PAStimes

Phoenix Astronomical Society
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PHOENIX ASTRONOMICAL SOCIETY — ESTABLISHED 1948

Klaus Brasch to be November 6 Speaker

Klaus Brasch is a retired biology professor now living in Arizona . Getting hooked on astronomy as a teenager through the Royal Astronomical Society of Canada and the A.L.P.O., he took his first grainy moon pictures in 1957 and has pursued astrophotography ever since. He has been widely published in books and magazines, and translated Urban Astronomy, Great Observatories of the World and New Atlas of the Moon from French into English. His most recent article on imaging appeared in the May 2008 issue of Astronomy Technology Today. Klaus volunteers as docent at Lowell Observatory and frequently lectures on topics ranging from astrophotography to life in the universe to students, clubs and the public.

Brasch's topic will be astrophotography. This should be very good and I cannot wait to hear him speak. The meeting starts at 7:00 pm with a half hour of meet and greet followed by the actual meeting.

Water is provided and snacks might be as well .

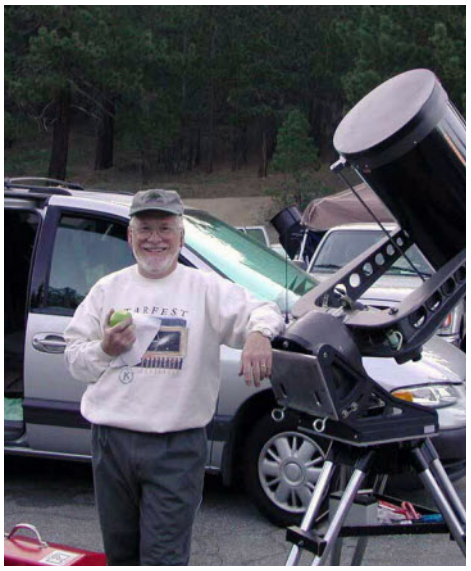
"In 1878 Thomas Edison invented the light bulb. Jerk."

~ Starry Night Advertisment

"I don't know what you could say about a day in which you have seen four beautiful sunsets."

~ John Glenn

"The universe is simple; it's the explanation that's complex."



September Meeting of the Minds Review

By Terri, Events Coordinator

At this meeting we had a good turnout. We discussed the following upcoming events: 10/23 Indoor Event, 11/1 Anthem Star Party, 11/15 Prescott Star Party, 10/8 Desert Cove Star party, 10.9 PVCC star party, 10/17 Temple Beth Paid Star Party, 11/16 Bookman's Telescope Workshop, 9/27 Mike's Lecture Series, 10/4 N. Mt Park Star Party, and 10/15 Royal Palms Paid Star Party.

We discussed the plans for the Indoor event, Anthem Day and Night portions of the event and a few other topics.

We will be having the PVCC Star Party! The area we are setting up, by the Telescope domes is still driveable, so plan to attend with your telescope.

We discussed the photo shoot and decided not to bother with a photoshoot for the postcards but instead go with some images of deep space, probably provided by Chris, and maybe an image of 1 or more telescopes from the club in a photo. That will get under way soon.

We discussed the speaker reimbursement idea. Up to this meeting, PAS was paying its out of town speakers $50 for their travel expenses. PAS decided at this meeting that for future out of town speakers we can do several options. The speaker we were discussing this for is our April 2009 speaker who said that his work place, USGS requires reimbursement at some amount per mile driven. It's a 300 mile round trip from Flagstaff to Phoenix and so he did the math and is asking for $84 reimbursement for his presentation. What we decided to do at this meeting is take it as a case by case situation and as long as the reimbursement doesn't exceed a limit that we agreed upon, we can approve an amount larger than $50. The other option is to have the speaker send the receipts of his gas expenses to PAS and Mike, Treasurer, reimburse the amount in the receipt plus $10+ for their time. We will have to figure out how we want to do it when the next situation arises for a guest speaker to be reimbursed. For now, we resolved the April speaker.

At the following link are some photos from the meeting http://tinyurl.com/4pcmtt. Please enjoy them!!! The meeting was quick, to the point and very productive. Thank you all for attending and giving your input to make PAS the best Astronomy club in Phoenix!!!

