



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

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BIG EVENT: NEXT MEETING ALAN DYER ON THE GREAT SOUTHERN SKIES

The next AAAP meeting is our biggest event of the lecture season. For Friday, May 16, 7:30, the AAAP and the Carnegie Science Center have teamed up to bring you Alan Dyer, one of Canada's best known popularizers of astronomy, doing his presentation of the Great Southern Skies in the science center's main auditorium. We can promise you some sweet astronomical eye candy!

The best objects in the sky aren't visible from up north, but only from far southern latitudes. Alan Dyer takes us on a tour along the Milky Way and the wonders of the Southern

Hemisphere sky, using images and time-lapse movies of the night sky he has taken on annual trips to Australia.



This is the show that received a standing ovation at the Texas Star Party.

You don't want to miss this!!



Alan Dyer is a writer and producer of shows for Calgary Science Center in, Calgary, Alberta. His is an associate editor of *SkyNews*, a Canadian magazine, and a contributing editor to *Sky*

and *Telescope*, where he writes reviews of equipment. He has co-authored several best-selling guidebooks for amateur astronomers, including *The Backyard Astronomer's Guide* (due out this year in it's 10th edition!), *Advanced Skywatching*, and *Astronomy: The Definitive Guide*, and a children's book. He is a frequent guest expert on local and national news media, such as CBS News World and the Discovery Channel. His special interest in amateur astronomy is astrophotography of all types from nightscapes on film to deep-sky portraits on CCDs. His other obsession, eclipse chasing, has taken him to every continent, and this August will take him to Canada's Arctic chasing the Moon's shadow for the 11th time. Asteroid 78434 is named for him.

Please come out and welcome Alan Dyer to Pittsburgh! Alan will be staying over Saturday to check out the Buhl Planetarium and the science center's astronomy exhibits and astronomy programming. Saturday, he will do a second show for the general public on "The Amazing Sky."

AAAP 2008 ELECTION BALLOT

(CHECK THE LINE NEXT TO CANDIDATE OR WRITE-IN)

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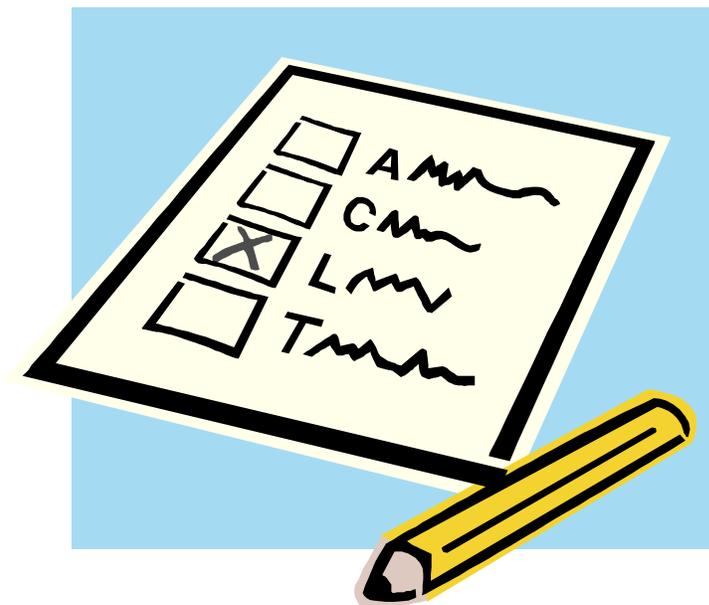
GUIDE STAR EDITOR:

___ Bill & Maureen Moutz
___ Write-In: _____

TREASURER:

___ Mike Meteney

**Bring ballot to the May 16th AAAP meeting or mail in to:
AAAP Treasurer, 1070 Sugar Run Road, Venetia, PA 15367-1514**



SATURN: TETHY'S TRANSIT

John Cheng: Earth is due to pass through Saturn's ring plane on September 4th, 2009. For about two years preceding and about two years following the year of passage (giving a total of five years), satellite and shadow transit events can be observed, although I've not seen any reliable information on aperture required for a visual observer.

I've never observed a Saturn satellite transit event, so I wouldn't even guess about what would be sufficient. But, I'd have to believe that imaging would have a distinct advantage in capturing these events.

Following is an animation of a Tethys transit captured with an excellent ten-inch Mak-Cass as posted to the Astrophysics user group:

http://www.avertedimagination.com/img_pages/dance_of_tethys.html

It's reasonable to assume that a shadow transit will be easier to observe than an actual satellite transit. It is also worth remembering that since it is after opposition (February 24, 2008), a shadow will be following its satellite across the planetary disk.

