



The Guide Star



Mingo Creek Park
Observatory

Newsletter of the Amateur Astronomers Association of Pittsburgh, Inc.
Founded June 9, 1929 by Chester B. Roe and Leo J. Scanlon
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Nicholas E. Wagman
Observatory

In This Issue...

Globe Workshop	1
Contest Reminder	1
50 Years of Astronomy	2
My Retirement	2
Request for GS Articles	2
Members Only at Wagman	2
Sidewalk Astronomy	3
Pictures from Mingo	3
Proposal for Membership	4
Video Astronomy at Mingo	5
2007 Wagman SP's	6
Wagman Observing	6
Book Reviews	6
Book Reviews	7
Astronomical Humor	7
For Sale	8
Important Dates	8
Cool Websites	8
Well Wishes	9
Special Alert for Mingo	9
Earthquake Report	9
Officers	10

GLOBE WORKSHOP SUCCESSFUL

By Kathy DeSantis

The GLOBE Workshop (GLOBE: Global Learning and Observations to benefit the environment, is a worldwide hands-on, primary and secondary education and science program. managed and funded by the National Aeronautics and Space Administration (NASA) and the National science Foundation (NSF), supported by the U.S. Department of State, and implemented through a cooperative agreement between NASA, the University Corporation for Atmospheric Research (UCAR) in Boulder, Colorado and Colorado State University in Fort Collins, Colorado), was Saturday morning at Mingo Creek Park Observatory.

The workshop was conducted by the PA NASA Education Resource Center and sponsored by PA NASA Space Grant Consortium. There were twenty participants in the workshop, four of them members of AAAP. The workshop included training for teachers in the GLOBE Atmosphere protocols involving hands-on sessions and inquiry-based activities aligned with the Pennsylvania Academic Standards. In addition, participants were informed on astronomy topics, toured the observatory, engaged in solar viewing, and received star charts, and invitations the evenings star parties at both observatories.

Gene Kulakowski arrived in the chill of the early morning darkness to fire up the heaters, which was much appreciated on this sparkling fall day. Ed Moss enthralled participants with the magnificence of the 24-inch; Larry McHenry fascinated, with solar viewing; Barbara Lafon, worked with Night Sky Network materials. Working as well were Mike Metney, George Guzik and myself.

Teamed-up we all pulled it together, got it through and cleaned-up so we could turn MCPO, and in some cases ourselves, around for another event in the evening. There was a lot going on, including a lot of grazing on a variety of breakfast and break foods, and hot drinks. Not present, but helpful in planning and putting this together, were other club officers, executive committee, and other members of the Mingo committee; many thanks to all.



Don't forget,,,

Brunelle Astrophotography
Contest November 10,
2006 at the Carnegie
Science Center—Come out
to cast your vote!

50 YEARS OF ASTRONOMY

By Dan Fundo – Memphis, TN

Fifty years ago today I received a Gilbert Skymaster 3-inch reflector as a birthday present. It isn't much by today's standards. It was not all that great back then either but it got me into a hobby that, except for a three-year hiatus while I served in the U.S. Army, has been a constant source of enjoyment, wonder, and discovery. I have seen a total eclipse of the Sun (up in Bangor, Maine with some of the folks from the AAAP), uncounted Lunar eclipses, several dozens of comets, about 100 asteroids, all the Messier objects, quite a few Herschel's, and a goodly number of NGCs.

I cannot match Tom Reiland's almost 400 months of observing; but few clear nights go by that I do not grab the binoculars and do a quick scan of the skies. As he pointed out a few weeks ago, there is always something to amaze you going on up there. I had such an experience back in January when a fireball lit up the field of view in my telescope late one night.

A lot has changed over the years. There is not anywhere near the telescope making activity as when I got started. But folks are making telescopes in sizes that would have gotten you committed to Mayview if you had talked about them the way we do now. The thought of electronic photography was a distant dream, as were computer-controlled telescopes. As John Close mentioned a while back, now I can share my observing experiences almost instantaneously with any number of fellow astronomers.

There are a lot of folks I need to thank for what they taught me over the years. I need to thank my sister for buying that first telescope, my dad for enrolling me in the astronomy classes at the old Buhl (with Arthur Draper teaching the courses), Jim Mullaney for encouraging me and getting me into the AAAP and getting started in ATMing, the late George Lindbloom for teaching me all I know about variables and how to "observe" and not just look, the late Glenn Winterhalter and Bob Hoehle for their help in building my first few telescopes, Chuck Leroy, Bob Schmidt, Tom Reiland, both John C's, and countless others.

