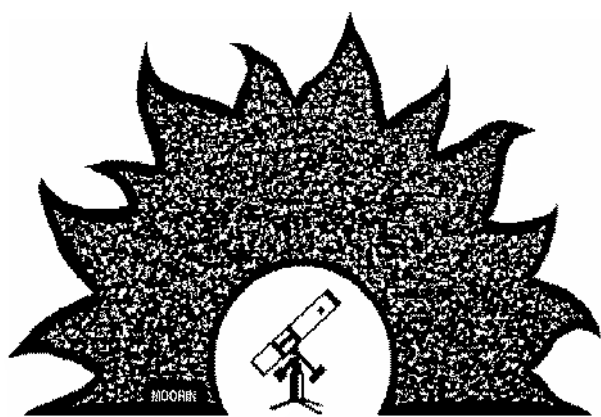




PAStimes

Phoenix Astronomical Society

www.pasaz.org

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PHOENIX ASTRONOMICAL SOCIETY — ESTABLISHED 1948

Earl DeLong to Speak at May 7 Meeting

By Earl DeLong

Please join us at the May meeting of the Phoenix Astronomical Society. Earl DeLong will be presenting the program entitled "Our Journey to Pluto: NASA's New Horizons Mission". The ten year journey is rapidly coming to an end and our target is in sight. This summer, the New Horizon's spacecraft will whiz by the Pluto system. What will be proven as true and what new wonders await our visit? We will look at the New Horizon spacecraft and instrument package. We will review the mission highlights to date and discuss the fly-by of the Pluto system. Earl DeLong has been interested in solar system exploration his entire life having grown amid the

space race and the launch of Sputnik. Be sure to get a boarding pass from Rodney (our host) when you arrive and sign in. The boarding pass will be used to draw two winners for two books to be given away at the end of the meeting.

Terri, Event Coordinator adds: Bring a friend, bring a snack to share, and have a great time with us as we enjoy this fantastic presentation by a wonderful guest speaker! Doors open at 7pm for set up, socializing, snacking and setting up of the guest speaker. Meeting begins promptly at 7:30 with a few brief announcements before we go on this Fantastic Journey with Earl as our travel host! See you there!



PAS Meeting of Apr 2

By Terri, Event Coordinator

This was a very informative meeting, preceded by an excellent dinner at the Deer Valley Airport Restaurant. Dolores and Rik got there prior to William and me, but we found each other and got the restaurant to set up a table for 8 attendees. The group at dinner consisted of Paul Facuna, Mike Marron, Rik and Dolores Hill, William and Terri Finch and Alex and Diane Vrenios. It was a really enjoyable time with great conversation. Rik and I had a wonderful talk, and Mike and Paul chatted with Dolores most of the dinner. The food was excellent this time.

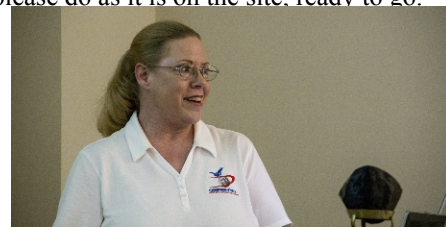
After dinner, we made our way to the PAS Meeting at PVCC. Upon arrival, we found that Rodney had already opened up the room for the meeting, making it easier for us to set up the presentation. Many thanks Rodney! We'd also like to thank Gary Malhott (who was at the March PAS

meeting) for attending, along with Nikul Suthar and Christine Mintzmyer (who had attended the ASU West star party). Dewell Howell, a returning PAS Member, was in attendance also with his Dad, Dennis "Skip" Walstad.

Prior to the start of the meeting, Alex put some information on the whiteboard related to his presentation the month before and we gave him the floor for about 5 minutes to review what he wanted to share. After a few brief announcements about upcoming events, we gave the floor to Dolores who shared with us her knowledge about the Osiris-Rex Mission to an Asteroid. She had with her a 3D printed model of the asteroid and some great animations. Her presentation was about an hour long after which she opened it up for Q&A for about 30 minutes more. We then did the raffles. William Finch won the main raffle; Dolores

brought with her, 3 Osiris-Rex posters which she raffled off to winners Earl DeLong, Rodney Fong, and Alex Vrenios. We closed the meeting at that point, but since it was only 9pm, we all stuck around and chatted until 10.

Many thanks to Dolores and Rik for coming up to the PAS Meeting from Tucson and bringing the posters. We look forward to Rik's presentation on Oct 1, 2015, preceded once more by dinner at the Deer Valley Airport Restaurant. If you wish to RSVP your attendance early for dinner, please do as it is on the site. ready to go.



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May - August Upcoming Events With Updated April Events

By Terri, Event Coordinator, RSVP to Events@pasaz.org

Due to not having summer PAS meetings or a monthly summer newsletter, we include the June, July & August events in this month's list. More events may be added to the summer list, so check the website for updates
<http://www.pasaz.org/forums/calendar.php>.

April

Apr 16: Huge public star party at Black Mountain Campus of PVCC 7pm to 10pm, RSVP required - 60th Street & Carefree Hwy.

Apr 17: Private Star Party in Phoenix - PAStimes Star Tour Members Only

Apr 21: School Star Party in Phoenix (Private)

Apr 22: Star Party in Goodyear (Private) Backup date - PAStimes Star Tour Members Only

Apr 22: Lyrids Meteor Shower Peak - Meteors can be seen from 5 days prior, to 5 days after this date.

Apr 23: School Star Party in Phoenix (Private)

Apr 24: School Star Party in Surprise (Private)

May

May 5: School Career Day Event in Surprise (Private) from 7am to 3pm doing solar viewing & handouts. PAS Members ONLY.

May 5: Eta Aquarids Meteor Shower Peak - Meteors can be seen from 5 days prior, to 5 days after this date.

May 7: PAS Meeting in Room LS-205, Doors open at 7pm, Meeting starts at 7:30pm. Read about the Guest Speaker on

page 1 in this issue. Everyone welcome. Bottled water provided by President Bruce. Bring a snack to share.

May 8: School Star Party in Tempe (Private) Backup date - PAStimes Star Tour Members Only

May 13: Star Party in Goodyear (Private) - PAStimes Star Tour Members Only

May 14: Public Lecture "Tails of Plasma" Room LS-205, PVCC Main Campus. This lecture is being recorded so enter the room quietly and hold all questions to the end. Everyone welcome. Bring a snack to share. Bottled water provided by President Bruce.