Flacc Stifel: Hunting the Saturnian shadow transits would seem to be the thing to do during this ring plane passage, as we won't have much of a chance of seeing Saturn without rings. As with the last plane passage, it will be too near the sun!

Looks like a series of Titanic shadow passes will begin about February 24, 2009 at the north polar region and proceed southward until about January 25, 2010. You can view this with planetarium software by setting a time span of 16 days, Titan's period of revolution. Tethy's shadow shows too, but at .16", it may be a bit more difficult!

Al Paslow: Some discussion has been made of observing the Saturn moon shadow transit phenomenon, and some interesting points should be made clear:

First, the brightest moons of Saturn are Titan, Rhea, Dione, Iapetus, and Tethys, all of which are visible in a 6-inch telescope. I have viewed all in a 4-inch instrument under excellent conditions.

Transits occur in two ways, a moon moving across the planet's disk is a transit. Another form of transit happens when the shadow of a moon crosses the planet's disk, the latter being a shadow transit.

For us here on earth, we can enjoy transits and shadow transits of Jupiter's bright moons on a regular basis because the plane of our sight is in line with the planet, and not above it or below it for the most part. That gives us the impression of Jupiter's moons aligning in a somewhat straight line. Only rarely does this happen for us when we view the planet Saturn. Thank goodness it doesn't because we

would not be able to see the planet's beautiful rings!

However, there are times when the Earth's line of sight is more direct. In viewing the planet, the rings begin to vanish and the moons of this magnificent world collect in more of a straight line, much like what we see of Jupiter. It is at this time transits and shadow transit will occur.

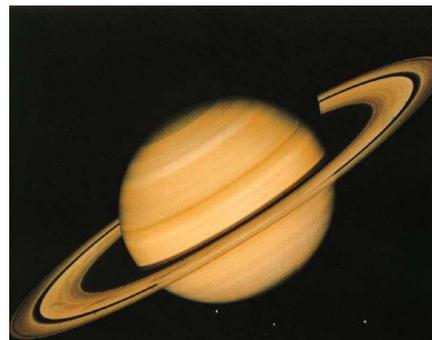
Consider the fact that the faint moons closest to Saturn, very difficult Mimas and Enceladus, will transit and shadow transit the planet many times more than the very bright moon Titan, who is much farther away. Titan's orbit is so far distant from the planet telescopically, it often is lost outside the field of view, or confused as a star.

Transits often happen crossing the North or South equatorial regions of the planet, rather than the central bulge of the planet's disk.

Observing a transit of Saturn's moon, Titan, it is possible in telescopes perhaps as small as a 3-inch refractor. One reason a shadow transit of Titan is fairly easy to see is because Titan is much larger than any of the other planets' natural satellites. The shadow cast on the globe of Saturn by Titan is darker because Titan can actually eclipse the Sun as viewed from the planet. The other moons, Iapetus, Dione, and Rhea tend to cast a weaker shadow on the planet because of their smaller size, and hence, are not nearly as sharp or black. Believe me, this creates a real problem in attempting observations.

Something different to consider would be a moon of Saturn providing a shadow transit on the planet's main ring system. Unfortunately, this cannot be seen from earth. Of all the moons of the planet, only Iapetus, I believe, with its intense orbit and inclination, may have the right geometry to possibly cast a shadow on the rings of Saturn. Of course, observing this from home would be extremely difficult because of the diminished brilliance of the current magnitude of the rings themselves, among other factors just recited. This would only be possible perhaps with very large observatory telescopes.

However, perhaps advanced amateur imagers with CCD equipment and really big instruments may record the unexpected. It would certainly be very rare.. What a strange and unusual event this would be!!



VIEWING SATURN'S TRANSITS

By Al Paslow

Personally, I believe that in Pennsylvania it would be possible to see this event in the 24-inch at Mingo Observatory, as the shadow may be perceptible crossing the disk of Saturn. However, I feel this is questionable!

In the book "*The Planet Saturn A History of Observation, Theory and Discovery*" by AF O'D. Alexander the author mentions that two observers in the late nineteenth century observed shadow transits of Tethys, Rhea and Dione with 6-1/2-inch telescopes, one a refractor and the other a reflector. This would be an accomplishment by any standards! Another observer, as mentioned in the same book, felt it is difficult to observe with a 20-inch instrument. Unless seeing is truly outstanding, this not something most amateurs can observe.

If your 15-inch has a well corrected primary, by Carl Zambuto, John Hall, Royce or other prominent mirror makers, you'll, of course, increase your chances. I wouldn't have too much faith in an 11 or 12-inch Celestron or Meade, whose optics often cannot hold a candle to a good Newtonian. If your instrument is capable of 600x and holds a good image without serious breakdown on a really good night, then there are good chances you have some reasonably corrected optics.

