



Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

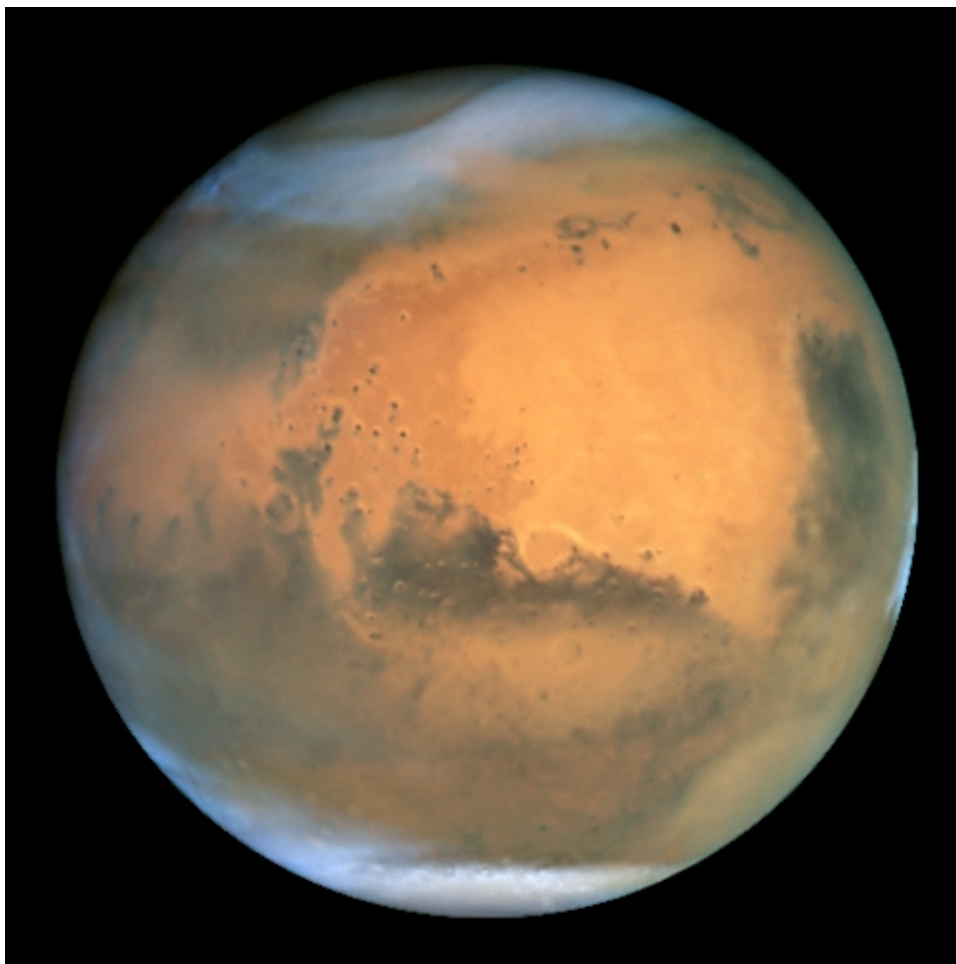
AUGUST 2003

(VOLUME 11, NO. 8)

Image Credit:
NASA and The Hubble
Heritage Team
(STScI/AURA)

Acknowledgment: J.
Bell (Cornell U.), P.
James (U. Toledo), M.
Wolff (STScI), A.
Lubenow (STScI),
J. Neibert
(MIT/Cornell)

Frosty white water ice
clouds and swirling
orange dust storms
above a vivid rusty
landscape reveal Mars
as a dynamic planet in
this sharpest view ever
obtained by an Earth-
based telescope. The
Earth-orbiting Hubble
telescope snapped this
picture on June 26,
2001 when Mars was
approximately 43
million miles (68
million km) from Earth.



**On August 27 at
5:51 a.m. EDT
Mars will be at its
closest to us in
recorded human
history!**

**Only 55,758,006
km, or 34,646,418
miles!**

**If you don't look
at anything else
this month, make
sure you look at
Mars!**

MARS!

President's Message August 2003

I want to thank the membership for their vote of confidence for another two years. I also want to thank Doug Liberati for his efforts and Pete LaFrance for his years as treasurer, and welcome Bob Popovich and Caitlin Grey as our new officers.

As my first official duty, I am going to go out on a limb. In fact, this may be the most foolhardy action any amateur astronomer could take in this year of 2003. Call me crazy but I'm throwing caution to the wind.

I'm going to plan a Star Party.

