



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



Nicholas E. Wagman
Observatory

April 2007

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astronomy, including a brief history, basic concepts regarding the capture and detection of radio waves, examples of radio telescopes, and some examples of radio astronomy activities. Professionally, Herb's an electrical engineer with extensive experience in radio, communications, and electromagnetic systems and electromagnetic compatibility; and of course, he's an amateur astronomer in both the visible and radio frequencies! We hope you'll tune in!



MEMBERSHIPS AND SUBSCRIPTIONS

By Michael Meteney-Treasurer

TOPIC OF NEXT MEETING: PROFESSIONAL AND AMATEUR RADIO ASTRONOMY

By Ann Norman

On Friday, April 13, 7:30 at the AAAP meeting at the Carnegie Science Center, our own Herb Godlewski will give us an introduction to radio

A reminder to all members who have paid up their memberships and subscriptions using the printed invoices that were mailed to them at the end of 2006, your memberships are paid through the end of this year, and your subscriptions are paid through March 2008. There are a few ex-

ceptions to this but this is the general rule. Don't send any money for next year until the renewal form appears in the October newsletter. It is important at that time that everyone completes the membership renewal form so that we can update our membership information. Thank you.

AAAP FINANCIAL STATEMENT FOR 2006

Continuing the tradition established by John Holtz, a summary of the AAAP's finances for last year is listed below. This is only a summary. A detailed report is available from Michael Meteney.

INFLOWS

50/50 raffles	412.50
Donations	36,150.80
Interest	876.79
Memberships/Subscriptions	16,341.91
Sales	253.34
Stock Sales & Dividends	1,118.57
TOTAL INFLOWS	55,153.91

OUTFLOWS

Awards	17.65
Bank Fees	313.18
Food	101.33
Gifts/raffles	397.51
Guide Star Printing	3,724.42
Guide Star Mailing	822.00
Meetings Expenses	912.02
Merchandise	290.59
Mingo Observatory	41,198.15
Officers	1,350.85
Promotions	275.29
Stamps	488.78
Subscriptions	6,350.53
Tax Audits	4,659.84
Insurance	4,132.00
Utilities	4,844.14
NEWO Security Fee	240.00
NEWO Staff Hats	240.00
TOTAL OUTFLOWS	70,358.28

OVERALL TOTAL -15,204.37

ACCOUNT SUMMARY

(Current as of 3/19/2007)

Checking	3,570.19
CD Dollar Bank	24,458.26

CD USX	102,700.18
Savings, general	16,776.48
Savings, govt. grant	18,276.56
Savings, Valley View	32,447.56
Mingo Observatory	1,537.03
Petty Cash	50.00
TOTAL ACCOUNTS	\$199,817.26

MEMBERSHIP CARDS

By Mark Schomer
Membership Secretary

Some new membership cards were printed with a "Current Through" date of 1/2008. This is incorrect. It should indicate "Current Through 12/2007. It is not a problem--just keep in mind that your membership only runs through 12/2007. Sorry for the miscalculation.

RECOMMENDATIONS OF THE SPECIAL ETHICS COMMITTEE TO THE AAAP EXECUTIVE COMMITTEE (MARCH 2007)

Introduction

A *Special Ethics Committee* was formed by the AAAP President and charged with presenting to the AAAP *Executive Committee* a list of recommendations re: club member conduct at AAAP events and in AAAP official communications. The *Special Ethics Committee* was formed as a direct result of the unfortunate incidents that occurred during the 2006 club elections.

Recommended Changes and Additions to AAAP By-Laws

Article XI, Section 1, Nominees. The *Special Ethics Committee* recommends:

This sentence, "The *Nominating Committee* shall present a report of nominees to the membership at the regular April business meeting." **should be replaced by these sentences**, "The *Nominating Committee* shall present to the membership at the regular April business meeting a report of all nominees the *Nominating Committee* judges to be qualified for their respective offices. The *Nominating Committee* will deliver the report without comment."

These sentences should immediately follow the preceding recommendation: “Any member whose name was submitted as a candidate for office to the Nominating Committee and whose name is not presented as a nominee by the Nominating Committee will be notified of that decision by the Nominating Committee Chair at least 24 hours prior to the April business meeting. The notification will include informing the member of the provisions of Article XI (Election of Officers), Section 1 (Nominees), regarding April business meeting floor nominations.”