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Indoor Astro Event Review of 10/23/08

by Terri, Event Coordinator
http://tinyurl.com/57luug The Indoor Astro event saw about 40 people from the public. This was the most folks we have had so far. It was a fun night. Chet & Terri arrived first. When the door opened to G-147 there was a line waiting outside. Mike came in shortly after and drew most of the attention with his meteorites. Chet got set up and was a great HIT that night. He explained all sorts of imaging things and had a crowd around him most of the night. Rod came and worked the PVCC 16" telescope outdoors. Don attended and took photos. Terri did 3 demos: Constellation Tubes, 1st Quarter Moon & Identify the Planets and gave prizes to those who participated. Rod had brought some of the bags from a previous event with prizes in them, so we used those to hand out. Dave turned on his constellations on the ceiling and that got everyone looking up! We had so much fun. Many thanks goes to Bette for taking photos, which can be seen at the above link. The first ½ of the photos she too, the rest Terri took. We had great input from those attending and the handouts were a popular item. We are all looking forward to the next event like this on Feb 12, 2009. We will see you there! ***

Upcoming November PAS Events

By Terri, Events Coordinator
RSVP: Events@pasaz.org or 602-561-5398 or on website calendar

11/1: We start our November with a big star party. The Anthem, yearly star party falls on this day. We are scheduled to be there from 12 Noon to 10pm, at the Anthem Community Park. We'd like to set up 2 shifts of volunteers. The day shift will do activities such as solar viewing, hands on games and activities, possibly with prizes for participation. We have a cub scout group and 12 other public attendees thus far (as of 10/24). We hope to see Don doing Solar Viewing & other daytime event helpers. For the evening, we will be viewing various objects through telescopes. Public is welcome and BRING A FRIEND! This is open to anyone and everyone and VOLUNTEERS ARE STILL NEEDED. There are near by stores to get food, and a bathroom about 100 feet away. We will be setting up in a straight line from the Train Station area down the walk way. They are seeding the grass and so we can not set up on the grass this year. RSVP to help out, today!

11/6: PAS Meeting – 7pm to 9:30pm in PVCC Library. Read about the Guest Speaker and topic on Page 1. This date is also the deadline to put in your order for a YEAR IN SPACE 2009 Desk Calendar for $10. Bring your cash with you or a check made out to Terri Finch, to cover your order. As long as we get 10 calendars on order, we will get the calendars for $10 a piece. More details can be found at YearInSpace.com.

11/13 PAS Meeting of the Minds. Everyone welcome (no children please) to join in the discussion of how PAS works and upcoming events. Time: 7pm to 10pm or when ever we finish our discussion.

11/15: 2 star parties on this night.

1. Prescott star party. Volunteers are needed. They will feed us dinner at 5pm, and then we set up from 7pm to 10pm for viewing and teaching sessions. Accommodations for over night stay can be made with Terri, and gas will be reimbursed for your trip up and back. RSVP is required. 100 girl scouts need PAS to show them the night sky. Be part of that TEAM.

2. Rod was the RSVP for the Meteor Shower star party at PV Park. Those of you not attending Prescott star party should consider helping at the PV Park star party. Terri will take RSVP as she can't make it to Prescott. Time: 6pm to 10pm. RSVP is required. No public RSVP's will cancel this event.

11/16 Bookman's – the last FREE Telescope Workshop at this location. We have found out that they are turning the back room into a coffee shop, thus our location for these events will need to move. This is the last one this year!!! We have a guest speaker. Mike will be sharing if it is possible to live on the Moon or Mars. You won't want to miss this and an RSVP IS REQUIRED. Seating is limited. We will be there from 3pm to 6:30pm. Presentation begins at 3:30pm and goes until Mike is done. Afterwards, those needing help with their telescopes can get assistance.

11/20 Amberlea Elementary School star party. We do this star party yearly. This year's event will be from 6pm to 9pm. RSVP with Terri to help out. PAS members are needed! More details on line in the Private Members Calendar.

11/29 2 Events this night.

Venus & Jupiter star party at PV Park 6pm to 10pm. Public is welcome to join us and RSVP IS REQUIRED. No RSVP's cancels this event.

Cutting Edge Observatory star party with Chris. RSVP with Chris if you plan to attend. Remember, you can arrive as early as Noon on this date, and stay over night. Location is up in Mayer, AZ. This is a PAS MEMBER'S ONLY star party.

12/4 PAS Meeting and SWAPMEET in the Library of PVCC fro 7:30pm to 9:30pm! Yes, it is that time again when you bring your astronomy related item to sell or trade. Bring with you a starting bid on a page. We do this event this way. Bring your item, place it on the table with the other items. Then, put a page by it that gives a description of the item, and the starting bid. Then as PAS folk mill around looking at the selection, they can add their bid to the page and either their first name or initials. When the evening concludes, after the speaker, the buying, selling and trading concludes. This is your chance to get your item sold. If it does not sell, send info to Terri to put in the newsletter and on the website. You do not need to be a PAS member to participate in the swap meet. Come see what treasures await you!!! Also, at this meeting is your deadline to putin your order for a PAS Name Badge. Cash or Check to PAS for $11 per badge and proname spelled on the name badge. The order goes in shortly after this meeting, and the price goes up to $15/badge after the first of the year. This is your chance to get them at the reduced rate before our printing company raises their prices. ***

ANTHEM STAR PARTY 11/1 Noon – 10pm

By Terri, Event Coordinator
We need volunteers. RSVP with Terri today if you can help out. Our current plan is this (as of 10/24):
We wish to handle this all day event in 2 shifts.
Daytime Event – Noon to 5pm: Don – Solar & Lunar viewing (2 scopes), Mike - Meteorites
Evening Event – 5pm to 10pm:, Rod, Don, Roger, Frank, Mike – Meteorites
Looking at this list, we could definitely use a few more folk to join in the fun. At least 2 more evening telescopes and maybe some hands on activities for in the daytime. If you can assist, please let Terri know right away.
We have about 20 Public RSVP's plus a cub scout group attending. Your help is greatly appreciated. Come have fun with us. Thanks! ***

October 30 MOM Has Been Canceled!!!