That does it! He's gone off the deep end. He's lost his marbles. He's not playing with a full deck. He's taken leave of his senses! He's off his rocker! He really flipped his lid this time!!

OK, OK. But look at it this way. Late this August, Mars is going to make its closest approach to Earth in recorded history. It will be a mere 35 million miles away. This is an astronomical stone's throw! Canals, polar caps, giant volcanoes, they all promise to be visible to those with a decent telescope. And that's us!

But you know that just thinking about bringing out your telescope causes the clouds to form.

Yes, but we're talking closest in RECORDED HISTORY here. What's a year of lousy weather compared to that? We've got to break the jinx and I'm betting that this is going to be the event to do it.

How often have you been able to set up your scope recently?

Once in the past eighteen months.

See! What makes you think this August will be any different?

Happy endings. You know, the kind of endings in movies when the good guy gets the girl. When Captain Kirk saves the Earth. When Luke Skywalker blows up the Death Star. When Spongebob wins over Plankton. I can feel it. This August is going to be the Happy Ending to a year's worth of cloudy skies and stargazer's disappointment. This is it. We will prevail!

To that end, you are all invited to my place on Saturday, August 23 from dusk to midnight. Bring your hopes and your scopes. Look for details and directions elsewhere in this newsletter.

Mars up close. *You gotta believe!*

Mike Turco

August Skies

Where is Mars in the sky this month?

Mars reaches opposition on the night of August 28, meaning that it is directly opposite the Sun in our sky. All through August, therefore, it will be rising in our southeastern sky at or shortly after sunset, and setting in our southwestern sky as the Sun is rising in the morning. It will be visible all night long! Furthermore, it is in the constellation of Aquarius, a part of the sky where there are very few bright stars. And there are no other bright planets visible in August (Venus and Jupiter are both behind the Sun). So you can't mistake anything else for Mars in the nighttime sky! Anytime after about 10:00 p.m. local time, look for the brightest "star" in the sky, one with a definite reddish-orange color, and you've found Mars! Easy, huh?

The one bright star near Mars this month is first magnitude Fomalhaut, to the south of Mars in the constellation of Pisces Austrinus (the Southern Fish). Even with the naked eye you will easily see this star near Mars, but it is white in color and the difference will be obvious.

To see Mars well in a telescope, you need to wait until it is high enough above the horizon that you are looking through less of the Earth's turbulent air. That means you'll have to wait until about midnight local time to get a good view in August. It will be worth it to stay up late to get a look at Mars through a good telescope this month!

Moon Phases

First Quarter	8/5
Full Moon	8/12 "Full Sturgeon Moon"
Last Quarter	8/19
New Moon	8/27

The Native American name for this month's Full Moon was obtained from the *Farmer's Almanac* Website. The fishing tribes came up with this name, because sturgeon were easiest to catch in August on the Great Lakes. Some tribes also called it the Full Red Moon, for it often appears red in August as it rises through the hazy summer air. It was also sometimes called the Full Green Corn Moon or the Full Grain Moon.

The Planets

Mercury appears low in the western evening sky in August, about an hour after sunset, but will be tough to spot.

Venus is lost in the Sun's glare this month.

Jupiter is behind the Sun this month.

Saturn is in the morning sky, rising as early as 1:30 a.m. local time by the end of the month.

Uranus is in Capricornus, and reaches opposition on August 23. This is a good month to look for Uranus.

Neptune is also in Capricornus, reaching opposition on August 3, so this is also a good month to look for Neptune.

Pluto is high in the south in the evening, in Ophiuchus. You need good dark skies, at least an 8" telescope, good star charts, and lots of patience to find Pluto.

The Perseids

This annual meteor shower peaks on the night of August 13, but the glare from the nearly full Moon will "wash out" most of the fainter meteors. Still, this is the best of the annual meteor showers and worth checking out. The best time for observing meteor showers is between midnight and sunrise, when our part of the Earth is facing head-on into the stream of meteors. Face eastwards, and use a reclining type of lawn chair to make it easier on your neck. No binoculars or telescope is needed to see a meteor shower. Just go out and keep your eyes open (given the hour, that's the hardest part...)



Please note that the August Observing Session has been moved from the Brandywine Valley Association to Mike Turco's home!

CCAS Mars Party: Saturday August 23, 2003

By Mike Turco

All CCAS members are invited to the Mars Opposition Party on Saturday, August 23. This will take place at my house from dusk to about midnight. A map of the location is on page 8. We will have beer, wine and cheese, soft drinks and such. Although we are anticipating clear skies, the weather may not cooperate. You can call ahead should there be any question regarding cancellation. We'll postpone if totally clouded over. Anyone who wishes to bring something, e.g., a dessert, munchies, etc. is urged to do so, as we don't know how many folks will attend. After all, if the clouds part this could be a once in a lifetime occurrence and attendance could break the record set by the Leonids party of two years ago. Call or e-mail if you have any questions or need more info. Everyone is welcome!