Article XI, Section 2, Ballots, (final paragraph). The Special Ethics Committee recommends:

This sentence, “All validated ballots shall be given to the attending members of the Nominating Committee who shall count them and report the results at the election meeting.” **should be replaced by this sentence,** “All validated ballots shall be given to the attending members of the Nominating Committee and/or its designees who shall count them and report the results at the election meeting.”

These sentences should immediately follow the preceding recommendation: The vote count will not be reported, except to the candidates for contested offices and then only to those candidates. Vote totals will be conveyed to those candidates by the Chair of the *Nominating Committee* and only by the Chair. Ballots will be retained by the Chair until June 1 for the purposes of election validation and/or recount and will then be destroyed.

Recommended Changes and Additions to AAAP Policies

MEETING MINUTES POLICY: In order to eliminate misunderstandings about decisions and their possible application, every AAAP committee meeting will have detailed minutes taken by a member other than the committee Chair or presiding member and approved by the members of that committee. Copies of these minutes must be centrally stored (1) permanently in the AAAP Archives and (2) for a period of no less

than 3 years by the AAAP Recording Secretary, so they are available for review by club members.

PUBLICATION OF POLICIES AND PROCEDURES: All approved AAAP policies and procedures must be documented and posted on the AAAP website. Officers must submit new policies as they are approved to the member charged with posting policies to the website. This member is currently George Guzik.

CAMPAIGNING POLICY: Campaigning for AAAP offices is limited to a photograph and a 250 word combined biography and position statement submitted by nominees (only) for publication in the May issue of the *Guide Star*. *Guide Star* editors shall retain the right to edit all submissions just as they edit other submitted articles. The endorsement of nominees by other members and nominee campaigning through any AAAP electronic communications or at any AAAP events are prohibited.

ZERO TOLERANCE: In order to protect the AAAP’s reputation and to encourage overall civility, all AAAP members will treat one another with respect and dignity at all times. Any failure to comply with this policy, when brought to the attention of the President or Vice President, will result in an immediate request from the President or Vice President that the offending member(s) cease and desist.

Failure to comply with this request will activate the procedures of By-Laws Article VII (Cancellation of Membership), Section 2 (Due Process). The President or Vice President will immediately take steps to deny the offending member(s) access to all AAAP electronic communications. If the incident occurs at an AAAP function, the offending member(s) will be required to leave the function immediately. The President or Vice President will schedule an *Executive Committee* meeting to discuss the incident and to consider further action. This meeting must be held within 14 days of the report of the incident. Respectfully submitted by:

Bob Kalan Bill Roemer Art Glaser
Terry Trees George Guzik

ALL ABOUT METEORS

By Truman Kohman

Are meteors all a metallic substance? Would you be able to break one in two with your fingers like a piece of coal? Would a metal detector pick them all up? You certainly mean meteorites. Meteors are "shooting stars", which burn up in the atmosphere. There are three major types of meteorites:

- 1) Irons (siderites), which are mostly nickel-iron with inclusions of silicates, sulfides, etc. They are easily picked up with metal detectors.
- 2) Stony irons are mixtures of metal and silicates. Pallasites are silicate nodules in a metal matrix. Mesosiderites are mixtures of metal and silicate fragments. They are also easily picked up by metal detectors.
- 3) Stony meteorites (aerolites) are of several types. Chondrites consist of silicate nodules (chondrules) and metal fragments in a fragmented silicate matrix. Large ordinary chondrites can be picked up by metal detectors. Carbonaceous chondrites have a large proportion of carbonaceous compounds, no chondrules, and very little metal, and could not be detected by metal detectors. Achondrites are crystalline silicates with no chondrules and very little metal, and likewise, are not detectable by metal detectors. All meteorites are too hard to break up with the fingers.

ECLIPSE

Dan McKeel: We had a better night than expected at Mingo for the eclipse. We had some big holes in the clouds with eclipse views in the 24", and also a bit of M42 in the 24". About a couple of dozen public from the area showed up and had tours. All in all, it was not a bad night when one considers the clouds.



