



Mingo Creek Park Observatory

# The Guide Star

Newsletter of the Amateur Astronomers Association of Pittsburgh, Inc.

Founded June 9, 1929 by Chester B. Roe and Leo J. Scanlon

Website: [3ap.org](http://3ap.org)



Nicholas E. Wagman Observatory

October 2008

Vol. 42, No. 10

## INSIDE THIS ISSUE...

October AAAP Meeting	1, 2
Kevin Brunelle Astrophotography Contest	2
Membership Renewals	2
<b>Membership Renewal Forms</b>	<b>9, 10, 11</b>
First Moon Walk	3
Annual Joint Meeting with SSP	3
Back to Fern Hollow	4
Note to Newer AAAP Members	4
Observing with the 24-inch Scope at Mingo	4
Request for AAAP Website Help	4
Welcome New Members	5
Training Session at Mingo	5
Cleaning Optics of Edmund Astro-Scan Telescope	5, 6, 7
For Sale	7, 8
Upcoming Events	8
Dates In History	8
Zodiacal Light	8

## TOPIC OF OCTOBER AAAP MEETING: ROBOTIC ASTROBIOLOGY AND ZOË

Prof. David Wettergreen  
CMU Robotics Institute, Presenter

The next AAAP meeting is Friday, October 10, at 7:30 in the Carnegie Science Center main auditorium. Professor David Wettergreen of the Robotics Institute will give a presentation on Robotic Astrobiology and the robot Zoë. "Danger Will Robinson!" "I am detecting three life forms. Their biosigns are very faint." OK, I will stop. Hope to see you all there!

### Robotic Astrobiology: Using Robots to Study the Geology and Biology of the Atacama Desert.

#### ABSTRACT

The Atacama Desert in northern Chile is some of the most barren terrain on Earth. In the pristine desert, there are almost no visible signs of life. Some sites have been studied in detail to measure the population of microorganisms surviving on rocks and in the soil. The distribution of life is governed by solar radiation, humidity, soil composition, and other factors. We are finding that habitats do exist on a scale of tens to hundreds of meters, but where and how?

In order to map the distribution and understand the limits of life in the Atacama, regional surveys are needed. We are conducting these surveys using a robot that is able to make geologic, biologic, and environmental observations as it autonomously navigates the desert. In conducting these field investigations, we are also refining new methodologies for exploration where autonomous traverse and measurement allow us to perform rapid regional surveys in addition to detailed site studies.

In this talk, I will motivate our work by describing our Atacama field investigations and the robotic technologies required to conduct them. I will illustrate how rovers can be used to perform geologic and biologic studies and describe current research and progress in efficient mobility, sustained navigation, and science autonomy. As we study these terrestrial environments and collaborate directly between scientists and engineers, we learn about the technologies and techniques that will enable the next generation of robotic explorers.

For a preview, including images and video go to

<http://www.frc.ri.cmu.edu/atacama>

#### BIO

David Wettergreen is an Associate Research Professor in the Robotics Institute. He leads projects mapping the distribution of microhabitats in the desert, understanding the migration of organisms in ice,



Picture of Zoë from Carnegie Mellon Robotics Institute website: <http://www.frc.ri.cmu.edu/atacama/>

and characterizing life in a subterranean hydrothermal system. He addresses robotic exploration underwater, on the surface, and in air and space, and the necessary ingredients of perception, planning, learning and control for robot autonomy. Dr. Wettergreen's recent research addresses multi-scale navigation, science autonomy, and remotely-guided investigations.

## PLAN NOW TO ENTER THE KEVIN BRUNELLE ASTROPHOTOGRAPHY CONTEST!

By Dave Conte

The 2008 Brunelle Astrophotography Contest is November 14!

Astrophotography combines the best of art and science, and the AAAP Photo Contest always produces a wonderful collection of images of astronomical objects and atmospheric phenomena.

This year, your co-coordinators of the contest are Dave Conte and Dave Smith. We are looking for prints, digital images and slides of astronomical objects. Peruse your images from this past year and choose your best to compete for fame, honor and prizes. (See contest rules, below, to decide what qualifies). As always, the contest will be held at the November AAAP meeting, which will be Friday, November 14 at the Carnegie Science Center.

The deadline for entry submission is 10 days before the meeting, which is November 4.