Sorry folks, this type of observation requires real definition ability, hence, it's going to be a challenge. Except for size, even the 24-inch at Mingo with it's huge central obstruction is optically the wrong type of telescope to make the best observations of the subject, but I would expect it to perform and reveal the shadow crossing under relatively good conditions. Let me know of your findings and, of course, others who may be able to witness or image the event.

Member Saturn Observation Campaign:
<http://soc.jpl.nasa.gov/participate.cfm>

The following information is from the above website:

May 2008:

Saturn halts its retrograde motion this month, pulling away to the east of Regulus. Through telescopes, notice the shadow cast on the rings by the globe of Saturn, as Saturn is at eastern quadrature, 90 degrees east of the sun. This is when the planet's shadow on the rings is most prominent. Earth moves away from Saturn and the rings are beginning to close, making the magnitude of the planet dim. In May, Saturn shines at magnitude +0.6, its equatorial diameter is 18.4 arc seconds, and the ring inclination is -9.9 degrees.

June 2008:

Mars and Saturn are near Regulus this month, but they are low in the western sky at dusk. This month, Saturn shines at magnitude +0.7, its equatorial diameter is 17.7 arc seconds, and the ring inclination is -9.6 degrees.

July 2008:

Saturn and Mars have a close conjunction on July 10 and 11, but the two planets set only an hour or two after sunset. This month Saturn shines at magnitude +0.9, brighter than Mars at 1.7. Saturn's equatorial diameter is 16.8 arc seconds, and the ring inclination is -8.6 degrees.

August 2008:

Saturn is in conjunction with the Sun September 4. Northern observers may spot the planet in the evening twilight in early August, but it is lost to the solar glare by mid month. Try to view a close conjunction of Venus, Mars, and Saturn on August 13. Saturn shines at magnitude +0.8, its equatorial diameter is 16.3 arc seconds, and the ring inclination is -7.0 degrees.

September - December 2008:

By the end of September, Saturn rises two hours before the Sun. In October, Saturn rises 4 hours before sunrise, after midnight in November, and before midnight in December. During these months, Saturn's rings close dramatically, from 5.5 degrees in September to 1 degree in December.

Viewing Saturns Moons:

How many moons does Saturn have? Check the Saturn's Moons page for the latest information. The largest, Titan, is easily visible in most telescopes. At western and eastern maximum elongation, the moon appears as an 8th magnitude object orbiting approximately 5 ring diameters from the planet. Titan orbits Saturn in about 16 days. The next brightest moon, 10th magnitude Rhea, can be found orbiting about 2 ring diameters from Saturn. Saturn's other visible moons are Tethys, Dione, Enceladus, Mimas, and Iapetus. Mimas and Enceladus are challenging to view because of their proximity to Saturn's rings. Iapetus is much brighter at western elongation (magnitude 10.1) than at eastern elongation (magnitude 11.9). One side of Iapetus has the reflectivity of snow, and the other side is as dark as coal. At its brightest, Iapetus is located 12 ring diameters west of the planet.

Moon	Magnitude
Titan	8.4
Rhea	9.7
Tethys	10.3
Dione	10.4
Enceladus	11.8
Iapetus	10.1-11.9
Mimas	12.9

Moons are listed in order of brightness

AN EVENING WITH THE STARS WITH THE PITTSBURGH PHILHARMONIC

www.pittsburghphilharmonic.org

By Dennis Morton

Just a reminder that the Pittsburgh Philharmonic's next concert, An Evening with the Stars: Science and Symphony, is on Saturday, May 17, 2008 at 7:00 p.m. at the North Hills Jr. High School Auditorium, 55 Rochester Road, Ross Township. We are asking AAAP members to help out at the concert by:

- * Bringing equipment to display in the foyer of the auditorium prior to the concert. I was told that there are big poster boards that were used at the science center. It would be nice to get them from the person who has them. Patrons will be arriving around 6:30 p.m. so you may want to get there around 6:00 to set up.
- * Sharing pictures for a slide show that will be projected during the concert (send to: dmorton@northallegheny.org), posters or sky charts.
- * Enjoy an evening of music that has some relation to the stars or the night sky.
- * Setting up outside the school at the end of the concert for some sidewalk astronomy. If the sky is clear, people can look through various instruments as they are leaving the concert.
- * Passing out AAAP flyers for the 2008 summer star parties.

Members that are willing to help out at the concert can attend for free by checking in with Valerie Golik at nppdirector@aol.com or at the front ticket table. Members who would just like to listen to the concert and relax can show their AAAP card at the front table and get \$5.00 off the adult ticket price of \$15.00. (Children 12 and under can get in for free!!)

