy at the same time!



Light pollution from poor quality outdoor lighting wastes billions of dollars and vast quantities of valuable natural resources annually. It also robs us of our heritage of star-filled skies. Starry Night Lights is committed to fighting light pollution. The company offers the widest selection of ordinance compliant, night sky friendly and neighbor friendly outdoor lighting for your home or business. Starry Night Lights is located in Park City, Utah.

Phone: **877-604-7377**
 Fax: **877-313-2889**

www.starrynightlights.com



Green Earth Lighting is a dedicated lifetime corporate member of the International Dark-Sky Association. GEL's products are designed to reduce or eliminate the negative effects outdoor lighting can have while still providing the light you need at night.

Green Earth Lighting LLC
 620 Onion Creek Ranch Rd
 Driftwood, Texas 78619

Phone: **512-944-7354**

www.greeneearthlighting.com

Local Astronomy-Related Stores

Listing retail sites in this newsletter does not imply endorsement of any kind by our society. This information is provided as a service to our members and the public only.



Skies Unlimited is a retailer of telescopes, binoculars, eyepieces and telescope accessories from Meade, Celestron, Televue, Orion, Stellarvue, Takahashi, Vixen, Losmandy and more.

Skies Unlimited
Suburbia Shopping Center
52 Glocker Way
Pottstown, PA 19465

Phone: **610-327-3500** or **888-947-2673**
 Fax: **610-327-3553**

www.skiesunlimited.net



Located in Manayunk, Spectrum Scientifics educates and entertains customers with an array of telescopes, microscopes, binoculars, science toys, magnets, labware, scales, science instruments, chemistry sets, and much more.

4403 Main Street
Philadelphia, PA 19127

Phone: **215-667-8309**
 Fax: **215-965-1524**

Hours:

Tuesday thru Saturday: 10AM to 6PM
 Sunday and Monday: 11AM to 5PM

www.spectrum-scientifics.com

CCAS Information Directory

CCAS Lending Telescopes

Contact Kathy Buczynski to make arrangements to borrow one of the Society's lending telescopes. CCAS members can borrow a 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, Linda Lurcott Fragale, to make arrangements to borrow one of the books in the CCAS lending library. Copies of the catalog are available at CCAS meetings, and on the CCAS website. Linda's phone number is 610-269-1737.

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 e-mail message and send it to: newsletter@ccas.us

Or mail the contribution, typed or handwritten, to:

John Hepler
500 W. Rosedale Ave.
Apt. A-3 Trinity Bldg.
West Chester, PA 19382

CCAS Newsletters via E-mail

You can receive the monthly newsletter (in full color!) via 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 John Hepler, the newsletter editor, at: newsletter@ccas.us.

CCAS Website

John Hepler is the Society's Webmaster. You can check our Website at:

www.ccas.us

John 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 copyrighted material! Give your contributions to John Hepler (484-266-0699) or e-mail to webmaster@ccas.us.

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 Executive Committee

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

President:	Roger Taylor 610-430-7768
Vice Pres:	Kathy Buczynski 610-436-0821
ALCor and Treasurer:	Bob Popovich 484-467-5562
Secretary:	Don Knabb 610-436-5702
Librarian:	Linda Lurcott Fragale 610-269-1737
Observing:	Don Knabb 610-436-5702
Education:	Kathy Buczynski 610-436-0821
Webmaster and Newsletter:	John Hepler 484-266-0699
Public Relations:	Deb Goldader 610-304-5303



CCAS Membership Information

The present membership rates are as follows:

REGULAR MEMBER.....\$25/year
SENIOR MEMBER.....\$10/year
STUDENT MEMBER.....\$ 5/year
JUNIOR MEMBER.....\$ 5/year
FAMILY MEMBER.....\$35/year

Membership Renewals

Check the Treasurer's Report in each issue of *Observations* to see if it is time to renew. If you need to renew, you can mail your check, made out to "Chester County Astronomical Society," to:

Bob Popovich
416 Fairfax Drive
Exton, PA 19341-1814

Phone: 484-467-5562
e-mail: B2N2@verizon.net

Sky & Telescope Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$32.95**, much less than the newsstand price of \$66.00, and also cheaper than individual subscriptions (\$42.95)! Buying a subscription this way also gets you a 10% discount on other Sky Publishing merchandise.

To **start** a **new** subscription, make **sure** you make out the check to the **Chester County Astronomical Society**, note that it's for *Sky & Telescope*, and mail it to Bob Popovich.

To **renew** your "club subscription" contact Sky Publishing directly. Their phone number and address are in the magazine and on their renewal reminders.

If you have **any** questions call Bob first at **610-363-8242**.

Astronomy Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$34.00** which is much less than the individual subscription price of \$42.95 (or \$60.00 for two years). If you want to participate in this special Society discount offer, **contact our Treasurer Bob Popovich**.