Phone: 610-399-3423

E-mail: MATurco@aol.com



Telescope Workshop: August 13, 2003

The CCAS Education Committee has announced a "Using Your Telescope" workshop for Wednesday August 13, 2003 starting at 7:30 p.m. EDT. For this workshop, people bring their telescopes and CCAS members help them learn how to set them up and use them. This workshop will be held at the Flower & Cook Observatory in Malvern PA. The cost is \$5.00 per family (with the same mailing address). Contact Kathy Buczynski to register; space is limited.

A copy of the advertising poster for this event is included in this newsletter. Feel free to make copies and pass them around; post them in churches, supermarkets, libraries, etc.



CCAS Backyard Observing Class Announced

The Fall class, *Backyard Observing*, will concentrate on actual observing: how to find things in the night sky, what's there to see, etc. Each class will include some actual observing, if it is clear that night. Students will be encouraged to bring binoculars and telescopes, if they have them. Each class session will center on some specific constellations visible that night, as well as lunar, solar, and planetary observing. The class will consist of 6 one-hour sessions, on the first and third Tuesdays of the month, starting with September 23. This is the tentative schedule:

- | | |
|----------|----------------------|
| Sept. 23 | Lyra & Cygnus |
| Oct. 7 | Pegasus & Andromeda |
| Oct. 21 | Cassiopeia & Cepheus |

- | | |
|---------|-------------------------------------|
| Nov. 4 | Lunar & Solar Observing; the Zodiac |
| Nov. 18 | Perseus |
| Dec. 2 | Taurus |

All classes will be held at the Flower & Cook Observatory, located in Willistown Township on Providence Road, just west of the intersection with Warren Avenue. Classes will begin at 7:00 p.m. (ET). Registration will be limited to 40 students, due to the classroom size.

Cost is \$20.00 per person, \$30.00 per family (with same mailing address); FREE for current CCAS members. There will be a drawing at the last class for a copy of the excellent beginner's book *Turn Left At Orion*. All attendees will also receive a copy of Sky Publishing's annual publication *Skywatch 2004*.

If you would like to reserve space in this class, please contact CCAS Education Chair Kathy Buczynski at 610-436-0821, or via e-mail at kbuczynski@aol.com

If you would like to assist with this effort, also contact CCAS Education Chair Kathy Buczynski.



Calendar Notes

- | | |
|---------------------------------|--|
| September 9, 2003
(Tuesday) | CCAS Meeting
Location: West Chester University
7:30 p.m. EDT |
| September 23, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EDT |
| October 7, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EDT |
| October 14, 2003
(Tuesday) | CCAS Meeting
Location: West Chester University
7:30 p.m. EDT |
| October 21, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EDT |
| November 4, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EST |
| November 11, 2003
(Tuesday) | CCAS Meeting
Location: West Chester University
7:30 p.m. EST |
| November 18, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EST |
| December 2, 2003
(Tuesday) | Backyard Observing Class
Location: Flower & Cook Observatory
7:00 p.m. EST |
| December 9, 2003
(Tuesday) | CCAS Meeting
Location: TBD
7:30 p.m. EST |



Astronomus

A Journal for Younger Astronomers

By Bob Popovich

“The First One on This Side of the Pond”

As a rule, one of the first things to be jettisoned during a vacation is the alarm clock. But on one particular day in Chicago early last month, my alarm clock was to be eagerly set. I wanted to arrive at my *stellar destination* before its daily opening. This was going to be special...

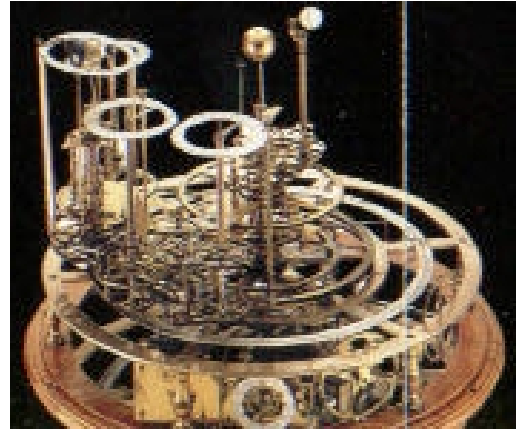
Stepping off the bus with 15 minutes to spare, I walked down a flower-laden jetty piercing Lake Michigan just south of the Loop. Pausing excitedly at a larger-than-life statue of a contemplative Nicholas Copernicus and with the city to my back, the view before me was that of a shimmering lake rising up to meet a flawless blue sky. I was standing at a very special launch point. Not at the controls of a Piper Cub, but rather at the front steps of an institution that was the first of its kind in the Western Hemisphere. It was the gift of Max Adler to the people of the city of Chicago—The Adler Planetarium and Astronomy Museum. I climbed the granite steps of the 12-sided building and approached the ticket counter where I was to be visitor #1 of the day.