Please note, the October 30th Meeting of the Minds has been canceled due to lack of topics. We will see you at the week earlier date next month on Nov 13th. Make a note of this in your calendar. The MOM has to be moved to accommodate the Amberlea school star party on 11/20. ***

2009 Year in Space Calendar Orders

RSVP your 2009 Year in Space calendar today at
http://www.pasaz.org/forums/calendar.php?do=getinfo&e=111&day=2008-11-06
More info: YearinSpace.com
Deadline 11/6/08
Or by contacting Terri by phone or email.

Arizona Sky

By Leah Sapir

As the summer triangle moves westward this month, with Cygnus the swan and Aquila the eagle flying towards the horizon, an unusual winged animal is flying overhead: Pegasus the winged horse. A large square of four second- and third-magnitude stars forms the horse's body, the Great Square of Pegasus (known by some as "the Great Baseball Diamond of Pegasus"). On the western side of this square, the side facing the summer triangle, are the horse's head and forelegs.

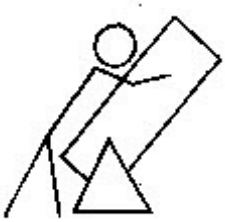
The forelegs begin with Scheat (Beta Pegasi), in the northwest corner of the "great square". Two third-mag stars form a triangle with Scheat, and a line from Scheat through the northern of these stars (Matar, or Eta Pegasi) points toward Deneb. The other star is Sadalbari, also known as Mu Pegasi. The horse's forelegs continue from Matar and Sadalbari with a string of fourth-mag stars, which might be visible, depending on how dark your skies are.

Markab (Alpha Pegasi), in the southwest corner of the great square, is the starting point of the horse's neck. The stars that form the neck and head of Pegasus are second and third magnitude, so they are somewhat easier to see than the forelegs. At the tip of this checkmark-shaped line of stars is Enif (Epsilon Pegasi), a second-mag star that marks the horse's nose.

Even though Pegasus was a winged horse in mythology, you'll have to imagine the wings – there are no stars to mark them.

A little past Enif is a nice Messier object: globular cluster M15. M15 was discovered by Jean-Dominique Maraldi in 1746, and then by Charles Messier in 1764. It is about 120 light years across and about 34,000 light years away. It has a very dense core, which could be evidence of a black hole (although this has not yet been proven).

M15 is one of the few globular clusters known to contain a planetary nebula. The nebula was detected by Francis Pease in 1928, using the 100-inch telescope at the Mt Wilson observatory in California.



The nebula can be seen as a pink spot at the top left of http://antwrp.gsfc.nasa.gov/apod/ap000804.html

M15 is visible with a small telescope or even binoculars. It's about as bright as M13 (the Hercules cluster) but a little smaller. On the other hand, the planetary nebula Pease 1 is difficult to find with a backyard telescope, but it has been done with a detailed finder chart, dark skies, a scope larger than 12 inches, and a lot of patience and perseverance. (A finder chart is available here, for those who are interested: http://www.blackskies.org/peasefc.htm)

About halfway between Scheat and Markab, and a little to the west of a line joining them, is the faint star 51 Pegasi. At magnitude 5.5, you'll need dark skies (or binoculars) to even see it. It's a garden-variety type G yellow star, very similar to our sun, about 50 light years away. So what's special about 51 Pegasi? It has at least one planet; in fact, the first extrasolar planet to be discovered. 51 Peg's planet, about half the size of Jupiter, was discovered in 1995. It orbits very close to the star, at a distance of about 5 million miles (about 1/20 the sun-earth distance, or 1/7 of the distance from the sun to Mercury).

In the south, below Pegasus but close to the horizon, we can see the star Fomalhaut (pronounced: foam-a-lot). This is the brightest star in the constellation Piscis Austrinus, the southern fish. Fomalhaut is a type A white star, about 25 light years away.

And talking about fish, the zodiac constellation of Pisces is close to Pegasus, bordering the great square on both the southern and eastern sides. But the stars of Pisces are very faint and hard to see.