May 15: Private Star Party in Phoenix - PAStimes Star Tour Members Only

May 16: Private Star Party in North Scottsdale - PAStimes Star Tour Members Only

May 27: Star Party in Goodyear (Private) Backup date - PAStimes Star Tour Members Only

May 31: Free Telescope Workshop at Bookmans, 19th Ave and Northern in Phoenix - 3:30pm to 5:30pm. RSVP is required with Terri. When you RSVP, email the make and model of the telescope you need assistance with. We also assist with suggestions and advice on what telescope to purchase to match your needs. We have no telescopes for sale at this event.

June

June 10: Star Party in Goodyear (Private) - PAStimes Star Tour Members Only

June 24: Star Party in Goodyear (Private) Backup date - PAStimes Star Tour Members Only

June 25, 26, 27: Leprecon Public Star Party - Sunset to 10pm.

June 30: Free Telescope Workshop at Bookmans, 19th Ave and Northern in Phoenix - 3:30pm to 5:30pm. RSVP is required with Terri. When you RSVP, email the make and model of the telescope you need assistance with. We also assist with suggestions and advice on what telescope to purchase to match your needs. We have no telescopes for sale at this event.

July

July 3: Fireworks Party in Carefree (Private) - PAS Members Only.

July 14: New Horizons craft arrives at Pluto.

July 26: Free Telescope Workshop at Bookmans, 19th Ave and Northern in Phoenix - 3:30pm to 5:30pm. RSVP is required with Terri. When you RSVP, email the make and model of the telescope you need assistance with. We also assist with suggestions and advice on what telescope to purchase to match your needs. We have no telescopes for sale at this event.

July 28: Delta Aquarids Meteor Shower peak - Meteors can be seen from 5 days prior, to 5 days after this date.

August

Aug 12: Perseids Meteor Shower peak - Meteors can be seen from 5 days prior, to 5 days after this date.

Aug 30: Free Telescope Workshop at Bookmans, 19th Ave and Northern in Phoenix - 3:30pm to 5:30pm. RSVP is required with Terri. When you RSVP, email the make and model of the telescope you need assistance with. We also assist with suggestions and advice on what telescope to purchase to match your needs. We have no telescopes for sale at this event.

Telescope Workshop Jan 22

By Terri, Event Coordinator & Various Attendees

What a great turnout for this event - we had 11 RSVP's! Many thanks to the telescope team for braving the cold temperatures of this night and helping everyone who attended. The telescope team consisted of: William and Terri Finch, Don Boyd, Rodney Fong, Howard Moneta, Eric Steinberg, Pete Turner, Mike Marron with his meteorites, and Bob Senzer. Bob Ewing was also there, teaching a class in G-147 while we waited outside. It was great seeing him again. Here is a recap of our Public RSVP's for this event. Al and Cindy Smith came from Minnesota with their Celestron 8" Nextar (now new members of PAS!). Kevin assisted Al and Cindy with their scope outdoors, since they also had his help previously indoors at the Bookmans Jan 11 Telescope Workshop. Bob S. RSVP'd for a 3.5" Questar, looking for help with the goto, however he did not make it. Hopefully he will sign up for a future workshop. We had Mary and John Versosky with their 9.25" Celestron. Mary was feeling overwhelmed and needed some confidence. Very nice lady. Pete assisted Mary with her scope. George Zukauckas attended without his scope, but he does have an 8" Meade LT which he has buried someplace in his home! We inspired him to dig it out and start using it, and possibly come to our events with it. Susan and Bill Van Oije attended to look through a telescope. They had purchased a larger scope, returned it because it was too challenging to learn to set up, finally settling on a smaller scope, probably a small refractor - they just wanted to see some great views.

The sky was cooperative. Bob Senzer and Rodney took the 16" LightBridge out to do a star party, and Susan and Bill enjoyed some views. Bob came back in during set up and said that he and Rodney had something funny to share. "If you don't take off the cover (referring to the protective cover over the 16" mirror), then you won't see anything." Bob was saying that they both looked through the scope, trying to see the night sky, and only saw dark and some reflections that they couldn't identify, and then laughed because they forgot to take the cover off. Many a photographer has also done this same thing with the Lens cover and wondered why they couldn't see through their camera. Thank you Bob, for sharing this. Mark and Lois Crawford attended with their C8 CGEM Mount. Pete also assisted with this scope at the same time as the other C8 scope. Ray Adams attended, without a scope, but checked out and listened to what was going on at the event. He is also the newest PAS

member. Welcome to PAS Ray! Dale Greene attended without a scope to learn more. He's a more current PAS member, too. Finally we had Sarah and Edna Hagerman who attended to find out how to use their Celestron AstroMaster 70. Sarah is moving back east within a year but wanted help with her scope.

This was a very busy event. Two of the RSVP's canceled due to becoming ill. We hope that David Doig (wanted to know what scope to purchase) and Luke and Debbie Marvin (SkyQuest XT8) can attend a future event. Otherwise, it was a wonderful time. Everyone was really into the event, and even those without scopes or who own scopes similar to one there, listened intently to what was going on. I grouped people by their type of scope. My telescope team was awesome! Many many thanks. And many thanks to Jenny for allowing us to use the room and the 16" Light Bridge and just for being a great supportive asset to PAS!

Susan Van Oije writes: Hi Terri! Bill and I had a super time last night. Thank you so much for having us. I find it very exciting to see the stars more "up close"! I've always wanted to do that. I've seen the moon through my little telescope, but last night I saw Orion's nebula, Jupiter and four of its moons, the crescent moon, and Betelgeuse, thanks to your volunteers. So cool. We also very much enjoyed speaking to the man who brought all of his outer space rocks and talked about craters on the earth. He was super knowledgeable and we really enjoyed touching the rocks. The evening was even better than we anticipated. Seeing the stars up close has become even more meaningful to me. Our son passed away 4 1/2 months ago, and we know he is in the cosmos. I'll keep track of events on your Web site. Thanks again, Susan

George writes: Terri, I had a great time at last night's event. I even got my scope out of "storage" and set it up just to see if I remember how. It went just OK. I hope to be able to attend the next workshop event to learn more. I can't wait to start using my telescope again! Thanks to all for the valuable information. I will be sending in my membership application soon. Thanks again, George Zukauckas

Cindy writes: Hi Terri, We had a great time last night! As far as "cold" we were just fine.. Usually Al gets cold long before I do but not last night.. Just goes to show how excited he was! Seeing stars and constellations through our own telescope was "wow"!



In this photo, Mike Marron is sharing his meteorites with (the couple sitting down) Susan and Bill Van Oije, and behind them stands Ray Adams, newest member of PAS! Photo taken by Terri.



Pete Turner, in the tan jacket, is assisting (L to R) Mark & Lois (facing the camera), Mary in blue (Pete is in the way of John, and then George is standing behind Pete. Photo by Terri Finch.

