



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

November 2008

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**AAAP MEETING AT  
CARNEGIE SCIENCE CENTER  
NOVEMBER 14, 2008  
KEVIN BRUNELLE  
ASTROPHOTOGRAPHY CONTEST**

By Dave Conte

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 this month's meeting at the Carnegie Science Center.

The deadline for entry submission is 10 days before the meeting, Nov. 4. Please submit your entries in one of the following ways:

- 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. 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 accepted 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 7 and 8 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 9 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.

## HARVEST MOON CAMPFIRE MINGO CREEK COUNTY PARK

By Kathy DeSantis

Monday evening, September 15, 2008, the Washington County Parks and Recreation held their Annual Harvest Moon Campfire, at Shelter 2, in Mingo Creek County Park, led by Lisa Taylor. Mike Meteney took his telescope and Kathy DeSantis took her astronomical binoculars and Moon display board to share views of the Moon with the diverse crowd of approximately fifty people. The gathering included youths, adults, senior citizens, a Girl Scout troop from Finleyville, and new AAAP member, Joyce Odell. The park provided entertainment for the children, including a sack race and a log roll contest, as well as a marshmallow roast and kettle corn. As dark began to fall, Mike and Kathy talked and answered questions about the Moon and astronomy. Soon the Harvest Moon climbed into view and stunned the attendees.

## AAAP SHARES ASTRONOMY AT THE LEWIS AND CLARK FALL FESTIVAL

By Kathy DeSantis

AAAP shared their telescopes and binoculars, gave two formal and several informal talks over the course of two evenings at the Lewis and Clark Fall Festival in Elizabeth, PA, sponsored

by the Lewis and Clark Heritage Foundation, Monongahela Valley Chapter. In May 2008, a federal bill was signed to extend the Lewis and Clark Heritage Trail back from Illinois, where Clark joined the party to Montecello, where Lewis began. This brings the official trail through our area. The keelboat, *Discovery*, was built here and in the 2003-2006 reenactment, the official re-enactors put the boat into the water at Elizabeth, PA. Many of these original re-enactors were back for this celebration. Special note was given to the role of astronomy and celestial navigation in how Lewis and Clark mapped the west. Of note was the use of a lunar eclipse to mark Greenwich Time, and use of local noon to mark local time. Formal talks were held in the Elizabeth Grand Theater, a restored vaudeville house, two blocks from the river's edge stage, known as the Barge. As gentle waters of the Monongahela River lapped at the stage's edge and distant navigation lights shimmered on the water, AAAPers set out their telescopes and shared information. Friday evening, Fred, John, Gerry, Jason, Ed, Ann, Dan, and Kathy volunteered. The talk on how Lewis and Clark used celestial navigation, by Ed and Dan, was at 7:30 PM. Talk was repeated Saturday night at 9 PM, Grand Theater. Saturday saw Gerry, John, Jason, Ed, Gene, and Kathy share astronomy at the festival. Live music was provided outside along with food, and some L & C related vendors outside. Actual re-enactors in the national film made 2003-2006 were part of the festival wandering around in and out of character. Guests enjoyed good food in Red Lion Restaurant, next to Grand Theater. Street lights were turned out for our telescopes on the Barge. Everything was within a few blocks. Friday, Fred started early with Venus, and his big book of images, before dark. Guests loved it. Then as the night went on, views through our members' scopes were enhanced by ISS and Iridium displays. Saturday night guests enjoyed a brief talk on the Space Shuttle and Iridium Flares, and just before they appeared in the sky. A surprising number of stars were visible, considering how close we were to town, thanks to the riverbank shielding light. September-October Black hole star maps were distributed and discussed along with September Distant World Star Maps across the two evenings, along with AAAP Star party schedule cards.