The 1930 Adler Planetarium and Astronomy Museum is the domed building partially encased by a wedge-shaped glass addition. The small building to its right is the Doane Observatory housing a 12" reflector for public use.

Built in 1930, Adler contains not only an impressive collection of contemporary high-tech exhibits, but also the largest collection of antique astronomical instruments to be found on this side of the pond. What might capture your fancy? Perhaps the oldest known orrery (c. 1704) or an astrolabe from 1400 AD would be of interest. How about a pocket sundial or one of William Herschel's telescopes? All were on display and represented a beautiful marriage of science, art and consummate craftsmanship. To make the experience in this section of the museum all the more realistic,

there were period costumes that visitors could wear while sitting on medieval university benches and admiring the instruments, reproductions of art work and books related to scientific pursuits of long ago. Always partial to history, I could have all but camped among these exhibits.



Mechanism of an 18th century orrery

Now still historically significant but a whole lot more contemporary are Adler's 3 devices for presenting views of the heavens:

- The Atwood Sphere (1913)
- The Zeiss Planetarium Projector (1930, renovated most recently in 1999)
- The StarRider (digital) Theater (1999)

My guess is that everyone is familiar with a Zeiss planetarium projector, so let's spend a moment describing the Atwood Sphere and the StarRider Theater.

The Atwood Sphere: Envision a metal sphere 15' in diameter with a hole at its lower-right quadrant large enough to allow a small passenger coach (8 people) to enter via a track. Once in the sphere, a curtain "seals" the entrance so that the sphere's interior is very dark. The sphere then begins to rotate and, thanks to the room lights shining through holes drilled in the sphere, all the constellations visible from Chicago parade by. (It's amazing how many stars a Chicagoan could see back in those days). The sphere offered a basic understanding of the night sky and was quite popular with school children until the Adler installed the first Zeiss projector on this side of the pond in 1930.

Going from Atwood to the other end of the planetarium spectrum is truly a quantum leap. The StarRider Theater is an all-digital system presented in a theater identical to that used for Zeiss projections. The difference is that the StarRider has navigation controls on the right armrest of each chair that allows the audience to actually control the direction of portions of the presentation! I participated in an exploration for extra-terrestrial life on Mars and Europa. With some coaching from the Theater's host, we steered our craft around various obstacles as we explored two of our solar system's most intriguing neighbors. By compiling the commands of the audience, the computer determines an "average" course and projects it on the dome. THIS WAS COOL!

(The audience of which I was a part navigated the way some folks parallel park—badly).



The StarRider Theater

Four hours after beginning my tour of Adler I stepped back outside and once again paused next to Copernicus, joining him in his contemplation.

A lovely setting, a beautiful building and an astonishing array of exhibits—it had indeed been special. I heartily recommend a visit to the Adler Planetarium and Astronomy Museum if your travels take you to Chicago.

Of all that I read and experienced that day, here is a quote that hits the nail right on the head: “ *The science of the stars holds a place among the most noble, distinguished and elegant sciences. Among those which greatly entice the heart, embellish the soul and inspire the mind.*”

Muhammed al Battani (858-929),
astronomer and mathematician

Next time: Stop and Smell the Roses



Planetary Society Launches Global "Mars Day Celebration"

PASADENA: On August 27, the planet Mars will be closer to Earth than it has been in more than 50,000 years. The planetary event will enable the public, space enthusiasts and astronomers to view greater detail on a planet that is increasingly seen as humankind's next giant leap.

Bright red-orange in the evening sky, Mars will be in perihelic opposition this summer, meaning the celestial body is at a point in its orbit when it is both closest to the Sun and to the Earth.

To celebrate this once-in-a-lifetime event, The Planetary Society will mark this occasion with special events around the world, including an 83rd birthday party for a man whose name is now synonymous with the Red Planet—Ray Bradbury, author of the famous *The Martian Chronicles*. Bradbury's birthday comes the same week as this historic Mars opposition.