Kevin and Howard both are so knowledgeable, helpful and courteous! They have been so patient with us! We really appreciate everything they have done for us! And we appreciate all your attention to us, also! The name tags are wonderful, Thank You!! Thanks, Terri!!! Cindy and Al Smith

Kevin Witts writes: I was happy to assist Al and Cindy last night as they fired up their Celestron Nexstar for the first time. Howard and I assisted them with initial set up at Bookmans two weeks ago but this was the first time they would be looking through the scope. Howard and I partnered to get them started and align the star finder. After that, I was able to get an initial star alignment and help them see Jupiter and The great Orion nebula. The scope seemed to be struggling a bit and Howard assisted in swapping out batteries. The scope performed like a champ after that servicing and Al promised to bring his power pack going forward.. The couple seemed very appreciative of the help and Howard was even able to hand over their PAS nametags (Name Badges). It was a bit chilly, but the skies were clear despite the light pollution that exists near the telescope platform.

Triple Jovian Shadow Event at Mike's Jan. 23

By Terri, Event Coordinator and Various Attendees

In attendance at Mike's event were PAS Members only, though guests had been invited. None showed up, probably due to the unending cloud cover - it was a tough decision to attend, knowing the clouds were going to get in the way, but we still had a GREAT turnout and a super potluck! The day began with a discussion about the clouds, and when several members couldn't decide if they were attending or not, I made the decision to call Mike and ask if he wanted to have the event, cloudy or not. Mike agreed to do the event because if nothing else, the potluck, the socializing and the people would make the event, even if we couldn't see Jupiter. The weather watchers were noncommittal about the forecast and said that they thought, based on what they were seeing that there might be times in which Jupiter would be visible. So, we had the event.

Attending were: Al and Cindy Smith, William and Terri Finch, Bob Senzer, Alex Vrenios, Mike Marron (a super host for the event), Kevin Witts, Don Boyd, MacKenzie Cabrera (newer member of PAS), Wesley, who came with MacKenzie (Oh, I guess there was one guest), Wayne and Bonnie Schwab, Rodney Fong, Sam Inzana, Paul Facuna, and Kevin Harcey.

The food was awesome for the potluck which we started at 6pm. Bonnie had made Chicken Enchiladas which were fantastic. Alex brought KFC Chicken, Paul brought a fruit dish and someone else brought fruit - all yummy. There was a plate of chocolate covered Rice Krispie treats brought by Cindy that was heavenly. Oh and Bruce Wurst indirectly provided a batch of mint chocolate chip cookies made by his Fiance' Donna Zander, which were a hit as well. In fact, I think those two desserts disappeared really quickly, like a Ninja! There was a salad, and the Finch's brought Barro's pizza which also disappeared super fast. We really ended up stuffing ourselves. When I was done eating, I thought it had been Thanksgiving, as that is the only time I really overeat. But this night, I did it... I was overstuffed for at least an hour after dinner ended - and then content the rest of the evening. I know some other people also

overstuffed themselves. Many thanks to all who brought food and shared in this great eating / socializing event.

After eating, the scopes were set up, though some (like Don's) were done earlier. Those who brought scopes get many, many thanks. We had Sam with his 8", Don with his 8", MacKenzie who brought her scope and Kevin Witts with his 8". It was an evening of excitement. We fought the clouds a lot, but when Jupiter was clear enough to see, we viewed many details of the triple transit.

As the evening progressed, the temperatures dropped, which might not have been an issue if it weren't for the breeze. The slight breeze made the super cold air go right through the clothing and to the bones. My bones, in particular. Brrrrr.

The transit event started about 8pm, so I went out for that viewing: The scopes were ready and dark was upon us. Sam showed everyone Comet Lovejoy which was awesome. Then Jupiter was the highlight of the evening. It's a good thing Jupiter is so bright in the sky, or we might not have seen it at all. Callisto was casting a shadow on the surface, and Io was crossing in front of Jupiter. I saw this through Kevin's scope and Jupiter only through Sam's. It was great, but that's all I saw! After that, the temperatures were so cold I couldn't make myself go out and view any more of this event, however the majority of the group stayed and watched the event, coming in to Mike's home to warm up every so often. Alex, unfortunately only had a thin jacket on, so once it got too cold he decided to go home - the first to leave about 10:30pm.

The actual transit activity on Jupiter lasted until 1:30am, and most of the group stayed until at least that time. Some of us left at 2am and others left at 2:30. I think it was because, after freezing outside for so long, people wanted to come in and warm up before heading home. Don was packing up at 2am when William and I departed to head home. I felt bad leaving him to do that by himself, but I was so frozen and tired that we had to leave. Nevertheless, I knew

that I could leave him in the care of Mike, who could just offer him a warm couch for the night, if Don couldn't make it home.

Many thanks go to everyone who attended, everyone who provided food and everyone who provided telescopes. It was a great night. I wish I could have braved the cold a little more and not missed so much of it - I stayed awake up until 1:00am when I passed out for a bit, a short nap before the drive home. Thank you Mike! terrific party, once again. Mike is an awesome host!!!

Sam writes: Starting around 8:30 pm I saw the shadow of Callisto crossing the surface of Jupiter. I showed it to over a dozen people who showed up at Mike's house using my 8 inch newtonian reflector with the German Equatorial Mount and clock drive with about 260 power. The black dot (shadow) was between the two red equatorial cloud belts. It took over 4 hours to cross the surface of Jupiter. I also saw the shadow of Io and Europa cross the surface of Jupiter but at a higher speed, taking only about 2 hours to do so. At one point, around 11:40 pm, all 3 shadows were visible. Although all three satellites crossed the surface, I only saw Callisto, since Io and Europa were too small to show up against the bright surface of Jupiter.

I also showed Comet Lovejoy to several people. It looked like a round cloud. Only the coma was seen, no tail. The thin clouds and crescent moon hurt the chances of seeing the tail.

We had 4 telescopes at Mike's and almost 20 PAS people. It was cold out, but the hot apple cider I brought took the chill off me.

Paul writes: I enjoyed watching three moons of Jupiter cast their shadows on Jupiter, pass in front of Jupiter, merge with the light from Jupiter so they could not be seen, and then see one of the moons appear on the other side of Jupiter. I have never seen this before with my own eyes. I was very excited watching the transits.

Thank you Sam and Don for bringing your telescopes and letting us watch the shadows and transit and thanks Mike for hosting the potluck and star party.