Tom Reiland: I headed up to Wagman just before 5:30 PM. On my way there I drove through another snow storm with less than a 1/4 mile visibility. I was certain that we would be out of Wagman Observatory before 7 PM or earlier. I didn't expect to see many members or public on the hill, but there were a few members and ten or twelve visitors when I arrived at 5:45 PM. It didn't look good at first, but large openings in the clouds started to give us some hope. I decided to open the Manka roof at 6 PM and waited for some clearing in the East. I set the Manka on Venus while we waited for the eclipsed Moon to appear. That lasted for a few minutes until wind caught the front cage and knocked the scope at least ten degrees from Venus. Saturn became visible then and I moved to scope onto it. It looked good considering the conditions. The Moon finally made its appearance above the clouds and it spent the next forty minutes peaking in and out of clouds with periods of decent clear gaps. The fifty or more visitors enjoyed the view and Flac set the Brashear on Saturn. When the Moon was covered again, I moved the scope onto the Orion Nebula until it was clouded out. I checked out Mira with my 10 X 50's and nude-eye. I compared it to Alpha Ceti, though passing clouds made it difficult estimating its magnitude. I'll stick with the 2.2 mag I reported last night. We had thirteen members assist with this event. This is one time that I was glad things didn't go the way I thought they would.

Glen & Sheri Rockhill : The moon, or what you can see of it, is completely dark but for a pale, reddish arc around the southwestern part of the moon. It just rose high enough for us to see it in the break in the trees. Hooray for sucker holes, we got to see it!

MOON NAMES

By Fred Klein

I came upon this from Dick Cookman - March 2007 *Skys on Cloudy Nights* regarding the Crust moon name.

European settlers of North America called the March Full Moon the "Lenten Moon". It was considered to be the last full Moon of winter. Many

northern tribes called it the "Crow Moon" because crows announced winter's end with their crowing. To others, it was the "Sap Moon", marking the time of tapping of maple trees. The Anishnaabe (Chippewa and Ojibwe) call it "Bebookwaadaagame-giizis(oog)" (Snow Crust Moon) because the snow cover becomes crusted from thawing by day and freezing at night. As temperatures begin to warm and the ground thaws, earthworm casts appear, and the "Worm Moon" heralds the return of the robins.

EARTH'S PRECESSION

By Daniel Fundo

We have known for over a century that the Sun's output varies. There is no GCM (General or Global Circulation Model) that takes this into account. None of them take the Earth's precession into account either..., of course. The precession is 25,000 years long, while at the same time, the ice ages come about every 10,400 years. We are somewhere between 500 and 1,000 years overdue!!!

If you want a good book, get "Global Warming: The Truth behind the Myth" by Michael L. Parsons. Basically, any model that can't pass verification, or have a repeatable experiment to prove it, can't be called a theory in the scientific method.

Is man having a detrimental effect on the environment, yes. Is man the cause of global warming....we don't have enough data to determine that!

DRIVEWAY IMAGE OF M42

By Al Paslow

The other day I received an image by Dan McKeel of M42 taken from his driveway that is really quite beautiful. The quest of astro-imaging continues. According to Dan, his 12-inch LX-200 is set up in his garage, and simply "wheeled" out on a platform. The system is roughly polar aligned and he begins to image five minutes later!

To make it happen, he imaged the Orion nebula 34 times; each exposure was almost a half a



minute long; then all the images were combined and "stacked" upon each other to bring out various details.

The detail from this final image is stunning considering it comes from an instrument on an Altz mount (no equatorial wedge) that uses only the clock drive that came with the telescope. (No attempts were made to further guide the object for error correction).

Details of the image: M42

12" LX200 Classic @ F6.3; Alt/Az mode tracking, unguided; Stock Canon 300D; 34 images of 25 seconds for 15 minutes of total exposure time; aligned and stacked in Imagesplus; pixel math, brightness scaling, and DDP in Imagesplus; 5 second exposure image layer mask applies in Photoshop to bring out the core stars. Curves applied in PS7; unsharp mask applied.

It is really cool to see that some great astro-images can be taken with relatively simple equipment and good software!

OBSERVATIONS

Tom Reiland: I decided to take a shot at the supernova in NGC 5584 and the nova in Cygnus, as well. I looked up an image of SN 2007 AF on the International Supernova Network page and I plotted the position of Nova Cygni on a copy of a chart from the Uranometria. The supernova was much easier to see than the host galaxy. I needed averted vision to locate it. I estimated its magnitude at 13.1. Next, I started my search for the nova in Cygnus and it was