I also need to thank all of you on the list server for putting up with me and my dry, and sometimes not so dry wit over the years, and my support of things and techniques that are antiquated by modern standards. I doubt that I will see another 50 years of this activity, but with the Good Lord's blessing, I will see another 25.

MY RETIREMENT

By Trevor Lewis

It has been a long dry spell. Since retiring last spring, most of my time and energy has been absorbed in the tasks of selling the Pittsburgh house, building an Idaho house, moving, and settling in. All of that is over, or at least far enough along that I can declare my "real" retirement as having begun in the past week. Not entirely by coincidence, this coincides with putting into service a telescope pier in the back yard. I completed the polar alignment last week, and began serious observing this past weekend. This ends what has been about a two-year dry spell, and I have missed it.

In case someone cares, my observing site is 111-56-18 W and 43-26-25 N. I have few visible neighbors, and although our home overlooks Idaho Falls, ID, the house shields the observing site from the urban light. I have an especially dark sky from the meridian eastward.

It is a great luxury to use a telescope on a solid, well-aligned mounting, and I can set up and taken down in a few minutes. Thanks to the many AAAP members who contributed to the Wagman and Mingo observatories for giving me examples of good installations, and particularly to Flaccus Stifel for providing specific advice on mounting the pier.

I remain proud to be a member of AAAP and plan to continue my membership. I will miss the AAAP star parties and the company of the many members I have met there. Keep up the great work! I will be in touch from time to time.



GUIDE STAR ARTICLES

By Maureen & Bill Moutz

The Guide Star editors welcome articles from members for the Guide Star. Please send to our email address sailboat25@comcast.net. The body text should be a Word document Arial 10 and the heading should be Brittanic Bold 12. The articles are due by the 20th of the month.



MEMBER'S ONLY NIGHTS AT WAGMAN

By Tom Reiland

Every New Moon weekend is usually a member's only weekend at Wagman Observatory unless something comes up. Every weekend or night after Halloween until Winterfest is members only.



SIDEWALK ASTRONOMY ON THE SOUTH SIDE

By Fred Klein

As always, I enjoyed my evening on the South Side. Thanks to those who stopped by; Phil for his pictures, Mary and Don for visiting and helping as "Hawkers" and having Dave across the street does add to the number of takers.

I was surprised by the number of people who knew it was a full moon last night and the number of people who commented on watching the great moonrise and watching the full moon through the night. The number of repeat customers keeps increasing—nice to be remembered. A couple people saw me from across the street and ran over. One guy saw me while driving by, and double-parked to take a look. A number of people mentioned having been to Wagman. I think the numbers were off a little last night. I did not count but would guess I was closer to 200 than the normal 300 viewers.

One young woman showed a lot of interest, so I upped the magnification and let her guide the scope around the moon. She seemed to enjoy it. I was normally working at 70x, which put the entire moon in the view.

As usual, Dave and I had to fight off a couple people who wanted to give tips. But I did get a phone number! Later inside the Blue Note, someone bought me a beer (it would be impolite to turn that down). Well, I guess now I will have to wait for Saturn in the spring.



Dave Smith's Photo from October 21, 2006
AAAP Mingo Creek Park Observatory Star Party



Dan McKeel assists a youngster at Mingo October 14

Allegheny Observatory September 29 by Dave Smith



Proposal for “Calendar Year” AAAP Memberships

Current Members

December 2006

- Mail each member an individualized Invoice
- The Invoice will be for membership and subscriptions
- The amounts invoiced will carry the member from current membership expiration to December 2007
- The amounts will be pro-rated on a monthly basis
- Once the Invoice is paid, the member will be paid through 2007

December 2007 and Subsequent Years

- Advertise renewal time via *Guide Star* and List Servers
- Mail each member a standard renewal reminder postcard
- Amounts listed on the postcard will be full annual membership and subscription rates

New Members

First Year (Year N)

- New members will pay full annual membership and subscription regardless of the month in which they join.