Sci-Fi Movie Trivia: Deep Impact (1998) - An actual giant object from space did once strike the general area of the Eastern Seaboard where "Biederman" impacted in the film. Hitting the Norfolk, Virginia vicinity about 35 million years ago, it created the huge, now-buried Chesapeake Bay impact crater.

Sci-Fi Movie Trivia: Deep Impact (1998) - When Marcus Wolf (Charles Martin Smith) is trying to send email about the approaching comet, we see the first few entries in his e-mail inbox. Two of the messages are from "cshoemaker.arizona.univ", one of which has the subject line "101 Mir jokes". Carolyn Shoemaker and Eugene Shoemaker are well-known comet experts, credited as "comet advisers" to the movie.

Jovian Shadow Event at Various Locations Jan 23

(Locations other than Mike's house)

By Various Authors

Howard Moneta writes: Still feeling a bit under the weather and with the heavy cloud cover approaching, I decided to stay home on the night of the Jovian triple shadow transit. I would have loved to attend the PAS event if the circumstances had been different.

I had a great time and feel very satisfied with how my observation turned out. I took my 8" SCT out to the backyard and locked it on Jupiter at around 9:45pm. I stayed outside, all bundled up, until 12:08am which was the time that the three moons appeared from Earth to be within the disk of Jupiter. During the two hours leading up to that, I could clearly observe the shadow of Io transiting the planet. A bit later the shadow of Callisto appeared on the planet and due to the angle, appeared near Io. Very cool. Next Europa's shadow appeared on the face of Jupiter as well. There was a wow moment and a big smile when I realized that even with the sniffles and the clouds that were passing through to bring Jupiter in and out of view, I had still witnessed this fascinating event.

Another thing that really brought the

experience to life was listening to the Griffith Observatory live feed on the iPad during the event. The video was pretty poor from LA due to the generally bad seeing in the area but Dr. Laura Danly, the curator of Griffith Observatory, a well known TV and radio personality, was narrating the event. What she described really helped me to appreciate what I was experiencing especially when clouds were making it tough to see.

The night was a lot of fun. I hope the experience was good for others too. If you missed the triple transit of Jupiter, don't worry. Here it is more clearly than you would have seen it. <http://www.spacetelescope.org/news/heic1504/>

Pete Turner writes: Sorry I couldn't attend (Mike's event) due to a bad cough. However after seeing the poor feed from Griffith Observatory I hauled my scope out. Jupiter looked good, however I couldn't see any transit with my 94X or when I Barlowed (2X) it. I put in my new 7mm (335X), but by that time Jupiter was behind some faint clouds and although much larg-

er, the seeing wasn't good enough. I knew two moons were transiting because I had seen them just off Jupiter with the lesser magnification.

I do want to give thanks to Don Boyd for his suggestion how to keep an object in the FOV without going through an auto-align. His tip on Quick Alignment kept Jupiter in the FOV for at least five minutes or more. It probably would have been longer, however I had to guess where Polaris was due to clouds.

I am glad I attempted it and am happy some of you were able to see the transits.

Greg Schwimer writes: I admit I bailed on attending due to the clouds, which were at 100% coverage in my area around 7PM.

The clouds did move on later in the evening so I took a look. I observed through my C8. The seeing was not so good. I tried all of my Naglers out. The 7mm and 13mm were good but the 5mm gave the best view in spite of the seeing. I was able to see the shadows on the surface.

Antennas Friday the 13th of February

By Howard Moneta, PAStimes Star Tours Member

Eric Steinberg and Howard Moneta traveled to the Antennas site on the evening of February 13, 2015.

The first thing I noticed when arriving is just how peaceful and quiet the Arizona desert can be. After setting up the equipment, I took some time to explore the surrounding area. Cholla cactus and Saguaro are beautiful when lit up by the setting sun. The sun sets on the near by mountains and stars began to appear even before the sun had completely gone down.

There was not a cloud in the sky all night, the transparency was excellent, and the seeing was consistently above average. The spring time zodiacal light illuminated the western ecliptic after dusk, something that I had never experienced. The stars were tiny points of light in the telescopes. Close companion stars were easy to resolve. Nebulae, especially Orion, looked large and bright with distinctive cloudy textures. The detail visible on the surface of Jupiter was the clearest I've ever seen. I observed some additional banding around the upper and lower parts of planet that was new to me. The tele-

scope is a pleasure to use on nights like this. I get an equal amount of pleasure by looking through binoculars. Switching between the larger binoculars on the tripod and the smaller binoculars that can be used while reclining in a zero gravity chair add so much to the experience. Panning the binoculars around the sky is fun because every few degrees, I stop to look at the star clusters and patterns.

The weather that night was calm and relatively warm. I put on a light jacket but no heavy layers until 11 PM when a slight breeze dropped the temperature enough to warrant it. That night I used my new thermos from REI for the first time. The hot tea that was prepared at 2 PM was still warm at 10 PM when it really hit the spot. There were many good things that could be said about the night, two of my favorites were the viewing of the star Canopus as it rose at around 9:30 pm and set at about 10:15 pm in the southern sky. Happy to see such a bright, beautiful, and yet elusive star with my own eyes. Another really memorable experience was seeing M79 in Lepus which is a beautiful globular cluster in the winter/early spring

sky.

At approximately 1:30AM, Arcturus and Spica were rising in the east and Eric pointed out the nearby Coma Berenices constellation. Around 4:30 AM, I woke up to see a beautiful crescent moon low in the eastern sky without even getting out of my sleeping bag.

I have had a lot of great nights at Antennas and this was one of the best.

Eric writes: A really beautiful night out there - clear and mild with very little wind. Viewing conditions were excellent, though seeing deteriorated steadily until I knocked off around 1 am. I was able to get 23 more items done on the Herschel II list. Some people refer to this one as the "#@\$%" Herschel list and 75 objects in, I have at times been inclined to agree - Friday night's observations however included some interesting and pretty items, including NGC 1514, a large (2') planetary nebula that barely showed up until I added a narrow-band filter upon which it "popped" showing dramatic definition and detail. Overall a really good observing session.

Meeting of the Minds Feb 12

By Terri, Event Coordinator

The Meeting of the Minds of Feb 12, 2015 was a long meeting but very productive. This is a mini review of the evening. For more details, and because the topic changed from general members info to PAStimes Star Tours info, see the link below.

The items we discussed for the general membership were:

Howard on the status of MeetUp: Based on what we have seen from our time on the MeetUp site, Howard reports that we have gotten quite a number of potential new members, and many of those folks have joined PAS since our first MeetUp event was announced in Oct 2014. Since, we are having such a great response to this form of social media, it was agreed upon that we should continue to pay for MeetUp for another 6 months.