If you are going to help out, please e-mail me so I know how many AAAP members to expect that night. I know of 2 or 3 people that have already e-mailed me about helping that evening and a few others have sent pictures. Thanks for your help with this fun and educational event.

We are hosting another N.A. Star Party on Tuesday, May 13. It is a way to inform students/parents about the concert above. If you are free on Tuesday and would want to set up behind McKnight Elementary School, 500 Cumberland Road, Pittsburgh, PA 15237, please e-mail me so I know who to expect. Check the web site below for past events.

http://teachers.northallegheny.org/dmorton/exploring_with_a_telescope.htm



SOLAR MAX RESCHEDULED

BY Larry McHenry

From: www.spaceweather.com

Impatient with the quiet sun, NASA researchers have re-scheduled solar maximum. The peak was due in 2012, but now it's going to happen this month. "We've launched millions of dollars worth of spacecraft to study solar activity, and what are we getting? Puny little A-flares and feeble old sunspots", complained a high-ranking source at NASA headquarters. "We need some real explosions! Rescheduling Solar Max should solve the problem." News of the shift was announced on April 1st.

SAYING GOODBYE TO COMET HOLMES

By John Pane

After March 9, I was not able to image Comet Holmes anymore because of its declining surface brightness. I tried again around March 28 or 29 and could not detect the comet in a single exposure, so I did not invest in trying to capture and assemble many images. Even the March 9 photo was of questionable quality.

As I bring closure to this project, here are a few updates:

- * The file for viewing the composite image in Google Sky has been updated to include all nineteen nights. It is also of much higher resolution than before. This can be found on my web page: <http://holmes.johnpane.com>. It is 24 MB, and could take some time to download depending on your connection speed.
- * An editor of the Wikipedia page on Comet Holmes has placed a slight variation of my composite into the article. He asked me to orient it with north pointing upward, and to include the figure of Perseus. <http://en.wikipedia.org/wiki/17P/Holmes>

PITTSBURGH LIGHT POLLUTION ORDINANCE

By Tom Reiland

I received this email from the office of Bill Peduto:

AAAP members who live in the city should contact their councilman in support of an LP ordinance. I will supply the information that they request. If anyone has any suggestion, as long as they're not long and drawn out, feel free to send them. We don't want to overwhelm them with ideas. Coincidentally, Bill is planning to write an ordinance that would deal with light pollution, both in terms of energy efficiency and visual impact. If you have any additional information that you think would be helpful, please pass it along. Thanks.

Jessica McCurdy

Office Manager

Office of Councilman William Peduto

NOVA IN CYGNUS

By Tom Reiland

From AAVSO website www.aavso.org

V2491 CYGNI (Nova in Cygnus - Nova CYG 2008 #2)

IAU Circular No. 8934 (D. Green, Ed., Central Bureau for Astronomical Telegrams) announces the discovery of a nova in Cygnus by Koichi Nishiyama, Kurume, Fukuoka-ken, Japan, and Fujio Kabashima, Miyaki-cho, Saga-ken, Japan, on unfiltered CCD images taken April 10.728 UT at magnitude 7.7.

Nothing is visible at this position on their past survey frames taken on Apr. 3.717 (limiting mag 12.5) and 7.727 (limiting mag 12.7).

An apparent independent discovery of this nova at mag -8.0 by was made by Z.-w. Jin and X. Gao on images taken by Gao on Apr. 10.831 UT at Xingming Observatory, Mt. Nanshan, China (position end figures measured by J. Beize, Beijing, 02.00s, 10.1"; nothing was visible at this position on Xingming images taken on Apr. 8.831 (limiting mag about 14).

K. Haseda (Toyohashi, Aichi, Japan) finds nothing brighter than mag 12.3 on patrol images taken Apr. 4.774 UT.

N. N. Samus, Institute of Astronomy, Moscow, reports that this nova is being assigned the name V2491 Cyg. Coordinates from Nishiyama and Kabashima: R.A. = 19:43:01.96 Decl. = +32:19:13.8 (equinox 2000.0).

AL PASLOW'S MOON PICTURE

On April 7, 2008, using a Kodak 612 Point and shoot, I got the following images, by handholding the camera up against a fence:



I bought this camera in February and while it isn't perhaps a Nikon or Canon, it works pretty well. It has 12 x optical zoom and has Program, Aperture, Shutter, and Manual modes. It will run 16 seconds or so in manual which can bring out all the stars you can see at ISO 400.