Please submit your entries in one of the following ways:

- Hand them to either Dave at the Friday, October 10 AAAP meeting, 7:30pm at the Carnegie Science Center.
- Mail them to Dave Conte at 112 Bower Dr., Sewickley, PA 15143-8412.
- E-mail them to Dave Conte at [allybiz@verizon.net](mailto:allybiz@verizon.net).
- Please include your name, your telephone number, the category for each entry, and the titles of your images with your entries.

Digital images (JPEG, GIF, TIFF) are easiest for us to work with. Mark Arelt will be happy to scan your slides or negatives into a digital format for projection. Please allow extra time for him to do this.

If you have questions, call Dave Conte, 412/366-4846; or Dave Smith, 412/390-0870.

---

### Contest Rules

The contest is open to all active members of the AAAP. The contest date is the November 14, 2008 meeting of the AAAP. Entries will be viewed and judged by all AAAP members present at this meeting. All images entered must be originally captured by the contestant. Entries are limited to images concerning areas of interest within the AAAP.

Images may be submitted as 35mm transparencies or negatives, photographic prints, or as digital media (in formats ac-

cepted by the AAAP Audio-Visual Committee). Only images taken since the date of the previous contest deadline (November 6, 2007) are eligible.

There are 3 categories:

- Astronomical images taken with optics of focal length no greater than 150mm.
- Astronomical images taken with optics of focal length greater than 150mm.
- Images of atmospheric phenomena

No more than 5 entries per contestant per category are allowed for each contest. Entries must be received by the contest coordinator no later than 10 days before the contest date.

Entries will be judged for 1st, 2nd, and 3rd place in each category, with each voting member assigning points respectively (3, 2, and 1). The entry with the highest total number of points in each category will be declared the winning entry, and will be eligible for prizes. Entries that place 2nd and 3rd in total points in each category will be recognized by the AAAP.

## MEMBERSHIP RENEWALS

By Mike Meteney

It is time again to renew your memberships for 2009. Enclosed is a renewal form that has two parts. The first part is your personal information that we need to make sure our database is up to date and accurate. The second part is the billing information. Please fill in both parts of the form completely which is located on pages 9 and 10 of the newsletter.

A reminder, the AAAP no longer processes *Sky and Telescope* subscriptions. If you want S&T magazine for the first time, use the enclosed form on page 11 to get your club subscription rate. If you are a current subscriber, use your renewal notice you receive from S&T. It should have the \$32.95 club rate on the renewal notice. There have been some renewal forms that did not have the club rate on them. This is what happens when companies outsource services. **Send new and renewal subscriptions for S&T magazine directly to SKY PUBLISHING!**

Subscriptions to *Astronomy* magazine are still handled through the club. Please send these in ASAP so there is no lapse in your subscription. The lead time on magazines is three months.

Current building key holders need to pay their key fees at this time. To get a building key, you must first be trained by an observatory director.

If you have any questions, you can contact Michael Meteney or Mark Schomer. Thank you.



## BACK TO FERN HOLLOW IN OCTOBER

by Alison Conte

To follow up on the enthusiastic response to our first star party in July, AAAP is coordinating another star party at the Fern Hollow Nature Center in Sewickley. Any members who live in the North Hills (as well as any who don't) will find this an accommodating and convenient venue and are urged to come and help out. It will be on Tuesday, October 28 (with Wednesday, October 29 as a back-up date).

We'll hold it from about 7:30p to 11:30p; if you bring a scope, you can drive onto the field and set up as early as 6p.

The Fern Hollow Nature Center has a very nice, flat, open, high plateau in the middle of the countryside. They do a lot of nature programs and want to introduce their members to the joys of the night sky. This should be a good place to do some observing, just a short drive up I-79 or Route 65. (See directions at <http://www.fhnc.org/directions.html>).

We'll skip the educational talk this time, and spend more time under dark, (hopefully) clear skies.

Please contact Dave or Alison Conte at 412/741-3216 or [allybiz@verizon.net](mailto:allybiz@verizon.net) if you can participate.

## NOTE TO NEWER AAAP MEMBERS

By Mike Fisher

The public star parties are as much for us as they are for those who want to see what this club and amateur astronomy is all about. I can't think of a better way to meet and talk to club members than a star party. We have two wonderful observatories that are open to all members at all times, not just star party weekends. Any weekday or weekend night, all you need to do is come and use them; you are all welcome.