Mike - Treasurer's Report: Mike reported a healthy amount in the bank and so we will most likely not need to raise the amount of the dues for 2016. We will visit this topic again at the next Meeting of the Minds on Sept 10, 2015.

General info: We had a discussion about dress code and conduct for those PAS members signing up as volunteers for the many events PAS does. It was decided that

all volunteers need to adhere to the dress code for that event, and be professional at all times. They also need to do what they are there to do, which could be crowd control, handouts, being runners, scope stand in, set up and take down, etc. The telescope team appreciates the help, but we want everyone attending the event to match.

Dress code for events: We discussed and voted on the dress code for the various events PAS does. 1) school, scouts, and public events have a dress code of: name badge, comfortable clean, not-worn-out clothing, and/or an astronomy tee-shirt is ok. 2) professional events, if they don't have a dress code will be Black Pants, black shirt, name badge, dark or black shoes. If they do have a dress code, we will adhere to their request within reason.

RSVP's for events: We discussed, at length, what is expected of the backup telescopes who sign up to do events. It was concluded that if you sign up to do an event, even as a backup telescope, you need to be on call for that event. Should the need arise, you might be called to do it.

We discussed what is expected if you are assigned to be RSVP for an event. You are the contact person, the liaison between PAS and the organization, and you need to be in touch with their contact person for

that event. You should report to Terri, in her absence, everything and anything you think she needs to know about how the event is going (or went) via phone or text.

If you are at an event and the RSVP person asks you to do something, such as move your scope to a different location, grab bottles of water for the team, etc you should do it if possible. The designated RSVP for an event, is in charge that night for the whole event. They also need to be the last one to leave, to be sure all the vehicles are packed up, the payment is received, and everyone is accounted for. Leave no one behind, in case their car doesn't start.

A more extensive review of this meeting can be found in the forum threads at this link:

<http://www.pasaz.org/forums/showthread.php?p=2464#post2464> It is available to PAS Members only to read.

Thank you all for attending this meeting. In attendance were: William and Terri Finch, Roger Anzini, Pete Turner, Bob Senzer, Sam Insana, Rodney Fong, Eric Steinberg, Mike Marron, Alex Vrenios, Don Boyd, Ed and Bette Wurst, Bruce Wurst, Howard Moneta, Ora Kurland, and Kevin Witts. See you at the next MOM's.

Desert Ridge Feb 15

By Terri, Event Coordinator

It was a chilly night with a breeze that went through the jacket. Mike Marron attended with his meteorites, Bruce Wurst brought his 12" GPS scope, William Finch had his 10" Dob and Terri Finch brought the handouts and Q&A. We met up with our contacts for the event, Michelle Stelnik and Stephanie Rimmer who assist with or work for the HOA for Desert Ridge; it was they who asked PAS to do this event. After we arrived, William and I spoke to these two wonderful ladies and decided together to set up on a grassy area away from the lights of the basketball courts. We weren't far enough away, but away enough that the lights only affected viewing on that side.

The turnout wasn't as huge as Michelle had hoped (thus she wants to do this event again with more advertising) but I believe we talked to at least 100 people that night, including some who wandered by after we set up our equipment who were tremendously interested. We were there 2 hours during which I gave out a bunch of Q&A prizes and handouts. I used my tablet to show what the constellation Orion was, where the Nebula was, and then pointing it out with my green laser, while William and Bruce wowed everyone with their objects. We showed Andromeda Galaxy, ET Cluster, Jupiter, Venus, Mars, and a few other objects. As is often the case, Mike stole the

crowd and always had a bunch of people around his meteorites. At one point, a young boy attempted to steal one of Mike's meteorites; thankfully a near-by older gal, ran after him and got it back. Many thanks to her. Viewing was decent, though the view to the North was where the basketball courts were, and the south was rough due to the light pollution of the park and Phoenix further down. Overall, the event was successful and fun. We had a great time and can't wait for a return visit. Many thanks to Michelle and Stephanie for inviting us to do this event for their community.

Canyon Springs Feb 18

By Don Boyd

I got there about 5:40 and found that Mike was already set up in the gym. A nice lady brought me out 2 slices of pizza and a bottle of water. It was fairly cloudy, but it cleared up nicely and I was able to show Jupiter to the usual oohs and ahs. This year there were no bright lights around even though the sheriff and the fire department were there in the field. Everybody left at 7:30, so they said I could start packing up at 8.

Don's set up at Canyon Springs School of Feb 18. Photo by Don.



Basis Mesa School Feb 20

By Pete Turner

Even though there were heavy clouds, the event at Basis Mesa Elementary was held. Don Boyd and Pete Turner had only two objects that they could view – Jupiter and the Moon. And only one was out at a time. Even with the heavy cloud the craters of the waxing crescent moon were visible. Jupiter's bands and all four moons were also visible as well. In order to mix things up Don and Pete used different magnifications so that the students and parents got varying views. Mike Marron didn't have to contend with the clouds and was able to present his meteorites to a large group in the school's assembly area.

Don writes: I got there about 4:45 and called Jon Hutman to see where he wanted us. He said he thought the dirt lot south of the school would be good - I agreed it would be, so we set up there. Mike Marron got there at about 5 and set up in the cafeteria. Pete got there about 5:30 because his GPS got him lost! We also had two people (one scope) from the ASU astronomy club

join us. It was very overcast when we got there and actually got worse as the sky got darker. From 5 to 7 we saw nothing. Just after 7 the moon and Venus peeked out for about 10 minutes. I had both in my scope but it was a real stretch and you had to actually move your head to see both. Just as the moon went back into the clouds Jupiter peeked out and all 3 scopes moved to it. It played hide and seek for the next 2 hours, though Sirius was out and some of the stars of Orion, but nothing else.

Jon writes to the Telescope Team: Hi Terri, Just wanted to reach out and say thank you to your team who attended Family Space Night. The event was a great success with almost 700 guests (a new

record). Having Mike's display and expertise, plus the telescope team outside was a great complement to our event. I look forward to working with you and the rest of the PAS team in the future. All the best.



Telescope Set up at Basis Mesa School. Photo by Don

CTCA Feb 25

By Don Boyd

Kevin Witts, Mike Marron, Howard Monetta and Don Boyd put on a star party for CTCA on Wednesday February 25. Don arrived at 4:00 to do solar viewing from 5:00 p-m until sunset; there were 2 people who were on the roof for that part of the event. Howard arrived at 5:30 to set up his

scope for the evening's viewing. At 5:15 Howard and Don went downstairs to wait for Kevin and Mike to arrive. Kevin arrived at about 5:30 and the 3 of us went in to eat. Mike arrived while we were getting our food.