"If ever there was a man who could be billed 'the leading man of Mars,' it is the brilliant Ray Bradbury," commented Dr. Louis Friedman, Executive Director of The Planetary Society.

The public can participate in Mars Day in a wide variety of ways. The Planetary Society will collect birthday wishes for

Ray Bradbury, which will then be presented to him in the form of an enormous card. The Planetary Society also will host Internet events with Bradbury near the time of Mars Day.

The public can also participate by going outside to see Mars and learn more about it. To facilitate this, The Planetary Society has launched a Mars Watch campaign to raise public awareness and to function as a co-sponsor for world events. Over 100 such events in 60 locales are already being planned with more scheduled each week. Event locations include such diverse venues as the Zeiss Planetarium in Vienna, Austria; the Nagoya City Science Museum in Japan; and the Children's Science Center in Cape Coral, Florida.

For details on observing Mars from your own location, check the Mars Watch site at <http://planetary.org/marswatch2003/>. This site is full of information about the Red Planet and includes data on the planet's geological and exploration history, hands-on activities for children, a list of worldwide Mars Watch events, upcoming Mars photo and art contests, and recipes for fun Martian snacks.

In addition to observing Mars from Earth, people around the world will also be keeping an eye on several spacecraft, representing various nations, on their journey to the Red Planet. Five spacecraft are on their way, and late this year will join two others already in orbit around Mars. The five robotic space explorers en route include NASA's Mars Exploration Rover mission (Spirit), the European Space Agency's (ESA) Mars Express and Beagle 2, and Japan's Nozomi mission. NASA's second Mars Exploration Rover—Opportunity—is slated to launch on June 28 from Cape Canaveral.

Bolted to each of NASA's Mars Exploration Rover spacecraft is a mini-DVD. Each disc is provided by The Planetary Society to carry to the surface of Mars the names of 4 million people collected by NASA. Astrobots, which are representations of LEGO mini-figures suited up for space, appear as part of the structure that mounts the mini-DVD onto each spacecraft. The astrobots, named Biff Starling and Sandy Moondust, explore the spacecraft and Mars and chronicle their adventure in fun, educational ways at <http://redrovergoestomars.org/astrobots>.

The Mars celebrations will culminate January 2-4 at Planetfest in Pasadena, California, where thousands are expected to attend a weekend festival observing the first Mars Exploration Rover lander as it touches down on the Martian surface.

The preceding article was provided by The Planetary Society.



Newsletter Deadlines

These are the deadlines for submitting material for publication in the newsletter, through the September 2003 issue.

Issue	Deadline
September 2003	08/29/2003
October 2003	09/26/2003
November 2003	10/24/2003
December 2003	11/25/2003





From the Belly of an Airplane: Galaxies

By Dr. Tony Phillips

On April 28th a NASA spacecraft named GALEX left Earth. Its mission: to learn how galaxies are born, how they grow, and how they die.

"GALEX—short for Galaxy Evolution Explorer—is like a time machine," says Caltech astronomer Peter Friedman. It can see galaxies as far away as 10 billion light years, which is like looking 10 billion years into the past. The key to the mission is GALEX's ultraviolet (UV) telescope. UV rays are a telltale sign of hot young stars, newly formed, and also of galaxies crashing together. By studying the ultraviolet light emitted by galaxies, Friedman and colleagues hope to trace their evolution spanning billions of years.

This kind of work can't be done from the ground because Earth's atmosphere absorbs the most energetic UV rays. GALEX would have to go to space. To get it there, mission planners turned to Orbital Science Corporation's Pegasus rocket.



A Pegasus rocket

"Pegasus rockets are unusual because of the way they're launched—from the belly of an airplane," says GALEX Project Engineer Frank Surber of JPL.

It works like this: a modified L-1011 airliner nicknamed Stargazer carries the rocket to an altitude of 39,000 feet. The pilot pushes a button and the Pegasus drops free. For 5 seconds it plunges toward Earth, unpowered, which gives the Stargazer time to get away. Then the rocket ignites its engines and surges skyward. The travel time to space: only 11 minutes.

"The aircraft eliminates the need for a large first stage on the rocket," explains Surber. "Because Stargazer can be used for many missions, it becomes a re-useable first stage and makes the launch system cheaper in the long run." (To take advantage of this inexpensive launch system, GALEX designers had to make their spacecraft weigh less than 1000 lbs.—the most a Pegasus can carry.)



L-1011 "Stargazer" takes off to carry Pegasus rocket on the first 39,000 feet of its climb to deliver a spacecraft to orbit.