AL PASLOW'S SUNRISE PICTURE

(sent to the listserver 04/23/08)



OBSERVATIONS

James Schultheis: Sent: to the listserver March 17, 2008. The conditions were great this AM with clear skies and very good transparency. It was worth the effort to get up early and get out under the stars with my Orion 8" XT f/5.9 Dob. The first object I observed was NGC 6210, the Turtle Nebula in Hercules, at 50x mag. The non-stellar appearance was obvious and the blue-grey color undoubtedly gave this one away. At 240x, I thought I could see the appendages that look like the "flippers"; but I could not see them with the 15", so I find it hard to believe I would see them with the 8". I went on to observe M13. The propeller was easy to pick out at 240x and then on to M92 and finished Hercules with a very small glob NGC 6229 in which I could not resolve any stars even at 240x, just a hazy spot in the EP. I moved over to Draco and observed NGC 6543 Cats Eye and the nearby galaxy, NGC6503 as a streak smudge. M-57 was just a perfect little "cell" at 50x!. Last, I observed the Cheeseburger Nebula NGC 7026 in Cygnus at 240x, no cheeseburger look, but it was an accomplishment to find this one as a stellar planetary. It was very odd this morning that I could not discern the Milky Way. I did observe a strange phenomenon, I could see a large (maybe 15 to 20 degree) round haze in Cygnus. It was very faint and was predominant with averted vision. My guess is that it was the Milky Way, but the symmetrical, round shape is what threw me off. I have no idea what it was.

James Schultheis: Sent to the listserver April 23, 2008. One of the objects I plotted to observe last night is a little known, unusual reflection object known as "The Frosty Leo Nebula".(IRAS 09371+1212). I found this object interesting in that there are almost no star charts showing this object and little if any mention in observing books and websites. I was only able to find a plot in the Uranometria manual I have. After consulting with Sue French, I discovered that this object is well within the capability of my 15" and I would probably be able to observe it with my 8" but without much detail. This object is also interesting

due to the fact that it is a result of an outflow of water ice from a Protoplanetary binary star; hence, the word "Frosty". Conditions were good last night at 64 degrees, clear skies, good transparency and actually good seeing. I actually only had about 45 minutes before the Moon came up. It took about 20 minutes of searching and star hopping and I finally did locate this object using my 24mm Panoptic at 72x mag. It only looked like a slightly hazy star, so I decided to put the hammer down and bumped the mag up to 686x using the 5mm Nag. with 2x Barlow. I found this object fascinating and I must have let it drift through my FOV about 10 times studying it. The best explanation I can give is it sort of looked like the Scion (Car) emblem. I then turned my attention to Saturn at 686x and I could definitely see a dark spot on the surface, not a defined, sharp edged spot. I really think it was a shadow of one of the moons but I really have no way to find out (it was at about 10:00 PM that I observed it).

Mike Nizinski: Sent to the listserver April 3, 2008. The CSC for Wagman was right on last night. The sky was clear save for a few thin, scattered clouds near the horizon that seemed to flow around the hill. Transparency was decent and the air was very still, with little wind and no dew. Maybe three or four degrees colder than the CSC predicted. Used the big 6" Celestron refractor and my Baader Hyperions—a very effective combination by the way. I got good views of Saturn and its moons, the Messier clusters in Auriga, Gemini, and superb views of M37!! Then I turned my attention to the Messier objects in Ursa Major. I nailed M81, M82, M97, and M108. I had some trouble with M101 though. By the way, this is an excellent time to view Ursa Major at Wagman. It's fairly high up in the sky right now and in that one area of sky which is quite dark (at least by Wagman standards). By 10:45 or so, my go-to started to slow down due to the temperature and the hand controller became a bit erratic so I packed up and departed for home.

Tom Reiland: Sent to the listserver April 7, 2008. It was a decent, but not great night at Wagman. We started things off with the wafer-thin crescent Moon that was only 20 hours and 40 minutes old. It was one of the youngest Moons that I've ever seen. It was visible with both binoculars and nude eyes. I finally found Comet Chen-Gao in Auriga, though it wasn't much, just a small, faint fuzz ball, but it was number 140 on the list of comets that I've observed. I tried to locate Holmes, but I could not confirm any sighting. Conditions prevented observing it and Comet Boattini in Corvus. I did see Comet Wirtanen, but it wasn't much either. I took a look at NGC 3242, "Jupiter's Ghost," in the Manka scope and I could see it in my 10 X 50's as a faint stellar object. Nova Cygni is now at 11.5 mag and fading. SN 2008 ax in NGC 4490 is down to 13.8 mag. I used the chart in *Sky & Telescope* to locate the Asteroids Astrea (# 5) and Daphne (#41) in Virgo. I spent an hour observing over fifty galaxies in the Coma-Virgo region using the Omega method to locate most of them. My favorite pair are NGC 4754 and 4762, the latter is an edge-on galaxy with a slight bulge in the center and it

forms a kite-like asterism with three stars. I finished a few minutes after 3 AM with over 100 objects observed and five hours logged in my notebook. The temperature never got below 42 degrees, but we did have some clouds in the south and SE around midnight. There was a strong, annoying breeze out of the SE that varied throughout the night and dew was building up on my car when I closed up. Seeing was okay at first, but it got worse throughout the night. I left the grounds at 4 AM. Transparency wasn't great, but it was okay a good part of the time.