At 7:00 we went up to the rooftop garden to start the party. We had 5 people show up for the evening part of the event. We showed the Moon, Jupiter, and the Beehive cluster (m44). By 8:30 everybody had left and we closed the party at 9:00.

Moya Elementary School Feb 20

By Sam Insana

On Friday night, Feb 20th, Kevin Witts and Sam did the Moya elementary school star party. We were served pizza and salad for dinner. For the first hour it was solid clouds, so Kevin's globe display and meteorite display came in handy.

Kevin did a great job entertaining the hundreds of children and parents. During the second hour Jupiter peeked through some clouds so people could look through my scope and see a faint outline of the planet. After 2 hours the clouds started to leave. I showed Jupiter with its red cloud bands and its four moons to the delight of the kids and parents.

By 8:30, however, all the students and parents left, so some teachers came out to observe. I showed them Jupiter and the Orion nebula which looked great. They said they want us back next year.

Kevin writes: The Moya School is

located in South West Phoenix and is a small K-6 Elementary school. It was a completely clouded out night, but the school contact asked us to attend anyway. Sam Insana and I arrived at around 5:00 and set up on the basketball courts. A teacher at the school also asked her boyfriend to attend and he brought 2 scopes. We set up out on the basketball courts and it was VERY dark. Unfortunately, the sky was completely clouded over. In anticipation of that, I brought two display tables. One housed Solar System information including globes of Earth, the Moon and Mars. I used the other table to show my Meteorite collection.

The meteorites were a big hit. Kids and parents were very interested in holding rocks from space and marveling at how heavy they were. I showed examples of iron, stone and stony iron space rocks along with different kinds of impactites. Another

big hit was the display I created that showed the Cheylabinsk meteor that blew up over Russia. It was Cheylabinsk's 2nd birthday and kids and parents liked seeing the meteorite fragments and piece of glass from a window that was blown out there. I was able to use these samples to show meteorite dynamics and talk about their characteristics. I'd estimate approximately 200 people looked at the displays and held some rocks from space.

Sam was able to dial in Jupiter through the clouds and also discuss his scope with the crowd. As is common, the skies began to clear at around 8:30 and many stars and the Orion nebula became available. At the end of the night, I was able to dial in the moon and show a few kids that view.

The faculty was very appreciative of our involvement and asked us back next year for a similar event.

STAR PARTIES AT SEA???

By Sam Insana

The last week in February, Vera, Frank and I took a cruise from LA to Puerto Vallarta, Mazatlan, Cabo San Lucas, and back to LA. We enjoyed all the ship had to offer with such activities as live entertainment (comedians, magicians, singers, dancers), ping pong, miniature golf, dancing, trivia contests, swimming, first run movies, and much more. We also saw whales, dolphins, sharks, sea turtles, and other creatures from the ship. We also saw whales in the buffet lines since there were continuous all you can eat meals. At our 3 stops we did nature tours: botanical gardens, aquariums, birding, snorkeling, etc.... Frank took the attached photo of our ship, the Crown Princess, docked in Mazatlan.

One night, an assistant cruise director did a night sky tour with a green laser pointer from the highest deck of the ship. It lasted one hour and everyone was in reclining deck chairs.

The lights of the top sections of the ship were turned off so we could get a good view of the constellations. About 100 of the 3000 passengers attended (there were many other activities going on at the same time). The assistant cruise director had studied at the Griffith Park Observatory for one day to get all his information. He tried his best but it was not anyway near the quality of a PAS presentation. All the pas-

sengers seemed to enjoy the night sky and wanted more info and would have liked to observe. There were no telescopes available and it was a shame since the ship ride was very smooth and people would have enjoyed seeing Jupiter, the Orion nebula and other delights.

I have been on a total of 6 cruises in my life. 4 of the cruises had no naturalists and 4 had no programs on the night sky. In Tahiti we had a good naturalist on board who showed us the Large and Small Magellanic Clouds (galaxies) and Tuc 47 (a large globular cluster). He shared binoculars with the tourists so they could enjoy these 3 objects. He also pointed out some of the Southern Sky Constellations. It lasted about an hour and the passengers really liked the presentation, but again no telescopes were available. He did do a PowerPoint presentation on astronomy for one hour during the day which was well received. He also was available on deck during the day to point out the birds and sea life.

On a cruise to Alaska there was a naturalist on board to answer questions, but he never gave any formal presentations or night sky presentations.

The cruise to the Caribbean and the 2 cruises going to and from Europe had no

naturalists aboard and no astronomy presentations.

It is a wild idea, but perhaps someone in our PAS club who plans to take a cruise may want to try to work out a deal where they do a PowerPoint presentation for an hour during the day and a one hour night sky presentation (with a small telescope and green laser) in order to get a free cruise, on board ship credits, or a large discount on the cruise price. I believe that PAS has many members who would do a very good job of entertaining and educating the passengers. Obviously it would take some negotiation skills with the cruise line to get it done.

It is just a wild and crazy idea but I hope someone does succeed at doing this if they want to give it a try. Perhaps at a meeting of the minds we can discuss this further if there is interest in the idea.



Photo provided by Sam.

Telescope Workshop Feb 26

By Terri, Event Coordinator

It was a very busy event. We had 7 RSVP's and 6 PAS Members in attendance, plus Jenny Weitz and 2 of her students. Many thanks to my Telescope Team: Howard Moneta who set up his 8" scope outdoors for the Star Party portion of this event, Rodney Fong, William and Terri Finch, Mike Marron and Bob Senzer. From the Public we had Richard and John Burner, Robin from Meet Up with his Meade LX200, Dewell Howell - a returning PAS Member - with his Celestron AstroMaster 6", Ted Nyquest looking for info about the 8" Celestron HD as a good purchase option, Marcus Hermann with his Orion XT10i and questions about collimation and finally,

Debbie Weckesser with her Orion Skyquest XT8.

The evening was chilly outdoors and clear for a while, but then clouds came to visit, though I believe before we closed up for the night, the clouds went away again.

Welcome new members to PAS: Marcus Hermann, Ted Nyquest and returning PAS member Dewell Howell. It is so good to have you 3 join PAS. We hope to see a lot of you at the many events PAS hosts. Many thanks to Jenny Weitz for providing the room, G-147, in which to hold this event. It was a very busy and productive evening. We look forward to the next event!



Don assisting Marcus Hermann with collimating his 10" Orion Intelli-scope at the PVCC Telescope Workshop. Photo by Terri.

GCC North Campus Star Party Feb 27

By Roger Anzini

by two hard working lady students.