A Pegasus has three stages—not counting the aircraft. "Its three solid rocket engines are similar to the black powder rockets used by amateurs. The main difference is that the fuel is cast into a solid chunk called a 'grain'—about the consistency of tire rubber. Like black powder rockets, once the grain is lit it burns to completion. There's no turning back."

In this case, turning back was not required. The rocket carried GALEX to Earth orbit and deployed the spacecraft flawlessly. On May 22nd, the UV telescope opened its cover and began observing galaxies—"first light" for GALEX and another success story for Pegasus.

For adults, find out more about the GALEX mission at <http://www.galex.caltech.edu/>. Kids can read and see a video about Pegasus at <http://spaceplace.nasa.gov/galex/pegasus.html>.

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

The *Space Place* now offers a three-minute answer to a space-related question on a toll-free phone line. Dr. Marc Rayman, Deep Space 1 Manager (and an amateur astronomer himself), answers a question about space or space exploration. Call (866) 575-6178 to hear the monthly message.



Banquet Invitation

CCAS Members are invited to the 30th Anniversary Dinner of the Berks County Amateur Astronomical Society in Reading. The dinner is on Saturday October 18, 2003. The featured guest speaker is John Dobson, inventor of the Dobsonian mount for telescopes. Details are in the letter on page 11.



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* on a later page in this newsletter.



LITTLE KNOWN ASTRONOMY HISTORY

LA PARA

BY ZEUS, THERE MUST BE A BETTER WAY
TO DO THIS!