Tom Reiland: Sent to the listserver April 8, 2008. I just watched the Moon occult Taygeta in the Pleiades. I wasn't timing it, just enjoying the event, though it was within a few seconds of 9:59 PM (1:59 UT) when Taygeta disappeared. There's one or two more to follow in the next fifteen or twenty minutes. I'm using my 5" Jaegers Refractor at 31X. What a beautiful sight! The crescent Moon with earthshine moving through the same field of one of the brightest star clusters and blotting out some of its brightest stars.

Tom Reiland: Sent to the listserver April 14, 2008. The sky started to clear just before midnight and by 3 AM, it was mostly clear but cold! I decided to venture out in the backyard to observe Nova Cygni 2008 #2. I used my 5" f/5 Jaegar's Refractor for the search. I used three eyepieces: 16 mm Koenig, 20 mm Meade Erfle and 12.5 mm Ortho for 38X, 31X and 50X. I had very little trouble spotting it with the scope at 31X and I could make it out with my 10 X 50's. It's about 7.7 mag, but that's a rough estimate because the chart I printed out didn't have magnitudes marked, except for the 5.9 mag star that's close to the nova. There is a 9 to 9.5 mag star very close to the nova that gives the false impression that the two of them form a double. I did some deep sky observing and took a look at Jupiter with the four moons lined up in their actual order of distance on the west side of the planet. I was amazed how well this little scope performs. I had no trouble finding galaxies such as: M51, M104, M63 and M64 without the use of a finder scope. It was 29 degrees when I quit my session.

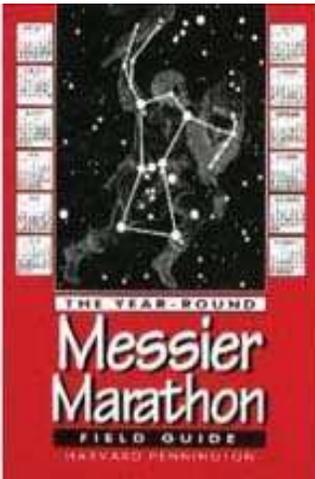
John Cheng: Sent to the listserver April 16, 2008. If you are using the freeware package Virtual Lunar Atlas, and haven't checked the website for some time, be aware that newer versions have become available over the past few years. The current version is 3.5 and it comes in a few different flavors—expert, professional, etc. This morning's seeing was even better than yesterday's and viewing the dead, steady surface of our Moon under moderate magnification is almost the definition of "stillness". Interestingly, with the lunar terminator sweeping through Mare Imbrium and Mare Nubium, the facility in the above software that points out objects near the lunar terminator that are of exceptional interest listed the dome systems, Hortensius Omega and Tobias Mayer Dzeta and the dome Kies Pi. All are thought to be evidence of lunar volcanism. With the wrinkle ridges in the area thrown into relief by the low Sun, and the ghostly rims of ancient craters barely breaking the

smooth surface of the more recent lava flows, this whole section of the Moon is an invitation to think on its history. Saturn's globe, under high magnification, seemed to have a slightly blue tint and its shadow can be seen on the eastern side of the ring system. Again, the steady seeing really increased the planet's visual impact.

Larry McHenry: Sent to the listserver April 21, 2008. There's been little activity to report since the outburst of cycle-23 spots in late March. Earlier in the week, we did have a small cycle-24 spot form briefly for a day or so and then quickly faded away. Using the Baader solar filter in white-light, the Sun was featureless. The PST Ha showed only a little disk mottling and a few small limb prominences. With the PST CaK, toward the NE limb, there was a small, bright region of plage visible on the disk. (could mark another potential cycle-24 active area). Using the Daystar on the C8, the disk mottling in this area (close to the limb), had a swirled look to it. Also, the plage showed more detail.

BOOK REVIEW

By Tom Reiland



Harvard Pennington's book, "*The Year-Round Messier Marathon Field Guide*" lists 89 Messier Objects observable in the beginning of September to 100 by the end of the month at our latitude. It's the second worst period of the year after late November through all of December. It has locating charts for each object and when they can and cannot be observed. The book is published by Willmann-Bell.