surprisingly easy to find using my 16" Dob at 130X, the same magnification I used to find the SN. I estimated the nova at 8.9 magnitude. Once I located this recent discovery, I decided to move onto some galaxies, clusters and planetary nebulae. I wanted to try the new nebular filter on objects such as M27, M57 and NGC 6572. The filter greatly improved my view on all three of them. The contrast was much better with the filter. I tried the galaxy filter on M104, M63, NGC 5005 and 5033. There was only minor or hardly any improvement on the two Messier galaxies, but there was some moderate improvement and contrast on the two NGC objects. Both filters were worth the cost, especially the UHC model. The weather conditions were average for this time of the year and it was dry with a slight to moderate breeze. Transparency was good to very good from my backyard, but seeing stunk. It was a 2- on the seeing and the same for the steadiness. I saw one nude-eye satellite and two through my scope. I took a look at Jupiter and its four largest moons through a gap in my largest tree. I finished off the night with optical double star, Albireo.

Here's an observing project for those who haven't tried it yet. This is an excellent time to try to observe four celestial objects, other than the Sun, in the daytime. One, of course, is the Moon. The others are Venus, Sirius and Jupiter. The Moon will be easy and Jupiter shouldn't be difficult. Just follow Jupiter during twilight until the Sun rises. See how long you can observe it after sunrise with your nude eyes. To locate Venus and Sirius, you should watch them the night before and use a foreground object, like a tree or building, to pinpoint their location around sunset. The next evening go out with your binoculars to scan those positions fifteen or twenty minutes before sundown. Once you find them with your binoculars, try to observe them with your eyeballs only. Start with Venus first and then move over to Sirius. Good nude-eye hunting!

Sue and James Schultheis: In anticipation of trying to do a Messier Marathon in the near future, Sue and I did a trial run last night from 8:00 until 10:00. We did get about 35 objects located in the two hours we were out, but were unable to

observe two toughies, M74 and M33, mostly because of light pollution issues. We spent a lot of time trying to isolate M74 and even with that setback; we were able to average about 3.5 minutes per object. I have gathered some good tips on locating M74 on the Internet and will try using my binoculars on M33. We plan on going up to Cherry Springs to do the actual Marathon if and when conditions permit. Good luck to all others in their Messier Marathon experiences!

Mike Meteney: I decided to go out and try out my new eyepieces on my 8" Meade SCT. I was not disappointed. I was able to push it to 390X on Saturn and still have a good, sharp image. Saturn just about filled my entire field of view. I have never been able to push the mag. that much before. Venus was so bright just after sunset that it hurt my eyes. I used my cheap Orion Sky Glow on the Orion Nebula. It looked pretty good to me, but ignorance is bliss. The sky had tremendous contrast and settled down very quickly to my surprise.

Al Paslow: Last night I observed Saturn and other objects. Saturn was better later, however, by 10:30 pm or so it is about as high as it will be this season reaching an altitude of about 66 degrees. The equatorial bands were quite prominent as well as the ring against the planet. At times, the moons appear to be in line a bit more lately, as we head towards the year 2009 when the rings will be edge-on. At that time, the Saturn's moons will exhibit characteristics resembling a line-up similar to Jupiter's four moons.

Our moon was rather low, hiding stars in Scorpius but was rather nice to look at. The 21-day moon has plenty of contrast along the daylight and night side. Using an 8-inch telescope, last night I obtained this image along a portion of the terminator. Notice the mountain peaks are well illuminated in a chain of various craters, along the central portion of the image moving down. <http://al-paslow.smugmug.com/photos/135125894-L.jpg>

It is interesting to point out that the above image was taken with no guiding or clock drive in use. Only the telescope and digital camera with eye-

piece projection were employed. In December, I obtained another lunar image using the same method, under fair seeing conditions. The result is even more surprising: <http://al-paslow.smugmug.com/photos/134667244-L.jpg>

Photoshop was used to adjust the contrast with both images. Perhaps this is encouragement to prove how easy simple lunar photography can be. All you really to start is a digital camera and a telescope.

John Cheng: R Leporis has traded its deep red for a bright copper.

Another less celebrated red star, classified a bit differently than R Leporis, is SS Vir. It is attractive right now. At about mag 8.4 this morning, it is pleasingly situated in a nest of "bland" blue stars of similar brightness. It is easy to find, being close to eta Virginis, plus it is in a dynamite neighborhood, 1 degree 37 minutes SW of everyone's favorite quasar, 3C 273, and only 13 minutes NW of the faint galaxy NGC 4385.