Between Pegasus and Fomalhaut is the constellation Aquarius. An interesting asterism in Aquarius is "the water jug", just below the head of Pegasus. It's a Y-shaped figure about 4 degrees across, formed by the fourth-mag stars Sadachbia (Gamma Aquarii), Zeta Aquarii, Eta Aquarii and Pi Aquarii. With third-mag Sadalmelik (Alpha Aquarii) to the west, a distinctive kite-shaped figure is formed.

The pink blob in the upper left of this Hubble Telescope image of M15 is a planetary nebula
Photo courtesy NASA

Arizona Sky

Aquarius is a faint constellation but it has two nice Messier objects: M2 is a globular cluster about 7 degrees west of Sadalmelik, and about 5 degrees north of third-mag Sadalsuud (Beta Aquarii). M72 is another globular a little further west. It's about 3 degrees south of the faint fourth-mag star Albali (Epsilon Aquarii). M2 (distance 40,000 light years) is almost as bright as M15 and should be visible in a small telescope or binoculars. M72, at a distance of 65,000 light years, is much fainter and harder to find.

While you're in the neighborhood, you might want to also look for M73, just 1.5 degrees east of M72. M73 is a group of four stars – we're not sure if it is a dissipated cluster, a multiple star system, or just an asterism. It ties with M40 (a double star in Ursa major) for the title of "least impressive Messier object".

Aquarius also has two nice planetary nebulae. The Saturn Nebula (NGC 7009) is about 3 degrees east of M72, and should be visible in binoculars or a small telescope as a tiny blue-green dot. The Helix Nebula (NGC 7293) is larger but much fainter. It's about 2/3 of the way from Sadalmelik to Fomalhaut, and slightly west of a line joining them. Although the Helix is considered 7th magnitude, its light is spread out over a large area (16 arc min – half the angular diameter of the moon), so it has a low surface brightness. The blue-green color of these two nebulae comes from doubly-ionized oxygen being irradiated by the nebula's central star.

And while we're looking for small blue-green objects, we might want to look for Uranus and Neptune, now cruising through Aquarius and nearby Capricornus. A finder chart for these two planets can be downloaded from Sky and Telescope: http://www.skyandtelescope.com/observing/highlights/17163851.html

This month Venus is a nice evening star, visible in the west till around 7:30-8 pm. The other bright planet in the evening is Jupiter, visible in the south till around 10 pm at the beginning of the month and 8 pm towards the end of the month.

Both planets will have nice conjunctions with the crescent moon at the beginning of the month. On October 31, Venus will be about 5 degrees above the crescent moon, and on November 1, it will be about 7 degrees to the right of the moon. On November 2, Venus, the moon, and Jupiter will be in an almost-straight line: the moon will be 18 degrees above/left of Venus and 11 degrees below/right of Jupiter. On November 3, Jupiter will be about 2 degrees to the right of the moon.

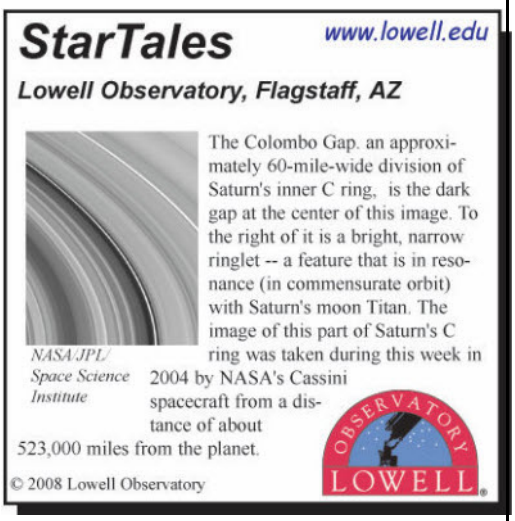
Mars has already faded into the sunset, and Mercury has disappeared into the sunrise. Mercury will return as an evening star in mid-December, but Mars won't be visible until around May. Saturn is a morning star, rising around 3 am at the beginning of the month, and 1 am towards the end of the month.

The Leonid meteor shower will be passing through our sky on the night of November 17, but the bright third-quarter moon will make it difficult to see the meteors this year.

Join us next month when we continue to explore the autumn constellations. And till then – wishing you clear skies, and happy observing!

A Special Thanks From the Editor

I am very grateful for the help that Matt gives me each month in proof reading PAStimes. Without his able assistance this newsletter would be filled with many typos and other errors.



Royal Palms Resort Private Star Party For Tri-West Medical

Oct 15,2008

By Rod Sutter

Sam was able to arrive early, around 5:00 and got some views of a small sunspot.

He said it was nothing exciting but it was there. I arrived right behind Mike, we both parked and unloaded right away. We got setup around 5:30.

Right before sunset I got a good look at Venus, it was full and looked very good.

But the viewing area we had wasn't very big so Venus was only visible until 6:00.