Friday night February 27 I helped the science club at Glendale Community College North with their science night event. The students have a very cool way to present their telescopes to the public: A semi circle of eight Schmidt Cassegrain eleven inch computer driven scopes are each mounted atop a waist high concrete pillar. Red lights flood the observers feet as you approach each pillar. The theme from Star Wars played as each student scope was manned by a knowledgeable science team member ready to answer any questions the public might ask. My 16 inch Dobsonian was set up just a few feet away near the very popular coffee, hot chocolate and cookie stand, all free, and staffed all night

4:00 PM clear skies gave way to 7:00 PM pesky clouds that allowed only fleeting views of Jupiter, Venus, Orion and the Moon. To everyone's delight, at 9PM the sky cover slipped away to reveal crystal clear views of any object the heavens had to offer. The best first object that cleared for the remainder of the evening was Jupiter. I swung the DOB in that direction and a new line of hot chocolate drinkers formed almost before I could bring the monster planet into focus. Now with a 13mm Ethos eyepiece in place the orange and white Jovian cloud tops were clearly interrupted by the angry red eye of the great storm. The

line at my ladder became even longer as observers were heard saying '..... wow,really cool,..... amazing..., no way,Mom you need to see this.....Dad it's awesomeandnever saw this before! The skies were now exceptional and the crowds kept coming, so the event was extended until ten o'clock.

I was always busy at my scope but I was told by everyone that the events inside the science building were also really fun and first-class cool.

A fine night of science and viewing for all those that had the courage to brave the early evening clouds and enjoy a great event.

CTCA Mar 25

By Don Boyd & Sam Insana

On Wednesday March 25, four astronomers from PAS were at CTCA for a star party. They were: Mike Marron, Howard Moneta, Sam Insana, and Don Boyd. Sam and Don got there at 5 to do solar viewing, Sam with a PST and his 8 in reflector with a solar filter and Don with a solar filter on his 8 in reflector. We had 3 people show up solar viewing. Howard and Mike arrived at around 6. and at about 6:30 we went downstairs to eat. At 7:30 we went back up to the fifth floor Garden for the evening portion of the event. When we originally got there at 5, the sky looked really clear, but by 7:30 it

had become quite cloudy. Thankfully the moon, Jupiter, and Venus were all visible. By 8 it was mostly cloudy to the east but overhead and the west were not quite as bad. Besides the moon, Jupiter, and Venus we also viewed M45 and the Great Orion Nebula. By 9 pm it was starting to clear, but nobody was up on the roof to view. We had around 6 viewers total for the nighttime portion of the event.

Sam writes: Don and I set up at 5:15 pm and showed the sunspots with our reflector telescopes and solar flares with my PST. We had 3 customers enjoy the views.

Then Mike, Howard, Don and I had a delicious dinner inside the CTCA dining room. From 8 to 10 pm we showed the Moon, Jupiter, Venus, and the Orion Nebula to about 6 customers. They also enjoyed Mike's meteorite collection. At the end of the evening, we saw the not-so-great pink spot on Jupiter. The only problem with the evening was that the electronic sign that normally advertises our star party on the roof, was not working. We may want to bring our own PAS sign to put up in the lobby next time.

Cholla Middle School Feb 25

By Earl DeLong and Terri Finch

Earl writes: February 25 was a beautiful evening to hold a star party at Cholla Middle School. This was a return engagement for me and an enjoyable evening. The weather was lovely and the skies steady and transparent. I started out the evening by showing the first quarter moon. I had purchased an Astro-Systems autocollimator that was mentioned at our January meeting. I had adjusted my secondary mirror and was anxious to see if the images had improved. I am pleased with the improvement in the images following this adjustment and would recommend this tool. It is relatively easy to align the primary mirror on a Newtonian telescope, but more challenging to align the secondary mirror. The Astro-System autocollimator makes this task easier. I then moved to Venus low in the western sky. We could tell that the planet was not a round circle, but just barely. Everyone was impressed with how bright it was through the telescope. Finally, I finished the evening showing the Great Orion Nebula (M42). It was a very nice view even from the city. There was a lot of detail visible. Everyone was impressed with the view. Overall it was a successful star party. There was a good sized crowd and the participants were appreciative of the views.

Terri writes: In attendance at this wonderful event held by Cholla Middle School and host Paul Vachon, we had the following PAStimes Star Tours members in attendance: William Finch with his 10" dob with Terri Finch doing handouts and Q&A, Earl DeLong with his 10" Dob and Pete Turner with his 9.25 SCT. We also had Rodney Fong with us helping with handouts, and crowd control. The temperature was just right with only a light jacket needed. The sky was clear until near the end of the event which ran from 7pm to 9pm. Set up was at 6pm with Sardella's Pizza and bottled water to drink. Thankfully, the pizza got there about the same time as we did! Since the sky was totally clear this night, many great objects were available. We kept our scopes mostly on Venus and Mars until they set, then the Orion Nebula and Jupiter. But other objects were seen closer to closing



The Telescope Team (minus the photographer) enjoying pizza before the school star party at Cholla. (L to R) William, Rodney, Earl & Pete. Photo by Terri.

time, when the telescope team decided to show them to Paul. Everyone in attendance seemed to enjoy the evening and it went quickly. We packed up at about 8:30pm and got home by about 9pm. While doing the event, I discovered that Paul was referring to Eric's 22" scope, when he asked me about the 10" dob that attended the year before. I thought he meant William's 10" dob, as I knew William had attended previously. So, for next year's event, we may wish to bring along Eric, so Paul can have his requested telescope in attendance.

I wish to thank my awesome telescope team for doing such a wonderful job. It was a very pleasant, fun evening. I gave out about 50 Q&A prizes and at least that many handouts. Some of the students said they still had the star chart from the previous year, at home. Many thanks to Paul for not only inviting us, but taking great care of the Telescope Team. We are scheduling another one for next year.