December of Year N

- Mail each new member an individualized Invoice
- The Invoice will be for membership and subscriptions
- The amounts invoiced will carry the member from current membership expiration to December of Year N+1
- The amounts will be pro-rated on a monthly basis
- Once the Invoice is paid, the member will be paid through the next year, Year N+1

Subsequent Years

- Same as Current Members

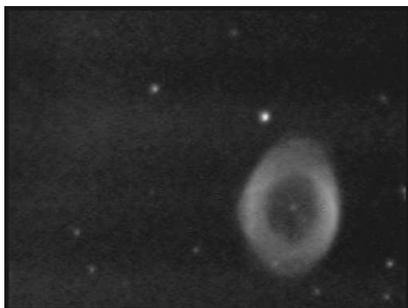
The password for the AAAP website will be changed February 1st. The new password will be included with your renewal membership card.

Video Astronomy at Mingo

By Larry McHenry

I finally had a chance to process the test video capture clips from Saturday. After the scouts and most of the members left for the evening, I setup a video astronomy demo on the 24" RC telescope for Ed, Al, and Dan. Ed had already centered the telescope on the Ring Nebula. I removed the club diagonal & eyepiece and installed my Apogee flip-mirror diagonal with a 30mm eyepiece and a Stellacam EX deep-sky B&W video camera. After positioning a 9" focusing monitor on a stepladder beside the telescope and running a video cable over to the larger 15" security monitor by the computer, I used the flip-mirror / eyepiece to center M57 and got a rough focus. I then "flipped" the diagonal over to the video camera and switched it to the 2.5-second exposure setting.

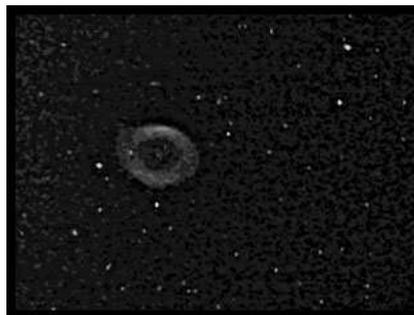
According to the laws of video astronomy, this effectively triples the light-gathering ability of the telescope being used, turning our 24" into the equivalent of a 72" with an image scale similar to using a 6mm eyepiece at prime-focus.



After waiting a couple of minutes for the camera to reach maximum integration, we were rewarded with a baseball-sized ring on the 15" monitor screen. The central star was easily visible, along with fleeting filament structure within the ring itself. Needless to say, we were all very impressed!! It was very interesting to adjust the brightness/contrast settings on the monitor to bring out different features in the ring. We then slewed the telescope over to M15 in Pegasus. Again, the view was quite spectacular!

About this time, I started setting up the digital camcorder. As it was getting late, Al and Dan decided to call it a night with Ed leaving later. I spent the next hour slewing the 24" around to various objects. The highlight of the evening was M42, whose size overflowed the screen, and the intensity of the nebulosity lit up the telescope room.

Here are a few rough test images from the evening (I didn't have fine focus and was capturing very short video clips of about 15 seconds each, which I realized the next day did not give me very many frames to stack, as the camera refreshes only every 2.5 seconds. Oh well, next time).



Just want to thank the members who came out October 14 to help with the Cub Scout / Webeles group from Irwin. We had about 16 public in attendance (counting the adults and two babies), with 10 AAAP members on hand helping the scouts complete their astronomy merit requirements.

Gene Kulakowski gave his usual excellent planetarium show, with assistance from Richard and Peter Urban. Dan McKeel and Al Paslow described and demonstrated the operation of the 10" D&G Refractor. Our Director, Ed Moss, discussed the 24" RC Reflector with hands-on by the scouts. Barb Lafon kept our guests on their toes, (and working on their requirements), by periodically asking them questions throughout the evening and giving explanations to those questions. Additionally, Barb, with assistance from Ed, utilized the NSN kits and the NSN presentation area. Members Kathy DeSantis and Jerry Schuster were also on site to lend a hand. Thanks again everyone!

And to cap it all off, we had beautifully clear skies and were able to show the scouts the usual deep-sky highlights in addition to the planets Jupiter, Neptune and Uranus.

At the end of the evening, all of the scouts were able to complete their astronomy merit requirements, and the scout leaders were extremely pleased with our volunteer effort on their behalf. After the scouts left at 10:00 pm, several of us stayed around for a little video astronomy demo using the 24" RC.