I am saying that our observatories are under used by our 500+ membership. You want to talk astronomy while looking up, come on out. You want to learn from the seasoned veterans, come on out. You do not have to wait for special events, special classes, or invitations. You are members of 3AP who are welcome to learn from and use our observatories.

During the past two years, I can't tell you how many times I was the lone observer at our Mingo Observatory. I don't know why more people do not participate, but I always pondered where is everybody? This invitation extends to all men and women of 3AP. The classroom and education is under the stars at the observatories. Members come out and make use of our beautiful observatories. I personally invite you.

As far as astronomy group discounts go, [www.optcorp.com](http://www.optcorp.com) in California extends to our club a 5% discount on all supplies. Quite often, they will throw in free shipping and guar-

antee to meet any price you may find elsewhere, plus no PA sales tax. Not bad! When you talk to them, tell them you are a member of 3AP to get your discount. You can get on their mailing list to receive special offers on astronomy equipment. I shop here often and find dealing with these guys a pleasure.

Hope to see you guys under clear, dew-free skies soon.

## OBSERVING WITH THE 24-INCH SCOPE AT MINGO

By Ann Norman

Last night, I was at Mingo with four other members. It was not busy so I got some time to "play" with the 24-inch (supervised by Ed!). Wow! With the new setup—new mount and software—you control the telescope from the computer. You look at a very intuitive map of the sky, highlight an area you want to look at, and enlarge. Interesting objects show up and you click on them and the telescope goes right to it. No hand paddle adjustments necessary (last night anyway). But it gets better than that. If you click on a galaxy or galaxy cluster, you can enlarge that. Now you can click on interesting features (bright spots) WITHIN the galaxy or galaxy cluster. The telescope centers those!

So, for instance, we looked at M33 (The Pinwheel Galaxy) and clicked on the brightest spots of the galaxy. They were little puffs of glowing gas—H2 regions, I believe star forming regions. This was what we were doing at the Texas Star Party! But now we were doing it really quickly with our 24-inch go to.

And we were on our way to Stephen's Quintet, when we noticed a nearby "Dear Lick Group". We enlarged that on the screen and there was an interesting-looking galaxy group with the largest, brightest galaxy being NGC7331, one of the brightest non-Messier objects. We went to that and poked around for a while in that galaxy group. WAY cool! YOU must see this for yourself.

## REQUEST FOR AAAP WEBSITE HELP

By Michael Skowron

Anyone who is interested in working on a new AAAP website should send me a private email at [michaels@penguincentral.org](mailto:michaels@penguincentral.org) and let me know. I will add you to the IT Committee and web mailing lists.

There are many ways to contribute:

- Ideas about what content or "stuff" should be on the site
- Ideas about how to best organize or navigate the site
- Help with migrating and updating the content from the old site.
- Help with writing new content
- Help with PHP programming
- Help with site style using CSS

No HTML knowledge is required. The new site hides those details.

## WELCOME NEW MEMBERS

Joseph Godlewski  
Patrick Griffith  
Robert J. Marshall  
Debra J. Borkovich  
Donald V. Todd

David L. Carosone  
David W. Kraeuter  
Joyce Odell  
Justin Szilard

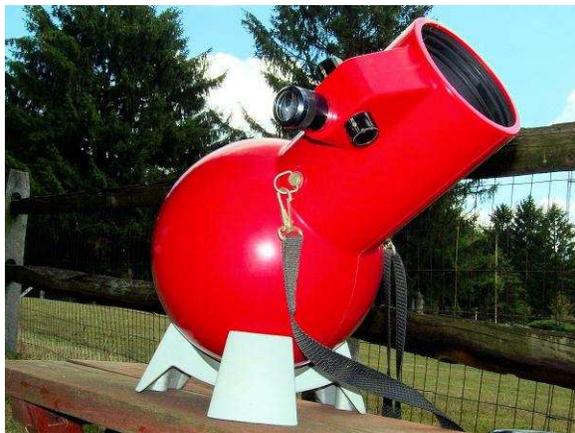
## TRAINING SESSION AT MINGO

By Ed Moss

There will be training on the 24-inch telescope and building procedures before the next three star parties: October 4 & 25 and November 1. Anyone who has been a member for one year is eligible for training. The times for training are: October 4 at 5 PM, October 25 and November 1 at 4 PM. Hope to see many of you there. Please have your yearly key fee of \$15.