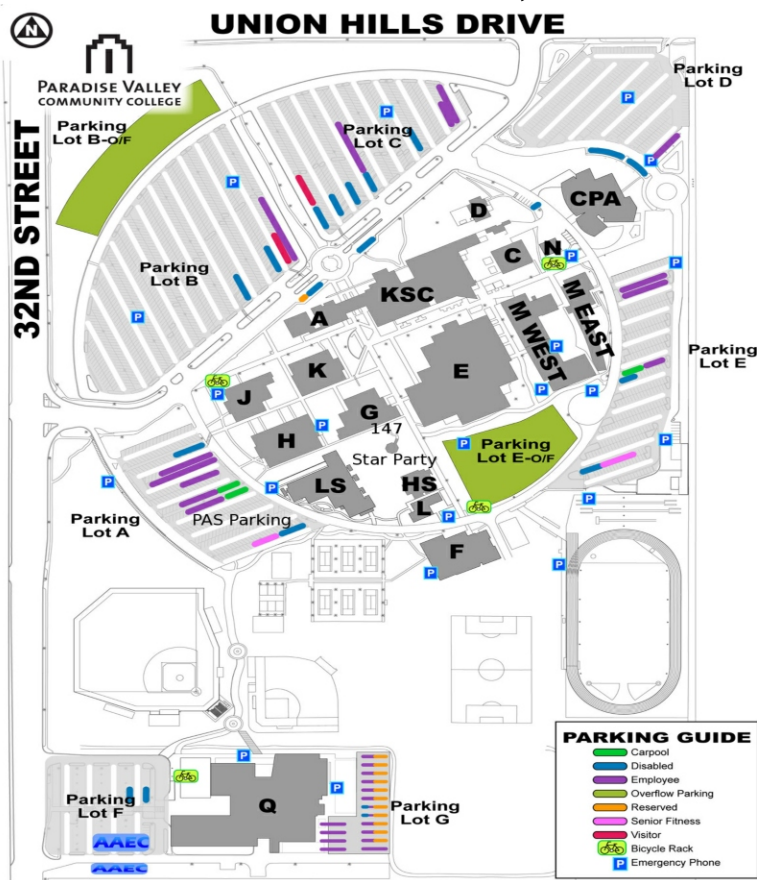
Earl sharing Venus in the night sky with attending parents at the Cholla Middle School star party. Photo by Terri.

Sci-Fi Movie Trivia: Deep Impact (1998) - One of the NASA officials in the movie is played by Gerry Griffin, who is a former NASA flight director. Griffin presided over the Apollo 12 mission and later became director of the Johnson Space Center in Houston.

Sci-Fi Movie Trivia: Deep Impact (1998) - 'Deep Impact' was a NASA space probe designed to study the composition of the interior of the comet Tempel 1. On July 4, 2005, one section of the Deep Impact probe successfully impacted the comet's nucleus. This is coincidental, as the scientists behind the mission and the creators of the movie devised the name independently of each other, at around the same time.

Map of PVCC Main Location

18401 N. 32nd Street | Phoenix, AZ 85032



Black Mountain Campus of PVCC

34250 North 60th Street, Scottsdale, AZ 85266



The Light X is Scope set up. The Dark X is PAS Parking.

Encanto / Clarendon School Star Party Mar 24

By Kevin Witts

Terri, Event Coordinator, writes: Attending this event were the following PAS-times Star Tour members: Mike Marron, Kevin Witts, Don Boyd, Sam Insana, Eric Steinberg and Pete Turner. Many thanks to this excellent telescope team for doing the event and thanks also to our contacts at the school who invited PAS: Theresa Nickolich, Clarendon Principal and Mary Blanchard, President of the PTO.

This event was originally scheduled for Feb 24, but clouds took over the skies and so it was decided, by Theresa, Mary and me to postpone the event to the chosen backup date. We appreciate Mary and Theresa's patience as we rescheduled, hoping for a clear sky report for Mar 24. Our hopes worked out well: the skies were awesome for this event! Many thanks to Kevin for the photos of the activities.

Kevin writes: It was a clear night for the Clarendon School Astronomy Event. The seeing was better than I've ever seen it. Before it even was dark, we were looking in awe at Jupiter which was crisp and clear, and better than I'd ever seen it. This took

place at an inner-city Phoenix school surrounded by city lights. It just happened to be one of those special nights when the atmosphere was at its best.

I'd estimate around 150 students and families made the event for which the scopes and meteorite presentation were the only offerings. I began with and spent most of the night showing Venus, which was brilliantly bright in the western sky and showed in $\frac{3}{4}$ phase. In attendance with me were Eric (who showed Jupiter and Orion's Nebula), Sam (Moon), Peter (Jupiter with a filter) Don (Orion and the Moon) and Mike (Meteorites). Later in the evening, I moved on to Jupiter, the Moon and Orion.

The crowds were gone by 8:30 and the principal was extremely happy with the event and informed us that she would love to have us back. The school staff did a great job of instructing the kids on proper behavior as I experienced very few incidents of kids touching the scopes or roughhousing around the equipment.

Sam writes: On March 24th, we had a star party at Clarendon/Encanto schools.

Over 100 students, parents and teachers attended. PAS had 5 telescope operators: Eric, Peter, Don, Kevin, and me. Mike was also there with his meteorites. Eric showed a lot of Jupiter, Kevin was on Venus, Peter was on the Orion Nebula, Don showed a full view of the moon, and I showed a closeup of a crater on the moon using my barlow, making it 520 power in my 8 inch newtonian. The weather was great, no clouds, no wind, and steady seeing. The kids were well behaved and everyone kept thanking us for being there and asked us to return again real soon. The schools provided us with pizza and bottled water, and I got to talk with the Principal of Encanto school, where I attended 1st through 4th grades many moons ago. I also looked around the Clarendon campus where I had attended 5th through 8th grade. It brought back many fond memories.

Theresa writes: Thank you Terri! It was a fantastic event and everyone is still talking about it. We would absolutely like to bring this to our campus next year. I will be on the lookout for your email this summer.

Don Boyd
PAStimes Editor
3039 W Peoria Ave 102-188
Phoenix AZ 85029

To:

2015 PAS GUEST SPEAKER LINE-UP

By Terri, Event Coordinator, Events@pasaz.org

Do you have an idea for a Guest Speaker? Email me the details.

Here's the scheduled Guest Speakers at PAS:

<http://www.pasaz.org/index.php?pageid=meetings>

May 7 PAS Meeting - Join us for PAS Elections!

----- Summer Break -----

Sep 6: Members & Guests Night: Sign up with Terri to do a mini presentation.

Oct 1: Rik Hill "The Latest with CSS and Near Earth Asteroid Surveying"

Nov 5: David Williams "Year of the Dwarf Planet: Dawn at Ceres & New Horizons at Pluto"

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What's Up For May?

By Rod Sutter, PAS Member

Planets

Name	Date	Rise	Set
Mercury	05-15-15	06:29	20:49
Venus	05-15-15	08:16	20:49
Mars	05-15-15	05:57	19:57
Jupiter	05-15-15	11:15	00:57
Saturn	05-15-15	19:44	06:11
Uranus	05-15-15	03:46	16:24
Neptune	05-15-15	02:03	13:21
Pluto	05-15-15	22:53	09:08
All Times Arizona Time			

May 15 2015

Sunrise: 05:28

Sunset: 19:21



Full: May 3



Q3: May 11



New: May 17



Q1: May 25

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