2007 Star Party Season at Wagman Observatory

By Tom Reiland

February 24 WinterFest
 March 3 Total Lunar Eclipse
 April 20-21
 May 18-19
 June 22-23
 July 20-21
 August 17-18
 September 15 & 29 (Dark Sky/Moonrise SP)
 Oct. 20 and 27 (Moonrise Special)

WAGMAN OBSERVING

By Tom Reiland

I arrived at Wagman Observatory just after 7 PM. I wanted to get there in time to see the ISS pass and get another look at Comet SWAN. Ed Kuzemchak was already setting up his scope. It turned out to be a good night, at least until about 1 AM, when the clouds started to roll in. The ISS pass was a good one. It was visible for five minutes and it reached at least -2 magnitude. Jupiter will not be visible for very long for Saturday's star party and then it will be so low that it won't be worth looking at.

I saw a couple other satellites and three meteors; two of them were Orionids. I used the 21" Manka scope and the 5" Jaeger's Refractor for most of my observing. Bill Yorkshire, Larry Sneider and John and Katie Holtz came up for a little while. Only two members of the public came in the building. Comet SWAN was an easy binocular object at slightly fainter than sixth magnitude. I thought I caught a glimpse of a faint, thin tail in the 21" using my Swan Band comet filter. The comet would have been visible to the naked eye from a light-free sky. I was able to locate Neptune's moon, Triton and I showed John and Katie the globular cluster, G1, in M31, the Andromeda Galaxy. I showed Bill the edge-on galaxy, NGC 891, in Andromeda and I was able to see the dark lane cutting through the middle of it. The Orion Nebula was excellent as it always is on a good night and I was able to locate NGC 253 in Sculptor with my 10 X 50's. I finished off with NGC 720, a galaxy in Cetus and Delta Orionis, a nice double star on the western end of Orion's belt.

I got a good four hours of observing in for the night before I closed the place and headed home. I put the replacement lock on the gate and drove off about 2:15 AM. Looks like the next few nights are going to be crappy. It is getting to be the time of the year when the good nights are few and far between.

Dan Peden's review of *The Friendly Guide to the Universe*

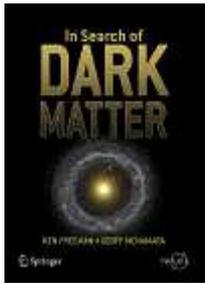
I would like to recommend "*The Friendly Guide to the Universe*" by Nancy Hathaway. The soft back edition is 462 pages, but most sections are only a few pages long. Subjects include, in no particular order, each solar system object, galaxies, telescopes, individual astronomers and physicists, star names, UFOs, the Henry Draper Catalogue, Edgar Allan Poe, etc. It includes a number of useful charts and graphs and begins with an interesting 33-page "History of the Universe" from the moment of the Big Bang to 10^{106} years after the Big Bang, detailing astronomical events as well as human achievements. I bought my 1995 copy at Half Price books for \$3.00. Amazon.com shows 31 used copies available from \$0.86.

Various Books for Beginning Astronomy

By Dan Fundo

One of the first books to get after you pass the neophyte stage of this game is a good college level textbook on astronomy. It really does not matter which one; they all cover the same basic material. Be prepared for sticker shock! For starters, I always suggest either "*Astronomy For Dummies*" or "*The Complete Idiots Guide To Astronomy*". Once into observing, get "*Astronomy Hacks*", and either "*Norton's Star Atlas*" or the "*A2000*". After that, a good textbook, one of the astronomy related dictionaries, is a good investment too. Before you know it, you will be like me and have almost 200 books on astronomy, observing, telescope making, optics, and related stuff; plus stacks of magazines! And yes, I have read them all at least once!!! There have been many cloudy nights over the last 50 years.





Fred Klein Reviews
In Search of Dark Matter

In Search of Dark Matter by Ken Freeman and Geoff McNamara. 2006. Springer-Praxis ISBN 10: 0-387-27616-5

This recent book is the second I have read lately on this topic. I wasn't satisfied with what I learned in the first one. This book is quite a bit better, but the subject just has too many unknowns.

I did like this book because it covered the many observations and inferences that lead to the conclusion that there is a lot out there we cannot see. There are lengthy discussions of the early observations starting with Fritz Zwicky in the 1930s. I had heard a lot about the work of Vera Rubin on galaxy rotation rates in the 1970s, but had not been aware that other people had been doing similar work around that time. Studies of the motion of galactic clusters were covered thoroughly.

This book also goes to lengths to discuss why they think we are seeing all of the ordinary matter and why they do not think there is a bunch of gas or brown dwarf stars or black holes floating around undetected.