## THE NIGHT SKY OBSERVERS GUIDE VOLUME 3, THE SOUTHERN SKIES

By Ed Moss

Bob Kepple's final volume of *The Night Sky Observers Guide* is finally in print. It follows the format of the previous two volumes, and covers the sky from latitude -60 degrees to The South Pole. It contains a history of the origins of the constellation names, constellation star maps, finder maps, double star and variable star lists, as well as descriptions, drawings, and various digital photographs of the objects in the Southern Hemisphere. The quality of the photographs in this volume are much better than the previous two volumes. Next year, the first two volumes will be reprinted with all digital photographs. There are chapters on the Large Magellanic and the Small Magellanic clouds as well as the constellations. The descriptions of the deep sky objects are arranged for the views through various size telescopes, and inform the observer what to expect to see in his particular size scope. The deep sky

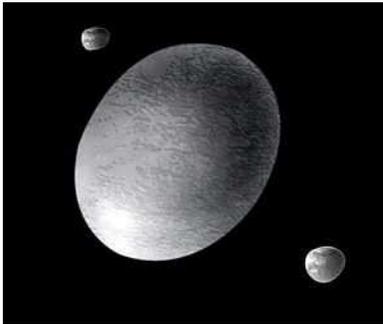
objects are rated from one to five stars, with five stars as the highest rating equating to a spectacular object that is usually easy to see in all scopes. The lower the number of stars, the dimmer the object usually is, thus making it difficult for observers with small scopes to see. Although most of us will never venture south of the equator, I would consider this a good reference work to have in an astronomy library.

I will be taking orders for this volume for delivery after Christmas. Bob Kepple will be back in Pittsburgh just after our Christmas party. He will autograph all copies of the third volume of his set. I will have copies around December 18th or so if anyone wants them for Christmas presents. I will be taking orders for the books until just after Thanksgiving. You may order your books by sending me a check for \$34.95 through the mail or seeing me at an AAAP meeting or event. Send check to: Edward Moss; 815 Jackman Ave. Apt C, Pittsburgh, PA 15202.

## FIFTH DWARF PLANET

By Kathy DeSantis

Artist's conception of Haumea with its moons [Hi'iaka](#) and [Namaka](#). The moons are actually much more distant than depicted here from Wikipedia.

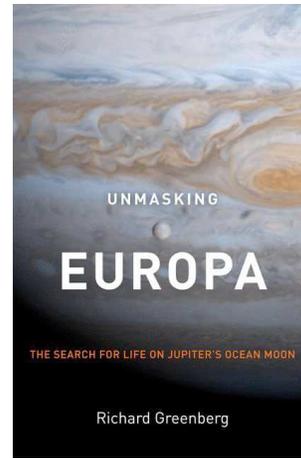


The family of dwarf planets in the Solar System is now up to five; Ceres, Pluto, Haumea, Eris and Makemake. (While all plutoids are dwarf planets, it is interesting to note that not all dwarf planets are plutoids, as is the case with Ceres, which is in the asteroid belt). The International Astronomical Union,

September 17, 2008, named the fifth dwarf planet, Haumea, previously known as 2003 EL61. Credit for its discovery goes to Astronomer Mike Brown of CalTech. "Haumea" is the name of the Hawaiian goddess of childbirth and fertility. This odd-shaped object has about the same diameter as Pluto, but is elongated to twice its rotational diameter. Yet, its gravity is sufficient to maintain a rounded ellipsoidal shape, meeting the requirement for hydrostatic equilibrium used in the definition of dwarf planets. It is suggested this elongation results from rapid rotation, about four hours. Haumea revolves around the Sun, at 35-50 Sun-Earth distances. It is almost entirely composed of rock, with a crust of water ice, giving it a high albedo. Haumea possesses two moons, the larger, Hi'iaka, and the smaller, Namaka. These moons, are entirely rocky and are thought to have coalesced from impact debris.

For more information:

1. [http://www.iau.org/public\\_press/news/release/iau0807/](http://www.iau.org/public_press/news/release/iau0807/)
2. <http://www.mikebrownplanets.com/2008/09/haumea.html>
3. [http://en.wikipedia.org/wiki/Haumea\\_\(dwarf\\_planet\)](http://en.wikipedia.org/wiki/Haumea_(dwarf_planet))



**Unmasking Europa:  
The Search for Life on  
Jupiter's Ocean Moon**  
*A Close Look at  
Europa...*

*And How Big Science  
Gets Done . . .*

By Richard Greenberg  
University of Arizona, Lunar and  
Planetary Laboratory, Tucson

The second-largest of Jupiter's four major moons, Europa, is covered with ice, as confirmed in views from modern telescopes and the thousands of images returned by NASA's Voyager and Galileo missions. But these higher-resolution views also showed that the ice is anything but smooth. In fact, Europa's surface is covered with vast crisscrossing systems of mountain-sized ridges, jumbled regions of seemingly chaotic terrain, and patches that suggest upwellings of new surface materials from below. How scientists think about the underlying forces that shaped this incredibly complex, bizarre, and beautiful surface is the subject of this book.