After the Sun went down, we could barely see Polaris behind the palm trees, But Sam and I had enough of a view to polar align. We started having visitors almost immediately and the people that we showed our objects to were very impressed. Sam setup on Uranus, and I stayed on Jupiter for a while, with the flood lights in the palm trees point directly into our scopes I could not even look at M-57, I tried. So when the Moon came up Sam and I went between the Moon and Jupiter, since that was all that was visible due to the restricted area that we had, but we did what we had to due.

Angela, our contact from Tri-West came out a few time to get a good look at things, she just thought things were wonderful and said that she was very happy with the evening.

Mike kept very busy with his Meteorites, he always had someone at his table, he even got a chance to explain some of his theories to some of the people. I had my laptop setup and continuously ran a P.P. presentation that I set up with some pics from the Hubble and some facts about the universe. We finally tore down and loaded our vehicle around 10:00, and headed home, we were not able to show a lot of things that we wanted but it turned out to be ok as far as Sam and I were concerned.

NASA Space Place

The Chemical Weather Report

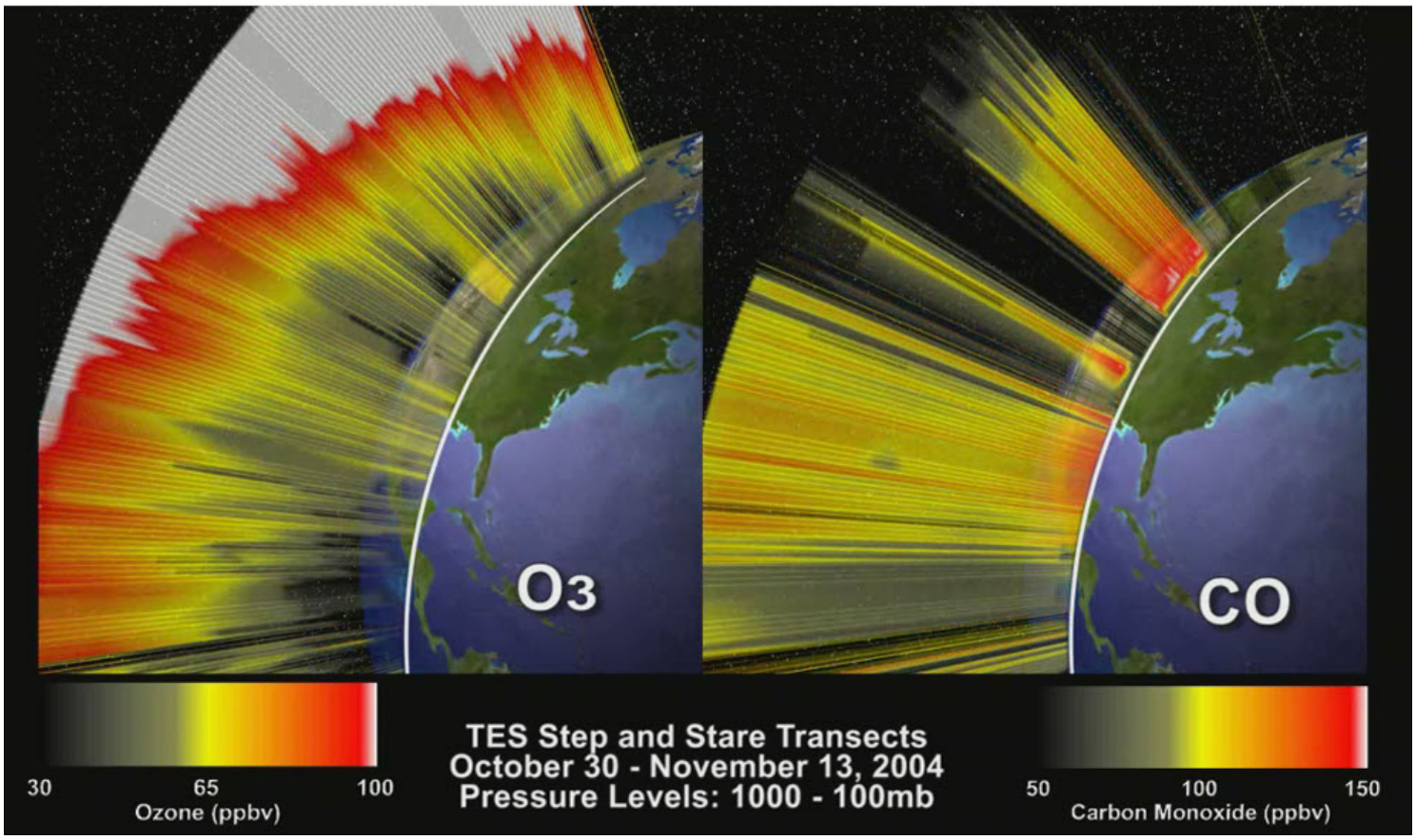
"Sunny tomorrow with highs in the mid-70s. There's going to be some carbon monoxide blowing in from forest fires, and all that sunshine is predicted to bring a surge in ground-level ozone by afternoon. Old and young people and anyone with lung conditions are advised to stay indoors between 3 and 5 p.m."