## CLEANING THE OPTICS OF THE EDMUND ASTRO-SCAN TELESCOPE

By Al Paslow



For over 30 years now Edmund Scientific Company has produced a very novel instrument.

The design is as simple as possible, using a short focus 4.25-inch parabolic

mirror with an f-4 focal length, the telescope is capable of breathtaking wide field views of the night sky.

Low power views are best. With a typical magnification of about 16x, the Milky Way is incredible under truly dark conditions and the 4-inch light grasp of this telescope places it far ahead of the competition in size and weight.

The brilliant red plastic body is made of a high-impact plastic that will certainly hold up to some rugged use.

The telescope maintains a perfect balance no matter what position it is in. Low power means a finder scope is not needed. A handy strap is attached for field work. This is an award-winning scope!!

I bought an Edmund Astro-Scan from a guy in Upper St. Clair, just outside of Pittsburgh, PA recently for \$60. The front optical window was pretty dirty and the diagonal too; so I took it apart for a cleaning. The red tube that holds the optics is glued together. No real way to open it up. But you can remove the snap ring that holds the window/diagonal assembly together. Tools used were a pair of diagonal pli-

ers that can bend at various angles and a small regular screwdriver.

In any telescope, especially those with a corrector plate (Schmidt-Cassegrain), it is best to mark the window or corrector near its edge with a line using a Sharpie permanent pen and draw the line until it contacts the tube housing. This will help to hold all the optical components in collimation to some degree. So this is the very first step.

Since I decided to give this "telescope" to my daughter, Stormie, the job was done in her room and washing the optics in the kitchen. This first picture shows the window before it was removed from the telescope.



The optical window has become covered with dirt and water spots over the years. The front surface may be cleaned with care, but the inside of the window & diagonal are also in need of cleaning.

Upon inspection, the Astro-Scan appears to be a robust instrument. With proper care and maintenance, perhaps it can last a lifetime. Looking down the front of the tube at the optics, you'll see a series of molded plastic rings that actually serve as light baffle's.

Baffling an optical instrument improves contrast and prevents light from scattering; a feature often found in more expensive telescopes.

However, it is the baffle ring design that gives us the impression the tube does not easily come apart. There is a large metal snap ring that holds the optical window in place. The ring is held in place by these molded rings. The trick is how to remove the snap ring from the tube and not to damage the sensitive optical window.



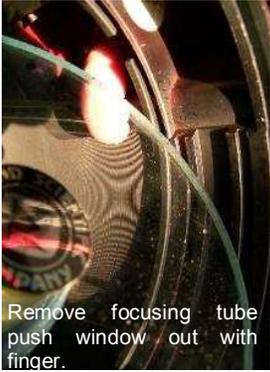
Removal of the snap ring with diagonal pliers

I used a pair of diagonal pliers and tugged on the corner of the snap ring. Using leverage, simply raise the end of the snap ring and pull inward and up.

It took only seconds to remove. Just a word of advice—Do not scratch the surface of the optical window. Touching it with diagonal pliers could easily scratch the window, so be careful!! (It may be best to use a cheap tool here, since they are made of mild steel. A brand such as Craftsman or

Snap-on use hardened steel and will increase the possibility of damage).

With the snap ring successfully out of the way, I removed the focusing tube.



I placed my right finger through the hole and "pushed out" the optical window, safely into my left hand.

At this point, it was easy to see the dirt and film that accumulated on the back of the optical window. The diagonal mirror that is attached to the window was also in need of a good cleaning.

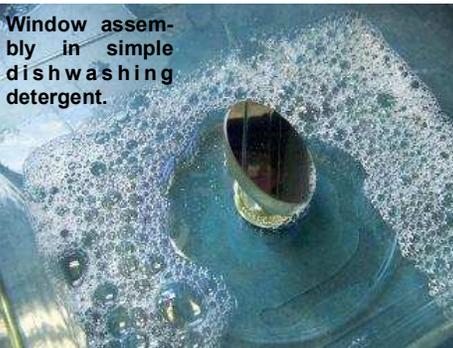
Remove focusing tube  
push window out with  
finger.

Overall, it was a good decision to perform a well-deserved cleaning of this old telescope's optics. Inspecting the 4-inch primary mirror still in the red tube revealed it was in excellent condition, so there was no reason to remove or clean it.