Also discussed is the difference between cold dark matter and the newly investigated hot dark matter or dark energy. But the latter discussion is a little weak, maybe because it is so new.

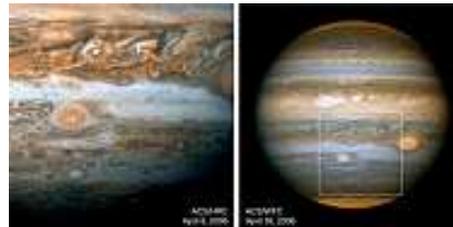
But even though the book is about as good as one could be on this subject, I remain disappointed because the mystery remains. What is this stuff?

Some of the questions I wanted answers to were not addressed. I would like to know about the characteristics of the dark matter particles: What do they weigh? How fast do they move? But more, I would like to know why the dark matter and regular matter—

galaxies and galaxy clusters—hang around together. It seems to me that there must be some type of energy damping of the dark energy particles to make them slow down and orbit the regular mass concentrations of the galaxies and not just keep flying off into empty space. How fast were they moving when created? (And why did they move that fast?) I think some of this must be known, but I have not seen it discussed.

The book is only 150 pages, but well written with little filler. It was written at a relatively low technical level to appeal to a wide audience, but unlike many popular science books, this one actually has substantial content. I would recommend this book to any interested club member.

ASTRONOMICAL HUMOR *collected by*
John Cheng



What amounts to an old news story for anyone with an astronomy interest was

highlighted on this evening's Yahoo homepage:

"Jupiter's Tiny Spot Goes from White to Red."

For those unfamiliar with Yahoo, a registered user can post their thoughts (or lack of same) to most news stories. Here are a few that made me smile (some I won't repeat):

"Hey, it's a giant mood ring."

"In this day and age, color should not be an issue."

"Nothing penicillin won't take care of." (and my favorite)

"It's official...Fox News calls Jupiter for Bush!!!"



FOR SALE:

Celestron C-8 includes case for telescope, accessories box, wedge, tripod, and many quality extras. Call Bill Dilmore at 724-327-3130 or email wjd28xx@alltel.net \$500 for everything.



Optical glass components nearly 20,000 pieces, 250 different items, for example,

- 5+ Inch Crown and Flint pairs
- 4+ Inch Crown and Flint pairs
- 3 Inch Crown and Flint pairs
- Smaller pairs (Binocular finder sizes)
- Lots of thick blanks 2-3-inch diameter 1 to 1-1/4 inches thick
- F621 Flints
- BSC517 Crowns
- 50 finished doublets fl 3/4, dia. 3/4
- Cast and ground prisms, most are right angle, some are penta

Very reasonable prices. For more information, contact Robert L. Clark 410-751-9710 or email robertlclark@verizon.net



I have a Meade Model 395, 90mm (3.5" & #34;) equatorial refracting telescope that I have not used in a while. I would like to sell it. If anyone is interested send an email to Rick Suchma at mallguard@aol.com. Price is negotiable.



Orion 4.5" Equatorial Reflector short tube, 4.5" with tripod, never-used nylon padded carrying bag/case, and lots of filters including a solar filter. Any reasonable offer will be accepted. If anyone is interested, call John Lally at 412-221-0422.

**IMPORTANT DATES**

- November 8 - Mercury Transit
- November 10 - Next CSC Business Meeting
- November 11 – Mingo Star Party
- December 8 – Christmas Party at Shaler Villa Volunteer Fire Dept., 960 Saxonburg Blvd., Glenshaw, PA 15116