NEW MEMBERS

James Block
Christopher R. Booz
Adam Tedeschi
Matthew Ukasik

WELCOME TO THE CLUB!

FOR SALE

Katie and I are moving to Pittsburgh (Point Breeze area), so we will be selling our house (my house originally) in the countryside of Sarver (near Saxonburg). I bought the property 11 years ago in order to do astronomy, and I'd be most gratified if we could sell it to a club member so that the astronomical tradition continues.

The house is a 3 bedroom, 1.5 baths with completely re-landscaped property with perennial gardens, mature trees, small apple orchard, wood-burning fireplace, great closet

space with master bedroom walk-in closet, with 1 car detached garage. It is nestled on farmland on the top of a hill. Beautiful dark skies for star gazing (mag 5.5 to 6.0 with my 44 year old eyes), wonderful neighbors with yearly party for the neighborhood. Our home is next to a small horse farm, and as you come up the hill to our home, the view is of farmland and then woods, and just a handful of houses that are visible. It is in the Knoch Area School District, which is a really good district. Easy access to Rt. 28 (exit 14 and 16) and Rt. 228 to Mars and Cranberry Twp.

To get a good sense of the landscape, go to Google Maps at www.maps.google.com and type in 218 Hidden Hill Rd, 16055. The resulting arrow points down our driveway towards our house. If you view the satellite view and zoom in, you can see a car and Leo Scanlon's original observatory dome sitting in the back yard. (The actual address is 176 Hidden Hill Rd, but Google's placement is only approximate.) If you are interested, or know someone who might be interested, please give me a call. John Holtz at 724-352-7596.

After acquiring a new telescope, I've decided to sell my old one. It is an Orion Spaceprobe 130 f/6.9. It is complete with the EQ2 mount, 10mm and 25mm EP's, GSO neutral density filter, 6x30 finder and collimation cap. It has only been used a couple dozen times and it is in perfect shape. I have the manual, but no boxes. I've upgraded it with the following: collimation knobs flocking of the entire OTA, homemade EP holder fastened to the tripod tray.

I am asking \$150 and will deliver within a reasonable distance. This would be a great first telescope or to complement a larger one. I have pictures to anybody interested. Rob Golden rgolden5@windstream.net

IMPORTANT DATES

May 1—Mingo Private Star Party with Boy Scouts
May 1 to 4—Hidden Hollow Star Party
May 7—Extreme Astronomy Telecom with Lynn Cominsky
May 9—Wagman Star Party
Mingo Star Party
 New Alexandria Private Star Party
May 10—Wagman Star Party
Mingo Star Party
May 11—Mother's Day
May 16—AAAP Membership Meeting Carnegie Science Center
May 17—An Evening with the Stars at North Hills Junior High School
May 26—Memorial Day
May 29 to June 1—Cherry Springs Star Party
June 28—AAAP Club Picnic at Angler's Grove at Deer Lakes Park

FOR YOUR INFORMATION

To view the Guide Star in color, go to www.3ap.org. When the website opens, click on the link "download the latest issue of the club's newsletter, the Guide Star". To view the AAAP calendar, click the word calendar on the left side of the web page. You can then use the arrow keys at the top right of the page to view different months. You may click on any day that contains information to see more data.

TELESCOPE IMPROVEMENTS

By James Schultheis

I decided to do some improvements to my 8" Orion XT in that the stiction and UN-smoothness of the stock Alt-Az bearings was getting to me. The improvements were first removing the stock Teflon pads and replacing them with the \$20.00 (7 pads) kit I bought from Astrosystems, which replaced the three azimuth ground board pads and the four Altitude pads (pretty easy). Then I glued (with contact cement) Wilsonart Ebony Star on the ground board (upper) and to the 4" diameter trunnions of the altitude bearings. I got 3/4" strips of Ebony Star off the Internet for about \$10.00 for the altitude bearings and a 2' x 4' piece of Ebony Star from Home Depot in Uniontown for \$11.00 for the ground board. I cut the approximately 18" diameter ground board Ebony Star with sheet metal aviation shears. When I was done, the improvement was dramatic! The operation in both axis is buttery smooth, very similar to my Obsession. Apparently, the stock pads are maybe nylon and the Teflon was a BIG improvement. I would suggest this improvement to anyone who has a similar scope (6", 8", 10" and 12" Synta etc.) of this type.