In *Unmasking Europa*, Richard Greenberg tells the story of how he and his team of researchers came to believe that the surface of Europa is in fact a crust so thin that it can barely hide an ocean of liquid water below. He shows how the ocean is warmed by the friction of tidal movements in this small moon as it orbits around immense Jupiter. The implications of this interpretation—which includes the idea that there are active, intermittent openings from the liquid ocean to the frozen surface—are immense. The warmth, the chemistry, and the connections from ocean to surface provide the conditions necessary for the existence of life, even at this relatively remote locale in our solar system, far beyond what's normally thought of as its 'habitable zone'. *Unmasking Europa* describes in clear but technically sophisticated terms—and with extensive illustrations (including more than 100 NASA images)—the remarkable history of research on Europa over the last four decades. The book also provides unique insights into how "big science" gets done today, and it is not always a pretty picture. From his perspective as professor of Planetary Science at the University of Arizona, and a quarter century-long membership on the Imaging Team for NASA's Galileo mission, Greenberg describes how personal agendas (including his own) and political maneuvering (in which he received an education by fire) determined a lot about the funding, staffing, and even the direction of the research about Europa.

At the same time, the book captures the excitement and satisfaction of discovery as Greenberg's team came to understand how the character of Europa makes it, perhaps,

the most likely place for us to finally encounter extra-terrestrial life. Contents: Water world.—Touring the surface.— Doing science.— Planetary stretch.— A closer look at tidal effects.— Global crack patterns.— Building ridges.— Mind the gap.— Strike-slip.— Convergence.— Return to Astypalaea.— Cycloids.— Chaos.—Thick vs. thin.— The scars of impact.— The bandwagon.— The biosphere.— Explorations to come. See [your local bookstore](#) or [www.amazon.com](http://www.amazon.com).

## SKY AND TELESCOPE'S POCKET SKY

By Fred Klein

I find that the Sky and Telescope Pocket Sky Atlas, <http://www.shopatsky.com/productdetail/59317.htm>, which is \$20 to be very useful and convenient. I like that it is fairly small, but shows lots of data. It is available at many book stores, Amazon and from S&T. It also lies flat and is dew resistant.

## LAST STAR PARTY AT WAGMAN FOR 2008 SEASON

By Tom Reiland

What a great finish for the 2008 public star party season. The skies cleared out at sunset and the people swarmed in from many directions. We estimated the crowd at between 225 and 250. This gives us 1,370+ for 2008. We were able to show our guests numerous celestial wonders through the scopes in the building and on the field. We started off with Venus in the Manka scope and the Brashear set up on Jupiter. Other objects viewed included in the Manka: Neptune, M11, M31, Vesta and the Double Cluster. We watched the distorted moonrise with the Manka just after 9:15 PM. Flacc found two geosats in the Brashear and its 3-inch finder. Several other satellites were viewed naked-eye and we saw a couple of meteors. One bright meteor was observed while I was giving my talk and most of the people in the audience had a chance to see it because it was close to zero mag and slow moving. I saw it break up into several pieces. The only problem was the shortage of members at the start of the event. I was operating the Manka and the front desk for the first thirty or forty minutes. Lori and Eric were able to take care of it after Tim handled it for a short time. Eric Fischer directed traffic and parking before he assisted Lori Seitz at the desk.

This is a difficult time of the year to get enough help at the start of a star party because of the earlier sunsets. We had 16 public events, plus the Lunar Eclipse on February 20 and 7 private nights. We had 12 observable nights for the public star parties and 13 were attended by the public. There were 25 people and 6 members at Wagman for the Lunar Eclipse and 4 of 6 private events had observable conditions.

Here's the list of the members who signed the volunteer sheet for October 18th:

Tom Reiland	Bill Hayeslip
John Diller	Mary DeVaughn
Fred Klein	Lori Seitz
Flacc Stifel	John Cheng
Bill Yorkshire	Eric Fisher
Frank Pastin	Larry Sneider
Don Hoecker	Tim Manka
Ann Norman	Daniel S. Causineau
Mathew Maskas	

Thanks to all who helped make this year—another great success.