Pictured below are the major components I removed from Edmund's famous instrument—the Astro-Scan.



Window assembly in simple dish washing detergent.



Once the window was inspected, it was time to clean it. No attempts were made to separate the optical window from the diagonal, and hence, the window was washed first.

The window is made of plate glass (as indicated by the green color you can see at the edge). This is also known as regular window glass but for an optical window, it's been checked for flatness and strain.

A mixture of pure distilled water and a drop of liquid dishwashing detergent was placed into a Pyrex dish and filled about an inch from the bottom. By holding the diagonal carefully, I simply swished the window around a bit. After a time, the window was rinsed and hand dried.

The procedure was repeated. You can also use cotton balls and continue cleaning while the window is submerged. However, don't attempt to rub the surface until you are reasonably sure most of the dirt is off or streaks and scratching may occur. You should change the cleaning water at least once if the window is dirty before working the surface with cotton. Rinse well, don't be afraid to waste water.

Dry the window with clean cotton rags, repeat any additional cleaning if needed. Look for spots, etc. A clean telescope window is a happy optic!

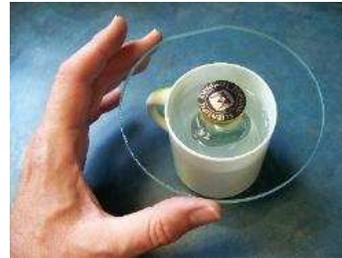


In this image, we see the greenish edge described above indicating that the window is ordinary plate glass. We also see that the diagonal mirror is very nicely attached to the window by a piece of acrylic plastic cut at a 45-degree angle.

Note the center screw that goes through the diagonal holder and attached to the other side of the window. (You can see that the optical window is not perfectly round as indicated by the straight edge on the left side).

The mark on the optical window visible just under my little finger was used for alignment purposes as described earlier.

To clean the diagonal was also an easy task. I used an old plastic child's drinking cup with the same mixture of distilled water and dishwashing detergent and agitated the mixture as much as possible.



Diagonal mirrors represent a different situation than the optical window. The secondary mirror being a first surface mirror over-coated with a thin film of aluminum means the surface is very delicate.



Back view of optical window/diagonal assembly. The diagonal looks to be glued in place.

Additionally, this aluminum surface is somewhat porous and can deteriorate over time. Luckily for us, it is not exposed in open air (the optical window provides some protection from this) and although somewhat dingy, it will clean up nicely.

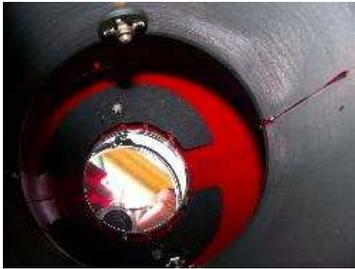
Be sure to use distilled water for cleaning optics, especially a diagonal or any front surface mirror. Regular tap water has an undesirable mineral content that can leave water spots on what may be otherwise pristine optics!

Do not rub the diagonal mirror with cotton if at all possible, unless it is submerged then only sparingly!!

Once you have cleaned and dried your secondary, it's time to reverse the process and return the optics to their housing.

Examine your optical tube, and align the mark on your optical window with the corresponding mark on the tube wall. Any line that is on the snap ring is meaningless.

Also, look in the area of where your optics will be seated. Look for any residue of the glue used to bind the upper and lower portions of the telescope tube together. If you believe that such glue residue will not allow the optical window/diagonal assembly to lie flat in line with the optical axis, then an extra step must be done.



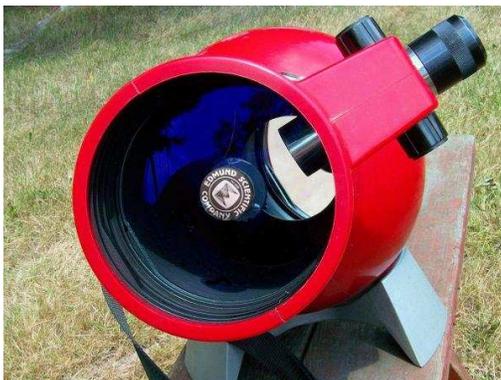
Scrape away any signs of glue that would interfere with the assembly sitting square on with the primary mirror. In an examination with the picture on the left, it is easy to see how excessive glue could pose a problem. Scrape away only where window sits.