Whoever heard of a weather report like that?

Get used to it. Weather reports of the future are going to tell you a lot more about the atmosphere than just how warm and rainy it is. In the same way that satellite observations of Earth revolutionized basic weather forecasting in the 1970s and 80s, satellite tracking of air pollution is about to revolutionize the forecasting of air quality. Such forecasts could help people plan around high levels of ground-level ozone—a dangerous lung irritant—just as they now plan around bad storms."The phrase that people have used is chemical weather forecasting," says Kevin Bowman of NASA's Jet Propulsion Laboratory. Bowman is a senior member of the technical staff for the Tropospheric Emission Spectrometer, one of four scientific sensors on NASA's Aura satellite.Aura and other NASA satellites track pollution in the same way that astronomers know the chemical composition of stars and distant planetary atmospheres: using spectrometry. By breaking the light from a planet or star into its spectrum of colors, scientists can read off the atmosphere's gases by looking at the "fingerprint" of wavelengths absorbed or emitted by those chemicals. From Earth orbit, pollution-watching satellites usethis trick to measure trace gases such as carbon monoxide, nitrogen oxide, and ozone.However, as Bowman explains, "Polar sun-synchronous satellites such as Aura are limited at best to two overpasses per day." A recent report by the National Research Council recommends putting a pollution-watching satellite into geosynchronous orbit—a special very high-altitude orbit above the equator in which satellites make only one orbit per day, thus seeming to hover over the same spot on the equator below. There, this new satellite, called GEOCAPE (Geostationary Coastal and Air Pollution Events), would give scientists a continuous eye in the sky, allowing them to predict daily pollution levels just as meteorologists predict storms."NASA is beginning to investigate what it would take to build an instrument like this," Bowman says. Such a chemical weather satellite could be in orbit as soon as 2013, according to the NRC report. Weather forecasts might never be the same.

Learn more about the Tropospheric Emission Spectrometer at tes.jpl.nasa.gov. Kids can learn some elementary smog chemistry while making "Gummy Greenhouse Gases" out of gumdrops at spaceplace.nasa.gov/en/kids/tes/gumdrops.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Example of visualization of data from the Tropospheric Emission Spectrometer. These frames are from an animation that steps through transects of the atmosphere profiling vertical ozone and carbon monoxide concentrations, combining all tracks of the Aura satellite during a given two week period.

Prescott Star Party 11/15 5pm – 10pm

By Terri, Event Coordinator

We need volunteers! Currently Rod is the only volunteer to cover 100 Girl Scouts up in Prescott. If you can assist, here are some of the details for this event.

Arrive 5pm for dinner, 7pm - 10pm star party, Overnight available – accommodations, Breakfast Sunday morning.

Here's what they'd like PAS to accomplish at this star party: Sky Search:Junior Badge, Learn about parts of a telescope, Learn about meteors, meteorites ....., Learn stories from two or more ancient cultures - such as Greek, Norse, American Indian, Pacific Island or Chinese - that were used to explain what was seen in the sky., ID at least 5 constellations in the sky, Learn about the north star and its importance to navigation..., Space Exploration - Cadette badge, Learn about at least 4 of the following - Black holes, quasars, pulsars, novas, supernovas, dwarf stars, giant stars, proto stars, neutron stars, variable stars, cosmic clouds and globular clusters.

Or, Demonstrate what happens during a solar or lunar eclipse and ID a tale or superstition about the sun or moon - discuss whether or not this is a valid or even a measurable belief.

If you can assist, with or without a telescope, we would appreciate you volunteering for this event. You do not need to spend the night, but night accommodations are being offered to those who wish to. You also do not need to arrive in time for dinner, but some of us appreciate when the Girl Scouts cook dinner for us. We hope to see you there. RSVP is required so Terri can let her contact for this event know how many telescopes and bodies are attending for dinner and breakfast. Thanks for your help. ***

Bookman's Free Telescope Workshop 11/16 3pm to 6:30pm

The last of its kind for a while until a new location can be found to hold these events.

By Terri, Event Coordinator

Yes, it does say this is the LAST FREE Bookman's event. Bookman's is renovating their back room. I hear rumor but do not know the details yet, that the back room is becoming a coffee shop. This makes a mess of any hopes of using their back room for future meetings, including the FREE telescope workshops. So, you will want to attend this event.