## WAGMAN 2009 PUBLIC STAR PARTY DATES

By Flacc Stifel

**February 28** Wagman Winterfest

**April 3 - 4**

**May 1 - 2 --- May 29 - 30**

**June 26 - 27**

**July 24 - 25**

**August 28 - 29**

**September 12** (Dark Sky) - 26

**October 10** (Dark Sky) - 24

## IMPORTANT DATES

**November 1**—Venus 3° north of Moon

**November 3**—Jupiter 1.9° north of Moon

**November 5**—Taurid Meteor Shower

First quarter Moon 11:03 p.m.

**November 6**—Neptune 1.1° south of Moon

Taurid Meteor Shower

**November 8**—Uranus 4° south of Moon

**November 13**—Full Moon at 1:17 a.m.

**November 14**—Membership Meeting CSC 7:30 p.m.

**November 17**—Leonid Meteor Shower

**November 18**—Leonid Meteor Shower

**November 21**—Saturn 6° north of Moon

**November 27**—New Moon 11:55 a.m.

**November 30**—Venus 2° south of Jupiter

**December 1**—Jupiter 1.3° north of Moon

Venus 0.8° south of Moon

**December 3**—Neptune 1.4° south of Moon

**December 5**—Sidewalk Astronomy (see web calendar)

**December 6**—Uranus 4° south of Moon

**December 12**—Full Moon 11:37 a.m.

**Holiday Party (see web calendar for details)**

**December 13**—Germinid Meteor Shower

**December 14**—Germinid Meteor Shower

**December 18**—Saturn 6° north of Moon

**December 21**—Winter Solstice 7:04 a.m.

Ursid Meteor Shower

**December 22**—Ursid Meteor Shower

**December 25**—0.09° south of Moon

**December 26**—Venus 1.5° south of Neptune

**December 27**—New Moon 7:22 a.m.

**December 28**—Mercury 0.7° south of Moon

**December 29**—Jupiter 0.6° north of Moon

## STARHOPPING SESSION AT WAGMAN

By Tom Reiland

It cleared off as I expected (October 17) and we had some good viewing for tonight's starhopping session. Bill Moutz opened the gate just before I arrived just after 7 PM. Larry Sneider was next, followed by Debra Borkovich. We located M57, M31, Neptune and Triton, Uranus, M11, the Double Cluster in Perseus in the 21-inch and a couple of bright meteors. One former member came up to get a planisphere and a membership application and we gave two visitors a view of the Andromeda Galaxy, and three others walked up as Larry and I were getting ready to leave. Transparency was very good and the seeing was fair, but the temperature was dropping and the wind was making observing miserable. Looks like it will cloud up in a few hours and clear out by early to mid-afternoon.

### OBSERVATIONS

**Fred Klein:** Taken from the listserver October 19, 2008. The night turned out to be wonderful, but cool. Almost all visitors came well dressed, and it was a fine time. With the Moon down, and the sky being crystal clear, we could see lots of fainter objects, and the usual M57, etc. were much more impressive. I personally showed the planets Venus, Jupiter, Uranus and Neptune. The colored double star, Alberio, M57, M27 (Dumbbell), M76 (little dumbbell), M45, M34, M31, M81 and M82, and I think some others. The crowd was enthusiastic. I have been impressed by the number of high school and college-age people this year. Some apparently encouraged by teachers and taking notes, but taking the time to come out and see and enjoy new things. As always, there are the very young people who are familiar with space and the universe seeing some of the objects for real for the first time.