Looking down the tube at the primary mirror with optical window removed. Notice excessive glue to right of image.

With the window assembly properly orientated and snap ring installed, the telescope takes on a new appearance.

Images are much "cleaner" than before and the contrast is much higher. Brilliant Jupiter is now in a darker sky, with evidence of the belt system visible. The four moons are like little jewels.

While still mostly a low-power instrument, the Edmund Astro-Scan just might be a perfect instrument to take on a trip, especially to remote areas.



Well, it's been a lot of fun to work on...but the telescope was really bought for my 7-year-old daughter, Stormie.....And how does she like it...?



A picture is worth a thousand words!!

See [http://telescopium.org/Astroscan\\_Repair.html](http://telescopium.org/Astroscan_Repair.html) for more details.

### FOR SALE

I live in Clarksburg, WV, but am in Pittsburgh on most weekends. I have a 10" LX200 that I am looking to sell. It's approximately 10 years old, but it is in great shape, and has only been used sparingly. If interested, contact me at: [amdemby@pol.net](mailto:amdemby@pol.net)

Starhopper Celestron International, 10-inch diameter. The eyepiece says 25 mm SMA 1-1/2-inch, wide angle. The model number is 9300-7A. It has a cardboard-type tube and is at least 10 years old. Contact: Marie at 412-221-7998. Tell her you're from the AAAP and you got the information from Susan at the Post-Gazette. Asking \$100 or best offer.

I have an LX200 10-inch Schmidt-Cassegrain f/6.3 with all the original equipment (including tripod) in a JMI case. Lens includes Tele Vue/Nagler 31mm, 17mm, 12mm and 9mm in a Pelican case. I also have a Meade 1209 Zero Image-Shift Microfocuser which has never been removed from the box (same for the dew shield). And finally, a Bogen (from Italy) stand. The telescope can be mounted on this stand with 3-inch wheels and easily rolled around. The telescope is in great condition and the lenses are practically new. I'm asking \$2500 for the whole lot. Contact: Alan Demby at 304- 842-4088.

8-inch LX10 Schmidt-Cassegrain telescope F10.0 with 25 mm eyepiece, sun filter, Telrad with tripod. Manual included. Diagonal can use 1 1/4 or 2-inch eyepieces. Asking \$800. Contact: George Renald [pghsky@verizon.net](mailto:pghsky@verizon.net) or 412-821-2882.



To order the Year In Space calendars, contact Bill Moutz at [sailboat25@verizon.net](mailto:sailboat25@verizon.net). Send check made out to Bill Moutz; 1335 Maple Avenue; Verona, PA 15147 by October 15, 2008. Price \$9.95. Delivery will be made at or before the Christmas Party



Meteor Observation Team MSA hardhats for sale \$10.00 each. 18 in stock at Wagman. Contact: Tom Reiland at: 724-224-2510 or [TRCassiopeia@aol.com](mailto:TRCassiopeia@aol.com)

## UPCOMING EVENTS

**October 1**—Mars 5° north of Moon  
**October 2**—Venus 5° north of Moon  
**October 3**—Allegheny Observatory Open House  
**October 4**—**Mingo & Wagman Star Parties**  
 Antares 0.1° north of Moon  
**Training on 24-inch at Mingo**  
**October 5**—Moon at apogee  
**October 6**—Mercury in inferior conjunction  
**October 7**—Jupiter 2° north of Moon  
 First quarter Moon  
**October 8**—Draconid Meteors Peak  
**October 10**—**7:30 p.m. Membership Meeting at CSC**  
 Neptune 0.9° south of Moon  
**October 14**—Full Moon  
**October 17**—**Star hopping class at Wagman**  
 Mercury at Perihelion  
 Moon at Perigee  
 Moon 0.8° north of Pleiades  
**October 18**—**Wagman Star Party**  
**October 21**—Orionid Meteors Peak\*  
 Last quarter Moon  
**October 22**—Moon 0.9° south of Beehive M44  
 Mercury greatest elongation west 18°  
**October 23**—Regulus 1.9° north of Moon  
**October 25**—**Mingo Star Party**  
**Training on 24-inch at Mingo**  
 Saturn 5° north of Moon  
**October 26**—Venus 3° north of Antares (35° east)  
**October 27**—Mercury 7° north of Moon  
**October 28**—**Fern Hollow Star Party**  
 New Moon  
**October 29**—**Fern Hollow rain date**  
**October 31**—Antares 0.1° south of Moon  
 Halloween  
**November 1**—**Mingo Star Party**  
**Training on 24-inch at Mingo**  
**November 17**—Leonid Meteor Shower\*  
 \*Moonlight will washout fainter meteors in these showers.