COOL WEBSITES

http://www.3ap.org/member_images/Reilands_Object_DSS.jpg

<http://chem.ch.huji.ac.il/~eugeniik/history/acheson.html>

<http://www.eclipsetours.com/sat/class.html>

http://www.iau2006.org/mirror/www.iau.org/iau0601/iau0601_release.html

<http://www.gigapxl.org/>

http://gsc.nrcan.gc.ca/geomag/index_e.php

<http://news.bbc.co.uk/2/hi/science/nature/5283956.stm>

<http://www.lunar-occultations.com/rlo/rays/rays.htm>

http://jeff.medkeff.com/astro/lunar/s_rays.htm

<http://www.venustransit.pghfree.net/gcorner/ImpactMoon.htm>

<http://hubblesite.org/newscenter/>

<http://spaceflightnow.com/news/n0608/31uranus/>

<http://home.nc.rr.com/cis163project/saturn2.jpg>

http://observe.arc.nasa.gov/nasa/exhibits/sun/sun_5.html

<http://auto.howstuffworks.com/fuel-cell.htm>

<http://www.lunar-occultations.com/rlo/rays/rays.htm>

<http://www.ahsp.org/photos.html>

<http://nightsky.jpl.nasa.gov/docs/ShrunkSS.ppt>

http://www.space.com/scienceastronomy/060914_eris_named.html

<http://www.post-gazette.com/pg/06258/721452-37.stm>

<http://cfa-www.harvard.edu/iau/lists/MPNames.html>

<http://www.universetoday.com/2006/09/15/subaru-finds-the-most-distant-galaxy/>

WELL WISHES

By Dave Smith

Just received a call from Les Johnson on October 21st to tell me that he could not attend the star party at Mingo tonight because he is in the Oakland VA hospital and expects to be there for a while recovering from an infection; I think in his foot. Those of you that know Les know that he has been having trouble with his foot for the past couple of years or so.

If anyone wants to send a card:
Oakland VA Hospital
University Drive C
Room SW 135, Bed #2
Pittsburgh, PA 15240

Phone number 412-688-6800, ext. 812174

Les depends on the bus for transportation so I have been taking him to most of our meetings and star parties for at least eight or ten years now. He has served on our LHSC committee and helps at Wagman, Mingo, CSC during Astronomy weekend, and at the Allegheny Observatory open house. Les even served a year on the Executive Committee.

SPECIAL ALERT FOR MINGO OBSERVATORY

By Jeff Donahue – Washington County Parks & Recreation

On Friday, November 3 and Saturday, November 4 we will be "dummy locking" the ballfield and S-10 gates as well as leaving the lights and power to Shelter 10 in Mingo Park on. Early Saturday, November 4 and early Sunday, November 5 AKC dog trackers will be using this area for a National Tracking Competition.

We are asking that if members of the 3AP pass through these gates on these evenings that they close the gates behind them, but leave the gates unlocked. Thanks.



KECK OBSERVATORY EARTHQUAKE REPORT HAWAII

By Dan Peden

I wrote to the Public Affairs Director at Keck, asking about damage after the earthquake, and got this response: Earthquake Update from W. M. Keck Observatory Kamuela (October 16th, 2006).

The W. M. Keck Observatory is recovering from a 6.6-magnitude earthquake and a series of aftershocks that struck off the west coast of Hawaii Sunday morning at 7:07 a.m. HST. The earthquake was the largest to hit Hawaii in 20 years and caused power and communication failures across the state. There were no injuries at W. M. Keck Observatory and all personnel are safe. The Observatory has cancelled observing through Wednesday night and Observatory personnel are in the process of bringing the facility into a safe state. The telescopes and instruments will be returned to full functionality as soon as possible.

As of Monday afternoon, summit technicians report that the primary mirrors of both Keck telescopes are intact and do not appear damaged. However, some guiding and pointing systems have been impaired and must be returned to normal before Observing can resume. As of Monday, officials estimated it would take a few days to return Keck I to operational status. It will take at least this long to restore Keck II functionality. There is no damage to observatory computers or servers and all data has been backed up and is safe. Power has been restored to all headquarter and summit facilities.

"We have a great team for circumstances like this, and everything that we are doing is about getting the telescopes working on-sky as soon as we can in a safe manner", said W. M. Keck Observatory Director, Taft Armandroff. "There has been an amazing amount of dedication and resourcefulness by staff at the summit last night and today, and I am very impressed". The headquarter facilities will be open on Tuesday.

Scheduled observing teams are encouraged to contact Observing Director Bob Goodrich at (808) 881-3869 with questions about specific instruments or travel to Hawaii.

The W. M. Keck Observatory Web site will provide additional information as it becomes available at: <http://www.keckobservatory.org/article.php?id=95>.



HAPPY THANKSGIVING!

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

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

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- President: **Edward Moss**
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- Guide Star Editors: **Bill & Maureen Moutz**
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AAAP Member Dues*:

- AAAP Dues: \$18.00
- Junior Member (under 18): \$13.00
- Sky & Telescope Magazine: Add \$33.00
- Astronomy Magazine: Add \$34.00
- Night Sky Magazine: Add \$18.00

***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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