We will be there from 3pm to 6:30pm. The Lecture by Mike "Can we live on the Moon or Mars?" will begin at 3:30 and RSVP is required because seating is limited, unless you wish to sit on the hard floor, your choice. Mike will do his lecture for about 1.5 hours and then we will have our Telescope Class. This is an open forum class. You bring your telescope, accessories and questions and come ask tons of questions. This class is good for everyone in any position in life whether your a seeking to purchase a scope or you have one you've had in the back closet for a while. Come ask questions before you make the mistakes so many people do when purchasing a telescope, or when first using a telescope. The classes are designed to answer the common questions and help you not get disappointed in the scope you have purchased. So many times, people will buy a scope, take it out once, can't find anything with it, and put it in the closet never to use it again. We want to help you learn to use your scope so you don't put it in a closet and forget about it. Bring a friend! After the lecture, Meteorite Man will be showing and allowing hands on touching of meteorites. Bring the Kids!!! See you there and remember to RSVP your attendance. ***

Christy Cove Park Star Party Review

For Desert Cove Elementary School October 8, 2008

Last nights Star Party for Desert Cove Elementary School , went very well. I think we had somewhere around 75 attendees, including Adults and children.

I was the first to arrive, then Chet showed up then Neil and Don.

Some of the children and parents started arriving just after that and were ready and waiting to see things even before the Sun was down. The evening went off without a hitch, the sky was beautiful, clear, not much haze, Jupiter, the Moon and Venus were wonderful sights and even the adults and children thought so, with all the ooooo's and awwww's. M-31 came up, we also had some good views of M-13, and M-57 The Rings Nebula.

Amiee said she talked to most of the parents, and everyone was excited and thought things were wonderful. She hopes to have us come back again next year.

Thanks for a wonderful time. The kids loved it and talked all during science today about what they saw through the telescopes. The guys were very informative and friendly. Please pass on out thanks to them as well. We will be scheduling with you every year!

Aimee Quince
Desert Cove Elementary School
5th Grade Teacher

Thanks for Finding a Speaker

By Terri, Events Coordinator

For a few months I have been asking for help finding a speaker I could fill in to our Nov 2008 PAS Meeting. Several of you sent me ideas. I tried all of them and have successfully put some of those speakers into other months for our future PAS meetings. Thank you so much for your help. Keep those ideas coming my way.

But many, many thanks goes to Ed, Bette & Bruce Wurst for finding me a speaker that could do the presentation on such short notice. Our November PAS Guest Speaker will be Klaus. My parents and Bruce have already seen his presentation and they say it will be well worth your time to attend. We will see you there!

Thanks to all the others who landed us successful bookings of speakers for future dates. Should you want to see the upcoming speakers planned to Dec 2009, feel free to check out the updated list at PAS Upcoming Events List or PAS Speaker Lineup Both files can be found in the downloads section of the PAS website and are updated as events & schedules change. ***

PAS NAME TAGS

An order is being placed. Get yours today!!!

By Terri, Events@pasaz.org or 602-561-5398

PAS has a cool name tag with the PAS Logo, P.A.S. written out, and your name. No position is given as those change too often. They are gold in color with black lettering, with a magnetic back. If you are interested in having one, as a PAS member, please let Terri know. I will be putting together an order. The name tags were $10 each last time we ordered, but we haven't ordered any in a couple years. I called to confirm the price and they have gone up. Now they are $11 each. PAS does not make anything on the name tags, we charge what we get them for. Those wishing to have a PAS name tag, plan to see me at a PAS event. I'd like to put the order in sometime around the first of December. That should give us enough time to get a nice size order. Write a check to PAS or pay cash for your name tag. $ will be collected prior to putting in the order. Drop me an email (events@pasaz.org) today with the following info or bring info to a meeting or event to give it to me in person. Be sure to spell your name out the way you want it on the name tag, for instance, if your name shows up in email as William but you go by Bill, I need to know. And I want the correct spelling, too. I await your orders. 2 orders are on the list so far: Steve Palmer & Past President - a position we voted into office at a previous MOM. Thanks for your order. RSVP your PAS Name Badge today at http://www.pasaz.org/forums/calendar.php?do=getinfo&e=110&day=2008-12-04 Deadline 12/4/08***

October Pas Meeting Review

By Terri, Events Coordinator

The October PAS meeting was fantastic. It was laid back, not rushed at all, and very fun. We didn't have a big attendance however the Guest Speaker did a fantastic job! If you missed it, I'm sorry you did because it was exceptional!

Jeff Hopkins

We got a late start, as Jeff, the Speaker, had to get set up. I'm not saying it was due to Jeff, I'm saying we just had a few delays getting going. The meeting missed a few people who usually attend: Chet, Kevin, John, Sonny. I don't know what happened that these folk weren't with us but I do hope they are healthy and happy and enjoyed their evening as much as the rest of us did. I did the 50/50 raffle and signed everyone in.

I wish to thank a few folk, too. Sam brought popcorn. Thank you Sam. No other snacks were there but I brought the water, so we had drinks. Sam's popcorn is the best. It doesn't matter what kind he brings, he leaves with an empty bowl. I'd also like to thank 3 new folk for joining us. David and Ray came over from Sun City West club (I forget the name they changed their club to). And Sean joined us as well. Thank you 3 for sharing your evening with us.