## DATES IN HISTORY

**October 4, 1957**—Sputnik I launched beginning of space age  
**October 5, 1923**—E. Hubble finds Cepheids in M31  
**October 7, 1959**—Luna 3 returns first images of the Lunar far side  
**October 9, 1604**—Kepler's Supernova observed.  
**October 11, 1968**—Apollo 7 launched  
**October 13, 1773**—Charles Messier observes M51  
**October 14, 1983**—Venera 16 arrives in orbit around Venus  
**October 22, 2136 BC**—First record of solar eclipse  
**October 25, 1671**—Giovanni Cassini discovers Lapetus, moon of Saturn  
**October 25, 1975**—Venera 10 lands on Venus  
**October 26, 2004**—Cassini spacecraft completes first flyby of Titan  
**October 27, 2003**—ISS Expedition Seven crew returns to Earth after 184 days in orbit  
**October 31, 2005**—Hubble Space Telescope discovers 2 new moons orbiting Pluto

**Zodiacal Light**—When conditions are favorable, the zodiacal light is indeed a mysterious and beautiful sight. Because the zodiacal light is brightest nearest the Sun, it is best seen within half an hour following the end of evening twilight and in a half hour prior to the beginning of morning twilight and when the ecliptic is at a steep angle relative to the horizon. In mid northern latitudes, the optimum geometry occurs in the evening western sky in February and March, and in the morning eastern sky in September and October. The zodiacal light appears as a huge, softly radiant pyramid of white light with its base near the horizon and its axis centered on the zodiac. In its brightest parts, it exceeds the luminance of the central Milky Way.

Despite its brightest, most people have not seen the zodiacal light. As mentioned above, certain times of night and year are more favorable than others. In addition, moonlight, haze, or light pollution rule out any chance of seeing this phenomenon. Even with a dark, transparent sky, the inexperienced observer may confuse the zodiacal light with twilight and thus ignore it, or may not notice it because he or she is expecting a much smaller object. Taken from the *Observer's Handbook 2008* Editor: Patrick Kelly, The Royal Astronomical Society of Canada..



# AAAP Membership Renewal Form – 2009

(1)

Completely fill in the following information: Check here if these are changes: \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ - \_\_\_\_\_

Phone (home) \_\_\_\_\_ (work) \_\_\_\_\_

E-mail \_\_\_\_\_ or \_\_\_\_\_

Check if you want your e-mail on the AAAP List Server (\_\_\_\_)

How do you want your "Guide Star" Delivered? Online (\_\_\_\_) Snail Mail (\_\_\_\_)

Which of the following AAAP positions would you volunteer for?

- I would like to help at star parties at: Mingo (\_\_\_\_) Wagman (\_\_\_\_)
- I would like to serve on observatory committees at: Mingo (\_\_\_\_) Wagman (\_\_\_\_)
- I would like to serve on other association committees (\_\_\_\_)  
Specify Committees:

- I would like to run for an association office (\_\_\_\_)  
Specify Offices:

What areas of astronomy interest you?

What type of Astronomical equipment do you want listed under your name in the membership directory?

# *AAAP Membership Renewal Form – 2009*

(2)

ITEM	PRICE	ENCLOSED PAYMENT
AAAP Adult Membership (Jan. 1 to Dec. 31 2008)	\$24.00	
AAAP Junior Membership (under 18)	\$15.00	
“Sky & Telescope” Subscription (12 issues per year) <b>Use the attached form for new subscriptions or your renewal form from S&amp;T to renew your subscription. Do not send S&amp;T subscriptions to the AAAP! You should pay \$32.95 for the discounted subscription.</b>	XXXXXXXX Do not send Payment to AAAP	XXXXXXXX Do not send Payment to AAAP
“Astronomy” Subscription (12 issues per year) <b>Both new and renewals are processed through the AAAP. Do not renew your subscription directly with Kalmbach Publishing, you won’t get your discount.</b>	\$34.00	
Key Fee: check appropriate observatory <b>Only current key holders! Mingo _____ Wagman _____</b>	\$15.00	
Tax Deductible Donation	----	
<b>TOTAL PAYMENT (make checks to AAAP, Inc.)</b>	----	

**It is very important that all payments be received by 12/15/2008** so that magazine subscriptions can be processed in a timely manner.