**Tom Reiland:** Taken from the listserver October 5, 2008. The conditions weren't great for the fifty or sixty visitors who attended the star party, but we were able to point out the ISS pass and we showed them the Moon, Jupiter, Uranus, Neptune, M31, M11, the Double Cluster and also Arcturus while we waited for it to clear near the Moon and Jupiter. Almost all of the public and most of the fifteen members were gone by 9:45 PM. We probably would have had less than twenty guests if not for the scouts and the school groups. We had about one member for every four public visitor. The conditions improved by 11 PM. We had two members show up after the star party to observe on their own. Larry Sneider, Mike Nizinski and Bill Hayeslip left around midnight. John Hudek was the next to leave, followed by Frank Pastin and Andy Smith just after 3:30 AM. I kept observing until 5 AM and gave up because the dew was starting to get annoying and I was too tired to stretch my observing session another hour. Transparency was very good from midnight until I quit. I found eleven new objects for my log books, including: five galaxies, a supernova in NGC 3147(2008fv), three double stars, a 14-mag quasar in Cancer near M44 and another asterism. This asterism is in Andromeda and it looks like a

miniature version of the Constellation Crux, also known as the Southern Cross. It's at 0 hr 11 min 50 sec and +31 deg 15 min and 35.6 sec. I watched Saturn rise as I was loading my stuff in the car. Last night completed 35 years or 420 months in a row of observing at least one night a month. This dates back to November 1973 when I started writing my observation with my first sighting of Comet Kohoutek. What a dud that was. It was my first comet and last night I made another observation of Comet Christensen, which is my 145th comet.

**James Schultheis:** Taken from the listserver October 11, 2008. Conditions were excellent this morning at 3:45 AM with temps at 47°F and no Moon. I had the 15-inch f/4.5 and the 80mm Orion ST out. With the conditions being so good, I thought for kicks to see if I could see NGC 2024, the Flame Nebula in Orion, and to my surprise, it was evident using the 15-inch. I then put in the H Beta filter and proceeded to try and find the Horse head Nebula. I was shocked in that it was not very hard to see using the 24mm Panoptic at 71x and about .9°fov with the Lumicon H-Beta filter. (I have never seen this object from Scottdale and did not believe it was possible). I then observed R Leporis and it is much brighter with an Orange/Copper color rather than the blood-red color that I observed last year. Later, I took the 80mm and tried to sweep up Comet 17P/Holmes in Cancer. I could see a 1 to 1.5 degree brightening in one area so I tried the 15-inch over the same area, and there was a definite brightening. I am going to assume that it was 17P for it was in the location I had plotted. Very faint and diffuse! Next, it was on to NGC 2371-2 in Gemini which looked like a peanut at 190x., and at 343x the double-lobed planetary was full of detail. Lastly, my challenge object was Minkowski 1-18 which I did find below M46 as a very faint, small, round smudge using 190x with the 15-inch f/4.5. Not much to look at in the 15-inch but it was definitely a challenge to find! This will close out my observing for this dark Moon period, hope I can make it for another week without DSO.

### NEW MEMBERS

Matthew L. Maskas  
Clark Ritchie  
Tim Tresch

### FOR SALE



I have a never-used eyepiece from Orion for sale. It is a 32mm, Wide-Field (Apparent field of view = 70 Deg). PLEASE NOTE: This is a 2-inch eyepiece!! If interested, phone Ron Pollack at (412) 823-8268 or email: [rpollack1@gmail.com](mailto:rpollack1@gmail.com) Price is \$75.00.

2008 STAR PARTY PICTURES FROM MINGO AND WAGMAN

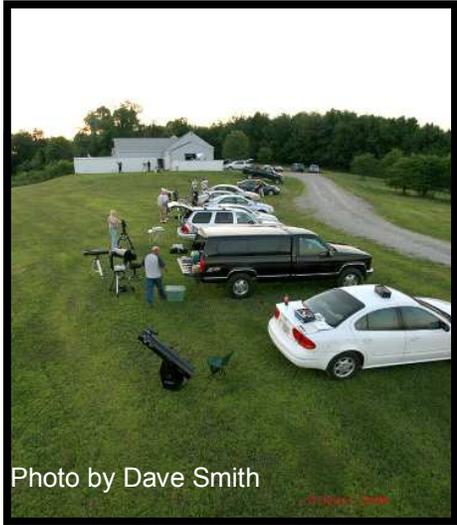


Photo by Dave Smith



Photo by Dave Smith



Photo by Dave Smith



Photo by Dave Smith



Photo by Fred Klein



Photo by Dave Smith

# AAAP Membership Renewal Form – 2009

(1)

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

Name \_\_\_\_\_

Address \_\_\_\_\_

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

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

2 SUBSCRIPTION INFORMATION

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

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**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**  
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- 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

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