Seeing got increasingly better after midnight and Saturn, close to a month beyond opposition, has a prominent globe shadow on the eastern portion of the rings. Further, what must be a combination of shadow and crepe ring is tracing a sharp, dark line right across the breadth of the globe. The planet showed three identifiable bands, NPR, NEB, and SPR.

Last, but not least, our moon rose while occulting tau Sco, mag 2.7 or so, which merged, silver and stunning around 0900 UT.

Dan Peden: I shot a this picture of a solar pillar this morning, Monday, February 19, 2007 while driving down Carson Street about 7 AM.



UPCOMING STAR PARTIES

Bonnie and Mike: Bonnie and I have received a call from a lady named Sue Weaver from an organization named Rails to Trails. Apparently, there is a party of 500 people that will be showing up at Cedar Creek Park on June 29, 2007 and they will be camping out there all night. These folks are biking from Washington DC to this park here in Westmoreland County and they asked us if we would do the astronomy program for them. This is a bit out of our league, as we are used to maybe 25 people maximum and our one telescope would not suffice for such a huge crowd; so we put this before the club to see what the club would like to do for these folks. Bonnie and I think it would be a great outreach program for the AAAP, as there will be people attending this from all over the world. We would like volunteers to contact us or Susan Weaver direct at Rails-to-Trails Conservancy 717-238-1717 or email susan@railstotrails.org so we can have an answer for her ASAP. Our email address is canis_ma_jor@yahoo.com or phone 724-722-3216. A link to the park map is at: <http://www.co.westmoreland.pa.us/parks/cwp/view.asp?a=3&q=619307>.

George Guzik: Please update your calendars to indicate that we will have star parties at Keystone State Park on June 16 and on August 11 of this year. The events begin at 8 PM. We will also have an event at Raystown Lake on August 4 at 7:30 PM. Times are approximate but should be close enough.

April 20-21 Mingo and Wagman Star Parties
April 17 North Allegheny Star Party

FIRST GUIDED PHOTO AT MINTO WITH THE 24" RC

By Fred Klein

Sunday night, March 11, Ed Moss and I spent the evening getting autoguiding working on the 24" RC. I installed an 80 mm 900 mm fl guide scope on the rail on the side of the scope and attached an ST-4 autoguider. It turned out to be easy. The autoguider calibrated on the second try - the first moved the guide star off chip during calibration. We guided on three targets and had

no guide faults in about an hour and a half of guiding. The guide errors were +/- 1 for the most part (1 unit of error is 0.2 pixels on the chip. After a while, I decided to try a longer exposure. I aimed at M66, an irregular spiral galaxy. The goto placed it in the center of my Canon 20Da camera. I took 6 5-minute images; one was dark, maybe one of the light clouds passed over (but guiding continued). I was out of practice and made a bunch of errors. The sensor was very dirty. I didn't capture the raw images, but half resolution jpgs. There was apparently some differential flexure between the main and guide scope, the image moved gradually over the 30 minutes, and resulted in a little tracking to about 2 o'clock. I aligned and stacked the images in ImagesPlus. Next time I'll take shorter images and correct that in stacking. The colors came out funny. I fixed them mostly in Photoshop with the jpg. I only got 8 bits of data, not 12 bits in the raw images, so I couldn't bring up the fainter parts as well. I think the smudge in the upper right is the edge of M65. I would call this image a proof of capability, but not a real good image. I'll be back to try to do it better next time, but it was FUN! Here is the image: <http://www.fredkleinastro.com/images/M66.jpg>.



COOL WEBSITES

Larry McHenry: Not a lot of activity visible today on old Sol. The sunspot count has been fairly low for the past month. Just a small class C group (AR946) near the western limb. Even H-alpha was quiet, with little to no disk activity and just a few small limb prominences. While I did a full observation run, the only images worth sharing are these two made with the PST Cak: <http://home.comcast.net/~lemsolar/images/pstviews/pst-cak-031107.jpg>
<http://home.comcast.net/~lemsolar/images/misc/pst-cak-031107-2x.jpg>

To view the complete observing report including a sketch, visit: "Big Woodchuck Solar Observatory" (BWSO) <http://home.comcast.net/~lemsolar/Bwwso1.htm> (Scroll down the page and click the "Current Solar Observations" link).