ERATOSTHENES MEASURES THE CIRCUMFERENCE OF THE EARTH

Cartoon by Nicholas La Para



Treasurer's Report

By Bob Popovich

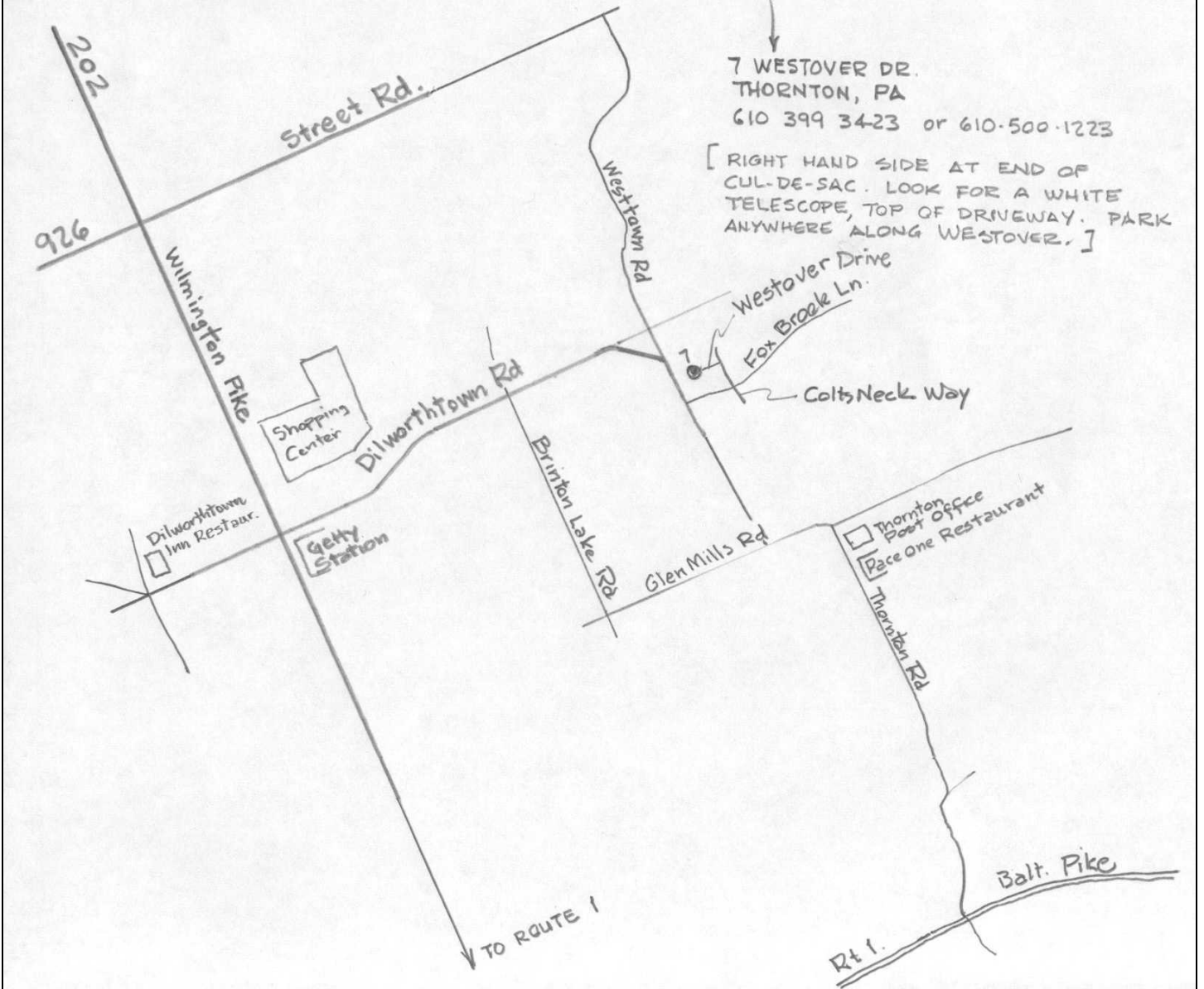
June 2003 Financial Summary

Beginning Balance	\$ 1,563
Deposits	\$ 0
Disbursements	\$ 295
Ending Balance	\$ 1,268

Membership Renewals Due

02/2003: Larson	04/2003: Angelini	06/2003: Lange
	Ashton	McMillan
03/2003: Brogna	Helper	Taylor
Corneliussen	Mahoney	Tiedemann
Kosten	Snow	
LaFrance		08/2003: Morgan
Mayer	05/2003: Geraldino	09/2003: Furman
Plotkin	Turco	
Sherwin		

LOCATION OF MIKE'S HOUSE
(MARS' OPPOSITION PARTY)



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, 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 e-mail message and send it to jim.anderson@mckesson.com

Or mail the contribution, typed or handwritten, to:

Jim Anderson
1249 West Kings Highway
Coatesville, PA 19320-1133

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:

jim.anderson@mckesson.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
(610-857-4751)

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: Bob Popovich
(610) 363-8242

Secretary: Caitlin Grey
(610) 918-9049

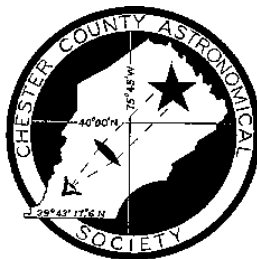
**ALCor and
Newsletter:** Jim Anderson
(610) 857-4751

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

Observing: Ed Lurcott
(610) 436-0387

Education: Kathy Buczynski
(610) 436-0821

Public Relations: Vic Carlucci
(610) 458-7457



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 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 "Chester County Astronomical Society". Mail to:

Bob Popovich
416 Fairfax Drive
Exton, PA 19341-1814

Sky & Telescope Magazine Group Rates

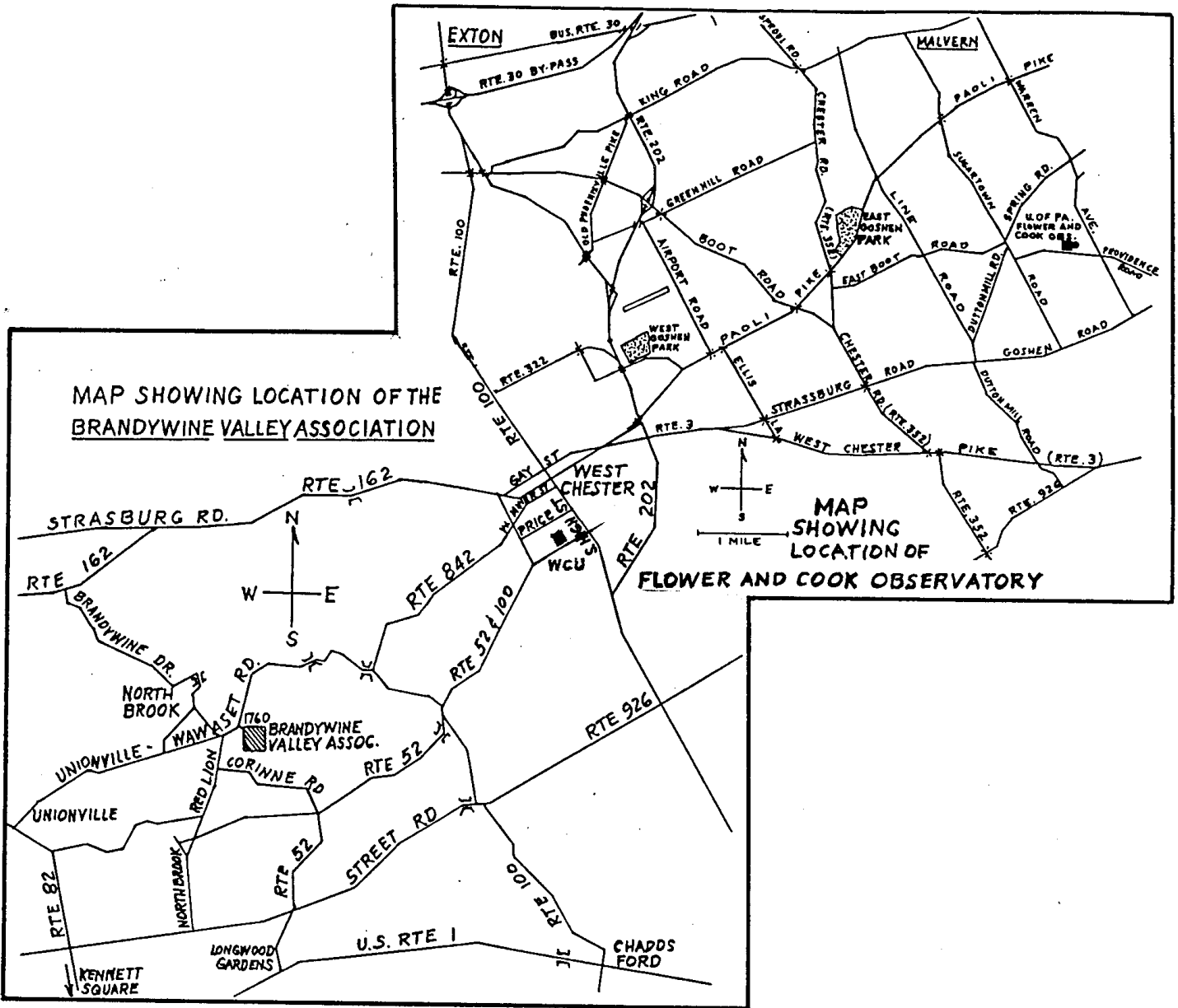
Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **\$29.95** which is much less than the newsstand price of \$54.00, and also cheaper than individual subscriptions (\$39.95)! Make out a check to the Chester County Astronomical Society, note that it's for *Sky & Telescope*, and mail to Bob Popovich. Or you can bring it to the next Society meeting and give it to Bob 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://www.ccasastro.org/>

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@kennett.net



To get to the Myrick Conservation Center of the Brandywine Valley Association 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 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 (so you don't ruin other observers' night vision).



Berks County Amateur Astronomical Society

July 8, 2003

Dear Club President,

The Berks County Amateur Astronomical Society, BCAAS, is pleased to announce that we will be celebrating our 30th anniversary this year. To celebrate the event, we are having a banquet at Chef Alan's in West Reading, PA on Saturday, October 18th of this year. Our featured speaker for the evening will be John Dobson. In the event that some of your club members would like to attend this event, we furnish the following details and ask that you pass this information onto your membership.

The banquet will be held at Chef Alan's Restaurant on Penn Avenue in West Reading, PA. It will be a buffet style meal for which Chef Alan is noted. Cash bar and general socializing begin at 5:00 pm. Welcoming remarks and a brief presentation on the history of the organization will begin about 6:00 pm. The buffet dinner starts at 6:30. The dinner will be followed by a presentation by John Dobson, designer of the famous Dobson telescope mount. Lastly, the awarding of door prizes and the opportunity for some dancing will follow.

Tickets are attainable for \$35 per person from our club treasurer:

Linda Sensenig
345 Douglas Street
Wyomissing, PA 19610
610-375-9062
Ljsbach@cs.com

Please make checks payable to BCAAS. Tickets may be ordered at any time and will be mailed to you in September.

Thank you in advance for your support and I wish you and your organization the same success that we have enjoyed these 30 years.

Sincerely,

Ronald I. Kunkel
President of the Berks County Amateur Astronomical Society
610-488-6039 or rikunk@comcast.net

P.O. Box 6150 – Wyomissing, PA 19610 – www.BerksAstronomy.org – (610) 921-0173

Using Your Telescope:

If you have a telescope and would like to know how to use it better

A workshop hosted by the Chester County Astronomical Society



Wednesday, August 13, 2003

7:30 PM

Flower and Cook Observatory

753 Providence Road, Malvern

\$5.00 per family
(with same mailing address)

***Get ready for the closest approach by **Mars**
in thousands of years!!!***

Pre-registration required:

Call Kathy Buczynski at 610-436-0821 to save your spot.