MESSIER MARATHON

June, July and August are good months for doing a Messier Marathon. The weather is usually warm to mild and you don't have to be out ten hours or more to complete it. You'll only need about six to seven and a half hours to bag ninety plus M objects in one night. I'm waiting for someone to come up with a Herschel or NGC Marathon. There are more than 2,500 H objects and 7,800 plus NGC's. The best times of the year would probably be the Spring or mid-Autumn to locate the largest number of each group.

SPECIAL NOTICE



Campout on August 8, 9 and 10 at Mingo Observatory hosted by REI (an outdoor outfitter) and Astronomy Magazine. We will need, along with the regular Mingo volunteers, as many helpers as possible. Come out and show REI and *Astronomy Magazine* what a great club we are. More information to follow in next month's Guide Star.

MAY SKY SUMMARY

Taken from *The Year in Space desk calendar*

Venus continues heading toward conjunction with the Sun, but Mercury emerges as an evening star best seen on May 15 and 16 low in the west after sunset. Mars and Saturn continue to get closer to each other in the south after sunset. The gap between them shrinks in half by month's end. Between May 10 and 12, the waxing crescent Moon shuttles between them. Jupiter is alone in the pre-dawn sky. Look for it in the southeast, with a waning gibbous Moon nearby on the morning of May 24.

From the *Observer's Handbook 2008*

Moon: On May 1.0 UT, the age of the Moon is 24.8 d. The Sun's selenographic colongitude is 216.42° and increases by 12.2° each day thereafter. The libration in longitude is maximum (east limb exposed) on May 12 ($+7^\circ$), and minimum (west limb exposed) on May 28 (-8°). The libration in latitude is maximum (north limb exposed) on May 19 ($+7^\circ$), and minimum (south limb exposed) on May 6 (-7°). The moon reaches its greatest northern declination on May 8 ($+28^\circ$) and its greatest southern declination on May 22 (-28°). On May 6, the Moon reaches its third-closed perigee distance of the year kilometers (357771 kilometers). With new Moon occurring less than a day earlier, large tides will occur.

Mercury: Mercury reaches greatest elongation east (22°) on May 14 and inferior conjunction on June 7. The first half of May offers the best evening apparition of the year in the Northern hemisphere. The planet fades throughout the month, and by May 24, it is a dim second magnitude.

Venus: Venus becomes increasingly difficult to see as May progresses, because it is at superior conjunction on June 9.

Mars: Having spent two months in Gemini, crosses into Cancer on May 5. At mid month, northern observers will find Mars 45° up in the west-southwest during evening twilight, and see it set in the west-northwest near midnight. On the night of May 22-23, magnitude -1.4 Mars drifts through the bright Beehive star cluster, M44. A marvelous site in binoculars or wide field scopes.

Jupiter: Jupiter begins its retrograde loop on May 9. On May 15 it rises in the east-southeast in the late evening at mid northern latitudes, and by mid-evening at latitude 30° south. It transits at 4:02 at these altitudes: only 23° at latitude 45° north, 38° at latitude 30° north.

Saturn: Saturn near Regulus all month, is stationary on May 3 and then resumes direct (eastward) motion. Observers 45° north see Saturn 54° high in the south-southwest at the end of evening CT, and watch it set about 45 minutes before morning AT in the west-northwest.

Amateur Astronomers Association of Pittsburgh, Inc.

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

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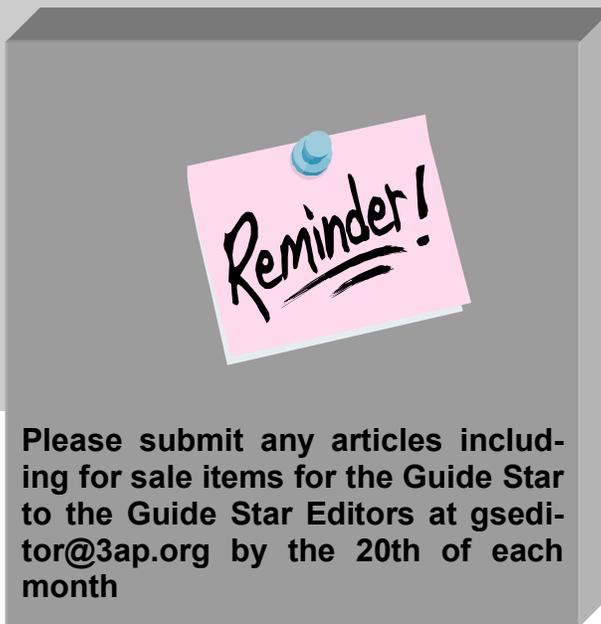
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***Basic Procedure for Paying Dues:**

1. Make check payable to "AAAP Inc."
2. Send check to Michael Meteney, Treasurer,
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Reminder!

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