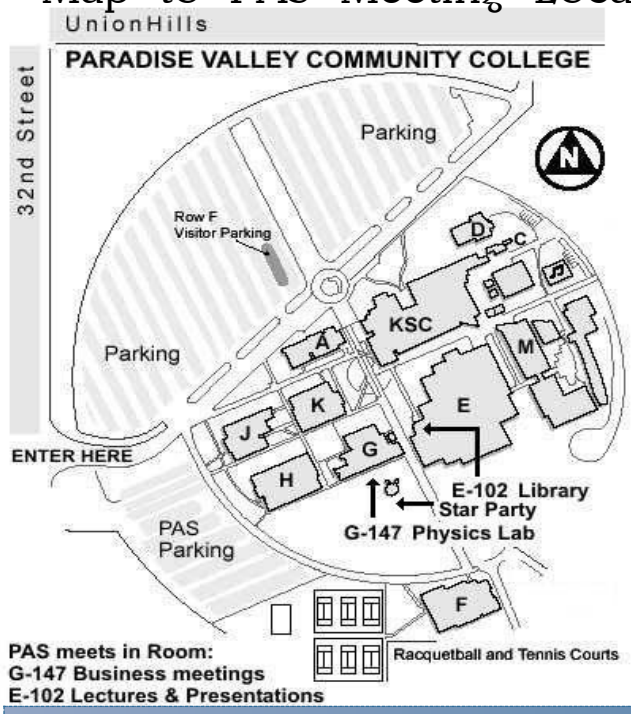
After everything was set up, Rod opened the meeting, I made a few brief announcements, Mike did a treasury report and then we turned it over to Jeff. Jeff was awesome! His topic was brought down to the Pre-School age, which really made it easy to understand and enjoy. He put some humor into the presentation and enticed all of us with a Pickle Light. That was funny. After lighting the pickle the first time he said "That stinks, I'm not going to light it again." That was so funny! The pickle light, florescent and incandescent light were very interesting to look at through the spectroscopes Jeff provided the audience with. We had a blast!

The meeting ended very early, so we did a list of upcoming events and talked about the North Mountain Park star party that was originally scheduled for Oct 4, got moved to Oct 3, and with the looks of the weather, may not happen at all. Then a few of us adjourned to G-147 for a little chatting. After which we departed early to head home. But in the parking lot, we took out our spectroscopes and viewed the street & parking lot lights. That was intriguing.

Thank you Jeff for an awesome presentation! And when Jeff says it is for Pre-Schooler, he really starts out that way. What I really appreciated, even though I knew the stuff he was sharing with me, was the fact that he had it in an organized fashion such that it was easy to understand and a pleasure to follow along. Anyone could have attended and understood spectroscopy by the time the presentation ended.

$2 was raised in the snack fund. The 50/50 raffle totaled $18, $9 of which went to Neil, the winner. I'd also like to welcome back Robert Chapman. This bloke (English fellow) has been with PAS previously and I'm so glad to welcome him back to the club. Thanks goes to everyone who attended and we missed a bunch of folk this month. We hope to see you all at the November PAS meeting. To see more photos of this meeting, please visit: http://tinyurl.com/4xr9op***

Map to PAS Meeting Location



Black Canyon City Site

November

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Anthem Community Park Daytime Viewing &
2	**3**	**4**	**5**	**6** PAS General Monthly Meeting with Guest Speaker DEADLINE - Order your Year in Space Calendar by **Today!**	**7**	**8**
9	**10**	**11**	**12**	**13** PAS MEETING OF THE MINDS (Business Meeting)	**14**	**15** Prescott 100 Girl Scout Star Party - (Private) Meteor Shower Party at PV Park
16 Free Bookman's Telescope Workshop with LECTURE	**17**	**18**	**19**	**20** Amberlea Elementary School Star Party (Private)	**21**	**22**
23	**24**	**25**	**26**	**27**	**28**	**29** Cuttin' Edge Observatory Dark Sky Site (Private) Jupiter & Venus Star Party at PV Park
30						

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November 15 2008

Sunrise: 06:57
Sunset: 17:28

New: October 29

Q1: November 6

Full: November 13

Q3: November 19

What's Up For November?

By Rod Sutter, PAS President

Planets

Name	Date	Rise	Set
Mercury	11-1-08	05:38	17:01
Venus	11-1-08	09:52	19:38
Mars	11-1-08	07:37	18:05
Jupiter	11-1-08	11:58	21:54
Saturn	11-1-08	02:46	15:23
Uranus	11-1-08	15:17	02:55
Neptune	11-1-08	13:54	00:37
Pluto	11-1-08	10:24	20:52

All Times Arizona Time