Dan McKeel: I have added some Earthshine images from last night to my web page: <http://mysite.verizon.net/mckeeld/id7.html>

John Cheng: OK...it's a reflector, but this is amusing....
<http://www.scaryideas.com/video/1687/>

Louis Coban: Follow the link below to a Moon image that was taken tonight at the Allegheny Observatory with the new 16" Meade RCX-400 telescope. See details below:
http://www.pitt.edu/~aobsvtry/Moon_U_006_UMask.jpg

The image is a 4-second, unguided exposure taken through an ultraviolet filter using an SBIG STL-6303E CCD camera. The CCD camera was rotated using a Pyxis camera rotator so that we could fit the Moon onto the largest part of the CCD chip. The image was then rotated back to look more natural and an unsharp mask was done to make it a bit sharper. Also, the image was reduced from 2048 x 3072 to 533 x 800 so it would fit better into a web browser.

Al Paslow: Rutters reports that LARGE quantities of water exist under the southern polar cap of the red planet. So immense is this find it's almost unbelievable! For the story see: <http://www.reuters.com/article/scienceNews/idUSN1540881420070315>
(This should really spark some hope of exciting biological discoveries.)

FOR SALE

8" Meade Starfinder with a JMI motofocuser, rotating mount rings and adjusting legs for leveling also a Telrad. \$1,409 invested, asking \$900. Contact Frank Pastin at 724-457-7048.

FOR SALE (CONTINUED)

You can view this ad at <http://www.astromart.com/redirect.asp?cid=488982>

Ad No.: 488982

Wanted: POD Calling All Astro Clubs - Urgent!!!

Category: Astromart Classifieds / Observatories

Placed: 3/13/2007 6:27 PM

At SkyShed Observatories we want to help make your club successful and help keep your membership numbers growing. To do this, we devised a program that is hands off for you yet could be highly 'rewarding' for your club.

The rewards program is simple: For club members, we're taking \$25 directly off the price of SkyShed POD at the time of order, plus we're awarding your club points towards Free PODs (or discounts for smaller clubs) based on orders. The \$25 discount does not apply to pre-orders, points do, provided your club signs up before pre-ordering commences shortly. Points are not retroactive.

The points reward system is simple:

- For 1 POD - 50 points are awarded
- For 1 POD Bay - 10 points are awarded
- For 1 POD - XL3 (POD w/ 3 POD Bays) - 80 points are awarded
- For 1 POD -XL5 (POD w/ 5 POD Bays) - 100 points are awarded

At 2,000 points awarded, your club receives A FREE POD WITH SHIPPING INCLUDED. No strings attached -- to do with what you please. Use it at the club dark sky site, for your outreach program, loan it to members, rent it out, raffle it, use it as a door prize at your yearly star party, or think up your own way to make the most of POD.

Of course, our preferences would be the dark sky site or star party because you would be helping us (small company, low prices, global mission) by showing off the POD to a lot of people.

We have not forgotten smaller clubs. We realize that some clubs are too few in members to earn enough points to earn free PODs. For these

clubs the reward level is 500 points. At 500 points, any club can apply those points as a discount towards the purchase of a POD at equivalent discount of 1 point = \$1 U.S. points are not redeemable for cash. At the 500 point, level you pay for shipping. The incentive is to keep going to 2,000 for the free shipping bonus.

As an incentive for you to use your points and create excitement, you have 24 months from the time of joining to use or lose the points. After 24 months, unused points are wiped from the slate and you begin again at 0 points for the beginning of the next 24-month award points term.

It keeps getting better! For clubs with major star parties or public astro events and even for smaller clubs that show a lot of support, let's talk about a free POD as a grand prize give away at your event.

Our affiliate program will also benefit you and your members. Anyone with a website will be able to sign up as a POD affiliate for free and earn way above industry commissions for sales tracked back to their affiliate links. By posting a small, simple, attractive POD banner that includes the affiliate link code, clubs and club member affiliates can earn "hands off" capital to support astronomical interests.

If you have any questions, please ask. For your club to sign up, we must hear from a club board member or director. Time is of the essence. Participation is FREE. Please respond on behalf of your club ASAP to take full advantage.

Wayne Parker



Amateur Astronomers Association of Pittsburgh, Inc.

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

2006-2007 Executive Officers:

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

AAAP Member Dues*:

AAAP Dues:	\$18.00
Junior Member (under 18):	\$13.00
<u>Sky & Telescope Magazine:</u>	Add \$33.00
<u>Astronomy Magazine:</u>	Add \$34.00

***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

Coming Soon: Tom Reiland's class on star hopping. Sign up at TRCassiopeia@aol.com
Date to be announced.

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