Prices are subject to change without notice. Payments must accompany this application.

Make checks payable to: **AAAP, Inc.**

Send this form with payments to:

**Michael Meteney  
1070 Sugar Run Road  
Venetia, PA 15367**

Membership questions?

E-mail: [MembershipSecretary@3ap.org](mailto:MembershipSecretary@3ap.org)

Phone: 724-628-3499

Billing questions?

E-mail: [Treasurer@3ap.org](mailto:Treasurer@3ap.org)

Phone: 724-348-9087

# Astronomy Club Subscription Form for Sky & Telescope Magazine

Sky Publishing Corp  
90 Sherman St.  
Cambridge, MA 02140-3264

CLUB NAME	<u>Amateur Astronomers Association of Pittsburgh #270</u>	<u>Sky &amp; Telescope (S&amp;T)</u>	
TREASURER'S NAME	<u>Mike Meteney - Treasurer</u>	Date _____	(1 year/12 issues) Club Rate
MAILING ADDRESS	<u>1070 Sugar Run Rd</u>	United States	\$32.95
CITY	<u>Venetia</u>	STATE <u>PA</u>	ZIP CODE <u>15367</u>
		Canada	\$39.95
COUNTRY (IF NOT U.S.A.)		International	\$51.95
DAYTIME PHONE	<u>724-348-9087</u>	FAX	<u>724-348-9087</u>
E-MAIL ADDRESS	<u><a href="mailto:Treasurer@3ap.org">Treasurer@3ap.org</a></u>		

## 2 SUBSCRIPTION INFORMATION

MEMBER'S NAME \_\_\_\_\_ New  X

MAILING ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

DAYTIME PHONE ( ) \_\_\_\_\_ FAX ( ) \_\_\_\_\_ E-MAIL \_\_\_\_\_

Check or Money Order payable to Sky Publishing Corp

VISA       Master Card      \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_      Expiration Date \_\_\_\_/\_\_\_\_

**Amateur Astronomers Association of Pittsburgh, Inc.**

*Founded June 9, 1929 by*

*Chester B. Roe and Leo J. Scanlon*

**2008-2009 Executive Officers:**

- President: **Edward Moss**  
[president@3ap.org](mailto:president@3ap.org)
- Vice President: **Ann Norman**  
[vicepresident@3ap.org](mailto:vicepresident@3ap.org)
- Treasurer: **Michael Meteney**  
[treasurer@3ap.org](mailto:treasurer@3ap.org)
- Corresponding Sec: **John Mozer**  
[correspondingsecretary@3ap.org](mailto:correspondingsecretary@3ap.org)
- Recording Sec: **Dennis Derda**  
[recordingsecretary@3ap.org](mailto:recordingsecretary@3ap.org)
- Membership Sec: **Mark Schomer**  
[membershipsecretary@3ap.org](mailto:membershipsecretary@3ap.org)
- Guide Star Editors: **Bill & Maureen Moutz**  
[gseditor@3ap.org](mailto:gseditor@3ap.org)

**AAAP Member Dues\*:**

AAAP Dues:	\$24.00
Junior Member (under 18):	\$15.00

**\*Basic Procedure for Paying Dues:**

1. Make check payable to "AAAP Inc."
2. Send check to Michael Meteney, Treasurer,  
1070 Sugar Run Road; Venetia, PA 15367-1514



**Please submit any articles for the Guide Star to the Guide Star Editors at [gseditor@3ap.org](mailto:gseditor@3ap.org) by the 20th of each month.**

**\*\*For on-line users, some websites may need to be copied and pasted in your browser to view them\*\***

NON-PROFIT ORG.  
U.S. POSTAGE  
PAID  
PITTSBURGH, PA  
PERMIT NO. 394

RETURN ADDRESS:  
AMATEUR ASTRONOMERS ASSOCIATION  
OF PITTSBURGH, INC.  
1070 Sugar Run Road  
Venetia, PA 15367-1514